SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: _____ SDG No.: MH1H68

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H68	6100168-01	X			
MH1H69	6100168-02	X			
MH1H70	6100168-03	X			
MH1H71	6100168-04	X			
MH1H71D	QJ14018-DUP1	X			
MH1H71S	QJ14018-MS1	X			
MH1H72	6100168-05	X			
MH1H73	6100168-06	X			
MH1H74	6100168-07	X			
MH1H75	6100168-08	X			
MH1H76	6100168-09	X			
MH1H77	6100168-10	X			
MH1H78	6100168-11	X			
MH1H79	6100168-12	X			
MH1H80	6100168-13	X			
MH1H81	6100168-14	X			
MH1H82	6100168-15	X			
MH1H83	6100168-16	X			
MH1H84	6100168-17	X			
MH1H85	6100168-18	X			

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Maxwell S. Bonner For Chris Bonr

Date: 11/17/16 Title: CEO/QAO

SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H68	6100168-01		X		
MH1H69	6100168-02		X		
MH1H70	6100168-03		X		
MH1H71	6100168-04		X		
MH1H71D	QJ14034-DUP1		X		
MH1H71S	QJ14034-MS1		X		
MH1H72	6100168-05		X		
MH1H73	6100168-06		X		
MH1H74	6100168-07		X		
MH1H75	6100168-08		X		
MH1H76	6100168-09		X		
MH1H77	6100168-10		X		
MH1H78	6100168-11		X		
MH1H79	6100168-12		X		
MH1H80	6100168-13		X		
MH1H81	6100168-14		X		
MH1H82	6100168-15		X		
MH1H83	6100168-16		X		
MH1H84	6100168-17		X		
MH1H85	6100168-18		X		

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Lauren Meadows For Chris Bonner

Date: 11/11/16 Title: CEO/QAO

SDG COVER PAGE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

SOW No.: ISM02.3

EPA Sample No.	Lab Sample ID	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH1H68	6100168-01			X	
MH1H69	6100168-02			X	
MH1H70	6100168-03			X	
MH1H71	6100168-04			X	
MH1H71D	QJ14045-DUP1			X	
MH1H71S	QJ14045-MS1			X	
MH1H72	6100168-05			X	
MH1H73	6100168-06			X	
MH1H74	6100168-07			X	
MH1H75	6100168-08			X	
MH1H76	6100168-09			X	
MH1H77	6100168-10			X	
MH1H78	6100168-11			X	
MH1H79	6100168-12			X	
MH1H80	6100168-13			X	
MH1H81	6100168-14			X	
MH1H82	6100168-15			X	
MH1H83	6100168-16			X	
MH1H84	6100168-17			X	
MH1H85	6100168-18			X	

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Maxwell S. Bonner For Chris Bonr

Date: 11/7/16 Title: CEO/QAO

TECHLAW

CHAIN OF CUSTODY RECORD

No: 2016_OCT_Sed&Soil_46282_CLP

COC #: 2016_OCT_Sed&Soil_46282_CLP
Lab Contact: Chris Bonner
Lab Phone: 601-264-2854

Site #: A8M5
Lab: Bonner Analytical Testing Company
Lab Address: 2703 Oak Grove Rd

EPW14029
MH1H68

Cooler #:
Lab_Address2:
Hattiesburg, MS 39402

Lab #	Sample #	Tag	Matrix	Sample Type	Analyses	Container	Collected	Sample Time	Sampler
	MH1H68	1473	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	10:40	AA
	MH1H69	1474	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	10:40	AA
	MH1H70	1475	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:30	AA
	MH1H71	1476	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	11:30	AA
	MH1H72	1477	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	12:30	AA
	MH1H73	1478	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	12:30	AA
	MH1H74	1479	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	12:00	AA
	MH1H75	1480	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	12:00	AA
	MH1H76	1481	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:15	KLB
	MH1H77	1482	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:15	KLB
	MH1H78	1483	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:45	AA
	MH1H79	1484	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/29/2016	09:45	AA
	MH1H80	1485	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	16:20	AA
	MH1H81	1486	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	16:20	AA
	MH1H82	1487	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	15:10	KB
	MH1H83	1488	Soil	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	15:10	KB
	MH1H84	1489	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	14:00	AA
	MH1H85	1490	Sediment	Field Sample	TRM_Hg_Soil	4oz glass jar	9/28/2016	08:45	AA

Special Instructions: CASE# 46382
Total Recoverable Metals and Mercury
QC to be determined by Lab

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Johnson ESAT	10/12/16	P. Fitzhugh Bon	0855 10-13-16	good

4

SAMPLE DELIVERY GROUP (SDG)
Definition Sheet

SDG ID: MH1H68

Laboratory Name: Bonner Analytical Testing Co.

Laboratory Code: BON

Contract No.: EPW14029

Case No.: 46282

Solicitation No.:

SDG Turnaround: 21-Day

Modified Analysis No(s).: 2658.0

Analysis Required: ICPAES ~~(1-4)~~ 5-10 ICPMS 11+, ~~ICPMS~~ (2658.0), Mercury

EPA Sample Nmbers in SDG (Listed in Numerical Order)

1) MH1H68	7) MH1H74	13) MH1H80	19) ZZZZZZ
2) MH1H69	8) MH1H75	14) MH1H81	20) ZZZZZZ
3) MH1H70	9) MH1H76	15) MH1H82	21) ZZZZZZ
4) MH1H71	10) MH1H77	16) MH1H83	22) ZZZZZZ
5) MH1H72	11) MH1H78	17) MH1H84	23) ZZZZZZ
6) MH1H73	12) MH1H79	18) MH1H85	24) ZZZZZZ

MH1H68
First Sample in SDG

MH1H85
Last Sample in SDG

10/13/2016
First Sample Receipt Date

10/13/2016
Last Sample Receipt Date

Note: There are a maximum of 20 samples (excluding PE Sample) in SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).

D. Aft
Signature

10-14-16
Date

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company	Page 1 of 1
Received By (Print Name) Trisha Aiken	Log-in Date 10/13/2016
Received By (Signature)	
Case Number 46282 / SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697187 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	MH1H69	ZZZZZZ	ZZZZZZ	6100168-02	Good\OnIce
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	MH1H84	ZZZZZZ	ZZZZZZ	6100168-17	Good\OnIce
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By	Logbook No. ZZZZZZ
Date	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455696905 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH1H68	ZZZZZZ	ZZZZZZ	6100168-01	Good\OnIce
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	MH1H70	ZZZZZZ	ZZZZZZ	6100168-03	Good\OnIce
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	MH1H73	ZZZZZZ	ZZZZZZ	6100168-06	Good\OnIce
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	MH1H75	ZZZZZZ	ZZZZZZ	6100168-08	Good\OnIce
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	MH1H77	ZZZZZZ	ZZZZZZ	6100168-10	Good\OnIce
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

8

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) D. Aiken		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697132 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Taq #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	MH1H72	ZZZZZZ	ZZZZZZ	6100168-05	Good\OnIce
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By D. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697740 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	MH1H76	ZZZZZZ	ZZZZZZ	6100168-09	Good\OnIce
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

10

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) P. Aiken		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697522 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	MH1H71	ZZZZZZ	ZZZZZZ	6100168-04	Good\OnIce
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By P. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature)		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA / NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455696548 / ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/ ~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
12	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
13	MH1H80	ZZZZZZ	ZZZZZZ	6100168-13	Good\OnIce
14	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
15	MH1H82	ZZZZZZ	ZZZZZZ	6100168-15	Good\OnIce
16	MH1H83	ZZZZZZ	ZZZZZZ	6100168-16	Good\OnIce
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	MH1H85	ZZZZZZ	ZZZZZZ	6100168-18	Good\OnIce
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-1
SAMPLE LOG-IN SHEET

Lab Name Bonner Analytical Testing Company		Page 1 of 1
Received By (Print Name) Trisha Aiken		Log-in Date 10/13/2016
Received By (Signature) T. Aiken		
Case Number 46282	SDG No. MH1H68	MA No. 2658.0

Remarks:	
1. Custody Seal(s)	**Present**/~~Absent*~~ **Intact**/~~Broken~~
2. Custody Seal NOs.	NA NA
3. Traffic Reports/Chain of Custody Records or Packing Lists	**Present**/~~Absent*~~
4. Airbill	**Airbill**/~~Sticker~~ **Present**/~~Absent*~~
5. Airbill No.	777455697338 ZZZZZZ
6. Sample Tags Sample Tag Numbers	~~Present~~/**Absent*** ~~Listed~~/**Not** Listed On Traffic Report/Chain of Custody Record
7. Sample Condition	**Intact**/~~Broken*~~/~~Leaking~~
8. Shipping Container Temperature Indicator Bottle	**Present**/~~Absent*~~
9. Shipping Container Temperature	0.0°C
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	**Yes**/~~No*~~
11. Date Received at Lab	10/13/2016
12. Time Received	08:55

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
2	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
3	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
4	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
5	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
6	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
7	MH1H74	ZZZZZZ	ZZZZZZ	6100168-07	Good\OnIce
8	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
9	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
10	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
11	MH1H78	ZZZZZZ	ZZZZZZ	6100168-11	Good\OnIce
12	MH1H79	ZZZZZZ	ZZZZZZ	6100168-12	Good\OnIce
13	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
14	MH1H81	ZZZZZZ	ZZZZZZ	6100168-14	Good\OnIce
15	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
16	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
17	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
18	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
19	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
20	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
21	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ
22	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZ	ZZZZZZZ

* Contact SMO and attach record of resolution

Reviewed By T. Aiken	Logbook No. ZZZZZZ
Date 10-14-16	Logbook Page No. ZZZZZZ

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LAB NAME Bonner Analytical Testing Company

LAB CODE Bonner

CONTRACT NO. EPW14029

CASE NO. 46282 SDG NO. MH1H68

MA NO. 2658.0

SOW NO. ISM02.3

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.4)

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
1.	SDG Cover Page	1	3	✓	
2.	Traffic Report/Chain of Custody Record(s)	4	5	✓	
3.	Sample Log-In Sheet (DC-1)	6	12	✓	
4.	CSF Inventory Sheet (DC-2)	13	16	✓	
5.	SDG Narrative	17	21	✓	
Inorganic Analysis					
ICP-AES					
6.	Inorganic Analysis Data Sheet (Form 1-IN)	22	39	✓	
7.	Initial and Continuing Calibration Verification (Form 2-IN)	40	49	✓	
8.	Blanks (Form 3-IN)	50	56	✓	
9.	ICP Interference Check Sample (Form 4-IN)	57	59	✓	
10.	Matrix Spike Sample Recovery (Form 5A-IN)	60	60	✓	
11.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)	N/A	N/A	✓	
12.	Duplicates (Form 6-IN)	61	61	✓	
13.	Laboratory Control Sample (Form 7-IN)	62	63	✓	
14.	ICP-AES and ICP-MS Serial Dilutions (Form 8-IN)	64	64	✓	
15.	Method Detection Limit (Form 9-IN)	65	65	✓	
16.	ICP-AES Interelement Correction Factors (Form 10A-IN)	66	66	✓	
17.	ICP-AES Interelement Correction Factors (Form 10B-IN)	67	67	✓	
18.	Analysis Log (Form 12-IN)	68	71	✓	
19.	Initial Calibration (Form 15-IN)	72	80	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
20.	Initial Calibration Summary (Form 16-IN)	81	83	✓	
21.	ICP-AES Raw Data	84	201	✓	
22.	ICP-AES Preparation Log Books, Preparation records, Analysis records, and PE Instructions	202	213	✓	
ICP-MS					
23.	Inorganic Analysis Data Sheet (Form 1-IN)	214	231	✓	
24.	Initial and Continuing Calibration Verification (Form 2-IN)	232	235	✓	
25.	Blanks (Form 3-IN)	236	239	✓	
26.	ICP Interference Check Sample (Form 4-IN)	240	242	✓	
27.	Matrix Spike Sample Recovery (Form 5A-IN)	243	243	✓	
28.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)	244	244	✓	
29.	Duplicates (Form 6-IN)	245	245	✓	
30.	Laboratory Control Sample (Form 7-IN)	246	247	✓	
31.	ICP-AES and ICP-MS Serial Dilutions (Form 8-IN)	248	248	✓	
32.	Method Detection Limit (Form 9-IN)	249	249	✓	
33.	ICP-MS Internal Standard Association (Form 11-IN)	250	252	✓	
34.	Analysis Log (Form 12-IN)	253	259	✓	
35.	ICP-MS Tune (Form 13-IN)	260	262	✓	
36.	ICP-MS Internal Standards Relative Intensity Summary (Form 14-IN)	263	270	✓	
37.	Initial Calibration (Form 15-IN)	271	278	✓	
38.	Initial Calibration Summary (Form 16-IN)	279	281	✓	
39.	ICP-MS Raw Data	282	352	✓	
40.	ICP-MS Preparation Log Books, Preparation records, Analysis records, and PE Instructions	353	365	✓	
Mercury		N/A	N/A	✓	
41.	Inorganic Analysis Data Sheet (Form 1-IN)	366	383	✓	
42.	Initial and Continuing Calibration Verification (Form 2-IN)	384	392	✓	
43.	Blanks (Form 3-IN)	393	398	✓	
44.	Matrix Spike Sample Recovery (Form 5A-IN)	399	399	✓	
45.	Duplicates (Form 6-IN)	400	400	✓	
46.	Method Detection Limit (Form 9-IN)	401	401	✓	
47.	Analysis Log (Form 12-IN)	402	405	✓	
48.	Initial Calibration (Form 15-IN)	406	411	✓	

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

49.	Initial Calibration Summary (Form 16-IN)	412	413	✓	
50.	Mercury Raw Data	414	423	✓	
51.	Mercury Preparation Log Books, Preparation records, Analysis records, and PE Instructions	424	436	✓	
Cyanide		N/A	N/A	✓	
52.	Inorganic Analysis Data Sheet (Form 1-IN)				
53.	Initial and Continuing Calibration Verification (Form 2-IN)				
54.	Blanks (Form 3-IN)				
55.	Matrix Spike Sample Recovery (Form 5A-IN)				
56.	Post-Digestion/Distillation Spike Sample Recovery (Form 5B-IN)				
57.	Duplicates (Form 6-IN)				
58.	Method Detection Limit (Form 9-IN)				
59.	Analysis Log (Form 12-IN)				
60.	Initial Calibration (Form 15-IN)				
61.	Initial Calibration Summary (Form 16-IN)				
62.	Cyanide Raw Data				
63.	Cyanide Preparation Log Books, Preparation records, Analysis records, and PE Instructions				
Additional		N/A	N/A	✓	
64.	Percent Solids Determination Log	437	437	✓	
65.	EPA Shipping/Receiving Documents	N/A	N/A	✓	
	Airbill (No. of Shipments 7)	438	444	✓	
	Sample Tags	N/A	N/A	✓	
	Sample Log-In Sheet (Lab)	445	448	✓	
66.	Misc. Shipping/Receiving Records (list all individual records) Communication Logs	N/A	N/A	✓	
		N/A	N/A	✓	
67.	Internal Lab Sample Transfer Records & Tracking Sheets (describe or list) In-House Chains and Digestates	449	452	✓	
		N/A	N/A	✓	
68.	Other Records (describe or list)	N/A	N/A	✓	
	Communication Logs	453	465	✓	
	e-mails	466	467	✓	
	Corrective Actions				

FORM DC-2
FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

69. Comments:

Completed by:
(CLP Lab) Patricia Aiken (Signature) | Patricia Aiken / Sample Custodian (Print Name & Title) | 11-1-16 (Date)

Audited by:
(EPA) (Signature) | (Print Name & Title) | (Date)

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

SDG NARRATIVE:

SDG Number: MH1H68
Case Number: 46282
Contract Number: EPW14029
Contract SOW: ISM02.3

Sample Receipt:
On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

Discrepancies with tags, jars, and/or COC

Issue 1: There is no relinquished time on any of the 24 pages of the COC.

Resolution 1: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.

Resolution 2: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Insufficient/inappropriate designation of laboratory QC

Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71

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MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Resolution 3: Per Region 8, the samples selected for QC are acceptable to the Region. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Missing temperature blank

Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.

Resolution 4: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Non-standard matrix

Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.

Resolution 5: Per Region 8, the laboratory shall decant the sediment samples. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Laboratory problems

Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.

Resolution 6: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.

Resolution 7: Per Region 8, shipping for this Case is complete. . The laboratory will note the issue in the SDG Narrative and proceed with analysis

ISSUE: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

LAB: "All analytes are above the AES CRQL. If we identify a sample that's below CRQL we will analyze by ICP-MS. In terms of concentrations all analytes were chosen to protect the ICP-MS. For example, a large

BONNER Analytical
2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

portion of the samples are over 10ppm for Pb, Zn & Mn. They're actually high enough that we are having to do dilutions on the ICP-AES

REGION: the Region approves reporting the metals in question from the ICP-AES as described below.

Issue: The COC received with the samples for Case 46282 does not list a station location.

Resolution: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Analysis = Al, Ca, Fe, Mg, As, Pb, Cu, Mn, Zn BY ICP-AES Ag, Ba, Be, Cd, Co, Cr, Mo, Ni, Sb, Se, Tl, V, BY ICP-MS MA 2658.0 Hg

Laboratory Instrumentation Disclosure

Interelement corrections are applied to ICP-AES & ICP-MS. Background correction(s) are applied to ICP-AES, HG & CN data. Raw data ppb/ppm concentrations reflect any and all correction(s) applied. ICP-MS evaluates the following analyte masses by collision cell: 51V, 52Cr, 53ClO, 55Mn, 75-77As, 77-82Se & 103Rh.

ICP-AES
The analytical run began 10/18/2016 @ 0913 hrs. MH1H85 was redigested at higher initial weight due to low total solids. MH1H75, 79, 80, 81, 82 and 83 were over the linear range for Fe; 85 was over the range for Fe, Mn and Zn—the samples were reanalyzed at appropriate dilutions.

ICP-MS
The analytical run began 10/19/2016 @ 1413 hrs. MH1H85 was redigested at higher initial weight due to low total solids. MH1H85 failed for Sc, Tb and Ho; reanalyzed at a 2X dilution and Ho passed—Tl reported from dilution. The matrix spike failed for Sb; a post spike was analyzed at twice the indigenous level for Sb.

Mercury
The analytical run began 10/19/2016 @ 1507 hrs. MH1H85 was redigested at higher initial weight due to low total solids. MH1H85 was analyzed at an initial 2X dilution to protect instrument.

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2703 Oak Grove Road
Hattiesburg, MS 39402
601-264-2854 Phone
601-268-7084 Fax

Sample Equation:

Lab ID 6100168-01 EPA Sample # MH1H68

Date & Time 10/18/2016@1512

ICP-AES: 75187 µg/L (Analyte Al) * (0.100 L) / (1.00 g) * 100 % / 64.8 % * 1000 g / 1 kg * 1 mg / 1000 µg = 1160 mg/Kg

Date & Time 10/19/2016@1858

ICP-MS: 5.8010 µg/L (Analyte Sb) * (0.500 L) / (1.00 g) * 100 % / 64.8 % * 1000 g / 1 kg * 1 mg / 1000 µg = 4.5 mg/Kg

Date & Time 10/19/2016@1640

Hg: 0.2044 µg/L * (0.100 L) / (0.50 g) * 100 % / 64.8 % * 1000 g / 1 kg * 1 mg / 1000 µg = 0.063 mg/Kg

Authorized by _____
Data Package Reviewer

Date: 09/21/2016	**MA:** 2658.0	**Title:** ICP-MS Analysis Plus Molybdenum
Method Source: ISM02.3	**Method:** ICP-MS	
Matrix: Soil/Sediment		

Summary of Modification

The purpose of this modified analysis is to analyze soil/sediment samples by ICP-MS with the addition of the non-routine analyte Molybdenum (Mo). Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.

I. Analyte Modifications **Not applicable** ☐

Analyte	CAS Number	CRQL (mg/kg)	Spike Added (mg/kg)
Molybdenum (Mo)	7439-98-7	2.0	100

II. Calibration and QC Requirements **Not applicable** ☐

The Laboratory shall:

- Perform the Initial Calibration with at least one non-blank standard at or below the modified CRQL, converted to µg/L.
- Add Mo to the ICV and CCV at appropriate mid-range concentrations.
- Evaluate the ICB and CCB against the modified CRQL converted to µg/L.
- Evaluate the Preparation Blanks using the modified CRQL.
- Perform the Matrix Spike at the level specified above. Post-digestion spike requirements are per the SOW.
- Flag the Duplicates based on the modified CRQL.
- Prepare the LCS at 2 times the modified CRQL.

III. Preparation and Method Modifications **Not applicable** ☒

IV. Special Reporting Requirements **Not applicable** ☐

The Laboratory shall:

- Add Molybdenum to Forms 1, 2, 3, 4, 5A (5B), 6, 7, 8, 9, 11, 12, 15, and 16.
- Report the "J" and "U" qualifiers in accordance with the requirements in Exhibit B, Section 3.4.2.2.5.2, using the modified CRQL.

EPA SAMPLE NO.

MH1H68

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-01

% Solids: 64.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11600	*	10/18/2016	1512
7440-38-2	Arsenic	38.9	*	10/18/2016	1512
7440-70-2	Calcium	2080		10/18/2016	1512
7440-50-8	Copper	14.1	*	10/18/2016	1512
7439-89-6	Iron	32000	*	10/18/2016	1512
7439-92-1	Lead	381	*	10/18/2016	1512
7439-95-4	Magnesium	2650		10/18/2016	1512
7439-96-5	Manganese	255	*	10/18/2016	1512
7440-66-6	Zinc	48.5	*	10/18/2016	1512

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H69

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-02
% Solids: 81.9
Date Received: 10/13/2016
Analytical method: ICP-AES
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5330	*	10/18/2016	1516
7440-38-2	Arsenic	35.1	*	10/18/2016	1516
7440-70-2	Calcium	877		10/18/2016	1516
7440-50-8	Copper	22.5	*	10/18/2016	1516
7439-89-6	Iron	22500	*	10/18/2016	1516
7439-92-1	Lead	577	*	10/18/2016	1516
7439-95-4	Magnesium	1380		10/18/2016	1516
7439-96-5	Manganese	190	*	10/18/2016	1516
7440-66-6	Zinc	102	*	10/18/2016	1516

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H70

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-03

% Solids: 53.1 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	4840	*	10/18/2016	1521
7440-38-2	Arsenic	70.2	*	10/18/2016	1521
7440-70-2	Calcium	373	J	10/18/2016	1521
7440-50-8	Copper	47.0	*	10/18/2016	1521
7439-89-6	Iron	45500	*	10/18/2016	1521
7439-92-1	Lead	591	*	10/18/2016	1521
7439-95-4	Magnesium	890	J	10/18/2016	1521
7439-96-5	Manganese	100	*	10/18/2016	1521
7440-66-6	Zinc	161	*	10/18/2016	1521

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H71

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-04
% Solids: 80.2
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	4990	*	10/18/2016	1525
7440-38-2	Arsenic	55.0	*	10/18/2016	1525
7440-70-2	Calcium	313	J	10/18/2016	1525
7440-50-8	Copper	47.8	*	10/18/2016	1525
7439-89-6	Iron	27600	*	10/18/2016	1525
7439-92-1	Lead	483	*	10/18/2016	1525
7439-95-4	Magnesium	1320		10/18/2016	1525
7439-96-5	Manganese	136	*	10/18/2016	1525
7440-66-6	Zinc	638	*	10/18/2016	1525

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H72

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-05

% Solids: 64.9 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6400	*	10/18/2016	1542
7440-38-2	Arsenic	52.2	*	10/18/2016	1542
7440-70-2	Calcium	768	J	10/18/2016	1542
7440-50-8	Copper	47.2	*	10/18/2016	1542
7439-89-6	Iron	40500	*	10/18/2016	1542
7439-92-1	Lead	466	*	10/18/2016	1542
7439-95-4	Magnesium	1820		10/18/2016	1542
7439-96-5	Manganese	221	*	10/18/2016	1542
7440-66-6	Zinc	299	*	10/18/2016	1542

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H73

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-06
% Solids: 79.0
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5430	*	10/18/2016	1546
7440-38-2	Arsenic	59.8	*	10/18/2016	1546
7440-70-2	Calcium	337	J	10/18/2016	1546
7440-50-8	Copper	28.0	*	10/18/2016	1546
7439-89-6	Iron	26900	*	10/18/2016	1546
7439-92-1	Lead	165	*	10/18/2016	1546
7439-95-4	Magnesium	1470		10/18/2016	1546
7439-96-5	Manganese	190	*	10/18/2016	1546
7440-66-6	Zinc	35.0	*	10/18/2016	1546

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H74

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-07

% Solids: 70.2 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6320	*	10/18/2016	1550
7440-38-2	Arsenic	123	*	10/18/2016	1550
7440-70-2	Calcium	106	J	10/18/2016	1550
7440-50-8	Copper	58.0	*	10/18/2016	1550
7439-89-6	Iron	39100	*	10/18/2016	1550
7439-92-1	Lead	321	*	10/18/2016	1550
7439-95-4	Magnesium	1500		10/18/2016	1550
7439-96-5	Manganese	144	*	10/18/2016	1550
7440-66-6	Zinc	87.5	*	10/18/2016	1550

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H75

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-08
% Solids: 90.0
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5930	*	10/18/2016	1555
7440-38-2	Arsenic	61.8	*	10/18/2016	1555
7440-70-2	Calcium	194	J	10/18/2016	1555
7440-50-8	Copper	43.2	*	10/18/2016	1555
7439-89-6	Iron	37300	D*	10/18/2016	1650
7439-92-1	Lead	205	*	10/18/2016	1555
7439-95-4	Magnesium	1220		10/18/2016	1555
7439-96-5	Manganese	161	*	10/18/2016	1555
7440-66-6	Zinc	48.9	*	10/18/2016	1555

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H76

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-09

% Solids: 55.7 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7490	*	10/18/2016	1559
7440-38-2	Arsenic	114	*	10/18/2016	1559
7440-70-2	Calcium	419	J	10/18/2016	1559
7440-50-8	Copper	66.4	*	10/18/2016	1559
7439-89-6	Iron	56500	*	10/18/2016	1559
7439-92-1	Lead	1040	*	10/18/2016	1559
7439-95-4	Magnesium	1810		10/18/2016	1559
7439-96-5	Manganese	183	*	10/18/2016	1559
7440-66-6	Zinc	367	*	10/18/2016	1559

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H77

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-10
% Solids: 94.1
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	2280	*	10/18/2016	1603
7440-38-2	Arsenic	41.7	*	10/18/2016	1603
7440-70-2	Calcium	151	J	10/18/2016	1603
7440-50-8	Copper	18.3	*	10/18/2016	1603
7439-89-6	Iron	25800	*	10/18/2016	1603
7439-92-1	Lead	334	*	10/18/2016	1603
7439-95-4	Magnesium	597		10/18/2016	1603
7439-96-5	Manganese	84.5	*	10/18/2016	1603
7440-66-6	Zinc	23.5	*	10/18/2016	1603

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H78

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-11

% Solids: 67.4 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5240	*	10/18/2016	1608
7440-38-2	Arsenic	58.9	*	10/18/2016	1608
7440-70-2	Calcium	397	J	10/18/2016	1608
7440-50-8	Copper	41.8	*	10/18/2016	1608
7439-89-6	Iron	38000	*	10/18/2016	1608
7439-92-1	Lead	412	*	10/18/2016	1608
7439-95-4	Magnesium	1480		10/18/2016	1608
7439-96-5	Manganese	184	*	10/18/2016	1608
7440-66-6	Zinc	221	*	10/18/2016	1608

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H79

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-12
% Solids: 87.2
Date Received: 10/13/2016
Analytical method: ICP-AES
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6590	*	10/18/2016	1612
7440-38-2	Arsenic	26.5	*	10/18/2016	1612
7440-70-2	Calcium	710		10/18/2016	1612
7440-50-8	Copper	14.9	*	10/18/2016	1612
7439-89-6	Iron	42800	D*	10/18/2016	1655
7439-92-1	Lead	364	*	10/18/2016	1612
7439-95-4	Magnesium	3260		10/18/2016	1612
7439-96-5	Manganese	360	*	10/18/2016	1612
7440-66-6	Zinc	33.6	*	10/18/2016	1612

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H80

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-13

% Solids: 60.1 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6450	*	10/18/2016	1616
7440-38-2	Arsenic	126	*	10/18/2016	1616
7440-70-2	Calcium	495	J	10/18/2016	1616
7440-50-8	Copper	352	*	10/18/2016	1616
7439-89-6	Iron	78200	D*	10/18/2016	1659
7439-92-1	Lead	522	*	10/18/2016	1616
7439-95-4	Magnesium	1940		10/18/2016	1616
7439-96-5	Manganese	200	*	10/18/2016	1616
7440-66-6	Zinc	501	*	10/18/2016	1616

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H81

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-14
% Solids: 94.4
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	5350	*	10/18/2016	1629
7440-38-2	Arsenic	91.0	*	10/18/2016	1629
7440-70-2	Calcium	431	J	10/18/2016	1629
7440-50-8	Copper	67.2	*	10/18/2016	1629
7439-89-6	Iron	43300	D*	10/18/2016	1703
7439-92-1	Lead	398	*	10/18/2016	1629
7439-95-4	Magnesium	1870		10/18/2016	1629
7439-96-5	Manganese	200	*	10/18/2016	1629
7440-66-6	Zinc	382	*	10/18/2016	1629

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H82

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-15

% Solids: 78.4 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8080	*	10/18/2016	1633
7440-38-2	Arsenic	29.8	*	10/18/2016	1633
7440-70-2	Calcium	973		10/18/2016	1633
7440-50-8	Copper	79.1	*	10/18/2016	1633
7439-89-6	Iron	54300	D*	10/18/2016	1708
7439-92-1	Lead	671	*	10/18/2016	1633
7439-95-4	Magnesium	4380		10/18/2016	1633
7439-96-5	Manganese	675	*	10/18/2016	1633
7440-66-6	Zinc	1190	*	10/18/2016	1633

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H83

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-16
% Solids: 91.6
Date Received: 10/13/2016
Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6950	*	10/18/2016	1638
7440-38-2	Arsenic	36.3	*	10/18/2016	1638
7440-70-2	Calcium	670		10/18/2016	1638
7440-50-8	Copper	86.7	*	10/18/2016	1638
7439-89-6	Iron	49600	D*	10/18/2016	1712
7439-92-1	Lead	755	*	10/18/2016	1638
7439-95-4	Magnesium	3800		10/18/2016	1638
7439-96-5	Manganese	538	*	10/18/2016	1638
7440-66-6	Zinc	656	*	10/18/2016	1638

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H84

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-17

% Solids: 61.7 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15400	*	10/18/2016	1642
7440-38-2	Arsenic	14.1	*	10/18/2016	1642
7440-70-2	Calcium	4380		10/18/2016	1642
7440-50-8	Copper	65.7	*	10/18/2016	1642
7439-89-6	Iron	33100	*	10/18/2016	1642
7439-92-1	Lead	211	*	10/18/2016	1642
7439-95-4	Magnesium	8770		10/18/2016	1642
7439-96-5	Manganese	1310	*	10/18/2016	1642
7440-66-6	Zinc	571	*	10/18/2016	1642

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H85

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-18

% Solids: 8.8 Date Received: 10/13/2016

Analytical method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16400	*	10/28/2016	1311
7440-38-2	Arsenic	156	*	10/28/2016	1311
7440-70-2	Calcium	4990		10/28/2016	1311
7440-50-8	Copper	482	*	10/28/2016	1311
7439-89-6	Iron	926000	D *	10/31/2016	1410
7439-92-1	Lead	687	*	10/28/2016	1311
7439-95-4	Magnesium	4700		10/28/2016	1311
7439-96-5	Manganese	3870	D *	10/28/2016	1318
7440-66-6	Zinc	6180	D *	10/28/2016	1318

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63107MH1H68 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum	2521.0	2580	102	0	140000	144000	103	0	143000	102	0
Arsenic	999.00	942	94	0	2000.0	2090	104	0	2080	104	1
Calcium	10026	10500	105	0	200000	203000	102	0	201000	101	0
Copper	492.00	472	96	0	5000.0	5030	101	0	4990	100	0
Iron	5082.0	5280	104	0	125000	127000	102	0	126000	101	0
Lead	1002.0	1000	100	0	5750.0	5670	99	0	5660	98	0
Magnesium	6074.0	6130	101	0	200000	204000	102	0	203000	101	0
Manganese	499.00	527	106	0	9000.0	9170	102	0	9090	101	0
Zinc	1025.0	1010	98	0	8000.0	8130	102	0	8100	101	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63107MH1H68 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					140000	144000	103	0	144000	103	0
Arsenic					2000.0	2080	104	0	2100	105	0
Calcium					200000	204000	102	0	202000	101	0
Copper					5000.0	4980	100	0	4980	100	0
Iron					125000	127000	102	0	126000	101	0
Lead					5750.0	5670	99	0	5690	99	0
Magnesium					200000	205000	102	0	201000	100	0
Manganese					9000.0	9160	102	0	9130	101	0
Zinc					8000.0	8140	102	0	8110	101	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63107MH1H68 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:CCV06		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					140000	146000	104	0	146000	105	0
Arsenic					2000.0	2110	105	0	2120	106	1
Calcium					200000	203000	101	0	202000	101	0
Copper					5000.0	5040	101	0	5060	101	0
Iron					125000	126000	101	0	126000	101	0
Lead					5750.0	5700	99	0	5740	100	0
Magnesium					200000	202000	101	0	201000	100	0
Manganese					9000.0	9160	102	0	9130	101	0
Zinc					8000.0	8130	102	0	8160	102	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63107MH1H68 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV07				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					140000	146000	104	0			
Arsenic					2000.0	2130	106	0			
Calcium					200000	200000	100	0			
Copper					5000.0	5070	101	1			
Iron					125000	125000	100	0			
Lead					5750.0	5770	100	0			
Magnesium					200000	200000	100	0			
Manganese					9000.0	9070	101	0			
Zinc					8000.0	8190	102	0			

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63109CLP 10292016 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum	2521.0	2660	106	1	140000	144000	103	0	144000	103	0
Arsenic	999.00	986	99	0	2000.0	2130	107	0	2130	107	0
Calcium	10026	10700	107	1	200000	201000	100	0	203000	101	0
Copper	492.00	504	102	0	5000.0	5150	103	0	5120	102	0
Iron	5082.0	5450	107	1	125000	126000	101	0	127000	101	0
Lead	1002.0	1070	107	1	5750.0	5900	103	0	5900	103	0
Magnesium	6074.0	6190	102	1	200000	200000	100	0	201000	101	0
Manganese	499.00	540	108	1	9000.0	9040	100	0	9050	101	0
Zinc	1025.0	1050	102	0	8000.0	8200	102	0	8240	103	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63109CLP 10292016 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Aluminum					140000	145000	104	1			
Arsenic					2000.0	2140	107	1			
Calcium					200000	202000	101	0			
Copper					5000.0	5100	102	1			
Iron					125000	126000	101	1			
Lead					5750.0	5920	103	1			
Magnesium					200000	200000	100	0			
Manganese					9000.0	8940	99	1			
Zinc					8000.0	8270	103	1			

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63117MH1H85 RE2 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Iron	5082.0	5460	107	0	125000	129000	103	3	125000	100	1

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63117MH1H85 RE2 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Iron					125000	124000	99	0	125000	100	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63117MH1H85 RE2 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:CCV06		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Iron					125000	117000	93	3	119000	95	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: In House, Lot: USEPA(0307) + ICV-3

Continuing Calibration Verification Source: In-House, Lot: B6G0037

Run Batch: BJ63117MH1H85 RE2 Analytical method: ICP-AES

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV07				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Iron					125000	120000	96	1			

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch: QJ14018

Run Batch: BJ63107MH1H68 Preparation Method: 3050B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Aluminum	200	U	4.7	J	200	U	200	U	20.0	U
Arsenic	10	U	10	U	-0.83	J	10	U	-0.29	J
Calcium	5000	U	15.8	J	20.6	J	31.8	J	500	U
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.5	U
Iron	100	U	100	U	100	U	100	U	10	U
Lead	10	U	10	U	10	U	10	U	1.0	U
Magnesium	5000	U	14.5	J	13.5	J	5000	U	500	U
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	1.5	U
Zinc	60.0	U	60.0	U	60.0	U	60.0	U	0.12	J

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch: QJ14018

Run Batch: BJ63107MH1H68 Preparation Method: 3050B

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID: CCB06	Q	ID:	Q
Aluminum			200	U	12.7	J	4.7	J		
Arsenic			10	U	10	U	10	U		
Calcium			14.9	J	11.8	J	12.1	J		
Copper			25.0	U	25.0	U	25.0	U		
Iron			12.3	J	8.0	J	100	U		
Lead			10	U	10	U	10	U		
Magnesium			24.2	J	24.8	J	14.9	J		
Manganese			0.92	J	0.73	J	15.0	U		
Zinc			60.0	U	60.0	U	60.0	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch: QJ14018

Run Batch: BJ63107MH1H68 Preparation Method: 3050B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB07	Q	ID:	Q	ID:	Q	ID:	Q
Aluminum			7.3	J						
Arsenic			10	U						
Calcium			22.4	J						
Copper			25.0	U						
Iron			10.9	J						
Lead			10	U						
Magnesium			5000	U						
Manganese			0.52	J						
Zinc			60.0	U						

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch: QJ28013

Run Batch: BJ63109CLP 10292016 Preparation Method: 3050B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS02	Q
Aluminum	200	U	397		-22.6	J	-13.0	J	-1.4	J
Arsenic	10	U	10	U	0.57	J	-0.64	J	1.0	U
Calcium	5000	U	561	J	-16.6	J	5000	U	500	U
Copper	25.0	U	25.0	U	-0.92	J	25.0	U	-0.087	J
Iron	100	U	425		-20.5	J	-10.3	J	-1.2	J
Lead	10	U	10	U	-1.2	J	10	U	-0.14	J
Magnesium	5000	U	488	J	-24.8	J	-27.1	J	-3.5	J
Manganese	0.43	J	24.1		-0.85	J	15.0	U	-0.088	J
Zinc	60.0	U	60.0	U	-0.92	J	60.0	U	-0.096	J

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ63117MH1H85 RE2 Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID:	Q
Iron	-25.9	J	-24.2	J	-23.3	J	-24.4	J		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ63117MH1H85 RE2 Preparation Method:

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID: CCB06	Q	ID:	Q
Iron			-24.4	J	-11.0	J	-17.1	J		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-AES Preparation Batch:

Run Batch: BJ63117MH1H85_RE2 Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB07	Q	ID:	Q	ID:	Q	ID:	Q
Iron			-21.0	J						

NOTE: Hardness (total) is reported in mg/L

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Analytical Method: ICP-AES
ICSA Source: USEPA, Lot:ICSA-1211
Instrument ID: ICAPP01
ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C
Run Batch: BJ63107MH1H68

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	258000	101	261000	106
Arsenic	0	104	-7.7		96.0	92
Calcium	244500	234900	245000	100	249000	106
Copper	2	511	-8.6	-430	483	95
Iron	100700	99320	100000	99	101000	102
Lead	0	49	-4.0		47.9	98
Magnesium	255400	248000	262000	103	266000	107
Manganese	7	507	11.3	161	531	105
Zinc	0	952	1.8		1050	110

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Analytical Method: ICP-AES ICSA Source: USEPA, Lot:ICSA-1211

Instrument ID: ICAPP01 ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C

Run Batch: BJ63109CLP 10292016

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	267000	105	271000	110
Arsenic	0	104	0.22		106	102
Calcium	244500	234900	254000	104	257000	109
Copper	2	511	-7.6	-380	509	100
Iron	100700	99320	103000	102	104000	105
Lead	0	49	-2.8		49.0	100
Magnesium	255400	248000	267000	105	271000	109
Manganese	7	507	12.5	179	542	107
Zinc	0	952	3.2		1090	114

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Analytical Method: ICP-AES
ICSA Source: USEPA, Lot:ICSA-1211
Instrument ID: ICAPP01
ICSB Source: USEPA, Lot:ICSA-1211 & ICSB-071C
Run Batch: BJ63117MH1H85 RE2

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Aluminum	254900	246800	263000	103	269000	109
Calcium	244500	234900	250000	102	256000	109
Iron	100700	99320	102000	101	104000	105
Magnesium	255400	248000	264000	103	270000	109

EPA SAMPLE NO.

MH1H71S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Analytical Method: ICP-AES

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Arsenic		64.7		55.0		9.98	97	
Copper	75-125	94.6		47.8		62.4	75	
Lead		451		483		4.99	-650	
Manganese	75-125	253		136		125	94	
Zinc		640		638		125	2	

EPA SAMPLE NO.

MH1H71D

FORM 6-IN
DUPLICATES

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Analytical Method: ICP-AES

% Solids: 80.2

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Aluminum		4990		7110		35	*
Arsenic		55.0		79.0		36	*
Calcium		313	J	482	J		
Copper		47.8		67.6		34	*
Iron		27600		38800		34	*
Lead		483		598		21	*
Magnesium	624	1320		1820		31	
Manganese		136		230		51	*
Zinc		638		833		27	*

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

LCS01

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Preparation Method: 3050B

Analytical method: ICP-AES Preparation Batch: QJ14018

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Aluminum	40.000	41.8	105
Arsenic	2.0000	1.6	80
Calcium	1000.0	1070	107
Copper	5.0000	4.8	96
Iron	20.000	21.5	108
Lead	2.0000	2.1	105
Magnesium	1000.0	1020	102
Manganese	3.0000	3.3	110
Zinc	12.000	13.2	110

EPA SAMPLE NO.

LCS02

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1H68

Matrix: Soil

Preparation Method: 3050B

Analytical method: ICP-AES

Preparation Batch: QJ28013

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Aluminum	40.000	37.4	94
Arsenic	2.0000	1.8	90
Calcium	1000.0	1030	103
Copper	5.0000	4.6	92
Iron	20.000	18.6	93
Lead	2.0000	1.9	95
Magnesium	1000.0	982	98
Manganese	3.0000	3.0	100
Zinc	12.000	11.8	98

EPA SAMPLE NO.

MH1H71L

FORM 8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Analytical method: ICP-AES

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/Kg

Analyte	Initial Sample Result (I)	Q	Serial Dilution Result (S)	Q	% Difference	Q
Aluminum	4990		5240		5	
Arsenic	55.0		53.2		3	
Calcium	313	J	328	J	5	
Copper	47.8		49.1		3	
Iron	27600		28800		5	
Lead	483		481		0	
Magnesium	1320		1390	J	5	
Manganese	136		141		4	
Zinc	638		623		2	

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Analytical Method: ICP-AES Instrument ID: ICAPP01

Preparation Method: 3050B

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass	MDL	Date Analyzed
Aluminum	396.10 nm	1.4	11/16/2015
Arsenic	189.00 nm	0.11	11/15/2015
Calcium	318.10 nm	2.8	11/15/2015
Copper	324.70 nm	0.041	11/10/2015
Iron	258.90 nm	0.50	11/10/2015
Lead	220.30 nm	0.13	11/15/2015
Magnesium	279.00 nm	2.0	11/15/2015
Manganese	257.60 nm	0.022	11/15/2015
Zinc	206.20 nm	0.049	11/14/2015

FORM 10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Instrument ID: ICAPP01 Date: 11/10/2015

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Cr
Aluminum	396.1	0	0	0	0	0
Arsenic	189	0	0	-0.000015	0	0
Calcium	318.1	0	0	0	0	0
Copper	324.7	0	0	0	0	0
Iron	258.9	0	0	0	0	0
Lead	220.3	0.000118	-0.000009	0.000058	0	0
Magnesium	279	0	0	0	0	0
Manganese	257.6	0	0	0	0	0
Zinc	206.2	0	0	0	0	-0.001386

FORM 10B-IN
ICP-AES INTERELEMENT CORRECTION FACTORS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Instrument ID: ICAPP01 Date: 11/10/2015

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cu	Mo			
Aluminum	396.1	0	0.037732			
Arsenic	189	0	0			
Calcium	318.1	0	0			
Copper	324.7	0	0			
Iron	258.9	0	0			
Lead	220.3	0.00014	0			
Magnesium	279	0	0			
Manganese	257.6	0	0			
Zinc	206.2	0	0			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Analytical Method: ICP-AES
Start Date: 10/18/2016
End Date: 10/18/2016
Run Batch: BJ63107MH1H68

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	0913	X		X				X			X	X	X	X	X									X		
S02	1.0	0918	X		X				X			X	X	X	X	X									X		
S03	1.0	0922	X		X				X			X	X	X	X	X									X		
S04	1.0	0926	X		X				X			X	X	X	X	X									X		
S05	1.0	0930	X		X				X			X	X	X	X	X									X		
S06	1.0	0933	X		X				X			X	X	X	X	X									X		
S07	1.0	0939	X						X				X	X	X	X											
S08	1.0	0943	X										X	X													
ICV01	1.0	0948	X		X				X			X	X	X	X	X									X		
ICB01	1.0	0952	X		X				X			X	X	X	X	X									X		
ICSA01	1.0	1014	X		X				X			X	X	X	X	X									X		
ICSAB01	1.0	1018	X		X				X			X	X	X	X	X									X		
CCV01	1.0	1022	X		X				X			X	X	X	X	X									X		
CCB01	1.0	1026	X		X				X			X	X	X	X	X									X		
CCV02	1.0	1130	X		X				X			X	X	X	X	X									X		
CCB02	1.0	1134	X		X				X			X	X	X	X	X									X		
CCV03	1.0	1230	X		X				X			X	X	X	X	X									X		
CCB03	1.0	1234	X		X				X			X	X	X	X	X									X		
CCV04	1.0	1351	X		X				X			X	X	X	X	X									X		
CCB04	1.0	1355	X		X				X			X	X	X	X	X									X		
CCV05	1.0	1454	X		X				X			X	X	X	X	X									X		
CCB05	1.0	1459	X		X				X			X	X	X	X	X									X		
PBS01	1.0	1503	X		X				X			X	X	X	X	X									X		
LCS01	1.0	1508	X		X				X			X	X	X	X	X									X		
MH1H68	1.0	1512	X		X				X			X	X	X	X	X									X		
MH1H69	1.0	1516	X		X				X			X	X	X	X	X									X		
MH1H70	1.0	1521	X		X				X			X	X	X	X	X									X		
MH1H71	1.0	1525	X		X				X			X	X	X	X	X									X		
MH1H71S	1.0	1529			X							X		X		X									X		
MH1H71D	1.0	1533	X		X				X			X	X	X	X	X									X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: SDG No.: MH1H68

Instrument ID: ICAPP01

Analytical Method: ICP-AES

Start Date: 10/18/2016

End Date: 10/18/2016

Run Batch: BJ63107MH1H68

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
MH1H71L	5.0	1538	X		X				X			X	X	X	X	X									X		
MH1H72	1.0	1542	X		X				X			X	X	X	X	X									X		
MH1H73	1.0	1546	X		X				X			X	X	X	X	X									X		
MH1H74	1.0	1550	X		X				X			X	X	X	X	X									X		
MH1H75	1.0	1555	X		X				X			X		X	X	X									X		
MH1H76	1.0	1559	X		X				X			X	X	X	X	X									X		
MH1H77	1.0	1603	X		X				X			X	X	X	X	X									X		
MH1H78	1.0	1608	X		X				X			X	X	X	X	X									X		
MH1H79	1.0	1612	X		X				X			X		X	X	X									X		
MH1H80	1.0	1616	X		X				X			X		X	X	X									X		
CCV06	1.0	1620	X		X				X			X	X	X	X	X									X		
CCB06	1.0	1625	X		X				X			X	X	X	X	X									X		
MH1H81	1.0	1629	X		X				X			X		X	X	X									X		
MH1H82	1.0	1633	X		X				X			X		X	X	X									X		
MH1H83	1.0	1638	X		X				X			X		X	X	X									X		
MH1H84	1.0	1642	X		X				X			X	X	X	X	X									X		
ZZZZZZ	1.0	1646																									
MH1H75	2.0	1650											X														
MH1H79	2.0	1655											X														
MH1H80	2.0	1659											X														
MH1H81	2.0	1703											X														
MH1H82	2.0	1708											X														
MH1H83	2.0	1712											X														
ZZZZZZ	1.0	1716																									
CCV07	1.0	1721	X		X				X			X	X	X	X	X									X		
CCB07	1.0	1725	X		X				X			X	X	X	X	X									X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Analytical Method: ICP-AES
Start Date: 10/28/2016
End Date: 10/28/2016
Run Batch: BJ63109CLP_10292016

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	1146	X		X				X			X	X	X	X	X									X		
S02	1.0	1151	X		X				X			X	X	X	X	X									X		
S03	1.0	1155	X		X				X			X	X	X	X	X									X		
S04	1.0	1159	X		X				X			X	X	X	X	X									X		
S05	1.0	1204	X		X				X			X	X	X	X	X									X		
S06	1.0	1208	X		X				X			X	X	X	X	X									X		
S07	1.0	1212	X						X				X	X	X	X											
S08	1.0	1216	X										X	X													
ICV01	1.0	1221	X		X				X			X	X	X	X	X									X		
ICB01	1.0	1225	X		X				X			X	X	X	X	X									X		
ICSA01	1.0	1229	X		X				X			X	X	X	X	X									X		
ICSAB01	1.0	1234	X		X				X			X	X	X	X	X									X		
CCV01	1.0	1238	X		X				X			X	X	X	X	X									X		
CCB01	1.0	1242	X		X				X			X	X	X	X	X									X		
CCV02	1.0	1252	X		X				X			X	X	X	X	X									X		
CCB02	1.0	1256	X		X				X			X	X	X	X	X									X		
PBS02	1.0	1302	X		X				X			X	X	X	X	X									X		
LCS02	1.0	1307	X		X				X			X	X	X	X	X									X		
MH1H85	1.0	1311	X		X				X			X		X	X												
MH1H85	5.0	1318														X									X		
CCV03	1.0	1322	X		X				X			X	X	X	X	X									X		
CCB03	1.0	1326	X		X				X			X	X	X	X	X									X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: SDG No.: MH1H68

Instrument ID: ICAPP01

Analytical Method: ICP-AES

Start Date: 10/31/2016

End Date: 10/31/2016

Run Batch: BJ63117MH1H85_RE2

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	1049											X														
S02	1.0	1053											X														
S03	1.0	1058											X														
S04	1.0	1102											X														
S05	1.0	1106											X														
S06	1.0	1110											X														
S07	1.0	1114											X														
S08	1.0	1119											X														
ICV01	1.0	1123											X														
ICB01	1.0	1127											X														
ICSA01	1.0	1132	X						X				X		X												
ICSAB01	1.0	1136	X						X				X		X												
CCV01	1.0	1140											X														
CCB01	1.0	1145											X														
CCV02	1.0	1153											X														
CCB02	1.0	1157											X														
CCV03	1.0	1220											X														
CCB03	1.0	1224											X														
CCV04	1.0	1229											X														
CCB04	1.0	1344											X														
CCV05	1.0	1348											X														
CCB05	1.0	1353											X														
CCV06	1.0	1401											X														
CCB06	1.0	1406											X														
MH1H85	40.0	1410											X														
CCV07	1.0	1414											X														
CCB07	1.0	1419											X														

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ63107MH1H68

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	0.0	-1.7		100	99.2	1	800	784	2
Arsenic	0.0	2.4		10.0	11.3	-13	80.0	74.4	7
Calcium	0.0	-57		250	220	12	2000	2030	-2
Copper	0.0	4.0		25.0	27.8	-11	200	190	5
Iron	0.0	-17		100	87.8	12	800	814	-2
Lead	0.0	0.58		10.0	10.5	-5	80.0	78.6	2
Magnesium	0.0	-8.9		250	248	1	2000	1990	1
Manganese	0.0	-2.8		15.0	12.9	14	120	123	-3
Zinc	0.0	0.16		40.0	40.3	-1	320	314	2

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: ICAPP01

Start Date: 10/18/2016

Analytical method: ICP-AES

Run Batch: BJ63107MH1H68

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	4000	4020	0	20000	20100	-1	40000	40700	-2
Arsenic	400	377	6	2000	1970	1	4000	4050	-1
Calcium	10000	10500	-5	50000	52000	-4	100000	103000	-3
Copper	1000	944	6	5000	4870	3	10000	10200	-2
Iron	4000	4190	-5	20000	20800	-4	40000	41100	-3
Lead	400	398	0	2000	1990	0	4000	3940	1
Magnesium	10000	10100	-1	50000	50100	0	100000	101000	-1
Manganese	600	636	-6	3000	3140	-5	6000	6200	-3
Zinc	1600	1610	-1	8000	8080	-1	16000	15900	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ63107MH1H68
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	320000	324000	-1	400000	396000	1			
Arsenic									
Calcium	400000	395000	1						
Copper									
Iron	280000	273000	2	350000	355000	-1			
Lead	10000	9720	3	25000	25300	-1			
Magnesium	400000	399000	0						
Manganese	16000	15600	2						
Zinc									

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: ICAPP01

Start Date: 10/28/2016

Analytical method: ICP-AES

Run Batch: BJ63109CLP 10292016

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	0.0	12.5		100	91.9	8	800	844	-6
Arsenic	0.0	2.3		10.0	11.1	-11	80.0	75.7	5
Calcium	0.0	-31		250	226	10	2000	2110	-5
Copper	0.0	2.5		25.0	25.9	-4	200	195	3
Iron	0.0	-4.0		100	83.1	17	800	871	-9
Lead	0.0	0.066		10.0	9.0	10	80.0	82.5	-3
Magnesium	0.0	30.8		250	247	1	2000	2080	-4
Manganese	0.0	-2.6		15.0	12.9	14	120	127	-6
Zinc	0.0	0.68		40.0	39.6	1	320	322	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/28/2016
Analytical method: ICP-AES
Run Batch: BJ63109CLP 10292016
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	4000	4080	-2	20000	19900	0	40000	40100	0
Arsenic	400	376	6	2000	1980	1	4000	4050	-1
Calcium	10000	10300	-3	50000	50500	-1	100000	101000	-1
Copper	1000	979	2	5000	5080	-2	10000	9940	1
Iron	4000	4220	-5	20000	20400	-2	40000	40400	-1
Lead	400	410	-3	2000	2050	-3	4000	4030	-1
Magnesium	10000	10000	0	50000	49200	2	100000	98100	2
Manganese	600	632	-5	3000	3070	-2	6000	6050	-1
Zinc	1600	1590	0	8000	8110	-1	16000	15900	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: ICAPP01

Start Date: 10/28/2016

Analytical method: ICP-AES

Run Batch: BJ63109CLP 10292016

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	320000	331000	-4	400000	389000	3			
Arsenic									
Calcium	400000	399000	0						
Copper									
Iron	280000	277000	1	350000	351000	0			
Lead	10000	10100	-1	25000	24800	1			
Magnesium	400000	403000	-1						
Manganese	16000	15800	1						
Zinc									

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/31/2016
Analytical method: ICP-AES
Run Batch: BJ63117MH1H85 RE2

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Iron	0.0	5.5		100	81.2	19	800	865	-8

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: ICAPP01

Start Date: 10/31/2016

Analytical method: ICP-AES

Run Batch: BJ63117MH1H85 RE2

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Iron	4000	4260	-6	20000	20800	-4	40000	40400	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/31/2016
Analytical method: ICP-AES
Run Batch: BJ63117MH1H85 RE2
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Iron	280000	277000	1	350000	351000	0			

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/18/2016
Analytical method: ICP-AES
Run Batch: BJ63107MH1H68

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Aluminum	0.9998202	0.00007507494	12.9905132	WLR	Inverse Conc
Arsenic	0.9996994	0.0001864005	-3.7119139	WLR	Inverse Conc
Calcium	0.9996582	0.00001433712	21.0648303	WLR	Inverse Conc
Copper	0.9992984	0.0004207583	-1.8891005	WLR	Inverse Conc
Iron	0.9995071	0.00003305724	24.0931124	WLR	Inverse Conc
Lead	0.9996185	0.0003135343	-1.4124317	WLR	Inverse Conc
Magnesium	0.9999893	0.000013017	21.9199816	WLR	Inverse Conc
Manganese	0.998972	0.0004104772	3.1219371	WLR	Inverse Conc
Zinc	0.9999275	0.001997103	0.5588455	WLR	Inverse Conc

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/28/2016
Analytical method: ICP-AES
Run Batch: BJ63109CLP 10292016

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Aluminum	0.9985945	0.00007425887	14.1979941	WLR	Inverse Conc
Arsenic	0.9997559	0.0002110557	-2.6924546	WLR	Inverse Conc
Calcium	0.9999768	0.00001429246	37.4921532	WLR	Inverse Conc
Copper	0.9998739	0.0004515698	0.6113101	WLR	Inverse Conc
Iron	0.9999352	0.00002756855	28.3087068	WLR	Inverse Conc
Lead	0.9998418	0.0003429667	-0.0656615	WLR	Inverse Conc
Magnesium	0.9999155	0.00001146942	17.1172213	WLR	Inverse Conc
Manganese	0.9998173	0.0003360749	3.6506743	WLR	Inverse Conc
Zinc	0.9998852	0.002166969	0.6124213	WLR	Inverse Conc

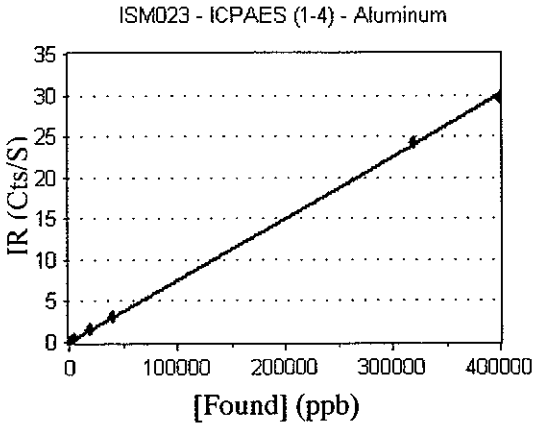
FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: ICAPP01
Start Date: 10/31/2016
Analytical method: ICP-AES
Run Batch: BJ63117MH1H85 RE2

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Iron	0.9999358	0.00002920916	23.9003895	WLR	Inverse Conc

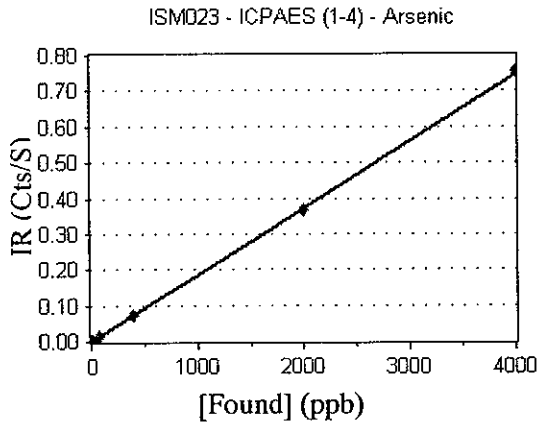
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645010 Calibration Date: 10/18/2016 **84**



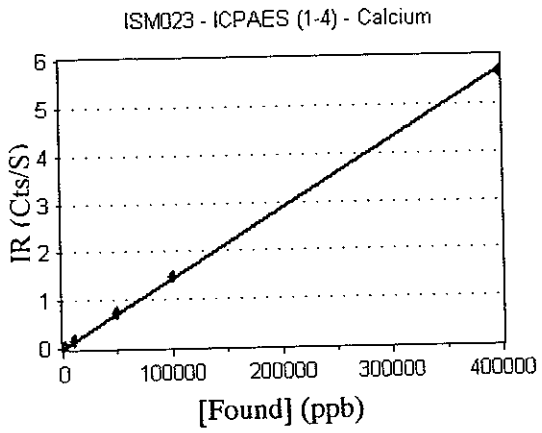
Calibration Plot: Aluminum
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998202
Fit: [Y] = 7.507494E-05 * [X] + 9.75262E-04
[y-intercept] = -12.99

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	-1.67	0.00085	0
BJ63107-CAL2	B6G0026	100	99.16	0.00842	1
BJ63107-CAL3	B6G0027	800	783.68	0.05981	2
BJ63107-CAL4	B6G0028	4000	4,019.25	0.30272	0
BJ63107-CAL5	B6G0029	20000	20,138.87	1.5129	-1
BJ63107-CAL6	B6G0030	40000	40,670.36	3.0543	-2
BJ63107-CAL7	B6G0031	320000	323,636.95	24.298	-1
BJ63107-CAL8	B6G0032	400000	395,551.76	29.697	1



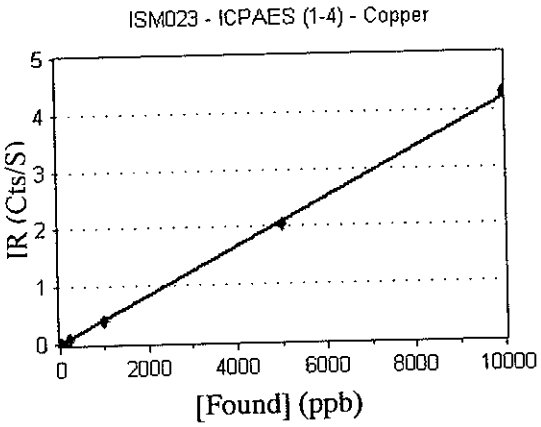
Calibration Plot: Arsenic
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9996994
Fit: [Y] = 1.864005E-04 * [X] + -6.919026E-04
[y-intercept] = 3.71

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	2.37	-0.00025	0
BJ63107-CAL2	B6G0026	10	11.28	0.00141	-13
BJ63107-CAL3	B6G0027	80	74.37	0.01317	7
BJ63107-CAL4	B6G0028	400	376.94	0.06957	6
BJ63107-CAL5	B6G0029	2000	1,974.36	0.36733	1
BJ63107-CAL6	B6G0030	4000	4,053.06	0.7548	-1



Calibration Plot: Calcium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9996582
Fit: [Y] = 1.433712E-05 * [X] + 3.02009E-04
[y-intercept] = -21.06

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	-56.64	-0.00051	0
BJ63107-CAL2	B6G0026	250	219.57	0.00345	12
BJ63107-CAL3	B6G0027	2000	2,030.95	0.02942	-2
BJ63107-CAL4	B6G0028	10000	10,500.57	0.15085	-5
BJ63107-CAL5	B6G0029	50000	52,042.39	0.74644	-4
BJ63107-CAL6	B6G0030	100000	102,893.61	1.4755	-3
BJ63107-CAL7	B6G0031	400000	394,563.06	5.6572	1

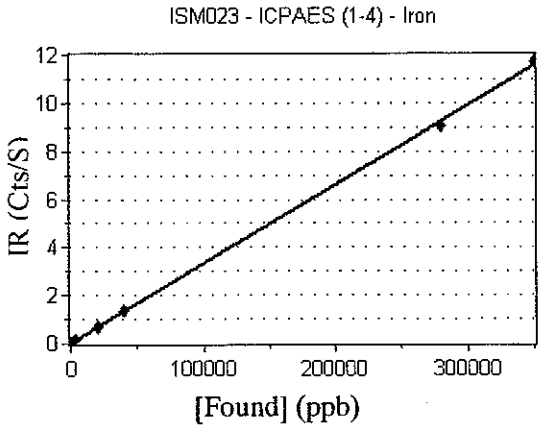


Calibration Plot: Copper
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9992984
Fit: [Y] = 4.207583E-04 * [X] + -7.948547E-04
[y-intercept] = 1.89

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	3.98	0.00088	0
BJ63107-CAL2	B6G0026	25	27.82	0.01091	-11
BJ63107-CAL3	B6G0027	200	190.03	0.07916	5
BJ63107-CAL4	B6G0028	1000	944.14	0.39646	6
BJ63107-CAL5	B6G0029	5000	4,866.91	2.047	3
BJ63107-CAL6	B6G0030	10000	10,196.10	4.2893	-2

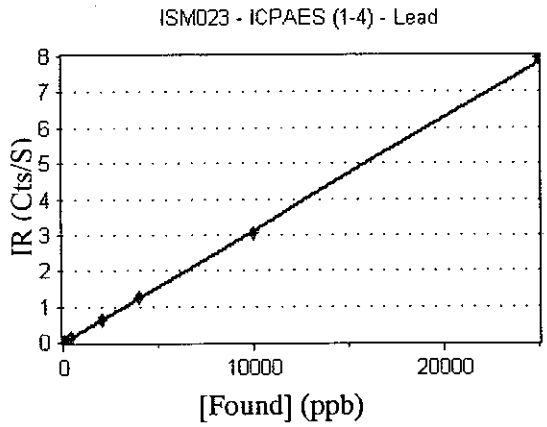
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645010 Calibration Date: 10/18/2016 **86**



Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9995071
Fit: [Y] = 3.305724E-05 * [X] + 7.964518E-04
[y-intercept] = -24.09

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	-17.14	0.00023	0
BJ63107-CAL2	B6G0026	100	87.83	0.0037	12
BJ63107-CAL3	B6G0027	800	813.54	0.02769	-2
BJ63107-CAL4	B6G0028	4000	4,192.23	0.13938	-5
BJ63107-CAL5	B6G0029	20000	20,793.74	0.68818	-4
BJ63107-CAL6	B6G0030	40000	41,113.64	1.3599	-3
BJ63107-CAL7	B6G0031	280000	273,205.01	9.0322	2
BJ63107-CAL8	B6G0032	350000	354,693.97	11.726	-1



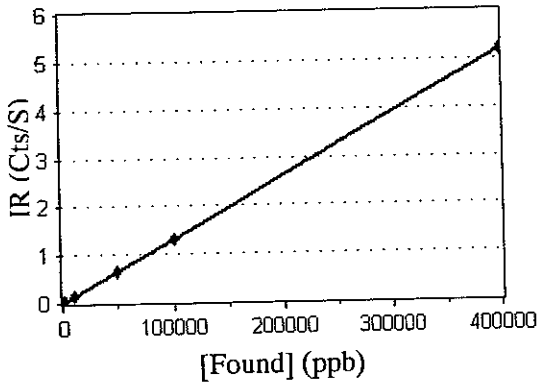
Calibration Plot: Lead
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9996185
Fit: [Y] = 3.135343E-04 * [X] + -4.428458E-04
[y-intercept] = 1.41

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	0.58	-0.00026	0
BJ63107-CAL2	B6G0026	10	10.53	0.00286	-5
BJ63107-CAL3	B6G0027	80	78.63	0.02421	2
BJ63107-CAL4	B6G0028	400	398.12	0.12438	0
BJ63107-CAL5	B6G0029	2000	1,994.14	0.62479	0
BJ63107-CAL6	B6G0030	4000	3,943.25	1.2359	1
BJ63107-CAL7	B6G0031	10000	9,715.50	3.0457	3
BJ63107-CAL8	B6G0032	25000	25,349.84	7.9476	-1

Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645010 Calibration Date: 10/18/2016

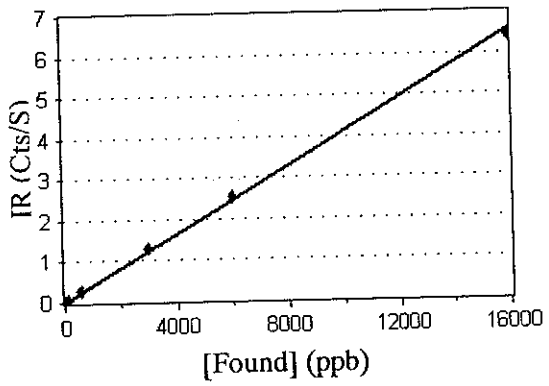
ISM023 - ICPAES (1-4) - Magnesium



Calibration Plot: Magnesium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999893
Fit: [Y] = 1.3017E-05 * [X] + 2.853324E-04
[y-intercept] = -21.92

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	-8.86	0.00017	0
BJ63107-CAL2	B6G0026	250	248.50	0.00352	1
BJ63107-CAL3	B6G0027	2000	1,986.22	0.02614	1
BJ63107-CAL4	B6G0028	10000	10,058.74	0.13122	-1
BJ63107-CAL5	B6G0029	50000	50,084.86	0.65224	0
BJ63107-CAL6	B6G0030	100000	100,753.99	1.3118	-1
BJ63107-CAL7	B6G0031	400000	399,117.67	5.1956	0

ISM023 - ICPAES (1-4) - Manganese

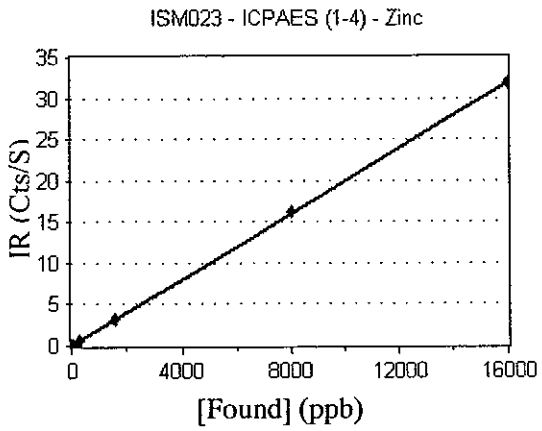


Calibration Plot: Manganese
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.998972
Fit: [Y] = 4.104772E-04 * [X] + 1.281484E-03
[y-intercept] = -3.12

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	-2.78	0.00014	0
BJ63107-CAL2	B6G0026	15	12.88	0.00657	14
BJ63107-CAL3	B6G0027	120	123.02	0.05178	-3
BJ63107-CAL4	B6G0028	600	636.06	0.26237	-6
BJ63107-CAL5	B6G0029	3000	3,135.91	1.2885	-5
BJ63107-CAL6	B6G0030	6000	6,204.29	2.548	-3
BJ63107-CAL7	B6G0031	16000	15,622.84	6.4141	2

Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645010 Calibration Date: 10/18/2016 **88**



Calibration Plot: Zinc
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999275
Fit: [Y] = 1.997103E-03 * [X] + 1.116072E-03
[y-intercept] = -0.56

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63107-CAL1	B6I0028	0	0.16	0.00143	0
BJ63107-CAL2	B6G0026	40	40.27	0.08154	-1
BJ63107-CAL3	B6G0027	320	314.17	0.62854	2
BJ63107-CAL4	B6G0028	1600	1,610.42	3.2173	-1
BJ63107-CAL5	B6G0029	8000	8,084.15	16.146	-1
BJ63107-CAL6	B6G0030	16000	15,910.99	31.777	1

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/18/2016 9:13:30 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00120	.00085	-.00025	.00684	.01668	-.00116	-.00051	-.00012	-.00038	.00000
#1	-.00126	.00065	-.00011	.00715	.01793	-.00108	-.00071	.00001	-.00045	.00001
#2	-.00114	.00040	-.00023	.00670	.01569	-.00122	-.00034	-.00020	-.00031	.00001
#3	-.00120	.00151	-.00042	.00668	.01642	-.00117	-.00047	-.00016	-.00037	-.00000

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00088	.00023	.01451	-.00033	.00017	.00014	.00007	.01308	-.00041	-.00033
#1	.00088	.00032	.01480	.00018	.00024	.00018	.00001	.01303	-.00044	-.00028
#2	.00100	.00020	.01343	-.00079	.00008	.00016	.00013	.01275	-.00037	-.00041
#3	.00075	.00018	.01531	-.00037	.00019	.00010	.00006	.01345	-.00044	-.00030

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00026	-.00038	-.00146	.00018	.00034	-.00008	-.00018	.00264	.00005	.00002
#1	-.00007	-.00036	-.00145	.00021	.00034	-.00016	-.00028	.00263	.00022	-.00004
#2	-.00024	-.00039	-.00154	.00009	.00031	.00000	-.00043	.00255	.00004	.00002
#3	-.00046	-.00040	-.00138	.00024	.00035	-.00008	.00016	.00274	-.00012	.00009

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/18/2016 9:13:30 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	Cts/S
Avg	.00143
#1	.00163
#2	.00140
#3	.00127

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3780.1	2815.4	232600.	18369.	4553.4	41666.	7677.0
#1	3841.4	2858.3	232100.	18463.	4630.9	41626.	7715.2
#2	3774.6	2815.4	231790.	18504.	4552.7	41470.	7713.1
#3	3724.4	2772.7	233900.	18139.	4476.6	41902.	7602.8

Sample Name: SEQ-CAL2@S02 Acquired: 10/18/2016 9:18:01 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00100	.00842	.00141	.01172	.43785	.00513	.00345	.01523	.01301	.00027	.01091
#1	.00099	.00850	.00146	.01186	.43696	.00512	.00335	.01513	.01313	.00027	.01096
#2	.00099	.00792	.00140	.01156	.43835	.00511	.00358	.01515	.01296	.00028	.01071
#3	.00103	.00885	.00138	.01174	.43824	.00516	.00343	.01540	.01293	.00026	.01106

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00370	.02657	.00339	.00352	.00657	.00294	.07694	.01955	.01298	.00286	.00887
#1	.00389	.02650	.00352	.00329	.00654	.00291	.07748	.01942	.01297	.00270	.00893
#2	.00363	.02580	.00263	.00365	.00649	.00282	.07669	.01962	.01298	.00306	.00886
#3	.00358	.02740	.00401	.00363	.00668	.00309	.07665	.01961	.01298	.00283	.00882

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00098	.00126	.00099	.00240	.01503	.00421	.00285	.00459	.08154
#1	.00105	.00132	.00103	.00236	.01527	.00422	.00292	.00462	.08150
#2	.00094	.00122	.00101	.00242	.01478	.00413	.00297	.00453	.08155
#3	.00093	.00122	.00093	.00241	.01505	.00428	.00265	.00464	.08156

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL2@S02 Acquired: 10/18/2016 9:18:01 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3746.6	2786.2	231730.	18113.	4542.5	41204.	7594.3
#1	3744.8	2789.5	232370.	18198.	4537.2	41301.	7629.1
#2	3749.5	2783.4	231360.	18028.	4552.0	41117.	7547.8
#3	3745.4	2785.8	231460.	18114.	4538.2	41195.	7605.9

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/18/2016 9:22:30 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00357	.05981	.01317	.04810	3.3474	.04924	.02942	.12031	.10367	.00209	.07916
#1	.00357	.05929	.01289	.04826	3.3463	.04936	.02946	.12073	.10386	.00210	.07917
#2	.00350	.05950	.01342	.04810	3.3425	.04917	.02938	.12019	.10337	.00209	.07908
#3	.00365	.06065	.01320	.04793	3.3533	.04918	.02943	.12001	.10378	.00209	.07921

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02769	.13197	.03005	.02614	.05178	.02310	.52669	.15765	.10526	.02421	.07286
#1	.02781	.13226	.03031	.02634	.05175	.02312	.52823	.15847	.10548	.02405	.07276
#2	.02754	.13088	.03018	.02590	.05164	.02313	.52467	.15694	.10559	.02434	.07316
#3	.02772	.13276	.02966	.02619	.05195	.02305	.52718	.15755	.10471	.02425	.07265

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01677	.00889	.00523	.01965	.12238	.01511	.02305	.03645	.62854
#1	.01673	.00895	.00524	.01952	.12240	.01535	.02328	.03653	.63119
#2	.01702	.00882	.00523	.01973	.12213	.01486	.02289	.03635	.62439
#3	.01655	.00892	.00521	.01971	.12261	.01512	.02297	.03647	.63004

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/18/2016 9:22:30 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3684.2	2761.5	231690.	18045.	4526.1	40994.	7535.3
#1	3680.7	2755.2	232120.	17859.	4526.4	41020.	7472.0
#2	3687.9	2774.0	230920.	18169.	4520.6	40983.	7567.6
#3	3684.1	2755.3	232030.	18107.	4531.4	40979.	7566.2

Sample Name: SEQ-CAL4@S04 Acquired: 10/18/2016 9:26:49 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02262	.30272	.06957	.21905	16.959	.25510	.15085	.60453	.51954	.01044	.39646
#1	.02263	.30041	.06944	.21859	16.874	.25566	.14981	.60211	.51891	.01044	.39744
#2	.02260	.30290	.06928	.21863	16.962	.25480	.15132	.60382	.51778	.01042	.39654
#3	.02263	.30483	.06999	.21995	17.039	.25483	.15141	.60765	.52192	.01046	.39540

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.13938	.63070	.15761	.13122	.26237	.11701	2.6303	.80875	.53784	.12438	.37018
#1	.13904	.62742	.15771	.13025	.26022	.11698	2.6117	.80667	.53712	.12472	.37055
#2	.13939	.63067	.15815	.13093	.26254	.11691	2.6338	.80621	.53633	.12349	.36874
#3	.13972	.63401	.15696	.13248	.26434	.11713	2.6453	.81336	.54006	.12492	.37125

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08968	.04378	.02553	.09823	.61684	.06558	.11698	.18568	3.2173
#1	.08973	.04368	.02542	.09819	.61395	.06532	.11676	.18595	3.2050
#2	.08946	.04368	.02555	.09778	.61783	.06574	.11674	.18545	3.2128
#3	.08986	.04400	.02561	.09871	.61874	.06568	.11743	.18562	3.2342

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL4@S04 Acquired: 10/18/2016 9:26:49 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3506.6	2652.1	228860.	18034.	4473.2	40315.	7515.5
#1	3516.5	2659.5	229090.	18117.	4484.8	40305.	7548.1
#2	3507.8	2654.9	229120.	17994.	4476.7	40306.	7512.8
#3	3495.5	2641.8	228370.	17990.	4458.1	40334.	7485.5

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/18/2016 9:30:58 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11635	1.5129	.36733	1.0485	82.956	1.2738	.74644	2.9203	2.5083	.05137	2.0470
#1	.11653	1.5133	.36663	1.0471	82.811	1.2731	.74700	2.9206	2.5085	.05137	2.0448
#2	.11640	1.5159	.36785	1.0485	83.019	1.2729	.74660	2.9222	2.5087	.05134	2.0403
#3	.11613	1.5095	.36749	1.0499	83.039	1.2754	.74573	2.9180	2.5078	.05141	2.0560

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.68818	3.1804	.81023	.65224	1.2885	.58445	13.493	4.0648	2.6352	.62479	1.8719
#1	.68899	3.1795	.81047	.65399	1.2885	.58422	13.464	4.0603	2.6349	.62414	1.8713
#2	.68897	3.1890	.81139	.65146	1.2922	.58452	13.538	4.0743	2.6347	.62612	1.8684
#3	.68659	3.1727	.80883	.65126	1.2848	.58462	13.476	4.0599	2.6361	.62410	1.8760

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.45151	.21305	.12550	.48072	3.0586	.31482	.57676	.92402	16.146
#1	.45148	.21311	.12540	.48060	3.0675	.31449	.57655	.92394	16.149
#2	.45079	.21276	.12546	.48074	3.0575	.31482	.57710	.92442	16.169
#3	.45227	.21328	.12564	.48083	3.0509	.31515	.57662	.92371	16.118

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/18/2016 9:30:58 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.0	2434.0	219490.	18060.	4285.9	38640.	7441.7
#1	3182.6	2437.5	219680.	17993.	4289.4	38686.	7430.8
#2	3175.0	2429.0	219560.	18172.	4282.4	38636.	7466.1
#3	3182.4	2435.5	219220.	18014.	4285.8	38599.	7428.2

Sample Name: SEQ-CAL6@S06 Acquired: 10/18/2016 9:35:10 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.23507	3.0543	.75480	2.0577	164.35	2.5186	1.4755	5.7323	4.9382	.10102	4.2893
#1	.23544	3.0586	.75579	2.0504	164.30	2.5144	1.4785	5.7300	4.9309	.10082	4.3016
#2	.23562	3.0607	.75361	2.0593	164.81	2.5246	1.4772	5.7360	4.9427	.10144	4.2853
#3	.23415	3.0437	.75498	2.0633	163.94	2.5169	1.4707	5.7307	4.9411	.10081	4.2809

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3599	6.4461	1.6497	1.3118	2.5480	1.1606	27.112	8.1042	5.1398	1.2359	3.7538
#1	1.3615	6.4511	1.6451	1.3160	2.5568	1.1598	27.094	8.1135	5.1287	1.2378	3.7434
#2	1.3620	6.4563	1.6536	1.3170	2.5491	1.1610	27.121	8.0890	5.1494	1.2345	3.7597
#3	1.3562	6.4309	1.6503	1.3024	2.5382	1.1611	27.122	8.1100	5.1415	1.2353	3.7583

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.91434	.42040	.25072	.94456	6.1495	.62262	1.1320	1.8398	31.777
#1	.91158	.41976	.25088	.94285	6.1447	.62116	1.1282	1.8383	31.854
#2	.91496	.42066	.25135	.94681	6.1760	.62449	1.1334	1.8438	31.728
#3	.91649	.42079	.24992	.94401	6.1278	.62221	1.1343	1.8375	31.749

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL6@S06 Acquired: 10/18/2016 9:35:10 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2968.0	2306.6	213700.	17916.	4136.4	37565.	7369.8
#1	2974.4	2303.8	214350.	17820.	4142.6	37651.	7317.8
#2	2964.9	2310.8	212820.	17784.	4132.4	37460.	7339.3
#3	2964.8	2305.1	213910.	18145.	4134.2	37585.	7452.2

Bonner Analytical Testing Company

Sample Name: SEQ-CAL7@S07 Acquired: 10/18/2016 9:39:21 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Ca3181	Cr2677	Fe2598	K_7664	Mg2790	Mn2576	Na5895	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	24.298	5.6572	.24056	9.0322	15.460	5.1956	6.4141	53.799	3.0457
#1	24.353	5.6603	.24024	9.0353	15.499	5.1988	6.4233	53.627	3.0552
#2	24.149	5.6293	.24104	8.9808	15.367	5.1719	6.3768	53.625	3.0482
#3	24.393	5.6821	.24039	9.0804	15.514	5.2159	6.4423	54.146	3.0339

Int. Std.	Sc2273	Sc3572	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	1993.6	197810.	7088.9
#1	1988.6	198260.	7086.8
#2	1990.1	197390.	7094.2
#3	2002.1	197770.	7085.7

Sample Name: SEQ-CAL8@S08 Acquired: 10/18/2016 9:43:48 Type: Cal
Method: ISM02.3_TotalMetals(v2) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Fe2598	Pb2203
Units	Cts/S	Cts/S	Cts/S
Avg	29.697	11.726	7.9476
#1	29.660	11.718	7.9633
#2	29.681	11.724	7.9584
#3	29.751	11.737	7.9211

Int. Std.	Sc2273	Y_3710
Units	Cts/S	Cts/S
Avg	2372.1	7607.5
#1	2371.9	7589.1
#2	2367.0	7605.3
#3	2377.5	7628.1

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/18/2016 9:48:09 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	499.19	2583.1	W 942.45	F -1.5880	518.04	501.72	10501.	518.55	517.75
Stddev	1.78	2.3	2.47	.3029	.48	1.31	41.	.68	.53
%RSD	.35583	.08865	.26173	19.074	.09212	.26109	.38731	.13126	.10249
#1	500.59	2581.3	945.14	-1.3065	517.51	502.49	10542.	519.13	518.33
#2	497.19	2585.7	940.30	-1.9085	518.44	502.46	10461.	518.72	517.61
#3	499.78	2582.4	941.90	-1.5491	518.17	500.21	10501.	517.80	517.30

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 525.21	471.50	5280.6	9726.1	-1.2765	6126.3	W 526.84	-.31515	9780.3
Stddev	1.30	.51	7.2	12.0	.3386	19.5	.54	.16038	9.8
%RSD	.24682	.10848	.13676	.12296	26.528	.31811	.10340	50.890	.10018
#1	526.39	471.97	5272.5	9738.1	-.88686	6141.2	527.47	-.37809	9770.3
#2	525.44	471.56	5286.2	9725.9	-1.4428	6104.3	526.52	-.13285	9789.8
#3	523.82	470.96	5283.3	9714.2	-1.4998	6133.4	526.53	-.43451	9780.9

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	499.77	.43506	1002.7	F -.68818	995.59	1016.4	F -3.0111	F -.00792	F 11.985
Stddev	1.93	.25086	4.9	1.8675	2.40	.5	6.0064	.38018	.057
%RSD	.38598	57.660	.48572	271.37	.24145	.04676	199.47	4800.7	.47967
#1	501.80	.31271	1007.8	1.4665	997.57	1016.9	-4.2920	-.09916	11.944
#2	499.57	.26885	1002.0	-1.8404	992.92	1016.3	-8.2737	.40958	12.051
#3	497.95	.72361	998.12	-1.6907	996.29	1016.0	3.5324	-.33418	11.960

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/18/2016 9:48:09 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	F 1.5839	1040.2	500.76	1007.8
Stddev	.9586	.9	1.17	3.6
%RSD	60.519	.09007	.23264	.36061
#1	2.4870	1039.8	501.54	1011.2
#2	1.6866	1041.3	501.32	1008.1
#3	.57817	1039.6	499.42	1004.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3558.2	2646.5	227650.	17659.	4458.8	40302.	7452.5
Stddev	5.6	6.4	403.	23.	2.7	60.	17.7
%RSD	.15641	.24322	.17686	.12766	.06063	.14902	.23797
#1	3563.5	2641.4	227270.	17653.	4459.2	40247.	7433.1
#2	3552.4	2644.4	227600.	17684.	4455.9	40292.	7467.9
#3	3558.6	2653.7	228080.	17640.	4461.3	40366.	7456.6

Sample Name: SEQ-ICB@ICB01 Acquired: 10/18/2016 9:52:19 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08515	-4.0487	.13799	-1.2109	-.06111	.00510	3.2128	.05245	.07058	-.08100	.33779
Stddev	.46471	10.323	.11129	.1975	.01683	.00646	4.8774	.05942	.04117	.25091	.24925
%RSD	545.75	254.97	80.649	16.306	27.542	126.69	151.81	113.28	58.337	309.75	73.789
#1	.40318	-8.7376	.04849	-1.1640	-.04819	.00512	2.2116	.10771	.02543	.20792	.52779
#2	-.13669	-11.195	.10289	-1.4276	-.08014	.01154	-1.0862	.06005	.08026	-.24411	.05557
#3	-.52194	7.7863	.26260	-1.0411	-.05499	-.00137	8.5131	-.01040	.10605	-.20682	.43000

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.46470	-89.155	-1.0269	-5.7485	.04472	-.15300	-9.4314	-.26952	-.06624	-.28822	-2.6402
Stddev	1.0452	12.028	.4271	13.566	.39922	.06600	7.9852	.42611	.27635	.89162	.8326
%RSD	224.91	13.492	41.586	236.00	892.79	43.139	84.666	158.10	417.17	309.35	31.533
#1	1.6501	-97.637	-1.5197	-20.937	.47331	-.07685	-3.9337	-.66933	.23678	-1.1009	-2.3832
#2	.06791	-94.438	-.76330	5.1669	-.31657	-.18848	-5.7698	.17875	-.13114	.66550	-1.9665
#3	-.32397	-75.389	-.79786	-1.4757	-.02260	-.19369	-18.591	-.31799	-.30437	-.42925	-3.5710

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.2853	-1.3991	-.17473	.04982	.01943	.87296	-.64560	-.13923	-.28895
Stddev	.4476	.9934	9.8599	.44474	.02213	.44257	.83128	.20398	.04037
%RSD	34.826	71.001	5642.8	892.68	113.87	50.698	128.76	146.51	13.973
#1	1.2930	-1.7889	-11.545	.26535	-.00385	1.3836	-.12487	-.26319	-.24880
#2	1.7290	-2.1385	4.9989	-.46162	.02196	.60117	-1.6043	-.25070	-.28850
#3	.83390	-.26996	6.0216	.34573	.04019	.63405	-.20764	.09620	-.32955

Sample Name: SEQ-ICB@ICB01 Acquired: 10/18/2016 9:52:19 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3750.5	2777.3	228660.	17561.	4512.2	40747.	7403.7
Stddev	5.8	2.2	1346.	47.	4.2	241.	40.6
%RSD	.15494	.08090	.58869	.26747	.09282	.59171	.54788
#1	3744.1	2776.5	227510.	17511.	4507.7	40509.	7358.9
#2	3755.4	2775.5	230140.	17570.	4516.0	40991.	7414.2
#3	3752.1	2779.8	228330.	17603.	4512.9	40740.	7437.9

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/18/2016 10:14:01 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8475	258090.	-7.7069	-.66849	5.8151	-.08487	245130.	4.1693	-.22733	59.364
Stddev	.2920	327.	1.5551	.33554	.1565	.00732	665.	.1034	.13090	.175
%RSD	15.804	.12651	20.178	50.194	2.6920	8.6262	.27137	2.4788	57.583	.29537
#1	1.8206	258410.	-9.4685	-.51384	5.6881	-.07901	245870.	4.2672	-.37130	59.430
#2	2.1520	257750.	-7.1275	-1.0535	5.7672	-.08251	244930.	4.1793	-.19524	59.166
#3	1.5699	258110.	-6.5247	-.43817	5.9900	-.09308	244590.	4.0613	-.11546	59.497

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-8.6147	100080.	-46.849	.79480	261950.	11.317	.47908	31.299	.58535	-8.4040
Stddev	.2874	201.	4.538	.29890	309.	.252	.16684	3.957	.31475	1.0782
%RSD	3.3366	.20052	9.6857	37.607	.11786	2.2263	34.826	12.643	53.771	12.829
#1	-8.3103	100290.	-50.285	.47453	262300.	11.071	.61812	30.441	.59193	-7.3873
#2	-8.6523	100060.	-48.557	.84353	261720.	11.575	.29407	35.615	.26737	-9.5346
#3	-8.8815	99895.	-41.705	1.0663	261840.	11.307	.52506	27.841	.89676	-8.2901

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-4.0112	-40.306	4.0677	2.5861	12.271	.53503	101.82	5.8891	-1.5694	.82632
Stddev	.0428	.971	1.0280	2.6111	1.455	.39294	.46	.9602	1.1980	.11201
%RSD	1.0681	2.4087	25.272	100.97	11.854	73.442	.44843	16.304	76.337	13.555
#1	-3.9658	-41.341	2.9112	-.09149	10.632	.91326	102.22	6.9168	-.58120	.71032
#2	-4.0509	-39.415	4.4142	5.1252	13.409	.12888	101.32	5.7353	-2.9019	.83479
#3	-4.0170	-40.164	4.8776	2.7245	12.773	.56296	101.92	5.0151	-1.2251	.93385

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/18/2016 10:14:01 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1.7625
Stddev	.0623
%RSD	3.5359
#1	1.7208
#2	1.8341
#3	1.7325

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.3	2173.7	208370.	17358.	4147.1	36976.	7211.1
Stddev	16.7	9.4	834.	76.	17.5	108.	14.5
%RSD	.57330	.43419	.40036	.43657	.42257	.29325	.20073
#1	2918.9	2180.3	207410.	17279.	4153.1	36882.	7195.4
#2	2899.8	2162.9	208960.	17430.	4127.4	37095.	7224.0
#3	2933.1	2177.9	208720.	17364.	4160.9	36952.	7213.9

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/18/2016 10:18:27 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	206.55	261320.	95.953	-2.8173	528.08	507.05	248550.	968.68	475.50	575.26
Stddev	.29	147.	.663	.6721	.45	.81	508.	1.16	.39	2.09
%RSD	.14258	.05638	.69123	23.855	.08573	.16057	.20448	.11962	.08227	.36251
#1	206.87	261240.	96.248	-2.7150	528.45	507.52	249090.	969.90	475.57	575.66
#2	206.30	261490.	96.418	-3.5347	528.21	507.53	248080.	967.60	475.08	577.12
#3	206.48	261240.	95.194	-2.2023	527.57	506.11	248470.	968.54	475.86	573.01

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	483.23	101350.	-51.997	1.4404	265990.	530.76	.04404	27.034	1021.8	-8.2038
Stddev	.47	92.	7.033	.5997	358.	1.73	.02739	3.824	.9	1.0067
%RSD	.09765	.09066	13.525	41.632	.13470	.32687	62.191	14.143	.09055	12.272
#1	482.94	101420.	-59.376	1.0374	266360.	532.71	.07463	28.132	1022.4	-8.2223
#2	482.98	101380.	-51.243	1.1543	265940.	530.17	.02182	30.187	1022.2	-7.1880
#3	483.78	101250.	-45.372	2.1296	265650.	529.39	.03566	22.781	1020.7	-9.2012

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	47.887	-38.940	591.92	49.896	21.556	.12265	102.66	5.6890	101.79	494.01
Stddev	2.608	1.903	1.22	1.094	10.557	.43706	.29	.9455	2.21	.61
%RSD	5.4462	4.8876	.20612	2.1922	48.975	356.34	.28598	16.619	2.1760	.12390
#1	49.790	-38.209	590.52	50.454	26.643	-.31516	102.82	4.7882	99.309	493.35
#2	44.914	-41.101	592.55	48.636	28.608	.55895	102.84	6.6735	102.47	494.14
#3	48.956	-37.511	592.70	50.598	9.4188	.12417	102.32	5.6052	103.58	494.55

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/18/2016 10:18:27 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1048.2
Stddev	1.4
%RSD	.13583
#1	1048.8
#2	1049.1
#3	1046.5

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.0	2165.9	208740.	17269.	4143.7	36898.	7151.2
Stddev	4.0	2.4	628.	67.	4.0	25.	21.7
%RSD	.13813	.11188	.30098	.38894	.09609	.06767	.30344
#1	2910.3	2165.4	208120.	17195.	4140.2	36870.	7126.4
#2	2918.2	2163.8	208720.	17289.	4148.1	36907.	7166.6
#3	2913.4	2168.5	209380.	17324.	4142.8	36917.	7160.6

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/18/2016 10:22:42 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	512.29	143940.	2088.3	1926.6	16398.	396.96	203180.	971.28	2389.5	5832.5
Stddev	.11	88.	4.7	2.3	266.	1.21	241.	.87	.7	19.9
%RSD	.02073	.06148	.22685	.11787	1.6249	.30396	.11875	.08972	.02997	.34142
#1	512.31	143960.	2088.4	1925.4	16443.	398.15	203380.	970.73	2389.0	5851.7
#2	512.39	144010.	2083.5	1925.3	16112.	396.99	202910.	970.82	2389.2	5833.8
#3	512.18	143840.	2093.0	1929.3	16640.	395.74	203250.	972.28	2390.3	5811.9

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5033.5	127240.	143180.	1035.7	203950.	9169.0	978.14	126380.	3989.1	40525.
Stddev	15.0	36.	251.	2.0	175.	5.3	.68	186.	14.5	56.
%RSD	.29800	.02828	.17513	.19666	.08568	.05768	.06942	.14679	.36427	.13942
#1	5050.8	127270.	143430.	1037.4	203910.	9173.1	978.92	126600.	3994.5	40469.
#2	5025.3	127200.	143180.	1036.3	204140.	9163.1	977.76	126270.	3972.6	40524.
#3	5024.4	127250.	142930.	1033.5	203800.	9170.9	977.73	126280.	4000.2	40582.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5666.6	40002.	4007.9	3417.9	20356.	1907.9	1026.3	1967.0	3902.4	3961.2
Stddev	21.8	16.	5.9	.3	67.	2.1	3.8	.3	6.7	5.9
%RSD	.38525	.03884	.14674	.01010	.33016	.11267	.36761	.01758	.17214	.14904
#1	5673.3	40005.	4002.3	3417.9	20424.	1910.4	1027.5	1966.9	3903.3	3966.2
#2	5642.2	39985.	4007.4	3418.2	20354.	1907.0	1029.3	1966.7	3895.3	3962.8
#3	5684.3	40015.	4014.1	3417.6	20289.	1906.4	1022.1	1967.4	3908.6	3954.7

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/18/2016 10:22:42 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8131.0
Stddev	30.0
%RSD	.36923
#1	8139.4
#2	8097.7
#3	8156.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2817.2	2176.9	207100.	17399.	4067.8	36608.	7198.0
Stddev	4.6	7.3	503.	53.	2.7	68.	7.0
%RSD	.16316	.33507	.24265	.30568	.06598	.18534	.09718
#1	2814.8	2173.4	206760.	17367.	4064.7	36567.	7192.2
#2	2822.5	2185.3	206860.	17369.	4069.8	36570.	7196.0
#3	2814.3	2172.0	207680.	17460.	4068.9	36686.	7205.7

Bonner Analytical Testing Company

ICAPP01

Sample Name: SEQ-CCB@CCB01 Acquired: 10/18/2016 10:26:57 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.13749	4.7333	-.36526	.51600	.33234	-.00176	15.831	.04276	.07622	.03117	.00327
Stddev	.09611	1.7848	.14815	.59554	.19964	.00912	20.166	.03673	.03910	.07492	.31486
%RSD	69.908	37.708	40.562	115.41	60.071	517.04	127.39	85.877	51.295	240.36	9623.0
#1	-.21472	6.1178	-.19449	1.1848	.56132	-.01173	13.451	.04650	.03398	.04224	-.35720
#2	-.16788	5.3631	-.44181	.32013	.24091	.00027	-3.0401	.07748	.08355	.09995	.22450
#3	-.02985	2.7189	-.45947	.04307	.19479	.00616	37.081	.00431	.11113	-.04867	.14252

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.34199	-39.685	-2.1359	14.500	.22163	.08727	5.4565	-.18452	1.1020	.36904	-1.9566
Stddev	2.5302	16.340	1.0223	10.564	.16224	.27532	2.8469	.17580	.3481	.72417	.5775
%RSD	739.85	41.175	47.864	72.858	73.201	315.47	52.175	95.276	31.592	196.23	29.513
#1	3.2527	-33.965	-1.3695	26.408	.38894	.39326	7.8473	-.31185	.73725	-.42200	-1.2908
#2	-.89421	-26.974	-3.2967	10.838	.06499	.00900	2.3072	.01606	1.4307	.99933	-2.2581
#3	-1.3325	-58.117	-1.7415	6.2540	.21097	-.14044	6.2150	-.25776	1.1379	.52978	-2.3209

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9138	-.98649	3.3953	.40711	.05153	1.5176	-.04344	-.08776	-.28151
Stddev	1.0455	.66690	13.313	.72215	.07225	.0991	.64662	.05914	.04477
%RSD	54.628	67.604	392.08	177.38	140.22	6.5281	1488.6	67.389	15.905
#1	2.5572	-1.0054	12.393	1.1431	-.00433	1.4295	-.11920	-.12210	-.24605
#2	2.4769	-1.6437	-11.897	-.30030	.13312	1.4986	.63772	-.12172	-.26665
#3	.70749	-.31034	9.6903	.37850	.02579	1.6248	-.64884	-.01947	-.33182

Bonner Analytical Testing Company

ICAPP01

Sample Name: SEQ-CCB@CCB01 Acquired: 10/18/2016 10:26:57 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3764.3	2776.9	229960.	17354.	4528.0	40903.	7392.7
Stddev	10.0	4.6	1010.	140.	8.8	60.	55.5
%RSD	.26437	.16553	.43906	.80555	.19352	.14774	.75097
#1	3764.7	2774.4	229010.	17505.	4529.7	40837.	7446.0
#2	3754.1	2782.2	229840.	17230.	4518.5	40917.	7335.2
#3	3774.0	2774.2	231020.	17327.	4535.8	40956.	7396.9

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 11:30:40 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	507.15	142770.	2082.7	1912.1	16249.	394.37	201320.	964.33	2374.7	5818.3
Stddev	.75	501.	10.6	3.0	66.	.40	195.	1.61	3.9	15.8
%RSD	.14798	.35080	.50900	.15841	.40406	.10231	.09678	.16743	.16440	.27119
#1	507.98	142190.	2070.5	1910.3	16291.	394.53	201140.	965.60	2376.7	5808.4
#2	506.96	143040.	2088.9	1910.3	16173.	393.91	201300.	962.51	2370.2	5809.9
#3	506.52	143090.	2088.8	1915.6	16282.	394.67	201530.	964.87	2377.2	5836.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4990.5	126200.	142490.	1027.5	202540.	9091.7	972.70	126150.	3975.1	40473.
Stddev	16.0	357.	154.	1.8	335.	31.9	1.39	402.	20.0	78.
%RSD	.31999	.28316	.10833	.17167	.16524	.35123	.14323	.31891	.50260	.19321
#1	5007.4	125780.	142310.	1025.8	202370.	9059.5	974.15	125690.	3953.6	40491.
#2	4975.7	126410.	142600.	1029.3	202330.	9092.2	971.37	126330.	3993.1	40388.
#3	4988.4	126390.	142550.	1027.3	202930.	9123.4	972.60	126430.	3978.4	40541.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5655.8	39779.	3983.7	3397.5	20137.	1897.1	1020.8	1958.4	3874.1	3926.0
Stddev	22.3	61.	1.5	3.9	19.	6.2	2.6	8.3	12.8	4.3
%RSD	.39369	.15344	.03649	.11356	.09279	.32859	.25090	.42466	.33033	.11017
#1	5631.3	39773.	3982.5	3395.9	20131.	1903.0	1018.5	1949.2	3871.6	3929.5
#2	5674.7	39721.	3983.4	3394.8	20158.	1890.6	1023.5	1960.7	3862.8	3921.2
#3	5661.5	39843.	3985.3	3401.9	20122.	1897.6	1020.3	1965.4	3888.0	3927.3

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/18/2016 11:30:40 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8104.7
Stddev	35.2
%RSD	.43485
#1	8065.4
#2	8133.7
#3	8114.9

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.3	2183.4	208150.	17430.	4092.2	36949.	7220.0
Stddev	6.3	13.6	674.	79.	7.0	55.	31.7
%RSD	.22135	.62260	.32367	.45486	.17051	.14863	.43855
#1	2841.6	2198.9	208610.	17349.	4093.0	36976.	7196.3
#2	2842.2	2173.6	208470.	17507.	4098.6	36985.	7255.9
#3	2831.0	2177.8	207380.	17435.	4084.8	36886.	7207.7

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 11:34:54 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.26642	-.60189	-.82713	-.78907	.23446	-.01182	20.587	.00804	.00238	-.15503	.11910
Stddev	.06621	4.1051	.47065	.39267	.11588	.00889	15.853	.04985	.11764	.05236	.31397
%RSD	24.852	682.05	56.901	49.764	49.423	75.190	77.008	619.79	4943.6	33.774	263.62
#1	.34224	2.7315	-1.2908	-.44782	.36107	-.01733	38.629	.06325	-.13333	-.13535	.20694
#2	.23693	.65003	-.34976	-1.2183	.20864	-.01657	14.246	-.03367	.07532	-.21437	.37979
#3	.22007	-5.1872	-.84088	-.70112	.13367	-.00157	8.8848	-.00545	.06515	-.11536	-.22944

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.20342	-76.630	-1.4184	13.547	.26241	.02750	-5.4604	-.08432	1.8572	-.05657	-2.3043
Stddev	2.2831	18.659	.5334	6.002	.23603	.02003	2.6885	.20922	1.5023	.90511	1.3571
%RSD	1122.4	24.350	37.605	44.301	89.948	72.831	49.237	248.14	80.888	1600.1	58.897
#1	2.1276	-96.715	-2.0333	11.448	.47883	.02282	-8.3288	-.14623	3.5891	-.26228	-1.9859
#2	-.30248	-59.833	-1.1405	20.316	.29764	.04946	-5.0545	.14888	.90526	-.84111	-1.1346
#3	-2.4354	-73.343	-1.0813	8.8774	.01074	.01023	-2.9979	-.25559	1.0774	.93369	-3.7923

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4277	-1.2604	17.507	-.06169	.04148	.32406	-.87793	-.01947	-.31260
Stddev	.6012	1.8027	4.176	.19954	.05144	.16883	.63648	.21966	.17861
%RSD	42.108	143.03	23.855	323.47	124.01	52.098	72.498	1128.2	57.135
#1	1.9342	-.62423	13.581	-.20471	.09911	.22763	-.18175	-.21019	-.36666
#2	.76336	-3.2949	17.045	-.14661	.02508	.22554	-1.0220	-.06891	-.11322
#3	1.5856	.13804	21.895	.16626	.00024	.51900	-1.4300	.22070	-.45794

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB02 Acquired: 10/18/2016 11:34:54 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3784.5	2789.5	230600.	17581.	4565.9	41222.	7490.9
Stddev	4.6	6.9	506.	23.	9.0	99.	16.5
%RSD	.12038	.24587	.21957	.13215	.19819	.24092	.21964
#1	3787.6	2789.7	230490.	17554.	4576.3	41163.	7472.0
#2	3779.3	2796.2	230160.	17593.	4561.5	41167.	7498.3
#3	3786.5	2782.5	231160.	17595.	4559.9	41337.	7502.3

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 12:30:24 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	511.04	144310.	2084.7	1906.7	16299.	392.92	203650.	967.77	2380.4	5796.2
Stddev	.92	388.	9.5	6.4	137.	.59	790.	2.97	9.6	17.0
%RSD	.17983	.26858	.45775	.33386	.83935	.15104	.38796	.30658	.40500	.29327
#1	510.81	144230.	2073.9	1899.8	16355.	393.11	203320.	964.54	2369.4	5798.4
#2	510.26	144730.	2092.1	1907.8	16398.	392.26	204550.	968.38	2384.3	5778.3
#3	512.06	143960.	2088.0	1912.4	16143.	393.40	203070.	970.38	2387.4	5812.1

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4978.5	126950.	144190.	1041.4	204590.	9163.1	970.75	126860.	3977.2	40683.
Stddev	3.7	321.	301.	1.2	901.	31.8	3.49	295.	14.3	166.
%RSD	.07393	.25251	.20874	.11865	.44019	.34690	.35964	.23255	.35941	.40813
#1	4976.9	126870.	144030.	1040.0	204580.	9155.1	966.92	126990.	3961.2	40494.
#2	4975.8	127300.	144540.	1042.3	205500.	9198.2	971.58	127060.	3988.8	40750.
#3	4982.7	126680.	144000.	1041.8	203700.	9136.1	973.75	126520.	3981.6	40806.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5670.7	39675.	3976.7	3391.3	20505.	1894.5	1034.7	1968.7	3896.4	3928.9
Stddev	14.1	173.	14.2	17.0	122.	7.1	1.8	9.6	15.9	5.0
%RSD	.24860	.43727	.35792	.49984	.59391	.37303	.17482	.48530	.40884	.12754
#1	5654.5	39475.	3960.3	3374.9	20615.	1887.2	1033.2	1972.8	3878.0	3928.5
#2	5680.3	39760.	3985.2	3390.3	20526.	1895.1	1036.7	1975.4	3906.1	3924.1
#3	5677.3	39789.	3984.7	3408.7	20374.	1901.3	1034.2	1957.7	3905.0	3934.1

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/18/2016 12:30:24 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8144.5
Stddev	29.1
%RSD	.35721
#1	8111.4
#2	8166.3
#3	8155.7

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2870.8	2218.7	212420.	17352.	4166.5	37646.	7226.3
Stddev	16.0	10.9	1186.	92.	22.0	162.	42.3
%RSD	.55772	.49271	.55823	.52822	.52809	.42979	.58504
#1	2888.4	2231.3	212770.	17366.	4189.2	37699.	7233.9
#2	2867.0	2212.6	213390.	17254.	4165.2	37775.	7180.7
#3	2857.1	2212.2	211100.	17436.	4145.2	37465.	7264.2

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 12:34:38 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06973	-2.5412	-.17918	-1.4841	.43729	-.01166	31.776	.06222	.06274	-.12329	.21374
Stddev	.07147	5.7151	.91994	.0290	.18053	.01487	6.226	.02391	.13482	.12648	.11225
%RSD	102.49	224.90	513.41	1.9568	41.284	127.54	19.593	38.434	214.89	102.59	52.518
#1	-.05455	3.7615	.81702	-1.4691	.59519	.00438	36.840	.03540	-.02329	-.07561	.34051
#2	-.00708	-3.9988	-.99663	-1.4657	.47620	-.02500	33.665	.06994	-.00661	-.02758	.17378
#3	-.14757	-7.3864	-.35794	-1.5176	.24047	-.01437	24.825	.08131	.21812	-.26668	.12694

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.0492	-78.618	-1.1372	8.8316	.10585	.10777	-1.2998	-.21314	.49827	-.48813	-2.9079
Stddev	7.8873	13.348	.4758	7.3676	.17633	.05580	4.6301	.05438	.87257	.68071	.9091
%RSD	194.79	16.979	41.835	83.423	166.58	51.777	356.22	25.512	175.12	139.45	31.263
#1	12.789	-67.960	-.80484	14.599	.28034	.17213	3.9739	-.19603	.50677	.28006	-3.4669
#2	-2.5389	-74.305	-1.6822	11.364	.10948	.07826	-3.1759	-.16937	1.3666	-.72808	-1.8590
#3	1.8974	-93.590	-.92460	.53172	-.07226	.07292	-4.6974	-.27401	-.37851	-1.0164	-3.3980

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1435	-.95333	54.539	.18331	.02750	.10944	.04154	-.11187	-.13731
Stddev	1.0001	1.2090	26.323	.34521	.06913	1.3300	.61295	.04264	.04188
%RSD	87.461	126.81	48.265	188.32	251.38	1215.4	1475.6	38.118	30.500
#1	.59121	.11502	84.479	.45780	.09525	.45863	.30700	-.14919	-.13130
#2	2.2979	-2.2657	35.028	-.20426	-.04294	1.2300	.47702	-.12101	-.09876
#3	.54131	-.70932	44.110	.29640	.03020	-1.3604	-.65940	-.06539	-.18187

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Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB03 Acquired: 10/18/2016 12:34:38 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3816.5	2824.7	233600.	17464.	4619.2	41676.	7473.4
Stddev	7.1	6.1	163.	95.	7.5	29.	48.5
%RSD	.18667	.21491	.06982	.54384	.16165	.07011	.64962
#1	3823.3	2830.6	233610.	17568.	4626.6	41647.	7526.5
#2	3817.1	2825.2	233430.	17381.	4619.3	41676.	7431.3
#3	3809.1	2818.5	233760.	17443.	4611.7	41706.	7462.5

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 13:51:02 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	511.97	144280.	2101.6	1919.2	16499.	390.83	202260.	961.68	2377.0	5754.4
Stddev	1.18	112.	6.0	6.2	43.	.34	600.	2.18	6.8	14.7
%RSD	.23112	.07794	.28573	.32513	.26196	.08638	.29683	.22683	.28426	.25594
#1	512.27	144340.	2107.5	1920.4	16450.	390.58	202920.	960.09	2376.6	5745.8
#2	510.66	144360.	2095.5	1912.4	16532.	390.69	202110.	960.79	2370.5	5745.9
#3	512.97	144150.	2102.0	1924.7	16515.	391.21	201750.	964.17	2384.0	5771.4

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4983.6	125750.	145390.	1051.5	200800.	9128.0	966.93	126830.	3985.0	40916.
Stddev	11.2	128.	176.	.3	560.	16.9	2.59	74.	3.7	105.
%RSD	.22541	.10153	.12078	.02482	.27877	.18523	.26827	.05861	.09274	.25675
#1	4973.2	125830.	145490.	1051.2	201340.	9143.8	965.85	126900.	3983.2	40889.
#2	4982.3	125820.	145480.	1051.6	200820.	9130.0	965.05	126820.	3982.5	40828.
#3	4995.5	125600.	145180.	1051.8	200230.	9110.1	969.89	126750.	3989.2	41033.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5689.7	39743.	4003.7	3398.3	20416.	1881.5	1045.0	1957.8	3874.6	3926.6
Stddev	9.4	122.	9.8	7.0	86.	5.7	2.0	3.2	1.2	2.5
%RSD	.16443	.30627	.24511	.20665	.42100	.30369	.19053	.16388	.03065	.06401
#1	5693.9	39739.	3995.8	3402.2	20503.	1880.1	1045.0	1961.4	3874.7	3923.9
#2	5679.0	39623.	4000.6	3390.2	20412.	1876.7	1047.0	1956.6	3873.3	3927.0
#3	5696.2	39867.	4014.7	3402.5	20332.	1887.8	1043.0	1955.3	3875.7	3928.8

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Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/18/2016 13:51:02 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8109.8
Stddev	9.7
%RSD	.11941
#1	8098.8
#2	8113.3
#3	8117.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2861.1	2189.0	210300.	17159.	4137.7	37260.	7158.6
Stddev	4.2	3.1	520.	72.	14.9	66.	28.1
%RSD	.14801	.14292	.24738	.41808	.35967	.17803	.39223
#1	2863.4	2190.4	210750.	17082.	4140.6	37327.	7127.6
#2	2863.7	2191.2	210430.	17170.	4150.9	37260.	7165.7
#3	2856.2	2185.4	209730.	17224.	4121.6	37194.	7182.4

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 13:55:16 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14567	-2.0334	-.39478	-.25511	1.0109	-.00282	14.882	.04503	.02123	.26869	.04728
Stddev	.16768	7.7468	1.2889	.30160	.3770	.01351	3.883	.03739	.09481	.02282	.12167
%RSD	115.11	380.97	326.49	118.22	37.288	479.45	26.095	83.043	446.48	8.4945	257.34
#1	-.32875	4.1538	1.0882	-.05479	1.4429	-.00855	15.726	.00220	-.06471	.25812	-.00641
#2	-.10871	.46776	-1.2454	-.10857	.74853	-.01252	10.646	.07117	.00548	.25307	.18656
#3	.00045	-10.722	-1.0271	-.60198	.84139	.01262	18.273	.06172	.12294	.29489	-.03831

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.306	-86.377	-2.1322	24.242	.92367	.07582	-1.2790	-.03333	.46663	.48014	-2.9005
Stddev	6.236	11.159	.3213	14.717	.46314	.08149	7.2656	.17185	.87323	.75074	3.9626
%RSD	50.673	12.920	15.071	60.711	50.141	107.47	568.08	515.62	187.13	156.36	136.62
#1	18.196	-75.936	-1.9606	25.994	1.3972	.05209	7.0288	-.19835	.39246	1.3470	.60828
#2	12.949	-85.056	-1.9330	8.7265	.90213	.00884	-6.4448	.14463	1.3746	.04213	-2.1115
#3	5.7741	-98.138	-2.5029	38.004	.47168	.16654	-4.4210	-.04627	-.36715	.05127	-7.1983

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.4959	-.70892	44.261	.15454	.03388	.44988	.79605	.15851	-.16631
Stddev	.4129	1.1304	8.956	.16627	.04785	.10961	.70645	.16753	.11417
%RSD	27.601	159.46	20.234	107.59	141.22	24.365	88.744	105.69	68.650
#1	1.1311	-1.9825	54.584	.11770	.07748	.32574	1.4845	.18535	-.10852
#2	1.9441	-.32001	39.643	.33613	.04148	.49054	.83070	.31100	-.09258
#3	1.4125	.17570	38.557	.00977	-.01731	.53335	.07291	-.02081	-.29781

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/18/2016 13:55:16 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3822.6	2815.7	232920.	17267.	4617.3	41620.	7424.1
Stddev	7.6	3.3	415.	131.	8.9	97.	43.6
%RSD	.19959	.11771	.17810	.75952	.19260	.23210	.58784
#1	3825.4	2814.6	233170.	17414.	4621.2	41708.	7474.4
#2	3828.3	2819.4	233140.	17224.	4623.6	41637.	7397.0
#3	3813.9	2813.0	232440.	17162.	4607.2	41517.	7400.8

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 14:54:58 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	515.57	145860.	2109.2	1926.5	16750.	392.72	202920.	963.30	2383.8	5766.6
Stddev	.76	484.	4.8	4.2	123.	.24	328.	2.00	4.3	13.2
%RSD	.14683	.33192	.22860	.21677	.73358	.06210	.16177	.20792	.17849	.22962
#1	514.82	145320.	2112.8	1927.3	16608.	392.77	202540.	965.25	2386.7	5781.6
#2	515.55	146240.	2111.0	1922.0	16818.	392.45	203130.	961.25	2378.9	5761.3
#3	516.34	146040.	2103.7	1930.2	16824.	392.93	203090.	963.39	2385.7	5756.7

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5036.1	126440.	147320.	1067.2	201810.	9163.0	965.06	128120.	3987.3	41069.
Stddev	7.4	424.	247.	5.2	488.	18.3	1.04	229.	9.0	107.
%RSD	.14762	.33523	.16767	.48563	.24176	.19929	.10795	.17848	.22620	.26118
#1	5027.6	125980.	147040.	1061.4	201280.	9144.7	965.45	127950.	3997.5	41127.
#2	5039.5	126810.	147500.	1069.1	202240.	9181.2	963.87	128380.	3980.6	40946.
#3	5041.3	126540.	147410.	1071.2	201920.	9163.0	965.84	128030.	3983.6	41135.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5703.2	39670.	4018.3	3397.7	20468.	1875.0	1067.6	1973.1	3885.3	3958.0
Stddev	4.1	54.	7.7	7.3	140.	3.8	6.1	14.0	7.2	.9
%RSD	.07109	.13581	.19099	.21550	.68269	.20254	.56672	.70893	.18520	.02270
#1	5706.9	39708.	4016.0	3402.8	20308.	1878.4	1060.6	1957.1	3891.9	3958.5
#2	5703.8	39608.	4012.1	3389.3	20564.	1870.9	1070.9	1979.6	3877.6	3957.0
#3	5698.9	39692.	4026.9	3401.0	20533.	1875.7	1071.2	1982.7	3886.3	3958.6

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/18/2016 14:54:58 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8128.4
Stddev	16.7
%RSD	.20517
#1	8147.3
#2	8121.9
#3	8115.9

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.5	2166.5	208820.	16893.	4108.7	36982.	7085.5
Stddev	5.1	2.0	417.	93.	4.5	12.	20.6
%RSD	.18068	.09255	.19982	.55097	.10874	.03161	.29071
#1	2826.5	2166.4	208370.	16977.	4109.6	36992.	7094.8
#2	2836.2	2164.5	208900.	16910.	4112.6	36984.	7099.9
#3	2828.6	2168.5	209200.	16793.	4103.8	36969.	7061.9

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 14:59:12 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.26107	12.736	-.45738	-.22710	.97455	-.00498	11.770	.04061	.08981	.04054	.15007
Stddev	.10130	8.628	.18434	.60086	.64200	.01431	31.670	.01062	.16994	.19256	.03747
%RSD	38.802	67.743	40.302	264.59	65.876	287.71	269.07	26.153	189.23	474.94	24.968
#1	-.16373	17.799	-.31337	.22591	1.6947	.00371	48.055	.04982	.28349	.14292	.16992
#2	-.36591	2.7741	-.66513	.00152	.76669	-.02150	-10.321	.02899	-.03438	-.18158	.10685
#3	-.25356	17.636	-.39366	-.90871	.46224	.00286	-2.4230	.04301	.02032	.16029	.17344

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.9984	-78.352	-.18199	24.830	.72649	-.00273	-9.6554	-.15076	.25480	-.72637	-2.7182
Stddev	4.3390	21.487	.41994	2.785	.70923	.13849	5.4541	.11694	1.4839	.35044	.8635
%RSD	54.248	27.423	230.75	11.216	97.625	5068.4	56.487	77.567	582.39	48.245	31.768
#1	12.298	-55.081	.28864	22.131	1.5351	.11130	-6.2037	-.16407	1.6491	-.87096	-2.0573
#2	3.6209	-82.536	-.31618	27.694	.43465	.03735	-6.8194	-.02773	.42025	-.32677	-3.6952
#3	8.0765	-97.440	-.51844	24.664	.20974	-.15684	-15.943	-.26047	-1.3049	-.98139	-2.4020

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.98928	-1.5327	48.527	.33185	.09816	.01461	-.10770	-.05386	-.24003
Stddev	.52056	2.7609	14.518	.23474	.05049	1.1964	.14968	.19452	.05100
%RSD	52.621	180.13	29.917	70.737	51.431	8190.7	138.97	361.18	21.247
#1	1.0208	.63339	65.290	.40979	.15048	-1.3473	-.19177	.03324	-.24928
#2	1.4933	-4.6415	40.341	.06806	.09427	.89598	.06511	-.27670	-.28576
#3	.45365	-.59008	39.952	.51772	.04973	.49519	-.19645	.08189	-.18503

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB05 Acquired: 10/18/2016 14:59:12 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3775.8	2777.0	232340.	17224.	4574.0	41424.	7419.5
Stddev	8.9	4.9	181.	94.	7.3	73.	28.5
%RSD	.23690	.17819	.07777	.54626	.16025	.17560	.38415
#1	3785.4	2782.7	232240.	17161.	4582.5	41475.	7390.7
#2	3767.7	2773.4	232550.	17179.	4570.4	41457.	7419.9
#3	3774.3	2775.0	232230.	17332.	4569.2	41341.	7447.7

Bonner Analytical Testing Company

Sample Name: QJ14018-BLK1 Acquired: 10/18/2016 15:03:41 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: PBS01 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.15190	-6.9647	-2.8647	-2.9190	-.01008	-.01074	25.577	.12836	-.12979	.05927	-.00910
Stddev	.07387	10.329	.2003	.1239	.15439	.01283	1.917	.04029	.11203	.37749	.13630
%RSD	48.635	148.30	6.9902	4.2428	1532.0	119.50	7.4942	31.390	86.317	636.92	1497.5
#1	-.15338	4.3399	-3.0509	-2.9731	.16820	-.00223	23.976	.09889	-.01066	.40673	-.15319
#2	-.22502	-9.3243	-2.8904	-2.7773	-.10043	-.02550	25.055	.11192	-.14569	-.34240	.11778
#3	-.07729	-15.910	-2.6529	-3.0066	-.09800	-.00449	27.701	.17427	-.23303	.11348	.00810

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.2784	-58.539	-1.0095	2.2466	.13159	.11063	-7.7257	-.45182	8.9114	1.1089	-5.3033
Stddev	7.8821	7.140	.8754	11.804	.19610	.19034	2.5306	.23164	1.1858	.9473	3.0158
%RSD	184.23	12.198	86.711	525.40	149.02	172.05	32.755	51.269	13.306	85.426	56.866
#1	12.964	-50.300	-.67932	15.851	.33886	.02215	-6.9037	-.28000	10.179	2.2002	-7.7001
#2	-2.4186	-62.375	-.34730	-3.8371	-.05100	-.01936	-10.565	-.36020	7.8288	.62720	-6.2926
#3	2.2893	-62.941	-2.0020	-5.2742	.10691	.32910	-5.7084	-.71526	8.7268	.49924	-1.9172

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.2800	.34614	45.595	9.3410	.03025	.56657	-2.4826	-.11142	1.1644
Stddev	1.0254	.80699	21.398	.2181	.07704	.50792	.5293	.04154	.1530
%RSD	44.973	233.14	46.930	2.3348	254.70	89.648	21.321	37.281	13.143
#1	1.6284	-.40549	65.072	9.5807	.11819	-.01575	-2.7238	-.07503	1.3290
#2	3.4620	.24497	49.023	9.2884	-.02534	.91825	-2.8482	-.15667	1.1377
#3	1.7497	1.1989	22.690	9.1541	-.00211	.79722	-1.8756	-.10255	1.0265

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Bonner Analytical Testing Company

Sample Name: QJ14018-BLK1 Acquired: 10/18/2016 15:03:41 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: PBS01 SDG: MH1H68 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3613.2	2492.4	228100.	16702.	4421.2	40640.	7176.1
Stddev	4.0	5.5	166.	70.	11.4	48.	24.4
%RSD	.11007	.22184	.07289	.41753	.25892	.11884	.34065
#1	3614.3	2486.5	227910.	16641.	4410.1	40585.	7148.1
#2	3608.8	2497.5	228220.	16688.	4420.4	40675.	7187.1
#3	3616.5	2493.3	228160.	16778.	4433.0	40660.	7193.2

Sample Name: QJ14018-BS1 Acquired: 10/18/2016 15:08:09 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: LCS01 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.551	418.29	16.473	-3.6156	441.00	10.195	10717.	10.509	105.85	21.820	47.738
Stddev	.493	1.99	.586	.1722	2.49	.013	124.	.062	.13	.455	.039
%RSD	2.5201	.47535	3.5567	4.7632	.56390	.13191	1.1612	.59401	.12691	2.0836	.08114
#1	19.939	418.27	15.806	-3.7173	438.13	10.180	10606.	10.467	105.89	21.663	47.783
#2	19.718	416.32	16.905	-3.7127	442.37	10.206	10693.	10.581	105.70	22.332	47.718
#3	18.997	420.29	16.708	-3.4167	442.49	10.199	10851.	10.481	105.96	21.465	47.714

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	215.03	10192.	-.59950	10192.	33.082	-.14777	10101.	85.590	10.041	21.155	-5.8063
Stddev	2.56	88.	.58033	106.	.434	.11629	54.	.335	1.411	.793	2.3366
%RSD	1.1895	.86603	96.803	1.0404	1.3115	78.701	.53115	.39098	14.055	3.7508	40.243
#1	213.26	10091.	-1.1081	10070.	32.831	-.09850	10050.	85.351	10.534	22.016	-6.4736
#2	213.87	10231.	.03268	10255.	32.831	-.28059	10095.	85.447	8.4498	20.453	-3.2086
#3	217.96	10254.	-.72311	10252.	33.583	-.06422	10157.	85.973	11.141	20.997	-7.7367

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	117.99	65.863	44.554	10.587	.81943	.37123	46.971	104.97	131.94
Stddev	1.18	2.489	13.054	.393	.06356	.17763	.438	.15	.82
%RSD	1.0038	3.7791	29.298	3.7130	7.7564	47.848	.93308	.13892	.61872
#1	119.24	63.070	35.987	11.041	.89275	.16906	47.389	105.07	131.04
#2	117.87	66.674	59.578	10.340	.77993	.44238	47.008	104.80	132.18
#3	116.88	67.846	38.098	10.382	.78562	.50226	46.515	105.04	132.62

Bonner Analytical Testing Company ICAPP01

Sample Name: QJ14018-BS1 Acquired: 10/18/2016 15:08:09 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: LCS01 SDG: MH1H68 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3431.2	2384.3	224400.	16540.	4354.2	39643.	7070.6
Stddev	6.3	4.9	968.	63.	6.3	127.	32.9
%RSD	.18251	.20629	.43152	.38385	.14434	.32061	.46554
#1	3437.7	2389.6	223480.	16540.	4361.4	39517.	7084.5
#2	3430.9	2379.8	224300.	16604.	4349.7	39642.	7094.3
#3	3425.2	2383.6	225410.	16477.	4351.4	39771.	7033.0

Bonner Analytical Testing Company

Sample Name: 6100168-01 Acquired: 10/18/2016 15:12:32 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H68 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.963	75187.	251.78	4.8106	1332.0	.84591	13453.	8.4740	16.741	43.766
#1	10.782	75029.	251.08	4.9069	1332.9	.85023	13370.	8.5460	16.771	44.112
#2	10.926	75233.	253.55	4.9433	1331.8	.82499	13469.	8.3531	16.660	43.589
#3	11.182	75298.	250.72	4.5816	1331.3	.86250	13521.	8.5228	16.793	43.595

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	91.143	207080.	12737.	42.342	17144.	1651.9	8.7723	274.88	13.658	6138.3
#1	91.282	206210.	12717.	41.813	16986.	1648.7	8.7238	278.99	13.507	6135.8
#2	90.839	207150.	12695.	42.588	17192.	1652.7	8.9705	272.70	13.696	6136.5
#3	91.309	207870.	12799.	42.624	17253.	1654.5	8.6226	272.95	13.770	6142.5

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2470.9	6615.5	21.463	17.140	26425.	10.482	961.34	571.58	-2.2275	187.02
#1	2466.8	6622.5	21.855	16.676	26615.	10.498	961.65	567.62	-3.0981	186.71
#2	2470.2	6609.3	21.574	17.522	26313.	10.783	960.87	573.91	-2.2672	186.86
#3	2475.7	6614.6	20.962	17.222	26348.	10.166	961.49	573.22	-1.3171	187.51

Bonner Analytical Testing Company

Sample Name: 6100168-01 Acquired: 10/18/2016 15:12:32 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H68 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	314.50
#1	313.59
#2	315.08
#3	314.83

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3262.3	2310.2	222190.	16903.	4442.9	40097.	7319.4
#1	3266.2	2314.7	222520.	16980.	4439.5	40152.	7349.9
#2	3255.3	2306.7	221620.	16893.	4441.8	40027.	7311.6
#3	3265.3	2309.2	222440.	16836.	4447.3	40111.	7296.8

Sample Name: 6100168-02 Acquired: 10/18/2016 15:16:48 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H69 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46.823	43642.	287.17	2.2847	865.83	1.1093	7184.8	9.9953	15.755	27.815
#1	46.698	43557.	287.23	2.7255	865.61	1.1125	7144.2	10.018	15.502	27.768
#2	47.004	43615.	287.34	2.0577	863.69	1.0854	7197.0	9.9311	15.892	27.623
#3	46.768	43754.	286.95	2.0708	868.19	1.1301	7213.2	10.037	15.871	28.055

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	183.90	184160.	8789.5	26.070	11336.	1554.0	11.658	176.48	8.3974	5111.7
#1	183.07	183450.	8800.7	25.935	11225.	1547.9	11.691	179.91	8.4507	5103.7
#2	183.23	184150.	8765.1	26.257	11393.	1557.6	11.544	175.77	7.9103	5106.1
#3	185.40	184880.	8802.8	26.019	11390.	1556.6	11.738	173.75	8.8312	5125.2

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4724.5	5593.9	31.974	18.504	9701.3	202.88	442.00	336.12	-2.5820	141.38
#1	4727.4	5607.8	31.511	18.058	9747.0	203.45	442.28	336.37	-2.6614	141.03
#2	4713.1	5577.1	33.158	17.849	9668.7	202.02	441.24	336.85	-3.4623	141.22
#3	4733.0	5596.8	31.254	19.605	9688.1	203.17	442.49	335.12	-1.6222	141.90

Bonner Analytical Testing Company ICAPP01

Sample Name: 6100168-02 Acquired: 10/18/2016 15:16:48 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H69 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	837.32
#1	836.28
#2	836.54
#3	839.13

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3341.8	2368.8	225490.	16797.	4474.8	40363.	7285.2
#1	3339.5	2368.5	225240.	16828.	4468.0	40307.	7305.4
#2	3353.3	2371.5	225280.	16718.	4490.5	40314.	7258.8
#3	3332.4	2366.4	225930.	16844.	4465.9	40468.	7291.5

Bonner Analytical Testing Company

Sample Name: 6100168-03 Acquired: 10/18/2016 15:21:03 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H70 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.096	25664.	372.44	2.9623	976.91	.41494	1980.9	12.725	6.2587	19.456
#1	17.867	25480.	370.26	2.6507	971.15	.43547	1937.7	12.695	6.1258	19.378
#2	17.847	25697.	373.22	3.3824	979.84	.40349	2003.7	12.722	6.1096	19.084
#3	18.574	25815.	373.82	2.8538	979.72	.40586	2001.4	12.758	6.5406	19.907

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	249.42	241470.	7614.7	11.542	4723.1	532.76	5.6322	240.84	3.2941	5322.8
#1	248.81	239310.	7550.6	11.741	4694.5	528.94	5.4379	241.64	3.1876	5330.0
#2	250.06	242040.	7648.2	11.659	4703.7	534.95	5.5030	241.05	2.9034	5303.9
#3	249.37	243050.	7645.2	11.225	4771.2	534.40	5.9558	239.82	3.7914	5334.3

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3135.0	19648.	11.234	14.358	13709.	8.8529	1032.4	230.27	-4.0262	68.370
#1	3132.8	19675.	10.419	16.202	13688.	8.6733	1028.3	228.26	-4.7687	68.316
#2	3137.8	19583.	12.670	16.143	13660.	8.9579	1033.3	228.11	-2.3926	68.403
#3	3134.4	19687.	10.612	10.729	13779.	8.9276	1035.5	234.44	-4.9172	68.390

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Bonner Analytical Testing Company

Sample Name: 6100168-03 Acquired: 10/18/2016 15:21:03 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H70 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	854.38
#1	853.03
#2	853.71
#3	856.39

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3371.1	2371.2	226070.	16977.	4446.1	40242.	7294.4
#1	3371.8	2370.7	225880.	16944.	4439.3	40190.	7293.3
#2	3375.1	2371.4	225560.	17107.	4460.5	40159.	7336.5
#3	3366.3	2371.4	226780.	16881.	4438.6	40375.	7253.4

Sample Name: 6100168-04 Acquired: 10/18/2016 15:25:20 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	24.269	39988.	441.35	2.6974	1190.0	.79978	2508.2	31.679	17.282	24.661
#1	24.265	39911.	440.08	2.5564	1188.2	.79801	2491.7	31.661	17.285	24.306
#2	24.533	39968.	442.09	2.4439	1188.5	.79089	2525.7	31.648	17.290	24.905
#3	24.009	40084.	441.88	3.0919	1193.2	.81044	2507.2	31.729	17.271	24.771

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	383.27	220910.	8706.4	24.117	10617.	1091.1	8.7942	206.97	9.8248	5976.0
#1	383.55	220340.	8688.1	23.978	10569.	1090.7	8.8627	207.99	9.8856	5973.6
#2	382.92	220950.	8724.7	24.054	10656.	1088.6	8.7321	208.60	9.5192	5960.2
#3	383.35	221440.	8706.5	24.319	10627.	1094.2	8.7877	204.33	10.070	5994.2

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3876.4	14958.	15.482	21.139	10817.	15.929	356.56	308.20	-4.1611	116.69
#1	3864.7	14936.	14.992	21.853	10850.	16.003	356.30	309.20	-3.9238	116.66
#2	3862.9	14902.	15.229	21.532	10831.	15.945	356.99	308.70	-3.4599	116.88
#3	3901.7	15036.	16.224	20.033	10772.	15.840	356.39	306.71	-5.0995	116.51

Bonner Analytical Testing Company ICAPP01

Sample Name: 6100168-04 Acquired: 10/18/2016 15:25:20 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	5113.3
#1	5106.5
#2	5100.4
#3	5132.9

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3359.4	2387.5	225700.	16975.	4494.5	40508.	7353.4
#1	3358.0	2388.5	225320.	16860.	4497.1	40446.	7309.6
#2	3361.8	2395.0	225630.	16936.	4508.1	40477.	7340.3
#3	3358.5	2379.0	226150.	17128.	4478.3	40602.	7410.4

Bonner Analytical Testing Company

Sample Name: QJ14018-MS1 Acquired: 10/18/2016 15:29:37 Type: RQC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71S SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 94.445	47681.	518.77	3.1653	4678.9	82.234	2642.6	F 105.89	824.73
Stddev	.592	342.	2.39	.5038	21.5	.175	43.7	.30	2.38
%RSD	.62706	.71680	.46109	15.918	.45869	.21307	1.6534	.27945	.28893
#1	95.097	47289.	516.37	3.7140	4654.2	82.360	2592.7	106.18	825.77
#2	93.941	47841.	521.15	3.0585	4689.3	82.034	2660.9	105.59	822.01
#3	94.297	47913.	518.79	2.7234	4693.2	82.308	2674.2	105.89	826.42
Check ?	Chk Fail	None	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
Value	100.00							100.00	
Range	-25.000%							-25.000%	
Recovery	70.176	None	77.418	None	3488.9	81.434	None		807.45
% Recovery	70.176%		96.773%		87.223%	81.434%		74.211	80.745%
								74.211%	

Bonner Analytical Testing Company

Sample Name: QJ14018-MS1 Acquired: 10/18/2016 15:29:37 Type: RQC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71S SDG: MH1H68 Case: 46282
Comment:

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	371.68	758.87	F 230380.	9164.3	25.699	11172.	2032.3	8.5917	F 217.04
Stddev	.50	2.26	1786.	42.2	.312	114.	14.6	.0111	4.59
%RSD	.13350	.29806	.77536	.46078	1.2130	1.0169	.71616	.12954	2.1135
#1	371.24	758.61	228320.	9117.0	25.630	11047.	2015.6	8.6045	212.47
#2	372.22	761.25	231360.	9177.7	26.039	11268.	2039.7	8.5857	217.02
#3	371.59	756.75	231470.	9198.3	25.427	11202.	2041.7	8.5848	221.64
Check ?	Chk Pass	Chk Pass	Chk Fail	None	None	None	Chk Pass	None	Chk Fail
Value			1000.0						4000.0
Range			25.000%						-25.000%
Recovery	347.02	375.60	9472.8	None	None	None	941.20	None	10.070
% Recovery	86.755%	75.120%	947.28%				94.120%		.25175%

Bonner Analytical Testing Company

Sample Name: QJ14018-MS1 Acquired: 10/18/2016 15:29:37 Type: RQC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71S SDG: MH1H68 Case: 46282
Comment:

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	864.38	6828.6	F 3615.5	15383.	F 39.336	F 159.41	13543.	14.553	F 494.19
Stddev	.87	4.3	3.8	21.	.776	1.55	36.	.523	3.50
%RSD	.10033	.06370	.10475	.13341	1.9727	.97546	.26908	3.5968	.70910
#1	864.80	6829.8	3616.5	15393.	40.153	157.61	13501.	13.966	490.15
#2	863.39	6823.8	3611.3	15359.	38.609	160.28	13566.	14.722	495.98
#3	864.97	6832.3	3618.6	15396.	39.246	160.33	13562.	14.972	496.43
Check ?	Chk Pass	None	Chk Fail	None	Chk Fail	Chk Fail	None	None	Chk Fail
Value			40.000		200.00	200.00			100.00
Range			-25.000%		-25.000%	-25.000%			25.000%
	854.56	None		None			None	None	
Recovery	85.456%		-260.93		23.855	138.27			137.63
% Recovery			-652.33%		11.927%	69.134%			137.63%

Bonner Analytical Testing Company

Sample Name: QJ14018-MS1 Acquired: 10/18/2016 15:29:37 Type: RQC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71S SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	F 344.96	75.253	919.35	F 5133.6
Stddev	2.97	1.430	1.01	9.4
%RSD	.86158	1.9001	.10995	.18299
#1	341.72	76.704	920.51	5143.0
#2	347.56	75.208	918.78	5124.2
#3	345.60	73.846	918.75	5133.6
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	100.00			1000.0
Range	-25.000%			-25.000%
		79.414	802.66	
Recovery	36.760	79.414%	80.266%	20.344
% Recovery	36.760%			2.0344%

Bonner Analytical Testing Company

Sample Name: QJ14018-MS1 Acquired: 10/18/2016 15:29:37 Type: RQC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71S SDG: MH1H68 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3326.4	2364.9	224400.	17076.	4477.1	40418.	7390.6
Stddev	4.5	2.3	578.	103.	6.8	117.	32.1
%RSD	.13639	.09626	.25768	.60498	.15185	.28905	.43408
#1	3321.1	2362.7	223790.	17176.	4470.1	40297.	7407.4
#2	3329.2	2364.7	224940.	16969.	4483.7	40530.	7353.6
#3	3328.8	2367.2	224480.	17082.	4477.4	40427.	7410.9

Bonner Analytical Testing Company

Sample Name: QJ14018-DUP1 Acquired: 10/18/2016 15:33:48 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71D SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27.742	56993.	633.68	4.5468	1664.5	1.2845	3867.0	39.384	28.497	35.126
#1	27.300	56583.	635.46	4.1156	1659.3	1.3006	3836.0	39.347	28.633	35.090
#2	28.213	57205.	629.64	4.2873	1667.4	1.2797	3877.0	39.274	28.383	34.790
#3	27.714	57191.	635.94	5.2376	1666.7	1.2732	3887.9	39.532	28.477	35.497

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	541.76	311440.	11724.	35.748	14570.	1847.7	11.550	303.04	17.483	8677.1
#1	542.09	308310.	11680.	36.064	14370.	1823.6	11.711	303.24	17.516	8676.0
#2	542.48	312840.	11742.	35.488	14657.	1857.3	11.406	303.35	16.993	8665.0
#3	540.70	313160.	11748.	35.694	14683.	1862.2	11.532	302.54	17.939	8690.5

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4798.8	20355.	20.209	26.764	17327.	14.107	534.04	431.94	-4.5063	155.86
#1	4796.7	20377.	20.209	27.686	17289.	14.379	532.12	428.65	-3.5878	154.97
#2	4778.9	20311.	19.893	28.249	17481.	14.558	534.27	444.39	-5.4991	156.56
#3	4820.8	20377.	20.525	24.357	17213.	13.384	535.71	422.78	-4.4319	156.05

Bonner Analytical Testing Company

Sample Name: QJ14018-DUP1 Acquired: 10/18/2016 15:33:48 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71D SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	6675.6
#1	6670.1
#2	6650.9
#3	6705.7

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3251.6	2293.3	222460.	16772.	4448.7	40092.	7307.7
#1	3251.9	2288.6	222510.	16821.	4450.0	40123.	7336.1
#2	3254.4	2301.7	222840.	16745.	4452.0	40102.	7279.2
#3	3248.4	2289.5	222030.	16751.	4444.2	40052.	7307.7

Bonner Analytical Testing Company

Sample Name: SEQ-SRD1 Acquired: 10/18/2016 15:38:04 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71L SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.1274	8398.5	85.325	-2.0202	244.07	.13351	525.41	6.7804	3.6196	5.0171	78.754
#1	5.1489	8370.5	84.659	-1.4628	243.17	.14616	547.89	6.7803	3.4373	5.0717	79.003
#2	5.2817	8428.8	86.444	-2.4872	245.12	.13509	526.37	6.7816	3.7918	5.0270	78.365
#3	4.9517	8396.1	84.872	-2.1106	243.91	.11928	501.96	6.7794	3.6296	4.9527	78.893

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	46205.	1703.3	3.1552	2230.4	226.51	1.8257	29.576	1.1950	1269.4	771.59	3235.2
#1	46075.	1698.9	2.7785	2228.2	225.26	1.9181	30.509	1.4647	1269.9	770.30	3235.9
#2	46355.	1699.8	3.1797	2233.7	226.85	1.9818	33.525	1.0281	1270.1	772.07	3232.8
#3	46184.	1711.2	3.5074	2229.2	227.42	1.5771	24.694	1.0923	1268.2	772.39	3236.8

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.2591	4.7203	2792.6	3.6176	72.956	66.746	-1.7104	23.860	999.62
#1	4.3271	4.0760	2753.8	3.7301	73.639	64.290	-1.2176	23.764	1000.1
#2	2.2202	3.9942	2822.0	3.4256	72.854	65.845	-2.0763	23.908	999.72
#3	3.2300	6.0905	2801.9	3.6970	72.375	70.102	-1.8373	23.908	999.07

Bonner Analytical Testing Company

Sample Name: SEQ-SRD1 Acquired: 10/18/2016 15:38:04 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H71L SDG: MH1H68 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3655.8	2672.2	234230.	17337.	4601.2	41686.	7441.4
#1	3659.5	2677.3	234490.	17379.	4609.0	41734.	7454.1
#2	3657.5	2670.8	234270.	17259.	4600.2	41717.	7400.3
#3	3650.4	2668.5	233920.	17373.	4594.4	41607.	7469.7

Sample Name: 6100168-05 Acquired: 10/18/2016 15:42:24 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H72 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.973	41554.	338.89	1.9737	671.75	.98370	4986.3	17.678	22.938	22.315
#1	18.684	41356.	339.75	1.3952	669.33	.97148	4985.2	17.574	22.834	22.270
#2	19.543	41739.	337.40	2.5617	674.26	.98349	4961.0	17.735	23.053	22.055
#3	18.691	41568.	339.53	1.9643	671.66	.99614	5012.5	17.725	22.927	22.620

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	306.03	262710.	7977.9	24.896	11819.	1435.1	6.6698	211.63	11.362	5998.8
#1	304.99	260970.	7955.4	25.382	11694.	1427.5	6.4631	218.03	11.291	5982.5
#2	306.24	264100.	8025.2	24.844	11929.	1443.3	6.5825	206.49	11.047	5995.3
#3	306.87	263080.	7953.2	24.461	11835.	1434.3	6.9639	210.38	11.750	6018.7

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3022.4	16049.	13.991	15.320	14595.	14.279	285.23	269.77	-5.0614	94.123
#1	3016.4	16012.	13.931	16.472	14516.	14.118	283.44	273.05	-5.0654	93.948
#2	3022.2	16038.	14.081	15.019	14661.	14.175	286.83	267.28	-4.9758	93.748
#3	3028.6	16097.	13.961	14.471	14607.	14.544	285.42	268.99	-5.1432	94.672

Sample Name: 6100168-05 Acquired: 10/18/2016 15:42:24 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H72 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	1942.9
#1	1937.0
#2	1946.7
#3	1945.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3302.9	2322.5	222880.	16929.	4441.8	40105.	7344.9
#1	3297.9	2324.8	222190.	16870.	4439.8	40036.	7318.7
#2	3304.2	2318.4	223550.	16886.	4445.9	40199.	7311.4
#3	3306.6	2324.4	222900.	17029.	4439.6	40082.	7404.5

Bonner Analytical Testing Company

Sample Name: 6100168-06 Acquired: 10/18/2016 15:46:41 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H73 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.9813	42892.	472.27	5.5050	1579.6	.34961	2659.1	8.5992	14.299	28.852
#1	10.157	42815.	476.01	5.5647	1578.2	.34848	2635.6	8.5879	14.290	28.745
#2	9.7050	42844.	469.78	5.9967	1579.5	.35166	2660.0	8.5164	14.231	28.808
#3	10.082	43017.	471.02	4.9534	1581.1	.34869	2681.7	8.6934	14.376	29.002

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	221.04	212490.	12056.	28.861	11592.	1501.7	10.802	344.16	11.501	7462.5
#1	220.93	212030.	12024.	27.939	11557.	1500.1	10.980	349.71	11.343	7475.3
#2	220.92	211980.	12070.	29.349	11550.	1496.0	10.579	340.98	11.352	7445.5
#3	221.27	213470.	12073.	29.295	11671.	1508.9	10.848	341.78	11.808	7466.6

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1304.2	11416.	7.3112	21.090	11409.	11.631	551.26	529.17	-2.8594	145.22
#1	1303.8	11427.	7.4461	20.360	11449.	12.325	550.64	526.41	-2.1476	145.16
#2	1299.3	11392.	6.8285	21.758	11426.	11.025	551.23	530.24	-4.1244	145.08
#3	1309.6	11430.	7.6591	21.152	11353.	11.544	551.90	530.85	-2.3063	145.43

Bonner Analytical Testing Company

Sample Name: 6100168-06 Acquired: 10/18/2016 15:46:41 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H73 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	276.59
#1	276.39
#2	276.15
#3	277.24

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3335.7	2361.2	225750.	16810.	4463.0	40439.	7262.2
#1	3333.0	2353.7	225200.	16770.	4450.5	40355.	7237.0
#2	3338.3	2369.5	225950.	16950.	4469.4	40469.	7324.0
#3	3335.7	2360.3	226100.	16710.	4469.1	40492.	7225.8

Sample Name: 6100168-07 Acquired: 10/18/2016 15:50:59 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H74 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.507	44361.	863.76	5.6244	1041.6	.35202	745.33	12.492	11.088	32.255
#1	17.530	44186.	864.04	5.8231	1038.8	.35228	730.41	12.586	11.202	32.044
#2	17.305	44295.	865.13	5.7959	1040.4	.36352	731.17	12.394	10.790	32.493
#3	17.687	44602.	862.11	5.2542	1045.6	.34026	774.41	12.495	11.270	32.229

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	407.09	274690.	10466.	23.640	10496.	1010.9	8.4450	233.96	10.644	6498.9
#1	405.47	273140.	10429.	23.313	10427.	1006.0	8.4795	234.66	10.824	6490.8
#2	408.17	274760.	10487.	23.279	10522.	1011.8	8.4684	227.76	11.060	6501.0
#3	407.63	276170.	10483.	24.329	10541.	1014.8	8.3872	239.45	10.049	6505.1

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2254.3	12288.	13.153	25.468	13147.	10.906	283.04	484.59	-3.2741	158.54
#1	2255.7	12287.	12.799	22.073	13124.	10.140	284.07	482.56	-3.5490	158.09
#2	2257.9	12300.	12.287	28.541	13093.	11.354	281.90	478.11	-2.9671	159.00
#3	2249.3	12278.	14.372	25.790	13225.	11.224	283.15	493.11	-3.3062	158.53

Sample Name: 6100168-07 Acquired: 10/18/2016 15:50:59 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H74 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	614.34
#1	614.39
#2	615.12
#3	613.50

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3314.1	2339.3	225090.	16928.	4429.5	40016.	7261.0
#1	3305.8	2334.5	225170.	16832.	4423.6	40005.	7240.8
#2	3324.0	2337.7	224630.	17009.	4440.2	39950.	7277.6
#3	3312.3	2345.8	225460.	16943.	4424.6	40093.	7264.7

Bonner Analytical Testing Company

Sample Name: 6100168-08 Acquired: 10/18/2016 15:55:15 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H75 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	19.730	53392.	556.35	2.9218	3112.4	1.9214	1743.6	19.598	14.442
#1	20.190	53831.	557.31	3.0829	3146.5	1.9437	1763.2	19.640	14.428
#2	20.266	54043.	554.75	2.2163	3146.2	1.9138	1745.3	19.629	14.364
#3	18.733	52303.	556.98	3.4661	3044.6	1.9069	1722.5	19.524	14.536

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	35.248	389.07	F 468840.	16519.	21.962	10960.	1448.7	11.911	323.38
#1	35.297	390.12	472080.	16691.	22.844	10980.	1458.1	11.875	321.52
#2	35.135	388.98	474360.	16680.	21.974	11081.	1468.1	11.842	330.58
#3	35.312	388.11	460060.	16185.	21.069	10819.	1419.9	12.017	318.03

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.866	13958.	1843.2	18769.	13.403	28.892	13280.	11.863	1425.2
#1	12.685	13954.	1837.8	18756.	13.588	30.778	13519.	11.467	1442.2
#2	12.551	13947.	1851.4	18767.	13.657	30.579	13439.	11.816	1439.3
#3	13.361	13972.	1840.4	18784.	12.963	25.318	12881.	12.305	1394.0

Bonner Analytical Testing Company

Sample Name: 6100168-08 Acquired: 10/18/2016 15:55:15 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H75 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	371.59	-5.5789	194.95	439.52
#1	373.37	-6.0047	195.29	438.11
#2	373.42	-4.0721	194.29	440.71
#3	367.97	-6.6597	195.27	439.74

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3201.5	2280.3	222430.	16946.	4414.3	39787.	7334.9
#1	3206.1	2282.9	222140.	16726.	4413.0	39676.	7252.2
#2	3196.3	2277.7	222570.	16818.	4415.7	39822.	7272.9
#3	3202.1	2280.3	222600.	17294.	4414.2	39864.	7479.7

Sample Name: 6100168-09 Acquired: 10/18/2016 15:59:30 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H76 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30.783	41737.	637.32	5.9130	1386.3	.48861	2337.7	19.126	10.856	28.188
#1	30.950	41713.	637.03	5.9532	1383.4	.49473	2348.0	19.199	10.850	27.640
#2	31.125	42034.	635.34	5.7183	1396.8	.48253	2329.9	19.064	10.617	28.262
#3	30.274	41465.	639.60	6.0674	1378.8	.48857	2335.3	19.115	11.100	28.662

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	369.98	315120.	12514.	20.507	10061.	1019.3	15.237	282.84	9.3568	5887.3
#1	368.77	313480.	12524.	19.467	10009.	1014.9	15.179	280.70	8.9191	5875.6
#2	370.42	317420.	12595.	20.735	10164.	1026.6	15.135	286.12	9.5583	5893.1
#3	370.76	314470.	12424.	21.319	10011.	1016.3	15.399	281.70	9.5931	5893.3

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5803.0	24502.	21.186	26.103	22839.	17.427	368.41	365.89	-4.2687	126.14
#1	5799.8	24495.	23.055	25.429	23191.	17.481	369.24	364.65	-4.2992	125.71
#2	5816.9	24510.	20.121	27.190	22969.	17.521	370.30	372.77	-3.7883	126.05
#3	5792.3	24502.	20.383	25.690	22356.	17.281	365.70	360.25	-4.7185	126.66

Sample Name: 6100168-09 Acquired: 10/18/2016 15:59:30 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H76 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	2047.7
#1	2045.9
#2	2051.4
#3	2045.8

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3281.5	2307.6	222990.	16712.	4411.5	39760.	7220.1
#1	3285.8	2303.2	222940.	16639.	4412.0	39769.	7202.9
#2	3276.9	2303.7	222720.	16668.	4403.2	39768.	7191.1
#3	3281.8	2315.8	223310.	16830.	4419.3	39743.	7266.3

Bonner Analytical Testing Company

Sample Name: 6100168-10 Acquired: 10/18/2016 16:03:47 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H77 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28.931	21459.	392.49	1.7970	4067.1	.27482	1418.2	10.190	2.9367	18.187
#1	28.868	21390.	392.05	1.8858	4065.4	.25951	1402.3	10.159	3.0136	17.943
#2	28.961	21483.	392.71	1.6573	4069.4	.27879	1422.7	10.223	2.9952	18.545
#3	28.964	21506.	392.72	1.8479	4066.5	.28615	1429.5	10.187	2.8014	18.073

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	172.05	243160.	9112.3	8.9535	5622.3	795.46	18.949	243.26	.66478	7188.1
#1	170.27	242490.	9097.4	9.9626	5629.2	794.24	18.919	249.15	.57038	7187.8
#2	175.17	242950.	9131.6	9.0306	5561.1	792.73	18.978	240.78	.86007	7180.7
#3	170.70	244040.	9107.7	7.8672	5676.7	799.42	18.949	239.85	.56390	7195.9

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3144.3	11605.	35.299	28.689	9496.7	26.080	565.00	289.46	-3.4329	111.83
#1	3148.2	11586.	36.377	27.475	9456.3	26.021	565.77	289.75	-3.5764	110.48
#2	3137.1	11614.	35.479	28.879	9506.5	25.899	565.35	288.78	-3.0811	114.60
#3	3147.4	11616.	34.041	29.712	9527.3	26.319	563.86	289.85	-3.6414	110.40

Bonner Analytical Testing Company

Sample Name: 6100168-10 Acquired: 10/18/2016 16:03:47 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H77 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	221.56
#1	221.65
#2	221.25
#3	221.77

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3366.8	2373.8	224800.	16752.	4442.4	39929.	7209.4
#1	3367.2	2370.4	226350.	16734.	4447.8	40170.	7207.4
#2	3367.0	2378.4	221010.	16790.	4442.7	39260.	7227.6
#3	3366.1	2372.5	227050.	16731.	4436.7	40358.	7193.3

Bonner Analytical Testing Company

Sample Name: 6100168-11 Acquired: 10/18/2016 16:08:06 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H78 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.751	35313.	396.99	3.0496	957.52	.30186	2673.2	15.340	12.770	23.325
#1	21.581	35435.	396.57	3.2974	961.39	.32507	2674.0	15.366	12.882	23.110
#2	21.873	35383.	397.28	2.4544	957.62	.30475	2680.6	15.306	12.851	23.212
#3	21.800	35122.	397.13	3.3971	953.56	.27575	2664.9	15.350	12.579	23.653

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	281.82	256120.	8444.6	20.110	9963.1	1243.0	9.8449	192.86	7.7012	5471.9
#1	281.13	256530.	8452.6	19.582	9990.3	1245.5	9.6583	194.55	7.9092	5477.9
#2	281.86	256330.	8463.4	20.762	9975.0	1243.0	9.6914	191.29	7.8454	5469.1
#3	282.46	255500.	8417.9	19.987	9924.0	1240.5	10.185	192.73	7.3490	5468.7

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2776.1	17508.	12.924	19.918	8666.5	12.183	305.76	454.87	-3.6941	103.32
#1	2770.6	17529.	12.071	19.535	8779.0	11.799	307.16	456.48	-4.3264	102.74
#2	2780.9	17499.	12.807	20.169	8652.3	12.530	306.00	453.14	-3.4386	103.20
#3	2776.7	17497.	13.894	20.049	8568.1	12.220	304.11	454.99	-3.3174	104.02

Bonner Analytical Testing Company

Sample Name: 6100168-11 Acquired: 10/18/2016 16:08:06 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H78 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	1488.4
#1	1486.0
#2	1489.4
#3	1489.7

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3339.1	2353.2	225280.	16821.	4448.7	40232.	7265.5
#1	3344.8	2357.3	224400.	16760.	4446.9	40126.	7239.2
#2	3333.4	2349.4	225690.	16788.	4447.1	40255.	7251.7
#3	3339.3	2353.0	225760.	16916.	4452.0	40315.	7305.6

Bonner Analytical Testing Company

Sample Name: 6100168-12 Acquired: 10/18/2016 16:12:25 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H79 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	13.415	57469.	230.94	5.4074	1384.5	-3.4830	6187.5	14.336	17.698
#1	12.929	57093.	231.31	5.3636	1380.6	-3.5223	6116.2	14.310	17.894
#2	13.612	57587.	231.17	4.8204	1386.6	-3.4761	6228.3	14.302	17.516
#3	13.704	57728.	230.34	6.0382	1386.3	-3.4508	6218.0	14.395	17.685

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38.817	129.54	F 356170.	13483.	50.711	28434.	3136.5	20.520	335.70
#1	38.768	129.85	353480.	13455.	50.836	28105.	3112.7	20.713	330.42
#2	38.886	128.96	357000.	13488.	50.499	28509.	3144.1	20.250	342.16
#3	38.796	129.82	358030.	13507.	50.797	28687.	3152.7	20.598	334.54

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.751	18621.	3174.0	23907.	15.709	33.991	13138.	31.687	578.44
#1	12.818	18641.	3178.1	23960.	15.464	32.757	13151.	31.191	577.93
#2	12.880	18630.	3174.4	23918.	16.058	35.125	13103.	32.137	577.67
#3	12.556	18592.	3169.4	23842.	15.604	34.090	13158.	31.732	579.72

Bonner Analytical Testing Company

Sample Name: 6100168-12 Acquired: 10/18/2016 16:12:25 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H79 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	3656.4	-6.8285	235.25	293.05
#1	3640.6	-7.8708	234.34	293.32
#2	3658.0	-5.8890	235.63	293.29
#3	3670.8	-6.7257	235.79	292.52

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3216.1	2271.4	223120.	16814.	4445.7	40078.	7310.7
#1	3210.8	2267.7	222850.	16880.	4440.7	39986.	7353.9
#2	3220.1	2271.4	223070.	16855.	4445.5	40054.	7306.4
#3	3217.6	2275.1	223430.	16707.	4450.9	40193.	7271.8

Bonner Analytical Testing Company

Sample Name: 6100168-13 Acquired: 10/18/2016 16:16:40 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H80 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	40.399	38764.	757.80	4.5249	1519.8	.45043	2975.9	30.123	12.368
#1	40.030	38478.	757.64	4.1369	1512.5	.46843	2932.1	30.096	12.351
#2	40.329	38730.	757.59	4.8319	1519.3	.43089	2994.3	30.076	12.367
#3	40.838	39084.	758.16	4.6060	1527.4	.45196	3001.4	30.197	12.385

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	27.260	2114.5	F 455080.	10749.	23.803	11652.	1202.2	20.238	321.75
#1	27.245	2120.1	450660.	10720.	24.186	11526.	1191.1	19.840	317.90
#2	27.524	2113.0	454730.	10720.	23.857	11608.	1201.6	20.755	323.16
#3	27.010	2110.4	459860.	10808.	23.367	11822.	1213.7	20.119	324.21

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	11.850	9309.6	3138.3	39221.	35.950	29.918	17551.	24.120	402.46
#1	11.284	9319.4	3137.5	39276.	34.597	25.868	17552.	24.474	399.27
#2	12.507	9297.5	3144.5	39166.	37.801	30.729	17494.	24.197	403.18
#3	11.758	9311.7	3132.9	39223.	35.451	33.156	17605.	23.691	404.94

Bonner Analytical Testing Company

Sample Name: 6100168-13 Acquired: 10/18/2016 16:16:40 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H80 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	429.45	-4.4987	295.52	3013.5
#1	421.91	-4.0328	295.29	3009.6
#2	428.65	-4.0981	296.25	3018.8
#3	437.78	-5.3651	295.01	3012.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3220.3	2246.2	221740.	16495.	4368.0	39506.	7152.0
#1	3219.3	2245.1	220990.	16511.	4362.6	39379.	7148.1
#2	3219.1	2243.1	221260.	16575.	4376.0	39412.	7191.3
#3	3222.6	2250.4	222970.	16400.	4365.5	39726.	7116.6

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 16:20:57 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	515.60	146350.	2119.2	1931.9	16867.	394.63	202150.	966.13	2393.3	5797.3
Stddev	.49	94.	14.0	2.2	87.	.33	388.	.71	1.9	11.5
%RSD	.09489	.06446	.66258	.11612	.51613	.08384	.19218	.07389	.08133	.19874
#1	515.06	146380.	2119.5	1931.1	16868.	394.27	202240.	966.22	2393.0	5789.9
#2	515.73	146250.	2105.0	1930.3	16954.	394.69	201720.	966.80	2391.4	5810.6
#3	516.01	146430.	2133.1	1934.5	16780.	394.93	202480.	965.38	2395.3	5791.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5057.7	125960.	148350.	1076.2	200940.	9125.7	968.92	128770.	4006.3	41242.
Stddev	4.3	187.	58.	2.8	389.	10.5	1.41	252.	13.5	50.
%RSD	.08572	.14863	.03902	.26080	.19365	.11490	.14567	.19539	.33758	.12009
#1	5053.5	125830.	148410.	1073.4	201160.	9134.3	968.89	128600.	4002.1	41192.
#2	5057.4	125870.	148290.	1076.1	200490.	9114.0	967.52	129050.	3995.4	41243.
#3	5062.1	126180.	148360.	1079.1	201170.	9128.8	970.34	128640.	4021.5	41291.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5739.3	39748.	4047.8	3409.3	20515.	1875.8	1072.9	1971.5	3901.5	3969.5
Stddev	25.7	22.	6.0	11.9	34.	1.9	2.1	4.3	8.6	3.5
%RSD	.44714	.05511	.14870	.34946	.16609	.10050	.19443	.21957	.21942	.08809
#1	5729.2	39745.	4044.1	3418.7	20508.	1875.2	1073.6	1967.7	3892.1	3968.8
#2	5720.2	39727.	4044.6	3395.9	20485.	1877.9	1070.5	1976.2	3908.9	3973.3
#3	5768.4	39771.	4054.8	3413.4	20552.	1874.3	1074.5	1970.6	3903.5	3966.4

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV06 Acquired: 10/18/2016 16:20:57 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8155.7
Stddev	17.0
%RSD	.20892
#1	8148.4
#2	8143.5
#3	8175.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2857.3	2180.9	210980.	17119.	4147.6	37425.	7190.8
Stddev	11.9	11.1	448.	70.	10.4	34.	22.9
%RSD	.41643	.50945	.21212	.40629	.25169	.09091	.31876
#1	2870.3	2189.0	211310.	17075.	4158.9	37447.	7174.1
#2	2854.5	2185.4	210470.	17200.	4145.7	37385.	7216.9
#3	2847.0	2168.2	211150.	17084.	4138.2	37441.	7181.3

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 16:25:10 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09876	4.7291	-.05536	.03559	.81890	-.00860	12.077	.00556	.16692	.25514	.40566
Stddev	.14442	8.4111	.17693	.74840	.12087	.00934	13.953	.01096	.07593	.28144	.16443
%RSD	146.24	177.86	319.61	2102.6	14.760	108.49	115.53	197.09	45.486	110.31	40.535
#1	.06677	4.1090	-.12292	.58569	.69002	-.01714	.54781	.00271	.14504	.54373	.51612
#2	-.16397	-3.3548	-.18854	.33774	.92973	.00136	27.588	-.00369	.25138	.24024	.21669
#3	-.19907	13.433	.14540	-.81664	.83694	-.01004	8.0950	.01767	.10434	-.01855	.48418

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.3870	-58.110	-1.3727	14.937	.23735	.09326	-12.088	-.17043	.46054	-.26223	-2.3351
Stddev	2.8712	32.033	.7119	5.758	.37954	.14699	2.680	.14803	1.0888	.82219	1.5341
%RSD	120.29	55.125	51.865	38.550	159.91	157.62	22.168	86.859	236.43	313.54	65.699
#1	.78549	-31.099	-.97860	19.394	.32121	.20886	-14.865	-.18600	.66593	-1.1658	-1.1555
#2	.67375	-93.499	-2.1945	8.4355	-.17711	.14308	-9.5180	-.31007	1.4321	-.06288	-4.0695
#3	5.7018	-49.731	-.94489	16.980	.56793	-.07217	-11.882	-.01523	-.71638	.44196	-1.7803

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8063	-1.5861	38.979	.21573	.03702	-.76162	.27452	.06332	.04591
Stddev	.8701	1.0555	11.901	.09304	.02998	.90500	.26148	.16134	.03798
%RSD	48.171	66.551	30.531	43.129	80.973	118.82	95.248	254.78	82.720
#1	1.5486	-.97501	39.936	.10834	.02928	-.53600	.56733	.14012	.02262
#2	2.7761	-2.8049	26.628	.27199	.07011	.00921	.19189	.17192	.08974
#3	1.0941	-.97827	50.372	.26687	.01167	-1.7581	.06435	-.12206	.02538

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB06 Acquired: 10/18/2016 16:25:10 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3785.5	2777.2	231950.	17110.	4586.1	41452.	7400.9
Stddev	14.7	7.7	99.	191.	15.2	103.	73.5
%RSD	.38963	.27759	.04257	1.1150	.33077	.24928	.99329
#1	3770.2	2768.4	231870.	17003.	4572.3	41411.	7350.8
#2	3786.6	2783.0	232060.	16996.	4583.7	41570.	7366.7
#3	3799.6	2780.1	231930.	17330.	4602.3	41375.	7485.3

Bonner Analytical Testing Company

Sample Name: 6100168-14 Acquired: 10/18/2016 16:29:40 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H81 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	34.467	50542.	859.63	6.1197	1971.1	.69060	4073.2	29.315	18.441
#1	33.988	50206.	859.76	6.5798	1960.9	.65784	4030.6	29.167	18.507
#2	34.071	50296.	855.76	5.9244	1960.8	.69478	4051.3	29.262	18.089
#3	35.343	51124.	863.39	5.8551	1991.6	.71918	4137.8	29.515	18.725

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	34.042	634.66	F 390900.	11763.	35.890	17685.	1890.9	24.541	345.33
#1	33.346	632.84	388200.	11716.	34.436	17528.	1877.5	24.464	344.32
#2	34.347	635.57	388740.	11670.	36.410	17623.	1880.2	24.383	339.73
#3	34.433	635.59	395760.	11903.	36.824	17902.	1914.9	24.775	351.95

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	14.095	10402.	3756.4	21213.	37.400	31.832	14632.	30.450	577.42
#1	14.930	10391.	3746.0	21161.	38.149	32.236	14566.	30.325	574.52
#2	13.154	10378.	3748.1	21172.	36.653	31.330	14469.	29.786	573.50
#3	14.200	10437.	3775.1	21306.	37.398	31.931	14860.	31.238	584.22

Bonner Analytical Testing Company

Sample Name: 6100168-14 Acquired: 10/18/2016 16:29:40 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H81 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	482.07	-5.5475	199.53	3608.6
#1	479.71	-5.6275	198.61	3597.3
#2	478.62	-5.8678	200.04	3597.1
#3	487.88	-5.1471	199.93	3631.3

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3190.1	2242.2	219870.	16436.	4364.7	39549.	7177.4
#1	3189.9	2238.2	219610.	16395.	4359.1	39481.	7154.9
#2	3202.1	2252.1	218890.	16546.	4380.6	39360.	7217.1
#3	3178.4	2236.4	221120.	16366.	4354.5	39805.	7160.0

Sample Name: 6100168-15 Acquired: 10/18/2016 16:33:54 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H82 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	34.077	63302.	233.56	3.6118	581.51	-.06618	7625.5	58.401	36.658
#1	33.682	63024.	231.81	3.4833	581.12	-.07454	7529.0	58.327	36.911
#2	34.670	63475.	234.60	3.8249	582.25	-.05998	7692.1	58.550	36.486
#3	33.878	63408.	234.29	3.5272	581.14	-.06403	7655.5	58.328	36.578

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	39.334	620.12	F 568200.	8223.2	90.833	34284.	5287.8	36.158	398.82
#1	39.419	620.69	565280.	8239.8	91.148	33997.	5260.9	36.382	396.67
#2	39.461	620.56	570390.	8206.8	91.338	34439.	5309.6	36.012	402.43
#3	39.123	619.12	568940.	8222.9	90.012	34416.	5293.0	36.078	397.35

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	30.954	9147.1	5256.4	42336.	25.299	29.389	9740.5	17.624	581.17
#1	30.902	9142.8	5262.6	42379.	26.438	30.196	9763.5	17.969	580.15
#2	30.880	9153.9	5261.2	42391.	23.873	29.527	9681.3	17.696	582.27
#3	31.081	9144.7	5245.5	42238.	25.587	28.443	9776.7	17.207	581.10

Sample Name: 6100168-15 Acquired: 10/18/2016 16:33:54 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H82 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	1669.3	-8.4155	276.53	9334.1
#1	1655.9	-9.8848	277.37	9321.1
#2	1678.9	-7.2242	276.17	9358.0
#3	1673.1	-8.1376	276.04	9323.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3094.6	2178.2	216270.	16335.	4336.7	39022.	7156.4
#1	3089.4	2171.0	215700.	16308.	4328.0	38864.	7134.1
#2	3098.4	2177.2	215930.	16294.	4333.7	39007.	7136.6
#3	3096.1	2186.4	217190.	16403.	4348.5	39195.	7198.7

Bonner Analytical Testing Company

Sample Name: 6100168-16 Acquired: 10/18/2016 16:38:08 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H83 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	57.476	63710.	332.31	4.0545	972.62	-.86724	6143.4	38.586	39.077
#1	57.361	63384.	333.14	3.7088	970.74	-.88939	6106.2	38.524	38.992
#2	57.446	63913.	330.45	3.9610	974.89	-.85239	6140.4	38.549	39.071
#3	57.622	63832.	333.35	4.4939	972.22	-.85994	6183.7	38.683	39.170

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	51.761	794.20	F 441190.	10566.	90.384	34782.	4934.5	61.267	463.36
#1	51.702	793.84	438860.	10528.	89.949	34536.	4910.2	61.146	462.64
#2	51.791	794.02	442140.	10604.	90.932	34896.	4948.5	61.060	462.34
#3	51.790	794.74	442580.	10567.	90.270	34914.	4944.9	61.596	465.10

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	28.229	10387.	6914.7	37477.	27.204	29.349	14235.	42.199	590.41
#1	27.800	10393.	6915.4	37474.	27.266	31.079	14251.	41.490	588.62
#2	28.408	10357.	6888.9	37414.	25.725	29.731	14236.	42.284	592.14
#3	28.480	10411.	6939.7	37543.	28.620	27.236	14219.	42.822	590.48

Bonner Analytical Testing Company

Sample Name: 6100168-16 Acquired: 10/18/2016 16:38:08 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H83 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	2069.9	-7.9230	255.53	6009.9
#1	2064.6	-8.9461	256.38	6011.2
#2	2067.4	-7.4907	254.43	5985.7
#3	2077.8	-7.3323	255.77	6032.8

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.9	2220.3	219110.	16506.	4367.4	39451.	7198.7
#1	3148.8	2219.6	218690.	16503.	4370.3	39380.	7188.4
#2	3165.4	2224.8	218880.	16452.	4370.4	39468.	7187.6
#3	3156.5	2216.4	219760.	16562.	4361.6	39506.	7220.0

Sample Name: 6100168-17 Acquired: 10/18/2016 16:42:22 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H84 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.3425	94788.	87.223	5.0816	611.41	1.5672	27041.	16.442	109.64	58.815
#1	8.5356	94512.	86.304	4.5645	610.92	1.5202	26910.	16.326	109.41	58.570
#2	7.9521	94655.	87.210	5.2103	610.30	1.5930	27064.	16.436	109.83	59.088
#3	8.5400	95196.	88.156	5.4700	613.01	1.5884	27148.	16.566	109.68	58.787

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	405.45	204540.	8360.8	276.31	54111.	8067.2	9.2117	438.52	80.632	6954.3
#1	403.75	203770.	8324.3	275.91	53743.	8039.4	9.1544	439.69	80.493	6950.7
#2	404.61	204350.	8379.6	276.91	54100.	8066.2	9.2518	438.45	80.432	6944.7
#3	408.00	205490.	8378.4	276.12	54489.	8095.9	9.2289	437.43	80.969	6967.5

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1301.0	4987.0	6.7913	15.447	14970.	8.9634	424.56	2371.3	-9.1575	207.02
#1	1297.4	4977.3	7.7118	16.319	14775.	9.2572	424.40	2373.6	-10.141	206.67
#2	1300.4	4981.7	5.7264	14.470	15062.	8.6880	424.33	2374.6	-8.5827	206.84
#3	1305.2	5002.0	6.9355	15.551	15073.	8.9449	424.95	2365.8	-8.7487	207.54

Bonner Analytical Testing Company ICAPP01

Sample Name: 6100168-17 Acquired: 10/18/2016 16:42:22 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H84 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	3525.8
#1	3516.4
#2	3522.5
#3	3538.5

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3155.9	2243.3	220240.	16601.	4538.7	40900.	7459.3
#1	3152.9	2245.9	219620.	16644.	4536.5	40845.	7478.2
#2	3158.8	2243.4	220140.	16550.	4540.0	40912.	7446.5
#3	3156.1	2240.8	220970.	16610.	4539.7	40942.	7453.2

Bonner Analytical Testing Company

Sample Name: ~~6100168-18~~ 1 Acquired: 10/18/2016 16:46:36 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: [redacted] SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	9.7757	10918.	75.629	-.40693	77.585	10.590	6019.8	23.249	28.746
#1	9.3001	10865.	74.400	-.31596	77.574	10.594	6001.0	23.378	28.565
#2	10.160	10962.	75.668	-.15870	77.583	10.588	6059.4	23.170	28.967
#3	9.8671	10926.	76.818	-.74614	77.599	10.586	5998.9	23.198	28.707

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.6965	541.34	F 403880.	455.39	1.0787	637.54	2273.9	10.701	60.352
#1	-1.4888	543.22	401570.	469.70	1.4604	631.42	2263.9	10.798	57.003
#2	-1.9185	542.28	405410.	447.27	.34486	643.63	2282.1	10.777	58.890
#3	-1.6821	538.50	404660.	449.20	1.4307	637.58	2275.6	10.528	65.163

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.1271	1010.3	592.20	4218.7	8.1225	10.784	15180.	10.203	189.51
#1	1.3773	1013.9	592.51	4230.8	8.9135	7.7377	15211.	9.8582	189.29
#2	2.1750	1012.8	589.30	4211.7	7.9063	11.858	15216.	10.284	189.62
#3	2.8290	1004.1	594.79	4213.7	7.5477	12.757	15113.	10.468	189.61

10/19 weight for % S

Bonner Analytical Testing Company

Sample Name: ~~6100168-18~~ 1 Acquired: 10/18/2016 16:46:36 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: [redacted] SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	50.278	-7.8292	10.272	4755.4
#1	50.529	-8.2553	10.026	4763.7
#2	51.074	-8.0401	10.405	4746.4
#3	49.232	-7.1922	10.385	4756.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3270.4	2247.5	220320.	16301.	4487.7	40963.	7336.6
#1	3267.7	2240.8	220080.	16258.	4477.9	40888.	7318.5
#2	3268.5	2252.2	220930.	16290.	4486.6	41063.	7319.3
#3	3275.0	2249.5	219950.	16356.	4498.6	40939.	7371.9

Sample Name: 6100168-08RE1 Acquired: 10/18/2016 16:50:54 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H75 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.8304	21241.	182.56	-.38961	1106.7	.47206	627.89	6.8995	5.4484	12.908
#1	6.4568	21192.	180.66	-.04540	1102.2	.47152	617.56	6.8906	5.4679	12.504
#2	7.3010	21265.	183.58	-.69348	1109.1	.46250	638.96	6.9311	5.3620	13.537
#3	6.7333	21265.	183.44	-.42996	1108.7	.48215	627.15	6.8767	5.5152	12.682

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	134.16	167680.	6566.4	7.1159	4015.9	515.77	3.8574	120.87	1.8794	5032.0
#1	134.99	166910.	6574.2	6.5347	3974.7	513.61	3.9581	118.84	1.9469	5030.9
#2	134.07	168220.	6560.5	6.7468	4030.1	517.33	3.8605	125.80	1.6573	5037.6
#3	133.42	167890.	6564.5	8.0662	4042.9	516.38	3.7535	117.96	2.0339	5027.4

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	631.76	6778.5	5.6137	9.5648	15880.	4.6254	502.44	267.90	-2.3080	71.824
#1	630.76	6788.8	5.8547	8.9557	15995.	4.6312	501.08	288.18	-3.4047	72.144
#2	632.91	6771.8	4.6922	10.289	15727.	4.9688	503.57	267.60	-3.1800	71.861
#3	631.63	6774.9	6.2942	9.4498	15918.	4.2761	502.67	247.92	-.33939	71.468

Sample Name: 6100168-08RE1 Acquired: 10/18/2016 16:50:54 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H75 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	146.25
#1	146.37
#2	146.08
#3	146.30

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3490.6	2518.8	231320.	17047.	4568.7	41112.	7336.8
#1	3493.5	2521.7	230490.	17020.	4568.8	41021.	7343.9
#2	3487.9	2518.1	231820.	16964.	4569.4	41168.	7308.2
#3	3490.3	2516.7	231630.	17158.	4567.8	41148.	7358.1

Bonner Analytical Testing Company

Sample Name: 6100168-12RE1 Acquired: 10/18/2016 16:55:12 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H79 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.6855	33645.	114.88	2.0632	752.56	-2.0198	3252.4	7.7697	9.8353	20.869
#1	6.4117	33624.	114.10	1.8183	753.18	-2.0421	3258.6	7.7888	9.8969	20.964
#2	6.9378	33723.	115.33	2.4242	753.10	-2.0171	3263.0	7.7204	9.9745	21.179
#3	6.7070	33588.	115.22	1.9471	751.40	-2.0001	3235.6	7.7998	9.6344	20.463

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66.966	186600.	8368.9	24.635	14988.	1642.2	10.642	199.65	3.9983	10023.
#1	66.385	185930.	8405.3	24.905	14880.	1637.2	10.708	206.81	3.9756	10003.
#2	67.396	187020.	8356.8	24.501	15085.	1648.3	10.606	198.09	4.0708	10026.
#3	67.116	186850.	8344.5	24.500	15000.	1641.1	10.612	194.05	3.9486	10040.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1629.3	12929.	10.936	16.213	21761.	17.069	305.15	2061.0	-4.4918	128.74
#1	1626.8	12877.	11.678	13.961	22131.	17.229	304.88	2066.5	-4.2991	129.13
#2	1629.7	12935.	11.234	15.145	21589.	16.902	306.12	2055.4	-4.2765	128.32
#3	1631.3	12974.	9.8940	19.533	21562.	17.076	304.47	2061.1	-4.8997	128.75

Bonner Analytical Testing Company

Sample Name: 6100168-12RE1 Acquired: 10/18/2016 16:55:12 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H79 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	147.63
#1	147.70
#2	147.12
#3	148.06

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3395.3	2424.5	228140.	17106.	4497.5	40774.	7388.8
#1	3391.7	2425.9	228450.	17151.	4505.4	40746.	7410.4
#2	3397.4	2427.8	227440.	17056.	4496.2	40745.	7373.3
#3	3396.9	2419.7	228540.	17110.	4490.8	40829.	7382.8

Sample Name: 6100168-13RE1 Acquired: 10/18/2016 16:59:31 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H80 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20.461	25239.	373.63	3.1955	816.19	-.00418	1552.7	15.956	6.5266	15.644
#1	20.556	25091.	374.52	3.0179	810.46	-.00720	1541.7	16.056	6.4071	15.561
#2	20.228	25239.	372.28	3.1541	817.26	.00122	1542.1	15.949	6.4142	15.853
#3	20.600	25388.	374.09	3.4146	820.86	-.00655	1574.2	15.863	6.7586	15.517

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1078.0	234960.	7346.8	11.766	6275.1	618.50	10.133	221.45	3.4975	4917.7
#1	1076.8	233430.	7306.9	11.193	6220.6	615.20	10.001	224.93	3.3024	4928.5
#2	1082.8	234880.	7358.3	11.982	6260.4	617.58	10.397	222.28	3.8245	4924.8
#3	1074.5	236570.	7375.1	12.123	6344.2	622.74	10.000	217.15	3.3656	4899.6

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1601.6	21030.	22.981	13.905	29930.	13.583	222.08	416.13	-1.6523	160.50
#1	1602.9	21089.	22.756	12.206	29974.	13.617	221.77	411.80	-1.8226	160.65
#2	1593.7	21060.	24.484	15.710	29949.	13.644	222.41	411.72	-1.2402	160.88
#3	1608.1	20940.	21.702	13.799	29867.	13.489	222.06	424.87	-1.8942	159.96

Sample Name: 6100168-13RE1 Acquired: 10/18/2016 16:59:31 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H80 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	1497.8
#1	1497.7
#2	1491.9
#3	1503.8

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3399.7	2403.9	225460.	16879.	4444.6	40282.	7271.6
#1	3399.8	2403.6	225000.	16845.	4438.6	40166.	7270.6
#2	3399.4	2410.8	225520.	16995.	4441.0	40287.	7311.1
#3	3399.9	2397.2	225870.	16798.	4454.2	40394.	7233.0

Bonner Analytical Testing Company

Sample Name: 6100168-14RE1 Acquired: 10/18/2016 17:03:50 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H81 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	17.560	31012.	429.88	2.1086	1051.0	.10671	2158.2	15.439	10.150	19.475
#1	17.180	30989.	428.00	2.3420	1050.5	.10051	2144.1	15.421	10.209	19.502
#2	17.278	30959.	430.42	1.6506	1049.5	.14059	2164.2	15.411	10.088	19.557
#3	18.223	31088.	431.24	2.3334	1053.0	.07903	2166.3	15.483	10.153	19.366

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	327.35	204350.	7739.9	18.383	9489.3	989.47	12.452	235.42	4.6539	5527.7
#1	327.64	203850.	7750.3	18.372	9471.1	986.68	12.430	234.49	4.4167	5525.7
#2	326.39	204090.	7726.6	18.690	9503.5	991.77	12.439	235.10	5.0647	5525.2
#3	328.02	205100.	7742.9	18.088	9493.2	989.95	12.486	236.68	4.4802	5532.0

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1926.9	11314.	23.562	16.528	27559.	17.101	313.81	448.89	-3.1195	111.91
#1	1927.1	11315.	23.730	16.723	27718.	16.632	315.87	450.52	-1.8169	111.95
#2	1925.7	11296.	23.212	17.112	27367.	17.657	313.25	451.68	-3.6386	111.90
#3	1927.9	11331.	23.744	15.750	27592.	17.014	312.31	444.47	-3.9029	111.89

Bonner Analytical Testing Company

Sample Name: 6100168-14RE1 Acquired: 10/18/2016 17:03:50 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H81 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	1820.7
#1	1818.8
#2	1819.0
#3	1824.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3384.9	2414.7	227450.	16902.	4494.5	40586.	7314.4
#1	3381.4	2413.5	226360.	16835.	4489.5	40332.	7299.3
#2	3391.7	2414.7	227200.	16937.	4497.1	40645.	7321.4
#3	3381.6	2416.0	228790.	16935.	4496.8	40781.	7322.5

Bonner Analytical Testing Company

Sample Name: 6100168-15RE1 Acquired: 10/18/2016 17:08:08 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H82 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	12.374	24451.	79.336	-.76575	222.38	-.11898	2864.8	21.922	13.904	14.453
#1	12.359	24469.	79.476	-.66265	222.73	-.16275	2856.4	21.935	13.855	14.637
#2	12.169	24442.	80.197	-.45873	221.75	-.10102	2861.7	21.877	13.895	14.422
#3	12.595	24440.	78.335	-1.1759	222.64	-.09316	2876.3	21.954	13.960	14.299

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	222.89	212820.	3470.1	32.163	12804.	1965.4	13.151	166.98	6.4877	3453.0
#1	223.18	213550.	3468.5	32.916	12810.	1971.0	13.107	164.43	6.6564	3455.0
#2	222.38	212530.	3482.1	32.400	12781.	1962.7	13.030	162.18	6.0328	3455.2
#3	223.11	212380.	3459.7	31.172	12821.	1962.4	13.316	174.33	6.7740	3448.8

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1876.6	16255.	10.157	9.1587	10179.	7.6763	209.72	664.43	-4.8466	103.06
#1	1878.3	16279.	9.9290	8.7847	10176.	7.3824	209.60	650.52	-4.6406	102.84
#2	1881.7	16227.	10.287	9.7700	10298.	8.0367	209.88	679.78	-4.4404	103.28
#3	1869.7	16258.	10.254	8.9215	10064.	7.6099	209.69	663.00	-5.4587	103.05

Bonner Analytical Testing Company

Sample Name: 6100168-15RE1 Acquired: 10/18/2016 17:08:08 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H82 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	3251.3
#1	3252.0
#2	3257.8
#3	3244.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3416.9	2444.7	227470.	16849.	4483.1	40566.	7251.1
#1	3414.9	2447.2	227400.	16786.	4481.9	40538.	7216.1
#2	3413.5	2437.9	227170.	16886.	4480.9	40516.	7283.5
#3	3422.4	2449.0	227840.	16873.	4486.5	40644.	7253.6

Bonner Analytical Testing Company

Sample Name: 6100168-16RE1 Acquired: 10/18/2016 17:12:26 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H83 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	29.209	35227.	166.30	1.0157	514.44	-.59218	3134.6	20.667	21.095	27.075
#1	28.936	35024.	162.85	.71480	511.66	-.62061	3090.9	20.080	20.434	27.143
#2	29.233	35295.	161.74	.88568	515.38	-.56914	3132.1	20.134	20.554	27.062
#3	29.457	35361.	174.32	1.4467	516.29	-.58678	3180.7	21.787	22.298	27.021

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	403.36	227130.	6383.6	44.701	17951.	2532.1	32.089	284.74	11.696	5596.8
#1	404.45	225680.	6365.8	43.886	17841.	2514.8	31.568	280.06	10.937	5456.3
#2	402.38	227670.	6412.9	45.406	17999.	2535.3	30.973	289.18	11.367	5449.0
#3	403.25	228040.	6372.2	44.812	18012.	2546.1	33.727	284.99	12.785	5885.0

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3574.2	20352.	16.692	13.767	20003.	24.063	302.10	1169.7	-5.1277	135.53
#1	3484.2	19836.	16.317	13.888	19937.	24.017	301.01	1165.2	-5.7092	135.80
#2	3490.9	19813.	15.292	15.500	20031.	23.194	303.00	1177.1	-3.6020	135.63
#3	3747.6	21408.	18.467	11.914	20042.	24.977	302.27	1166.9	-6.0719	135.15

Bonner Analytical Testing Company

Sample Name: 6100168-16RE1 Acquired: 10/18/2016 17:12:26 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H83 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	3051.1
#1	2969.1
#2	2976.0
#3	3208.1

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3283.7	2346.2	225040.	16785.	4368.5	40298.	7248.2
#1	3356.1	2397.7	224500.	16732.	4461.1	40256.	7227.0
#2	3362.4	2393.0	225160.	16726.	4468.0	40310.	7239.7
#3	3132.6	2248.0	225470.	16898.	4176.3	40328.	7277.8

Bonner Analytical Testing Company

Sample Name: ~~6100168-18RE1~~ 500-1BL2 Acquired: 10/18/2016 17:16:45 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: ~~MH1H85~~ SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	4.9685	5468.1	34.211	-1.7855	38.617	5.2316	3005.8	11.855	14.487	-.76935
#1	4.9975	5444.6	34.958	-1.9202	38.346	5.2522	2999.8	11.811	14.166	-.45034
#2	5.1667	5477.1	34.547	-1.2727	38.780	5.2262	3003.4	11.798	14.675	-.95244
#3	4.7412	5482.7	33.130	-2.1635	38.724	5.2163	3014.2	11.957	14.622	-.90525

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	271.23	203290.	139.41	-1.1168	311.56	1137.4	5.2150	17.388	-1.3993	515.94
#1	271.69	202340.	149.60	-1.7057	322.44	1133.2	5.0725	16.181	-1.0306	517.81
#2	270.13	203890.	149.36	-1.0292	290.58	1140.1	5.3236	18.333	-2.0272	512.56
#3	271.87	203650.	119.29	-.61544	321.64	1138.9	5.2488	17.650	-1.1400	517.44

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	283.01	2170.0	5.3088	4.5873	8199.0	5.2534	92.562	25.934	-3.6053	5.2198
#1	281.79	2171.7	6.5462	6.2469	8232.0	5.5564	92.210	26.528	-5.1797	5.2053
#2	283.48	2161.1	4.7342	5.1244	8113.1	4.5377	92.785	26.204	-2.7648	5.2437
#3	283.76	2177.0	4.6461	2.3905	8252.0	5.6663	92.690	25.071	-2.8712	5.2104

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Bonner Analytical Testing Company

Sample Name: ~~6100168-18RE1~~ 500-1BL2 Acquired: 10/18/2016 17:16:45 Type: Unk
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: ~~MH1H85~~ SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	2240.5
#1	2237.6
#2	2237.7
#3	2246.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3447.5	2431.3	225380.	16438.	4499.1	41012.	7239.4
#1	3456.2	2432.2	223960.	16434.	4502.7	40835.	7240.1
#2	3452.5	2430.0	225790.	16428.	4510.0	40988.	7231.4
#3	3433.8	2431.7	226390.	16451.	4484.7	41214.	7246.8

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 17:21:08 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	514.62	145850.	2129.0	1943.5	16934.	394.61	200000.	969.01	2403.3	5815.2
Stddev	2.81	20.	2.5	3.2	85.	1.57	452.	2.04	2.4	23.1
%RSD	.54527	.01383	.11751	.16590	.50358	.39906	.22614	.21102	.09902	.39648
#1	517.86	145850.	2126.2	1939.8	16839.	395.64	199900.	967.59	2401.7	5836.5
#2	512.91	145880.	2129.7	1945.8	16957.	392.80	199610.	968.10	2402.2	5790.7
#3	513.09	145840.	2131.1	1944.9	17005.	395.40	200500.	971.36	2406.1	5818.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5071.6	125400.	148270.	1079.2	199590.	9068.3	978.25	129300.	4038.5	41540.
Stddev	30.4	205.	25.	1.6	603.	8.2	1.12	147.	4.7	54.
%RSD	.59917	.16320	.01715	.15261	.30195	.09010	.11401	.11360	.11659	.12955
#1	5104.1	125380.	148290.	1081.0	199770.	9070.6	976.96	129320.	4038.4	41482.
#2	5043.9	125210.	148240.	1078.7	198920.	9059.3	978.86	129150.	4033.9	41552.
#3	5066.8	125610.	148260.	1077.8	200090.	9075.2	978.92	129440.	4043.3	41588.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5766.2	40168.	4061.5	3432.9	20356.	1894.7	1074.2	1969.3	3909.6	3964.1
Stddev	11.0	75.	4.1	9.2	121.	2.3	2.0	6.6	2.1	18.0
%RSD	.19139	.18613	.10200	.26751	.59259	.12246	.18358	.33578	.05253	.45308
#1	5766.1	40082.	4060.5	3429.1	20454.	1892.1	1076.0	1974.6	3910.2	3976.5
#2	5755.1	40221.	4066.0	3443.3	20221.	1896.5	1074.7	1961.9	3907.3	3943.5
#3	5777.2	40199.	4057.9	3426.1	20392.	1895.6	1072.1	1971.4	3911.3	3972.3

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV07 Acquired: 10/18/2016 17:21:08 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8186.7
Stddev	24.2
%RSD	.29528
#1	8189.6
#2	8161.2
#3	8209.3

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2834.5	2155.9	208490.	16810.	4093.4	37040.	7079.4
Stddev	6.0	6.5	990.	80.	10.5	145.	27.8
%RSD	.21206	.30151	.47475	.47418	.25631	.39113	.39252
#1	2835.3	2158.0	208000.	16755.	4102.1	36998.	7070.8
#2	2840.1	2161.0	209630.	16902.	4096.2	37202.	7110.5
#3	2828.1	2148.6	207840.	16773.	4081.7	36922.	7057.0

Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 17:25:21 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00972	7.2559	.14378	-.08055	.93663	-.00070	22.428	.06057	.22012	.26840	.14174
Stddev	.19557	6.7965	.53405	.58107	.20118	.01795	12.181	.00922	.05815	.29083	.28201
%RSD	2012.1	93.669	371.43	721.35	21.479	2550.9	54.312	15.217	26.417	108.36	198.96
#1	.08960	14.245	.54227	.58549	1.0731	-.01060	9.7366	.05186	.17978	-.01220	.24519
#2	-.21315	6.8518	.35211	-.34333	1.0311	-.01153	23.522	.07022	.19380	.56848	-.17738
#3	.15271	.67046	-.46304	-.48381	.70559	.02002	34.025	.05962	.28677	.24892	.35742

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10.938	-70.098	-2.2958	12.797	.52074	-.04902	-7.9221	-.13429	1.4739	-.12296	-3.0293
Stddev	3.331	5.251	.5927	8.921	.28282	.09647	8.0205	.14923	.2812	.83760	1.1151
%RSD	30.455	7.4908	25.816	69.713	54.312	196.77	101.24	111.13	19.082	681.17	36.809
#1	13.308	-74.655	-2.8224	22.134	.74864	.02420	1.0435	-.03126	1.2973	.84419	-2.1633
#2	12.377	-71.284	-2.4112	4.3598	.60935	-.01294	-10.394	-.06619	1.7982	-.60135	-4.2875
#3	7.1295	-64.356	-1.6539	11.898	.20422	-.15833	-14.415	-.30542	1.3262	-.61174	-2.6371

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7309	-.58942	39.745	.20593	.04908	-.62417	.33576	.13103	.19313
Stddev	.7132	.88211	7.633	.25522	.04931	.27019	.87274	.09865	.20965
%RSD	26.116	149.66	19.205	123.93	100.46	43.289	259.93	75.290	108.55
#1	2.7827	.42182	48.559	-.04659	.10594	-.73228	.24587	.15698	.39701
#2	1.9932	-1.2007	35.408	.20063	.01794	-.82356	1.2500	.21412	.20423
#3	3.4168	-.98934	35.269	.46376	.02338	-.31665	-.48856	.02200	-.02184

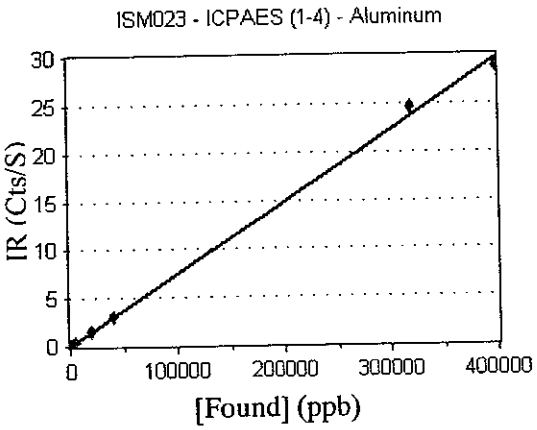
Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB07 Acquired: 10/18/2016 17:25:21 Type: QC
Method: ISM02.3_TotalMetals(v2) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3798.7	2783.3	232150.	16951.	4569.5	41602.	7321.3
Stddev	8.4	4.4	462.	155.	15.8	41.	58.1
%RSD	.22219	.15709	.19908	.91389	.34558	.09873	.79397
#1	3808.4	2788.0	232690.	17129.	4587.2	41630.	7387.7
#2	3793.9	2782.8	231850.	16879.	4564.2	41621.	7297.1
#3	3793.8	2779.3	231920.	16846.	4557.0	41554.	7279.3

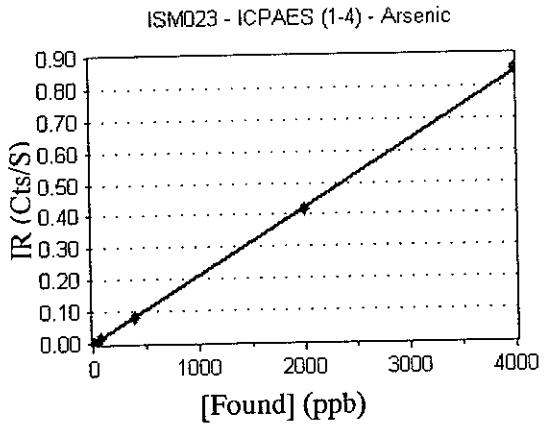
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645011 Calibration Date: 10/28/2016



Calibration Plot: Aluminum
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9985945
Fit: [Y] = 7.425887E-05 * [X] + 1.054327E-03
[y-intercept] = -14.20

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	12.47	0.00198	0
BJ63109-CAL2	B6G0026	100	91.92	0.00788	8
BJ63109-CAL3	B6G0027	800	844.15	0.06374	-6
BJ63109-CAL4	B6G0028	4000	4,078.92	0.30395	-2
BJ63109-CAL5	B6G0029	20000	19,940.32	1.4818	0
BJ63109-CAL6	B6G0030	40000	40,086.06	2.9778	0
BJ63109-CAL7	B6G0031	320000	331,353.62	24.607	-4
BJ63109-CAL8	B6G0032	400000	388,505.05	28.851	3

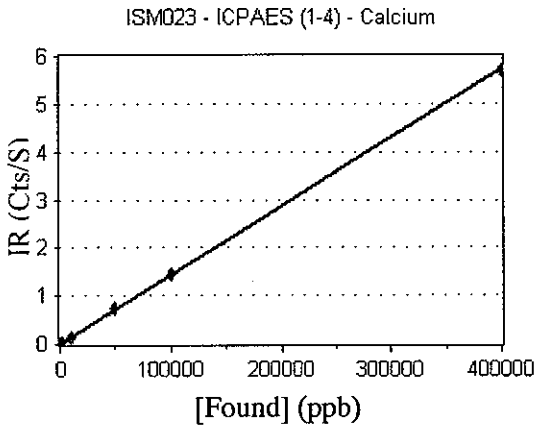


Calibration Plot: Arsenic
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9997559
Fit: [Y] = 2.110557E-04 * [X] + -5.682579E-04
[y-intercept] = 2.69

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	2.31	-0.00008	0
BJ63109-CAL2	B6G0026	10	11.13	0.00178	-11
BJ63109-CAL3	B6G0027	80	75.66	0.0154	5
BJ63109-CAL4	B6G0028	400	375.96	0.07878	6
BJ63109-CAL5	B6G0029	2000	1,979.71	0.41726	1
BJ63109-CAL6	B6G0030	4000	4,047.55	0.85369	-1

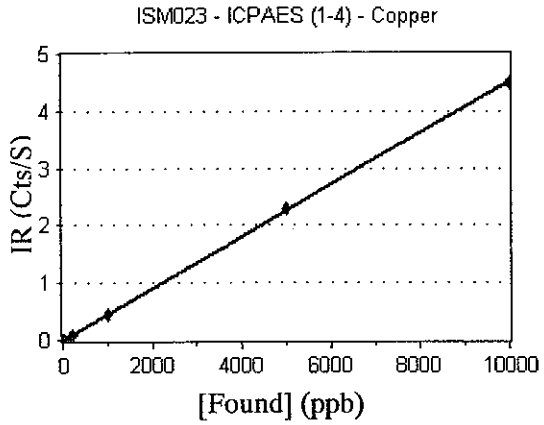
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645011 Calibration Date: 10/28/2016



Calibration Plot: Calcium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999768
Fit: [Y] = 1.429246E-05 * [X] + 5.358551E-04
[y-intercept] = -37.49

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	-31.20	0.00009	0
BJ63109-CAL2	B6G0026	250	225.58	0.00376	10
BJ63109-CAL3	B6G0027	2000	2,105.60	0.03063	-5
BJ63109-CAL4	B6G0028	10000	10,326.71	0.14813	-3
BJ63109-CAL5	B6G0029	50000	50,508.74	0.72243	-1
BJ63109-CAL6	B6G0030	100000	100,575.00	1.438	-1
BJ63109-CAL7	B6G0031	400000	398,508.31	5.6962	0

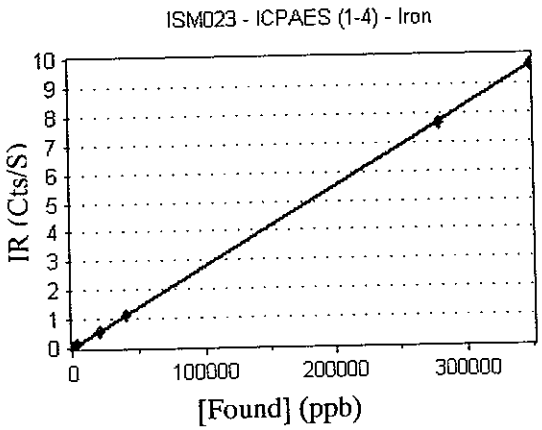


Calibration Plot: Copper
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998739
Fit: [Y] = 4.515698E-04 * [X] + 2.760492E-04
[y-intercept] = -0.61

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	2.51	0.00141	0
BJ63109-CAL2	B6G0026	25	25.90	0.01197	-4
BJ63109-CAL3	B6G0027	200	194.95	0.08831	3
BJ63109-CAL4	B6G0028	1000	978.68	0.44222	2
BJ63109-CAL5	B6G0029	5000	5,081.66	2.295	-2
BJ63109-CAL6	B6G0030	10000	9,943.81	4.4906	1

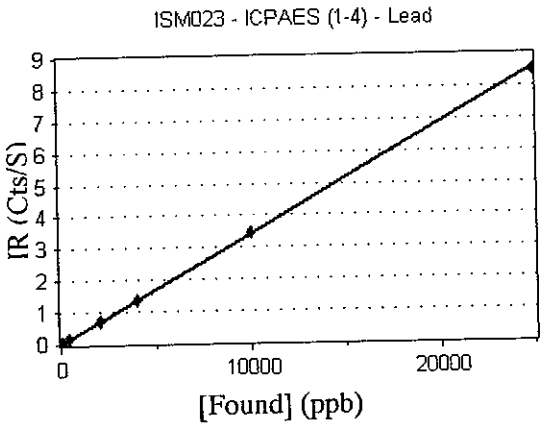
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645011 Calibration Date: 10/28/2016



Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999352
Fit: [Y] = 2.756855E-05 * [X] + 7.8043E-04
[y-intercept] = -28.31

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	-4.01	0.00067	0
BJ63109-CAL2	B6G0026	100	83.05	0.00307	17
BJ63109-CAL3	B6G0027	800	870.54	0.02478	-9
BJ63109-CAL4	B6G0028	4000	4,217.11	0.11704	-5
BJ63109-CAL5	B6G0029	20000	20,431.96	0.56406	-2
BJ63109-CAL6	B6G0030	40000	40,419.96	1.1151	-1
BJ63109-CAL7	B6G0031	280000	277,418.27	7.6488	1
BJ63109-CAL8	B6G0032	350000	351,459.17	9.69	0

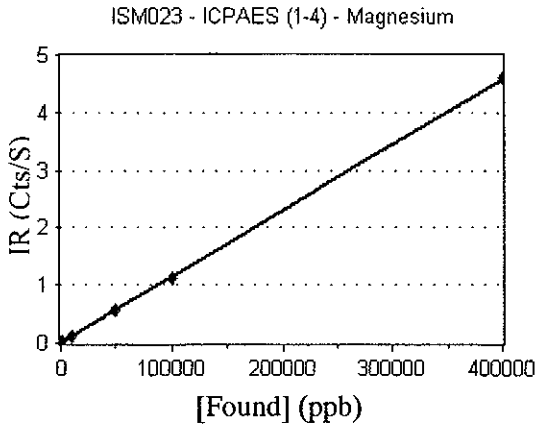


Calibration Plot: Lead
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998418
Fit: [Y] = 3.429667E-04 * [X] + -2.25197E-05
[y-intercept] = 0.07

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	0.07	0	0
BJ63109-CAL2	B6G0026	10	9.05	0.00308	10
BJ63109-CAL3	B6G0027	80	82.46	0.02826	-3
BJ63109-CAL4	B6G0028	400	410.31	0.1407	-3
BJ63109-CAL5	B6G0029	2000	2,052.42	0.70389	-3
BJ63109-CAL6	B6G0030	4000	4,030.78	1.3824	-1
BJ63109-CAL7	B6G0031	10000	10,145.07	3.4794	-1
BJ63109-CAL8	B6G0032	25000	24,759.90	8.4918	1

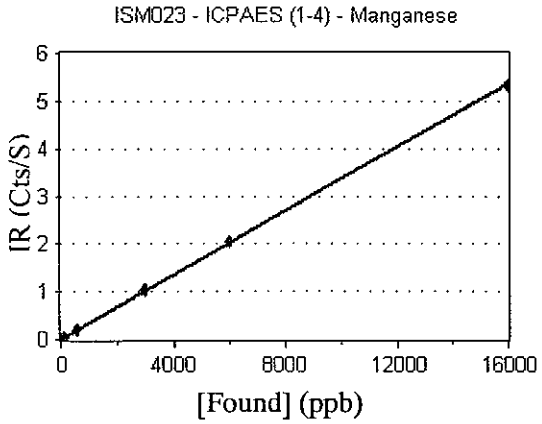
Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645011 Calibration Date: 10/28/2016 **150**



Calibration Plot: Magnesium
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999155
Fit: [Y] = 1.146942E-05 * [X] + 1.963246E-04
[y-intercept] = -17.12

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	30.84	0.00055	0
BJ63109-CAL2	B6G0026	250	247.06	0.00303	1
BJ63109-CAL3	B6G0027	2000	2,075.40	0.024	-4
BJ63109-CAL4	B6G0028	10000	10,020.88	0.11513	0
BJ63109-CAL5	B6G0029	50000	49,226.87	0.5648	2
BJ63109-CAL6	B6G0030	100000	98,095.95	1.1253	2
BJ63109-CAL7	B6G0031	400000	402,583.89	4.6176	-1

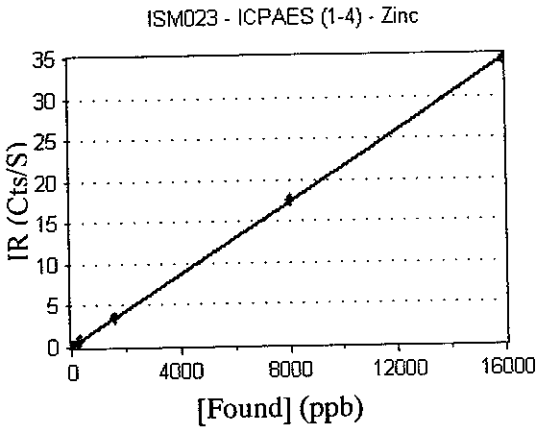


Calibration Plot: Manganese
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998173
Fit: [Y] = 3.360749E-04 * [X] + 0.0012269
[y-intercept] = -3.65

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	-2.64	0.00034	0
BJ63109-CAL2	B6G0026	15	12.92	0.00557	14
BJ63109-CAL3	B6G0027	120	127.33	0.04402	-6
BJ63109-CAL4	B6G0028	600	632.40	0.21376	-5
BJ63109-CAL5	B6G0029	3000	3,074.23	1.0344	-2
BJ63109-CAL6	B6G0030	6000	6,053.93	2.0358	-1
BJ63109-CAL7	B6G0031	16000	15,834.19	5.3227	1

Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645011 Calibration Date: 10/28/2016 **151**



Calibration Plot: Zinc
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9998852
Fit: [Y] = 2.166969E-03 * [X] + 1.327098E-03
[y-intercept] = -0.61

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63109-CAL1	B6I0028	0	0.68	0.0028	0
BJ63109-CAL2	B6G0026	40	39.64	0.08722	1
BJ63109-CAL3	B6G0027	320	321.79	0.69864	-1
BJ63109-CAL4	B6G0028	1600	1,593.92	3.4553	0
BJ63109-CAL5	B6G0029	8000	8,111.64	17.579	-1
BJ63109-CAL6	B6G0030	16000	15,893.02	34.441	1

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/28/2016 11:46:42 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00090	.00198	-.00008	.00702	.02155	-.00106	.00009	.00034	.00018	.00002
#1	-.00086	.00219	-.00007	.00722	.02224	-.00109	.00021	.00027	.00026	.00001
#2	-.00096	.00232	-.00008	.00694	.02080	-.00102	.00016	.00025	.00023	.00002
#3	-.00088	.00142	-.00009	.00690	.02162	-.00107	-.00009	.00050	.00006	.00003

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00141	.00067	.01845	.00091	.00055	.00034	.00020	.02133	-.00001	.00002
#1	.00148	.00084	.01987	.00050	.00068	.00040	.00025	.02226	-.00022	-.00012
#2	.00132	.00064	.01840	.00087	.00056	.00025	.00016	.02108	.00012	.00008
#3	.00143	.00053	.01708	.00136	.00043	.00037	.00018	.02066	.00008	.00010

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00000	-.00027	-.00109	.00021	.00032	.00012	.00002	.00272	.00014	.00012
#1	.00017	-.00025	-.00109	.00020	.00030	.00015	-.00002	.00257	.00011	.00009
#2	-.00043	-.00020	-.00110	.00024	.00031	.00004	.00005	.00286	.00032	.00015
#3	.00027	-.00037	-.00109	.00020	.00034	.00018	.00003	.00271	-.00002	.00012

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/28/2016 11:46:42 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	Cts/S
Avg	.00280
#1	.00279
#2	.00267
#3	.00293

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3471.0	2534.8	201610.	18109.	4468.2	37431.	7282.6
#1	3470.9	2526.7	201870.	18077.	4461.9	37452.	7276.1
#2	3468.7	2537.3	201040.	18081.	4470.2	37343.	7265.4
#3	3473.5	2540.3	201920.	18168.	4472.6	37498.	7306.4

Bonner Analytical Testing Company

Sample Name: SEQ-CAL2@S02 Acquired: 10/28/2016 11:51:10 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00167	.00788	.00178	.01187	.43163	.00566	.00376	.01488	.01330	.00032	.01197
#1	.00168	.00790	.00168	.01184	.43267	.00571	.00359	.01473	.01345	.00033	.01205
#2	.00169	.00787	.00181	.01192	.43159	.00564	.00391	.01500	.01329	.00032	.01217
#3	.00163	.00786	.00186	.01185	.43063	.00563	.00377	.01489	.01316	.00032	.01170

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00307	.02654	.00451	.00303	.00557	.00324	.08612	.02306	.01315	.00308	.00962
#1	.00299	.02624	.00407	.00302	.00557	.00334	.08582	.02323	.01315	.00268	.00963
#2	.00321	.02625	.00505	.00301	.00556	.00318	.08581	.02276	.01310	.00319	.00963
#3	.00301	.02712	.00442	.00306	.00558	.00319	.08673	.02320	.01320	.00336	.00960

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00110	.00143	.00082	.00273	.01422	.00443	.00319	.00489	.08722
#1	.00118	.00137	.00081	.00264	.01410	.00450	.00309	.00488	.08703
#2	.00106	.00149	.00079	.00280	.01445	.00437	.00331	.00493	.08761
#3	.00106	.00143	.00086	.00273	.01410	.00441	.00316	.00486	.08701

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL2@S02 Acquired: 10/28/2016 11:51:10 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3452.6	2542.4	200260.	18015.	4460.1	37559.	7229.0
#1	3454.5	2542.9	200220.	18096.	4453.5	37586.	7262.2
#2	3445.4	2538.6	200220.	17967.	4457.0	37516.	7216.2
#3	3457.8	2545.6	200350.	17980.	4469.7	37574.	7208.6

Sample Name: SEQ-CAL3@S03 Acquired: 10/28/2016 11:55:39 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00441	.06374	.01540	.05130	3.3614	.05556	.03063	.12056	.10865	.00257	.08831
#1	.00430	.06282	.01546	.05176	3.3417	.05578	.03035	.12100	.10866	.00258	.08850
#2	.00440	.06402	.01540	.05123	3.3660	.05535	.03101	.12035	.10859	.00257	.08822
#3	.00453	.06437	.01533	.05090	3.3765	.05555	.03053	.12034	.10868	.00256	.08821

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02478	.13731	.03259	.02400	.04402	.02555	.60750	.18809	.10920	.02826	.08227
#1	.02486	.13792	.03266	.02391	.04392	.02559	.60380	.18767	.10956	.02835	.08215
#2	.02461	.13767	.03261	.02387	.04421	.02552	.60912	.18758	.10907	.02796	.08252
#3	.02488	.13635	.03250	.02423	.04391	.02554	.60957	.18903	.10897	.02846	.08213

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01761	.00982	.00436	.02216	.11545	.01604	.02633	.03965	.69864
#1	.01767	.00987	.00431	.02207	.11506	.01598	.02627	.03958	.70022
#2	.01775	.00980	.00430	.02210	.11566	.01611	.02621	.03967	.69454
#3	.01742	.00978	.00445	.02231	.11562	.01603	.02652	.03970	.70115

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL3@S03 Acquired: 10/28/2016 11:55:39 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3395.5	2513.3	199440.	18161.	4433.1	37397.	7277.2
#1	3390.7	2509.4	198970.	18170.	4422.0	37314.	7284.8
#2	3403.8	2521.9	199750.	18119.	4440.3	37478.	7261.2
#3	3392.0	2508.7	199590.	18192.	4437.1	37400.	7285.8

Bonner Analytical Testing Company

Sample Name: SEQ-CAL4@S04 Acquired: 10/28/2016 11:59:57 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02475	.30395	.07878	.22793	16.848	.28274	.14813	.58570	.52536	.01237	.44222
#1	.02473	.30517	.07869	.22689	16.857	.28375	.14859	.58536	.52437	.01241	.44280
#2	.02490	.30290	.07942	.23018	16.832	.28329	.14834	.58909	.52860	.01240	.44218
#3	.02460	.30378	.07823	.22671	16.855	.28120	.14745	.58265	.52312	.01229	.44169

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11704	.64597	.16082	.11513	.21376	.12542	2.9485	.93319	.53968	.14070	.40904
#1	.11733	.64680	.16131	.11519	.21431	.12514	2.9540	.93418	.53823	.13972	.40861
#2	.11671	.64484	.16028	.11549	.21318	.12639	2.9422	.93810	.54398	.14204	.41209
#3	.11708	.64625	.16089	.11472	.21380	.12473	2.9492	.92728	.53685	.14034	.40643

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09070	.04714	.02010	.10708	.58011	.06829	.12955	.19616	3.4553
#1	.09037	.04705	.02013	.10738	.57891	.06856	.12928	.19684	3.4574
#2	.09154	.04758	.02015	.10728	.58061	.06825	.13053	.19638	3.4666
#3	.09018	.04678	.02003	.10659	.58082	.06805	.12884	.19526	3.4419

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL4@S04 Acquired: 10/28/2016 11:59:57 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3266.2	2428.1	198760.	18171.	4399.5	36890.	7274.9
#1	3269.5	2428.6	198390.	18096.	4405.2	36797.	7236.2
#2	3248.0	2418.6	198550.	18142.	4376.1	36843.	7265.4
#3	3281.0	2437.3	199340.	18276.	4417.4	37032.	7323.1

Sample Name: SEQ-CAL5@S05 Acquired: 10/28/2016 12:04:07 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.12722	1.4818	.41726	1.0955	81.190	1.4196	.72243	2.8596	2.5582	.06110	2.2950
#1	.12678	1.4996	.41665	1.0932	81.294	1.4106	.73292	2.8550	2.5547	.06058	2.2809
#2	.12847	1.4499	.41775	1.0986	80.964	1.4357	.70662	2.8636	2.5637	.06186	2.3272
#3	.12639	1.4960	.41739	1.0947	81.310	1.4125	.72775	2.8602	2.5561	.06085	2.2769

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.56406	3.1918	.79543	.56480	1.0344	.62386	14.658	4.6985	2.6643	.70389	2.0604
#1	.57250	3.2332	.80753	.57288	1.0490	.62291	14.858	4.6872	2.6594	.70226	2.0576
#2	.55084	3.1186	.77558	.55320	1.0113	.62555	14.312	4.7056	2.6693	.70571	2.0649
#3	.56883	3.2238	.80317	.56833	1.0429	.62311	14.802	4.7027	2.6643	.70371	2.0586

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.45860	.23073	.09770	.52151	2.8638	.32304	.63963	.98458	17.579
#1	.45694	.23028	.09916	.52155	2.9085	.32766	.63903	.97803	17.533
#2	.45941	.23112	.09533	.52185	2.7924	.31511	.63979	.99507	17.602
#3	.45945	.23078	.09862	.52113	2.8904	.32635	.64007	.98065	17.602

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL5@S05 Acquired: 10/28/2016 12:04:07 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2936.8	2220.7	189960.	18234.	4213.8	35313.	7249.8
#1	2942.7	2227.5	191260.	18010.	4222.7	35482.	7175.1
#2	2936.0	2217.8	188220.	18490.	4207.6	35063.	7343.5
#3	2931.6	2216.6	190400.	18202.	4211.1	35395.	7230.6

Bonner Analytical Testing Company

Sample Name: SEQ-CAL6@S06 Acquired: 10/28/2016 12:08:20 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.25468	2.9778	.85369	2.1440	162.03	2.7388	1.4380	5.5495	5.0030	.11901	4.4906
#1	.25522	2.9804	.86514	2.1686	164.25	2.7436	1.4388	5.6145	5.0655	.11922	4.4912
#2	.25436	2.9744	.85226	2.1402	162.01	2.7400	1.4387	5.5533	5.0010	.11900	4.5046
#3	.25445	2.9786	.84366	2.1234	159.83	2.7329	1.4367	5.4806	4.9424	.11882	4.4761

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.1151	6.4318	1.5942	1.1253	2.0358	1.2294	29.379	9.3338	5.1556	1.3824	4.1212
#1	1.1144	6.4342	1.5891	1.1244	2.0330	1.2421	29.350	9.4514	5.2136	1.3984	4.1618
#2	1.1156	6.4309	1.5935	1.1273	2.0396	1.2301	29.385	9.3252	5.1549	1.3838	4.1223
#3	1.1153	6.4304	1.5999	1.1242	2.0348	1.2159	29.403	9.2247	5.0984	1.3651	4.0793

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.92221	.45532	.19531	1.0187	5.6075	.63939	1.2441	1.9329	34.441
#1	.93298	.46018	.19499	1.0297	5.5926	.63668	1.2574	1.9367	34.901
#2	.92068	.45526	.19581	1.0184	5.6073	.64100	1.2423	1.9332	34.419
#3	.91297	.45053	.19513	1.0080	5.6226	.64048	1.2327	1.9288	34.004

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CAL6@S06 Acquired: 10/28/2016 12:08:20 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.7	2100.2	184660.	18068.	4070.9	34515.	7132.1
#1	2718.3	2076.1	184230.	18009.	4031.0	34435.	7101.6
#2	2741.8	2100.5	184920.	18065.	4066.2	34574.	7131.8
#3	2770.9	2124.0	184840.	18131.	4115.4	34536.	7163.0

Sample Name: SEQ-CAL7@S07 Acquired: 10/28/2016 12:12:30 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Ca3181	Cr2677	Fe2598	K_7664	Mg2790	Mn2576	Na5895	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	24.607	5.6962	.29138	7.6488	15.964	4.6176	5.3227	60.052	3.4794
#1	24.490	5.6834	.29178	7.6248	15.919	4.6079	5.3076	59.959	3.4787
#2	24.552	5.6778	.29114	7.6290	15.923	4.6076	5.3101	59.176	3.4786
#3	24.778	5.7274	.29122	7.6925	16.051	4.6372	5.3503	61.023	3.4811

Int. Std.	Sc2273	Sc3572	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	1820.1	170870.	6872.4
#1	1821.7	170790.	6860.9
#2	1817.8	171050.	6920.6
#3	1821.0	170770.	6835.8

Bonner Analytical Testing Company

Sample Name: SEQ-CAL8@S08 Acquired: 10/28/2016 12:16:58 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Fe2598	Pb2203
Units	Cts/S	Cts/S	Cts/S
Avg	28.851	9.6900	8.4918
#1	28.304	9.5137	8.4956
#2	29.005	9.7397	8.4996
#3	29.243	9.8167	8.4801

Int. Std.	Sc2273	Y_3710
Units	Cts/S	Cts/S
Avg	2196.6	7386.6
#1	2194.4	7477.5
#2	2196.2	7361.1
#3	2199.2	7321.3

Sample Name: SEQ-ICV@ICV01 Acquired: 10/28/2016 12:21:20 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	522.41	W 2664.9	986.06	F -.97014	W 541.18	W 529.51	W 10725.	W 545.08	W 546.81
Stddev	.04	18.9	2.77	.60129	5.11	.71	114.	1.45	2.38
%RSD	.00783	.70924	.28074	61.980	.94432	.13446	1.0617	.26611	.43612
#1	522.37	2643.1	988.05	-.28173	535.32	529.25	10608.	544.69	546.13
#2	522.45	2675.9	987.22	-1.2361	543.49	528.96	10733.	546.69	549.46
#3	522.42	2675.7	982.90	-1.3926	544.73	530.32	10835.	543.87	544.84

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 544.49	504.09	W 5452.9	10094.	.21723	6186.8	W 540.49	-.54919	10212.
Stddev	.80	1.72	45.3	87.	.30671	60.1	4.25	.08267	86.
%RSD	.14624	.34049	.83062	.86541	141.20	.97170	.78639	15.054	.84058
#1	543.65	504.87	5400.6	9994.5	.56170	6117.4	535.93	-.45411	10115.
#2	545.23	502.12	5479.0	10128.	.11623	6221.4	541.18	-.60412	10243.
#3	544.60	505.27	5479.2	10159.	-.02625	6221.7	544.35	-.58933	10279.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	521.01	-4.9423	W 1073.2	F -3.1295	W 1048.5	1067.2	F 3.0039	F -.92775	F 12.360
Stddev	1.76	.7941	6.8	.4605	4.5	6.7	4.5879	.20474	.105
%RSD	.33721	16.066	.63699	14.716	.43304	.62491	152.74	22.069	.85179
#1	522.04	-5.7994	1075.2	-3.1087	1046.0	1065.8	-2.1254	-1.1023	12.272
#2	522.01	-4.2317	1078.8	-3.6000	1053.7	1074.5	6.7162	-.70238	12.330
#3	518.98	-4.7957	1065.6	-2.6797	1045.7	1061.4	4.4208	-.97859	12.477

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-ICV@ICV01 Acquired: 10/28/2016 12:21:20 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	F .90334	W 1089.1	W 526.39	1047.3
Stddev	2.3326	1.7	.62	3.5
%RSD	258.23	.15551	.11752	.33830
#1	-.36974	1090.2	526.21	1048.3
#2	3.5955	1089.9	525.88	1050.1
#3	-.51577	1087.1	527.08	1043.3

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3298.9	2436.2	197280.	18053.	4385.7	37032.	7270.7
Stddev	7.7	5.1	254.	73.	12.7	32.	31.9
%RSD	.23240	.20913	.12887	.40395	.28845	.08598	.43935
#1	3300.3	2436.2	197510.	18136.	4392.9	37069.	7306.9
#2	3290.6	2431.1	197000.	18020.	4371.1	37012.	7259.2
#3	3305.7	2441.3	197330.	18002.	4393.1	37015.	7246.2

Bonner Analytical Testing Company

Sample Name: SEQ-ICB@ICB01 Acquired: 10/28/2016 12:25:31 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.06800	-1.6249	-.07205	-.77549	-.13482	.02712	-3.8386	.02722	-.05894	.19099	-.10175
Stddev	.34716	2.6334	.25158	.23498	.10470	.01222	17.912	.01145	.09745	.27344	.27620
%RSD	510.51	162.07	349.15	30.301	77.658	45.059	466.62	42.067	165.34	143.17	271.46
#1	-.09975	1.2483	.09253	-.51337	-.03725	.03872	.52683	.02155	.05356	-.10011	-.16047
#2	.29394	-2.1991	.05296	-.84582	-.12178	.02828	-23.530	.01971	-.11738	.44245	-.34386
#3	-.39820	-3.9237	-.36166	-.96727	-.24543	.01436	11.487	.04040	-.11298	.23062	.19910

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	3.7481	-160.09	-.55348	-3.5641	.42811	-.25762	-17.687	.21166	.16315	-.38544	-2.8762
Stddev	.5518	8.15	.54252	23.204	.08317	.13938	3.457	.06972	1.1671	1.1371	.7627
%RSD	14.723	5.0901	98.020	651.06	19.426	54.104	19.543	32.941	715.36	295.01	26.516
#1	3.2261	-151.23	-.22167	-24.033	.37226	-.17203	-16.253	.23205	-.64418	.05642	-2.9077
#2	3.6927	-161.79	-1.1796	21.644	.52369	-.18238	-15.178	.13402	1.5014	.46440	-2.0983
#3	4.3255	-167.26	-.25921	-8.3027	.38839	-.41846	-21.630	.26892	-.36773	-1.6771	-3.6226

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0405	-.72265	7.0114	-.58642	.02969	-.72867	.42195	-.01484	-.03786
Stddev	.7559	2.2586	4.1148	.42110	.04515	.21163	.86637	.21325	.01514
%RSD	72.644	312.55	58.687	71.807	152.08	29.043	205.33	1437.5	39.998
#1	1.9043	-.02793	10.396	-.36796	.05968	-.56788	.96806	.10597	-.04227
#2	.50036	-3.2470	2.4313	-1.0719	-.02224	-.64972	.87478	.11059	-.02100
#3	.71684	1.1070	8.2068	-.31946	.05162	-.96843	-.57700	-.26107	-.05031

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-ICB@ICB01 Acquired: 10/28/2016 12:25:31 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3493.1	2561.9	200130.	17938.	4446.7	37937.	7267.4
Stddev	7.0	6.1	739.	109.	12.6	97.	46.0
%RSD	.19912	.23909	.36951	.61023	.28368	.25459	.63326
#1	3488.9	2561.7	200870.	17900.	4449.5	38044.	7254.3
#2	3501.1	2568.1	200120.	17853.	4457.6	37911.	7229.4
#3	3489.2	2555.9	199390.	18062.	4432.9	37856.	7318.6

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/28/2016 12:29:58 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5280	267450.	.21888	-1.0280	9.4278	.00599	253630.	5.1371	-.07986	F 62.025
Stddev	.4353	2300.	.60302	.2833	.0849	.00933	2086.	.0370	.07268	.161
%RSD	28.488	.85988	275.50	27.557	.90049	155.78	.82240	.72094	91.006	.25969
#1	-1.8108	266260.	.57515	-.99641	9.4821	.00831	252590.	5.1198	-.16371	61.848
#2	-1.7464	270100.	-.47736	-.76188	9.4714	-.00428	256040.	5.1118	-.04110	62.065
#3	-1.0267	265990.	.55886	-1.3258	9.3300	.01394	252280.	5.1796	-.03479	62.162

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-7.5902	102900.	-85.886	2.4657	267300.	12.528	.63076	44.539	.13960	-.34310
Stddev	.2863	962.	8.251	.5313	2082.	.655	.24872	4.189	.14513	1.5224
%RSD	3.7713	.93485	9.6073	21.547	.77896	5.2321	39.431	9.4054	103.96	443.72
#1	-7.2638	102300.	-88.113	1.8905	266530.	11.780	.67514	39.780	.29314	1.1651
#2	-7.7081	104010.	-76.749	2.9380	269660.	13.002	.36284	47.670	.00468	-.31511
#3	-7.7986	102390.	-92.795	2.5685	265710.	12.802	.85429	46.166	.12097	-1.8793

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.7551	-33.110	2.0771	3.8234	17.006	.34868	103.30	4.6196	-.34147	1.5419
Stddev	1.4255	1.650	.9482	1.3021	4.357	.34506	.89	.3336	1.7562	.1897
%RSD	51.739	4.9830	45.652	34.055	25.621	98.963	.85868	7.2218	514.30	12.302
#1	-2.0612	-35.015	.98913	2.4637	21.914	.10662	102.92	4.9727	.36741	1.7343
#2	-1.8095	-32.196	2.7277	3.9475	13.592	.74379	104.31	4.5764	.94945	1.5362
#3	-4.3947	-32.120	2.5144	5.0589	15.513	.19561	102.66	4.3096	-2.3413	1.3550

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/28/2016 12:29:58 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	3.2170
Stddev	.1358
%RSD	4.2222
#1	3.1950
#2	3.0936
#3	3.3626

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.1	2000.7	181180.	17959.	4090.4	34179.	7063.3
Stddev	7.7	3.5	721.	75.	14.9	134.	27.2
%RSD	.28631	.17572	.39818	.41937	.36311	.39232	.38572
#1	2690.2	1998.3	182000.	17984.	4087.8	34328.	7066.2
#2	2687.2	1999.2	180900.	17875.	4077.0	34141.	7034.7
#3	2701.8	2004.8	180650.	18019.	4106.4	34068.	7088.9

Bonner Analytical Testing Company

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/28/2016 12:34:18 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	217.89	270930.	105.86	-2.6771	548.72	526.87	256670.	1017.5	503.57	597.79
Stddev	.99	801.	.82	.3098	1.40	.96	909.	3.2	1.91	.92
%RSD	.45381	.29578	.77827	11.570	.25536	.18140	.35428	.31408	.37911	.15324
#1	218.93	271230.	105.97	-2.3580	549.13	525.90	257110.	1019.0	504.06	597.10
#2	217.78	270020.	104.99	-2.9765	547.16	527.81	255620.	1019.7	505.18	597.44
#3	216.96	271540.	106.63	-2.6969	549.87	526.90	257270.	1013.8	501.46	598.83

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	509.20	104260.	-149.79	2.3673	270540.	542.37	.18327	-1.1559	1071.7	-13.795
Stddev	1.40	254.	1.63	.5911	1154.	1.31	.07251	3.5636	1.7	1.644
%RSD	.27411	.24364	1.0867	24.971	.42637	.24063	39.563	308.31	.15873	11.915
#1	507.86	104400.	-150.13	2.5139	271230.	543.73	.25820	1.3385	1071.5	-15.150
#2	509.09	103960.	-151.22	2.8712	269210.	542.26	.11345	-5.2373	1073.5	-14.269
#3	510.65	104410.	-148.02	1.7166	271180.	541.12	.17815	.43121	1070.1	-11.966

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	48.973	-44.363	634.13	52.284	14.632	-.18486	104.30	4.2365	105.61	518.69
Stddev	1.547	2.433	1.62	1.909	10.431	.40625	.58	.9668	.52	1.04
%RSD	3.1586	5.4831	.25615	3.6511	71.287	219.76	.56008	22.820	.49617	.20094
#1	49.930	-46.104	635.93	51.457	20.664	-.37480	104.39	5.0515	106.20	517.76
#2	49.800	-41.584	633.67	54.467	20.644	.28156	103.68	3.1684	105.44	518.49
#3	47.188	-45.402	632.78	50.927	2.5876	-.46134	104.84	4.4897	105.20	519.81

Bonner Analytical Testing Company

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/28/2016 12:34:18 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1092.3
Stddev	3.6
%RSD	.33184
#1	1094.9
#2	1093.8
#3	1088.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2673.4	1983.2	180310.	17993.	4057.3	34016.	7064.7
Stddev	5.6	5.1	334.	83.	9.2	40.	24.0
%RSD	.21059	.25659	.18516	.46053	.22793	.11652	.33981
#1	2670.1	1983.6	180510.	17946.	4056.2	34057.	7045.7
#2	2670.2	1978.0	180480.	18089.	4048.6	34014.	7091.7
#3	2679.9	1988.1	179920.	17944.	4067.0	33978.	7056.7

Sample Name: SEQ-CCV@CCV01 Acquired: 10/28/2016 12:38:28 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	512.80	143740.	2130.3	1974.3	16333.	398.65	200760.	983.56	2432.1	5769.8
Stddev	1.85	208.	6.4	6.1	213.	1.27	183.	3.32	10.3	15.6
%RSD	.36042	.14446	.29941	.30893	1.3024	.31940	.09099	.33795	.42166	.27036
#1	513.01	143750.	2124.3	1968.5	16451.	397.98	200910.	980.20	2421.3	5760.8
#2	510.86	143940.	2129.5	1973.8	16088.	397.85	200830.	983.64	2433.4	5760.7
#3	514.53	143530.	2137.0	1980.7	16461.	400.11	200560.	986.85	2441.7	5787.8

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5152.9	126060.	141520.	1036.7	200020.	9038.3	999.11	127100.	4058.9	41282.
Stddev	21.4	171.	143.	1.9	320.	8.1	5.21	93.	15.2	175.
%RSD	.41532	.13544	.10111	.18125	.16012	.08907	.52140	.07350	.37432	.42428
#1	5132.7	126110.	141590.	1036.1	200320.	9034.0	993.52	127010.	4044.7	41099.
#2	5150.6	126190.	141610.	1038.8	200060.	9033.2	999.97	127200.	4056.9	41299.
#3	5175.3	125870.	141350.	1035.2	199680.	9047.6	1003.8	127070.	4074.9	41448.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5898.3	40969.	4092.8	3505.2	20202.	1943.7	1020.2	1993.5	3955.1	3965.9
Stddev	25.2	134.	15.3	15.5	24.	5.5	1.5	1.7	2.0	12.3
%RSD	.42651	.32712	.37263	.44220	.11878	.28334	.14610	.08653	.04942	.30895
#1	5874.3	40846.	4075.6	3489.0	20222.	1938.5	1018.7	1993.0	3952.9	3961.4
#2	5896.3	40949.	4098.4	3506.7	20209.	1943.0	1021.6	1995.5	3956.1	3956.5
#3	5924.5	41112.	4104.5	3519.8	20175.	1949.5	1020.3	1992.1	3956.4	3979.7

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCV@CCV01 Acquired: 10/28/2016 12:38:28 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8199.7
Stddev	25.9
%RSD	.31545
#1	8177.1
#2	8194.0
#3	8227.9

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2589.4	1966.8	179810.	17893.	3955.6	33652.	7033.7
Stddev	8.0	7.9	466.	96.	17.2	100.	29.3
%RSD	.30922	.40225	.25899	.53822	.43386	.29802	.41673
#1	2595.9	1973.1	180130.	17782.	3971.8	33694.	7000.2
#2	2591.9	1969.4	180020.	17945.	3957.5	33725.	7054.7
#3	2580.5	1957.9	179280.	17953.	3937.7	33538.	7046.3

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB01 Acquired: 10/28/2016 12:42:40 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08817	F 396.67	.10584	.28059	39.147	.00873	561.33	.06717	-.03912	1.7810
Stddev	.46573	581.31	.10600	.34340	59.415	.01449	795.74	.01064	.04142	.5122
%RSD	528.22	146.55	100.15	122.39	151.77	165.87	141.76	15.835	105.87	28.762
#1	-.38841	1065.9	.22787	.65942	107.67	.01779	1478.2	.07074	-.08692	2.3686
#2	.44834	106.68	.03653	.19261	7.8559	-.00797	155.39	.07556	-.01665	1.5458
#3	-.32443	17.405	.05314	-.01026	1.9176	.01639	50.431	.05521	-.01380	1.4286

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00152	F 425.48	191.16	2.7684	488.13	F 24.127	.08801	250.37	.31624	2.2859
Stddev	.21159	574.00	330.77	3.4911	759.64	36.138	.03263	357.82	.19811	.6768
%RSD	13905.	134.91	173.03	126.10	155.62	149.78	37.071	142.92	62.647	29.606
#1	-.21054	1085.3	573.01	6.7810	1364.2	65.802	.05240	663.33	.38510	3.0549
#2	.00246	149.62	7.8079	.42760	88.399	5.1103	.11646	55.408	.47072	1.7812
#3	.21265	41.480	-7.3217	1.0967	11.820	1.4677	.09517	32.365	.09288	2.0215

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08838	2.0614	2.8173	-1.2738	44.439	-.30510	2.5635	5.1271	.13416	.15224
Stddev	1.0399	.4874	1.4071	.9142	67.703	.66066	3.8530	8.4906	.60207	.10425
%RSD	1176.7	23.644	49.946	71.765	152.35	216.54	150.30	165.60	448.79	68.473
#1	.88304	2.3163	4.4286	-.75940	121.84	-.77503	7.0060	14.910	.75193	.05541
#2	.03721	2.3686	1.8302	-2.3293	15.249	-.59057	.55240	.79593	-.45088	.26258
#3	-1.1854	1.4994	2.1931	-.73281	-3.7717	.45029	.13227	-.32448	.10141	.13874

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB01 Acquired: 10/28/2016 12:42:40 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	.34424
Stddev	.02977
%RSD	8.6471
#1	.33009
#2	.37844
#3	.32418

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3496.0	2553.3	199010.	17779.	4440.2	37644.	7198.1
Stddev	9.4	6.0	1645.	112.	14.5	301.	53.0
%RSD	.26802	.23516	.82678	.62947	.32597	.80072	.73618
#1	3504.8	2554.7	197150.	17665.	4452.0	37296.	7137.7
#2	3486.2	2546.7	199630.	17782.	4424.0	37807.	7219.4
#3	3496.9	2558.4	200260.	17889.	4444.5	37829.	7237.0

Sample Name: SEQ-CCV@CCV02 Acquired: 10/28/2016 12:52:17 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	513.90	144480.	2131.9	1979.1	16507.	397.84	202700.	987.53	2450.4	5814.3
Stddev	.37	344.	4.4	2.0	206.	.57	306.	2.11	2.9	7.5
%RSD	.07201	.23831	.20500	.10085	1.2461	.14228	.15074	.21390	.12000	.12851
#1	513.86	144360.	2132.6	1978.0	16320.	397.26	202650.	985.78	2448.0	5819.2
#2	513.54	144860.	2135.9	1981.4	16728.	397.88	203030.	989.88	2453.7	5805.7
#3	514.28	144200.	2127.2	1978.0	16474.	398.39	202430.	986.93	2449.4	5818.0

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5119.9	126640.	142210.	1040.5	201230.	9049.6	997.84	127320.	4059.3	41537.
Stddev	14.9	99.	286.	2.8	489.	17.7	.36	197.	6.9	70.
%RSD	.29036	.07797	.20081	.26484	.24287	.19508	.03617	.15508	.17118	.16883
#1	5104.5	126590.	142250.	1039.2	201280.	9034.6	997.42	127200.	4061.9	41505.
#2	5120.9	126750.	142470.	1043.6	201690.	9069.0	998.03	127550.	4064.7	41617.
#3	5134.2	126570.	141900.	1038.6	200720.	9045.2	998.07	127210.	4051.5	41488.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5895.5	40942.	4104.5	3498.6	20444.	1948.9	1017.8	2007.5	3959.9	3977.8
Stddev	14.7	60.	8.4	3.9	57.	5.0	2.5	1.2	5.2	3.8
%RSD	.24857	.14700	.20352	.11176	.27695	.25680	.24924	.05984	.13131	.09614
#1	5908.7	40916.	4095.6	3494.1	20443.	1946.5	1018.9	2006.6	3953.9	3976.7
#2	5898.0	41010.	4112.1	3501.5	20501.	1954.6	1019.6	2008.8	3962.1	3974.6
#3	5879.7	40899.	4105.9	3500.2	20388.	1945.5	1014.9	2006.9	3963.6	3982.0

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCV@CCV02 Acquired: 10/28/2016 12:52:17 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8242.0
Stddev	12.8
%RSD	.15503
#1	8241.5
#2	8255.1
#3	8229.6

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.7	1973.6	179430.	17842.	3959.8	33824.	7030.5
Stddev	4.2	.9	292.	67.	5.3	58.	19.8
%RSD	.16304	.04509	.16291	.37810	.13443	.17243	.28207
#1	2591.6	1972.7	179370.	17819.	3965.8	33847.	7031.6
#2	2584.3	1974.5	179750.	17789.	3958.3	33867.	7010.2
#3	2584.2	1973.7	179180.	17918.	3955.4	33757.	7049.8

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB02 Acquired: 10/28/2016 12:56:31 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14777	-22.617	.57421	-.27383	-1.8473	-.07638	-16.574	-.09910	-.24406	-.33876	-.91603
Stddev	.11050	5.660	.77417	.50537	.0852	.01290	2.741	.03906	.12124	.22192	.16143
%RSD	74.778	25.026	134.82	184.55	4.6132	16.892	16.537	39.419	49.678	65.509	17.622
#1	-.27257	-16.093	1.2977	.10827	-1.8071	-.07836	-19.278	-.05404	-.33416	-.56737	-.96240
#2	-.10831	-25.539	.66710	-.08292	-1.9452	-.06261	-16.646	-.11985	-.29180	-.12421	-1.0492
#3	-.06242	-26.218	-.24221	-.84686	-1.7897	-.08818	-13.798	-.12340	-.10621	-.32470	-.73649

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-20.502	-74.105	.32408	-24.826	-.84783	-.26442	-13.000	-.38186	-4.4562	-1.1897	-4.9781
Stddev	2.742	13.818	.46597	23.635	.18364	.13544	5.932	.31809	.6294	.0277	.5551
%RSD	13.376	18.647	143.78	95.206	21.660	51.222	45.631	83.301	14.124	2.3294	11.152
#1	-23.248	-64.010	.26992	-30.184	-.81300	-.23257	-6.5054	-.45385	-4.8516	-1.2203	-5.4730
#2	-17.764	-68.453	-.11245	-45.322	-1.0464	-.14775	-18.132	-.03394	-3.7304	-1.1663	-4.3778
#3	-20.494	-89.854	.81477	1.0290	-.68409	-.41295	-14.361	-.65779	-4.7867	-1.1824	-5.0834

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0911	-1.9689	1.5237	-.52066	-.08629	-.42109	-.67460	-.41594	-.92169
Stddev	.8738	.3955	6.1377	.09891	.03904	.48470	.45988	.06065	.10843
%RSD	80.090	20.088	402.81	18.997	45.241	115.11	68.171	14.581	11.764
#1	1.7561	-1.5349	7.2548	-.40752	-.07498	-.41855	-.73119	-.36038	-.90411
#2	1.4157	-2.3090	-4.9526	-.59074	-.05415	-.90705	-1.1036	-.48064	-.82312
#3	.10138	-2.0628	2.2690	-.56372	-.12973	.06233	-.18904	-.40679	-1.0378

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB02 Acquired: 10/28/2016 12:56:31 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3471.3	2544.9	198470.	17910.	4416.0	37884.	7254.6
Stddev	6.5	4.2	488.	84.	4.7	92.	28.8
%RSD	.18597	.16309	.24600	.46925	.10683	.24160	.39695
#1	3477.7	2548.7	199030.	17911.	4418.2	37985.	7256.1
#2	3471.5	2540.5	198160.	17826.	4419.3	37807.	7225.0
#3	3464.8	2545.6	198220.	17994.	4410.6	37859.	7282.6

Bonner Analytical Testing Company ICAPP01

Sample Name: QJ28013-BLK1 Acquired: 10/28/2016 13:02:35 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: PBS01/2 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.01175	-13.964	-.81129	-1.2645	-2.2189	-.08243	-23.082	-.13070	-.53329	-.52809	-.87134
Stddev	.19314	2.652	.53398	.2768	.1855	.01305	15.796	.01768	.17097	.10287	.03843
%RSD	1643.1	18.994	65.819	21.891	8.3587	15.834	68.435	13.527	32.060	19.479	4.4099
#1	-.18168	-13.204	-.29950	-1.5255	-2.0125	-.07081	-5.2980	-.13048	-.45044	-.48048	-.90433
#2	-.05188	-16.913	-1.3650	-.97420	-2.3717	-.09655	-35.484	-.11313	-.72991	-.45764	-.88054
#3	.19830	-11.774	-.76937	-1.2939	-2.2724	-.07992	-28.464	-.14849	-.41953	-.64614	-.82915

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-12.400	-133.29	.72800	-35.172	-.88345	-.33108	-30.571	-.58978	6.7367	-1.3805	-6.7556
Stddev	2.751	4.90	.12717	15.160	.17117	.04090	1.672	.13747	.8051	1.0850	1.0671
%RSD	22.186	3.6745	17.469	43.101	19.376	12.353	5.4701	23.309	11.951	78.592	15.796
#1	-12.474	-138.86	.82101	-23.172	-.71919	-.37004	-32.431	-.72669	6.2407	-2.2985	-6.3167
#2	-9.6133	-129.65	.58308	-52.209	-.87038	-.33471	-29.192	-.45175	7.6657	-1.6599	-7.9721
#3	-15.114	-131.37	.77991	-30.136	-1.0608	-.28848	-30.091	-.59090	6.3039	-.18316	-5.9778

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.91973	-1.1078	-1.0122	9.5999	-.09384	.03001	-1.3908	-.56323	-.95624
Stddev	.78629	2.2012	4.8982	.6855	.03690	.21242	.5304	.10176	.04006
%RSD	85.491	198.70	483.94	7.1404	39.323	707.92	38.140	18.068	4.1889
#1	-.60485	-.47074	-4.1649	10.039	-.13631	-.18563	-.85954	-.45621	-.98160
#2	-.33968	.70460	4.6308	9.9504	-.07561	.23907	-1.3924	-.57472	-.91006
#3	-1.8147	-3.5572	-3.5023	8.8101	-.06961	.03658	-1.9204	-.65876	-.97707

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Bonner Analytical Testing Company ICAPP01

Sample Name: QJ28013-BLK1 Acquired: 10/28/2016 13:02:35 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: PBS01/2 SDG: MH1H68 Case: 46282
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3444.2	2497.3	199340.	17876.	4405.2	37744.	7203.6
Stddev	4.7	4.6	384.	21.	2.6	49.	17.8
%RSD	.13697	.18616	.19241	.11883	.05819	.12969	.24659
#1	3441.3	2499.6	199080.	17851.	4408.0	37734.	7184.0
#2	3441.6	2492.0	199150.	17885.	4403.0	37701.	7208.2
#3	3449.6	2500.3	199780.	17890.	4404.5	37797.	7218.7

Bonner Analytical Testing Company

Sample Name: QJ28013-BS1 Acquired: 10/28/2016 13:07:01 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: LCS0~~1~~2 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 19.391	F 373.88	F 17.629	-1.9269	F 409.97	9.9305	F 10259.	F 10.336	F 104.13	F 20.985
Stddev	.416	3.15	.944	.3609	.95	.0106	52.	.105	.24	.171
%RSD	2.1462	.84321	5.3535	18.732	.23251	.10713	.50374	1.0149	.23375	.81284
#1	19.841	377.08	18.161	-2.0773	411.06	9.9248	10215.	10.413	104.34	21.044
#2	19.312	373.79	16.539	-1.5150	409.30	9.9427	10247.	10.379	104.19	21.119
#3	19.020	370.77	18.187	-2.1882	409.55	9.9238	10316.	10.217	103.87	20.793

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 46.149	F 185.73	F 9607.5	-.11434	F 9816.4	F 30.282	-.40366	F 9719.4	F 79.028	4.2322
Stddev	.112	7.50	21.8	.49170	9.7	.307	.07621	12.5	.315	.1912
%RSD	.24169	4.0394	.22731	430.05	.09884	1.0148	18.880	.12814	.39916	4.5184
#1	46.212	189.08	9628.3	-.36123	9823.5	30.569	-.47788	9711.6	79.186	4.1446
#2	46.215	177.13	9584.7	.45189	9805.3	30.320	-.40748	9712.9	79.233	4.1005
#3	46.021	190.96	9609.4	-.43367	9820.4	29.958	-.32560	9733.8	78.665	4.4516

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 18.546	-5.8699	F 119.87	F 69.030	8.0932	8.5122	.56882	.20047	F 48.305	F 100.17
Stddev	.763	1.6106	1.14	1.569	1.3490	.3245	.04942	.47797	.755	.47
%RSD	4.1160	27.438	.95452	2.2727	16.668	3.8124	8.6876	238.43	1.5631	.47122
#1	19.410	-6.7340	120.85	70.088	7.1200	8.4232	.55443	.04147	47.936	99.645
#2	18.264	-4.0117	120.16	69.775	7.5266	8.8719	.62383	-.17774	49.173	100.56
#3	17.964	-6.8639	118.62	67.228	9.6331	8.2414	.52819	.73767	47.804	100.29

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Bonner Analytical Testing Company

Sample Name: QJ28013-BS1 Acquired: 10/28/2016 13:07:01 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: LCS0~~1~~2 SDG: MH1H68 Case: 46282
Comment:

Elem	Zn2062
Units	ppb
Avg	F 118.39
Stddev	.15
%RSD	.12382
#1	118.53
#2	118.41
#3	118.24

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3260.9	2382.6	193880.	17678.	4313.4	36726.	7121.4
Stddev	8.5	7.0	352.	30.	11.6	87.	8.7
%RSD	.26020	.29551	.18150	.17141	.26782	.23714	.12284
#1	3254.9	2376.9	194290.	17643.	4304.3	36826.	7117.6
#2	3257.2	2380.4	193680.	17698.	4309.4	36669.	7131.4
#3	3270.6	2390.5	193680.	17692.	4326.4	36683.	7115.1

Sample Name: 6100168-18 Acquired: 10/28/2016 13:11:22 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H85 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	*****	168190.	1597.6	F 13310.	665.26	77.742	51075.	215.41
#1	-----	167990.	1575.2	13226.	665.28	77.823	50989.	214.24
#2	-----	168340.	1600.9	13343.	666.55	77.564	51071.	215.83
#3	-----	168220.	1616.7	13361.	663.96	77.840	51164.	216.15

Elem	Co2286	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	185.77	6.3813	4939.9	F 2322500.	8075.9	315.13	48165.	F 24713.
#1	184.67	6.6514	4931.6	2320600.	8078.9	315.04	47948.	24690.
#2	186.48	6.3655	4943.1	2312800.	8074.6	315.57	48120.	24719.
#3	186.16	6.1271	4944.9	2333900.	8074.2	314.76	48429.	24730.

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	68.223	783.34	325.52	10700.	7034.0	29359.	37.618	F -155.26
#1	67.513	785.38	320.20	10643.	6936.3	29200.	39.570	-149.58
#2	68.257	785.34	326.43	10723.	7049.4	29418.	36.944	-159.37
#3	68.898	779.30	329.94	10734.	7116.5	29458.	36.338	-156.82

Bonner Analytical Testing Company ICAPP01

Sample Name: 6100168-18 Acquired: 10/28/2016 13:11:22 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H85 SDG: MH1H68 Case: 46282
Comment:

Elem	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	10290.	30.221	F 2557.4	1057.6	F -151.09	247.48	F 55811.
#1	10215.	29.864	2549.1	1056.9	-152.25	247.87	55045.
#2	10283.	29.623	2561.4	1058.0	-154.88	247.32	55909.
#3	10370.	31.177	2561.7	1058.0	-146.15	247.25	56479.

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1206.0	1457.5	161380.	15328.	5672.3	51388.	10838.
#1	1227.0	1473.3	160830.	15341.	5698.1	51249.	10813.
#2	1194.0	1456.1	161990.	15348.	5662.7	51494.	10859.
#3	1196.9	1443.1	161310.	15295.	5656.3	51420.	10843.

Bonner Analytical Testing Company

Sample Name: 6100168-18RE1 Acquired: 10/28/2016 13:18:09 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H85 SDG: MH1H68 Case: 46282
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-9.6800	49316.	291.61	F 4213.6	195.79	25.256	16892.	64.925	63.085
#1	-8.6375	49485.	291.51	4219.6	197.03	25.165	16923.	64.991	63.327
#2	-11.418	49219.	293.72	4246.7	195.13	25.499	16822.	65.524	63.576
#3	-8.9841	49245.	289.59	4174.4	195.20	25.102	16932.	64.259	62.350

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.98898	1344.2	F 898010.	2214.7	57.335	15520.	7938.6	21.304	187.59
#1	1.1289	1336.8	899660.	2210.3	57.255	15530.	7951.1	21.254	186.74
#2	1.0437	1358.4	895760.	2206.3	57.343	15489.	7916.0	21.729	188.08
#3	.79437	1337.3	898590.	2227.6	57.409	15540.	7948.6	20.928	187.96

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	18.400	3416.2	1449.9	9774.2	10.664	-1.2500	2389.5	8.6204	491.63
#1	18.751	3415.6	1452.6	9792.4	11.251	-.75537	2449.3	8.3290	492.19
#2	18.640	3452.3	1463.2	9858.7	10.422	-2.5437	2238.5	8.2140	490.75
#3	17.808	3380.6	1433.9	9671.5	10.320	-.45080	2480.7	9.3181	491.95

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Bonner Analytical Testing Company

Sample Name: 6100168-18RE1 Acquired: 10/28/2016 13:18:09 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1H85 SDG: MH1H68 Case: 46282
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	212.06	-18.397	81.544	12662.
#1	212.10	-16.857	80.912	12710.
#2	211.47	-17.813	82.463	12772.
#3	212.59	-20.523	81.256	12502.

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2687.0	1998.2	185290.	17246.	4649.3	40243.	8022.8
#1	2682.5	1994.0	185770.	17254.	4640.8	40360.	8005.2
#2	2663.6	1984.4	184020.	17297.	4617.7	40031.	8056.5
#3	2715.0	2016.2	186100.	17185.	4689.6	40337.	8006.8

Sample Name: SEQ-CCV@CCV03 Acquired: 10/28/2016 13:22:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	510.18	144940.	2144.9	2009.1	16821.	397.72	202260.	998.55	2477.8	5850.9
Stddev	5.79	905.	12.4	5.7	34.	4.43	790.	3.90	9.3	64.0
%RSD	1.1342	.62450	.57724	.28160	.19943	1.1134	.39042	.39085	.37580	1.0936
#1	512.14	144420.	2153.7	2012.7	16790.	400.10	201890.	999.09	2479.1	5889.4
#2	514.74	144420.	2150.3	2012.0	16816.	400.44	201730.	1002.2	2486.4	5886.2
#3	503.67	145980.	2130.8	2002.6	16857.	392.61	203170.	994.40	2467.9	5777.0

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5100.1	126160.	143410.	1047.4	200000.	8944.2	1004.8	127590.	4074.2	42178.
Stddev	61.6	681.	741.	7.4	900.	45.8	4.0	784.	22.2	160.
%RSD	1.2082	.53992	.51688	.71031	.44980	.51245	.39630	.61437	.54383	.37990
#1	5124.1	125690.	143170.	1045.5	199330.	8909.8	1005.9	127160.	4085.8	42248.
#2	5146.1	125850.	142820.	1041.2	199640.	8926.5	1008.2	127120.	4088.2	42291.
#3	5030.1	126940.	144240.	1055.6	201020.	8996.2	1000.4	128500.	4048.6	41995.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5922.1	41259.	4152.1	3537.3	20359.	1957.1	1017.4	1998.2	3980.4	3984.5
Stddev	35.5	158.	6.7	13.9	113.	10.4	7.4	13.0	19.0	46.9
%RSD	.59919	.38215	.16035	.39325	.55509	.53226	.72399	.64824	.47714	1.1771
#1	5937.4	41274.	4154.2	3538.0	20314.	1959.3	1013.8	1997.7	3987.3	4010.8
#2	5947.4	41408.	4157.4	3550.9	20275.	1966.3	1012.6	1985.4	3995.0	4012.3
#3	5881.6	41094.	4144.6	3523.1	20488.	1945.8	1025.9	2011.3	3958.9	3930.3

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCV@CCV03 Acquired: 10/28/2016 13:22:22 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8266.6
Stddev	47.7
%RSD	.57727
#1	8287.5
#2	8300.3
#3	8212.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2575.0	1964.1	177750.	17673.	3927.6	33766.	6984.1
Stddev	6.9	7.6	1538.	26.	10.6	272.	10.2
%RSD	.26899	.38594	.86501	.14987	.26997	.80471	.14645
#1	2571.8	1959.3	176760.	17676.	3925.7	33593.	6994.6
#2	2570.2	1960.2	176960.	17698.	3918.1	33626.	6983.7
#3	2582.9	1972.8	179520.	17646.	3939.0	34079.	6974.1

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB03 Acquired: 10/28/2016 13:26:36 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.32614	-13.049	-.63673	7.3514	-.79747	-.01468	4.2457	-.06052	-.19480	.17425	-.38611
Stddev	.21763	13.034	.63405	.5524	.58366	.01363	1.1467	.01710	.09086	.36888	.28690
%RSD	66.731	99.883	99.579	7.5142	73.190	92.823	27.009	28.258	46.643	211.70	74.305
#1	-.39364	1.5046	.09540	7.7753	-.34580	-.00924	5.4790	-.05480	-.09807	.59853	-.09268
#2	-.08275	-23.646	-1.0044	7.5524	-1.4565	-.03019	4.0463	-.04702	-.20797	-.07043	-.39965
#3	-.50202	-17.006	-1.0012	6.7267	-.59010	-.00461	3.2117	-.07976	-.27835	-.00536	-.66599

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-10.305	-128.08	.13655	-27.102	.04303	-.12849	-22.265	-.18743	-2.3363	-.66515	-3.2895
Stddev	10.921	9.86	.50775	16.358	.31347	.17127	7.922	.10723	.3861	.68558	.4581
%RSD	105.98	7.6977	371.84	60.357	728.47	133.30	35.580	57.213	16.526	103.07	13.925
#1	-3.5503	-134.62	-.44327	-9.0961	.40499	.05129	-13.900	-.07082	-1.8905	-.22954	-3.0433
#2	-22.904	-116.74	.35119	-41.047	-.13789	-.28975	-29.654	-.28180	-2.5637	-.31051	-3.8180
#3	-4.4603	-132.88	.50172	-31.162	-.13801	-.14701	-23.241	-.20966	-2.5547	-1.4554	-3.0073

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.90024	-1.7604	6.0073	-.70083	-.05976	.10448	-.62384	.02689	-.43336
Stddev	.39143	1.2116	3.4835	.34522	.04072	.54038	1.3742	.19212	.19617
%RSD	43.480	68.826	57.987	49.259	68.134	517.20	220.28	714.36	45.268
#1	1.2598	-1.8383	5.5024	-.32486	-.08635	-.51181	-.43186	.24051	-.26436
#2	.95761	-2.9312	9.7157	-.77408	-.08006	.49716	.64429	-.02808	-.38723
#3	.48329	-.51171	2.8038	-1.0035	-.01289	.32809	-2.0840	-.13175	-.64848

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB03 Acquired: 10/28/2016 13:26:36 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3477.5	2548.4	197300.	17724.	4403.8	37820.	7198.3
Stddev	15.5	8.2	509.	88.	12.8	77.	32.7
%RSD	.44524	.32294	.25823	.49501	.29092	.20463	.45383
#1	3474.1	2549.1	197550.	17825.	4405.8	37863.	7236.0
#2	3494.5	2556.3	197640.	17668.	4415.5	37867.	7177.5
#3	3464.1	2539.9	196720.	17680.	4390.1	37731.	7181.5

Bonner Analytical Testing Company

Instrument ID: ICAPP01 Calibration ID: B645018 Calibration Date: 10/31/2016

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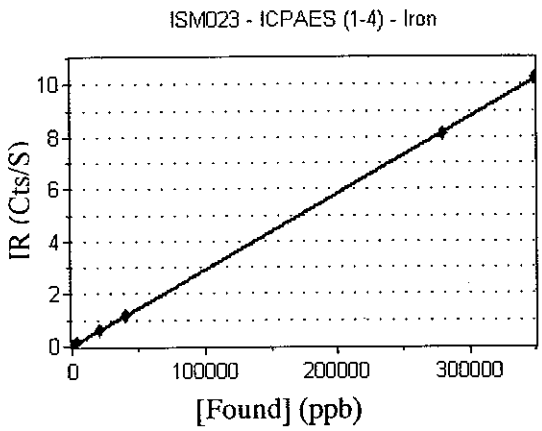

Calibration Plot: Iron
Calibration Type: Linear Regression Weighted 1/X
Corr. Coeff.: 0.9999358
Fit: [Y] = 2.920916E-05 * [X] + 6.981103E-04
[y-intercept] = -23.90

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63117-CAL1	B6I0028	0	5.54	0.00086	0
BJ63117-CAL2	B6G0026	100	81.20	0.00307	19
BJ63117-CAL3	B6G0027	800	864.52	0.02595	-8
BJ63117-CAL4	B6G0028	4000	4,258.66	0.12509	-6
BJ63117-CAL5	B6G0029	20000	20,788.75	0.60792	-4
BJ63117-CAL6	B6G0030	40000	40,370.96	1.1799	-1
BJ63117-CAL7	B6G0031	280000	277,368.53	8.1024	1
BJ63117-CAL8	B6G0032	350000	351,167.30	10.258	0

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/31/2016 10:49:08 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00118	.00195	-.00032	.00577	.02598	-.00120	-.00020	-.00005	-.00020	.00001
#1	-.00122	.00372	-.00047	.00563	.03217	-.00125	.00015	-.00001	-.00042	.00000
#2	-.00109	.00117	-.00027	.00576	.02483	-.00122	-.00029	-.00018	-.00023	.00001
#3	-.00122	.00097	-.00023	.00592	.02094	-.00114	-.00046	.00006	.00007	.00000

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00093	.00086	.01132	-.00018	.00024	.00039	-.00002	.00983	-.00066	-.00030
#1	.00094	.00165	.01038	.00023	.00044	.00076	.00005	.01409	-.00078	-.00032
#2	.00099	.00065	.01230	.00031	.00025	.00031	-.00004	.00788	-.00064	-.00030
#3	.00087	.00027	.01129	-.00109	.00002	.00010	-.00007	.00754	-.00055	-.00027

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00030	-.00051	-.00129	.00008	.00039	-.00004	.00027	.00271	-.00003	-.00001
#1	-.00029	-.00050	-.00121	.00003	.00045	-.00009	.00075	.00278	.00002	.00005
#2	-.00046	-.00045	-.00136	.00013	.00040	-.00006	.00004	.00263	-.00006	-.00004
#3	-.00016	-.00057	-.00131	.00009	.00033	.00002	.00001	.00271	-.00005	-.00004

Bonner Analytical Testing Company

Sample Name: SEQ-CAL1@S01 Acquired: 10/31/2016 10:49:08 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	Cts/S
Avg	.00300
#1	.00349
#2	.00285
#3	.00266

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3658.2	2680.2	216900.	16339.	4611.5	38668.	7069.9
#1	3653.6	2680.9	216850.	16424.	4608.5	38654.	7072.2
#2	3662.1	2676.2	216800.	16320.	4616.8	38659.	7060.0
#3	3658.8	2683.4	217060.	16273.	4609.1	38692.	7077.4

Sample Name: SEQ-CAL2@S02 Acquired: 10/31/2016 10:53:38 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00113	.00876	.00140	.01074	.48507	.00580	.00364	.01615	.01349	.00029	.01205
#1	.00109	.00882	.00146	.01066	.48789	.00576	.00373	.01605	.01358	.00028	.01199
#2	.00103	.00862	.00136	.01062	.48466	.00586	.00356	.01615	.01338	.00029	.01202
#3	.00128	.00885	.00138	.01093	.48265	.00578	.00361	.01624	.01351	.00029	.01214

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00307	.02567	.00422	.00309	.00589	.00289	.07460	.02076	.01213	.00299	.00860
#1	.00307	.02502	.00414	.00337	.00580	.00273	.07346	.02066	.01202	.00268	.00862
#2	.00326	.02564	.00397	.00289	.00599	.00302	.07635	.02066	.01214	.00356	.00848
#3	.00287	.02634	.00455	.00302	.00589	.00293	.07400	.02095	.01223	.00272	.00869

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00101	.00128	.00081	.00240	.01799	.00407	.00299	.00506	.08609
#1	.00098	.00132	.00084	.00239	.01819	.00415	.00303	.00500	.08588
#2	.00115	.00133	.00081	.00242	.01814	.00394	.00292	.00512	.08605
#3	.00090	.00118	.00077	.00237	.01765	.00412	.00302	.00505	.08634

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL2@S02 Acquired: 10/31/2016 10:53:38 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3599.7	2655.6	218760.	16345.	4554.4	38896.	7133.2
#1	3611.1	2659.1	220780.	16325.	4568.4	39253.	7113.4
#2	3594.6	2653.6	217510.	16315.	4547.8	38685.	7134.8
#3	3593.5	2654.0	218010.	16393.	4547.1	38750.	7151.4

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/31/2016 10:58:07 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00352	.07004	.01406	.04837	3.7489	.05605	.03128	.12982	.11026	.00231	.09031
#1	.00349	.07011	.01410	.04831	3.7575	.05629	.03135	.13016	.11020	.00232	.09010
#2	.00361	.07037	.01413	.04814	3.7345	.05604	.03132	.12929	.11001	.00231	.09059
#3	.00346	.06963	.01394	.04867	3.7546	.05583	.03117	.13001	.11057	.00231	.09022

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02595	.14576	.03458	.02563	.04726	.02404	.56150	.17323	.10093	.02694	.07352
#1	.02609	.14748	.03408	.02600	.04773	.02411	.56419	.17373	.10087	.02723	.07324
#2	.02582	.14578	.03488	.02554	.04705	.02399	.55921	.17208	.10067	.02625	.07350
#3	.02593	.14403	.03479	.02535	.04700	.02402	.56109	.17388	.10125	.02734	.07382

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01781	.00901	.00432	.02006	.14543	.01548	.02457	.04095	.68074
#1	.01777	.00887	.00428	.01999	.14573	.01558	.02447	.04105	.68131
#2	.01751	.00906	.00430	.02012	.14456	.01523	.02448	.04091	.67738
#3	.01814	.00909	.00437	.02006	.14600	.01563	.02476	.04089	.68354

Bonner Analytical Testing Company

Sample Name: SEQ-CAL3@S03 Acquired: 10/31/2016 10:58:07 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3535.7	2625.0	217870.	16042.	4491.6	38482.	7039.6
#1	3536.5	2628.2	218360.	15967.	4499.4	38531.	7000.3
#2	3543.8	2635.1	217400.	16145.	4502.4	38436.	7073.5
#3	3526.8	2611.6	217840.	16013.	4473.1	38478.	7045.1

Sample Name: SEQ-CAL4@S04 Acquired: 10/31/2016 11:02:25 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02124	.33471	.07362	.21740	18.647	.28174	.15721	.63406	.54365	.01127	.43441
#1	.02121	.33283	.07343	.21719	18.578	.28257	.15595	.63380	.54299	.01131	.43676
#2	.02129	.33555	.07374	.21759	18.666	.28154	.15750	.63358	.54296	.01125	.43447
#3	.02122	.33575	.07369	.21742	18.696	.28110	.15817	.63478	.54499	.01125	.43201

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.12509	.69344	.17447	.12398	.22974	.11900	2.7789	.86805	.50876	.13439	.37118
#1	.12474	.69060	.17373	.12321	.22918	.11869	2.7647	.86546	.50743	.13354	.36963
#2	.12537	.69423	.17438	.12403	.22967	.11893	2.7853	.86988	.50808	.13548	.37068
#3	.12516	.69550	.17531	.12471	.23036	.11938	2.7869	.86880	.51077	.13416	.37324

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09237	.04403	.01989	.09935	.71887	.06633	.12247	.20236	3.4185
#1	.09219	.04383	.01984	.09917	.71568	.06596	.12247	.20312	3.4157
#2	.09235	.04404	.01981	.09906	.71855	.06645	.12244	.20233	3.4219
#3	.09256	.04421	.02001	.09983	.72239	.06657	.12251	.20163	3.4180

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL4@S04 Acquired: 10/31/2016 11:02:25 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3350.2	2517.5	214120.	15734.	4401.3	37661.	6931.7
#1	3352.9	2518.1	213950.	15782.	4405.4	37648.	6941.7
#2	3348.9	2514.9	214590.	15736.	4407.8	37743.	6923.3
#3	3348.8	2519.6	213830.	15682.	4390.5	37591.	6930.1

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/31/2016 11:06:34 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.10722	1.6403	.39454	1.0668	90.910	1.3949	.77579	3.0946	2.6743	.05497	2.2283
#1	.10805	1.6381	.39162	1.0582	91.731	1.4035	.77414	3.0752	2.6551	.05535	2.2421
#2	.10677	1.6449	.39893	1.0789	90.110	1.3847	.77720	3.1267	2.7043	.05461	2.2165
#3	.10684	1.6380	.39305	1.0634	90.889	1.3964	.77603	3.0818	2.6634	.05496	2.2262

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.60792	3.4598	.89176	.61199	1.1177	.61037	14.308	4.4300	2.5533	.67855	1.9472
#1	.60653	3.4536	.88853	.61020	1.1156	.60540	14.261	4.3988	2.5350	.67317	1.9297
#2	.60837	3.4687	.89321	.61376	1.1201	.61709	14.351	4.4770	2.5808	.68610	1.9680
#3	.60886	3.4572	.89355	.61200	1.1174	.60861	14.314	4.4142	2.5440	.67637	1.9439

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.47409	.22261	.09581	.50012	3.5678	.31866	.61348	.99815	17.257
#1	.47060	.22029	.09559	.49574	3.5596	.31698	.60997	1.0054	17.162
#2	.47922	.22512	.09624	.50606	3.5715	.31944	.61978	.99061	17.425
#3	.47244	.22241	.09560	.49856	3.5722	.31957	.61070	.99840	17.184

Bonner Analytical Testing Company

Sample Name: SEQ-CAL5@S05 Acquired: 10/31/2016 11:06:34 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3013.2	2305.0	208180.	15664.	4158.4	36560.	6874.5
#1	3029.3	2317.7	206670.	15712.	4189.3	36350.	6882.8
#2	2983.1	2282.6	209790.	15714.	4114.5	36824.	6886.2
#3	3027.0	2314.7	208080.	15567.	4171.3	36506.	6854.5

Sample Name: SEQ-CAL6@S06 Acquired: 10/31/2016 11:10:45 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.21038	3.2210	.79859	2.0849	175.36	2.7254	1.5105	6.0132	5.2410	.10804	4.4451
#1	.21403	3.2256	.80749	2.1074	177.10	2.7747	1.5135	6.0682	5.2943	.11014	4.5230
#2	.20422	3.2077	.79233	2.0739	174.95	2.6395	1.5041	5.9787	5.2094	.10449	4.3056
#3	.21289	3.2298	.79595	2.0735	174.04	2.7620	1.5139	5.9928	5.2193	.10950	4.5068

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.1799	6.8476	1.7732	1.2068	2.1566	1.2171	28.775	8.7517	4.9546	1.3269	3.9174
#1	1.1824	6.8595	1.7721	1.2099	2.1595	1.2301	28.833	8.8382	5.0025	1.3403	3.9549
#2	1.1747	6.8179	1.7716	1.2016	2.1471	1.2091	28.612	8.6888	4.9230	1.3186	3.8932
#3	1.1826	6.8653	1.7758	1.2090	2.1632	1.2121	28.880	8.7282	4.9382	1.3219	3.9041

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.94745	.44055	.18390	.98544	6.9023	.62027	1.1951	1.9470	33.582
#1	.95849	.44553	.18433	.99303	6.9001	.62089	1.2048	1.9811	33.866
#2	.94223	.43705	.18404	.97865	6.9065	.61999	1.1879	1.8875	33.360
#3	.94162	.43906	.18334	.98463	6.9003	.61994	1.1926	1.9724	33.519

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CAL6@S06 Acquired: 10/31/2016 11:10:45 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2814.9	2196.4	202560.	15656.	3994.5	35717.	6814.0
#1	2794.0	2177.4	199270.	15630.	3963.6	35189.	6788.2
#2	2831.0	2210.4	208010.	15658.	4016.1	36643.	6846.1
#3	2819.7	2201.5	200380.	15682.	4003.6	35319.	6807.7

Bonner Analytical Testing Company

Sample Name: SEQ-CAL7@S07 Acquired: 10/31/2016 11:14:57 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Ca3181	Cr2677	Fe2598	K_7664	Mg2790	Mn2576	Na5895	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	26.515	6.0091	.27013	8.1024	16.957	4.9266	5.5851	59.218	3.3978
#1	26.561	6.0072	.27084	8.1066	16.991	4.9285	5.5942	59.166	3.3952
#2	26.522	6.0127	.26997	8.1133	16.967	4.9281	5.5845	59.801	3.4014
#3	26.463	6.0074	.26959	8.0873	16.913	4.9232	5.5767	58.688	3.3967

Int. Std.	Sc2273	Sc3572	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	1876.3	184140.	6558.6
#1	1878.1	183520.	6559.2
#2	1872.9	184260.	6553.9
#3	1877.8	184630.	6562.7

Bonner Analytical Testing Company

Sample Name: SEQ-CAL8@S08 Acquired: 10/31/2016 11:19:23 Type: Cal
Method: ISM02.3_TotalMetals(v4) Mode: IR Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Al3961	Fe2598	Pb2203
Units	Cts/S	Cts/S	Cts/S
Avg	30.912	10.258	8.2721
#1	30.879	10.236	8.3033
#2	30.944	10.281	8.2532
#3	30.914	10.256	8.2597

Int. Std.	Sc2273	Y_3710
Units	Cts/S	Cts/S
Avg	2254.3	7043.6
#1	2250.0	7078.1
#2	2255.8	7020.0
#3	2257.1	7032.7

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/31/2016 11:23:45 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	507.78	W 2659.2	1004.7	F .89425	W 526.63	W 530.56	W 10846.	W 538.39	W 547.71
Stddev	2.79	7.4	17.5	.70370	2.52	3.42	30.	8.72	9.09
%RSD	.55030	.27730	1.7468	78.692	.47849	.64421	.28050	1.6191	1.6592
#1	504.68	2667.5	1021.2	1.7062	529.32	526.89	10873.	546.08	556.00
#2	508.59	2656.7	986.29	.46086	526.24	531.15	10853.	528.92	537.99
#3	510.09	2653.4	1006.5	.51570	524.33	533.64	10813.	540.18	549.13

Elem	Cr2677	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 553.71	497.95	W 5455.5	10121.	.51483	6218.1	W 534.41	-.28014	10442.
Stddev	4.51	6.17	15.5	36.	.29368	22.0	1.11	.08982	36.
%RSD	.81467	1.2397	.28498	.35972	57.044	.35353	.20822	32.063	.34904
#1	548.56	490.85	5450.2	10163.	.18099	6220.4	535.65	-.21183	10480.
#2	555.60	500.95	5473.0	10101.	.73335	6238.8	534.06	-.38188	10441.
#3	556.96	502.05	5443.3	10099.	.63015	6195.0	533.51	-.24670	10407.

Elem	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	W 536.71	.56905	W 1073.0	F 1.4409	1042.7	W 1090.5	F -12.235	F -.00772	F 11.992
Stddev	8.90	.88181	16.4	3.0973	16.6	16.3	8.409	.45453	.130
%RSD	1.6587	154.96	1.5296	214.96	1.5929	1.4965	68.732	5890.2	1.0816
#1	543.41	1.4077	1086.6	3.8278	1059.1	1106.0	-11.082	.50072	12.120
#2	526.61	.64984	1054.8	2.5540	1025.9	1073.5	-4.4619	-.14918	11.995
#3	540.12	-.35038	1077.7	-2.0592	1043.3	1092.1	-21.162	-.37469	11.861

Bonner Analytical Testing Company

Sample Name: SEQ-ICV@ICV01 Acquired: 10/31/2016 11:23:45 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb
Avg	F -.11274	W 1093.8	W 527.55	1061.2
Stddev	.58712	16.9	3.79	17.6
%RSD	520.79	1.5450	.71852	1.6592
#1	.26452	1109.0	523.73	1075.5
#2	-.78918	1075.6	527.60	1041.5
#3	.18645	1096.8	531.31	1066.7

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3344.3	2485.9	209890.	15354.	4250.1	37556.	6857.4
Stddev	50.5	34.8	1203.	86.	61.9	182.	20.2
%RSD	1.5110	1.4000	.57328	.55827	1.4561	.48462	.29512
#1	3302.6	2457.6	211260.	15318.	4196.5	37754.	6852.8
#2	3400.5	2524.7	209390.	15292.	4317.8	37518.	6839.9
#3	3329.8	2475.3	209010.	15452.	4235.9	37395.	6879.6

Sample Name: SEQ-ICB@ICB01 Acquired: 10/31/2016 11:27:57 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0928	-16.672	.02396	.57552	-1.4720	.00758	-5.9292	.02737	-.14045	-.13155	-.17414
Stddev	.2902	3.517	.36404	.41259	.1267	.00780	6.1115	.02733	.03613	.09198	.23784
%RSD	26.559	21.098	1519.6	71.689	8.6097	102.87	103.07	99.855	25.723	69.922	136.58
#1	1.0409	-20.733	-.11266	.09913	-1.4693	.00160	.96165	-.00390	-.09876	-.22579	-.44201
#2	.83202	-14.683	-.25201	.81024	-1.6001	.01640	-10.693	.03931	-.16012	-.12687	.01228
#3	1.4055	-14.599	.43654	.81720	-1.3467	.00475	-8.0565	.04669	-.16248	-.04200	-.09270

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-25.888	-55.072	.10078	8.4126	-.87525	.04972	3.6412	.05348	-.45480	.04864	-3.3733
Stddev	3.067	9.004	.40705	3.2042	.12870	.12422	2.9641	.31242	.16498	.58570	1.6065
%RSD	11.849	16.349	403.89	38.088	14.705	249.84	81.404	584.16	36.276	1204.1	47.625
#1	-27.799	-62.700	-.18187	12.052	-.73020	.04331	5.6620	-.07183	-.33870	-.13668	-1.8057
#2	-27.516	-45.140	.56733	7.1695	-.97578	.17702	.23850	.40910	-.38204	-.42198	-5.0161
#3	-22.350	-57.376	-.08312	6.0163	-.91976	-.07117	5.0231	-.17682	-.64365	.70458	-3.2981

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1485	1.1321	-23.264	-.00080	-.13368	-.07840	-.20977	.00428	-.25156
Stddev	.5485	1.6130	5.571	.33848	.02947	.44706	.75224	.07630	.03602
%RSD	47.757	142.47	23.945	42468.	22.042	570.25	358.61	1784.2	14.318
#1	1.4920	-.34323	-29.458	.18380	-.14624	-.45526	.28754	-.05215	-.21886
#2	.51593	.88541	-18.665	.20525	-.15478	.41555	-1.0752	-.02611	-.24565
#3	1.4375	2.8543	-21.670	-.39145	-.10002	-.19548	.15833	.09108	-.29016

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-ICB@ICB01 Acquired: 10/31/2016 11:27:57 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3521.7	2584.0	212130.	15398.	4265.9	38191.	6895.7
Stddev	8.2	12.1	974.	41.	10.6	86.	8.8
%RSD	.23424	.46754	.45938	.26673	.24962	.22573	.12773
#1	3523.1	2584.0	211300.	15432.	4269.7	38103.	6904.8
#2	3529.1	2596.1	213200.	15352.	4274.2	38194.	6895.1
#3	3512.8	2572.0	211870.	15408.	4253.9	38275.	6887.2

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/31/2016 11:32:25 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	2.7041	262650.	-7.0700	1.1961	9.6721	.09847	249960.	4.9213	.36267	F 64.808
Stddev	.1388	339.	.7513	.3305	.0923	.01637	705.	.0402	.18773	.446
%RSD	5.1334	.12924	10.627	27.631	.95403	16.626	.28187	.81612	51.764	.68785
#1	2.6451	262380.	-7.8426	1.0328	9.6562	.11118	250580.	4.8773	.52182	64.547
#2	2.8627	263030.	-7.0254	.97901	9.5888	.10424	250100.	4.9561	.15563	65.322
#3	2.6045	262530.	-6.3419	1.5764	9.7713	.08000	249190.	4.9303	.41057	64.553

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-7.0670	101830.	3.7400	4.8049	263710.	12.906	.99832	83.483	1.4104	3.4346
Stddev	.0581	166.	5.1970	.0799	946.	.366	.32558	3.711	.5223	1.8984
%RSD	.82253	.16322	138.96	1.6633	.35860	2.8381	32.612	4.4449	37.029	55.272
#1	-7.0281	101700.	-.96502	4.7282	263210.	12.694	1.2698	81.276	1.9951	5.2091
#2	-7.1338	102010.	2.8667	4.8877	264810.	12.695	1.0878	87.767	1.2461	3.6618
#3	-7.0391	101770.	9.3184	4.7986	263130.	13.329	.63736	81.406	.99007	1.4328

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.77326	-28.730	4.0010	3.8483	4.5428	.94772	99.746	3.3120	1.2199	1.9907
Stddev	1.3078	3.355	2.1700	.6586	10.464	.38876	.109	.2404	1.9207	.1455
%RSD	169.12	11.678	54.236	17.114	230.34	41.021	.10963	7.2584	157.45	7.3097
#1	.36581	-32.124	2.2142	4.5232	6.2221	.72635	99.780	3.0465	-.87671	1.8235
#2	-.28227	-25.414	6.4157	3.2074	-6.6591	.72020	99.834	3.5149	2.8944	2.0596
#3	2.2362	-28.653	3.3730	3.8142	14.065	1.3966	99.623	3.3746	1.6419	2.0890

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-IFA@ICSA01 Acquired: 10/31/2016 11:32:25 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	2.8130
Stddev	.1116
%RSD	3.9673
#1	2.8519
#2	2.6872
#3	2.9000

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.3	2031.1	192340.	15704.	3918.1	34639.	6795.9
Stddev	1.9	3.6	913.	57.	8.2	156.	20.1
%RSD	.06864	.17937	.47444	.36469	.21003	.45034	.29610
#1	2734.2	2035.1	193220.	15670.	3926.2	34776.	6787.5
#2	2734.6	2027.9	191390.	15672.	3909.8	34469.	6781.3
#3	2731.1	2030.4	192420.	15770.	3918.4	34671.	6818.8

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/31/2016 11:36:45 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	213.74	268820.	105.57	-.52543	536.16	535.88	256330.	1014.1	512.94	615.61
Stddev	1.69	565.	1.51	.74151	1.05	1.39	1143.	2.6	1.39	1.18
%RSD	.79246	.21036	1.4315	141.13	.19554	.25845	.44580	.25379	.27158	.19099
#1	214.12	268300.	106.24	.31206	535.44	536.32	255010.	1012.2	511.75	616.16
#2	215.21	268730.	103.84	-.78989	535.67	537.00	256970.	1013.1	512.60	616.40
#3	211.89	269420.	106.63	-1.0985	537.36	534.33	257010.	1017.0	514.48	614.26

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	516.27	104340.	-37.710	4.5575	270080.	532.65	.44395	35.889	1113.4	-9.8034
Stddev	2.12	406.	6.726	.3831	438.	.55	.33539	4.043	.9	2.3163
%RSD	.41079	.38877	17.835	8.4047	.16208	.10411	75.547	11.264	.08346	23.627
#1	517.20	103920.	-42.318	4.6248	269580.	532.43	.39753	40.547	1113.4	-10.019
#2	517.76	104380.	-40.819	4.1453	270420.	533.28	.80013	33.302	1112.4	-12.004
#3	513.84	104730.	-29.992	4.9025	270230.	532.24	.13419	33.818	1114.3	-7.3869

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	53.580	-42.191	640.92	58.029	-10.486	.57705	101.94	3.6725	108.03	520.55
Stddev	2.826	2.372	.96	2.778	2.738	.79930	.38	.0782	1.44	1.63
%RSD	5.2746	5.6225	.14934	4.7881	26.114	138.51	.37649	2.1301	1.3314	.31221
#1	54.687	-44.070	641.78	61.099	-7.3240	-.02083	101.63	3.6027	107.94	521.70
#2	50.368	-39.526	641.10	55.686	-12.087	.26708	101.83	3.6577	106.63	521.27
#3	55.685	-42.979	639.89	57.303	-12.046	1.4849	102.37	3.7571	109.51	518.69

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-IFB@ICSAB01 Acquired: 10/31/2016 11:36:45 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	1111.0
Stddev	1.5
%RSD	.13476
#1	1111.4
#2	1109.3
#3	1112.2

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2710.3	2021.4	192240.	15466.	3897.2	34602.	6711.1
Stddev	5.7	3.3	276.	66.	11.9	65.	17.7
%RSD	.21096	.16416	.14382	.42359	.30483	.18761	.26328
#1	2715.5	2023.3	192460.	15537.	3907.6	34642.	6728.5
#2	2711.4	2023.5	191930.	15408.	3899.7	34527.	6693.1
#3	2704.2	2017.6	192330.	15453.	3884.3	34636.	6711.5

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/31/2016 11:40:55 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	489.82	144210.	2154.0	2017.3	16247.	399.44	206860.	976.47	2478.6	5959.4
Stddev	2.27	4517.	5.0	7.3	720.	2.39	6810.	5.69	13.3	43.8
%RSD	.46349	3.1320	.23209	.36398	4.4343	.59896	3.2922	.58300	.53813	.73428
#1	492.09	149420.	2159.3	2019.8	17061.	397.97	214720.	980.34	2489.0	5925.8
#2	487.55	141410.	2153.3	2023.1	15693.	398.15	202700.	979.13	2483.4	5943.4
#3	489.82	141790.	2149.4	2009.0	15986.	402.20	203170.	969.93	2463.6	6008.9

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5037.5	128740.	142590.	1084.8	202500.	9014.6	1040.5	133730.	4155.4	42545.
Stddev	29.3	4208.	4634.	27.0	6962.	286.1	2.3	4231.	6.0	200.
%RSD	.58210	3.2687	3.2499	2.4853	3.4382	3.1738	.21964	3.1642	.14458	.47004
#1	5024.9	133590.	147940.	1115.8	210530.	9344.7	1041.8	138610.	4160.3	42702.
#2	5016.6	126060.	139780.	1067.2	198220.	8839.2	1041.9	131140.	4157.2	42613.
#3	5071.0	126570.	140060.	1071.4	198740.	8859.8	1037.9	131430.	4148.7	42320.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5855.2	43318.	4127.8	3669.7	19548.	2064.4	1003.5	2010.6	4002.5	3956.5
Stddev	6.0	81.	13.6	12.9	588.	8.8	25.9	55.6	19.0	19.0
%RSD	.10330	.18804	.33004	.35257	3.0074	.42707	2.5792	2.7659	.47592	.48118
#1	5861.7	43361.	4135.4	3682.5	20226.	2069.4	1033.3	2074.7	4013.5	3947.8
#2	5854.4	43369.	4135.9	3670.0	19229.	2069.5	987.34	1974.7	4013.4	3943.3
#3	5849.7	43224.	4112.1	3656.6	19188.	2054.2	989.76	1982.5	3980.5	3978.3

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Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV01 Acquired: 10/31/2016 11:40:55 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8206.8
Stddev	38.2
%RSD	.46604
#1	8231.7
#2	8225.9
#3	8162.8

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.2	2028.2	189020.	14688.	3763.4	33978.	6442.6
Stddev	11.8	2.8	1056.	445.	12.0	151.	223.4
%RSD	.45053	.13951	.55883	3.0267	.31855	.44479	3.4676
#1	2607.7	2025.8	189880.	14184.	3755.3	34073.	6187.5
#2	2607.0	2027.6	189340.	15025.	3757.6	34057.	6603.1
#3	2627.8	2031.3	187840.	14854.	3777.2	33804.	6537.4

Sample Name: SEQ-CCB@CCB01 Acquired: 10/31/2016 11:45:07 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1646	-11.501	-.63397	1.4664	-1.4313	-.00274	-4.5060	-.00645	.01398	.01126	.13724
Stddev	.2324	8.648	.71212	.2188	.0925	.01225	8.6821	.06462	.02527	.05530	.09215
%RSD	19.953	75.198	112.33	14.918	6.4596	447.57	192.68	1001.6	180.72	491.10	67.144
#1	1.3397	-10.693	-1.2592	1.7002	-1.4099	-.00716	4.2466	.05503	-.00332	.07254	.09937
#2	1.2532	-20.524	-.78388	1.4325	-1.3515	-.01216	-13.116	-.07380	.04299	-.03493	.24229
#3	.90101	-3.2845	.14117	1.2666	-1.5326	.01111	-4.6486	-.00058	.00229	-.00383	.07006

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-24.169	33.056	1.1416	5.5904	-.88348	.27191	21.939	.14142	-.76913	-.50153	-1.7308
Stddev	2.429	12.254	.1032	12.280	.11305	.14965	6.467	.19270	1.3404	1.3483	1.1927
%RSD	10.050	37.071	9.0403	219.65	12.796	55.037	29.476	136.26	174.28	268.84	68.911
#1	-23.059	41.612	1.2389	2.4624	-.76043	.15821	28.121	.00182	.63490	-.92330	-3.0982
#2	-22.494	38.538	1.1526	19.131	-.90728	.44146	22.476	.36128	-.90700	1.0072	-1.1892
#3	-26.955	19.018	1.0334	-4.8226	-.98273	.21608	15.221	.06117	-2.0353	-1.5885	-.90502

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1456	.79987	-29.349	-.11725	-.12307	.36280	1.2303	.14400	-.09926
Stddev	.6772	1.5851	9.034	.20549	.03154	.16789	1.2576	.10298	.04781
%RSD	59.108	198.17	30.780	175.26	25.625	46.277	102.22	71.509	48.169
#1	1.6977	-1.0301	-38.510	.11792	-.14253	.25053	2.2013	.03148	-.04882
#2	1.3491	1.6834	-20.448	-.26221	-.13998	.28206	1.6800	.23356	-.14392
#3	.39007	1.7463	-29.089	-.20746	-.08668	.55581	-.19033	.16697	-.10503

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Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB01 Acquired: 10/31/2016 11:45:07 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3508.6	2572.6	208810.	15345.	4222.7	37931.	6850.4
Stddev	5.5	5.3	312.	117.	7.1	32.	40.5
%RSD	.15677	.20652	.14962	.76067	.16735	.08563	.59144
#1	3506.5	2570.6	208830.	15356.	4225.3	37901.	6865.3
#2	3504.4	2568.5	209110.	15456.	4214.7	37965.	6881.3
#3	3514.8	2578.6	208490.	15223.	4228.0	37927.	6804.5

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/31/2016 11:53:46 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	482.92	139790.	2147.1	2010.8	15605.	398.42	200980.	973.28	2474.6	5969.3
Stddev	2.31	883.	13.6	6.3	185.	1.13	1685.	1.25	4.0	19.4
%RSD	.47840	.63177	.63338	.31152	1.1883	.28460	.83850	.12819	.16266	.32463
#1	483.13	140790.	2141.2	2006.7	15818.	399.69	202760.	973.38	2473.5	5988.7
#2	485.11	139450.	2137.4	2007.8	15476.	398.07	200750.	971.99	2471.2	5950.0
#3	480.51	139130.	2162.6	2018.0	15522.	397.50	199410.	974.48	2479.0	5969.2

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5002.9	125040.	138500.	1064.5	196820.	8698.3	1041.8	131480.	4147.9	42684.
Stddev	18.0	881.	967.	1.5	1598.	61.0	3.4	767.	21.4	113.
%RSD	.36052	.70459	.69817	.13950	.81191	.70156	.32635	.58370	.51624	.26492
#1	5023.3	125970.	139590.	1066.1	198550.	8766.7	1040.6	132350.	4142.6	42599.
#2	4996.3	124930.	138140.	1063.2	196500.	8679.0	1039.2	131230.	4129.7	42640.
#3	4989.2	124220.	137760.	1064.2	195410.	8649.3	1045.6	130880.	4171.5	42812.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5833.4	43434.	4105.3	3675.7	18943.	2072.2	973.42	1966.0	3983.9	3935.6
Stddev	30.1	173.	11.9	11.3	73.	7.9	3.11	6.9	2.9	8.0
%RSD	.51522	.39857	.28953	.30721	.38530	.37889	.31945	.35098	.07260	.20342
#1	5838.9	43305.	4097.1	3668.8	19027.	2065.7	976.99	1973.0	3984.0	3944.8
#2	5801.0	43366.	4099.8	3669.7	18894.	2070.0	971.96	1959.2	3980.9	3931.7
#3	5860.4	43631.	4118.9	3688.8	18907.	2080.9	971.31	1965.6	3986.7	3930.2

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Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV02 Acquired: 10/31/2016 11:53:46 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8188.3
Stddev	25.7
%RSD	.31422
#1	8194.2
#2	8160.1
#3	8210.5

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2635.4	2045.4	190350.	15047.	3781.8	34246.	6625.8
Stddev	4.5	10.1	564.	107.	10.7	54.	62.4
%RSD	.16990	.49335	.29625	.71071	.28294	.15647	.94143
#1	2631.7	2047.6	189880.	14952.	3788.6	34201.	6562.6
#2	2640.4	2054.2	190970.	15025.	3787.4	34305.	6627.4
#3	2634.1	2034.4	190190.	15162.	3769.5	34232.	6687.3

Sample Name: SEQ-CCB@CCB02 Acquired: 10/31/2016 11:57:59 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1936	-21.314	.21937	1.8002	-1.4310	-.00707	-5.5715	.00232	.09139	-.02497	-.08668
Stddev	.3032	7.618	.68307	.4607	.0221	.01708	2.0300	.03844	.08743	.23844	.27502
%RSD	25.404	35.741	311.38	25.594	1.5433	241.69	36.435	1656.5	95.662	954.76	317.26
#1	1.4987	-16.004	.16373	2.0019	-1.4437	-.01974	-7.8325	.02504	-.00896	.16404	-.40420
#2	.89230	-17.895	-.43417	1.2730	-1.4055	.01236	-3.9057	.02397	.13201	-.29285	.07685
#3	1.1897	-30.042	.92856	2.1256	-1.4438	-.01382	-4.9762	-.04206	.15113	.05389	.06730

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-23.306	44.432	.96551	-7.0541	-.72063	.29697	19.453	.31492	-1.1299	-.07524	-1.6923
Stddev	.470	15.912	.74404	18.781	.43451	.08665	2.066	.12012	.3165	1.1705	1.0618
%RSD	2.0146	35.811	77.062	266.25	60.296	29.179	10.621	38.144	28.014	1555.7	62.745
#1	-23.432	62.568	.67356	8.0115	-.52118	.32060	19.721	.20004	-1.3648	1.1334	-2.7597
#2	-22.786	37.917	1.8113	-1.0774	-1.2191	.36935	21.372	.30505	-.76997	-.15582	-.63617
#3	-23.699	32.813	.41172	-28.096	-.42165	.20095	17.266	.43967	-1.2550	-1.2033	-1.6810

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0174	-.55185	-13.492	-.05230	-.15890	-1.1523	-.03015	.10251	-1.3887
Stddev	1.0420	1.7576	9.642	.54992	.02628	.8733	.53844	.10841	.0125
%RSD	102.41	318.49	71.461	1051.4	16.537	75.788	1786.0	105.76	.89690
#1	1.0154	-.22373	-5.8802	.44520	-.13554	-.25524	.30534	.21154	-1.3749
#2	2.0604	1.0185	-10.262	.04066	-.18735	-1.2020	-.65122	-.00527	-1.3991
#3	-.02355	-2.4504	-24.334	-.64278	-.15381	-1.9998	.25544	.10126	-1.3920

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB02 Acquired: 10/31/2016 11:57:59 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3514.3	2579.1	209350.	15227.	4211.4	38090.	6844.9
Stddev	32.4	25.8	275.	68.	37.3	77.	23.5
%RSD	.92312	1.0008	.13152	.44758	.88675	.20239	.34367
#1	3496.0	2570.1	209050.	15166.	4204.4	38021.	6828.5
#2	3551.7	2608.3	209400.	15215.	4251.7	38076.	6834.3
#3	3495.0	2559.1	209590.	15300.	4178.0	38173.	6871.9

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/31/2016 12:20:30 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	485.34	138550.	2153.8	2030.5	15566.	400.27	197750.	978.86	2487.2	6016.0
Stddev	4.66	450.	15.3	17.1	63.	4.50	611.	9.68	21.2	76.9
%RSD	.95938	.32469	.70922	.84184	.40179	1.1231	.30886	.98917	.85139	1.2787
#1	482.26	138370.	2155.8	2035.8	15545.	396.77	197270.	980.91	2490.6	5948.7
#2	483.06	138220.	2168.0	2044.4	15636.	398.69	197550.	987.35	2506.4	5999.4
#3	490.69	139060.	2137.7	2011.4	15517.	405.34	198440.	968.31	2464.5	6099.9

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5087.5	123550.	137520.	1041.6	196060.	8612.6	1060.6	130780.	4167.4	43206.
Stddev	53.2	280.	251.	2.9	334.	23.2	10.5	185.	34.4	366.
%RSD	1.0464	.22686	.18280	.27637	.17046	.26889	.99118	.14131	.82593	.84650
#1	5049.2	123490.	137570.	1041.4	195870.	8602.5	1061.2	130920.	4176.7	43251.
#2	5065.1	123310.	137240.	1038.9	195870.	8596.2	1070.8	130570.	4196.2	43548.
#3	5148.3	123860.	137740.	1044.6	196450.	8639.1	1049.8	130840.	4129.3	42820.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5863.8	F 44187.	4135.0	3721.3	18687.	2108.0	952.22	1955.2	4000.6	3924.6
Stddev	53.0	369.	27.3	35.5	98.	19.1	4.00	7.5	29.8	40.1
%RSD	.90422	.83519	.65972	.95464	.52482	.90454	.42043	.38328	.74504	1.0221
#1	5886.1	44287.	4141.5	3732.6	18660.	2113.0	950.79	1958.7	4018.6	3892.3
#2	5902.0	44495.	4158.4	3749.8	18605.	2124.0	949.13	1946.6	4017.1	3912.0
#3	5803.2	43778.	4105.0	3681.5	18795.	2086.9	956.74	1960.4	3966.2	3969.5

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV03 Acquired: 10/31/2016 12:20:30 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8188.4
Stddev	71.7
%RSD	.87512
#1	8210.4
#2	8246.6
#3	8108.4

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2646.5	2051.4	190450.	15377.	3760.1	34450.	6676.7
Stddev	19.3	12.6	2120.	37.	28.6	367.	15.0
%RSD	.73095	.61395	1.1132	.23921	.76098	1.0661	.22532
#1	2641.6	2048.3	192320.	15400.	3756.9	34738.	6689.0
#2	2630.1	2040.7	190890.	15396.	3733.1	34576.	6681.2
#3	2667.8	2065.3	188150.	15334.	3790.1	34037.	6660.0

Sample Name: SEQ-CCB@CCB03 Acquired: 10/31/2016 12:24:44 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.3529	-21.365	.13300	1.7320	-1.2707	.02618	5.8770	.04213	-.06539	.00129	.14182
Stddev	.2926	2.450	.64359	.2081	.0853	.01969	13.772	.05704	.11502	.02343	.31849
%RSD	21.626	11.466	483.90	12.013	6.7139	75.224	234.33	135.40	175.90	1811.3	224.57
#1	1.1142	-23.447	.76073	1.5070	-1.2045	.00348	21.751	.04700	-.01699	-.01762	-.19103
#2	1.6793	-18.665	-.52535	1.7714	-1.3670	.03864	-2.8765	-.01719	.01752	.02751	.44369
#3	1.2652	-21.984	.16362	1.9175	-1.2406	.03641	-1.2438	.09657	-.19671	-.00601	.17282

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-24.370	23.177	1.0665	-4.5733	-.66655	.11568	17.428	.03679	.31078	-.62366	-1.6724
Stddev	2.238	15.361	.4492	6.9827	.05300	.32208	3.552	.18754	1.3721	1.9973	2.5422
%RSD	9.1829	66.277	42.120	152.68	7.9518	278.43	20.379	509.71	441.51	320.26	152.01
#1	-24.889	38.727	1.3341	2.1969	-.61829	.20555	19.990	-.08155	.50131	1.0554	-2.0917
#2	-26.304	22.792	.54787	-4.1660	-.72327	.38327	13.374	-.06109	1.5777	-.09395	1.0535
#3	-21.919	8.0123	1.3175	-11.751	-.65810	-.24179	18.920	.25302	-1.1466	-2.8325	-3.9789

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Tl3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7963	1.1904	-13.503	-.00649	-.09434	-.31783	1.1135	.14907	-1.2639
Stddev	1.0297	.8438	5.233	.48039	.07702	.98298	.9080	.06456	.0467
%RSD	57.322	70.887	38.752	7400.8	81.641	309.28	81.539	43.307	3.6953
#1	2.9783	.62462	-14.086	.01468	-.12452	.78737	1.7117	.07991	-1.2700
#2	1.0935	2.1602	-8.0029	-.49712	-.15171	-1.0943	.06876	.15954	-1.3072
#3	1.3172	.78622	-18.419	.46297	-.00680	-.64651	1.5601	.20774	-1.2144

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB03 Acquired: 10/31/2016 12:24:44 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3522.1	2597.7	209440.	15108.	4207.2	38235.	6782.3
Stddev	5.6	5.2	126.	131.	6.4	26.	66.3
%RSD	.15766	.20017	.06039	.86986	.15102	.06813	.97765
#1	3516.6	2595.8	209560.	14963.	4205.0	38262.	6714.5
#2	3522.0	2593.8	209310.	15142.	4202.3	38210.	6785.3
#3	3527.7	2603.6	209450.	15220.	4214.4	38233.	6847.0

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/31/2016 12:29:14 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	477.84	139230.	2155.2	2018.9	15598.	397.72	200640.	976.11	2480.4	6008.0
Stddev	.70	324.	2.1	3.8	209.	1.21	498.	3.37	6.3	15.2
%RSD	.14577	.23267	.09598	.18720	1.3421	.30455	.24805	.34541	.25574	.25326
#1	477.22	139530.	2156.2	2018.3	15757.	396.32	201140.	976.14	2479.5	5999.7
#2	478.59	139270.	2152.8	2015.5	15677.	398.32	200640.	972.73	2474.5	5998.6
#3	477.71	138880.	2156.6	2023.0	15361.	398.51	200140.	979.47	2487.1	6025.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5012.3	124590.	138260.	1063.6	196710.	8630.3	1053.2	132430.	4167.8	43296.
Stddev	11.1	290.	507.	4.8	463.	20.8	2.2	482.	2.9	92.
%RSD	.22191	.23253	.36658	.45251	.23545	.24089	.20685	.36359	.06934	.21295
#1	4999.8	124910.	138800.	1069.2	197110.	8647.0	1051.7	132940.	4164.8	43259.
#2	5021.2	124520.	138180.	1060.8	196820.	8636.8	1052.0	132380.	4168.1	43228.
#3	5015.9	124340.	137790.	1060.9	196200.	8607.0	1055.7	131980.	4170.6	43401.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5851.8	43930.	4131.8	3705.2	18631.	2096.2	961.96	1959.7	3993.7	3920.5
Stddev	9.6	71.	7.3	12.5	104.	6.2	4.68	7.0	12.5	3.8
%RSD	.16349	.16226	.17760	.33630	.55567	.29612	.48670	.35486	.31404	.09744
#1	5847.5	43911.	4128.6	3695.1	18730.	2096.0	967.35	1967.2	3985.3	3916.2
#2	5845.2	43870.	4126.7	3701.4	18639.	2090.0	958.89	1958.4	3987.6	3921.6
#3	5862.8	44009.	4140.2	3719.1	18523.	2102.5	959.64	1953.4	4008.1	3923.6

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Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV04 Acquired: 10/31/2016 12:29:14 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8199.6
Stddev	18.1
%RSD	.22043
#1	8206.5
#2	8179.1
#3	8213.3

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.8	2044.5	189240.	14973.	3766.7	34201.	6556.8
Stddev	5.0	1.3	323.	94.	6.5	21.	28.7
%RSD	.18779	.06319	.17084	.63112	.17223	.06029	.43754
#1	2645.3	2045.9	189220.	14864.	3767.0	34224.	6525.0
#2	2646.1	2044.4	189580.	15024.	3773.1	34196.	6564.8
#3	2637.1	2043.3	188930.	15032.	3760.1	34184.	6580.7

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/31/2016 13:44:28 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.14336	-19.416	.02034	-1.2293	-1.6703	-.00950	-6.5257	-.01191	-.04074	-.10665	2.6911
Stddev	.22764	2.359	.25847	.2962	.0460	.01163	5.2642	.02103	.14100	.21223	.2284
%RSD	158.79	12.148	1270.9	24.096	2.7562	122.47	80.669	176.52	346.15	198.99	8.4855
#1	-.39115	-20.079	-.24312	-1.5713	-1.6992	-.00804	-7.5159	-.02241	-.14951	.12940	2.7815
#2	-.09541	-16.797	.03062	-1.0583	-1.6946	.00134	-.83673	-.02562	.11857	-.16766	2.4314
#3	.05649	-21.373	.27351	-1.0582	-1.6172	-.02179	-11.225	.01230	-.09127	-.28171	2.8605

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-24.411	-121.37	.56942	-8.0694	-.75367	.10876	-17.411	.16452	-.88406	-.38266	-4.2430
Stddev	1.941	13.19	.38027	16.950	.31845	.06681	7.609	.16889	.58262	.31480	.2874
%RSD	7.9502	10.871	66.782	210.06	42.253	61.426	43.700	102.66	65.903	82.265	6.7727
#1	-22.956	-136.12	.13898	8.0616	-.76647	.07346	-23.356	-.00390	-1.2606	-.08501	-4.5716
#2	-26.615	-110.69	.70950	-25.735	-1.0655	.18581	-20.042	.16357	-1.1786	-.35079	-4.0384
#3	-23.664	-117.29	.85978	-6.5350	-.42901	.06701	-8.8364	.33388	-.21297	-.71218	-4.1191

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.24675	1.4948	-4.1608	-.04927	-.15916	-.29767	.20286	.11122	-1.4845
Stddev	.07152	.5906	6.4418	.47365	.02361	.63253	1.1987	.12549	.0311
%RSD	28.984	39.513	154.82	961.39	14.835	212.49	590.91	112.83	2.0913
#1	.32919	1.1360	-6.0157	.17976	-.13232	-.54077	.93536	-.02526	-1.4567
#2	.20987	1.1719	3.0050	-.59390	-.17671	-.77259	.85369	.13730	-1.4789
#3	.20121	2.1765	-9.4716	.26634	-.16844	.42034	-1.1805	.22162	-1.5180

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB04 Acquired: 10/31/2016 13:44:28 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3491.4	2577.2	208670.	17374.	4401.6	37934.	7093.6
Stddev	9.3	6.8	438.	36.	12.1	69.	10.7
%RSD	.26573	.26530	.20973	.20717	.27435	.18302	.15042
#1	3482.1	2569.6	208200.	17390.	4387.8	37862.	7091.9
#2	3500.7	2582.7	208730.	17400.	4410.6	38000.	7105.0
#3	3491.5	2579.5	209070.	17333.	4406.3	37939.	7083.9

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/31/2016 13:48:58 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 623.49	131070.	2196.5	2022.2	14811.	396.44	188500.	934.36	2385.3	5977.1
Stddev	1.27	3911.	6.8	4.5	418.	.11	5596.	2.16	5.9	8.3
%RSD	.20439	2.9839	.30754	.22407	2.8190	.02850	2.9684	.23087	.24791	.13906
#1	623.68	131220.	2190.8	2017.2	15011.	396.33	188930.	933.54	2383.7	5967.7
#2	622.14	134910.	2194.9	2026.1	15091.	396.56	193880.	932.74	2380.3	5980.0
#3	624.66	127090.	2204.0	2023.3	14331.	396.43	182710.	936.81	2391.8	5983.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5230.1	116520.	130770.	908.90	182830.	8686.7	999.27	124300.	4219.0	42524.
Stddev	3.6	3445.	3720.	30.41	5516.	253.6	1.99	3654.	11.2	107.
%RSD	.06934	2.9565	2.8443	3.3458	3.0168	2.9193	.19958	2.9398	.26463	.25188
#1	5229.1	116740.	131000.	906.83	183180.	8699.7	998.65	124550.	4215.0	42439.
#2	5227.0	119850.	134370.	940.30	188160.	8933.5	997.66	127830.	4210.4	42488.
#3	5234.1	112970.	126940.	879.59	177150.	8426.8	1001.5	120530.	4231.6	42644.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5921.8	42018.	4011.7	3545.0	21038.	1992.4	F 824.20	1992.9	4026.3	3938.7
Stddev	11.9	94.	11.5	4.1	600.	5.2	27.50	65.3	6.2	2.1
%RSD	.20079	.22332	.28756	.11469	2.8525	.26250	3.3360	3.2750	.15381	.05223
#1	5914.3	41929.	3999.0	3540.4	20997.	1990.8	822.75	1989.6	4020.9	3936.4
#2	5915.6	42009.	4014.9	3547.9	21658.	1988.1	852.39	2059.7	4024.9	3939.3
#3	5935.5	42116.	4021.4	3546.7	20460.	1998.2	797.45	1929.3	4033.1	3940.4

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Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV05 Acquired: 10/31/2016 13:48:58 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8353.2
Stddev	25.6
%RSD	.30630
#1	8350.9
#2	8328.8
#3	8379.8

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.3	2000.4	187840.	17589.	3920.5	33859.	6984.2
Stddev	5.5	5.4	244.	522.	7.9	5.	185.7
%RSD	.21156	.27092	.12967	2.9658	.20203	.01363	2.6591
#1	2603.6	2003.3	188100.	17540.	3924.0	33854.	6945.1
#2	2605.3	2003.7	187830.	17093.	3926.1	33863.	6821.1
#3	2595.0	1994.1	187610.	18133.	3911.4	33859.	7186.3

Sample Name: SEQ-CCB@CCB05 Acquired: 10/31/2016 13:53:12 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.22202	-8.1492	.49848	1.4784	.07709	.02174	13.595	.05735	.17107	.76331	3.1546
Stddev	.10459	4.9273	.35404	.8605	.31433	.01386	14.813	.02523	.06109	.30003	.2450
%RSD	47.107	60.464	71.023	58.208	407.72	63.772	108.96	44.000	35.710	39.307	7.7650
#1	.12107	-12.325	.14584	1.9061	-.12361	.03618	30.120	.05252	.21445	.67536	3.3669
#2	.32991	-9.4084	.49570	2.0413	.43935	.00854	1.5095	.08465	.19756	1.0975	2.8866
#3	.21509	-2.7145	.85391	.48780	-.08446	.02048	9.1554	.03488	.10121	.51708	3.2103

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-11.008	-16.869	.96255	8.4953	.54681	.14193	18.089	.26730	2.4632	-.52288	-1.1765
Stddev	2.565	13.091	.58960	4.9256	.41477	.05362	3.967	.10560	.2342	1.6667	.9367
%RSD	23.298	77.607	61.255	57.980	75.853	37.778	21.928	39.504	9.5074	318.75	79.618
#1	-13.966	-7.4728	.36995	13.020	.28714	.15460	19.343	.15394	2.6108	-2.3850	-.09529
#2	-9.6425	-11.311	1.5491	3.2486	1.0252	.08312	21.277	.28510	2.5855	-.01279	-1.7427
#3	-9.4142	-31.822	.96858	9.2171	.32812	.18809	13.647	.36287	2.1931	.82914	-1.6917

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.6222	1.1587	-2.4669	-.04271	-.04688	.35036	.78782	.71928	-.86576
Stddev	.6277	.8425	2.3424	.22446	.01871	.89405	.75649	.27751	.06071
%RSD	38.695	72.711	94.954	525.49	39.914	255.18	96.023	38.581	7.0127
#1	2.3177	1.3237	-2.4405	.21313	-.02662	-.45768	.48138	1.0274	-.79927
#2	1.4509	.24586	-4.8223	-.20657	-.05050	.19793	.23263	.64147	-.91825
#3	1.0979	1.9064	-.13778	-.13470	-.06351	1.3108	1.6494	.48898	-.87977

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB05 Acquired: 10/31/2016 13:53:12 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3475.8	2561.5	209670.	17243.	4379.2	38115.	7039.3
Stddev	37.8	26.5	758.	63.	39.5	123.	26.3
%RSD	1.0869	1.0331	.36155	.36590	.90269	.32308	.37376
#1	3490.8	2569.8	208870.	17316.	4394.9	37995.	7069.7
#2	3432.8	2531.9	210370.	17206.	4334.3	38241.	7025.3
#3	3503.7	2582.8	209780.	17207.	4408.6	38108.	7022.9

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV06 Acquired: 10/31/2016 14:01:55 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 622.30	134980.	2192.2	2047.3	15281.	393.20	193560.	948.07	2412.6	5883.4
Stddev	1.95	52.	9.6	2.5	206.	.29	237.	2.10	6.2	10.4
%RSD	.31382	.03833	.43590	.12403	1.3482	.07382	.12251	.22173	.25587	.17626
#1	620.05	134940.	2202.0	2050.1	15293.	393.53	193310.	950.04	2419.7	5893.2
#2	623.38	134960.	2191.7	2046.8	15481.	392.99	193780.	948.30	2409.3	5872.6
#3	623.48	135030.	2182.9	2045.1	15069.	393.06	193580.	945.86	2408.7	5884.4

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5125.6	119190.	134340.	932.76	187330.	8915.6	1002.4	126140.	4195.7	43119.
Stddev	10.9	92.	25.	2.36	171.	12.4	2.7	19.	17.3	100.
%RSD	.21268	.07741	.01843	.25254	.09150	.13854	.26959	.01487	.41192	.23288
#1	5115.3	119100.	134350.	934.79	187260.	8901.9	1005.3	126120.	4214.4	43234.
#2	5124.5	119210.	134310.	930.18	187520.	8919.0	1001.9	126120.	4192.5	43054.
#3	5137.0	119280.	134350.	933.32	187200.	8925.9	999.98	126160.	4180.2	43067.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5899.8	42150.	4050.1	3566.6	21683.	1993.7	F 858.09	2033.6	4020.0	3926.0
Stddev	20.8	97.	13.3	12.8	59.	4.0	2.53	9.4	13.5	2.3
%RSD	.35261	.23032	.32802	.35782	.27111	.20310	.29516	.46023	.33602	.05804
#1	5922.7	42258.	4064.4	3579.9	21735.	1997.8	859.76	2039.0	4032.2	3926.7
#2	5894.8	42071.	4038.1	3554.5	21619.	1993.5	855.18	2022.8	4022.3	3927.9
#3	5882.0	42120.	4047.8	3565.4	21694.	1989.7	859.33	2038.9	4005.4	3923.5

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCV@CCV06 Acquired: 10/31/2016 14:01:55 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8359.9
Stddev	30.5
%RSD	.36478
#1	8388.7
#2	8362.9
#3	8328.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2604.3	2004.6	190100.	17074.	3891.0	34151.	6826.3
Stddev	7.9	6.0	141.	46.	7.2	4.	3.3
%RSD	.30304	.30136	.07431	.26796	.18528	.01120	.04869
#1	2597.5	1998.4	190050.	17047.	3883.4	34147.	6827.3
#2	2602.6	2005.1	190260.	17126.	3892.0	34154.	6829.0
#3	2613.0	2010.4	190000.	17048.	3897.7	34152.	6822.6

Sample Name: SEQ-CCB@CCB06 Acquired: 10/31/2016 14:06:08 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17644	-13.608	.73005	3.8184	-1.0354	.02449	9.0087	.01563	-.03045	.22331	2.6641
Stddev	.36433	.882	.13702	.4562	.2902	.01074	4.8891	.01196	.13569	.14495	.1511
%RSD	206.48	6.4841	18.769	11.947	28.028	43.860	54.271	76.540	445.66	64.908	5.6732
#1	-.32574	-12.687	.81516	3.5215	-.75058	.02006	12.866	.02253	-.14267	.16242	2.7879
#2	.23882	-13.690	.57199	4.3436	-1.0250	.01667	10.650	.00182	.12036	.38877	2.7087
#3	-.44240	-14.446	.80300	3.5900	-1.3307	.03673	3.5100	.02255	-.06903	.11874	2.4957

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-17.077	-.43769	1.3506	-1.4529	-.20104	.21753	14.596	.25555	.67238	.37425	-1.9698
Stddev	6.694	10.752	.4707	10.983	.40231	.21146	2.014	.09599	1.5170	.67180	2.4560
%RSD	39.200	2456.6	34.852	755.92	200.12	97.210	13.799	37.560	225.61	179.51	124.68
#1	-9.4240	9.5582	1.6442	.55886	-.04087	.45480	14.859	.34085	-1.0710	.89822	-.32255
#2	-19.962	-11.813	.80769	8.3848	.09652	.04899	12.463	.15161	1.6910	.60766	-.79419
#3	-21.845	.9420	1.6000	-13.302	-.65877	.14878	16.465	.27420	1.3972	-.38313	-4.7926

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1404	.65198	-9.0826	.31337	-.07595	-.54819	1.2378	.20424	-1.0159
Stddev	.4537	1.2512	9.0864	.36810	.07362	1.1892	1.6719	.15492	.1267
%RSD	39.787	191.91	100.04	117.47	96.929	216.93	135.08	75.849	12.466
#1	1.6439	1.3325	-2.7663	.72592	.00186	-.41417	2.4697	.21078	-.92968
#2	1.0144	1.4154	-19.496	.19572	-.08522	.56833	1.9091	.04616	-.95675
#3	.76305	-.79198	-4.9853	.01848	-.14450	-1.7987	-.66546	.35579	-1.1613

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCB@CCB06 Acquired: 10/31/2016 14:06:08 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3469.5	2558.8	212240.	17265.	4346.5	38422.	7079.5
Stddev	40.4	32.8	3529.	25.	54.2	607.	19.0
%RSD	1.1645	1.2824	1.6626	.14359	1.2464	1.5803	.26895
#1	3489.5	2575.7	214000.	17262.	4381.5	38699.	7070.5
#2	3496.1	2579.7	208180.	17242.	4373.8	37725.	7066.6
#3	3423.0	2521.0	214550.	17291.	4284.1	38841.	7101.4

Bonner Analytical Testing Company

Sample Name: 6100168-18RE2 Acquired: 10/31/2016 14:10:37 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1~~J59A~~ SDG: MH1J59 Case: 46282
Comment: @40X H85

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.2466	12132.	51.211	1205.0	46.088	6.7697	4434.5	15.763	17.212	.23746
#1	-1.7673	12121.	50.279	1210.2	46.131	6.8009	4443.2	15.841	17.191	.28090
#2	-1.3416	12112.	53.158	1201.6	45.989	6.7808	4415.6	15.751	17.234	.35414
#3	-.63094	12163.	50.196	1203.1	46.143	6.7274	4444.6	15.696	17.212	.07734

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	348.46	237210.	535.85	13.653	4059.1	2190.0	5.6689	58.979	-2.6017	964.06
#1	352.12	236770.	545.32	13.299	4045.0	2184.6	5.3735	61.022	-2.3686	967.01
#2	347.83	236620.	526.55	13.824	4048.5	2188.5	5.6948	62.579	-3.1422	960.93
#3	345.44	238250.	535.66	13.834	4083.7	2196.8	5.9384	53.337	-2.2944	964.24

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	341.87	2733.4	4.8687	-1.1029	657.22	2.4519	97.995	52.032	-3.8911	22.689
#1	342.55	2746.5	4.8412	-2.4169	667.32	2.4314	98.087	51.985	-4.2431	22.821
#2	340.27	2728.9	5.4195	.84872	656.20	2.5130	97.844	51.874	-4.4737	22.906
#3	342.77	2724.8	4.3454	-1.7405	648.13	2.4114	98.056	52.238	-2.9566	22.339

DQ 11/1/16

ICAPP01

Bonner Analytical Testing Company

Sample Name: 6100168-18RE2 Acquired: 10/31/2016 14:10:37 Type: Unk
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: MH1~~J59A~~ SDG: MH1J59 Case: 46282
Comment: @40X H85

Elem	Zn2062
Units	ppb
Avg	3002.4
#1	3010.2
#2	3004.0
#3	2993.0

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3186.2	2339.9	207270.	17187.	4435.7	38495.	7231.1
#1	3177.6	2331.7	205800.	17185.	4422.6	38245.	7233.4
#2	3188.3	2340.4	206950.	17223.	4436.9	38473.	7249.0
#3	3192.7	2347.6	209060.	17153.	4447.6	38768.	7211.0

Sample Name: SEQ-CCV@CCV07 Acquired: 10/31/2016 14:14:56 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F 616.96	135740.	2195.5	2039.2	15084.	395.51	193000.	940.17	2389.9	5903.7
Stddev	1.37	1087.	3.8	3.4	167.	.65	1145.	1.18	2.3	11.7
%RSD	.22244	.80100	.17089	.16528	1.1071	.16465	.59299	.12541	.09573	.19781
#1	618.55	135090.	2199.3	2037.7	15089.	395.95	192820.	941.53	2392.2	5907.9
#2	616.14	135140.	2191.8	2036.9	14915.	395.82	191960.	939.41	2387.7	5912.7
#3	616.20	137000.	2195.5	2043.1	15249.	394.76	194230.	939.57	2389.9	5890.5

Elem	Cu3247	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5102.9	119640.	135090.	941.42	187570.	8895.5	1000.9	126970.	4182.6	42915.
Stddev	8.2	992.	858.	7.19	1320.	60.0	.8	794.	8.6	31.
%RSD	.16149	.82883	.63508	.76333	.70368	.67501	.08247	.62541	.20627	.07316
#1	5098.5	119110.	134750.	934.50	187130.	8879.2	1001.8	126740.	4192.5	42949.
#2	5112.4	119020.	134460.	940.91	186530.	8845.4	1000.7	126310.	4176.3	42887.
#3	5097.8	120780.	136070.	948.84	189060.	8962.1	1000.2	127850.	4179.2	42908.

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5900.0	42040.	4026.3	3559.2	21685.	1983.4	F 866.12	2042.2	3991.9	3928.1
Stddev	17.9	27.	6.9	4.0	123.	3.5	8.11	10.4	12.7	4.9
%RSD	.30387	.06428	.17021	.11278	.56579	.17810	.93651	.51111	.31763	.12568
#1	5916.5	42066.	4025.8	3560.4	21603.	1987.2	858.58	2039.2	4005.6	3932.3
#2	5880.9	42043.	4019.7	3562.5	21627.	1982.8	865.06	2033.5	3989.3	3929.5
#3	5902.7	42012.	4033.4	3554.7	21826.	1980.2	874.70	2053.8	3980.6	3922.7

Bonner Analytical Testing Company ICAPP01

Sample Name: SEQ-CCV@CCV07 Acquired: 10/31/2016 14:14:56 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Zn2062
Units	ppb
Avg	8291.4
Stddev	21.2
%RSD	.25628
#1	8315.8
#2	8280.8
#3	8277.4

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2620.1	2006.7	189900.	17154.	3909.5	34188.	6866.3
Stddev	2.9	2.7	391.	103.	2.8	60.	54.0
%RSD	.11126	.13253	.20586	.59875	.07215	.17632	.78638
#1	2617.0	2006.5	189770.	17119.	3910.3	34158.	6836.0
#2	2622.8	2009.5	189590.	17270.	3911.9	34148.	6928.6
#3	2620.6	2004.1	190340.	17074.	3906.4	34257.	6834.2

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB07 Acquired: 10/31/2016 14:19:11 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3131	Ca3181	Cd2144	Co2286	Cr2677	Cu3247
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.01364	-15.009	.56447	3.1499	-1.1808	-.01189	1.5386	.00161	-.06981	.00438	2.6528
Stddev	.23545	7.339	.37500	.2723	.1949	.00469	5.1510	.03145	.18297	.14343	.3424
%RSD	1725.6	48.898	66.434	8.6443	16.507	39.427	334.79	1955.5	262.09	3272.8	12.906
#1	-.13757	-7.1166	.16901	3.4548	-.99017	-.01425	-4.3302	-.00577	.07010	-.15234	2.4431
#2	-.10642	-21.628	.60944	3.0640	-1.1724	-.01494	5.3102	.03609	-.27687	.12911	2.4675
#3	.28492	-16.283	.91495	2.9309	-1.3797	-.00649	3.6358	-.02550	-.00267	.03637	3.0479

Elem	Fe2598	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-21.031	-.21824	.75756	-4.4016	-.68930	.29897	17.100	.14378	-.22956	.60855	-2.7861
Stddev	3.177	8.9799	.62899	4.6605	.14771	.08486	1.995	.03744	.43053	.21779	.5304
%RSD	15.106	4114.7	83.029	105.88	21.428	28.384	11.666	26.042	187.55	35.788	19.039
#1	-21.572	-8.5531	.74082	.86633	-.51890	.20535	17.573	.16884	-.72614	.81964	-2.2610
#2	-23.903	-1.3927	1.3947	-6.0833	-.78094	.37084	18.816	.10074	-.00161	.38463	-2.7756
#3	-17.619	9.2911	.13709	-7.9879	-.76805	.32072	14.911	.16177	.03907	.62139	-3.3218

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr4077	Ti3234	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.8724	.23389	-2.4782	.25368	-.13980	-.44818	1.1108	.19967	-1.1516
Stddev	.3916	1.6800	5.7823	.29677	.03900	1.3185	.5296	.12367	.0614
%RSD	20.914	718.28	233.33	116.99	27.895	294.19	47.680	61.935	5.3311
#1	1.9761	-1.6979	-8.1236	-.07505	-.10302	-1.8043	.50045	.06618	-1.2224
#2	2.2017	1.0462	3.4320	.33422	-.13568	.82914	1.4495	.31034	-1.1202
#3	1.4394	1.3534	-2.7430	.50187	-.18069	-.36935	1.3824	.22251	-1.1123

ICAPP01

Bonner Analytical Testing Company

Sample Name: SEQ-CCB@CCB07 Acquired: 10/31/2016 14:19:11 Type: QC
Method: ISM02.3_TotalMetals(v4) Mode: CONC Corr. Factor: 1.000000
User: MQJ EPA ID: SDG: Case:
Comment:

Int. Std.	In2306	Sc2273	Sc3572	Sc3630	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3461.1	2553.3	210440.	17133.	4324.0	38050.	7041.3
Stddev	35.7	23.1	601.	22.	46.0	141.	20.2
%RSD	1.0323	.90332	.28558	.12907	1.0639	.37148	.28623
#1	3470.8	2557.1	210860.	17141.	4325.6	38156.	7018.1
#2	3491.0	2574.2	210710.	17150.	4369.1	38105.	7052.3
#3	3421.5	2528.6	209750.	17108.	4277.2	37890.	7053.6

PREPARATION BENCH SHEET

QJ14018

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPAES (1-4)

Prepared: 10/14/2016 14:50 using METALS - 3050B

Case: 46282

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-01	MH1H68	1	100				
6100168-02	MH1H69	1	100				
6100168-03	MH1H70	1	100				
6100168-04	MH1H71	1	100				
6100168-05	MH1H72	1	100				
6100168-06	MH1H73	1	100				
6100168-07	MH1H74	1	100				
6100168-08	MH1H75	1	100				
6100168-08RE1	MH1H75	1	100				
6100168-09	MH1H76	1	100				
6100168-10	MH1H77	1	100				
6100168-11	MH1H78	1	100				
6100168-12	MH1H79	1	100				
6100168-12RE1	MH1H79	1	100				
6100168-13	MH1H80	1	100				
6100168-13RE1	MH1H80	1	100				
6100168-14	MH1H81	1	100				
6100168-14RE1	MH1H81	1	100				
6100168-15	MH1H82	1	100				
6100168-15RE1	MH1H82	1	100				
6100168-16	MH1H83	1	100				
6100168-16RE1	MH1H83	1	100				
6100168-17	MH1H84	1	100				
QJ14018-MS1	MH1H71S	1	100	B6B0060	200	B6B0061	200
QJ14018-BS1	LCS01	1	100	B6I0067	500		
QJ14018-DUP1	MH1H71D	1	100				
QJ14018-BLK1	PBS01	1	100				

PREPARATION BENCH SHEET

QJ14018

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: QC

Prepared: 10/14/2016 14:50 using METALS - 3050B

Case:

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6B0060	QC - CLPP-SPK-1	Inorganic Ventures	J2-MEB568046	02/10/17
B6B0061	QC - CLPP-SPK-5-REV1	Inorganic Ventures	K2-MEB619111	03/01/17
B6E0054	R - Hydrogen Peroxide 30%	Fisher	143279	05/16/19
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6I0064	R - Hydrochloric - Concentrate	Fisher	4116040	05/13/19
B6I0067	QC - BA-AES-CRQL-A	Inorganic Ventures	K2-MEB650368	08/16/17
B6I0123	R - Nitric Acid, Concentrated	Fisher	1116020	04/17/18

Table 2: Metals Apparatus

Balance ID			
Dig. Block ID			
Start Temp	Stop Temp		
Start Time	Stop Time		

Comments:

NDP 10/14/2016

Perpared By Date

11/1/2016

Preparation Reviewed By Date

PREPARATION BENCH SHEET

QJ28013

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPAES (1-4)

Prepared: 10/24/2016 12:00 using METALS - 3050B

Case: 46282

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-18	MH1H85	11.6	100				
6100168-18RE1	MH1H85	11.6	100				
6100168-18RE2	MH1H85	11.6	100				
QJ28013-BS1	LCS02	1	100	B6I0067	500		
QJ28013-BLK1	PBS02	1	100				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6E0054	R - Hydrogen Peroxide 30%	Fisher	143279	05/16/19
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6I0064	R - Hydrochloric - Concentrate	Fisher	4116040	05/13/19
B6I0067	QC - BA-AES-CRQL-A	Inorganic Ventures	K2-MEB650368	08/16/17
B6I0123	R - Nitric Acid, Concentrated	Fisher	1116020	04/17/18

Table 2: Metals Apparatus

Balance ID		Mettler III	
Dig. Block ID		2	
Start Temp	Stop Temp	95	96
Start Time	Stop Time	1200	1800

Comments: From QJ14018 on 10/28/2016 by MQJ

MQJ — 10/24/2016

Perpared By — Date

Preparation Reviewed By — 11/10/16 Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP01 **Case:** 46282 **FileID:** MH1H68 **Std. Prep Date:** 101719

Analyst: MQJ **SDG:** MH1H68 **Calibration ID:** B645010 **Std. Log Page No.:** 31

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ63107-CAL1	S01	10/18/16 9:13	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL2	S02	10/18/16 9:18	B6G0026	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL3	S03	10/18/16 9:22	B6G0027	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL4	S04	10/18/16 9:26	B6G0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL5	S05	10/18/16 9:30	B6G0029	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL6	S06	10/18/16 9:35	B6G0030	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CAL7	S07	10/18/16 9:39	B6G0031	B6I0029	1	Al Ca Fe Mg Mn Pb
BJ63107-CAL8	S08	10/18/16 9:43	B6G0032	B6I0029	1	Al Fe Pb
BJ63107-ICV1	ICV01	10/18/16 9:48	B6G0039	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-ICB1	ICB01	10/18/16 9:52	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-IFA1	ICSA01	10/18/16 10:14	B6H0021	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-IFB1	ICSAB01	10/18/16 10:18	B6H0022	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCV1	CCV01	10/18/16 10:22	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB1	CCB01	10/18/16 10:26	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCV2	CCV02	10/18/16 11:30	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB2	CCB02	10/18/16 11:34	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCV3	CCV03	10/18/16 12:30	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB3	CCB03	10/18/16 12:34	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCV4	CCV04	10/18/16 13:51	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB4	CCB04	10/18/16 13:55	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCV5	CCV05	10/18/16 14:54	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB5	CCB05	10/18/16 14:59	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14018-BLK1	PBS01	10/18/16 15:03		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14018-BS1	LCS01	10/18/16 15:08		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-01	MH1H68	10/18/16 15:12		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-02	MH1H69	10/18/16 15:16		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-03	MH1H70	10/18/16 15:21		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-04	MH1H71	10/18/16 15:25		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ14018-MS1	MH1H71S	10/18/16 15:29		B6I0029	1	As Cu Mn Pb Zn
QJ14018-DUP1	MH1H71D	10/18/16 15:33		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-SRD1	MH1~~K71L~~ H71V	10/18/16 15:38		B6I0029	5	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-05	MH1H72	10/18/16 15:42		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-06	MH1H73	10/18/16 15:46		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn

Document Control IS: LIM-F-08; Revision 1.1; Effective 07/18/16 by MSB2

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP01 **Case:** 46282 **FileID:** MH1H68 **Std. Prep Date:** 101719

Analyst: MQJ **SDG:** MH1H68 **Calibration ID:** B645010 **Std. Log Page No.:** 31

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
6100168-07	MH1H74	10/18/16 15:50		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-08	MH1H75	10/18/16 15:55		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100168-09	MH1H76	10/18/16 15:59		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-10	MH1H77	10/18/16 16:03		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-11	MH1H78	10/18/16 16:08		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-12	MH1H79	10/18/16 16:12		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100168-13	MH1H80	10/18/16 16:16		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
BJ63107-CCV6	CCV06	10/18/16 16:20	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB6	CCB06	10/18/16 16:25	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-14	MH1H81	10/18/16 16:29		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100168-15	MH1H82	10/18/16 16:33		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100168-16	MH1H83	10/18/16 16:38		B6I0029	1	Al As Ca Cu Mg Mn Pb Zn
6100168-17	MH1H84	10/18/16 16:42		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-IBL1	ZZZZZZ	10/18/16 16:46		B6I0029	1	non-report
6100168-08RE1	MH1H75	10/18/16 16:50		B6I0029	2	Fe
6100168-12RE1	MH1H79	10/18/16 16:55		B6I0029	2	Fe
6100168-13RE1	MH1H80	10/18/16 16:59		B6I0029	2	Fe
6100168-14RE1	MH1H81	10/18/16 17:03		B6I0029	2	Fe
6100168-15RE1	MH1H82	10/18/16 17:08		B6I0029	2	Fe
6100168-16RE1	MH1H83	10/18/16 17:12		B6I0029	2	Fe
BJ63107-IBL2	ZZZZZZ	10/18/16 17:16		B6I0029	1	non-report
BJ63107-CCV7	CCV07	10/18/16 17:21	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63107-CCB7	CCB07	10/18/16 17:25	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP01 **Case:** 46282 **FileID:** CLP_10292016 **Std. Prep Date:** 102416

Analyst: MQJ **SDG:** MH1H68 **Calibration ID:** B645011 **Std. Log Page No.:** 33

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ63109-CAL1	S01	10/28/16 11:46	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL2	S02	10/28/16 11:51	B6G0026	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL3	S03	10/28/16 11:55	B6G0027	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL4	S04	10/28/16 11:59	B6G0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL5	S05	10/28/16 12:04	B6G0029	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL6	S06	10/28/16 12:08	B6G0030	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CAL7	S07	10/28/16 12:12	B6G0031	B6I0029	1	Al Ca Fe Mg Mn Pb
BJ63109-CAL8	S08	10/28/16 12:16	B6G0032	B6I0029	1	Al Fe Pb
BJ63109-ICV1	ICV01	10/28/16 12:21	B6G0039	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-ICB1	ICB01	10/28/16 12:25	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-IFA1	ICSA01	10/28/16 12:29	B6H0021	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-IFB1	ICSAB01	10/28/16 12:34	B6H0022	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CCV1	CCV01	10/28/16 12:38	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CCB1	CCB01	10/28/16 12:42	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CCV2	CCV02	10/28/16 12:52	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CCB2	CCB02	10/28/16 12:56	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ28013-BLK1	PBS02	10/28/16 13:02		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
QJ28013-BS1	LCS02	10/28/16 13:07		B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
6100168-18	MH1H85	10/28/16 13:11		B6I0029	1	Al As Ca Cu Mg Pb
6100168-18RE1	MH1H85	10/28/16 13:18		B6I0029	5	Mn Zn
BJ63109-CCV3	CCV03	10/28/16 13:22	B6G0037	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn
BJ63109-CCB3	CCB03	10/28/16 13:26	B6I0028	B6I0029	1	Al As Ca Cu Fe Mg Mn Pb Zn

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICAPP01 **Case:** 46282 **FileID:** MH1H85_RE2 **Std. Prep Date:** 102416
Analyst: MQJ **SDG:** MH1H68 **Calibration ID:** B645018 **Std. Log Page No.:** 33

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ63117-CAL1	S01	10/31/16 10:49	B6I0028	B6I0029	1	Fe
BJ63117-CAL2	S02	10/31/16 10:53	B6G0026	B6I0029	1	Fe
BJ63117-CAL3	S03	10/31/16 10:58	B6G0027	B6I0029	1	Fe
BJ63117-CAL4	S04	10/31/16 11:02	B6G0028	B6I0029	1	Fe
BJ63117-CAL5	S05	10/31/16 11:06	B6G0029	B6I0029	1	Fe
BJ63117-CAL6	S06	10/31/16 11:10	B6G0030	B6I0029	1	Fe
BJ63117-CAL7	S07	10/31/16 11:14	B6G0031	B6I0029	1	Fe
BJ63117-CAL8	S08	10/31/16 11:19	B6G0032	B6I0029	1	Fe
BJ63117-ICV1	ICV01	10/31/16 11:23	B6G0039	B6I0029	1	Fe
BJ63117-ICB1	ICB01	10/31/16 11:27	B6I0028	B6I0029	1	Fe
BJ63117-IFA1	ICSA01	10/31/16 11:32	B6H0021	B6I0029	1	Al Ca Fe Mg
BJ63117-IFB1	ICSAB01	10/31/16 11:36	B6H0022	B6I0029	1	Al Ca Fe Mg
BJ63117-CCV1	CCV01	10/31/16 11:40	B6G0037	B6I0029	1	Fe
BJ63117-CCB1	CCB01	10/31/16 11:45	B6I0028	B6I0029	1	Fe
BJ63117-CCV2	CCV02	10/31/16 11:53	B6G0037	B6I0029	1	Fe
BJ63117-CCB2	CCB02	10/31/16 11:57	B6I0028	B6I0029	1	Fe
BJ63117-CCV3	CCV03	10/31/16 12:20	B6G0037	B6I0029	1	Fe
BJ63117-CCB3	CCB03	10/31/16 12:24	B6I0028	B6I0029	1	Fe
BJ63117-CCV4	CCV04	10/31/16 12:29	B6G0037	B6I0029	1	Fe
BJ63117-CCB4	CCB04	10/31/16 13:44	B6I0028	B6I0029	1	Fe
BJ63117-CCV5	CCV05	10/31/16 13:48	B6G0037	B6I0029	1	Fe
BJ63117-CCB5	CCB05	10/31/16 13:53	B6I0028	B6I0029	1	Fe
BJ63117-CCV6	CCV06	10/31/16 14:01	B6G0037	B6I0029	1	Fe
BJ63117-CCB6	CCB06	10/31/16 14:06	B6I0028	B6I0029	1	Fe
6100168-18RE2	MH1H85	10/31/16 14:10		B6I0029	40	Fe
BJ63117-CCV7	CCV07	10/31/16 14:14	B6G0037	B6I0029	1	Fe
BJ63117-CCB7	CCB07	10/31/16 14:19	B6I0028	B6I0029	1	Fe

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/17/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/17/16

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires	LIMS ID
Initial Calibration High	S8		50 mL	NA	NA	2 weeks	B6G0032
Pb @ 1000 ppm		1.25 Ml	Composite	Inorganic Ventures	J2-PB03066	Mar-17	B6G0036
Al @ 10000 ppm		2.0 mL		Inorganic Ventures	J2-AL05009	Mar-17	B6G0034
Fe @ 10000 ppm		1.75 mL		Inorganic Ventures	K2-FE04057	Mar-17	B6G0035
Initial Calibration High	S7		50 mL	Inorganic Ventures	NA	2 weeks	B6G0031
BAT-12		4.0 mL	Composite		J2-MEB613057	Feb-17	B6G0025
Initial Calibration High	S6		50 mL	Inorganic Ventures	NA	2 weeks	B6G0030
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Mid	S5		50 mL	Inorganic Ventures	NA	2 weeks	B6G0029
BAT-5		2.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		2.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S4		50 mL	Inorganic Ventures	NA	2 weeks	B6G0028
BAT-5		0.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		0.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S3	2.0 mL	50 mL	Inorganic Ventures	From S5	2 weeks	B6G0027
Initial Calibration Low	S2		50 mL	NA	NA	2 weeks	B6G0026
Initial Calibration Mid (S4)		0.25 mL	Composite	Inorganic Ventures	From S5	2 weeks	B6G0029
Ag @ 350 ppb		1.0 mL		In-house	NA	Mar-17	B6G0033
Initial Calibration Blank	S1	NA	50 mL	In-house	NA	1 yr	
Continuing Calibration Blank	CCB						
Initial Calibration Blank	ICB						
Initial Calibration Verification	ICV	NA	50 mL	NA	NA	1 week	B6G0039
ICV-1		5.0 mL	Composite	EPA REF MATERIAL	0307	NA	B3A0040
ICV-3		1.0 mL		In-House	NA	Mar-17	B6G0038
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	1211	2 weeks	B5L0034
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	2 weeks	B5L0033
ICS PART A		25 mL	Composite		1211	NA	B5L0034
ICS PART B		25 mL			0710	NA	B5L0033
Continuing Calibration Verification	CCV		100 mL	Inorganic Ventures	NA	2 weeks	B6G0037
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
BAT-12		3.0 mL			J2-MEB613057	Feb-17	B6G0025
Matrix Spike (see Note 3)	MS	NA	50 mL	Inorganic Ventures	NA	NA	
CLPP-SPK-1		200 uL (soil)	Composite		J2-MEB568046	Feb-17	B6B0060
CLPP-SPK-5-REV1		50uL (water)			K2-MEB619111	Feb-17	B6B0061
Lab Control Sample	LCS		50 mL	Inorganic Ventures	NA	NA	
BA-AES-CRQL-A		500uL (soil) 250uL (water)	Composite		K2-MEB650368	Aug-17	B6I0067

Note[1]: All standards and QC (exception: MS & LCS) are brought to final volume with the same acidified water source that is used for the S0, CCB & ICB.

Note[2]: ICV-3 includes all non-routine target metals.

Prepared By: [signature] Analyst

Reviewed By: [signature] Supervisor/Date 10/18/2016

Document Number: MH-L-047
Revision Number: 2.7

LOG BOOK#: 31

Date Effective: 09/01/2016
MSB2

Bonner Analytical Testing Company
ISM02.3 STANDARD & QC LOG

Standards for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/24/16

QC for ICAPP01 and ICAPP02 daily analysis were prepared on: 10/24/16

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot#	Date Lot Expires	LIMS ID
Initial Calibration High	S8		50 mL	NA	NA	2 weeks	B6G0032
Pb @ 1000 ppm		1.25 Ml	Composite	Inorganic Ventures	J2-PB03066	Mar-17	B6G0036
Al @ 10000 ppm		2.0 mL		Inorganic Ventures	J2-AL05009	Mar-17	B6G0034
Fe @ 10000 ppm		1.75 mL		Inorganic Ventures	K2-FE04057	Mar-17	B6G0035
Initial Calibration High	S7		50 mL	Inorganic Ventures	NA	2 weeks	B6G0031
BAT-12		4.0 mL	Composite		J2-MEB613057	Feb-17	B6G0025
Initial Calibration High	S6		50 mL	Inorganic Ventures	NA	2 weeks	B6G0030
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Mid	S5		50 mL	Inorganic Ventures	NA	2 weeks	B6G0029
BAT-5		2.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		2.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S4		50 mL	Inorganic Ventures	NA	2 weeks	B6G0028
BAT-5		0.5 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		0.5 mL			K2-MEB619109	Mar-17	B6G0024
Initial Calibration Low	S3	2.0 mL	50 mL	Inorganic Ventures	From S5	2 weeks	B6G0027
Initial Calibration Low	S2		50 mL	NA	NA	2 weeks	B6G0026
Initial Calibration Mid (S4)		0.25 mL	Composite	Inorganic Ventures	From S5	2 weeks	B6G0029
Ag @ 350 ppb		1.0 mL		In-house	NA	Mar-17	B6G0033
Initial Calibration Blank	S1	NA	50 mL	In-house	NA	1 yr	
Continuing Calibration Blank	CCB						
Initial Calibration Blank	ICB						
Initial Calibration Verification	ICV	NA	50 mL	NA	NA	1 week	B6G0039
ICV-1		5.0 mL	Composite	EPA REF MATERIAL	0307	NA	B3A0040
ICV-3		1.0 mL		In-House	NA	Mar-17	B6G0038
Interelement Check Standard A	ICSA	25 mL	250 mL	EPA REF Material	1211	2 weeks	B5L0034
Interelement Check Standard AB	ICSAB	NA	250 mL	EPA REF Material	NA	2 weeks	B5L0033
ICS PART A		25 mL	Composite		1211	NA	B5L0034
ICS PART B		25 mL			0710	NA	B5L0033
Continuing Calibration Verification	CCV		100 mL	Inorganic Ventures	NA	2 weeks	B6G0037
BAT-5		5.0 mL	Composite		K2-MEB619108	Mar-17	B6G0023
BAT-14		5.0 mL			K2-MEB619109	Mar-17	B6G0024
BAT-12		3.0 mL			J2-MEB613057	Feb-17	B6G0025
Matrix Spike (see Note 3)	MS	NA	50 mL	Inorganic Ventures	NA	NA	
CLPP-SPK-1		200 uL (soil) 50uL (water)	Composite		J2-MEB568046	Feb-17	B6B0060
CLPP-SPK-5-REV1					K2-MEB619111	Feb-17	B6B0061
Lab Control Sample	LCS		50 mL	Inorganic Ventures	NA	NA	
BA-AES-CRQL-A		500uL (soil) 250uL (water)	Composite		K2-MEB650368	Aug-17	B6I0067

Note[1]: All standards and QC (exception: MS & LCS) are brought to final volume with the same acidified water source that is used for the S0, CCB & ICB.

Note[2]: ICV-3 includes all non-routine target metals.

Prepared By: _____ Analyst

Reviewed By: _____ Supervisor/Date

LOG BOOK#: 33

REAGENTS PREPARATION LOG

ICAPP Reference Standard

LIMS ID: B6I0029

Preparation Date: 8/9/16

Prepared By: MKX BONNER

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	~20 L	BATCO	NA	NA	NA
Scandium	NEAT ~~10,000~~	~~0.309g~~ 0.614 ~~10.0 mL~~	ALDRICH	MKB5465V	8/4/15	8/4/18
Indium (III) Chloride	Neat	1.98g	ALDRICH	MKB5L0326V	8/4/15	8/4/18
Yttrium (III) Oxide	Neat	0.130g	ALDRICH	MKBT0144V	12/20/12	NA

Balance ID: Mettler IV

Instrument: ICAPP01 & ICAPP02

Fil Volume: 20 Liters

Concentration: Sc (10ppm); In (50ppm); Y (2.5ppm)

Used For: ICAPP Reference Standard

Expiration Date: 12 months after preparation date

Comments: Added 200 mL of conc. HNO_3 to acidify & stabilize soln.

Reviewed By: [signature] 8/9/16

Supervisor/Date

REAGENTS PREPARATION LOG

Acidified Water

LIMS ID: B61008

Preparation Date: 9/8/2016 Prepared By: MATT JOHNSON

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	18800 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher	111 6020	08/04/16	02/17/18
Hydrochloric Acid	Neat	1000 mL	FISHER	4116040	08/04/16	05/13/19

Balance ID NA

Instrument ICAPP01 & ICAPP02

Final Volume 20 Liters

Concentration 1% HNO3 / 5% HCl

Used For ICAPP Acidified Water

Expiration Date 12 months after preparation date

Comments

Reviewed By: 9/8/16

Supervisor/Date

Metals Weekly Digestion Block Temperature Verification

Date	10/02/2016	10/02/2016	10/10/2016	10/10/2016	10/17/16	10/17/16		
Initials	LEM	LEM	LEM	LEM	[illegible]	[illegible]		
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
ICP Digester 01	115.0	95.0	115.0	96.5	115.0	96.4		
ICP Digester 02	114.9	96.5	115.0	94.5	115.5	96.6		
ICP Digester 03	NOT IN USE	NOT IN USE	NIU	NIU	NOT IN USE	NOT IN USE		
ICP Digester 04	92.0	94.0	NIU	NIU	[illegible]	93.5		
Reviewed/Date:	[illegible]	10/03/16	[illegible]	10/10/16	[illegible]	10/18/2016		

Date								
Initials								
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
ICP Digester 01								
ICP Digester 02								
ICP Digester 03								
ICP Digester 04								
Reviewed/Date:								

If temperature does not agree with the certified thermometer than either recalibrate the digestion block or use the thermometer to regulate the digestion block and record the thermometer temperature on digestion logs.

A copy of this page must accompany each SDG digested during the week.

Thermometer Serial No./ID: H157522

**Certification cannot exceed 1 year

**Date of certification: 05/10/2016

EPA SAMPLE NO.

MH1H68

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-01

% Solids: 64.8 Date Received: 10/18/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	4.5	*	10/19/2016	1858
7440-39-3	Barium	172	*	10/19/2016	1858
7440-41-7	Beryllium	0.15	J	10/19/2016	1858
7440-43-9	Cadmium	0.072	J*	10/19/2016	1858
7440-47-3	Chromium	5.3		10/19/2016	1858
7440-48-4	Cobalt	2.3		10/19/2016	1858
7439-98-7	Molybdenum	1.8	J	10/19/2016	1858
7440-02-0	Nickel	1.9		10/19/2016	1858
7782-49-2	Selenium	2.5	J	10/19/2016	1858
7440-22-4	Silver	0.74	J	10/19/2016	1858
7440-28-0	Thallium	0.52	J	10/19/2016	1858
7440-62-2	Vanadium	27.6	*	10/19/2016	1858

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H69

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-02
% Solids: 81.9
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	4.7	*	10/19/2016	1902
7440-39-3	Barium	118	*	10/19/2016	1902
7440-41-7	Beryllium	0.16	J	10/19/2016	1902
7440-43-9	Cadmium	0.26	J*	10/19/2016	1902
7440-47-3	Chromium	4.0		10/19/2016	1902
7440-48-4	Cobalt	1.9		10/19/2016	1902
7439-98-7	Molybdenum	1.7	J	10/19/2016	1902
7440-02-0	Nickel	1.4		10/19/2016	1902
7782-49-2	Selenium	1.9	J	10/19/2016	1902
7440-22-4	Silver	3.3		10/19/2016	1902
7440-28-0	Thallium	0.29	J	10/19/2016	1902
7440-62-2	Vanadium	21.3	*	10/19/2016	1902

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H70

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-03

% Solids: 53.1 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	5.1	*	10/19/2016	1906
7440-39-3	Barium	131	*	10/19/2016	1906
7440-41-7	Beryllium	0.94	U	10/19/2016	1906
7440-43-9	Cadmium	0.73	J*	10/19/2016	1906
7440-47-3	Chromium	4.2		10/19/2016	1906
7440-48-4	Cobalt	1.9		10/19/2016	1906
7439-98-7	Molybdenum	1.6	J	10/19/2016	1906
7440-02-0	Nickel	1.7		10/19/2016	1906
7782-49-2	Selenium	2.4	J	10/19/2016	1906
7440-22-4	Silver	3.3		10/19/2016	1906
7440-28-0	Thallium	0.32	J	10/19/2016	1906
7440-62-2	Vanadium	14.7	*	10/19/2016	1906

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H71

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-04
% Solids: 80.2
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	3.0	*	10/19/2016	1910
7440-39-3	Barium	82.7	*	10/19/2016	1910
7440-41-7	Beryllium	0.16	J	10/19/2016	1910
7440-43-9	Cadmium	2.0	*	10/19/2016	1910
7440-47-3	Chromium	2.7		10/19/2016	1910
7440-48-4	Cobalt	2.8		10/19/2016	1910
7439-98-7	Molybdenum	1.1	J	10/19/2016	1910
7440-02-0	Nickel	1.5		10/19/2016	1910
7782-49-2	Selenium	2.1	J	10/19/2016	1910
7440-22-4	Silver	2.0		10/19/2016	1910
7440-28-0	Thallium	0.20	J	10/19/2016	1910
7440-62-2	Vanadium	13.2	*	10/19/2016	1910

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H72

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-05

% Solids: 64.9 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	5.8	*	10/19/2016	1926
7440-39-3	Barium	103	*	10/19/2016	1926
7440-41-7	Beryllium	0.16	J	10/19/2016	1926
7440-43-9	Cadmium	1.0	*	10/19/2016	1926
7440-47-3	Chromium	4.0		10/19/2016	1926
7440-48-4	Cobalt	3.4		10/19/2016	1926
7439-98-7	Molybdenum	1.5	J	10/19/2016	1926
7440-02-0	Nickel	1.9		10/19/2016	1926
7782-49-2	Selenium	2.5	J	10/19/2016	1926
7440-22-4	Silver	2.9		10/19/2016	1926
7440-28-0	Thallium	0.30	J	10/19/2016	1926
7440-62-2	Vanadium	16.9	*	10/19/2016	1926

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H73

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-06
% Solids: 79.0
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	2.8	*	10/19/2016	1930
7440-39-3	Barium	224	*	10/19/2016	1930
7440-41-7	Beryllium	0.12	J	10/19/2016	1930
7440-43-9	Cadmium	0.072	J*	10/19/2016	1930
7440-47-3	Chromium	3.8		10/19/2016	1930
7440-48-4	Cobalt	2.4		10/19/2016	1930
7439-98-7	Molybdenum	1.7	J	10/19/2016	1930
7440-02-0	Nickel	1.8		10/19/2016	1930
7782-49-2	Selenium	2.4	J	10/19/2016	1930
7440-22-4	Silver	0.90		10/19/2016	1930
7440-28-0	Thallium	0.24	J	10/19/2016	1930
7440-62-2	Vanadium	20.4	*	10/19/2016	1930

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H74

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-07

% Solids: 70.2 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	3.1	*	10/19/2016	1934
7440-39-3	Barium	150	*	10/19/2016	1934
7440-41-7	Beryllium	0.12	J	10/19/2016	1934
7440-43-9	Cadmium	0.43	J*	10/19/2016	1934
7440-47-3	Chromium	4.4		10/19/2016	1934
7440-48-4	Cobalt	1.6		10/19/2016	1934
7439-98-7	Molybdenum	1.9	J	10/19/2016	1934
7440-02-0	Nickel	1.5		10/19/2016	1934
7782-49-2	Selenium	3.6		10/19/2016	1934
7440-22-4	Silver	1.8		10/19/2016	1934
7440-28-0	Thallium	0.31	J	10/19/2016	1934
7440-62-2	Vanadium	24.3	*	10/19/2016	1934

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H75

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-08
% Solids: 90.0
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	3.5	*	10/19/2016	1938
7440-39-3	Barium	268	*	10/19/2016	1938
7440-41-7	Beryllium	0.19	J	10/19/2016	1938
7440-43-9	Cadmium	0.14	J*	10/19/2016	1938
7440-47-3	Chromium	5.6		10/19/2016	1938
7440-48-4	Cobalt	1.2		10/19/2016	1938
7439-98-7	Molybdenum	1.4	J	10/19/2016	1938
7440-02-0	Nickel	1.1		10/19/2016	1938
7782-49-2	Selenium	2.6	J	10/19/2016	1938
7440-22-4	Silver	1.0		10/19/2016	1938
7440-28-0	Thallium	0.20	J	10/19/2016	1938
7440-62-2	Vanadium	27.2	*	10/19/2016	1938

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H76

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-09

% Solids: 55.7 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	6.7	*	10/19/2016	1942
7440-39-3	Barium	197	*	10/19/2016	1942
7440-41-7	Beryllium	0.12	J	10/19/2016	1942
7440-43-9	Cadmium	1.1	*	10/19/2016	1942
7440-47-3	Chromium	4.5		10/19/2016	1942
7440-48-4	Cobalt	1.7		10/19/2016	1942
7439-98-7	Molybdenum	3.0	J	10/19/2016	1942
7440-02-0	Nickel	1.5		10/19/2016	1942
7782-49-2	Selenium	4.6		10/19/2016	1942
7440-22-4	Silver	5.3		10/19/2016	1942
7440-28-0	Thallium	0.44	J	10/19/2016	1942
7440-62-2	Vanadium	20.3	*	10/19/2016	1942

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H77

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-10
% Solids: 94.1
Date Received: 10/13/2016
Analytical method: ICP-MS
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	9.0	*	10/19/2016	1946
7440-39-3	Barium	240	*	10/19/2016	1946
7440-41-7	Beryllium	0.051	J	10/19/2016	1946
7440-43-9	Cadmium	0.082	J*	10/19/2016	1946
7440-47-3	Chromium	2.1		10/19/2016	1946
7440-48-4	Cobalt	0.66		10/19/2016	1946
7439-98-7	Molybdenum	2.5		10/19/2016	1946
7440-02-0	Nickel	0.58		10/19/2016	1946
7782-49-2	Selenium	3.5		10/19/2016	1946
7440-22-4	Silver	3.0		10/19/2016	1946
7440-28-0	Thallium	0.15	J	10/19/2016	1946
7440-62-2	Vanadium	10.8	*	10/19/2016	1946

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H78

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-11

% Solids: 67.4 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	4.9	*	10/19/2016	1950
7440-39-3	Barium	137	*	10/19/2016	1950
7440-41-7	Beryllium	0.10	J	10/19/2016	1950
7440-43-9	Cadmium	0.96	*	10/19/2016	1950
7440-47-3	Chromium	3.9		10/19/2016	1950
7440-48-4	Cobalt	2.2		10/19/2016	1950
7439-98-7	Molybdenum	1.9	J	10/19/2016	1950
7440-02-0	Nickel	1.6		10/19/2016	1950
7782-49-2	Selenium	3.2	J	10/19/2016	1950
7440-22-4	Silver	2.5		10/19/2016	1950
7440-28-0	Thallium	0.29	J	10/19/2016	1950
7440-62-2	Vanadium	17.1	*	10/19/2016	1950

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H79

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-12
% Solids: 87.2
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	2.5	*	10/19/2016	1954
7440-39-3	Barium	116	*	10/19/2016	1954
7440-41-7	Beryllium	0.061	J	10/19/2016	1954
7440-43-9	Cadmium	0.050	J*	10/19/2016	1954
7440-47-3	Chromium	3.2		10/19/2016	1954
7440-48-4	Cobalt	1.2		10/19/2016	1954
7439-98-7	Molybdenum	1.9	J	10/19/2016	1954
7440-02-0	Nickel	0.88		10/19/2016	1954
7782-49-2	Selenium	3.4		10/19/2016	1954
7440-22-4	Silver	0.70		10/19/2016	1954
7440-28-0	Thallium	0.19	J	10/19/2016	1954
7440-62-2	Vanadium	25.3	*	10/19/2016	1954

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H80

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-13

% Solids: 60.1 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	12.1	*	10/19/2016	1958
7440-39-3	Barium	164	*	10/19/2016	1958
7440-41-7	Beryllium	0.14	J	10/19/2016	1958
7440-43-9	Cadmium	2.1	*	10/19/2016	1958
7440-47-3	Chromium	4.7		10/19/2016	1958
7440-48-4	Cobalt	2.1		10/19/2016	1958
7439-98-7	Molybdenum	3.6		10/19/2016	1958
7440-02-0	Nickel	1.7		10/19/2016	1958
7782-49-2	Selenium	3.9	J	10/19/2016	1958
7440-22-4	Silver	4.9		10/19/2016	1958
7440-28-0	Thallium	0.54	J	10/19/2016	1958
7440-62-2	Vanadium	50.7	*	10/19/2016	1958

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H81

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-14
% Solids: 94.4
Date Received: 10/13/2016
Analytical method: ICP-MS
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	6.4	*	10/19/2016	2002
7440-39-3	Barium	99.2	*	10/19/2016	2002
7440-41-7	Beryllium	0.067	J	10/19/2016	2002
7440-43-9	Cadmium	1.6	*	10/19/2016	2002
7440-47-3	Chromium	3.3		10/19/2016	2002
7440-48-4	Cobalt	1.8		10/19/2016	2002
7439-98-7	Molybdenum	2.8		10/19/2016	2002
7440-02-0	Nickel	1.3		10/19/2016	2002
7782-49-2	Selenium	2.9		10/19/2016	2002
7440-22-4	Silver	3.1		10/19/2016	2002
7440-28-0	Thallium	0.21	J	10/19/2016	2002
7440-62-2	Vanadium	21.8	*	10/19/2016	2002

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H82

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-15

% Solids: 78.4 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	1.9	*	10/19/2016	2006
7440-39-3	Barium	40.3	*	10/19/2016	2006
7440-41-7	Beryllium	0.16	J	10/19/2016	2006
7440-43-9	Cadmium	6.0	*	10/19/2016	2006
7440-47-3	Chromium	4.1		10/19/2016	2006
7440-48-4	Cobalt	3.3		10/19/2016	2006
7439-98-7	Molybdenum	3.5		10/19/2016	2006
7440-02-0	Nickel	2.5		10/19/2016	2006
7782-49-2	Selenium	1.6	J	10/19/2016	2006
7440-22-4	Silver	1.7		10/19/2016	2006
7440-28-0	Thallium	0.17	J	10/19/2016	2006
7440-62-2	Vanadium	28.2	*	10/19/2016	2006

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H83

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-16
% Solids: 91.6
Date Received: 10/13/2016
Analytical method: ICP-MS
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	5.7	*	10/19/2016	2010
7440-39-3	Barium	58.6	*	10/19/2016	2010
7440-41-7	Beryllium	0.11	J	10/19/2016	2010
7440-43-9	Cadmium	2.0	*	10/19/2016	2010
7440-47-3	Chromium	4.0		10/19/2016	2010
7440-48-4	Cobalt	3.4		10/19/2016	2010
7439-98-7	Molybdenum	4.9		10/19/2016	2010
7440-02-0	Nickel	2.2		10/19/2016	2010
7782-49-2	Selenium	2.4	J	10/19/2016	2010
7440-22-4	Silver	4.9		10/19/2016	2010
7440-28-0	Thallium	0.16	J	10/19/2016	2010
7440-62-2	Vanadium	25.7	*	10/19/2016	2010

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H84

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-17

% Solids: 61.7 Date Received: 10/13/2016

Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	0.96	J*	10/19/2016	2014
7440-39-3	Barium	107	*	10/19/2016	2014
7440-41-7	Beryllium	0.56	J	10/19/2016	2014
7440-43-9	Cadmium	1.4	*	10/19/2016	2014
7440-47-3	Chromium	8.5		10/19/2016	2014
7440-48-4	Cobalt	13.6		10/19/2016	2014
7439-98-7	Molybdenum	1.9	J	10/19/2016	2014
7440-02-0	Nickel	9.4		10/19/2016	2014
7782-49-2	Selenium	2.4	J	10/19/2016	2014
7440-22-4	Silver	1.0		10/19/2016	2014
7440-28-0	Thallium	0.12	J	10/19/2016	2014
7440-62-2	Vanadium	29.0	*	10/19/2016	2014

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H85

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-18
% Solids: 8.8
Date Received: 10/13/2016
Analytical method: ICP-MS

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-36-0	Antimony	4.9	*	10/28/2016	1724
7440-39-3	Barium	54.3	*	10/28/2016	1724
7440-41-7	Beryllium	6.6		10/28/2016	1724
7440-43-9	Cadmium	5.5	*	10/28/2016	1724
7440-47-3	Chromium	2.4		10/28/2016	1724
7440-48-4	Cobalt	19.2		10/28/2016	1724
7439-98-7	Molybdenum	10.7		10/28/2016	1724
7440-02-0	Nickel	3.9		10/28/2016	1724
7782-49-2	Selenium	5.3		10/28/2016	1724
7440-22-4	Silver	1.0		10/28/2016	1724
7440-28-0	Thallium	0.28	JD	10/28/2016	1727
7440-62-2	Vanadium	12.2	*	10/28/2016	1724

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62401M101916B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony	199.00	201	101	2	500.00	527	105	2	520	104	2
Barium	99.000	102	103	1	500.00	515	103	1	507	101	1
Beryllium	99.000	102	103	3	500.00	483	97	1	524	105	1
Cadmium	99.000	101	102	1	500.00	507	101	1	502	100	2
Chromium	98.000	99.1	101	2	500.00	512	102	1	511	102	1
Cobalt	100.00	103	103	1	500.00	497	99	0	503	101	1
Molybdenum	10.000	10.5	105	2	1250.0	1230	98	1	1240	100	1
Nickel	101.00	101	100	1	500.00	498	100	1	507	101	1
Selenium	206.00	205	100	2	500.00	518	104	2	510	102	1
Silver	100.00	102	102	0	65.000	65.5	101	1	65.5	101	1
Thallium	206.00	213	104	1	500.00	496	99	0	516	103	1
Vanadium	100.00	99.8	100	1	500.00	513	103	1	513	103	1

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62401M101916B Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony					500.00	527	105	1	538	108	2
Barium					500.00	515	103	0	526	105	1
Beryllium					500.00	505	101	1	478	96	1
Cadmium					500.00	508	102	0	513	103	1
Chromium					500.00	515	103	1	503	101	1
Cobalt					500.00	506	101	1	510	102	0
Molybdenum					1250.0	1250	100	1	1280	103	1
Nickel					500.00	508	102	0	508	102	1
Selenium					500.00	511	102	1	504	101	0
Silver					65.000	66.0	102	0	67.2	103	1
Thallium					500.00	507	101	0	506	101	1
Vanadium					500.00	517	103	1	502	100	0

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ62402M102016A Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony	199.00	200	101	1	500.00	532	106	1	527	105	1

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: ICV (0307)

Continuing Calibration Verification Source: In-House, Lot: B6A0045

Run Batch: BJ63102M102816D Analytical method: ICP-MS

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Antimony	199.00	194	97	1	500.00	525	105	1	514	103	1
Barium	99.000	99.1	100	1	500.00	508	102	0	499	100	1
Beryllium	99.000	94.4	95	0	500.00	499	100	1	455	91	1
Cadmium	99.000	97.0	98	0	500.00	510	102	1	501	100	1
Chromium	98.000	94.1	96	1	500.00	490	98	1	493	99	1
Cobalt	100.00	98.7	99	0	500.00	520	104	0	505	101	0
Molybdenum	10.000	10.3	103	1	1250.0	1180	94	1	1190	96	1
Nickel	101.00	98.5	98	1	500.00	513	103	0	502	100	0
Selenium	206.00	194	94	0	500.00	499	100	1	503	101	1
Silver	100.00	99.5	100	1	65.000	66.5	102	1	66.2	102	0
Thallium	206.00	207	100	0	500.00	513	103	1	500	100	0
Vanadium	100.00	94.4	94	1	500.00	483	97	0	487	97	1

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ14034

Run Batch: BJ62401M101916B Preparation Method: 200.8

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Antimony	0.13	J	2.0	U	2.0	U	2.0	U	1.0	U
Barium	10	U	10	U	0.071	J	10	U	5.0	U
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.50	U
Cadmium	1.0	U	0.045	J	0.088	J	0.066	J	0.50	U
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	1.0	U
Cobalt	0.026	J	0.044	J	0.077	J	0.073	J	0.50	U
Molybdenum	4.0	U	0.35	J	0.39	J	0.38	J	2.0	U
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	0.068	J
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	2.5	U
Silver	0.020	J	0.0076	J	0.011	J	0.010	J	0.50	U
Thallium	1.0	U	0.071	J	0.079	J	0.081	J	0.50	U
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	2.5	U

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ14034

Run Batch: BJ62401M101916B Preparation Method: 200.8

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID:	Q	ID:	Q	ID:	Q
Antimony			0.13	J						
Barium			0.083	J						
Beryllium			1.0	U						
Cadmium			0.11	J						
Chromium			2.0	U						
Cobalt			0.10	J						
Molybdenum			0.46	J						
Nickel			1.0	U						
Selenium			5.0	U						
Silver			0.014	J						
Thallium			0.10	J						
Vanadium			5.0	U						

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch:

Run Batch: BJ62402M102016A Preparation Method:

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID:	Q	ID:	Q
Antimony	2.0	U	2.0	U	2.0	U				

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: ICP-MS Preparation Batch: QJ28005

Run Batch: BJ63102M102816D Preparation Method: 200.8

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID:	Q	ID: PBS02	Q
Antimony	0.57	J	0.29	J	0.31	J			0.064	J
Barium	0.13	J	0.081	J	0.13	J			5.0	U
Beryllium	1.0	U	1.0	U	1.0	U			0.50	U
Cadmium	0.13	J	0.11	J	0.15	J			0.50	U
Chromium	2.0	U	2.0	U	0.21	J			1.0	U
Cobalt	0.084	J	0.067	J	0.13	J			0.030	J
Molybdenum	0.34	J	1.3	J	1.4	J			0.24	J
Nickel	1.0	U	1.0	U	1.0	U			0.50	U
Selenium	5.0	U	5.0	U	5.0	U			2.5	U
Silver	0.038	J	0.016	J	0.025	J			0.50	U
Thallium	0.16	J	0.13	J	0.13	J			0.50	U
Vanadium	5.0	U	0.13	J	0.17	J			2.5	U

NOTE: Hardness (total) is reported in mg/L

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ62401M101916B

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.2	80	21.2	96
Barium	1.2	22	2.0	167	23.0	105
Beryllium	0	19	0.30		19.1	101
Cadmium	0.7	20	-1.2	-171	18.0	90
Chromium	21	40	22.4	107	44.2	111
Cobalt	1	20	1.3	130	21.0	105
Molybdenum	2000	2000	2090	105	2080	104
Nickel	6	24	5.6	93	24.8	103
Selenium	0.3	19	0.18	60	20.2	106
Silver	0	18	0.013		18.5	103
Thallium	0	21	0.023		19.5	93
Vanadium	0.5	19	-0.79	-158	22.1	116

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Analytical Method: ICP-MS
ICSA Source: USEPA, Lot:ICSA-0803
Instrument ID: ICPMS01
ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803
Run Batch: BJ62402M102016A

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.1	73	20.9	95

FORM 4-IN
ICP INTERFERENCE CHECK SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Analytical Method: ICP-MS ICSA Source: USEPA, Lot:ICSA-0803

Instrument ID: ICPMS01 ICSB Source: USEPA, Lot:ICSA-0803 & ICSB-0803

Run Batch: BJ63102M102816D

Concentration Units: ug/L

Analyte	True		Found			
	ICSA	ICSAB	ICSA	%R	ICSAB	%R
Antimony	1.5	22	1.3	87	20.4	93
Barium	1.2	22	2.0	167	22.1	100
Beryllium	0	19	0.36		18.6	98
Cadmium	0.7	20	0.17	24	18.3	92
Chromium	21	40	21.1	100	42.3	106
Cobalt	1	20	1.3	130	20.3	102
Molybdenum	2000	2000	2090	105	2100	105
Nickel	6	24	5.8	97	24.4	102
Selenium	0.3	19	0.073	24	18.0	95
Silver	0	18	0.011		18.1	101
Thallium	0	21	0.087		19.0	90
Vanadium	0.5	19	-0.31	-62	20.8	109

EPA SAMPLE NO.

MH1H71S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Analytical Method: ICP-MS

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Antimony	75-125	9.9		3.0		12.5	55	*
Barium	75-125	350		82.7		249	107	
Beryllium	75-125	5.6		0.16	J	6.24	87	
Cadmium	75-125	8.3		2.0		6.24	101	
Chromium	75-125	28.0		2.7		24.9	103	
Cobalt	75-125	58.0		2.8		62.4	89	
Molybdenum	75-125	110		1.1	J	125	88	
Nickel	75-125	57.0		1.5		62.4	89	
Selenium	75-125	15.0		2.1	J	12.5	103	
Silver	75-125	8.6		2.0		6.24	105	
Thallium	75-125	5.8		0.20	J	6.24	90	
Vanadium	75-125	81.0		13.2		62.4	109	

EPA SAMPLE NO.

MH1H71A

FORM 5B-IN
POST-DIGESTION/DISTILLATION SPIKE
SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No. 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Analytical Method: ICP-MS

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Antimony	75-125	9.4		3.0		6.2	102	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1H71D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Analytical Method: ICP-MS

% Solids: 80.2

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Antimony	1.2	3.0		4.4		36	*
Barium		82.7		107		25	*
Beryllium		0.16	J	0.17	J		
Cadmium	0.62	2.0		2.9		38	*
Chromium	1.2	2.7		3.6		26	
Cobalt	0.62	2.8		2.7		1	
Molybdenum		1.1	J	1.6	J		
Nickel	0.62	1.5		1.7		10	
Selenium		2.1	J	2.8	J		
Silver	0.62	2.0		2.5		19	
Thallium		0.20	J	0.28	J		
Vanadium	3.1	13.2		18.3		33	*

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

LCS01

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Preparation Method: 200.8

Analytical method: ICP-MS Preparation Batch: QJ14034

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Antimony	2.0000	2.1	105
Barium	10.000	10.4	104
Beryllium	1.0000	1.1	110
Cadmium	1.0000	1.0	100
Chromium	2.0000	2.1	105
Cobalt	1.0000	1.0	100
Molybdenum	4.0000	4.1	103
Nickel	1.0000	1.0	100
Selenium	5.0000	5.5	110
Silver	1.0000	1.0	100
Thallium	1.0000	0.97	97
Vanadium	5.0000	5.6	112

EPA SAMPLE NO.

LCS02

FORM 7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Preparation Method: 200.8

Analytical method: ICP-MS Preparation Batch: QJ28005

Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/Kg

Analyte	True	Found	%R
Antimony	2.0000	1.9	95
Barium	10.000	9.7	97
Beryllium	1.0000	0.92	92
Cadmium	1.0000	0.95	95
Chromium	2.0000	1.9	95
Cobalt	1.0000	0.96	96
Molybdenum	4.0000	3.7	93
Nickel	1.0000	0.93	93
Selenium	5.0000	4.6	92
Silver	1.0000	0.97	97
Thallium	1.0000	0.92	92
Vanadium	5.0000	4.8	96

EPA SAMPLE NO.

MH1H71L

FORM 8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Matrix: Soil Analytical method: ICP-MS

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/Kg

Analyte	Initial Sample Result (I)	Q	Serial Dilution Result (S)	Q	% Difference	Q
Antimony	3.0		3.2	J	6	
Barium	82.7		86.6		5	
Beryllium	0.16	J	3.1	U	100	
Cadmium	2.0		2.3	J	14	
Chromium	2.7		2.5	J	7	
Cobalt	2.8		2.9	J	5	
Molybdenum	1.1	J	1.1	J	6	
Nickel	1.5		1.7	J	10	
Selenium	2.1	J	3.1	J	47	
Silver	2.0		2.1	J	5	
Thallium	0.20	J	0.27	J	36	
Vanadium	13.2		13.1	J	1	

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Analytical Method: ICP-MS Instrument ID: ICPMS01

Preparation Method: 200.8

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass	MDL	Date Analyzed
Antimony	121.00 u	0.03	06/28/2016
Barium	137.00 u	0.044	06/27/2016
Beryllium	9.00 u	0.04	06/28/2016
Cadmium	111.00 u	0.042	06/29/2016
Chromium	52.00 u	0.082	06/29/2016
Cobalt	59.00 u	0.03	06/28/2016
Nickel	60.00 u	0.045	06/28/2016
Selenium	78.00 u	0.068	06/29/2016
Silver	107.00 u	0.027	06/28/2016
Thallium	205.00 u	0.038	06/29/2016
Vanadium	51.00 u	0.082	06/28/2016
Molybdenum	95.00 u	0.045	06/28/2016

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Bonner Analytical Testing Co
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Date: 10/19/2016
Run Batch: BJ62401M101916B

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb
Barium	Sc	Tb
Beryllium	Sc	
Cadmium	Sc	Tb
Chromium	Rh	
Cobalt	Sc	Tb
Molybdenum	Sc	Tb
Nickel	Sc	Tb
Selenium	Rh	
Silver	Sc	Tb
Thallium	Ho	
Vanadium	Rh	

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Bonner Analytical Testing Co
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.: 2658.0 SDG No.: MH1H68
Instrument ID: ICPMS01
Date: 10/20/2016
Run Batch: BJ62402M102016A

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb

FORM 11-IN
ICP-MS INTERNAL STANDARD ASSOCIATION

Lab Name: Bonner Analytical Testing Co
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Date: 10/28/2016
Run Batch: BJ63102M102816D

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Antimony	Sc	Tb
Barium	Sc	Tb
Beryllium	Sc	
Cadmium	Sc	Tb
Chromium	Rh	
Cobalt	Sc	Tb
Molybdenum	Tb	
Nickel	Sc	Tb
Selenium	Rh	
Silver	Sc	Tb
Thallium	Ho	
Vanadium	Rh	

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/19/2016

End Date: 10/19/2016

Run Batch: BJ62401M101916B

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
TUNE01	1.0	1413																									
S01	1.0	1424		X		X	X	X		X	X							X		X	X		X	X			
S02	1.0	1428																									
S03	1.0	1432				X																					
S04	1.0	1436		X			X	X		X	X							X		X	X		X	X			
S05	1.0	1440		X		X	X	X		X	X							X		X	X		X	X			
S06	1.0	1444		X		X	X	X		X	X							X		X	X		X	X			
S07	1.0	1448		X		X	X	X		X	X							X		X	X		X	X			
S08	1.0	1452		X		X	X	X		X	X							X		X	X		X	X			
ICV01	1.0	1456		X		X	X	X		X	X							X		X	X		X	X			
ICB01	1.0	1500		X		X	X	X		X	X							X		X	X		X	X			
ICSA01	1.0	1504		X		X	X	X		X	X							X		X	X		X	X			
ICSAB01	1.0	1508		X		X	X	X		X	X							X		X	X		X	X			
CCV01	1.0	1512		X		X	X	X		X	X							X		X	X		X	X			
CCB01	1.0	1516		X		X	X	X		X	X							X		X	X		X	X			
CCV02	1.0	1657		X		X	X	X		X	X							X		X	X		X	X			
CCB02	1.0	1701		X		X	X	X		X	X							X		X	X		X	X			
CCV03	1.0	1842		X		X	X	X		X	X							X		X	X		X	X			
CCB03	1.0	1846		X		X	X	X		X	X							X		X	X		X	X			
PBS01	1.0	1850		X		X	X	X		X	X							X		X	X		X	X			
LCS01	1.0	1854		X		X	X	X		X	X							X		X	X		X	X			
MH1H68	1.0	1858		X		X	X	X		X	X							X		X	X		X	X			
MH1H69	1.0	1902		X		X	X	X		X	X							X		X	X		X	X			
MH1H70	1.0	1906		X		X	X	X		X	X							X		X	X		X	X			
MH1H71	1.0	1910		X		X	X	X		X	X							X		X	X		X	X			
MH1H71S	1.0	1914		X		X	X	X		X	X							X		X	X		X	X			
MH1H71D	1.0	1918		X		X	X	X		X	X							X		X	X		X	X			
MH1H71L	5.0	1922		X		X	X	X		X	X							X		X	X		X	X			
MH1H72	1.0	1926		X		X	X	X		X	X							X		X	X		X	X			
MH1H73	1.0	1930		X		X	X	X		X	X							X		X	X		X	X			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/19/2016
End Date: 10/19/2016
Run Batch: BJ62401M101916B

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
MH1H74	1.0	1934		X		X	X	X		X	X							X		X	X		X	X			
MH1H75	1.0	1938		X		X	X	X		X	X							X		X	X		X	X			
MH1H76	1.0	1942		X		X	X	X		X	X							X		X	X		X	X			
MH1H77	1.0	1946		X		X	X	X		X	X							X		X	X		X	X			
MH1H78	1.0	1950		X		X	X	X		X	X							X		X	X		X	X			
MH1H79	1.0	1954		X		X	X	X		X	X							X		X	X		X	X			
MH1H80	1.0	1958		X		X	X	X		X	X							X		X	X		X	X			
MH1H81	1.0	2002		X		X	X	X		X	X							X		X	X		X	X			
MH1H82	1.0	2006		X		X	X	X		X	X							X		X	X		X	X			
MH1H83	1.0	2010		X		X	X	X		X	X							X		X	X		X	X			
MH1H84	1.0	2014		X		X	X	X		X	X							X		X	X		X	X			
ZZZZZZ	1.0	2018																									
ZZZZZZ	1.0	2022																									
CCV04	1.0	2026		X		X	X	X		X	X							X		X	X		X	X			
CCB04	1.0	2030		X		X	X	X		X	X							X		X	X		X	X			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/19/2016
End Date: 10/19/2016
Run Batch: BJ62401M101916B

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
TUNE01	1.0	1413																								
S01	1.0	1424					X																			
S02	1.0	1428					X																			
S03	1.0	1432					X																			
S04	1.0	1436					X																			
S05	1.0	1440					X																			
S06	1.0	1444					X																			
S07	1.0	1448					X																			
S08	1.0	1452					X																			
ICV01	1.0	1456					X																			
ICB01	1.0	1500					X																			
ICSA01	1.0	1504					X																			
ICSAB01	1.0	1508					X																			
CCV01	1.0	1512					X																			
CCB01	1.0	1516					X																			
CCV02	1.0	1657					X																			
CCB02	1.0	1701					X																			
CCV03	1.0	1842					X																			
CCB03	1.0	1846					X																			
PBS01	1.0	1850					X																			
LCS01	1.0	1854					X																			
MH1H68	1.0	1858					X																			
MH1H69	1.0	1902					X																			
MH1H70	1.0	1906					X																			
MH1H71	1.0	1910					X																			
MH1H71S	1.0	1914					X																			
MH1H71D	1.0	1918					X																			
MH1H71L	5.0	1922					X																			
MH1H72	1.0	1926					X																			
MH1H73	1.0	1930					X																			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/19/2016
End Date: 10/19/2016
Run Batch: BJ62401M101916B

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
MH1H74	1.0	1934					X																			
MH1H75	1.0	1938					X																			
MH1H76	1.0	1942					X																			
MH1H77	1.0	1946					X																			
MH1H78	1.0	1950					X																			
MH1H79	1.0	1954					X																			
MH1H80	1.0	1958					X																			
MH1H81	1.0	2002					X																			
MH1H82	1.0	2006					X																			
MH1H83	1.0	2010					X																			
MH1H84	1.0	2014					X																			
ZZZZZZ	1.0	2018																								
ZZZZZZ	1.0	2022																								
CCV04	1.0	2026					X																			
CCB04	1.0	2030					X																			

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01

Analytical Method: ICP-MS

Start Date: 10/20/2016

End Date: 10/20/2016

Run Batch: BJ62402M102016A

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
TUNE01	1.0	0946																									
S01	1.0	0957		X																							
S04	1.0	1010		X																							
S05	1.0	1014		X																							
S06	1.0	1018		X																							
S07	1.0	1022		X																							
S08	1.0	1026		X																							
ICV01	1.0	1030		X																							
ICB01	1.0	1034		X																							
ICSA01	1.0	1038		X																							
ICSAB01	1.0	1042		X																							
CCV01	1.0	1046		X																							
CCB01	1.0	1051		X																							
MH1H71A	1.0	1055		X																							
CCV02	1.0	1059		X																							
CCB02	1.0	1103		X																							

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01 Analytical Method: ICP-MS

Start Date: 10/28/2016 End Date: 10/28/2016

Run Batch: BJ63102M102816D

EPA Sample NO.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
TUNE01	1.0	1546																								
S01	1.0	1558		X		X	X	X		X	X							X		X	X		X	X		
S02	1.0	1602																								
S03	1.0	1606				X																				
S04	1.0	1610		X			X	X		X	X							X		X	X		X	X		
S05	1.0	1614		X		X	X	X		X	X							X		X	X		X	X		
S06	1.0	1618		X		X	X	X		X	X							X		X	X		X	X		
S07	1.0	1622		X		X	X	X		X	X							X		X	X		X	X		
S08	1.0	1626		X		X	X	X		X	X							X		X	X		X	X		
ICV01	1.0	1636		X		X	X	X		X	X							X		X	X		X	X		
ICB01	1.0	1640		X		X	X	X		X	X							X		X	X		X	X		
ICSA01	1.0	1644		X		X	X	X		X	X							X		X	X		X	X		
ICSAB01	1.0	1648		X		X	X	X		X	X							X		X	X		X	X		
CCV01	1.0	1701		X		X	X	X		X	X							X		X	X		X	X		
CCB01	1.0	1705		X		X	X	X		X	X							X		X	X		X	X		
PBS02	1.0	1709		X		X	X	X		X	X							X		X	X		X	X		
LCS02	1.0	1712		X		X	X	X		X	X							X		X	X		X	X		
ZZZZZZ	1.0	1716																								
ZZZZZZ	1.0	1720																								
MH1H85	1.0	1724		X		X	X	X		X	X							X		X	X			X		
MH1H85	2.0	1727																					X			
CCV02	1.0	1730		X		X	X	X		X	X							X		X	X		X	X		
CCB02	1.0	1735		X		X	X	X		X	X							X		X	X		X	X		

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Analytical Method: ICP-MS
Start Date: 10/28/2016
End Date: 10/28/2016
Run Batch: BJ63102M102816D

EPA Sample NO.	D/F	Time	Analytes																							
			B	Au	Li	Bi	Mo	Os	Pd	P	Pt	Si	S	Sn	Sr	Ti	U	Zr								
TUNE01	1.0	1546																								
S01	1.0	1558					X																			
S02	1.0	1602					X																			
S03	1.0	1606					X																			
S04	1.0	1610					X																			
S05	1.0	1614					X																			
S06	1.0	1618					X																			
S07	1.0	1622					X																			
S08	1.0	1626					X																			
ICV01	1.0	1636					X																			
ICB01	1.0	1640					X																			
ICSA01	1.0	1644					X																			
ICSAB01	1.0	1648					X																			
CCV01	1.0	1701					X																			
CCB01	1.0	1705					X																			
PBS02	1.0	1709					X																			
LCS02	1.0	1712					X																			
ZZZZZZ	1.0	1716																								
ZZZZZZ	1.0	1720																								
MH1H85	1.0	1724					X																			
MH1H85	2.0	1727					X																			
CCV02	1.0	1730					X																			
CCB02	1.0	1735					X																			

EPA SAMPLE NO.

TUNE01

FORM 13-IN
ICP-MS TUNE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Date: 10/19/16

Run Batch: BJ62401M101916B

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	9.0	0.7	5	1.2
Mg - 24	23.9	0.7	5	0.7
Mg - 25	24.9	0.7	5	0.5
Mg - 26	25.9	0.7	5	1.3
Co - 59	58.9	0.7	5	0.7
In - 113	112.9	0.7	5	0.9
In - 115	114.9	0.7	5	0.8
Pb - 206	205.9	0.6	5	1.2
Pb - 207	206.9	0.6	5	1.5
Pb - 208	207.9	0.7	5	1.5

EPA SAMPLE NO.

TUNE01

FORM 13-IN
ICP-MS TUNE

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01

Date: 10/20/16

Run Batch: BJ62402M102016A

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	9.0	0.7	5	1.5
Mg - 24	23.9	0.7	5	0.7
Mg - 25	24.9	0.7	5	1.0
Mg - 26	25.9	0.7	5	0.3
Co - 59	58.9	0.7	5	0.5
In - 113	112.9	0.7	5	1.1
In - 115	114.9	0.7	5	1.0
Pb - 206	205.9	0.7	5	0.9
Pb - 207	206.9	0.7	5	1.3
Pb - 208	207.9	0.7	5	1.0

EPA SAMPLE NO.

TUNE01

FORM 13-IN
ICP-MS TUNE

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Date: 10/28/16

Run Batch: BJ63102M102816D

Element - Mass	Avg. Measured Mass (u)	Average Peak Width (u)	%Height	%RSD
Be - 9	9.0	0.7	5	1.1
Mg - 24	23.9	0.7	5	0.5
Mg - 25	24.9	0.7	5	0.4
Mg - 26	25.9	0.7	5	0.9
Co - 59	58.9	0.7	5	0.7
In - 113	112.9	0.7	5	1.0
In - 115	114.9	0.7	5	0.5
Pb - 206	205.9	0.7	5	1.0
Pb - 207	206.9	0.7	5	0.7
Pb - 208	207.9	0.7	5	1.0

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62401M101916B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
S01	14:24	100		100				100			
S02	14:28	100		100				99			
S03	14:32	99		98				100			
S04	14:36	99		98				100			
S05	14:40	98		97				99			
S06	14:44	98		95				98			
S07	14:48	96		95				98			
S08	14:52	95		93				96			
ICV01	14:56	95		90				97			
ICB01	15:00	94		90				96			
ICSA01	15:04	88		93				86			
ICSAB01	15:08	84		100				88			
CCV01	15:12	90		109				106			
CCB01	15:16	89		103				105			
CCV02	16:57	91		89				94			
CCB02	17:01	90		87				96			
CCV03	18:42	98		99				100			
CCB03	18:46	97		94				98			
PBS01	18:50	97		95				97			
LCS01	18:54	96		94				98			
MH1H68	18:58	98		105				99			
MH1H69	19:02	97		107				101			
MH1H70	19:06	96		105				98			
MH1H71	19:10	96		105				99			
MH1H71S	19:14	96		106				98			
MH1H71D	19:18	95		106				98			
MH1H71L	19:22	96		99				100			
MH1H72	19:26	95		106				99			
MH1H73	19:30	96		102				99			
MH1H74	19:34	95		104				99			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62401M101916B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
MH1H75	19:38	93		112				97			
MH1H76	19:42	95		104				99			
MH1H77	19:46	97		109				100			
MH1H78	19:50	97		112				101			
MH1H79	19:54	98		121				102			
MH1H80	19:58	97		112				101			
MH1H81	20:02	97		114				101			
MH1H82	20:06	98		113				102			
MH1H83	20:10	98		114				103			
MH1H84	20:14	103		117				105			
ZZZZZZ	20:18										
ZZZZZZ	20:22										
CCV04	20:26	98		103				103			
CCB04	20:30	97		100				102			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62401M101916B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
S01	14:24	100		100							
S02	14:28	100		101							
S03	14:32	99		100							
S04	14:36	99		100							
S05	14:40	100		100							
S06	14:44	101		101							
S07	14:48	104		106							
S08	14:52	105		106							
ICV01	14:56	104		106							
ICB01	15:00	100		102							
ICSA01	15:04	98		99							
ICSAB01	15:08	100		101							
CCV01	15:12	109		109							
CCB01	15:16	102		102							
CCV02	16:57	101		101							
CCB02	17:01	97		98							
CCV03	18:42	106		107							
CCB03	18:46	101		103							
PBS01	18:50	100		101							
LCS01	18:54	100		100							
MH1H68	18:58	103		103							
MH1H69	19:02	104		104							
MH1H70	19:06	102		103							
MH1H71	19:10	105		104							
MH1H71S	19:14	104		105							
MH1H71D	19:18	105		104							
MH1H71L	19:22	101		101							
MH1H72	19:26	101		102							
MH1H73	19:30	103		103							
MH1H74	19:34	102		102							

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/19/2016

Run Batch: BJ62401M101916B End Date: 10/19/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
MH1H75	19:38	102		102							
MH1H76	19:42	101		102							
MH1H77	19:46	103		103							
MH1H78	19:50	103		103							
MH1H79	19:54	104		102							
MH1H80	19:58	102		102							
MH1H81	20:02	103		103							
MH1H82	20:06	102		102							
MH1H83	20:10	102		101							
MH1H84	20:14	105		105							
ZZZZZZ	20:18										
ZZZZZZ	20:22										
CCV04	20:26	107		107							
CCB04	20:30	104		104							

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/20/2016

Run Batch: BJ62402M102016A End Date: 10/20/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
S01	9:57	100		100				100			
S04	10:10	100		97				99			
S05	10:14	101		98				101			
S06	10:18	101		99				101			
S07	10:22	101		99				103			
S08	10:26	100		98				99			
ICV01	10:30	99		94				100			
ICB01	10:34	99		94				98			
ICSA01	10:38	97		102				92			
ICSAB01	10:42	91		108				93			
CCV01	10:46	96		115				111			
CCB01	10:51	94		108				107			
MH1H71A	10:55	96		123				108			
CCV02	10:59	97		110				106			
CCB02	11:03	94		101				103			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/20/2016

Run Batch: BJ62402M102016A End Date: 10/20/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
S01	9:57	100		100							
S04	10:10	99		99							
S05	10:14	100		100							
S06	10:18	101		101							
S07	10:22	104		104							
S08	10:26	104		105							
ICV01	10:30	104		105							
ICB01	10:34	100		101							
ICSA01	10:38	102		102							
ICSAB01	10:42	106		105							
CCV01	10:46	116		116							
CCB01	10:51	107		108							
MH1H71A	10:55	111		110							
CCV02	10:59	111		111							
CCB02	11:03	103		103							

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/28/2016

Run Batch: BJ63102M102816D End Date: 10/28/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element Rh-103	Q	Element In-115	Q
S01	15:58	100		100				100			
S02	16:02	101		103				102			
S03	16:06	100		100				100			
S04	16:10	99		99				101			
S05	16:14	100		101				100			
S06	16:18	101		100				101			
S07	16:22	98		100				95			
S08	16:26	95		96				92			
ICV01	16:36	99		105				102			
ICB01	16:40	99		102				101			
ICSA01	16:44	89		95				82			
ICSAB01	16:48	90		100				83			
CCV01	17:01	93		100				97			
CCB01	17:05	91		96				98			
PBS02	17:09	91		95				96			
LCS02	17:12	93		99				99			
ZZZZZZ	17:16										
ZZZZZZ	17:20										
MH1H85	17:24	88		164	R			76			
MH1H85	17:27	95		150	R			86			
CCV02	17:30	98		109				100			
CCB02	17:35	96		101				99			

FORM 14-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA. No.: 2658.0 SDG No.: MH1H68

ICP-MS Instrument ID: ICPMS01 Start Date: 10/28/2016

Run Batch: BJ63102M102816D End Date: 10/28/2016

EPA Sample NO.	Time	Internal Standards %RI For:									
		Element Tb-159	Q	Element Ho-165	Q	Element Bi-209	Q	Element	Q	Element	Q
S01	15:58	100		100							
S02	16:02	103		104							
S03	16:06	100		100							
S04	16:10	101		101							
S05	16:14	101		100							
S06	16:18	101		102							
S07	16:22	102		103							
S08	16:26	101		101							
ICV01	16:36	107		107							
ICB01	16:40	101		101							
ICSA01	16:44	97		97							
ICSAB01	16:48	100		100							
CCV01	17:01	105		106							
CCB01	17:05	101		102							
PBS02	17:09	99		100							
LCS02	17:12	101		101							
ZZZZZZ	17:16										
ZZZZZZ	17:20										
MH1H85	17:24	132	R	129	R						
MH1H85	17:27	127	R	123							
CCV02	17:30	109		109							
CCB02	17:35	102		103							

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62401M101916B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.00020							
Barium	0.0	-0.00010					5.0	5.1	-1
Beryllium	0.0	0.00030							
Cadmium	0.0	0.0							
Chromium	0.0	0.0039							
Cobalt	0.0	-0.00010							
Nickel	0.0	-0.10							
Selenium	0.0	-0.022							
Silver	0.0	0.0							
Thallium	0.0	0.0							
Vanadium	0.0	-0.076							
Molybdenum	0.0	0.00030		2.0	2.0	0	4.0	3.9	2

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01 Start Date: 10/19/2016

Analytical method: ICP-MS Run Batch: BJ62401M101916B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	2.0	2.0	2	10.0	10.1	-1	50.0	49.7	1
Barium				10.0	10	0	50.0	49.7	1
Beryllium	1.0	0.97	3	10.0	10.2	-2	50.0	49.4	1
Cadmium	1.0	1.0	0	10.0	10.0	0	50.0	49.8	0
Chromium	2.0	2.0	0	10.0	10.2	-2	50.0	50.0	0
Cobalt	1.0	1.0	-1	10.0	10.1	-1	50.0	50.2	0
Nickel	1.0	0.93	7	10.0	10.0	0	50.0	49.6	1
Selenium	5.0	5.0	-1	10.0	10	0	50.0	49.9	0
Silver	1.0	1.0	-2	1.3	1.3	0	6.5	6.5	0
Thallium	1.0	0.96	4	10.0	9.8	2	50.0	49.5	1
Vanadium	5.0	5.1	-1	10.0	10.0	0	50.0	49.9	0
Molybdenum	10.0	9.8	2	25.0	24.5	2	125	122	2

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01

Start Date: 10/19/2016

Analytical method: ICP-MS

Run Batch: BJ62401M101916B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	500	524	-5	1000	1000	0			
Barium	500	507	-1	1000	998	0			
Beryllium	500	500	0	1000	1000	0			
Cadmium	500	503	-1	1000	1000	0			
Chromium	500	500	0	1000	1010	-1			
Cobalt	500	500	0	1000	988	1			
Nickel	500	503	-1	1000	1000	0			
Selenium	500	494	1	1000	983	2			
Silver	65.0	65.2	0	130	130	0			
Thallium	500	505	-1	1000	1030	-3			
Vanadium	500	498	0	1000	1010	-1			
Molybdenum	1250	1260	-1	2500	2490	0			

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01 Start Date: 10/20/2016

Analytical method: ICP-MS Run Batch: BJ62402M102016A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.00020		2.0	1.9	3	10.0	9.8	2

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.: 2658.0

SDG No.: MH1H68

Instrument ID: ICPMS01

Start Date: 10/20/2016

Analytical method: ICP-MS

Run Batch: BJ62402M102016A

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	50.0	49.6	1	500	514	-3	1000	1010	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Start Date: 10/28/2016
Analytical method: ICP-MS
Run Batch: BJ63102M102816D

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	0.0	0.0							
Barium	0.0	0.0011					5.0	4.9	1
Beryllium	0.0	0.012							
Cadmium	0.0	0.027							
Chromium	0.0	0.030							
Cobalt	0.0	0.0036							
Nickel	0.0	-0.033							
Selenium	0.0	0.0018							
Silver	0.0	-0.00070							
Thallium	0.0	0.0033							
Vanadium	0.0	0.0057							
Molybdenum	0.0	0.062		2.0	2.0	1	4.0	4.0	-1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.: 2658.0

SDG No.: MH1H68

Instrument ID: ICPMS01

Start Date: 10/28/2016

Analytical method: ICP-MS

Run Batch: BJ63102M102816D

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	2.0	1.9	4	10.0	9.9	1	50.0	49.5	1
Barium				10.0	10	0	50.0	49.6	1
Beryllium	1.0	0.96	4	10.0	10.0	0	50.0	51.0	-2
Cadmium	1.0	0.94	6	10.0	10.2	-2	50.0	49.5	1
Chromium	2.0	1.9	5	10.0	10.0	0	50.0	49.6	1
Cobalt	1.0	1.0	0	10.0	10	0	50.0	50.1	0
Nickel	1.0	1.1	-15	10.0	10	0	50.0	50.2	0
Selenium	5.0	5.0	0	10.0	10.6	-6	50.0	49.2	2
Silver	1.0	0.98	2	1.3	1.3	-2	6.5	6.6	-2
Thallium	1.0	0.93	7	10.0	9.7	3	50.0	48.9	2
Vanadium	5.0	4.8	3	10.0	9.8	2	50.0	48.7	3
Molybdenum	10.0	10	0	25.0	24.2	3	125	121	3

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: 2658.0 SDG No.: MH1H68

Instrument ID: ICPMS01 Start Date: 10/28/2016

Analytical method: ICP-MS Run Batch: BJ63102M102816D

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Antimony	500	520	-4	1000	997	0			
Barium	500	505	-1	1000	1010	-1			
Beryllium	500	498	0	1000	999	0			
Cadmium	500	501	0	1000	974	3			
Chromium	500	523	-5	1000	1060	-6			
Cobalt	500	508	-2	1000	994	1			
Nickel	500	502	0	1000	991	1			
Selenium	500	508	-2	1000	1000	0			
Silver	65.0	66.0	-2	130	127	2			
Thallium	500	510	-2	1000	1030	-3			
Vanadium	500	522	-4	1000	1080	-8			
Molybdenum	1250	1280	-2	2500	2510	0			

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Start Date: 10/19/2016
Analytical method: ICP-MS
Run Batch: BJ62401M101916B

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.999769	3869.600421	0.006995	WLR	Standard Devi
Barium	0.999972	1357.045872	0.041899	WLR	Standard Devi
Beryllium	0.999998	410.784336	0.056405	WLR	Standard Devi
Cadmium	1.000000	1183.461547	0.001823	WLR	Standard Devi
Chromium	0.999992	1175.073067	0.106627	WLR	Standard Devi
Cobalt	0.999984	6614.492081	0.002592	WLR	Standard Devi
Nickel	0.999996	1410.169667	0.365019	WLR	Standard Devi
Selenium	0.999997	31.202788	0.128628	WLR	Standard Devi
Silver	0.999998	5247.853152	0.001906	WLR	Standard Devi
Thallium	0.999957	8883.664665	0.002594	WLR	Standard Devi
Vanadium	0.999986	840.276857	0.024606	WLR	Standard Devi
Molybdenum	0.999988	1926.788873	0.008289	WLR	Standard Devi

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Start Date: 10/20/2016
Analytical method: ICP-MS
Run Batch: BJ62402M102016A

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.999946	3574.825567	0.005106	WLR	Standard Devi

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.: 2658.0
SDG No.: MH1H68
Instrument ID: ICPMS01
Start Date: 10/28/2016
Analytical method: ICP-MS
Run Batch: BJ63102M102816D

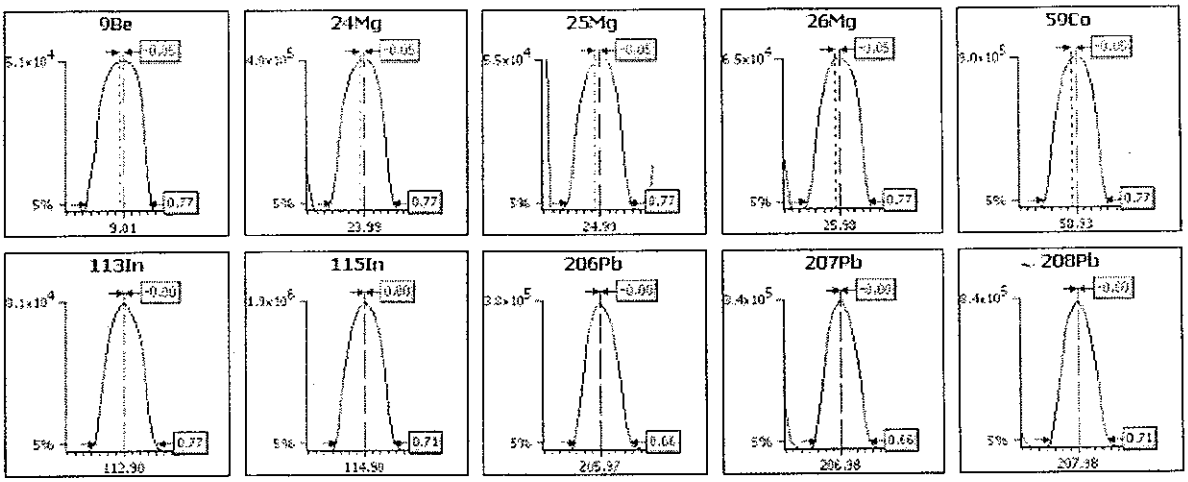
Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Antimony	0.999792	665.510718	0.182762	WLR	Standard Devi
Barium	0.999997	1331.555597	0.188487	WLR	Standard Devi
Beryllium	0.999998	416.134384	0.243278	WLR	Standard Devi
Cadmium	0.999917	1107.785565	0.123671	WLR	Standard Devi
Chromium	0.999977	1319.340686	0.432308	WLR	Standard Devi
Cobalt	0.999946	5885.956107	0.160633	WLR	Standard Devi
Nickel	0.999982	1252.355760	0.243572	WLR	Standard Devi
Selenium	0.999970	37.592619	0.214763	WLR	Standard Devi
Silver	0.999855	4805.130458	0.029163	WLR	Standard Devi
Thallium	0.999984	8727.783597	0.159128	WLR	Standard Devi
Vanadium	0.999902	1004.906541	0.051290	WLR	Standard Devi
Molybdenum	0.999969	1727.009520	0.318081	WLR	Standard Devi

Performance Report

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/19/2016 14:13:00
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.11	0.77	-0.05
24Mg	0.85	0.65	0.11	0.77	-0.05
25Mg	0.85	0.65	0.11	0.77	-0.05
26Mg	0.85	0.65	0.11	0.77	-0.05
59Co	0.85	0.65	0.11	0.77	-0.05
113In	0.85	0.65	0.11	0.77	-0.00
115In	0.85	0.65	0.11	0.71	0.00
206Pb	0.85	0.65	0.11	0.66	-0.00
207Pb	0.85	0.65	0.11	0.66	-0.00
208Pb	0.85	0.65	0.11	0.71	-0.00

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/19/2016 14:13:00
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Tune conditions

Major	
Extraction	-188
Lens 1	0.3
Focus	18.0
D1	-42.4
Pole Bias	1.5
Hexapole Bias	-3.5
Nebuliser	0.78
Sampling Depth	130

Minor	
Lens 2	-26.7
Lens 3	-189.0
Forward power	1400
Horizontal	95
Vertical	375
D2	-160
DA	-33.7
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT 7% h2/He	0.00
Dont touch this thing	0.00

Sensitivity and stability results

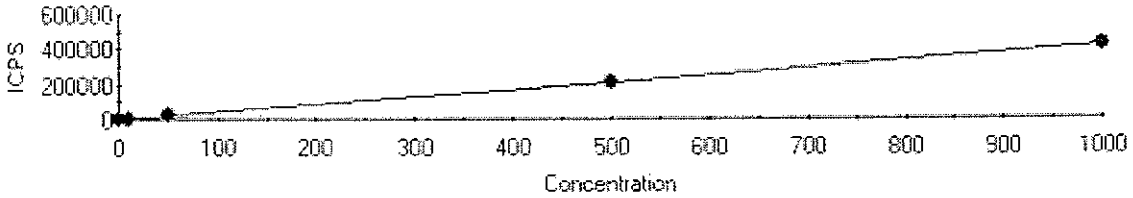
Acquisition parameters
Sweeps : 30

Run	Time	6Li	9Be	24Mg	25Mg	26Mg	45Sc	59Co	89Y	113In	115In	159Tb	206Pb	207Pb	208Pb	209Bi
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	>4000	>4000	>4000	>4000	>4000	>5000	>4000	>5000	>10000	>20000	>20000	>20000	>20000	>20000	>20000
1	14:13:39	120304.12	53885.898	417623.81	57876.985	67539.962	1317479.5	939007.16	122182.25	82546.405	1993995.1	166748.72	386418.31	343523.44	834402.28	105195.13
2	14:13:47	121976.18	54610.201	422512.09	57353.684	67325.043	1324805.0	940883.79	123428.93	82751.591	2007158.8	167607.63	389384.26	348196.27	862527.63	105859.44
3	14:13:54	121374.88	53584.122	422896.01	57913.885	68023.548	1337881.9	948021.28	123151.87	84423.525	2009218.1	170208.63	394045.46	346946.49	858319.24	105464.90
4	14:14:02	122570.76	55317.793	424983.38	57551.595	69014.306	1344895.9	953214.52	122824.15	83101.427	2015410.8	168694.12	394877.07	355043.62	862995.75	105947.12
5	14:14:09	123915.48	54566.607	423932.65	58101.745	69387.128	1331494.8	953443.43	123469.47	83757.406	2036014.6	170517.67	398423.56	354918.89	868106.33	107559.22
x		122028.28	54392.924	422389.59	57759.579	68257.997	1331311.4	946914.04	123011.33	83316.071	2012359.5	168755.35	392629.73	349725.74	857270.24	106005.16
σ		1347.05	678.97	2832.53	301.11	906.63	10740.11	6753.48	530.67	771.09	15354.48	1625.22	4736.51	5093.64	13246.57	920.29
%RSD		1.1039	1.2483	0.6706	0.5213	1.3282	0.8067	0.7132	0.4314	0.9255	0.7630	0.9631	1.2064	1.4565	1.5452	0.8682

Result : The performance report passed.

Fully Quant Calibration

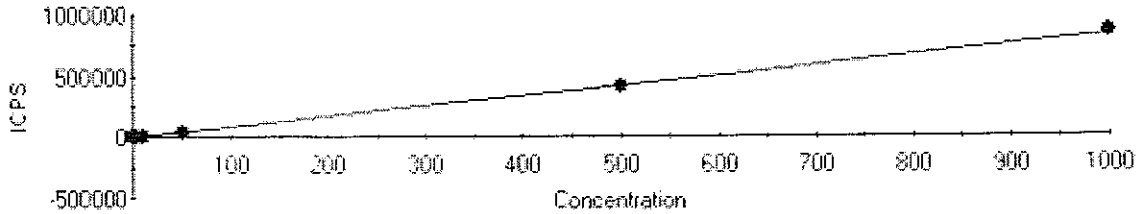
9Be FQ Block 1



Intercept CPS=23.170155 Intercept Conc=0.056405
Sensitivity=410.784336 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	23.31	0.00
SEQ-CAL4@S04	1.000	0.967	0.033	420.56	3.26
SEQ-CAL5@S05	10.000	10.169	0.169	4200.39	1.69
SEQ-CAL6@S06	50.000	49.390	0.610	20311.82	1.22
SEQ-CAL7@S07	500.000	499.811	0.189	205337.77	0.04
SEQ-CAL8@S08	1000.000	1003.962	3.962	412434.99	0.40

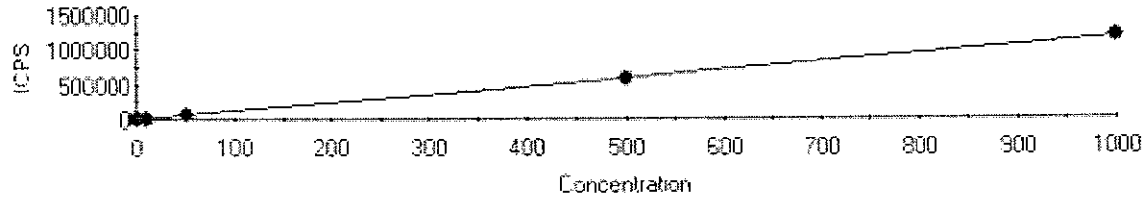
51V FQ Block 1



Intercept CPS=20.675706 Intercept Conc=0.024606
Sensitivity=840.276857 Correlation Coeff=0.999986

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.076	0.076	-43.30	0.00
SEQ-CAL4@S04	5.000	5.066	0.066	4277.23	1.31
SEQ-CAL5@S05	10.000	10.033	0.033	8451.17	0.33
SEQ-CAL6@S06	50.000	49.912	0.088	41960.30	0.18
SEQ-CAL7@S07	500.000	498.140	1.860	418595.82	0.37
SEQ-CAL8@S08	1000.000	1007.486	7.486	846587.95	0.75

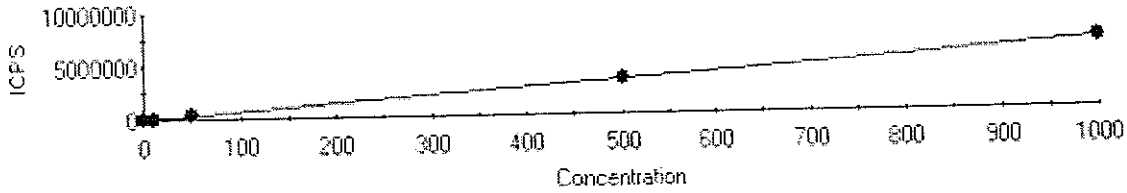
52Cr FQ Block 1



Intercept CPS=125.294492 Intercept Conc=0.106627
Sensitivity=1175.073067 Correlation Coeff=0.999992

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.004	0.004	129.84	0.00
SEQ-CAL4@S04	2.000	1.995	0.005	2470.06	0.23
SEQ-CAL5@S05	10.000	10.191	0.191	12100.77	1.91
SEQ-CAL6@S06	50.000	49.974	0.026	58848.39	0.05
SEQ-CAL7@S07	500.000	499.630	0.370	587226.97	0.07
SEQ-CAL8@S08	1000.000	1007.854	7.854	1184427.64	0.79

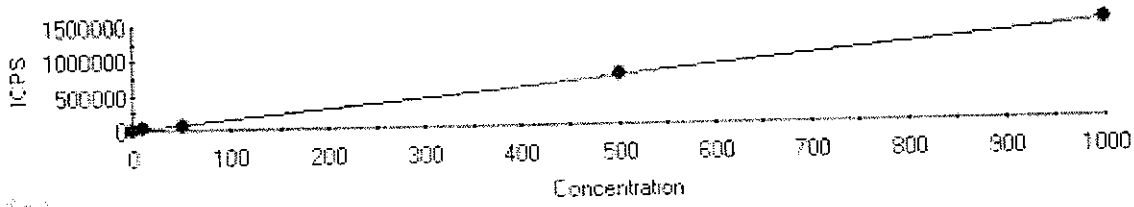
59Co FQ Block 1



Intercept CPS=17.143004 Intercept Conc=0.002592
Sensitivity=6614.492081 Correlation Coeff=0.999984

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	16.70	0.00
SEQ-CAL4@S04	1.000	1.010	0.010	6695.29	0.96
SEQ-CAL5@S05	10.000	10.079	0.079	66687.16	0.79
SEQ-CAL6@S06	50.000	50.210	0.210	332131.96	0.42
SEQ-CAL7@S07	500.000	500.042	0.042	3307543.80	0.01
SEQ-CAL8@S08	1000.000	988.297	11.703	6537096.99	1.17

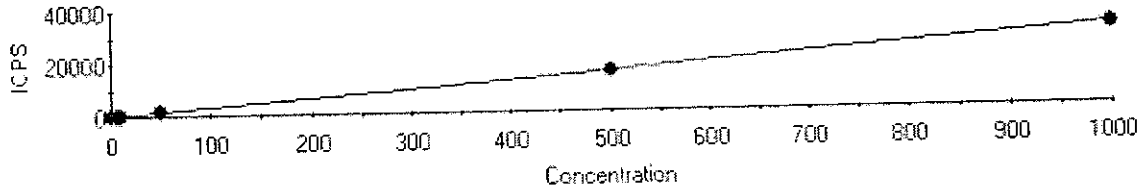
60Ni FQ Block 1



Intercept CPS=514.739145 Intercept Conc=0.365019
Sensitivity=1410.169667 Correlation Coeff=0.999996

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.103	0.103	369.82	0.00
SEQ-CAL4@S04	1.000	0.932	0.068	1829.13	6.79
SEQ-CAL5@S05	10.000	10.042	0.042	14675.10	0.42
SEQ-CAL6@S06	50.000	49.590	0.410	70444.64	0.82
SEQ-CAL7@S07	500.000	502.647	2.647	709332.24	0.53
SEQ-CAL8@S08	1000.000	999.693	0.307	1410251.58	0.03

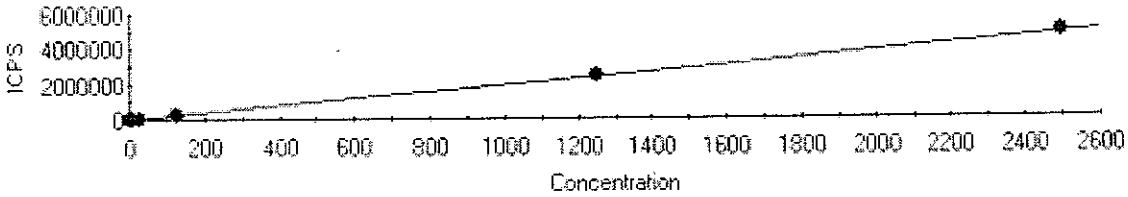
78Se FQ Block 1



Intercept CPS=4.013544 Intercept Conc=0.128628
Sensitivity=31.202788 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.022	0.022	3.34	0.00
SEQ-CAL4@S04	5.000	5.035	0.035	161.13	0.71
SEQ-CAL5@S05	10.000	9.962	0.038	314.85	0.38
SEQ-CAL6@S06	50.000	49.867	0.133	1559.99	0.27
SEQ-CAL7@S07	500.000	494.190	5.810	15424.11	1.16
SEQ-CAL8@S08	1000.000	983.342	16.658	30687.02	1.67

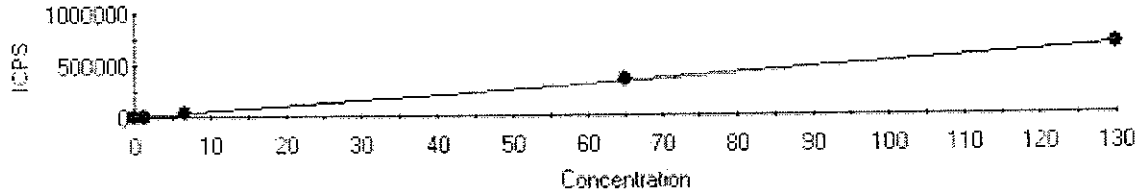
95Mo FQ Block 1



Intercept CPS=15.971776 Intercept Conc=0.008289
Sensitivity=1926.788873 Correlation Coeff=0.999988

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	16.63	0.00
SEQ-CAL2@S02	2.000	1.990	0.010	3850.92	0.48
SEQ-CAL3@S03	4.000	3.913	0.087	7555.44	2.18
SEQ-CAL4@S04	10.000	9.793	0.207	18885.17	2.07
SEQ-CAL5@S05	25.000	24.510	0.490	47242.41	1.96
SEQ-CAL6@S06	125.000	122.031	2.969	235143.54	2.38
SEQ-CAL7@S07	1250.000	1257.245	7.245	2422462.11	0.58
SEQ-CAL8@S08	2500.000	2488.272	11.728	4794390.93	0.47

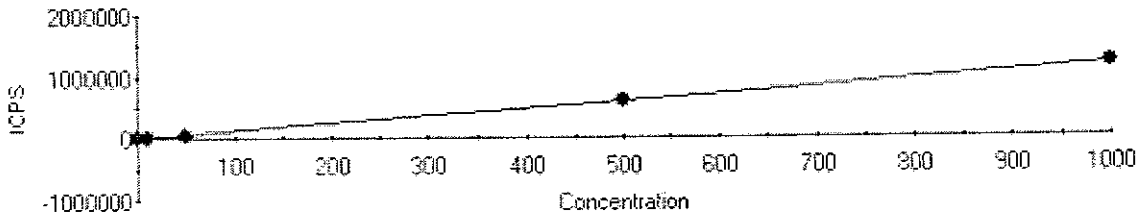
107Ag FQ Block 1



Intercept CPS=10.004137 Intercept Conc=0.001906
Sensitivity=5247.853152 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	10.00	0.00
SEQ-CAL4@S04	1.000	1.019	0.019	5358.30	1.91
SEQ-CAL5@S05	1.300	1.300	0.000	6829.65	0.04
SEQ-CAL6@S06	6.500	6.526	0.026	34257.41	0.40
SEQ-CAL7@S07	65.000	65.171	0.171	342019.54	0.26
SEQ-CAL8@S08	130.000	129.855	0.145	681469.59	0.11

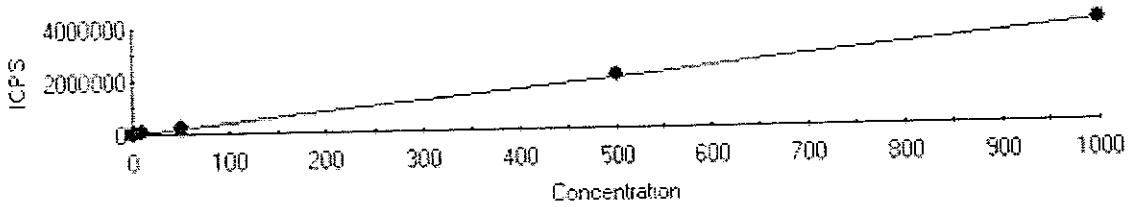
111Cd FQ Block 1



Intercept CPS=2.157672 Intercept Conc=0.001823
Sensitivity=1183.461547 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	2.16	0.00
SEQ-CAL4@S04	1.000	1.000	0.000	1185.64	0.00
SEQ-CAL5@S05	10.000	10.024	0.024	11865.30	0.24
SEQ-CAL6@S06	50.000	49.849	0.151	58996.73	0.30
SEQ-CAL7@S07	500.000	502.986	2.986	595266.95	0.60
SEQ-CAL8@S08	1000.000	1004.531	4.531	1188825.92	0.45

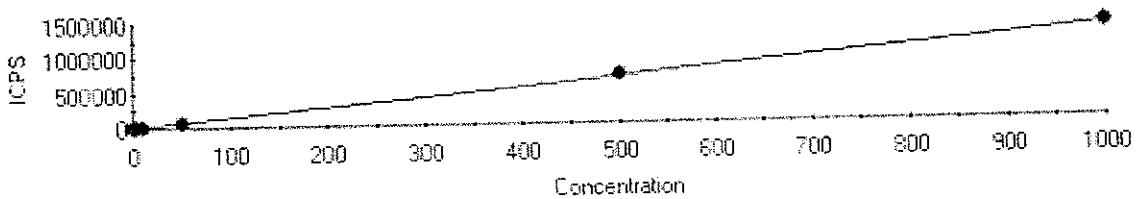
121Sb FQ Block 1



Intercept CPS=27.068777 Intercept Conc=0.006995
Sensitivity=3869.600421 Correlation Coeff=0.999769

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	27.71	0.00
SEQ-CAL4@S04	2.000	1.961	0.039	7614.04	1.97
SEQ-CAL5@S05	10.000	10.069	0.069	38990.79	0.69
SEQ-CAL6@S06	50.000	49.727	0.273	192451.26	0.55
SEQ-CAL7@S07	500.000	524.218	24.218	2028540.31	4.84
SEQ-CAL8@S08	1000.000	1002.889	2.889	3880808.57	0.29

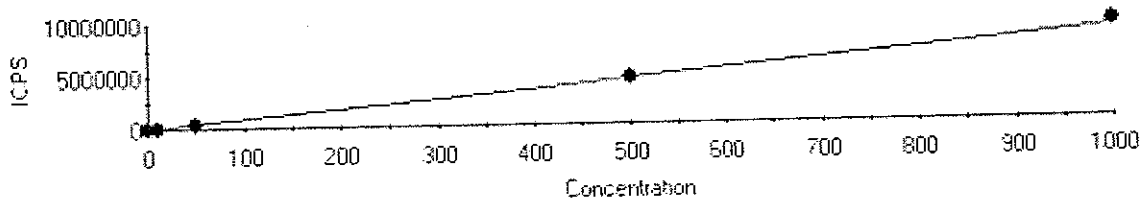
137Ba FQ Block 1



Intercept CPS=56.858852 Intercept Conc=0.041899
Sensitivity=1357.045872 Correlation Coeff=0.999972

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	56.76	0.00
SEQ-CAL3@S03	5.000	5.073	0.073	6941.81	1.47
SEQ-CAL5@S05	10.000	9.971	0.029	13587.93	0.29
SEQ-CAL6@S06	50.000	49.714	0.286	67520.48	0.57
SEQ-CAL7@S07	500.000	506.880	6.880	687916.60	1.38
SEQ-CAL8@S08	1000.000	998.068	1.932	1354481.23	0.19

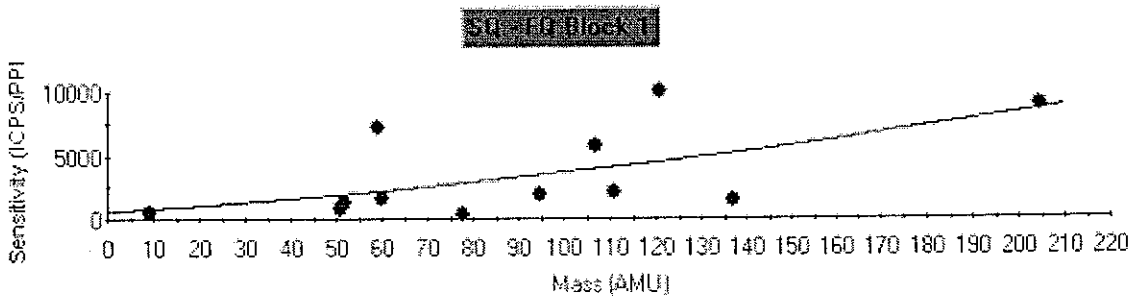
205Tl FQ Block 1



Intercept CPS=23.042665 Intercept Conc=0.002594
Sensitivity=8883.664665 Correlation Coeff=0.999957

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	23.36	0.00
SEQ-CAL4@S04	1.000	0.961	0.039	8562.08	3.88
SEQ-CAL5@S05	10.000	9.814	0.186	87210.36	1.86
SEQ-CAL6@S06	50.000	49.485	0.515	439629.46	1.03
SEQ-CAL7@S07	500.000	504.975	4.975	4486055.72	1.00
SEQ-CAL8@S08	1000.000	1030.358	30.358	9153373.92	3.04

Semi Quant Calibration



Coeff 0=590.059149 Coeff 1=22.262047 Coeff 2=0.081739

Symbol	Mass	RSF	Available	Excluded	Sensitivity Measured	Corrected	Calculated	%Error
9Be	9.01	0.7500	1	1	410.78	547.71	797.33	45.6
51V	50.94	0.9900	1	1	840.28	850.81	1936.31	127.6
52Cr	51.94	0.9800	1	1	1175.07	1431.54	1966.88	37.4
59Co	58.93	0.9300	1	1	6614.49	7112.36	2185.92	-69.3
60Ni	59.93	0.9100	1	1	1410.17	5923.69	2217.82	-62.6
78Se	77.92	0.1000	1	1	31.20	1321.59	2820.90	113.4
95Mo	94.91	0.9800	1	1	1926.79	13302.51	3439.09	-74.1
107Ag	106.91	0.9300	1	1	5247.85	10989.00	3904.15	-64.5
111Cd	110.90	0.5660	1	1	1183.46	16259.11	4064.38	-75.0
121Sb	120.90	0.3900	1	1	3869.60	17331.10	4476.46	-74.2
137Ba	136.91	0.9100	1	1	1357.05	13173.67	5169.91	-60.8
205Tl	204.97	1.0000	1	1	8883.66	12600.94	8587.28	-31.9

Dilution Corrected Concentrations

SEQ-CAL1@S01 10/19/2016 14:24:35

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:24:35	99.4%	-0.0155	99.2%	-0.0146	-0.0388	-0.0052	-5.3840	0.0010	-0.1164	0.0037	-0.0583	-0.0045	-0.2510	0.0000	-0.0005	0.0005	0.0005	-0.0015	-0.0031
2	14:24:48	100.4%	0.0083	100.3%	0.0258	-0.1354	0.0130	7.1260	-0.0011	-0.1268	0.0041	0.0143	-0.0035	0.1240	0.0000	-0.0046	-0.0031	-0.0026	0.0023	0.0035
3	14:25:01	100.2%	0.0082	100.5%	-0.0112	-0.0542	0.0038	-1.7420	-0.0001	-0.0651	-0.0078	-0.0208	0.0080	0.1269	0.0000	0.0051	0.0036	0.0021	-0.0007	-0.0005
x		100.0%	0.0003	100.0%	-0.0000	-0.0761	0.0039	-0.0000	-0.0001	-0.1028	0.0000	-0.0216	0.0000	-0.0000	0.0000	0.0000	0.0003	-0.0000	0.0000	0.0000
σ		0.5%	0.0137	0.7%	0.0224	0.0519	0.0091	6.4340	0.0010	0.0330	0.0068	0.0363	0.0070	0.2174	0.0000	0.0049	0.0034	0.0024	0.0020	0.0033
%RSD		0.5	4146.0000	0.7	0.0000	68.2000	235.1000	0.0000	1535.0000	32.1500	0.0000	168.2000	0.0000	0.0000	0.0000	0.0000	977.2000	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:24:35	101.3%	-0.0031	0.0000	0.0020	-0.0018	0.0000	-0.0049	-0.0008	0.0035	97.0%	98.1%	0.0005	0.0000
2	14:24:48	99.6%	-0.0100	0.0000	-0.0010	-0.0018	0.0000	-0.0020	-0.0001	-0.0000	99.6%	99.8%	-0.0003	0.0000
3	14:25:01	99.1%	0.0132	-0.0000	-0.0010	0.0037	0.0000	0.0069	0.0014	-0.0037	103.4%	102.2%	-0.0000	0.0000
x		100.0%	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	0.0002	-0.0001	100.0%	100.0%	0.0000	0.0000
σ		1.1%	0.0119	0.0000	0.0018	0.0032	0.0000	0.0062	0.0011	0.0036	3.2%	2.1%	0.0004	0.0000
%RSD		1.1	0.0000	0.0000	0.0000	137500.0000	0.0000	0.0000	687.4000	4652.0000	3.2	2.1	1137.0000	0.0000

SEQ-CAL2@S02 10/19/2016 14:28:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:41	98.4%	0.1185	97.4%	-0.0009	1.0660	0.4599	7.1130	0.2153	0.1774	0.0280	1.1550	0.0192	0.3084	0.0000	0.5908	1.9490	1.1950	0.6355	1.7540
2	14:28:54	99.7%	0.1313	99.4%	0.0208	1.1190	0.4500	3.0280	0.2085	0.1621	0.0044	0.8498	0.0199	0.1318	0.0000	0.6038	2.0150	1.1930	0.6675	1.7380
3	14:29:07	101.2%	0.1742	102.0%	0.0048	0.9395	0.4417	12.2500	0.2059	0.2443	0.0285	0.8804	0.0423	0.1286	0.0000	0.6618	2.0060	1.1990	0.6879	1.7830
x		99.7%	0.1414	99.6%	0.0082	1.0420	0.4505	7.4640	0.2099	0.1946	0.0203	0.9618	0.0271	0.1896	0.0000	0.6188	1.9990	1.1960	0.6636	1.7580
σ		1.4%	0.0292	2.3%	0.0112	0.0924	0.0091	4.6220	0.0049	0.0437	0.0138	0.1682	0.0132	0.1029	0.0000	0.0378	0.0358	0.0032	0.0264	0.0229
%RSD		1.4	20.6500	2.3	136.6000	8.8680	2.0250	61.9200	2.3230	22.4600	67.6800	17.4900	48.5400	54.2700	0.0000	6.1110	1.7980	0.2644	3.9800	1.3040

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:41	99.8%	0.0216	0.2010	0.0066	0.1786	0.0000	1.4950	0.4487	2.1130	99.0%	100.3%	0.1916	0.0000
2	14:28:54	98.3%	0.0236	0.2201	0.0169	0.1785	0.0000	1.5620	0.4437	2.1450	100.2%	101.7%	0.2113	0.0000
3	14:29:07	98.8%	0.0146	0.2166	0.0122	0.2133	0.0000	1.5360	0.3890	2.1350	102.0%	102.1%	0.2105	0.0000
x		99.0%	0.0199	0.2126	0.0119	0.1901	0.0000	1.5310	0.4271	2.1310	100.4%	101.4%	0.2045	0.0000
σ		0.8%	0.0047	0.0101	0.0052	0.0201	0.0000	0.0336	0.0331	0.0163	1.5%	1.0%	0.0112	0.0000
%RSD		0.8	23.5200	4.7710	43.5600	10.5500	0.0000	2.1950	7.7590	0.7662	1.5	0.9	5.4700	0.0000

SEQ-CAL3@S03 10/19/2016 14:32:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:44	99.0%	0.5174	96.2%	0.0304	2.5930	0.9889	1.9720	0.5018	0.6595	0.1126	2.8830	0.1323	-0.0609	0.0000	1.3100	3.8330	2.4210	1.3730	3.3780
2	14:32:57	99.0%	0.5458	98.4%	0.0195	2.4180	0.9817	19.6100	0.4949	0.7584	0.0403	3.0620	-0.0136	1.0590	0.0000	1.3120	3.9400	2.4670	1.3930	3.5300
3	14:33:10	99.9%	0.4184	99.1%	0.0041	2.5440	0.9789	10.1400	0.4944	0.7086	0.0275	1.7420	0.1181	-0.4340	0.0000	1.3630	3.9660	2.4850	1.4750	3.4590
x		99.3%	0.4938	97.9%	0.0180	2.5180	0.9832	10.5800	0.4970	0.7088	0.0602	2.5620	0.0789	0.1880	0.0000	1.3280	3.9130	2.4580	1.4140	3.4560
σ		0.5%	0.0669	1.5%	0.0132	0.0903	0.0052	8.8260	0.0041	0.0495	0.0459	0.7160	0.0805	0.7769	0.0000	0.0301	0.0705	0.0329	0.0542	0.0757
%RSD		0.5	13.5400	1.6	73.4000	3.5850	0.5287	83.4600	0.8298	6.9800	76.2500	27.9400	101.9000	413.3000	0.0000	2.2670	1.8010	1.3390	3.8340	2.1920

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:44	99.3%	0.0222	0.4528	0.0281	0.5244	0.0000	2.9450	0.9971	5.0300	98.4%	98.8%	0.4842	0.0000
2	14:32:57	99.3%	0.0459	0.5066	0.0171	0.5253	0.0000	3.1000	1.0390	5.0130	99.2%	99.8%	0.4724	0.0000
3	14:33:10	100.9%	0.0312	0.5077	0.0169	0.4688	0.0000	3.0500	1.0080	5.1780	100.5%	101.9%	0.5062	0.0000
x		99.8%	0.0331	0.4890	0.0207	0.5062	0.0000	3.0320	1.0150	5.0730	99.4%	100.2%	0.4876	0.0000
σ		0.9%	0.0120	0.0314	0.0064	0.0324	0.0000	0.0792	0.0219	0.0910	1.0%	1.6%	0.0172	0.0000
%RSD		0.9	36.1200	6.4150	30.9200	6.3910	0.0000	2.6110	2.1580	1.7930	1.1	1.6	3.5220	0.0000

SEQ-CAL4@S04 10/19/2016 14:36:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:45	97.4%	0.8992	96.8%	-0.0026	4.9020	2.0040	30.6000	0.9943	0.8824	0.1009	5.0500	0.1342	1.0630	0.0000	3.0940	9.4900	5.8380	3.3590	8.4730
2	14:36:58	99.7%	1.1210	98.5%	0.0006	5.2200	1.9890	5.5710	1.0140	0.9463	0.1253	4.9840	0.2928	0.3155	0.0000	3.1830	9.8850	6.0650	3.4140	8.7900
3	14:37:11	99.5%	0.8815	98.6%	-0.0145	5.0750	1.9930	5.1730	1.0210	0.9675	0.0982	5.0730	0.1525	1.0290	0.0000	3.2690	10.0000	6.1230	3.4650	8.9820
x		98.9%	0.9674	98.0%	-0.0055	5.0660	1.9950	13.7800	1.0100	0.9321	0.1081	5.0350	0.1932	0.8026	0.0000	3.1820	9.7930	6.0090	3.4130	8.7490
σ		1.2%	0.1337	1.0%	0.0080	0.1594	0.0079	14.5700	0.0137	0.0443	0.0149	0.0461	0.0868	0.4222	0.0000	0.0877	0.2694	0.1509	0.0528	0.2570
%RSD		1.2	13.8200	1.0	145.2000	3.1470	0.3970	105.7000	1.3590	4.7560	13.7900	0.9161	44.9100	52.6000	0.0000	2.7570	2.7510	2.5110	1.5460	2.9370

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:45	99.0%	0.0476	0.9903	0.0529	1.0450	0.0000	7.4840	1.9610	9.8950	97.1%	97.9%	0.9524	0.0000
2	14:36:58	98.9%	0.0674	1.0350	0.0367	0.9631	0.0000	7.4750	1.9780	10.0400	99.2%	100.0%	0.9772	0.0000
3	14:37:11	101.3%	0.0447	1.0320	0.0437	0.9923	0.0000	7.8250	1.9430	10.1500	101.5%	102.0%	0.9540	0.0000
x		99.8%	0.0532	1.0190	0.0444	1.0000	0.0000	7.5950	1.9610	10.0300	99.3%	100.0%	0.9612	0.0000
σ		1.4%	0.0123	0.0250	0.0081	0.0313	0.0000	0.1997	0.0174	0.1261	2.2%	2.1%	0.0139	0.0000
%RSD		1.4	23.1700	2.4550	18.2400	4.1300	0.0000	2.6300	0.8892	1.2580	2.2	2.1	1.4460	0.0000

SEQ-CAL5@S05 10/19/2016 14:40:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:46	96.8%	10.5500	94.9%	5.9480	10.0500	10.2500	56.8200	10.0900	10.0500	0.3716	10.5000	0.4111	-0.0550	0.0000	7.8630	23.9100	14.8100	8.3940	21.7300
2	14:40:59	98.0%	10.3900	97.2%	5.9910	9.9930	10.1000	58.4700	9.9910	10.0600	0.3779	9.4870	0.4950	-0.2473	0.0000	8.1470	24.7500	15.1800	8.6620	22.0100
3	14:41:13	99.7%	9.5740	98.9%	6.1260	10.0500	10.2200	57.8200	10.1600	10.0200	0.4992	9.8950	0.5083	0.6879	0.0000	8.1110	24.8800	15.2900	8.7940	22.5100
x		98.1%	10.1700	97.0%	6.0220	10.0300	10.1900	57.7000	10.0800	10.0400	0.4162	9.9620	0.4715	0.1285	0.0000	8.0409	24.5100	15.0900	8.6160	22.0800
σ		1.5%	0.5212	2.0%	0.0926	0.0347	0.0805	0.8334	0.0827	0.0179	0.0719	0.5116	0.0527	0.4938	0.0000	0.1544	0.5269	0.2494	0.2036	0.3949
%RSD		1.5	5.1260	2.0	1.5380	0.3459	0.7894	1.4440	0.8207	0.1781	17.2800	5.1360	11.1700	384.2000	0.0000	1.9200	2.1500	1.6520	2.3630	1.7880

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:46	97.8%	0.4513	1.2970	0.3520	9.7910	0.0000	9.4700	9.9080	9.8280	97.7%	99.0%	9.6870	0.0000
2	14:40:59	99.3%	0.5019	1.2700	0.3440	10.0300	0.0000	9.5020	10.1500	9.8670	99.9%	100.0%	9.8610	0.0000
3	14:41:13	99.1%	0.4321	1.3320	0.3888	10.2500	0.0000	9.4750	10.1500	10.2200	100.9%	101.4%	9.8950	0.0000
x		98.7%	0.4618	1.3000	0.3616	10.0200	0.0000	9.4820	10.0700	9.9710	99.5%	100.1%	9.8140	0.0000
σ		0.8%	0.0361	0.0308	0.0239	0.2297	0.0000	0.0173	0.1395	0.2154	1.6%	1.2%	0.1116	0.0000
%RSD		0.8	7.8080	2.3690	6.6020	2.2920	0.0000	0.1828	1.3850	2.1660	1.6	1.2	1.1380	0.0000

SEQ-CAL6@S06 10/19/2016 14:44:47

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:47	97.7%	48.7000	94.2%	29.4400	49.6700	49.9200	340.8000	49.8500	48.8700	1.4750	52.0300	2.3030	0.7047	0.0000	39.7800	120.4000	74.1100	42.0800	108.6000
2	14:45:00	97.9%	48.8900	95.9%	29.7600	49.8600	49.9300	304.7000	49.8900	49.5800	1.9150	48.7400	2.4040	0.3245	0.0000	39.9600	121.9000	74.4400	42.1300	109.6000
3	14:45:13	98.9%	50.5800	95.9%	29.8900	50.2000	50.0800	289.6000	50.8900	50.3200	1.4880	48.8400	2.4550	1.4650	0.0000	40.9200	123.8000	76.4900	43.3600	111.6000
x		98.2%	49.3900	95.3%	29.6900	49.9100	49.9700	311.7000	50.2100	49.5900	1.6260	49.8700	2.3870	0.8313	0.0000	40.2200	122.0000	75.0100	42.5200	109.9000
σ		0.6%	1.0380	1.0%	0.2321	0.2645	0.0879	26.3000	0.5865	0.7246	0.2501	1.8700	0.0773	0.5805	0.0000	0.6149	1.7040	1.2870	0.7288	1.5490
%RSD		0.6	2.1020	1.0	0.7815	0.5299	0.1758	8.4380	1.1680	1.4610	15.3900	3.7500	3.2380	69.8300	0.0000	1.5290	1.3960	1.7160	1.7140	1.4090

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:47	97.6%	2.4590	6.4920	1.8250	49.6300	0.0000	46.5900	49.3500	49.3500	97.8%	99.0%	48.8600	0.0000
2	14:45:00	97.7%	2.5280	6.3830	1.7410	49.5500	0.0000	47.3600	49.7500	49.8300	101.3%	101.7%	49.7900	0.0000
3	14:45:13	97.6%	2.4350	6.7030	1.7580	50.3700	0.0000	47.8200	50.0800	49.9700	103.3%	102.8%	49.8000	0.0000
x		97.7%	2.4740	6.5260	1.7750	49.8500	0.0000	47.2600	49.7300	49.7100	100.8%	101.2%	49.4800	0.0000
σ		0.1%	0.0486	0.1626	0.0446	0.4497	0.0000	0.6185	0.3634	0.3226	2.8%	2.0%	0.5399	0.0000
%RSD		0.1	1.9620	2.4920	2.5160	0.9021	0.0000	1.3090	0.7308	0.6493	2.7	1.9	1.0910	0.0000

SEQ-CAL7@S07 10/19/2016 14:48:47

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:47	95.0%	501.1000	93.3%	297.3000	495.9000	498.1000	2741.0000	r500.4000	501.0000	16.7600	486.0000	25.0200	4.3190	0.0000	403.9000	1256.0000	r762.6000	432.1000	r1114.0000
2	14:49:00	96.0%	501.3000	95.3%	299.7000	499.1000	496.5000	2435.0000	r499.6000	503.4000	15.8200	490.6000	23.7200	5.1960	0.0000	414.1000	r1263.0000	r774.0000	441.1000	r1116.0000
3	14:49:13	96.7%	497.1000	96.6%	302.0000	499.4000	504.4000	2640.0000	r500.1000	503.6000	16.4900	505.9000	24.0500	5.6360	0.0000	412.1000	r1253.0000	r772.7000	441.7000	r1127.0000
x		95.9%	499.8000	95.0%	299.7000	498.1000	499.6000	2605.0000	r500.0000	502.6000	16.3600	494.2000	24.2600	5.0500	0.0000	410.0000	r1257.0000	r769.8000	438.3000	r1119.0000
σ		0.9%	2.3580	1.6%	2.3590	1.9160	4.1640	156.2000	r0.4230	1.4760	0.4850	10.4000	0.6743	0.6709	0.0000	5.3930	r5.2490	r6.2590	5.3960	r6.8030
%RSD		0.9	0.4718	1.7	0.7871	0.3847	0.8334	5.9970	r0.0946	0.2936	2.9650	2.1050	2.7800	13.2800	0.0000	1.3150	r0.4175	r0.8131	1.2310	r0.6079

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:47	97.5%	23.1900	64.3200	17.7100	492.5000	0.0000	485.1000	518.6000	502.3000	100.3%	102.1%	r508.7000	0.0000
2	14:49:00	98.7%	23.9800	65.3600	18.0800	506.5000	0.0000	495.8000	522.6000	506.5000	104.6%	106.2%	r501.5000	0.0000
3	14:49:13	97.7%	24.0500	65.8300	17.8300	509.9000	0.0000	503.0000	531.5000	511.9000	106.6%	108.3%	r504.7000	0.0000
x		98.0%	23.7400	65.1700	17.8700	503.0000	0.0000	494.6000	524.2000	506.9000	103.8%	105.5%	r505.0000	0.0000
σ		0.7%	0.4769	0.7711	0.1929	9.1960	0.0000	8.9820	6.6150	4.8000	3.2%	3.1%	r3.6470	0.0000
%RSD		0.7	2.0090	1.1830	1.0790	1.8260	0.0000	1.8160	1.2620	0.9470	3.1	3.0	r0.7222	0.0000

SEQ-CAL8@S08 10/19/2016 14:52:47

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:47	93.9%	u1015.0000	90.5%	597.5000	996.0000	992.2000	4266.0000	r994.8000	999.6000	31.9100	965.3000	47.5900	11.4100	0.0000	r817.3000	r2472.0000	r1528.0000	r868.4000	r2232.0000
2	14:52:59	95.4%	998.4000	93.7%	599.1000	u1026.0000	u1025.0000	4120.0000	r982.8000	999.3000	33.1700	u1001.0000	48.1600	9.1440	0.0000	r814.3000	r2474.0000	r1517.0000	r863.6000	r2214.0000
3	14:53:13	95.3%	998.2000	94.7%	601.4000	u1001.0000	u1007.0000	4462.0000	r987.2000	u1000.0000	34.3300	984.0000	47.3100	9.1410	0.0000	r822.5000	tu2518.0000	r1543.0000	r877.9000	r2242.0000
x		94.9%	u1004.0000	93.0%	599.3000	u1007.0000	u1008.0000	4283.0000	r988.3000	u999.7000	33.1400	u983.3000	47.6900	9.6990	0.0000	r818.0000	tu2488.0000	r1530.0000	r870.0000	r2229.0000
σ		0.8%	u9.8430	2.2%	1.9330	u15.9000	u16.2900	171.3000	r6.0830	u0.4090	1.2090	u17.7100	0.4341	1.3120	0.0000	r4.1610	tu26.1000	r13.1300	r7.2740	r14.3100
%RSD		0.9	u0.9804	2.4	0.3224	u1.5780	u1.6160	3.9990	r0.6155	u0.0409	3.6490	u1.8010	0.9104	13.2500	0.0000	r0.5086	tu1.0490	r0.8583	r0.8361	r0.6420

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:47	97.0%	47.7100	129.4000	34.8500	988.4000	0.0000	r952.3000	r994.5000	r992.3000	102.4%	102.1%	tu1043.0000	0.0000
2	14:52:59	94.8%	47.1200	129.7000	34.8300	u1002.0000	0.0000	r943.5000	tu1005.0000	r997.3000	105.6%	106.7%	tu1027.0000	0.0000
3	14:53:13	96.8%	47.9600	u130.5000	35.4900	u1023.0000	0.0000	r957.0000	tu1009.0000	tu1005.0000	107.0%	108.6%	tu1021.0000	0.0000
x		96.2%	47.6000	u129.9000	35.0600	u1005.0000	0.0000	r950.9000	tu1003.0000	tu998.1000	105.0%	105.8%	tu1030.0000	0.0000
σ		1.2%	0.4321	u0.5855	0.3779	u17.3400	0.0000	r6.8700	tu7.6110	tu6.2170	2.3%	3.4%	tu11.0000	0.0000
%RSD		1.2	0.9079	u0.4509	1.0780	u1.7260	0.0000	r0.7225	tu0.7589	tu0.6229	2.2	3.2	tu1.0670	0.0000

SEQ-ICV@ICV01 10/19/2016 14:56:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:47	94.3%	105.3000	88.0%	0.0660	98.4500	97.3200	485.0000	101.7000	99.1400	7.1850	199.9000	9.8390	2.2010	0.0000	3.5890	10.3300	6.2350	3.6390	9.2650
2	14:57:00	95.8%	101.1000	90.3%	0.1002	100.2000	100.2000	517.0000	102.4000	100.4000	7.2670	207.7000	9.8600	1.2930	0.0000	3.5640	10.6500	6.4580	3.6330	9.2270
3	14:57:13	94.7%	100.4000	92.0%	0.1259	100.6000	99.8500	624.5000	103.4000	102.1000	6.8970	208.2000	9.8260	4.3400	0.0000	3.3360	10.5600	6.5580	3.6350	9.6240
x		94.9%	103.289%	90.1%	0.0974	99.732%	101.146%	542.2000	103.542%	102.614%	7.1160	102.118%	9.8420	2.6110	0.0000	3.4960	10.5100	6.4170	3.6360	9.3720
σ		0.8%	n/a	2.0%	0.0301	n/a	n/a	73.0700	n/a	n/a	0.1942	n/a	0.0174	1.5640	0.0000	0.1394	0.1643	0.1654	0.0033	0.2191
%RSD		0.8	2.6000	2.2	30.8800	1.1250	1.5840	13.4800	0.7913	1.4750	2.7290	2.2500	0.1770	59.9100	0.0000	3.9890	1.5630	2.5780	0.0894	2.3370

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:47	98.5%	4.7360	102.4000	3.4220	100.8000	0.0000	0.2473	197.4000	100.2000	101.7%	103.0%	r214.5000	0.0000
2	14:57:00	96.6%	4.9990	102.2000	3.5100	100.2000	0.0000	0.2211	201.6000	101.4000	104.9%	106.4%	r211.7000	0.0000
3	14:57:13	97.0%	4.7000	102.2000	3.5240	101.6000	0.0000	0.2474	205.1000	103.2000	105.4%	107.5%	r213.7000	0.0000
x		97.4%	4.8120	103.311%	3.4850	101.915%	0.0000	0.2386	101.694%	101.614%	104.0%	105.7%	r104.055%	0.0000
σ		1.0%	0.1632	n/a	0.0553	n/a	0.0000	0.0152	n/a	n/a	2.0%	2.3%	rn/a	0.0000
%RSD		1.0	3.3920	0.0970	1.5850	0.6994	0.0000	6.3530	1.9120	1.4540	2.0	2.2	r0.6842	0.0000

SEQ-ICB@ICB01 10/19/2016 15:00:50 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:50	93.7%	0.0259	88.8%	0.0130	-0.0546	0.0273	-0.4771	0.0154	-0.0706	0.0052	0.2075	0.0448	-0.2396	0.0000	0.0302	0.1018	0.0717	0.0341	0.0940
2	15:01:03	93.1%	0.0246	90.1%	0.0020	-0.0409	0.0248	0.6246	0.0350	-0.0828	-0.0075	0.1304	0.0094	0.1437	0.0000	0.0424	0.1112	0.0664	0.0448	0.0997
3	15:01:17	95.0%	0.0413	91.3%	0.0096	-0.0417	0.0370	-0.3597	0.0285	-0.0891	0.0052	0.0958	-0.0021	-0.0447	0.0000	0.0438	0.1476	0.0632	0.0583	0.1311
x		93.9%	0.0306	90.1%	0.0082	-0.0457	0.0297	-0.0707	0.0263	-0.0808	0.0010	0.1446	0.0174	-0.0469	0.0000	0.0388	0.1202	0.0671	0.0457	0.1082
σ		1.0%	0.0093	1.3%	0.0056	0.0077	0.0064	0.6050	0.0100	0.0094	0.0073	0.0572	0.0245	0.1917	0.0000	0.0075	0.0242	0.0043	0.0121	0.0200
%RSD		1.1	30.4600	1.4	68.8800	16.8100	21.6600	855.5000	38.0500	11.6000	746.6000	39.5700	141.0000	408.9000	0.0000	19.2600	20.1200	6.3610	26.4900	18.4600

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:50	95.3%	0.0102	0.0279	0.0022	0.0220	0.0000	0.0554	0.1254	0.0065	98.4%	99.5%	0.0536	0.0000
2	15:01:03	96.2%	-0.0066	0.0155	0.0006	0.0157	0.0000	0.0718	0.1254	0.0360	99.7%	101.9%	0.0567	0.0000
3	15:01:17	95.2%	0.0023	0.0165	-0.0010	0.0183	0.0000	0.0614	0.1304	0.0472	101.4%	104.3%	0.0510	0.0000
x		95.6%	0.0020	0.0200	0.0006	0.0187	0.0000	0.0629	0.1271	0.0299	99.8%	101.9%	0.0538	0.0000
σ		0.6%	0.0084	0.0069	0.0016	0.0031	0.0000	0.0083	0.0029	0.0210	1.5%	2.4%	0.0028	0.0000
%RSD		0.6	427.6000	34.5500	280.5000	16.8300	0.0000	13.2200	2.2830	70.2500	1.5	2.3	5.2950	0.0000

SEQ-IFA@ICSA01 10/19/2016 15:04:53 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb		ppb	ppb	ppb	ppb	ppb
1	15:04:53	86.7%	0.3342	89.3%	507.4000	-0.5187	22.4100	80.4600	1.3350	5.4370	0.0080	0.0787	-0.0499	0.6452	0.0000	670.7000	±2086.0000	±1289.0000	720.5000	±1869.0000
2	15:05:05	88.6%	0.2895	93.8%	508.3000	-0.6508	22.5800	104.0000	1.3390	5.7300	0.0080	0.2033	-0.0756	1.0770	0.0000	681.0000	±2088.0000	±1283.0000	±724.8000	±1860.0000
3	15:05:19	88.3%	0.2836	95.5%	518.1000	-1.1930	22.3400	175.9000	1.3380	5.6480	-0.0060	0.2431	-0.0496	0.8556	0.0000	±685.8000	±2096.0000	±1293.0000	737.1000	±1874.0000
x		87.8%	1.#IO%	92.9%	511.3000	-157.511%	106.864%	120.1000	133.718%	93.416%	0.0033	58.340%	-0.0583	0.8594	0.0000	±679.2000	±2090.0000	±1288.0000	±727.5000	±1867.0000
σ		1.0%	n/a	3.2%	5.9740	n/a	n/a	49.7400	n/a	n/a	0.0031	n/a	0.0149	0.2161	0.0000	±7.6840	±5.1210	±5.0040	±8.5800	±7.0130
%RSD		1.2	9.1520	3.4	1.1680	45.3800	0.5606	41.4000	0.1672	2.7020	244.9000	48.9800	25.5900	25.1500	0.0000	±1.1310	±0.2450	±0.3885	±1.1790	±0.3755

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:53	85.9%	0.0030	0.0126	0.7826	-1.1280	0.0000	0.1529	1.1970	1.9450	94.4%	95.2%	0.0226	0.0000
2	15:05:05	85.8%	0.0040	0.0120	0.8264	-1.2080	0.0000	0.1506	1.1080	2.0100	98.2%	98.5%	0.0248	0.0000
3	15:05:19	86.2%	0.0260	0.0142	0.7480	-1.3710	0.0000	0.1686	1.1490	1.9500	101.5%	102.0%	0.0224	0.0000
x		86.0%	0.0110	1.#IO%	0.7857	-176.517%	0.0000	0.1574	76.769%	164.028%	98.0%	98.6%	1.#IO%	0.0000
σ		0.2%	0.0130	n/a	0.0393	n/a	0.0000	0.0098	n/a	n/a	3.6%	3.4%	n/a	0.0000
%RSD		0.3	116.2000	8.6910	5.0040	10.0100	0.0000	6.2250	3.9020	1.8520	3.6	3.4	5.7360	0.0000

SEQ-IFB@ICSAB01 10/19/2016 15:08:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:52	84.2%	19.2100	98.0%	500.9000	22.2300	44.1100	201.5000	20.7400	24.4800	0.7413	20.3000	0.8966	0.6188	0.0000	671.8000	±2077.0000	±1279.0000	717.8000	±1853.0000
2	15:09:05	85.3%	19.4300	99.5%	509.9000	21.7700	44.1900	267.8000	21.2800	25.1200	0.6560	20.8300	0.7515	0.6130	0.0000	±688.1000	±2079.0000	±1291.0000	±731.4000	±1866.0000
3	15:09:18	83.9%	18.8000	102.5%	509.8000	22.1500	44.2900	301.4000	21.1100	24.8300	0.8260	19.4900	0.9387	0.8340	0.0000	±679.9000	±2083.0000	±1286.0000	±726.9000	±1870.0000
x		84.5%	100.786%	100.0%	506.9000	116.046%	110.492%	256.9000	105.198%	103.365%	0.7411	106.356%	0.8623	0.6886	0.0000	±679.9000	±2080.0000	±1285.0000	±725.4000	±1863.0000
σ		0.6%	n/a	2.3%	5.1900	n/a	n/a	50.8600	n/a	n/a	0.0850	n/a	0.0982	0.1259	0.0000	±8.1380	±2.9370	±5.8270	±6.9330	±8.8660
%RSD		0.9	1.6710	2.3	1.0240	1.1260	0.2080	19.8000	1.3100	1.2880	11.4700	3.3640	11.3900	18.2900	0.0000	±1.1970	±0.1412	±0.4535	±0.9558	±0.4760

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:52	88.0%	0.9188	18.4000	1.4140	17.8100	0.0000	0.1495	20.9100	22.6000	97.5%	97.1%	19.4400	0.0000
2	15:09:05	88.5%	0.9995	18.5700	1.5260	18.3100	0.0000	0.1447	21.1600	23.0200	100.4%	101.0%	19.5100	0.0000
3	15:09:18	87.7%	0.9139	18.6000	1.4910	17.8600	0.0000	0.1447	21.3900	23.4800	102.6%	103.9%	19.5600	0.0000
x		88.1%	0.9440	102.898%	1.4770	89.969%	0.0000	0.1463	96.164%	104.704%	100.1%	100.6%	92.881%	0.0000
σ		0.4%	0.0481	n/a	0.0571	n/a	0.0000	0.0028	n/a	n/a	2.5%	3.4%	n/a	0.0000
%RSD		0.5	5.0920	0.5703	3.8630	1.5270	0.0000	1.9050	1.1350	1.8960	2.5	3.4	0.3079	0.0000

SEQ-CCV@CCV01 10/19/2016 15:12:53 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:53	89.9%	488.5000	106.9%	290.6000	512.3000	512.2000	2693.0000	±496.4000	492.7000	17.0200	513.6000	25.3800	6.9320	0.0000	398.9000	±1220.0000	±754.6000	424.1000	±1098.0000
2	15:13:06	90.1%	485.0000	109.4%	292.4000	510.2000	507.1000	2625.0000	±497.4000	504.7000	17.1900	512.3000	25.2000	7.7350	0.0000	404.2000	±1234.0000	±767.6000	435.6000	±1109.0000
3	15:13:19	91.0%	475.1000	111.9%	293.8000	515.7000	516.5000	2543.0000	±496.1000	497.5000	16.6600	529.4000	25.1600	6.2520	0.0000	404.6000	±1234.0000	±764.5000	435.4000	±1112.0000
x		90.3%	96.572%	109.4%	292.3000	102.546%	102.384%	2620.0000	±99.327%	99.653%	16.9600	103.687%	25.2500	6.9730	0.0000	402.6000	±1229.0000	±762.2000	431.7000	±1106.0000
σ		0.6%	n/a	2.5%	1.5770	n/a	n/a	74.9400	±n/a	n/a	0.2696	n/a	0.1170	0.7422	0.0000	3.1830	±8.1510	±6.7640	6.6200	±7.1080
%RSD		0.7	1.4340	2.3	0.5395	0.5455	0.9146	2.8600	±0.1347	1.2130	1.5900	1.8430	0.4635	10.6400	0.0000	0.7908	±0.6631	±0.8874	1.5330	±0.6425

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:53	105.7%	23.5900	65.0800	17.4300	499.7000	0.0000	±469.9000	518.7000	508.6000	105.9%	105.9%	±498.4000	0.0000
2	15:13:06	106.6%	24.3500	65.4200	18.0200	506.9000	0.0000	±473.7000	527.6000	513.9000	109.6%	109.7%	±495.1000	0.0000
3	15:13:19	105.3%	24.4400	66.0600	18.5000	513.4000	0.0000	501.2000	535.4000	521.9000	110.4%	111.6%	±494.4000	0.0000
x		105.9%	24.1300	100.798%	17.9800	101.331%	0.0000	±481.6000	105.443%	102.963%	108.7%	109.1%	±99.193%	0.0000
σ		0.7%	0.4680	n/a	0.5396	n/a	0.0000	±17.1200	n/a	n/a	2.4%	2.9%	±n/a	0.0000
%RSD		0.6	1.9390	0.7619	3.0000	1.3540	0.0000	±3.5540	1.5800	1.2980	2.2	2.7	±0.4322	0.0000

SEQ-CCB@CCB01 10/19/2016 15:16:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb		ppb	ppb	ppb	ppb	ppb
1	15:16:55	88.3%	0.0570	100.2%	0.0389	0.0118	0.0790	4.2860	0.0342	0.0056	-0.0199	0.1780	-0.0368	0.6297	0.0000	0.1272	0.3322	0.2124	0.1125	0.3345
2	15:17:08	88.1%	0.0367	104.5%	0.0339	-0.0003	0.0952	7.8270	0.0476	-0.0297	0.0149	0.1820	-0.0695	0.6439	0.0000	0.1233	0.3633	0.1970	0.1120	0.3092
3	15:17:21	90.0%	0.0212	104.5%	0.0340	0.0015	0.1077	5.1080	0.0491	0.0132	-0.0199	0.1068	-0.0260	0.7911	0.0000	0.1278	0.3407	0.2208	0.1182	0.3028
x		88.8%	0.0383	103.1%	0.0356	0.0043	0.0940	5.7400	0.0436	-0.0036	-0.0083	0.1556	-0.0441	0.6882	0.0000	0.1261	0.3454	0.2101	0.1142	0.3155
σ		1.1%	0.0179	2.5%	0.0028	0.0066	0.0144	1.8530	0.0082	0.0229	0.0201	0.0423	0.0227	0.0894	0.0000	0.0024	0.0161	0.0121	0.0034	0.0168
%RSD		1.2	46.8100	2.4	8.0050	151.8000	15.3100	32.2900	18.8700	627.8000	241.8000	27.2000	51.4200	12.9900	0.0000	1.9290	4.6570	5.7630	3.0100	5.3110

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:55	104.5%	0.0097	0.0076	0.0064	0.0540	0.0000	0.0937	0.0782	0.0367	100.0%	100.9%	0.0721	0.0000
2	15:17:08	103.2%	0.0019	0.0036	0.0004	0.0357	0.0000	0.1007	0.0688	0.0033	102.9%	101.5%	0.0799	0.0000
3	15:17:21	105.9%	-0.0026	0.0115	0.0062	0.0437	0.0000	0.0995	0.0660	0.0575	103.6%	103.8%	0.0599	0.0000
x		104.5%	0.0030	0.0076	0.0043	0.0445	0.0000	0.0980	0.0710	0.0325	102.2%	102.1%	0.0706	0.0000
σ		1.4%	0.0062	0.0040	0.0034	0.0092	0.0000	0.0038	0.0064	0.0273	1.9%	1.5%	0.0101	0.0000
%RSD		1.3	206.8000	52.2200	78.2000	20.6000	0.0000	3.8570	9.0450	84.1200	1.9	1.5	14.2400	0.0000

SEQ-CCV@CCV02 10/19/2016 16:57:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:33	90.8%	521.0000	88.6%	290.8000	508.6000	507.9000	2569.0000	±499.4000	500.2000	17.5800	505.4000	24.3300	6.6300	0.0000	397.7000	1239.0000	768.5000	422.1000	±1095.0000
2	16:57:46	90.6%	530.1000	88.8%	298.8000	513.3000	510.1000	2512.0000	±506.3000	508.4000	17.9600	508.6000	24.5000	6.6440	0.0000	401.6000	1252.0000	±763.3000	433.2000	±1109.0000
3	16:57:59	90.9%	520.3000	89.9%	297.2000	516.8000	516.1000	2704.0000	±504.5000	512.4000	18.2500	517.4000	24.9500	7.2510	0.0000	406.4000	±1242.0000	±766.4000	435.7000	±1114.0000
x		90.8%	104.761%	89.1%	295.6000	102.576%	102.269%	2595.0000	±100.679%	101.399%	17.9300	102.096%	24.6000	6.8410	0.0000	401.9000	±1244.0000	±766.0000	430.3000	±1106.0000
σ		0.2%	n/a	0.7%	4.2610	n/a	n/a	98.5700	±n/a	n/a	0.3375	n/a	0.3203	0.3546	0.0000	4.3560	±6.6260	±2.6350	7.2810	±10.1200
%RSD		0.2	1.0480	0.8	1.4420	0.8086	0.8291	3.7980	±0.7147	1.2320	1.8830	1.2210	1.3020	5.1830	0.0000	1.0840	±0.5374	±0.3439	1.6920	±0.9155

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:33	94.5%	24.1000	64.4800	17.6900	493.9000	0.0000	473.2000	510.1000	500.7000	98.4%	98.0%	±521.2000	0.0000
2	16:57:46	94.3%	24.2400	65.7700	17.6800	503.3000	0.0000	485.5000	522.0000	507.3000	101.8%	102.3%	±513.8000	0.0000
3	16:57:59	94.0%	24.4200	66.1700	18.0700	510.0000	0.0000	489.8000	528.9000	511.5000	103.3%	104.3%	±513.1000	0.0000
x		94.3%	24.2500	100.729%	17.8100	100.480%	0.0000	482.8000	104.064%	101.302%	101.2%	101.5%	±103.208%	0.0000
σ		0.2%	0.1610	n/a	0.2257	n/a	0.0000	8.6390	n/a	n/a	2.5%	3.2%	±n/a	0.0000
%RSD		0.2	0.6639	1.3450	1.2670	1.6080	0.0000	1.7890	1.8200	1.0700	2.5	3.2	±0.8681	0.0000

SEQ-CCB@CCB02 10/19/2016 17:01:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:37	89.8%	0.0941	86.3%	0.0424	0.0294	0.0711	1.0680	0.0788	-0.0349	0.0053	-0.0160	-0.0606	0.5431	0.0000	0.1304	0.4108	0.2393	0.1212	0.3190
2	17:01:50	90.1%	0.0178	87.5%	0.0794	0.0124	0.0945	3.2350	0.0844	-0.0481	-0.0199	0.2460	-0.0835	1.1260	0.0000	0.1318	0.3360	0.2063	0.1121	0.3097
3	17:02:03	90.6%	0.0814	88.3%	0.0384	-0.0030	0.0815	5.8310	0.0673	-0.0086	0.0292	0.0542	-0.0485	0.5173	0.0000	0.1267	0.4089	0.1882	0.1293	0.3586
x		90.2%	0.0644	87.4%	0.0534	0.0129	0.0824	3.3780	0.0768	-0.0305	0.0049	0.0947	-0.0642	0.7288	0.0000	0.1296	0.3852	0.2113	0.1209	0.3291
σ		0.4%	0.0409	1.0%	0.0226	0.0162	0.0118	2.3850	0.0087	0.0201	0.0246	0.1356	0.0178	0.3441	0.0000	0.0026	0.0427	0.0259	0.0086	0.0260
%RSD		0.4	63.4100	1.2	42.3200	125.7000	14.2800	70.6000	11.3500	65.9800	503.3000	143.2000	27.7300	47.2200	0.0000	2.0370	11.0800	12.2700	7.0960	7.8980

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:37	94.8%	0.0254	0.0149	0.0055	0.0748	0.0000	0.1194	0.0847	0.0818	95.2%	96.0%	0.0822	0.0000
2	17:01:50	95.0%	0.0122	0.0111	0.0038	0.0971	0.0000	0.1227	0.0860	0.0807	98.5%	99.2%	0.0780	0.0000
3	17:02:03	97.4%	0.0104	0.0076	0.0022	0.0906	0.0000	0.0977	0.0902	0.0500	98.4%	98.8%	0.0779	0.0000
x		95.8%	0.0160	0.0112	0.0038	0.0875	0.0000	0.1133	0.0870	0.0708	97.4%	98.0%	0.0794	0.0000
σ		1.4%	0.0082	0.0036	0.0017	0.0115	0.0000	0.0136	0.0029	0.0181	1.9%	1.7%	0.0025	0.0000
%RSD		1.5	51.1600	32.5000	43.9800	13.1300	0.0000	11.9700	3.3270	25.5300	1.9	1.8	3.1130	0.0000

SEQ-CCV@CCV03 10/19/2016 18:42:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:33	98.3%	509.8000	97.3%	295.7000	519.7000	517.9000	2616.0000	r509.1000	508.1000	17.0100	514.4000	26.3200	6.1260	0.0000	403.4000	r1264.0000	r779.7000	433.6000	r1133.0000
2	18:42:47	98.4%	502.8000	100.0%	295.4000	514.6000	511.0000	2329.0000	r502.3000	507.7000	16.0700	506.5000	24.6400	3.4270	0.0000	405.5000	r1239.0000	r765.3000	435.5000	r1120.0000
3	18:43:00	98.1%	502.7000	101.0%	298.7000	518.1000	517.4000	2670.0000	r505.5000	509.4000	17.3200	512.4000	24.9100	6.0420	0.0000	409.0000	r1259.0000	r768.0000	435.4000	r1119.0000
x		98.3%	101.023%	99.4%	296.6000	103.496%	103.085%	2538.0000	r101.129%	101.678%	16.8000	102.227%	25.2900	5.1980	0.0000	406.0000	r1254.0000	r771.0000	434.6000	r1124.0000
σ		0.2%	n/a	1.9%	1.8210	n/a	n/a	183.3000	rn/a	n/a	0.6521	n/a	0.9009	1.5350	0.0000	2.6600	r13.3200	r7.6190	1.0940	r7.3820
%RSD		0.2	0.8109	1.9	0.6140	0.5060	0.7494	7.2210	r0.6728	0.1836	3.8820	0.8024	3.5630	29.5300	0.0000	0.7044	r1.0630	r0.9882	0.2516	r0.6567

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:42:33	98.9%	24.0700	66.0300	17.8000	508.0000	0.0000	486.3000	524.1000	516.1000	101.6%	103.0%	r509.6000	0.0000
2	18:42:47	100.8%	23.8600	65.9700	17.8300	507.6000	0.0000	491.3000	524.6000	514.0000	107.1%	107.0%	r506.2000	0.0000
3	18:43:00	100.2%	24.4300	66.1000	18.0300	509.0000	0.0000	r476.9000	531.0000	515.5000	109.0%	109.6%	r504.8000	0.0000
x		99.9%	24.1200	101.587%	17.8900	101.644%	0.0000	r484.8000	105.311%	103.035%	105.9%	106.5%	r101.366%	0.0000
σ		1.0%	0.2879	n/a	0.1219	n/a	0.0000	r7.3000	n/a	n/a	3.9%	3.3%	rn/a	0.0000
%RSD		1.0	1.1940	0.0996	0.6815	0.1368	0.0000	r1.5060	0.7403	0.2115	3.6	3.1	r0.4847	0.0000

SEQ-CCB@CCB03 10/19/2016 18:46:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:37	96.2%	0.1112	92.0%	0.0717	0.0195	0.1016	3.5290	0.0734	-0.0341	-0.0076	0.1642	-0.0258	0.1375	0.0000	0.1368	0.4124	0.2643	0.1431	0.3572
2	18:46:49	97.3%	0.0558	94.0%	0.0674	0.0743	0.0746	-4.2570	0.0787	0.0086	-0.0077	0.1985	-0.0261	-0.0557	0.0000	0.1399	0.3699	0.2486	0.1380	0.3152
3	18:47:02	98.2%	0.0789	95.9%	0.0595	-0.0004	0.0941	-1.3510	0.0657	0.0135	-0.0077	0.0885	-0.0031	0.1311	0.0000	0.0956	0.3592	0.2219	0.1372	0.3187
x		97.2%	0.0820	94.0%	0.0662	0.0311	0.0901	-0.6932	0.0726	-0.0040	-0.0077	0.1504	-0.0183	0.0710	0.0000	0.1248	0.3805	0.2450	0.1394	0.3304
σ		1.0%	0.0278	2.0%	0.0062	0.0387	0.0139	3.9340	0.0066	0.0262	0.0001	0.0563	0.0132	0.1097	0.0000	0.0253	0.0262	0.0214	0.0032	0.0233
%RSD		1.0	33.9600	2.1	9.3280	124.1000	15.4300	567.6000	9.0410	657.9000	0.9037	37.4100	72.0900	154.6000	0.0000	20.2600	7.4050	8.7480	2.2660	7.0530

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:37	97.3%	0.0106	0.0120	0.0052	0.0739	0.0000	0.1119	0.1053	0.0386	99.1%	101.6%	0.0919	0.0000
2	18:46:49	98.0%	0.0360	0.0098	0.0081	0.0896	0.0000	0.1110	0.1031	0.0493	101.1%	102.3%	0.0807	0.0000
3	18:47:02	98.4%	0.0115	0.0089	0.0035	0.0343	0.0000	0.1085	0.0822	0.0694	102.9%	104.0%	0.0696	0.0000
x		97.9%	0.0194	0.0103	0.0056	0.0659	0.0000	0.1105	0.0969	0.0524	101.0%	102.6%	0.0807	0.0000
σ		0.6%	0.0144	0.0016	0.0024	0.0285	0.0000	0.0018	0.0128	0.0157	1.9%	1.2%	0.0112	0.0000
%RSD		0.6	74.2600	15.5700	42.0200	43.2200	0.0000	1.5990	13.1900	29.8500	1.9	1.2	13.8400	0.0000

QJ14034-BLK1@PB501@MH1H68 10/19/2016 18:50:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:39	95.9%	-0.0036	92.1%	0.0012	-0.0124	-0.0385	-22.0800	0.0028	0.1597	-0.0199	0.2005	-0.0376	-0.0534	0.0000	0.0115	0.0559	0.0196	0.0119	0.0438
2	18:50:52	96.5%	-0.0056	95.9%	0.0268	-0.0156	-0.0302	-19.7200	0.0053	0.0983	-0.0077	0.0530	-0.0711	0.7003	0.0000	0.0149	0.0607	0.0306	0.0143	0.0400
3	18:51:05	97.3%	0.0112	96.0%	0.0208	-0.0287	-0.0323	-22.5600	0.0042	0.1478	0.0050	0.0195	-0.0025	-0.0485	0.0000	0.0157	0.0601	0.0183	0.0122	0.0434
x		96.6%	0.0007	94.7%	0.0163	-0.0189	-0.0336	-21.4500	0.0041	0.1353	-0.0075	0.0910	-0.0371	0.1995	0.0000	0.0140	0.0589	0.0228	0.0128	0.0424
σ		0.7%	0.0092	2.2%	0.0134	0.0086	0.0043	1.5230	0.0012	0.0326	0.0125	0.0963	0.0343	0.4337	0.0000	0.0022	0.0026	0.0067	0.0013	0.0021
%RSD		0.7	1370.0000	2.3	82.4500	45.7200	12.7300	7.0970	29.5100	24.0700	165.0000	105.8000	92.5800	217.4000	0.0000	15.8400	4.4610	29.5500	10.1900	4.9300

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:39	97.4%	0.0256	-0.0006	-0.0010	0.0070	0.0000	0.0398	0.0101	-0.0215	97.3%	98.9%	0.0160	0.0000
2	18:50:52	98.0%	0.0108	0.0007	0.0005	0.0095	0.0000	0.0524	0.0017	-0.0049	100.4%	101.1%	0.0108	0.0000
3	18:51:05	96.1%	0.0071	0.0013	-0.0010	0.0066	0.0000	0.0451	0.0076	-0.0224	102.2%	101.8%	0.0103	0.0000
x		97.2%	0.0145	0.0005	-0.0005	0.0077	0.0000	0.0457	0.0065	-0.0163	100.0%	100.6%	0.0124	0.0000
σ		1.0%	0.0098	0.0009	0.0009	0.0016	0.0000	0.0063	0.0043	0.0099	2.5%	1.5%	0.0032	0.0000
%RSD		1.0	67.6200	202.5000	172.0000	20.8600	0.0000	13.8300	66.4900	60.8200	2.5	1.5	25.5200	0.0000

QJ14034-BS1@LCS01 10/19/2016 18:54:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:40	95.6%	2.2350	91.0%	0.0057	11.0400	4.2980	17.6900	2.0880	1.9240	0.2749	10.0700	0.5978	-0.0535	0.0000	2.7210	8.0190	5.0240	2.8030	7.2070
2	18:54:53	95.9%	2.2660	94.4%	-0.0017	11.2100	4.3490	19.4500	2.0290	2.0190	0.3504	11.7700	0.5206	0.7131	0.0000	2.6690	8.1690	4.9600	2.6770	7.2700
3	18:55:06	96.6%	2.0820	96.4%	0.0245	11.0700	4.1970	40.6600	2.0150	2.0400	0.4661	10.9700	0.3740	0.1306	0.0000	2.6450	8.1320	5.1750	2.8250	7.4570
x		96.0%	109.712%	93.9%	0.0095	111.060%	107.026%	25.9300	102.194%	99.706%	0.3638	109.397%	0.4975	0.2634	0.0000	2.6780	8.1070	5.0530	2.7680	7.3120
σ		0.5%	n/a	2.7%	0.0135	n/a	n/a	12.7800	n/a	n/a	0.0963	n/a	0.1137	0.4002	0.0000	0.0389	0.0782	0.1107	0.0801	0.1303
%RSD		0.5	4.4770	2.9	142.2000	0.8453	1.8100	49.2800	1.8980	3.0910	26.4700	7.7880	22.8500	151.9000	0.0000	1.4500	0.9651	2.1900	2.8930	1.7820

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:40	97.4%	0.0922	2.0740	0.0812	1.9690	0.0000	0.0442	4.0960	20.8200	97.5%	97.9%	1.8870	0.0000
2	18:54:53	96.9%	0.0939	2.0520	0.0816	2.0770	0.0000	0.0283	4.1120	20.5600	100.5%	99.9%	1.9410	0.0000
3	18:55:06	98.5%	0.0661	2.0460	0.0761	2.1680	0.0000	0.0415	4.2200	21.1100	100.8%	103.0%	1.9730	0.0000
x		97.6%	0.0841	102.863%	0.0796	103.561%	0.0000	0.0380	103.575%	104.137%	99.6%	100.3%	96.671%	0.0000
σ		0.8%	0.0156	n/a	0.0031	n/a	0.0000	0.0085	n/a	n/a	1.9%	2.6%	n/a	0.0000
%RSD		0.8	18.5800	0.7208	3.8480	4.8110	0.0000	22.3300	1.6260	1.3180	1.9	2.5	2.2550	0.0000

6100168-01@MH1H68 10/19/2016 18:58:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:41	97.1%	0.1750	101.7%	7.2130	34.9700	6.7770	46.5200	2.9810	2.4390	0.2416	2.8780	0.0862	0.6705	0.0000	0.9683	2.2600	1.4660	0.8329	2.1010
2	18:58:54	99.2%	0.1809	106.0%	7.1710	36.6000	7.0120	33.1300	3.0830	2.4870	0.2270	2.9210	0.1368	0.1397	0.0000	0.9928	2.3960	1.5740	0.8193	2.0870
3	18:59:07	98.1%	0.2282	108.3%	7.4250	35.7200	6.8790	40.3600	2.9540	2.5580	0.2219	3.8300	0.1336	0.5023	0.0000	1.0600	2.3360	1.5700	0.8274	2.0770
x		98.1%	0.1947	105.3%	7.2700	35.7700	6.8890	40.0000	3.0060	2.4950	0.2302	3.2100	0.1189	0.4375	0.0000	1.0070	2.3310	1.5370	0.8266	2.0880
σ		1.1%	0.0292	3.4%	0.1364	0.8151	0.1176	6.7050	0.0676	0.0600	0.0102	0.5373	0.0283	0.2713	0.0000	0.0476	0.0679	0.0612	0.0068	0.0122
%RSD		1.1	14.9800	3.2	1.8770	2.2790	1.7080	16.7600	2.2500	2.4030	4.4310	16.7400	23.8300	62.0000	0.0000	4.7280	2.9140	3.9800	0.8278	0.5858

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:41	100.7%	0.0424	0.9516	0.0049	0.0897	0.0000	0.6085	5.6670	221.7000	100.5%	100.9%	0.6507	0.0000
2	18:58:54	96.9%	0.0451	0.9910	0.0075	0.0889	0.0000	0.5787	5.7850	222.9000	103.6%	103.4%	0.6900	0.0000
3	18:59:07	99.0%	0.0359	0.9453	0.0060	0.0999	0.0000	0.6176	5.9520	226.0000	106.2%	105.4%	0.6991	0.0000
x		98.8%	0.0412	0.9626	0.0061	0.0928	0.0000	0.6016	5.8010	223.6000	103.4%	103.3%	0.6799	0.0000
σ		1.9%	0.0047	0.0247	0.0013	0.0062	0.0000	0.0203	0.1431	2.2190	2.9%	2.2%	0.0257	0.0000
%RSD		1.9	11.4900	2.5700	21.7300	6.6260	0.0000	3.3820	2.4670	0.9925	2.8	2.2	3.7800	0.0000

6100168-02@MH1H69 10/19/2016 19:02:41

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:41	96.1%	0.2303	104.7%	8.0090	34.5100	6.4640	28.7500	3.1820	2.1970	0.0632	3.2630	0.1640	0.4853	0.0000	1.0950	2.7840	1.8440	1.0030	2.5700
2	19:02:54	97.6%	0.1846	107.8%	8.3500	35.3000	6.5340	35.1700	3.1470	2.3290	0.1706	3.1310	0.1198	0.4880	0.0000	1.1650	2.8370	1.8650	0.9685	2.6400
3	19:03:08	97.4%	0.3735	109.5%	8.3000	34.7100	6.4360	45.1800	3.1900	2.4360	0.2386	2.9840	0.0070	0.2940	0.0000	1.1890	2.9310	2.0100	1.0440	2.7180
x		97.0%	0.2628	107.3%	8.2200	34.8400	6.4780	36.3700	3.1730	2.3210	0.1575	3.1260	0.0969	0.4224	0.0000	1.1500	2.8510	1.9060	1.0050	2.6420
σ		0.8%	0.0986	2.4%	0.1842	0.4137	0.0505	8.2810	0.0227	0.1198	0.0884	0.1396	0.0810	0.1112	0.0000	0.0491	0.0743	0.0903	0.0380	0.0740
%RSD		0.8	37.5100	2.2	2.2410	1.1870	0.7796	22.7700	0.7164	5.1610	56.1700	4.4650	83.5100	26.3300	0.0000	4.2660	2.6060	4.7360	3.7800	2.8000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:41	100.8%	0.0526	5.2900	0.0149	0.4514	0.0000	11.3200	7.5050	189.8000	101.5%	101.6%	0.4553	0.0000
2	19:02:54	100.5%	0.0495	5.3910	0.0215	0.3759	0.0000	11.5900	7.7320	191.9000	105.1%	104.5%	0.4666	0.0000
3	19:03:08	101.8%	0.0228	5.5620	0.0212	0.4621	0.0000	11.6400	7.7470	196.1000	106.4%	107.0%	0.5028	0.0000
x		101.0%	0.0416	5.4140	0.0192	0.4298	0.0000	11.5100	7.6610	192.6000	104.3%	104.4%	0.4749	0.0000
σ		0.7%	0.0164	0.1373	0.0037	0.0470	0.0000	0.1721	0.1352	3.1990	2.5%	2.7%	0.0248	0.0000
%RSD		0.7	39.4100	2.5370	19.1900	10.9300	0.0000	1.4940	1.7650	1.6610	2.4	2.6	5.2200	0.0000

6100168-03@MH1H70 10/19/2016 19:06:39

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:39	96.3%	0.0455	103.5%	6.4170	15.5200	4.4020	34.6100	2.0470	1.8360	0.0889	2.1030	0.0538	0.3153	0.0000	0.6520	1.6310	1.1630	0.5648	1.4060
2	19:06:52	95.6%	0.0892	105.9%	7.2880	15.5800	4.4430	36.5300	2.0720	1.9610	0.1656	2.9260	0.1715	-0.2425	0.0000	0.6856	1.6250	1.2050	0.5722	1.4140
3	19:07:06	96.4%	0.0961	106.4%	6.6570	15.7300	4.5320	8.6700	2.0660	1.7670	0.1153	2.5410	0.0093	0.5177	0.0000	0.7293	1.6830	1.1110	0.5624	1.5070
x		96.1%	0.0769	105.3%	6.7870	15.6100	4.4590	26.6000	2.0620	1.8550	0.1233	2.5230	0.0782	0.1968	0.0000	0.6889	1.6460	1.1600	0.5665	1.4420
σ		0.5%	0.0274	1.6%	0.4500	0.1095	0.0663	15.5600	0.0132	0.0981	0.0389	0.4117	0.0838	0.3937	0.0000	0.0388	0.0320	0.0472	0.0051	0.0564
%RSD		0.5	35.6200	1.5	6.6300	0.7016	1.4870	58.4900	0.6421	5.2890	31.5900	16.3200	107.1000	200.0000	0.0000	5.6330	1.9440	4.0720	0.8975	3.9090

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:39	98.9%	0.0709	3.3820	0.0345	0.7603	0.0000	0.9159	5.3400	137.2000	99.2%	99.8%	0.3474	0.0000
2	19:06:52	96.8%	0.0927	3.4850	0.0277	0.7884	0.0000	0.8708	5.3590	138.0000	102.3%	103.2%	0.3393	0.0000
3	19:07:06	97.4%	0.0632	3.5810	0.0301	0.7729	0.0000	0.9116	5.4140	141.4000	104.8%	107.3%	0.3391	0.0000
x		97.7%	0.0756	3.4830	0.0308	0.7739	0.0000	0.8994	5.3710	138.9000	102.1%	103.4%	0.3420	0.0000
σ		1.1%	0.0153	0.0999	0.0034	0.0141	0.0000	0.0249	0.0383	2.2530	2.8%	3.7%	0.0047	0.0000
%RSD		1.1	20.2600	2.8680	11.0500	1.8190	0.0000	2.7660	0.7126	1.6230	2.7	3.6	1.3860	0.0000

6100168-04@MH1H71 10/19/2016 19:10:40

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:40	93.8%	0.2180	103.5%	5.5700	20.8300	4.4330	59.2900	4.3480	2.3640	0.2941	3.0710	0.0094	1.2500	0.0000	0.7199	1.6930	1.1800	0.6264	1.5140
2	19:10:53	95.3%	0.3150	104.9%	5.3550	20.9000	4.2780	35.4900	4.4350	2.5240	0.2164	3.6690	0.1859	1.0300	0.0000	0.7639	1.6820	1.1810	0.6326	1.5910
3	19:11:06	97.4%	0.2535	107.3%	5.7600	21.7300	4.4480	43.3200	4.5090	2.3690	0.2127	3.5150	0.2060	1.4620	0.0000	0.7315	1.7820	1.1750	0.6114	1.6600
x		95.5%	0.2622	105.2%	5.5620	21.1500	4.3870	46.0300	4.4310	2.4190	0.2411	3.4180	0.1336	1.2470	0.0000	0.7384	1.7190	1.1790	0.6234	1.5880
σ		1.8%	0.0491	1.9%	0.2027	0.5023	0.0941	12.1300	0.0803	0.0911	0.0460	0.3106	0.1082	0.2163	0.0000	0.0229	0.0548	0.0034	0.0109	0.0731
%RSD		1.9	18.7200	1.8	3.6450	2.3750	2.1450	26.3600	1.8130	3.7640	19.0700	9.0880	80.8600	17.3400	0.0000	3.0940	3.1910	0.2927	1.7480	4.6010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:40	99.1%	0.1698	3.2280	0.1282	3.0790	0.0000	0.9962	4.6430	131.2000	102.3%	100.6%	0.3163	0.0000
2	19:10:53	101.3%	0.2254	3.3070	0.1280	3.2010	0.0000	0.9813	4.9050	132.0000	105.7%	105.0%	0.3229	0.0000
3	19:11:06	97.7%	0.2228	3.2540	0.1330	3.2420	0.0000	1.0260	5.0260	134.9000	106.6%	107.3%	0.3254	0.0000
x		99.4%	0.2060	3.2630	0.1298	3.1740	0.0000	1.0010	4.8580	132.7000	104.9%	104.3%	0.3215	0.0000
σ		1.8%	0.0314	0.0404	0.0029	0.0847	0.0000	0.0228	0.1957	1.9510	2.3%	3.4%	0.0047	0.0000
%RSD		1.8	15.2400	1.2370	2.2000	2.6670	0.0000	2.2800	4.0280	1.4710	2.2	3.3	1.4650	0.0000

Q114034-MS1@MH1H715 10/19/2016 19:14:42 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:42	94.2%	8.8910	103.0%	8.1240	130.0000	45.4800	318.2000	92.8500	90.9100	0.9049	22.9100	1.1770	1.4510	0.0000	57.7400	175.4000	109.0000	62.1600	159.5000
2	19:14:54	96.3%	9.1250	107.3%	7.8190	130.6000	45.7700	322.9000	93.4500	90.0600	0.9230	24.4000	1.0570	0.1350	0.0000	58.3000	177.8000	110.4000	62.0400	159.3000
3	19:15:08	97.6%	8.7390	108.7%	7.8630	130.9000	45.3100	335.7000	93.8900	91.6600	0.9916	24.8600	1.1320	0.6986	0.0000	59.0300	180.7000	111.0000	63.0600	162.8000
x		96.0%	86.561%	106.3%	7.9350	109.353%	102.840%	325.6000	88.968%	88.458%	0.9398	103.192%	1.1220	0.7615	0.0000	58.3600	88.130%	110.1000	62.4200	160.5000
σ		1.7%	n/a	3.0%	0.1652	n/a	n/a	9.0300	n/a	n/a	0.0457	n/a	0.0610	0.6602	0.0000	0.6456	n/a	1.0420	0.5554	1.9970
%RSD		1.8	2.1770	2.8	2.0820	0.3387	0.5112	2.7730	0.5600	0.8787	4.8660	4.2490	5.4360	86.7000	0.0000	1.1060	1.4890	0.9465	0.8897	1.2440

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:42	98.3%	0.6594	13.5800	0.4646	13.2700	0.0000	1.3820	15.7800	557.3000	101.8%	101.5%	9.1970	0.0000
2	19:14:54	97.7%	0.6647	13.7600	0.5502	13.4200	0.0000	1.3870	15.8500	555.9000	105.8%	105.4%	9.3340	0.0000
3	19:15:08	98.2%	0.6936	13.8100	0.5474	13.4600	0.0000	1.4310	16.0900	570.6000	105.7%	108.2%	9.3620	0.0000
x		98.1%	0.6726	104.509%	0.5207	102.079%	0.0000	1.4000	55.262%	107.146%	104.4%	105.0%	69.764%	0.0000
σ		0.3%	0.0184	n/a	0.0486	n/a	0.0000	0.0271	n/a	n/a	2.3%	3.4%	n/a	0.0000
%RSD		0.3	2.7390	0.8743	9.3360	0.7409	0.0000	1.9320	1.0150	1.4510	2.2	3.2	0.9478	0.0000

QJ14034-DUP1@MH1H71D 10/19/2016 19:18:43

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:43	93.3%	0.3134	103.1%	6.3660	29.3700	5.7170	41.4300	4.3040	2.5520	0.3345	3.9450	0.1474	0.8910	0.0000	0.9932	2.5710	1.6980	0.9266	2.2750
2	19:18:57	95.6%	0.2652	106.0%	6.6500	29.3300	5.7720	34.6100	4.3730	2.6540	0.3233	5.3070	0.2045	-0.0543	0.0000	1.0260	2.6340	1.7920	0.9513	2.3360
3	19:19:10	96.0%	0.2596	107.9%	6.5020	29.5300	5.6040	5.4510	4.4890	2.8500	0.2467	4.4520	0.1912	0.6921	0.0000	1.0040	2.6460	1.7350	0.9022	2.3780
x		95.0%	0.2794	105.7%	6.5060	29.4100	5.6980	27.1600	4.3890	2.6850	0.3015	4.5680	0.1810	0.5096	0.0000	1.0080	2.6170	1.7420	0.9267	2.3300
σ		1.4%	0.0296	2.4%	0.1418	0.1077	0.0857	19.1100	0.0931	0.1514	0.0478	0.6881	0.0298	0.4984	0.0000	0.0169	0.0405	0.0470	0.0245	0.0521
%RSD		1.5	10.5900	2.3	2.1800	0.3662	1.5040	70.3500	2.1200	5.6380	15.8500	15.0600	16.4300	97.8000	0.0000	1.6780	1.5470	2.6990	2.6480	2.2340

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:43	97.9%	0.2228	4.0100	0.1930	4.3480	0.0000	13.2700	6.8310	167.9000	101.7%	100.4%	0.4480	0.0000
2	19:18:57	97.6%	0.2466	3.9330	0.1645	4.7310	0.0000	13.4700	7.0610	170.8000	105.2%	104.6%	0.4437	0.0000
3	19:19:10	98.7%	0.2670	3.9470	0.1505	4.8900	0.0000	13.5500	7.1840	173.8000	107.0%	107.5%	0.4733	0.0000
x		98.1%	0.2455	3.9640	0.1694	4.6570	0.0000	13.4300	7.0250	170.8000	104.6%	104.2%	0.4550	0.0000
σ		0.6%	0.0221	0.0408	0.0217	0.2790	0.0000	0.1417	0.1792	2.9620	2.7%	3.6%	0.0160	0.0000
%RSD		0.6	9.0090	1.0300	12.7800	5.9910	0.0000	1.0560	2.5510	1.7340	2.6	3.4	3.5180	0.0000

SEQ-SRD1@MH1H71L@5X 10/19/2016 19:22:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:45	94.6%	0.0109	96.4%	1.2070	4.2300	0.8290	-31.6400	0.9270	0.5399	0.0283	1.2340	-0.0811	1.4320	0.0000	0.1446	0.3528	0.2541	0.1338	0.3323
2	19:22:58	95.8%	0.0572	100.0%	1.2870	4.1440	0.8243	-27.7900	0.9355	0.5193	0.0627	0.9956	-0.0145	0.6631	0.0000	0.1600	0.3659	0.2545	0.1452	0.3072
3	19:23:10	96.7%	0.0396	101.4%	1.2260	4.2290	0.7867	-32.3000	0.9412	0.5344	0.0396	0.7923	-0.0255	0.6720	0.0000	0.1594	0.3720	0.2505	0.1505	0.3529
x		95.7%	0.0359	99.3%	1.2400	4.2010	0.8133	-30.5800	0.9346	0.5312	0.0435	1.0070	-0.0404	0.9223	0.0000	0.1547	0.3636	0.2530	0.1431	0.3308
σ		1.0%	0.0234	2.6%	0.0416	0.0494	0.0232	2.4340	0.0071	0.0107	0.0176	0.2209	0.0357	0.4412	0.0000	0.0087	0.0098	0.0022	0.0085	0.0229
%RSD		1.1	65.0300	2.6	3.3510	1.1750	2.8470	7.9610	0.7647	2.0090	40.3400	21.9300	88.3600	47.8400	0.0000	5.6510	2.6940	0.8687	5.9580	6.9170

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:45	99.3%	0.0378	0.6526	0.0296	0.6677	0.0000	0.2362	1.0710	27.3700	98.4%	98.5%	0.0835	0.0000
2	19:22:58	101.4%	0.0485	0.6913	0.0182	0.7724	0.0000	0.1981	1.0020	27.9100	101.8%	101.5%	0.0902	0.0000
3	19:23:10	100.5%	0.0426	0.7023	0.0310	0.7385	0.0000	0.2359	1.0160	28.0700	103.5%	103.5%	0.0881	0.0000
x		100.4%	0.0429	0.6821	0.0263	0.7262	0.0000	0.2234	1.0300	27.7900	101.3%	101.1%	0.0873	0.0000
σ		1.0%	0.0053	0.0261	0.0070	0.0534	0.0000	0.0219	0.0361	0.3653	2.6%	2.5%	0.0034	0.0000
%RSD		1.0	12.4500	3.8300	26.7400	7.3590	0.0000	9.8030	3.5050	1.3150	2.6	2.5	3.9170	0.0000

6100168-05@MH1H72 10/19/2016 19:26:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:45	94.2%	0.2567	103.7%	5.7530	21.7500	5.1150	49.9400	4.3410	2.4350	0.1384	3.4960	0.0096	1.0750	0.0000	0.7820	1.9520	1.3590	0.6499	1.6990
2	19:26:58	95.8%	0.1724	106.4%	5.9910	22.3300	5.2190	43.6900	4.4720	2.3480	0.2489	3.1080	-0.0015	1.2690	0.0000	0.7843	1.9270	1.3420	0.7144	1.7350
3	19:27:11	95.8%	0.1812	109.3%	6.0730	21.8400	5.1940	27.8200	4.3910	2.5450	0.2203	3.1600	0.1551	0.4961	0.0000	0.7922	1.9820	1.3550	0.6445	1.7600
x		95.2%	0.2034	106.4%	5.9390	21.9800	5.1760	40.4800	4.4010	2.4430	0.2025	3.2550	0.0544	0.9469	0.0000	0.7862	1.9540	1.3520	0.6696	1.7310
σ		0.9%	0.0464	2.8%	0.1659	0.3137	0.0546	11.4000	0.0662	0.0987	0.0573	0.2107	0.0874	0.4022	0.0000	0.0054	0.0273	0.0086	0.0389	0.0304
%RSD		1.0	22.7800	2.6	2.7930	1.4270	1.0550	28.1600	1.5040	4.0420	28.3100	6.4740	160.7000	42.4800	0.0000	0.6809	1.4000	0.6346	5.8090	1.7560

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:45	98.2%	0.0981	3.6890	0.0448	1.3080	0.0000	1.0800	7.3990	131.6000	98.9%	99.5%	0.3982	0.0000
2	19:26:58	97.9%	0.1063	3.8100	0.0408	1.3570	0.0000	1.1210	7.4290	133.8000	101.4%	102.7%	0.3826	0.0000
3	19:27:11	99.6%	0.1011	3.7630	0.0426	1.3010	0.0000	1.1560	7.6440	135.1000	103.9%	104.4%	0.3750	0.0000
x		98.6%	0.1018	3.7540	0.0427	1.3220	0.0000	1.1190	7.4910	133.5000	101.4%	102.2%	0.3853	0.0000
σ		0.9%	0.0041	0.0611	0.0020	0.0303	0.0000	0.0384	0.1338	1.7340	2.5%	2.5%	0.0119	0.0000
%RSD		0.9	4.0720	1.6270	4.7240	2.2930	0.0000	3.4330	1.7860	1.2990	2.4	2.4	3.0790	0.0000

6100168-06@MH1H73 10/19/2016 19:30:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:46	94.2%	0.1954	99.9%	13.7000	32.1200	5.9130	42.9500	3.8340	2.8030	0.2848	3.7160	0.0438	0.8874	0.0000	1.0180	2.7550	1.7750	0.9254	2.3650
2	19:30:59	95.0%	0.2135	102.2%	13.9000	32.1300	5.9920	20.9100	3.8370	2.7980	0.1841	3.7650	0.2450	0.3096	0.0000	1.0230	2.6890	1.8010	0.9366	2.5160
3	19:31:12	96.6%	0.1527	104.8%	14.2800	32.6500	6.1480	33.9300	3.8580	2.8340	0.2374	3.8100	0.1470	0.1354	0.0000	1.0460	2.7760	1.8060	0.9579	2.5010
x		95.3%	0.1872	102.3%	13.9600	32.3000	6.0170	32.6000	3.8430	2.8110	0.2354	3.7640	0.1453	0.4441	0.0000	1.0290	2.7400	1.7940	0.9400	2.4610
σ		1.2%	0.0312	2.4%	0.2943	0.3047	0.1196	11.0800	0.0130	0.0198	0.0503	0.0469	0.1007	0.3936	0.0000	0.0149	0.0458	0.0165	0.0165	0.0836
%RSD		1.3	16.6700	2.4	2.1090	0.9433	1.9870	33.9900	0.3381	0.7037	21.3800	1.2460	69.2800	88.6300	0.0000	1.4510	1.6700	0.9175	1.7570	3.3960

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:46	98.2%	0.0189	1.4590	0.0109	0.1152	0.0000	0.6856	4.4080	348.5000	100.1%	99.5%	0.3810	0.0000
2	19:30:59	99.7%	0.0301	1.3770	0.0062	0.1032	0.0000	0.6766	4.4860	350.0000	104.3%	104.1%	0.3793	0.0000
3	19:31:12	97.6%	0.0394	1.4230	0.0047	0.1234	0.0000	0.7351	4.6110	360.8000	104.3%	104.7%	0.3993	0.0000
x		98.5%	0.0295	1.4200	0.0073	0.1139	0.0000	0.6991	4.5020	353.1000	102.9%	102.8%	0.3865	0.0000
σ		1.1%	0.0103	0.0413	0.0032	0.0102	0.0000	0.0315	0.1024	6.6800	2.4%	2.8%	0.0111	0.0000
%RSD		1.1	34.9200	2.9050	44.6400	8.9340	0.0000	4.5050	2.2750	1.8920	2.3	2.8	2.8760	0.0000

6100168-07@MH1H74 10/19/2016 19:34:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:46	93.7%	0.1776	100.6%	8.5520	34.5100	6.3610	32.0500	2.2820	2.0640	0.1529	5.1230	0.2300	0.5217	0.0000	1.0050	2.5690	1.7020	0.8667	2.1460
2	19:34:59	94.4%	0.1235	103.7%	9.1350	34.1000	6.2040	22.1800	2.3060	2.2430	0.1736	4.4440	0.1679	0.5029	0.0000	1.0810	2.6730	1.8010	0.8966	2.2850
3	19:35:12	96.4%	0.2108	106.3%	8.9180	33.8000	6.1540	26.8000	2.3040	2.1950	0.1841	5.4090	0.2333	-0.0622	0.0000	1.0800	2.5790	1.8410	0.8952	2.3290
x		94.8%	0.1706	103.5%	8.8680	34.1400	6.2400	27.0100	2.2970	2.1680	0.1702	4.9920	0.2104	0.3208	0.0000	1.0550	2.6070	1.7820	0.8862	2.2530
σ		1.4%	0.0440	2.9%	0.2946	0.3559	0.1082	4.9360	0.0134	0.0927	0.0159	0.4957	0.0369	0.3318	0.0000	0.0431	0.0572	0.0717	0.0169	0.0960
%RSD		1.4	25.8000	2.8	3.3220	1.0420	1.7340	18.2700	0.5836	4.2740	9.3560	9.9300	17.5300	103.4000	0.0000	4.0870	2.1940	4.0270	1.9060	4.2690

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:46	97.0%	0.0712	2.5560	0.0095	0.6254	0.0000	0.6996	4.1780	208.1000	98.8%	99.8%	0.4191	0.0000
2	19:34:59	98.9%	0.0675	2.5750	0.0324	0.6244	0.0000	0.7280	4.3570	210.9000	102.1%	102.1%	0.4433	0.0000
3	19:35:12	99.7%	0.0401	2.5920	0.0259	0.5793	0.0000	0.6713	4.4070	211.5000	104.8%	105.2%	0.4468	0.0000
x		98.5%	0.0596	2.5740	0.0226	0.6097	0.0000	0.6996	4.3140	210.1000	101.9%	102.4%	0.4364	0.0000
σ		1.4%	0.0170	0.0181	0.0118	0.0263	0.0000	0.0284	0.1207	1.8000	3.0%	2.8%	0.0151	0.0000
%RSD		1.4	28.4700	0.7013	52.2700	4.3160	0.0000	4.0550	2.7990	0.8565	3.0	2.7	3.4480	0.0000

6100168-08@MH1H75 10/19/2016 19:38:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:46	93.2%	0.3282	109.7%	56.6700	48.5100	10.0700	30.1400	2.1640	1.9610	0.2621	4.9810	0.0673	0.8955	0.0000	1.1100	2.4790	1.7520	0.8958	2.2120
2	19:38:59	94.3%	0.3113	112.5%	58.2600	48.9400	10.1300	37.7000	2.2210	2.0740	0.2508	4.8160	0.1136	0.5191	0.0000	1.1300	2.4800	1.7210	0.9042	2.2570
3	19:39:12	92.5%	0.3887	114.9%	58.8800	49.6400	10.2800	42.3100	2.2300	1.8710	0.2797	4.2920	0.1869	1.1130	0.0000	1.1040	2.6010	1.8200	0.8881	2.2560
x		93.3%	0.3427	112.4%	57.9400	49.0300	10.1600	36.7100	2.2050	1.9690	0.2642	4.6960	0.1226	0.8424	0.0000	1.1150	2.5200	1.7640	0.8961	2.2420
σ		0.9%	0.0407	2.6%	1.1380	0.5742	0.1110	6.1440	0.0359	0.1015	0.0145	0.3596	0.0603	0.3003	0.0000	0.0135	0.0701	0.0507	0.0080	0.0254
%RSD		1.0	11.8700	2.3	1.9650	1.1710	1.0930	16.7400	1.6270	5.1550	5.4960	7.6570	49.1700	35.6500	0.0000	1.2090	2.7820	2.8760	0.8984	1.1330

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:46	97.6%	0.0485	1.8330	0.0076	0.2712	0.0000	0.5046	6.1960	477.9000	99.9%	99.9%	0.3411	0.0000
2	19:38:59	97.2%	0.0288	1.9320	0.0101	0.2371	0.0000	0.5221	6.2070	476.8000	103.0%	101.2%	0.3853	0.0000
3	19:39:12	95.9%	0.0599	1.8780	0.0100	0.2333	0.0000	0.5056	6.2880	490.1000	104.1%	105.3%	0.3536	0.0000
x		96.9%	0.0457	1.8810	0.0092	0.2472	0.0000	0.5108	6.2300	461.6000	102.3%	102.1%	0.3600	0.0000
σ		0.9%	0.0157	0.0496	0.0014	0.0209	0.0000	0.0098	0.0502	7.3810	2.2%	2.8%	0.0228	0.0000
%RSD		0.9	34.4000	2.6350	15.4400	8.4410	0.0000	1.9210	0.8055	1.5330	2.1	2.7	6.3360	0.0000

6100168-09@MH1H76 10/19/2016 19:42:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:45	93.6%	0.1432	101.6%	6.2740	22.6700	5.1050	-15.1900	1.9070	1.6270	0.2103	5.0280	0.1689	1.0670	0.0000	1.1720	3.3600	2.0650	1.1050	2.8560
2	19:42:58	94.6%	0.1935	103.9%	6.4420	22.6500	5.0870	29.4900	1.9750	1.6650	0.1865	5.1110	0.1113	0.3183	0.0000	1.1950	3.3680	2.1070	1.1580	3.0380
3	19:43:12	95.2%	0.0800	107.1%	6.4040	22.7200	5.0130	27.7400	1.9250	1.6390	0.1731	5.1140	0.1115	1.2480	0.0000	1.1710	3.2400	2.2820	1.0890	3.0190
x		94.5%	0.1389	104.2%	6.3730	22.6800	5.0680	14.0100	1.9360	1.6430	0.1900	5.0840	0.1305	0.8778	0.0000	1.1790	3.3230	2.1510	1.1170	2.9710
σ		0.8%	0.0569	2.8%	0.0882	0.0366	0.0487	25.3100	0.0353	0.0193	0.0188	0.0490	0.0332	0.4929	0.0000	0.0137	0.0716	0.1154	0.0361	0.1002
%RSD		0.9	40.9500	2.6	1.3840	0.1613	0.9599	180.6000	1.8250	1.1730	9.9080	0.9634	25.4200	56.1500	0.0000	1.1650	2.1540	5.3640	3.2260	3.3740

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:45	98.8%	0.0949	5.8360	0.0512	1.1790	0.0000	1.4200	7.2420	215.3000	98.8%	98.7%	0.4729	0.0000
2	19:42:58	98.5%	0.0971	5.9040	0.0498	1.1850	0.0000	1.4790	7.3340	220.0000	102.1%	101.6%	0.4932	0.0000
3	19:43:12	99.2%	0.0878	6.0290	0.0448	1.2940	0.0000	1.5030	7.8100	223.9000	102.1%	104.4%	0.5066	0.0000
x		98.8%	0.0933	5.9230	0.0486	1.2190	0.0000	1.4670	7.4620	219.7000	101.0%	101.5%	0.4909	0.0000
σ		0.3%	0.0049	0.0983	0.0034	0.0650	0.0000	0.0426	0.3053	4.2990	1.9%	2.9%	0.0170	0.0000
%RSD		0.3	5.2090	1.6590	6.9150	5.3280	0.0000	2.9060	4.0910	1.9570	1.8	2.8	3.4620	0.0000

6100168-10@MH1H77 10/19/2016 19:46:45

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:45	95.5%	0.0983	104.9%	7.2270	20.1300	3.9340	45.8700	1.2440	1.1630	0.2696	6.8370	0.2465	0.3134	0.0000	1.5760	4.6510	2.9830	1.6540	4.1140
2	19:46:58	97.8%	0.0551	109.2%	7.2370	20.3700	4.0270	11.4000	1.2500	1.1030	0.2906	7.3700	0.4565	-0.0641	0.0000	1.6610	4.6080	3.0050	1.6500	4.0740
3	19:47:11	95.9%	0.1319	112.1%	7.4130	20.3400	3.9500	13.7600	1.2330	1.0240	0.2265	5.7730	0.3168	1.0200	0.0000	1.6490	4.6640	2.9720	1.5670	4.1260
x		96.4%	0.0951	108.7%	7.2930	20.2800	3.9700	23.6800	1.2420	1.0970	0.2622	6.6600	0.3399	0.4231	0.0000	1.6290	4.6410	2.9860	1.6240	4.1050
σ		1.2%	0.0385	3.6%	0.1048	0.1301	0.0494	19.2600	0.0084	0.0694	0.0327	0.8131	0.1069	0.5502	0.0000	0.0462	0.0293	0.0166	0.0491	0.0272
%RSD		1.3	40.4700	3.3	1.4370	0.6413	1.2450	81.3300	0.6728	6.3330	12.4600	12.2100	31.4500	130.1000	0.0000	2.8380	0.6316	0.5573	3.0220	0.6625

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:45	99.2%	0.0342	5.6080	0.0063	0.1466	0.0000	5.3640	16.9500	452.4000	99.2%	100.3%	0.2638	0.0000
2	19:46:58	100.2%	0.0382	5.5810	0.0117	0.1590	0.0000	5.4290	16.9600	449.3000	103.6%	102.8%	0.2819	0.0000
3	19:47:11	102.0%	0.0528	5.5130	0.0154	0.1570	0.0000	5.3730	17.0500	454.3000	106.5%	106.1%	0.2847	0.0000
x		100.4%	0.0417	5.5680	0.0111	0.1542	0.0000	5.3890	16.9900	452.0000	103.1%	103.0%	0.2768	0.0000
σ		1.4%	0.0098	0.0489	0.0046	0.0067	0.0000	0.0350	0.0573	2.5340	3.7%	2.9%	0.0113	0.0000
%RSD		1.4	23.3700	0.8775	41.0900	4.3130	0.0000	0.6500	0.3371	0.5606	3.5	2.8	4.0930	0.0000

6100168-11@MH1H78 10/19/2016 19:50:43

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:43	95.6%	0.1603	108.6%	7.9160	23.1300	5.2460	24.5900	2.9620	2.1430	0.2063	4.2650	0.1872	0.6724	0.0000	1.2410	2.5570	1.7510	0.9164	2.2250
2	19:50:56	97.3%	0.0945	112.9%	7.5990	23.1800	5.3420	50.1800	2.9690	1.9720	0.1600	4.1910	0.1111	1.6100	0.0000	1.2060	2.5260	1.8040	0.8985	2.3090
3	19:51:09	98.0%	0.1490	114.5%	8.1360	22.9200	5.1690	44.5700	2.8770	2.1620	0.1791	4.5400	0.1279	0.2912	0.0000	1.1600	2.4290	1.7600	0.9081	2.3820
x		97.0%	0.1346	112.0%	7.8840	23.0700	5.2520	39.7800	2.9360	2.0920	0.1818	4.3320	0.1421	0.8578	0.0000	1.2020	2.5040	1.7720	0.9077	2.3050
σ		1.2%	0.0352	3.1%	0.2701	0.1395	0.0866	13.4500	0.0512	0.1046	0.0233	0.1836	0.0400	0.6786	0.0000	0.0405	0.0667	0.0286	0.0089	0.0784
%RSD		1.3	26.1600	2.8	3.4260	0.6002	1.6490	33.8200	1.7440	5.0010	12.7900	4.2390	28.1400	79.1100	0.0000	3.3710	2.6620	1.6150	0.9826	3.4010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:43	100.5%	0.1113	3.2570	0.0463	1.2360	0.0000	1.6370	6.5670	180.7000	100.8%	100.8%	0.3839	0.0000
2	19:50:56	99.7%	0.0975	3.3580	0.0564	1.3160	0.0000	1.6210	6.6370	186.4000	102.0%	101.9%	0.4002	0.0000
3	19:51:09	102.2%	0.0949	3.5050	0.0561	1.3290	0.0000	1.6480	6.6820	185.1000	106.2%	105.0%	0.3927	0.0000
x		100.8%	0.1012	3.3730	0.0529	1.2930	0.0000	1.6360	6.6290	184.1000	103.0%	102.6%	0.3923	0.0000
σ		1.3%	0.0088	0.1246	0.0057	0.0504	0.0000	0.0136	0.0579	2.9980	2.6%	2.2%	0.0081	0.0000
%RSD		1.3	8.6900	3.6950	10.8500	3.8980	0.0000	0.8308	0.8738	1.6290	2.8	2.1	2.0770	0.0000

6100168-12@MH1H79 10/19/2016 19:54:43

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:43	97.3%	0.1012	118.4%	102.0000	43.8300	5.4570	34.3700	2.0780	1.5510	0.1894	5.1660	0.1822	0.8267	0.0000	1.2110	3.1880	2.1690	1.1790	2.8640
2	19:54:56	97.7%	0.1047	120.8%	103.7000	45.3000	5.8040	18.4700	2.0610	1.5200	0.2804	6.4850	0.0656	1.2410	0.0000	1.2340	3.2530	2.1970	1.0930	2.8740
3	19:55:09	98.3%	0.1137	124.0%	104.3000	43.1100	5.4500	37.1900	2.0610	1.5490	0.3719	6.3530	0.1260	0.8153	0.0000	1.2440	3.3420	2.2380	1.2510	2.8590
x		97.8%	0.1065	121.1%	103.3000	44.0800	5.5700	30.0100	2.0670	1.5400	0.2805	6.0020	0.1246	0.9609	0.0000	1.2300	3.2610	2.2010	1.1740	2.8660
σ		0.5%	0.0064	2.8%	1.1670	1.1180	0.2025	10.0900	0.0099	0.0176	0.0912	0.7264	0.0583	0.2423	0.0000	0.0173	0.0773	0.0346	0.0792	0.0077
%RSD		0.5	6.0530	2.3	1.1300	2.5370	3.6360	33.6400	0.4810	1.1440	32.5200	12.1000	46.7700	25.2100	0.0000	1.4100	2.3710	1.5710	6.7410	0.2697

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:54:43	102.9%	0.0620	1.2180	0.0045	0.1088	0.0000	0.7095	4.3090	199.9000	100.5%	99.5%	0.3275	0.0000
2	19:54:56	99.6%	0.0273	1.2170	0.0097	0.0848	0.0000	0.6664	4.3130	202.9000	104.5%	101.7%	0.3214	0.0000
3	19:55:09	103.8%	0.0072	1.2050	0.0148	0.0656	0.0000	0.7191	4.3660	205.4000	105.8%	106.0%	0.3427	0.0000
x		102.1%	0.0322	1.2130	0.0097	0.0864	0.0000	0.6984	4.3300	202.7000	103.6%	102.4%	0.3305	0.0000
σ		2.2%	0.0277	0.0073	0.0051	0.0217	0.0000	0.0281	0.0314	2.7590	2.8%	3.3%	0.0110	0.0000
%RSD		2.2	86.1200	0.6047	53.0800	25.0900	0.0000	4.0180	0.7246	1.3610	2.7	3.2	3.3170	0.0000

6100168-13@MH1H80 10/19/2016 19:58:43

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:43	95.6%	0.2084	110.3%	10.2900	60.7900	5.5870	31.1600	2.4520	2.0220	0.1809	4.1960	0.1633	0.6639	0.0000	1.5000	4.2050	2.8050	1.4520	3.7720
2	19:58:57	97.7%	0.1463	112.1%	10.4000	60.8500	5.6330	28.8300	2.4820	2.0050	0.0983	4.7600	0.1751	1.2130	0.0000	1.6530	4.3250	2.8160	1.5090	3.8840
3	19:59:10	98.2%	0.1362	113.7%	10.5600	61.3900	5.6160	32.1200	2.4740	2.0510	0.1929	4.9730	0.1418	1.2140	0.0000	1.5760	4.3360	2.9000	1.5300	3.9880
x		97.2%	0.1637	112.0%	10.4200	61.0100	5.6120	30.7000	2.4690	2.0260	0.1574	4.6430	0.1601	1.0300	0.0000	1.5770	4.2880	2.8400	1.4970	3.8820
σ		1.4%	0.0391	1.7%	0.1346	0.3291	0.0236	1.6890	0.0154	0.0232	0.0515	0.4016	0.0169	0.3174	0.0000	0.0765	0.0726	0.0518	0.0406	0.1081
%RSD		1.4	23.8700	1.5	1.2920	0.5394	0.4212	5.5010	0.6248	1.1470	32.7400	8.6490	10.5400	30.8000	0.0000	4.8540	1.6930	1.8230	2.7150	2.7840

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:43	101.3%	0.1354	5.7370	0.0926	2.4910	0.0000	2.3930	13.0000	196.0000	98.8%	98.7%	0.6559	0.0000
2	19:58:57	101.2%	0.1469	5.7780	0.1009	2.6620	0.0000	2.4430	r 17.4200	197.2000	103.2%	102.0%	0.6484	0.0000
3	19:59:10	101.2%	0.1330	5.9910	0.0953	2.5730	0.0000	2.4460	13.3900	200.0000	104.6%	104.2%	0.6450	0.0000
x		101.2%	0.1384	5.8350	0.0963	2.5750	0.0000	2.4270	r 14.6100	197.7000	102.2%	101.6%	0.6498	0.0000
σ		0.0%	0.0074	0.1361	0.0042	0.0853	0.0000	0.0296	r 2.4480	2.0600	3.0%	2.8%	0.0056	0.0000
%RSD		0.0	5.3570	2.3320	4.3580	3.3110	0.0000	1.2170	r 16.7600	1.0420	3.0	2.7	0.8546	0.0000

6100168-14@MH1H81 10/19/2016 20:02:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:44	96.2%	0.1212	109.7%	8.3510	40.8500	6.1240	51.9000	3.3780	2.5200	0.3216	5.1990	0.1735	0.4781	0.0000	1.9310	5.3050	3.3170	1.8240	4.8240
2	20:02:58	96.4%	0.1278	114.5%	8.3160	41.3400	6.2520	30.5900	3.4160	2.5320	0.2990	5.2150	0.2408	0.4807	0.0000	1.8460	5.2860	3.4270	1.8640	4.6800
3	20:03:11	97.5%	0.1317	116.5%	8.6680	41.3500	6.2750	29.4600	3.3900	2.5210	0.1815	5.7940	0.1090	1.4010	0.0000	1.9400	5.3460	3.3760	1.9070	4.7660
x		96.7%	0.1269	113.6%	8.4450	41.1800	6.2170	37.3200	3.3950	2.5250	0.2674	5.4030	0.1744	0.7865	0.0000	1.9060	5.3120	3.3730	1.8650	4.7570
σ		0.7%	0.0053	3.5%	0.1941	0.2861	0.0816	12.6400	0.0199	0.0068	0.0753	0.3390	0.0659	0.5319	0.0000	0.0518	0.0307	0.0550	0.0416	0.0724
%RSD		0.7	4.1870	3.1	2.2980	0.6947	1.3120	33.8700	0.5861	0.2706	28.1500	6.2740	37.7800	67.6300	0.0000	2.7200	0.5782	1.6310	2.2280	1.5230

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:44	101.6%	0.1886	5.8620	0.1194	3.0780	0.0000	3.0610	11.7500	185.7000	100.1%	100.0%	0.3865	0.0000
2	20:02:58	101.3%	0.1970	5.8850	0.1130	3.2160	0.0000	3.1080	12.2200	187.0000	104.5%	103.6%	0.4076	0.0000
3	20:03:11	101.0%	0.1542	5.9850	0.0982	3.0100	0.0000	3.1090	12.1600	189.4000	105.1%	105.2%	0.3934	0.0000
x		101.3%	0.1799	5.9110	0.1102	3.1010	0.0000	3.0920	12.0400	187.4000	103.2%	102.9%	0.3958	0.0000
σ		0.3%	0.0227	0.0652	0.0109	0.1049	0.0000	0.0275	0.2576	1.8950	2.7%	2.6%	0.0108	0.0000
%RSD		0.3	12.6000	1.1030	9.8820	3.3810	0.0000	0.8907	2.1390	1.0110	2.6	2.6	2.7230	0.0000

6100168-15@MH1H82 10/19/2016 20:06:46

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:46	96.7%	0.2559	109.1%	34.3700	44.2400	6.3570	47.8600	5.1890	3.7660	0.0982	3.0000	-0.0245	1.5780	0.0000	1.9740	5.3820	3.5110	1.8120	4.7980
2	20:06:59	97.3%	0.2435	113.6%	34.7300	44.5800	6.5160	16.3000	5.0830	3.9870	0.1226	2.4870	0.0417	0.8537	0.0000	1.9780	5.3270	3.5250	1.8400	4.8050
3	20:07:12	98.3%	0.2384	115.6%	35.2200	43.9100	6.3750	40.2800	5.1600	3.8450	0.2481	2.0560	0.0402	0.8292	0.0000	2.0730	5.5120	3.6300	1.8610	4.9450
x		97.4%	0.2460	112.8%	34.7700	44.2400	6.4160	34.8100	5.1440	3.8660	0.1563	2.5140	0.0191	1.0870	0.0000	2.0080	5.4070	3.5550	1.8380	4.8500
σ		0.8%	0.0090	3.3%	0.4271	0.3389	0.0868	16.4800	0.0549	0.1119	0.0804	0.4725	0.0378	0.4256	0.0000	0.0556	0.0949	0.0652	0.0248	0.0830
%RSD		0.9	3.6620	2.9	1.2280	0.7660	1.3530	47.3200	1.0670	2.8950	51.4500	18.7900	197.8000	39.1500	0.0000	2.7700	1.7550	1.8350	1.3470	1.7100

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:46	101.3%	0.4572	2.6900	0.3446	9.3520	0.0000	0.7715	3.0050	62.3800	99.0%	99.6%	0.2606	0.0000
2	20:06:59	100.7%	0.4959	2.7340	0.3368	9.3330	0.0000	0.7681	2.9450	62.7900	102.9%	102.0%	0.2766	0.0000
3	20:07:12	102.7%	0.5071	2.6830	0.3457	9.3610	0.0000	0.7899	3.0330	64.4100	103.4%	103.2%	0.2820	0.0000
x		101.6%	0.4867	2.7020	0.3423	9.3490	0.0000	0.7765	2.9950	63.1900	101.7%	101.6%	0.2731	0.0000
σ		1.0%	0.0262	0.0275	0.0049	0.0145	0.0000	0.0118	0.0452	1.0710	2.4%	1.8%	0.0111	0.0000
%RSD		1.0	5.3760	1.0180	1.4250	0.1547	0.0000	1.5130	1.5110	1.6950	2.4	1.8	4.0740	0.0000

6100168-16@MH1H83 10/19/2016 20:10:44

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:44	96.5%	0.2216	110.9%	31.9400	46.8100	7.4250	57.3400	6.1720	3.7220	0.2495	4.2650	0.0629	1.0180	0.0000	3.0830	8.8050	5.7870	3.0900	7.9130
2	20:10:57	96.6%	0.1515	113.2%	32.0200	47.0600	7.5300	41.8100	6.2460	4.0480	0.1788	4.4640	0.2933	0.8335	0.0000	3.1590	9.1790	5.7610	3.1900	7.9490
3	20:11:10	99.1%	0.2212	116.9%	32.5300	47.1800	7.3100	50.6400	6.2960	4.0660	0.2102	4.3220	0.0818	0.2787	0.0000	3.2500	9.0420	5.6820	3.1780	8.0350
x		97.4%	0.1981	113.7%	32.1600	47.0200	7.4220	49.9300	6.2380	3.9450	0.2128	4.3500	0.1460	0.7100	0.0000	3.1640	9.0090	5.7430	3.1530	7.9650
σ		1.5%	0.0404	3.0%	0.3203	0.1852	0.1099	7.7900	0.0626	0.1933	0.0354	0.1025	0.1279	0.3846	0.0000	0.0839	0.1892	0.0550	0.0543	0.0629
%RSD		1.5	20.3700	2.7	0.9958	0.3938	1.4810	15.6000	1.0030	4.9000	16.6500	2.3550	87.6300	54.1800	0.0000	2.6510	2.1000	0.9580	1.7220	0.7891

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:44	102.1%	0.2371	8.8230	0.1375	3.5060	0.0000	4.9330	10.1200	106.8000	99.9%	98.7%	0.2807	0.0000
2	20:10:57	102.3%	0.1992	9.2030	0.1477	3.5750	0.0000	5.1130	10.6200	107.9000	101.6%	100.1%	0.2741	0.0000
3	20:11:10	104.0%	0.1921	9.0380	0.1542	3.7210	0.0000	5.1190	10.5600	107.5000	104.4%	103.0%	0.3005	0.0000
x		102.8%	0.2095	9.0210	0.1465	3.6010	0.0000	5.0550	10.4300	107.4000	102.0%	100.6%	0.2851	0.0000
σ		1.0%	0.0242	0.1909	0.0084	0.1102	0.0000	0.1055	0.2742	0.5688	2.3%	2.2%	0.0138	0.0000
%RSD		1.0	11.5600	2.1160	5.7510	3.0610	0.0000	2.0870	2.6280	0.5296	2.2	2.2	4.8280	0.0000

6100168-17@MH1H84 10/19/2016 20:14:42

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:42	98.4%	0.6795	113.6%	33.8800	35.7300	10.3900	49.4300	16.3000	11.4100	0.2673	3.0510	0.1791	0.4558	0.0000	0.8691	2.2120	1.4310	0.7622	1.9630
2	20:14:55	100.4%	0.6404	116.5%	34.1800	35.7200	10.4200	35.0200	17.0000	11.6300	0.1964	2.9540	0.0707	0.9765	0.0000	0.8696	2.3250	1.5240	0.7812	2.0460
3	20:15:08	102.5%	0.7369	120.7%	34.6200	35.8300	10.5200	104.3000	16.9300	11.7600	0.2199	3.0660	0.1134	0.4503	0.0000	0.9135	2.3590	1.5280	0.8243	2.0040
x		100.4%	0.6856	116.9%	34.2300	35.7600	10.4500	62.9300	16.7400	11.6000	0.2278	3.0240	0.1211	0.6275	0.0000	0.8840	2.2980	1.4940	0.7892	2.0040
σ		2.1%	0.0485	3.6%	0.3686	0.0580	0.0679	36.5800	0.3657	0.1730	0.0361	0.0607	0.0546	0.3022	0.0000	0.0255	0.0769	0.0551	0.0318	0.0416
%RSD		2.1	7.0760	3.1	1.0770	0.1623	0.6502	58.1300	2.3030	1.4910	15.6600	2.0080	45.1200	48.1600	0.0000	2.8620	3.3440	3.6870	4.0290	2.0770

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:14:42	104.1%	0.1855	1.2590	0.0490	1.7620	0.0000	0.4587	1.2260	129.4000	103.1%	101.9%	0.1410	0.0000
2	20:14:55	105.1%	0.1620	1.2800	0.0549	1.7730	0.0000	0.4672	1.1510	132.2000	104.3%	105.9%	0.1495	0.0000
3	20:15:08	104.8%	0.1633	1.3170	0.0628	1.6500	0.0000	0.4847	1.1940	133.8000	106.4%	106.0%	0.1546	0.0000
x		104.7%	0.1703	1.2850	0.0556	1.7280	0.0000	0.4702	1.1900	131.8000	104.6%	104.6%	0.1483	0.0000
σ		0.5%	0.0132	0.0295	0.0069	0.0683	0.0000	0.0132	0.0375	2.1980	1.7%	2.3%	0.0069	0.0000
%RSD		0.5	7.7550	2.2960	12.4700	3.9520	0.0000	2.8160	3.1460	1.6680	1.6	2.2	4.6250	0.0000

SEQ-IBL2

~~6100108-1B@MH1ms5~~ 10/19/2016 20:18:40

User Pre-dilution: 1.000

Run	Time	6Li ppb	9Be ppb	45Sc ppb	47Ti ppb	51V ppb	52Cr ppb	53Cl O ppb	59Co ppb	60Ni ppb	77Se ppb	78Se ppb	82Se ppb	83Kr ppb	89Y ppb	94Mo ppb	95Mo ppb	96Mo ppb	97Mo ppb	98Mo ppb
1	20:18:40	98.0%	2.0690	111.1%	1.9660	2.0680	0.4108	6.1130	4.3980	0.9195	0.0880	1.1200	-0.0699	1.2380	0.0000	0.7321	2.0150	1.2950	0.6865	1.8920
2	20:18:53	98.9%	2.0610	112.3%	1.9290	1.9780	0.4180	5.3160	4.4690	0.9848	0.1578	1.1050	0.0751	1.0340	0.0000	0.7413	2.0370	1.4680	0.6736	1.8860
3	20:19:07	100.1%	2.0970	113.1%	1.8310	2.1280	0.4173	0.4462	4.4730	0.9851	0.1482	1.0870	0.0193	0.3101	0.0000	0.7018	2.1450	1.4760	0.7475	1.8990
x		99.0%	2.0760	112.2%	1.9090	2.0580	0.4154	3.9580	4.4470	0.9632	0.1313	1.1040	0.0082	0.8605	0.0000	0.7251	2.0660	1.4130	0.7025	1.8930
σ		1.1%	0.0187	1.0%	0.0695	0.0755	0.0040	3.0680	0.0421	0.0378	0.0378	0.0169	0.0731	0.4874	0.0000	0.0207	0.0698	0.1019	0.0395	0.0067
%RSD		1.1	0.9000	0.9	3.6420	3.6670	0.9567	77.5000	0.9456	3.9240	28.9000	1.5300	893.7000	56.6400	0.0000	2.8490	3.3770	7.2100	5.6190	0.3567

Run	Time	103Rh ppb	106Cd ppb	107Ag ppb	108Cd ppb	111Cd ppb	115In ppb	118Sn ppb	121Sb ppb	137Ba ppb	159Tb ppb	165Ho ppb	205Tl ppb	209Bi ppb
1	20:18:40	99.8%	0.1686	0.2483	0.0605	1.5720	0.0000	0.0774	1.6780	11.1100	103.6%	102.7%	0.0442	0.0000
2	20:18:53	101.0%	0.1092	0.2789	0.0581	1.3160	0.0000	0.0707	1.6520	11.3300	105.7%	106.3%	0.0376	0.0000
3	20:19:07	99.6%	0.1509	0.2778	0.0491	1.4780	0.0000	0.0560	1.6930	11.5300	108.2%	108.3%	0.0379	0.0000
x		100.1%	0.1429	0.2683	0.0559	1.4550	0.0000	0.0680	1.6740	11.3300	105.8%	105.8%	0.0399	0.0000
σ		0.8%	0.0305	0.0174	0.0060	0.1297	0.0000	0.0110	0.0209	0.2071	2.3%	2.8%	0.0037	0.0000
%RSD		0.8	21.3500	6.4730	10.8000	8.9160	0.0000	16.0900	1.2500	1.8290	2.2	2.7	9.2310	0.0000

SEQ-IBL1@ZZZZZZ 10/19/2016 20:22:39

User Pre-dilution: 1.000

Run	Time	6Li ppb	9Be ppb	45Sc ppb	47Ti ppb	51V ppb	52Cr ppb	53Cl O ppb	59Co ppb	60Ni ppb	77Se ppb	78Se ppb	82Se ppb	83Kr ppb	89Y ppb	94Mo ppb	95Mo ppb	96Mo ppb	97Mo ppb	98Mo ppb
1	20:22:39	99.7%	0.1707	114.3%	5.6140	21.3300	4.4600	45.4000	4.3720	2.3500	0.2313	3.5080	0.1881	0.0966	0.0000	0.6893	1.8220	1.2310	0.6032	1.5920
2	20:22:52	100.8%	0.2189	115.0%	5.7520	21.1400	4.3400	36.6900	4.5450	2.6040	0.2316	3.5800	0.1787	0.9826	0.0000	0.7190	1.9020	1.1980	0.6304	1.6120
3	20:23:05	101.1%	0.1361	118.0%	5.6160	21.7100	4.4460	25.9700	4.4630	2.4280	0.2675	3.8750	0.0500	0.8126	0.0000	0.7199	1.7770	1.1960	0.6379	1.5800
x		100.6%	0.1752	115.8%	5.6610	21.3900	4.4150	36.0200	4.4600	2.4610	0.2435	3.6540	0.1389	0.6306	0.0000	0.7094	1.8340	1.2090	0.6238	1.5940
σ		0.7%	0.0416	2.0%	0.0789	0.2883	0.0654	9.7290	0.0866	0.1299	0.0208	0.1946	0.0772	0.4702	0.0000	0.0174	0.0634	0.0195	0.0183	0.0163
%RSD		0.7	23.7300	1.7	1.3940	1.3480	1.4820	27.0100	1.9410	5.2790	8.5570	5.3260	55.5600	74.5700	0.0000	2.4570	3.4600	1.6110	2.9290	1.0230

Run	Time	103Rh ppb	106Cd ppb	107Ag ppb	108Cd ppb	111Cd ppb	115In ppb	118Sn ppb	121Sb ppb	137Ba ppb	159Tb ppb	165Ho ppb	205Tl ppb	209Bi ppb
1	20:22:39	104.8%	0.2002	3.2000	0.1076	3.3720	0.0000	1.0080	4.7610	135.7000	102.1%	101.4%	0.3109	0.0000
2	20:22:52	104.7%	0.2345	3.2530	0.1030	3.3440	0.0000	0.9973	4.9530	135.7000	107.1%	105.8%	0.3446	0.0000
3	20:23:05	104.1%	0.2182	3.3720	0.1149	3.4760	0.0000	1.1080	4.9580	138.3000	107.7%	107.4%	0.3221	0.0000
x		104.5%	0.2176	3.2750	0.1085	3.3960	0.0000	1.0380	4.8910	136.6000	105.7%	104.9%	0.3259	0.0000
σ		0.4%	0.0172	0.0880	0.0060	0.0698	0.0000	0.0611	0.1122	1.4760	3.1%	3.1%	0.0172	0.0000
%RSD		0.4	7.8840	2.6860	5.4970	2.0540	0.0000	5.8870	2.2950	1.0810	2.9	2.9	5.2740	0.0000

SEQ-CCV@CCV04 10/19/2016 20:26:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li ppb	9Be ppb	45Sc ppb	47Ti ppb	51V ppb	52Cr ppb	53Cl O ppb	59Co ppb	60Ni ppb	77Se ppb	78Se ppb	82Se ppb	83Kr ppb	89Y ppb	94Mo ppb	95Mo ppb	96Mo ppb	97Mo ppb	98Mo ppb
1	20:26:39	97.1%	481.4000	101.4%	295.6000	502.0000	499.5000	2976.0000	↑510.4000	503.1000	16.7800	502.8000	24.2600	5.6690	0.0000	408.5000	↑1271.0000	↑781.9000	437.1000	↑1137.0000
2	20:26:52	97.2%	472.8000	103.9%	297.6000	503.9000	506.9000	2765.0000	↑508.7000	509.0000	17.1600	504.0000	24.8800	5.1650	0.0000	416.3000	↑1284.0000	↑788.8000	443.4000	↑1151.0000
3	20:27:05	99.6%	478.9000	104.5%	300.3000	501.5000	502.0000	2725.0000	↑511.1000	511.5000	16.9900	505.4000	24.3800	5.4350	0.0000	419.5000	↑1290.0000	↑797.0000	450.8000	↑1154.0000
x		98.0%	95.543%	103.2%	297.8000	100.495%	100.562%	2822.0000	↑102.018%	101.574%	16.9800	100.810%	24.5000	5.4230	0.0000	414.8000	↑1282.0000	↑789.2000	443.7000	↑1148.0000
σ		1.4%	n/a	1.7%	2.3450	n/a	n/a	134.9000	↑n/a	n/a	0.1936	n/a	0.3266	0.2518	0.0000	5.6960	↑9.4270	↑7.5360	6.8620	↑8.9030
%RSD		1.4	0.9216	1.6	0.7874	0.2562	0.7449	4.7790	↑0.2436	0.8520	1.1410	0.2563	1.3340	4.6430	0.0000	1.3730	↑0.7355	↑0.9549	1.5460	↑0.7758

Run	Time	103Rh ppb	106Cd ppb	107Ag ppb	108Cd ppb	111Cd ppb	115In ppb	118Sn ppb	121Sb ppb	137Ba ppb	159Tb ppb	165Ho ppb	205Tl ppb	209Bi ppb
1	20:26:39	103.2%	24.2400	66.7100	17.9000	506.2000	0.0000	489.1000	527.4000	521.5000	103.6%	104.4%	↑504.7000	0.0000
2	20:26:52	102.6%	24.4000	67.4700	18.2200	514.5000	0.0000	502.2000	540.6000	524.2000	107.0%	107.3%	↑510.8000	0.0000
3	20:27:05	104.2%	25.2000	67.5300	18.6100	518.7000	0.0000	508.7000	547.1000	533.2000	110.7%	110.8%	↑501.8000	0.0000
x		103.3%	24.6100	103.439%	18.2500	102.624%	0.0000	500.0000	107.673%	105.256%	107.1%	107.5%	↑101.152%	0.0000
σ		0.8%	0.5159	n/a	0.3580	n/a	0.0000	9.9760	n/a	n/a	3.5%	3.2%	↑n/a	0.0000
%RSD		0.8	2.0960	0.6759	1.9620	1.2470	0.0000	1.9950	1.8650	1.1610	3.3	3.0	↑0.9128	0.0000

SEQ-CCB@CCB04 10/19/2016 20:30:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li ppb	9Be ppb	45Sc ppb	47Ti ppb	51V ppb	52Cr ppb	53Cl O ppb	59Co ppb	60Ni ppb	77Se ppb	78Se ppb	82Se ppb	83Kr ppb	89Y ppb	94Mo ppb	95Mo ppb	96Mo ppb	97Mo ppb	98Mo ppb
1	20:30:42	96.0%	0.0682	97.7%	0.0958	0.0555	0.0905	-4.8200	0.0919	0.0083	-0.0199	0.1196	-0.0145	0.4887	0.0000	0.1253	0.4325	0.2791	0.1455	0.4155
2	20:30:55	96.7%	0.1304	99.9%	0.0483	0.0371	0.0809	-0.6454	0.1072	0.0088	-0.0082	0.3952	-0.0041	0.2929	0.0000	0.1424	0.4802	0.2858	0.1727	0.4054
3	20:31:08	97.4%	0.0882	101.0%	0.0749	0.0388	0.1035	-3.4520	0.1096	0.0006	-0.0199	0.2879	-0.0697	0.6498	0.0000	0.1765	0.4585	0.3049	0.1650	0.3991
x		96.7%	0.0956	99.5%	0.0730	0.0438	0.0916	-2.9720	0.1029	0.0059	-0.0160	0.2675	-0.0294	0.4771	0.0000	0.1481	0.4570	0.2899	0.1611	0.4066
σ		0.7%	0.0317	1.7%	0.0238	0.0102	0.0114	2.1280	0.0096	0.0046	0.0068	0.1389	0.0352	0.1787	0.0000	0.0260	0.0239	0.0134	0.0141	0.0083
%RSD		0.7	33.1800	1.7	32.6600	23.2300	12.3900	71.6000	9.3370	77.9700	42.3500	51.9200	119.7000	37.4500	0.0000	17.5800	5.2240	4.6130	8.7240	2.0320

Run	Time	103Rh ppb	106Cd ppb	107Ag ppb	108Cd ppb	111Cd ppb	115In ppb	118Sn ppb	121Sb ppb	137Ba ppb	159Tb ppb	165Ho ppb	205Tl ppb	209Bi ppb
1	20:30:42	100.4%	0.0053	0.0140	0.0095	0.0935	0.0000	0.1343	0.1366	0.0703	101.5%	102.2%	0.1163	0.0000
2	20:30:55	102.0%	0.0293	0.0111	-0.0010	0.1401	0.0000	0.1246	0.1250	0.0906	104.8%	104.3%	0.0957	0.0000
3	20:31:08	102.6%	0.0141	0.0166	0.0077	0.0930	0.0000	0.1324	0.1352	0.0879	104.9%	105.6%	0.0873	0.0000
x		101.7%	0.0162	0.0139	0.0054	0.1088	0.0000	0.1304	0.1323	0.0829	103.7%	104.0%	0.0998	0.0000
σ		1.1%	0.0121	0.0027	0.0056	0.0271	0.0000	0.0052	0.0063	0.0110	1.9%	1.7%	0.0149	0.0000
%RSD		1.1	74.6000	19.7100	104.3000	24.8600	0.0000	3.9610	4.7980	13.3100	1.9	1.6	14.9600	0.0000

Mass Uncorrected ICPS

SEQ-CAL1@S01 10/19/2016 14:24:35

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:24:35	113679.6900	16.6667	135603.8800	40.0001	194.6688	120.6675	82.6670	23.3334	346.6733	6.6667	2.2222	13.3333	3.3333	107646.9100	26.6667	16.6667	33.3334	13.3333	20.0000
2	14:24:48	114874.5700	26.6667	137214.4400	113.3340	185.3352	140.0011	108.6673	10.0000	336.6729	6.6667	4.4444	20.0000	10.0000	110423.2500	13.3333	10.0000	23.3334	26.6667	43.3334
3	14:25:01	114540.3900	26.6667	137468.2300	46.6668	199.3355	128.6676	89.3338	16.6667	426.6767	3.3333	3.3333	23.3334	10.0000	112984.4300	46.6668	23.3334	40.0001	16.6667	30.0000
x̄		114364.8800	23.3334	136762.1800	66.6670	193.1132	129.7787	93.5560	16.6667	370.0076	5.5556	3.3333	18.8889	7.7778	110351.5300	28.8889	16.6667	32.2223	18.8889	31.1112
σ		616.4713	5.7735	1011.1170	40.5521	7.1286	9.7146	13.5046	6.6667	49.3309	1.9245	1.1111	5.0918	3.8490	2669.4815	16.7775	6.6667	8.3887	6.9389	11.7063
%RSD		0.5390	24.7436	0.7393	60.8279	3.6914	7.4855	14.4348	40.0000	13.3324	34.6410	33.3333	26.9564	49.4872	2.4191	58.0757	40.0000	26.0340	36.7353	37.6274

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:24:35	42234.5460	90.0004	10.0000	6.6667	0.0000	192401.3500	56.6668	23.3334	60.0002	148723.3200	146162.2800	26.6667	89175.2380
2	14:24:48	41554.7570	76.6670	10.0000	0.0000	0.0000	196933.5300	70.0003	26.6667	56.6668	152766.2000	148716.5400	20.0000	92238.9120
3	14:25:01	41340.4500	130.0009	10.0000	0.0000	6.6667	199430.4200	110.0007	33.3334	53.3335	158523.5200	152301.8400	23.3334	92363.5010
x̄		41709.9180	98.8895	10.0000	2.2222	2.2222	196255.1000	78.8893	27.7778	56.6668	153337.6800	149060.2200	23.3334	91259.2170
σ		466.8060	27.7559	0.0000	3.8490	3.8490	3563.3059	27.7558	5.0918	3.3334	4925.0301	3084.1733	3.3333	1805.8539
%RSD		1.1192	28.0676	0.0000	173.2051	173.2051	1.8157	35.1833	18.3303	5.8824	3.2119	2.0691	14.2857	1.9788

SEQ-CAL2@S02 10/19/2016 14:28:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	9
1	14:28:41	112481.5900	70.0003	133208.8500	63.3336	1193.4117	664.6910	168.6682	1406.7755	746.6973	13.3333	40.0001	30.0000	13.3333	107825.6800	1960.2113	3700.7531	4027.5586	2166.9249	6025.
2	14:28:54	113980.0800	76.6670	136006.4900	103.3339	1194.7452	642.6894	156.6680	1390.1063	740.0301	6.6667	30.0000	26.6667	10.0000	108938.8300	2036.8948	3890.8324	4087.5854	2313.6277	6072.
3	14:29:07	115694.8700	96.6672	139532.6600	76.6670	1106.7340	636.6890	174.6683	1406.7755	876.7089	13.3333	31.1112	33.3334	10.0000	110591.9500	2280.2859	3960.8627	4200.9704	2436.9933	6368.
x̄		114052.1800	81.1115	136249.3300	81.1115	1164.9636	648.0231	166.6682	1401.2191	787.8121	11.1111	33.7038	30.0000	11.1111	109118.8200	2092.4640	3850.8161	4105.3715	2305.8486	6155.
σ		1607.8542	13.8779	3168.8891	20.3672	50.4327	14.7433	9.1653	9.6240	77.0590	3.8490	5.4810	3.3333	1.9245	1391.8891	167.1164	134.5928	88.0534	135.2021	186.
%RSD		1.4098	17.1097	2.3258	25.1101	4.3291	2.2751	5.4991	0.6868	9.7814	34.6410	16.2623	11.1111	17.3205	1.2756	7.9866	3.4952	2.1451	5.8634	3.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:28:41	41645.1700	143.3345	1046.7269	16.6667	213.3358	193014.1400	6225.4642	1736.8326	2887.1250	151871.4000	149522.9400	1730.1646	90919.0500
2	14:28:54	40985.5150	150.0012	1163.4078	40.0001	216.6693	194025.3300	6599.0609	1743.5005	2970.4852	153701.7700	151661.2600	1933.5389	92636.2550
3	14:29:07	41216.5560	133.3343	1170.0753	30.0000	263.3372	201713.3000	6625.7470	1563.4678	3013.8328	156471.7600	152234.0500	1933.5389	93164.9500
x̄		41282.4140	142.2233	1126.7367	28.8889	231.1141	196250.9200	6483.4240	1681.2669	2957.1477	154014.9800	151139.4200	1865.7475	92240.0850
σ		334.7221	8.3888	69.3708	11.7063	27.9557	4757.5000	223.7979	102.0716	64.3982	2316.1221	1428.9042	117.4182	1174.1936
%RSD		0.8108	5.8984	6.1568	40.5218	12.0961	2.4242	3.4518	6.0711	2.1777	1.5038	0.9454	6.2934	1.2730

SEQ-CAL3@S03 10/19/2016 14:32:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	
1	14:32:44	113210.5500	226.6695	131517.8300	116.6674	2430.9917	1278.7566	228.0029	3217.2358	1393.4401	36.6667	93.3338	56.6668	6.6667	106038.1700	4267.6681	7189.5084	8046.8931	4614.5042	114
2	14:32:57	113217.3000	243.3366	134538.2200	100.0006	2389.6474	1270.0887	262.0038	3240.5775	1560.1339	16.6667	98.8894	33.3334	26.6667	108803.9000	4344.3711	7509.7672	8330.4817	4757.9114	121
3	14:33:10	114250.1000	193.3354	135566.6600	73.3336	2477.0041	1286.7577	246.6700	3263.9192	1503.4576	13.3333	58.8891	46.6668	0.0000	110426.6200	4557.8089	7636.5394	8477.2840	5088.0901	120
x̄		113559.3200	221.1138	133874.2400	96.6672	2432.5477	1278.5343	245.5589	3240.5775	1485.6772	22.2223	83.7041	45.5557	11.1111	108422.9000	4389.9494	7445.2717	8284.8863	4820.1686	118
σ		598.2459	25.4594	2104.4957	21.8584	43.6991	8.3367	17.0277	23.3417	84.7574	12.6198	21.6692	11.7063	13.8778	2218.8953	150.3445	230.3886	218.7882	242.8536	3
%RSD		0.5268	11.5141	1.5720	22.6120	1.7964	0.6521	6.9343	0.7203	5.7050	56.7892	25.8879	25.6968	124.9000	2.0465	3.4247	3.0944	2.6408	5.0383	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:32:44	41430.8600	143.3345	2323.6303	63.3336	613.3540	188528.1300	12081.3560	3794.1249	6742.4994	150902.1200	147341.0900	4274.3379	89680.1680
2	14:32:57	41424.1630	196.6688	2637.0491	40.0001	623.3547	195397.5800	12882.4550	4004.2150	6792.5367	152084.9200	148790.4300	4210.9751	92114.3250
3	14:33:10	42077.1520	166.6682	2670.3921	40.0001	563.3508	196827.9500	12819.0320	3927.5149	7099.4377	154084.8400	151949.3500	4607.8341	93006.6750
x̄		41644.0590	168.8905	2543.6905	47.7779	600.0198	193584.5500	12594.2810	3908.6183	6878.1579	152357.3000	149346.9500	4364.3824	91600.3900
σ		375.0848	26.7365	191.3056	13.4716	32.1476	4437.0107	445.3365	106.3121	193.2601	1608.7490	2361.3358	213.2025	1721.7752
%RSD		0.9007	15.8307	7.5208	28.1963	5.3578	2.2920	3.5360	2.7199	2.8098	1.0559	1.5811	4.8851	1.8797

SEQ-CAL4@S04 10/19/2016 14:36:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	14:36:45	111438.8600	380.0079	132397.1300	60.0002	4515.1210	2456.3318	418.6763	6385.5752	1703.4929	33.3334	160.0014	76.6670	26.6667	106446.2300	10022.1880	17737.2870	19310.4870	11233.6030
2	14:36:58	113983.4500	476.6792	134734.4200	66.6669	4625.8433	2435.6596	366.6741	6629.0827	1823.5162	40.0001	157.7792	110.0007	13.3333	108230.4500	10512.7420	18839.5010	20456.3230	11644.1190
3	14:37:11	113740.4400	380.0079	134890.0400	40.0001	4612.5032	2499.6769	375.3411	6699.1341	1860.1903	33.3334	164.4459	83.3337	26.6667	110976.5900	10906.5380	19263.7220	20870.5960	11941.1710
x̄		113054.2500	412.2317	134007.2000	55.5557	4584.4891	2463.8894	386.8972	6571.2640	1795.7331	35.5556	160.7422	90.0005	22.2223	108551.0900	10480.4890	18613.5030	20212.4690	11606.2980
σ		1404.2346	55.8132	1396.5316	13.8779	60.4438	32.6710	27.8606	164.5814	81.9600	3.8490	3.3946	17.6385	7.6980	2282.1369	443.0565	787.9132	808.1358	355.2969
%RSD		1.2421	13.5393	1.0421	24.9801	1.3184	1.3260	7.2010	2.5046	4.5642	10.8253	2.1118	19.5983	34.6410	2.1024	4.2274	4.2330	3.9982	3.0612

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:36:45	41303.6170	196.6688	5048.0678	116.6674	1216.7481	189341.4400	30390.7130	7386.3328	13082.7400	148841.9000	145955.6700	8307.1271	89791.2570
2	14:36:58	41253.3890	243.3366	5381.5924	83.3337	1146.7390	194961.7100	30979.3620	7603.1781	13556.7670	152166.2700	149055.3600	8704.1649	92104.2240
3	14:37:11	42261.3370	196.6688	5434.9575	100.0006	1196.7454	197066.3600	32902.7680	7583.1614	13950.6960	155579.9900	152091.7000	8670.7997	93201.9940
x̄		41606.1140	212.2247	5288.2059	100.0006	1186.7442	193789.8400	31424.2810	7524.2241	13530.0680	152196.0500	149034.2400	8560.6973	91699.1580
σ		567.9947	26.9437	209.6704	16.6669	36.0602	3993.5677	1313.8000	119.8361	434.5934	3369.1400	3068.0689	220.2310	1741.0745
%RSD		1.3652	12.6958	3.9649	16.6668	3.0386	2.0608	4.1808	1.5927	3.2121	2.2137	2.0586	2.5726	1.8987

SEQ-CAL5@S05 10/19/2016 14:40:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	14:40:46	110635.8100	4134.2732	129816.9800	10215.7370	8844.3001	11904.4560	1545.4647	63598.3530	13990.7570	106.6673	324.4502	136.6677	6.6667	104133.0100	25218.2630	44297.6630	48562.6960	2782
2	14:40:59	112009.1400	4170.9566	132978.8600	10539.4390	8937.0574	11903.7880	1551.4657	64484.5630	14337.9650	110.0007	297.7827	160.0014	3.3333	108034.8100	26735.9230	46927.4750	50918.8690	2938
3	14:41:13	113963.2000	3910.8410	135197.9000	10953.2610	8972.4256	12028.6190	1564.1345	66589.6570	14518.2500	143.3345	310.0053	180.0018	20.0000	110038.6300	26993.3490	47828.8210	52008.3430	3024
x̄		112202.7200	4072.0236	132664.5800	10569.4790	8917.9277	11945.6210	1553.6883	64890.8570	14282.3240	120.0008	310.7461	158.8903	10.0000	107402.1500	26315.8450	46351.3200	50496.6360	2915
σ		1672.1210	140.7881	2704.1896	369.6788	66.1702	71.8792	9.5313	1536.4836	268.1120	20.2762	13.3492	21.6884	8.8192	3003.2127	959.2092	1834.7302	1761.2017	122
%RSD		1.4903	3.4574	2.0384	3.4976	0.7420	0.6017	0.6135	2.3678	1.8772	16.8967	4.2959	13.6499	88.1918	2.7962	3.6450	3.9583	3.4878	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:40:46	40791.3110	1046.7269	6572.3749	760.0318	11226.9280	188742.5100	38327.2910	37132.3470	13015.9780	149871.9500	147605.3200	85237.7360	89700.3660
2	14:40:59	41397.3750	1180.0766	6585.7179	760.0318	11767.6110	193623.5600	39334.9140	38913.1050	13359.8090	153152.6200	149028.2500	87610.1300	92312.9920
3	14:41:13	41340.4500	1043.3932	6996.0242	870.0416	12181.4890	196623.6000	39726.6120	39381.7830	13997.4340	154773.0500	151078.3400	89114.6480	95061.0950
x̄		41176.3790	1090.0656	6718.0390	796.7017	11725.3430	192996.5600	39129.6060	38475.7450	13457.7410	152599.2100	149237.3100	87320.8380	92358.1510
σ		334.6907	77.9696	240.8347	63.5142	478.6822	3977.7810	721.8994	1186.7830	498.0031	2496.9767	1745.9245	1954.5787	2680.6499
%RSD		0.8128	7.1527	3.5849	7.9721	4.0825	2.0611	1.8449	3.0845	3.7005	1.6363	1.1699	2.2384	2.9025

SEQ-CAL6@S06 10/19/2016 14:44:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96M
1	14:44:47	111766.1800	18862.8830	128816.2300	49926.7220	43003.4710	57396.6200	7286.2521	312041.6600	65720.0290	406.6758	1589.0278	696.6934	20.0000	104294.8500	126943.4900	222151.5600	241923.38
2	14:45:00	112015.8900	19283.7640	131162.7600	51404.9260	42982.0370	57459.6830	7223.5354	318544.8000	68010.1140	526.6819	1490.1221	720.0285	13.3333	106142.7200	130743.4500	230604.8600	249178.79
3	14:45:13	113126.1800	19945.1890	131128.9400	51629.5270	43114.6630	57554.9500	7204.1867	325598.2000	69182.2420	410.0093	1491.2334	753.3646	33.3334	108925.3400	134978.0000	236154.6300	258212.37
x		112302.7500	19363.9450	130369.3100	50987.0580	43033.3900	57470.4160	7237.9914	318728.2200	67637.4620	447.7890	1523.4611	723.3621	22.2223	106454.3000	130888.3100	229637.0200	249771.51
σ		723.9588	545.5901	1345.1139	925.1195	71.1952	79.7088	42.9000	6780.1326	1760.9320	68.3436	56.7851	28.4823	10.1835	2330.9193	4019.2102	7051.5295	8160.65
%RSD		0.6446	2.8176	1.0318	1.8144	0.1654	0.1387	0.5927	2.1272	2.6035	15.2625	3.7274	3.9375	45.8258	2.1896	3.0707	3.0707	3.26

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:44:47	40727.6940	5264.8574	32765.6080	3920.8453	56746.5580	188497.5000	187878.2100	184493.2700	65095.5610	150037.9900	147527.4000	429627.5400	90848.3480
2	14:45:00	40761.1770	5555.0300	33083.4220	3840.8112	58222.5140	195397.5800	196426.0600	191403.9600	67788.4680	155257.8800	151607.0400	449900.4200	93831.7560
3	14:45:13	40710.9520	5408.2749	35107.6590	3920.8453	59846.3410	200115.2200	200820.5200	195169.4300	69074.7630	158414.9900	153200.0800	454742.6400	94138.2330
x		40733.2740	5409.3875	33652.2300	3894.1673	58271.8040	194670.1000	195041.6000	190355.5500	67319.5970	154570.2900	150778.1700	444756.8700	92939.4460
σ		25.5730	145.0895	1270.4166	46.2077	1550.4790	5842.9259	6581.2920	5414.7433	2030.6138	4230.6140	2925.7600	13324.1940	1817.4155
%RSD		0.0628	2.6822	3.7751	1.1866	2.6608	3.0014	3.3743	2.8445	3.0164	2.7370	1.9404	2.9958	1.9555

SEQ-CAL7@S07 10/19/2016 14:48:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	14:48:47	108621.7400	192030.3000	127578.9600	499129.3900	422507.9000	570658.4300	70483.5140	r3114359.9000	665581.1400	4557.8089	14787.5730	7316.2762	83.3337	102201.2700	1295027.1000	2328466.70
2	14:49:00	109778.8500	196235.3400	130317.4000	514110.6200	428813.7700	576200.1100	70580.2600	r3183259.7000	684817.3600	4357.7108	15121.4550	7046.0629	100.0006	106810.4700	1367367.1000	r2413072.20
3	14:49:13	110598.7000	197182.1700	132048.7800	525021.8100	425627.8400	579099.9500	71259.5290	r3231288.7000	694775.3600	4494.4441	15425.2980	7076.0862	106.6673	108439.5900	1382314.9000	r2431342.50
x		109666.4300	195149.2700	129981.7100	512753.9400	425649.9400	575319.5000	70774.4340	r3176302.8000	681724.6200	4469.9879	15111.4420	7146.1417	96.6672	105817.1100	1348236.4000	r2390960.50
σ		993.2610	2742.2824	2253.7363	12999.4140	3152.9927	4289.1073	422.8798	r58774.0140	14840.8020	102.2663	318.9804	148.1035	12.0186	3235.6174	46682.7340	r54886.76
%RSD		0.9057	1.4052	1.7339	2.5352	0.7407	0.7455	0.5975	r1.8504	2.1769	2.2878	2.1109	2.0725	12.4330	3.0577	3.4625	r2.29

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:48:47	40660.7280	49259.7650	327404.7100	38360.7650	568904.1000	209510.0300	1979381.2000	1963904.4000	674152.8200	153854.3200	152264.5600	r4616702.1000	96374.8190
2	14:49:00	41186.4200	52574.9220	343426.5400	40456.4870	604344.9200	217238.2700	2092523.6000	2048271.6000	705578.3600	160378.9700	158292.8900	r4730809.2000	100303.6400
3	14:49:13	40747.7830	53577.4160	351562.1600	40543.5400	618367.0000	222281.3400	2158639.9000	2118714.9000	725891.2300	163442.8200	161396.7500	r4854827.2000	103215.9700
x		40864.9770	51804.0340	340797.8100	39786.9310	597212.0100	216343.2100	2076848.2000	2043630.3000	701874.1400	159225.3700	157318.0700	r4734112.8000	99964.8110
σ		281.7601	2259.6965	12291.3940	1235.8625	25500.9450	6432.5316	90651.5950	77509.5140	26067.3510	4897.2370	4643.4846	r119096.9500	3433.1390
%RSD		0.6895	4.3620	3.6067	3.1062	4.2700	2.9733	4.3649	3.7927	3.7140	3.0757	2.9517	r2.5157	3.4343

SEQ-CAL8@S08 10/19/2016 14:52:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94M
1	14:52:47	107363.5900	u377397.6300	123743.1500	973649.4300	836654.5000	1130753.0000	137271.9600	r6039775.7000	1295631.5000	8627.4252	29214.6450	13883.9270	206.6690	100917.0400	r2594887.80
2	14:52:59	109070.4000	384339.5800	128157.0100	1011043.1000	u840755.5300	u1141713.8000	138059.7600	r6176580.5000	1340771.4000	8767.5592	u29609.2520	13696.9770	163.3348	102892.3300	r2672708.50
3	14:53:13	109013.0500	388511.4100	129576.9300	1026083.2000	u840047.7000	u1144993.0000	139257.1500	r6274609.3000	u1357056.6000	9261.3818	29717.3810	13737.0380	166.6682	105265.9400	r2731939.80
x		108482.3500	u383416.2100	127159.0300	1003591.9000	u839152.5800	u1139153.3000	138196.2900	r6163655.2000	u1331153.2000	8885.4554	u29513.7590	13772.6470	178.8907	103025.1100	r2666512.00
σ		969.2931	u5614.1330	3042.2352	26999.3660	u2192.1541	u7457.3137	999.6103	r117949.1400	u31822.0540	333.0164	u264.6226	98.4307	24.1144	2177.4883	r68735.76
%RSD		0.8935	u1.4642	2.3925	2.6903	u0.2612	u0.6546	0.7233	r1.9136	u2.3906	3.7479	u0.8966	0.7147	13.4800	2.1136	r2.57

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:52:47	40449.7900	100785.6000	655925.8500	75233.3540	1139022.1000	228960.7400	r3889292.8000	r3775127.8000	r1344918.8000	157051.6400	152166.2700	m9454915.9000	99393.7300
2	14:52:59	39545.8260	102868.7300	679209.1700	77683.8340	u1193206.7000	236110.1700	r3979924.4000	m3939427.9000	r1395031.5000	161932.8300	159110.3100	m9741001.3000	103064.2600
3	14:53:13	40366.0860	105980.8400	u691984.0500	80134.9720	u1232668.1000	240417.5500	r4087038.0000	m4006108.8000	m1423260.7000	164074.0400	161898.9000	m9853902.8000	105987.5900
x		40120.5680	103211.7200	u675706.3600	77684.0530	u1188299.0000	235162.8200	r3985418.4000	m3906888.2000	m1387737.0000	161019.5000	157725.1600	m9683273.3000	102815.1900
σ		499.4971	2614.5518	u18282.5250	2450.8093	u47015.4940	5786.8544	r98987.0370	m118878.8600	m39677.0840	3599.1894	5011.9860	m205662.3800	3303.9773
%RSD		1.2450	2.5332	u2.7057	3.1548	u3.9565	2.4608	r2.4837	m3.0428	m2.8591	2.2353	3.1777	m2.1239	3.2135

SEQ-ICV@ICV01 10/19/2016 14:56:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96M
1	14:56:47	107845.9200	38082.9340	120348.0300	163.3348	84587.7070	112744.8200	13887.2660	602117.4900	125686.2000	1976.8816	6147.6335	2927.1378	46.6668	100964.2300	11196.8910	18629.0680	19918.46
2	14:57:00	109525.8200	37530.6440	123510.0200	223.3361	84522.4380	113803.2200	14049.5150	622315.2800	130760.3600	1960.2113	6259.9323	2860.4499	30.0000	103229.4600	11437.1900	19754.7740	21221.40
3	14:57:13	108264.1800	37939.0000	125784.2100	270.0040	85879.0630	113982.7800	14283.8790	638762.6700	135150.5300	1870.1923	6307.7431	2917.1346	83.3337	105620.0100	10846.4670	19834.9480	21826.17
x		108545.3100	37850.8590	123214.0900	218.8916	84996.4030	113510.2700	14073.5530	621065.1500	130532.3600	1935.7617	6238.4363	2901.5741	53.3335	103271.2300	11160.1830	19406.2630	20988.68
σ		874.5257	286.5006	2730.1473	53.4733	765.1028	668.9541	199.3966	18354.5470	4736.2813	57.3932	82.1908	35.9641	27.2847	2326.1739	297.0676	674.2637	974.91
%RSD		0.8057	0.7569	2.2158	24.4291	0.9002	0.5893	1.4168	2.9553	3.6284	2.9649	1.3175	1.2395	51.1586	2.2544	2.6619	3.4745	4.64

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:56:47	41075.9220	9915.4044	510068.8900	7262.9001	113828.1900	186119.2500	1070.0630	738245.7600	134294.6600	155874.9800	153569.5700	r1963362.8000	96243.4380
2	14:57:00	40272.3390	10766.3720	524033.8400	7666.5647	116549.0100	189470.7600	993.3876	776555.2000	140118.2300	160891.2400	158581.1800	r2000717.3000	98830.9780
3	14:57:13	40476.5760	10245.7700	530245.6200	7786.6667	119476.6500	195264.7800	1113.4015	797740.2600	143605.3500	161664.7800	160304.3400	r2041974.9000	101999.0200
x		40608.2790	10309.1820	521449.4500	7572.0438	116617.9500	190284.9300	1058.9507	770847.0700	139339.4100	159477.0000	157485.0300	r2002018.4000	99024.4780
σ		417.6671	429.0129	10333.6580	274.3784	2824.8583	4626.8048	60.7737	30155.1970	4703.9530	3143.3305	3498.6362	r39322.2260	2882.6642
%RSD		1.0285	4.1615	1.9817	3.6236	2.4223	2.4315	5.7391	3.9120	3.3759	1.9710	2.2216	r1.9641	2.9111

SEQ-ICB@ICB01 10/19/2016 15:00:50 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:00:50	107130.8700	30.0000	121422.1700	80.0004	198.6688	150.0012	91.3338	106.6673	373.3410	6.6667	10.0000	26.6667	3.3333	99144.3630	120.0008	196.6688	256.6703	126.6676	333.3394
2	15:01:03	106473.2100	30.0000	123287.0200	63.3336	218.0026	148.6679	94.0005	226.6695	363.3406	3.3333	7.7778	23.3334	10.0000	102285.5400	160.0014	216.6693	243.3366	163.3348	356.6737
3	15:01:17	108679.0900	36.6667	124895.4200	76.6670	209.3357	160.6681	92.6671	190.0020	360.0071	6.6667	6.6667	16.6667	6.6667	103337.3400	166.6682	286.6712	236.6698	210.0024	466.6786
x		107427.7200	32.2223	123201.5400	73.3336	208.6691	153.1124	92.6671	174.4463	365.5629	5.5556	8.1482	22.2222	6.6667	101589.0800	148.8901	233.3364	245.5589	166.6683	385.5639
σ		1132.5015	3.8490	1738.2005	8.8192	9.6841	6.5773	1.3333	61.4949	6.9392	1.9245	1.6973	5.0918	3.3333	2181.5254	25.2400	47.2594	10.1838	41.7673	71.2097
%RSD		1.0542	11.9452	1.4109	12.0262	4.6409	4.2957	1.4389	35.2515	1.8982	34.6410	20.8299	22.9129	50.0000	2.1474	16.9521	20.2538	4.1472	25.0602	18.4690

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:00:50	39766.7870	113.3340	146.6679	6.6667	26.6667	179970.6200	293.3381	486.6797	63.3336	150908.9000	148350.6400	496.6802	93026.8800
2	15:01:03	40141.7630	80.0004	86.6671	3.3333	20.0000	185292.6200	363.3406	493.3467	103.3339	152878.0600	151851.0600	536.6825	95182.3540
3	15:01:17	39709.8720	100.0006	93.3338	0.0000	23.3334	188487.2900	326.6725	520.0149	120.0008	155437.5800	155434.1900	496.6802	95522.5610
x		39872.8070	97.7783	108.8896	3.3333	23.3334	184583.5100	327.7837	500.0138	95.5561	153074.8500	151878.6300	510.0143	94577.2650
σ		234.6542	16.7776	32.8863	3.3333	3.3333	4302.3876	35.0145	17.6393	29.1233	2270.7462	3541.8569	23.0953	1353.4050
%RSD		0.5885	17.1588	30.2015	100.0000	14.2857	2.3309	10.6822	3.5278	30.4777	1.4834	2.3320	4.5284	1.4310

SEQ-IFA@ICSA01 10/19/2016 15:04:53 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	15:04:53	99090.4460	143.3345	122161.9800	815322.1200	260.6704	22715.6780	2795.7632	7953.4777	7359.6445	6.6667	5.5556	13.3333	16.6667	99676.8040	2044199.4000	r3676289.3000	r4020442.5000
2	15:05:05	101240.6100	133.3343	128346.3200	858059.7000	286.6712	22882.0950	2855.1149	8373.8549	8113.6191	6.6667	8.8889	13.3333	23.3334	104311.7000	2171518.1000	r3850611.3000	r4184855.8000
3	15:05:19	100994.5600	133.3343	130543.9500	889874.3700	266.6706	22739.0700	2963.8164	8523.9943	8156.9912	3.3333	10.0000	16.6667	20.0000	106115.7400	r2239167.2000	r3957354.6000	r4319169.0000
x		100441.8700	136.6677	127017.4200	854418.7300	271.3374	22778.9470	2871.5648	8283.7756	7876.7516	5.5556	8.1482	14.4445	20.0000	103368.0800	r2151628.3000	r3878085.1000	r4174822.4000
σ		1176.8176	5.7736	4346.1258	37409.2510	13.6141	90.0905	85.2257	295.7330	448.3526	1.9245	2.3130	1.9245	3.3333	3321.5627	r98994.0160	r141880.1900	r149615.7800
%RSD		1.1716	4.2245	3.4217	4.3783	5.0174	0.3955	2.9679	3.5700	5.6921	34.6410	28.3864	13.3235	16.6667	3.2133	r4.6009	r3.7063	r3.5838

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:04:53	35813.7390	96.6672	70.0003	1610.1426	2080.2380	178094.2100	663.3575	4317.6918	2517.0151	144739.8000	141892.0900	213.3358	85594.3970
2	15:05:05	35800.3530	103.3339	70.0003	1776.8403	2090.2403	186615.9400	683.3590	4170.9566	2710.4040	150570.0200	146809.2500	240.0032	88889.1230
3	15:05:19	35964.3320	153.3346	83.3337	1650.1498	1960.2113	191774.9900	776.6998	4447.7544	2710.4040	155627.4600	152020.5200	226.6695	91296.1340
x		35859.4750	117.7786	74.4448	1679.0442	2043.5632	185495.0500	707.8055	4312.1343	2645.9410	150312.4200	146907.2900	226.6695	88593.2180
σ		91.0553	30.9723	7.6981	87.0241	72.3579	6908.9251	60.4966	138.4826	111.6532	5448.3995	5064.9267	13.3337	2862.3625
%RSD		0.2539	26.2971	10.3406	5.1830	3.5408	3.7246	8.5471	3.2115	4.2198	3.6247	3.4477	5.8824	3.2309

SEQ-IFB@ICSA01 10/19/2016 15:08:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	15:08:52	96192.9070	7756.6410	134013.8900	882182.8300	17727.2670	45729.3930	5637.7476	134338.6300	34307.9480	186.6686	561.1284	260.0037	16.6667	106365.2900	2189478.8000	r3913059.3000	r4260340
2	15:09:05	97419.1960	7963.4864	136040.3200	911883.3600	17834.8110	46065.7510	5795.8470	140155.4600	35786.9670	166.6682	578.9073	223.3361	16.6667	109738.3600	r2290238.8000	r3999456.6000	r4391577
3	15:09:18	95775.1990	7936.7964	140114.8500	938911.3100	18134.7360	45751.5040	5813.8585	143066.9600	36399.3910	206.6690	536.6825	273.3374	20.0000	113311.8000	r2323093.0000	r4113562.9000	r4490029
x		96462.4340	7885.6413	136723.0200	910992.5000	17898.9380	45848.8830	5749.1510	139187.0200	35498.1020	186.6686	558.9061	252.2258	17.7778	109805.1500	r2267603.5000	r4008692.9000	r4380649
σ		854.4969	112.5117	3107.2443	28374.7290	211.1683	188.1389	96.8976	4444.0235	1075.2282	20.0004	21.1999	25.8922	1.9245	3473.7356	r69623.6440	r100570.3600	r115233
%RSD		0.8858	1.4268	2.2727	3.1147	1.1798	0.4103	1.6854	3.1928	3.0290	10.7144	3.7931	10.2655	10.8253	3.1635	r3.0704	r2.5088	r2

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:08:52	36710.6390	2060.2334	94370.6240	3087.1908	24121.9600	191165.6900	686.6926	79058.9460	29989.3840	149485.6700	144685.6100	167685.7200	87637.0540
2	15:09:05	36914.7970	2283.6201	97405.7190	3407.3051	25268.4020	194876.5800	683.3590	81961.1450	31360.6660	153901.7800	150556.4600	175056.0500	90673.2800
3	15:09:18	36576.7680	2150.2543	100057.6200	3413.9743	25368.6800	199665.5000	700.0270	84908.0060	32728.8090	157272.0600	154813.7400	180531.5800	92077.2860
x		36734.0680	2164.7026	97277.9880	3302.8234	24919.6810	195235.9200	690.0262	81976.0320	31359.6190	153553.1700	150018.6000	174424.4500	90129.2070
σ		170.2280	112.3920	2845.6491	186.7731	692.6632	4261.2812	8.8198	2924.5583	1369.7129	3904.3843	5085.4417	6446.1814	2269.5653
%RSD		0.4634	5.1920	2.9253	5.6550	2.7796	2.1826	1.2782	3.5676	4.3678	2.5430	3.3899	3.6957	2.5181

SEQ-CCV@CCV01 10/19/2016 15:12:53 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	15:12:53	102622.6400	214531.7900	146202.9300	558391.4100	472191.3000	636130.0100	78301.0960	r3506568.8000	742375.9500	5018.0512	16939.1000	8093.6012	140.0011	115465.3100	1415953.7000	r2502857.2
2	15:13:06	102740.6300	218047.3000	149665.2600	575237.9600	474184.4700	635535.8700	78141.7330	r3601069.0000	779549.2200	5111.4366	17048.1920	8123.6280	156.6680	120189.2800	1475670.7000	r2604274.1
3	15:13:19	103873.3900	218463.7900	153064.4900	590874.5700	472777.9800	639358.4400	78335.3890	r3666421.5000	784292.2900	4894.6506	17404.4220	7986.8402	126.6676	120452.7400	1500541.4000	r2645044.5
x		103078.8900	217014.2900	149644.2300	574834.6500	473051.2500	637008.1100	78259.4060	r3591353.1000	768739.1500	5008.0461	17130.5720	8068.0232	141.1122	118702.4400	1464055.3000	r2584058.6
σ		690.5860	2159.9693	3430.8283	16245.3380	1024.2970	2057.0132	103.3401	r80368.0490	22954.0410	108.7387	243.3535	71.8916	15.0311	2806.5309	43473.6510	r73217.5
%RSD		0.6700	0.9953	2.2927	2.8261	0.2165	0.3229	0.1320	r2.2378	2.9859	2.1713	1.4206	0.8911	10.6519	2.3643	2.9694	r2.8

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:12:53	44076.5930	55005.9090	363321.2300	41383.9810	631118.8500	230307.4600	r2086048.3000	2132965.6000	732594.9400	162451.9600	157801.1100	r4687365.1000	97314.7530
2	15:13:06	44475.1940	58457.3470	376039.7300	44069.8940	659508.2900	238036.0900	r2167806.4000	2236570.8000	764299.0000	168086.3500	163554.8100	r4825748.7000	102066.4300
3	15:13:19	43932.5650	59517.5260	385163.3700	45888.8600	677050.0300	244480.4400	2323085.3000	2297797.9000	784114.5600	169308.7200	166395.6700	r4902991.7000	104706.2000
x		44161.4500	57660.2610	374841.4400	43780.9120	655892.3900	237608.0000	r2192313.3000	2222444.8000	760336.1700	166615.6800	162583.8600	r4805368.5000	101362.4600
σ		281.0910	2359.0639	10970.2650	2266.3003	23178.0980	7096.1801	r120403.8000	83319.1360	25987.4180	3657.3117	4378.7723	r109248.4400	3745.6718
%RSD		0.6365	4.0913	2.9266	5.1765	3.5338	2.9865	r5.4921	3.7490	3.4179	2.1951	2.6932	r2.2735	3.6953

SEQ-CCB@CCB01 10/19/2016 15:16:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:16:55	100735.0400	46.6668	136977.5700	136.6677	306.0052	228.0029	117.3341	243.3366	523.3484	0.0000	10.0000	20.0000	20.0000	111415.2400	453.3446	656.6904	756.6982	406.6758	1196.7454
2	15:17:08	100482.2700	40.0001	142978.9200	133.3343	313.3387	244.6700	125.3342	346.6733	493.3467	10.0000	10.0000	10.0000	20.0000	114969.0800	456.6781	743.3637	730.0293	420.0097	1150.0727
3	15:17:21	102690.0600	33.3334	142924.7500	133.3343	306.0052	266.6706	124.6675	356.6737	556.6837	0.0000	7.7778	26.6667	23.3334	115870.4200	473.3457	700.0270	816.7034	443.3441	1130.0702
x		101302.4600	40.0001	140960.4200	134.4454	308.4497	246.4478	122.4453	315.5612	524.4596	3.3333	9.2593	18.8889	21.1111	114084.9100	461.1228	700.0270	767.8103	423.3432	1158.9628
σ		1208.3317	6.6667	3449.3483	1.9245	4.2340	19.3951	4.4389	62.7479	31.6831	5.7735	1.2830	8.3887	1.9245	2355.5171	10.7157	43.3367	44.3926	18.5601	34.2151
%RSD		1.1928	16.6667	2.4470	1.4315	1.3727	7.8698	3.6252	19.8845	6.0411	173.2051	13.8564	44.4108	9.1161	2.0647	2.3238	6.1907	5.7817	4.3842	2.9522

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:16:55	43600.9740	120.0008	50.0001	16.6667	66.6669	198265.3500	470.0122	330.0060	106.6673	153359.4000	150454.8000	670.0247	91599.1590
2	15:17:08	43028.2550	106.6673	30.0000	3.3333	46.6668	203134.4200	516.6814	303.3384	63.3336	157777.3700	151234.2400	743.3637	92892.1800
3	15:17:21	44167.0300	96.6672	73.3336	16.6667	56.6668	204259.2100	513.3478	293.3381	140.0011	158828.7800	154783.2300	576.6850	94663.6470
x		43598.7530	107.7784	51.1113	12.2222	56.6668	201886.3300	500.0138	308.8942	103.3340	156655.1800	152157.4200	663.3578	93051.6620
σ		569.3908	11.7064	21.6881	7.6980	10.0001	3185.8899	26.0356	18.9548	38.4423	2902.2437	2307.1673	83.5391	1538.4561
%RSD		1.3060	10.8616	42.4332	62.9837	17.6471	1.5781	5.2076	6.1363	37.2020	1.8526	1.5163	12.5934	1.6533

SEQ-CCV@CCV02 10/19/2016 16:57:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	16:57:33	103849.7900	189637.5100	121162.0700	463831.6700	418422.6500	563816.0000	69209.7840	r2952239.9000	633538.7800	4631.1793	14897.7520	6935.9783	120.0008	99757.6840	1226976.4000	2211571.700
2	16:57:46	103600.3100	193340.9700	121408.6600	477871.5400	420982.1800	565057.6500	69234.6390	r3020235.1000	647799.7400	4721.2256	14963.4160	6969.3371	120.0008	101146.2300	1257723.8000	2268726.100
3	16:57:59	103927.3400	192210.7200	122989.7000	481509.5000	423871.9200	570461.2800	70200.6720	r3049101.3000	661434.2800	4787.9272	15188.2320	7089.4299	130.0009	102393.4100	1289937.3000	r2281322.300
x		103792.4800	191729.7400	121853.4800	474404.2400	421092.2500	566444.9800	69548.3650	r3010525.4000	647590.9300	4713.4440	15016.4670	6998.2484	123.3342	101099.1100	1258212.5000	r2253873.400
σ		170.8848	1898.0021	991.6927	9335.0443	2726.3016	3533.1926	565.0509	r44237.2390	13948.9190	78.6631	152.3335	80.7078	5.7736	1318.4962	31483.2580	r37171.739
%RSD		0.1646	0.9899	0.8138	1.9677	0.6474	0.6237	0.8125	r1.4694	2.1540	1.6689	1.0144	1.1533	4.6813	1.3042	2.5022	r1.649

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:57:33	39395.1740	49410.5800	316929.8000	37011.8570	551446.1100	199907.3900	1869999.8000	1872959.8000	654594.8600	150851.2900	146009.8600	r4535433.4000	92477.9890
2	16:57:46	39314.8280	50633.9510	329377.4200	37704.6950	573208.9600	208855.2100	1961289.8000	1960782.5000	681781.4200	156173.3700	152434.0300	r4667768.3000	98248.0440
3	16:57:59	39227.7860	51693.2200	335861.6400	39070.4440	588678.7600	212235.5000	2005860.2000	2013790.3000	696949.3500	158367.5000	155434.1900	r4753369.1000	98298.5860
x		39312.5960	50579.2500	327389.6200	37928.9990	571111.2700	206999.3700	1945716.6000	1949177.5000	677775.2100	155130.7200	151292.6900	r4652190.3000	96341.5400
σ		83.7164	1142.3029	9621.1823	1047.4633	18704.7550	6370.1382	69256.0740	71128.8250	21459.5640	3865.0628	4814.7139	r109799.8200	3346.0281
%RSD		0.2130	2.2584	2.9388	2.7616	3.2752	3.0774	3.5594	3.6492	3.1662	2.4915	3.1824	r2.3602	3.4731

SEQ-CCB@CCB02 10/19/2016 17:01:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:01:37	102649.6100	53.3335	118004.2700	123.3342	273.3374	198.0022	99.3339	470.0122	406.6758	6.6667	3.3333	10.0000	16.6667	95337.2980	416.6762	726.6957	763.3654	393.3418	1030.0584
2	17:01:50	102949.6400	26.6667	119604.9900	183.3352	272.6708	224.6694	106.6673	510.0143	396.6753	0.0000	11.1111	13.3333	26.6667	98726.5190	430.0102	610.0205	676.6919	373.3410	1023.3909
3	17:02:03	103563.2200	50.0001	120793.8800	120.0008	282.0044	215.3359	112.6674	413.3427	450.0111	13.3333	5.5556	13.3333	16.6667	100839.5200	416.6762	743.3637	623.3547	430.0102	1186.7441
x		103054.1600	43.3334	119467.7100	142.2234	276.0042	212.6692	106.2228	464.4564	417.7874	6.6667	6.6667	12.2222	20.0000	98301.1130	421.1209	693.3600	687.8040	396.8977	1080.0645
σ		465.6848	14.5297	1399.8641	35.6429	5.2070	13.5322	6.6778	48.5747	28.3510	6.6667	4.0062	1.9245	5.7735	2775.6700	7.6984	72.6537	70.6637	28.7402	92.4474
%RSD		0.4519	33.5301	1.1718	25.0612	1.8866	6.3630	6.2866	10.4584	6.7860	100.0000	60.0925	15.7459	28.8675	2.8236	1.8281	10.4785	10.2738	7.2049	8.5594

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:01:37	39552.5220	140.0011	80.0004	13.3333	83.3337	176150.2100	530.0154	326.6725	156.6680	146016.6400	143117.7500	723.3621	90659.8130
2	17:01:50	39642.9140	116.6674	63.3336	10.0000	110.0007	177434.8400	556.6837	340.0064	160.0014	151041.0700	147872.9500	710.0277	91575.5900
3	17:02:03	40627.2460	113.3340	46.6668	6.6667	103.3339	184578.3100	460.0116	356.6737	120.0008	150891.9500	147317.3700	706.6941	93757.6640
x		39940.8940	123.3342	63.3336	10.0000	98.8894	179387.7900	515.5703	341.1175	145.5567	149316.5500	146102.6900	713.3613	91997.6890
σ		596.1138	14.5299	16.6668	3.3333	13.8779	4540.7804	49.9286	15.0314	22.1948	2858.7823	2599.9176	8.8199	1591.4758
%RSD		1.4925	11.7809	26.3159	33.3333	14.0338	2.5313	9.6842	4.4065	15.2482	1.9146	1.7795	1.2364	1.7299

SEQ-CCV@CCV03 10/19/2016 18:42:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	18:42:33	112353.3500	203758.1500	133039.7400	517420.7200	447578.5800	601932.4900	73879.6530	r 3293169.0000	701363.5400	4691.2101	15876.0730	7833.3734	116.6674	108564.3900	1332504.6000	r 2414031.7
2	18:42:47	112515.3300	206635.3400	136808.3900	531778.0300	450231.5600	605416.8300	73800.3460	r 3350920.2000	722932.1500	4517.7890	15937.2910	7436.3736	70.0003	110345.6500	1391898.8000	r 2458718.6
3	18:43:00	112083.3800	208623.3100	138151.8100	543038.6400	452345.3800	609024.2300	74862.9820	r 3407977.0000	733280.3600	4837.9536	16018.5450	7516.4394	116.6674	112842.6900	1422310.9000	r 2531329.9
x		112317.3600	206338.9400	135999.9800	530745.7900	450051.8400	605457.8500	74180.9940	r 3350688.7000	719192.0200	4682.3176	15943.9690	7595.3955	101.1117	110584.2400	1382238.1000	r 2468026.7
σ		218.2147	2446.0884	2650.1816	12840.1150	2388.4721	3546.0480	591.9487	r 57404.3170	16283.8050	160.2675	71.4703	209.9471	26.9433	2149.1030	45675.9110	r 59700.4
%RSD		0.1943	1.1855	1.9487	2.4193	0.5307	0.5857	0.7980	r 1.7132	2.2642	3.4228	0.4483	2.7641	26.6471	1.9434	3.3045	r 2.3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:42:33	41243.3440	52514.5740	345105.0100	39589.3480	601886.2400	217818.5800	2031630.1000	2030653.7000	705693.4700	155834.2900	153484.8200	r 4661106.6000	94744.4820
2	18:42:47	42047.0130	54237.9820	359271.6200	41340.4500	627176.2000	224067.7300	2143982.4000	2124442.7000	737235.1500	164294.6400	159460.0300	r 4810811.0000	98979.2450
3	18:43:00	41775.7670	56300.4640	365017.1800	42371.8490	637837.6600	230355.3200	r 2111917.6000	2182936.4000	751339.3200	167210.4200	163334.2300	r 4913781.3000	102690.0600
x		41688.7080	54351.0070	356464.6000	41100.5490	622300.0300	224060.5400	r 2095843.4000	2112677.6000	731422.6500	162446.4500	158766.3600	r 4795232.9000	98804.5970
σ		408.8464	1895.4740	10248.5650	1406.6777	18465.0710	6268.3780	r 57875.2500	76820.0170	23371.4530	5908.9706	4963.3364	r 127055.6000	3975.6692
%RSD		0.9807	3.4875	2.8751	3.4225	2.9672	2.7974	r 2.7614	3.6361	3.1953	3.6375	3.1262	r 2.6496	4.0238

SEQ-CCB@CCB03 10/19/2016 18:46:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:46:37	109927.2900	63.3336	125804.4900	180.0018	286.6712	238.0031	110.6673	466.6786	433.3437	3.3333	8.8889	13.3333	10.0000	104092.5500	466.6786	770.0326	886.7099	486.6797	1213.4143
2	18:46:49	111226.2800	43.3334	128610.0100	176.6684	288.0046	208.6691	92.6671	510.0143	500.0138	3.3333	10.0000	10.0000	6.6667	107481.6400	480.0127	706.6941	853.3734	480.0127	1096.7328
3	18:47:02	112174.4900	53.3335	131189.8100	166.6682	244.6700	232.0030	101.3339	436.6772	516.6814	3.3333	6.6667	20.0000	10.0000	109569.6800	343.3398	700.0270	780.0335	485.6797	1130.0702
x		111109.3600	53.3335	128534.7700	174.4461	273.1152	226.2251	101.5561	471.1234	483.3463	3.3333	8.5185	14.4445	8.8889	107047.9600	430.0104	725.5846	840.0389	484.4574	1146.7391
σ		1128.1544	10.0001	2693.4484	6.9390	24.6434	15.4971	9.0022	36.8701	44.0981	0.0000	1.6973	5.0918	1.9245	2764.2021	75.3544	38.6372	54.5740	3.8492	60.1002
%RSD		1.0154	18.7501	2.0955	3.9777	9.0231	6.8503	8.8642	7.8260	9.1235	0.0000	19.9243	35.2506	21.6506	2.5822	17.5239	5.3250	6.4966	0.7945	5.2410

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:46:37	40577.0220	116.6674	70.0003	13.3333	86.6671	187898.6300	526.6819	420.0097	106.6673	152030.6900	151481.6400	853.3734	91137.8910
2	18:46:49	40861.6260	173.3350	60.0002	20.0000	106.6673	193072.0200	533.3490	420.0097	123.3342	154949.3500	152471.3100	756.6982	93545.4950
3	18:47:02	41035.7410	123.3342	56.6668	10.0000	43.3334	196596.3500	533.3490	346.6733	153.3346	157841.8100	154983.2600	666.6911	95690.9850
x		40824.7960	137.7789	62.2224	14.4445	78.8893	192522.3300	531.1266	395.5642	127.7787	154940.6200	152978.7400	758.9209	93458.1240
σ		231.5665	30.9724	6.9389	5.0918	32.3754	4374.8379	3.8492	42.3408	23.6490	2905.5700	1805.1149	93.3610	2277.8042
%RSD		0.5672	22.4798	11.1518	35.2506	41.0390	2.2724	0.7247	10.7039	18.5078	1.8753	1.1800	12.3018	2.4372

Q314034-BLK1@PBS01@MH1H68 10/19/2016 18:50:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:50:39	109620.2900	20.0000	126024.1700	63.3336	111.3340	78.0003	42.6668	33.3334	686.6926	0.0000	10.0000	6.6667	6.6667	103957.6800	63.3336	116.6674	93.3338	56.6668	173.3350
2	18:50:52	110274.8000	20.0000	131095.1300	110.0007	123.3342	88.0004	48.6668	50.0001	630.0218	3.3333	5.5556	10.0000	20.0000	105660.4800	76.6670	130.0009	133.3343	66.6669	166.6682
3	18:51:05	111219.5400	26.6667	131345.3700	100.0006	94.0005	84.0004	42.0001	43.3334	700.0270	6.6667	4.4444	16.6667	6.6667	106891.4100	80.0004	130.0009	93.3338	60.0002	180.0018
x		110371.5400	22.2222	129488.2200	91.1116	109.5562	83.3337	44.4446	42.2223	672.2471	3.3333	6.6667	11.1111	11.1111	105503.1900	73.3336	125.5564	106.6673	61.1113	173.3350
σ		804.0018	3.8490	3002.5649	24.5706	14.7474	5.0333	3.6717	8.3887	37.1710	3.3333	2.9397	5.0918	7.6980	1473.1750	8.8192	7.6981	23.0943	5.0918	6.6668
%RSD		0.7285	17.3205	2.3188	26.9676	13.4611	6.0399	8.2614	19.8680	5.5294	100.0000	44.0959	45.8258	69.2821	1.3963	12.0262	6.1312	21.6508	8.3320	3.8462

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:50:39	40613.8530	146.6679	6.6667	0.0000	10.0000	185030.7000	233.3363	63.3336	26.6667	149255.2700	147473.2000	163.3348	90161.5610
2	18:50:52	40888.4130	120.0008	13.3333	3.3333	13.3333	190896.8000	293.3381	33.3334	50.0001	153895.0000	150664.9000	120.0008	94650.1740
3	18:51:05	40098.2380	113.3340	16.6667	0.0000	10.0000	196558.8900	266.6706	56.6668	26.6667	156773.5600	151674.8200	116.6674	95680.8800
x		40533.5010	126.6676	12.2222	1.1111	11.1111	190828.7900	264.4483	51.1113	34.4445	153307.9400	149937.6400	133.3343	93497.5390
σ		491.1686	17.6386	5.0918	1.9245	1.9245	5764.3959	30.0625	15.7528	13.4716	3793.3731	2193.1898	26.0346	2934.6458
%RSD		0.9897	13.9251	41.6598	173.2051	17.3205	3.0207	11.3680	30.8206	39.1109	2.4743	1.4627	19.5258	3.1387

Q314034-BS1@LCS01 10/19/2016 18:54:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	18:54:40	109269.4300	856.7070	124489.9100	70.0003	9386.8437	5041.3975	686.0259	12688.8490	2963.8164	80.0004	310.0053	190.0020	6.6667	103060.8900	8523.9943	14498.2180	16087.5550	9077.8635
2	18:54:53	109600.0400	900.0446	129039.3600	60.0002	9494.9559	5074.7494	692.6931	12775.6370	3197.2288	100.0006	360.0071	180.0018	20.0000	105518.8500	8647.4442	15276.1570	16424.8240	8967.7543
3	18:55:06	110355.7700	846.7061	131808.6700	106.6673	9651.7876	4979.3633	725.3623	12929.1870	3287.2609	133.3343	341.1175	130.0009	10.0000	109586.5500	8690.8189	15416.3940	17369.9120	9591.7241
x		109741.7500	867.8192	128445.9800	78.8893	9511.1957	5031.8367	701.3604	12797.8910	3149.4354	104.4451	337.0433	166.6682	12.2222	106055.4300	8620.7525	15063.5900	16627.4300	9212.4473
σ		556.8597	28.3524	3695.2828	24.5706	133.2164	48.4064	21.0518	121.7048	166.9349	26.9433	25.2487	32.1461	6.9389	3295.7533	86.5560	494.6213	664.7530	333.0453
%RSD		0.5074	3.2671	2.8769	31.1457	1.4006	0.9620	3.0016	0.9510	5.3005	25.7967	7.4912	19.2875	56.7727	3.1076	1.0040	3.2836	3.9979	3.6152

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:54:40	40627.2460	283.3378	10285.8160	173.3350	2220.2711	184918.4500	250.0034	15119.2290	27217.3490	149451.7900	145908.2500	16428.1640	90279.3890
2	18:54:53	40429.7010	296.6715	10519.4160	180.0018	2420.3221	192585.1800	193.3354	15680.1780	27748.9520	154128.9200	148936.7700	17249.6830	93481.5080
3	18:55:06	41072.5730	240.0032	10612.8580	170.0016	2553.6920	193388.6400	250.0034	16244.5010	28685.1850	154634.0500	153464.4800	18067.9370	94774.7960
x		40709.8400	273.3375	10472.6960	174.4461	2398.0951	190297.4200	231.1141	15681.3020	27883.8290	152738.2500	149436.5000	17248.5950	92845.2310
σ		329.2985	29.6282	168.4524	5.0918	167.8181	4675.6202	32.7173	562.6368	743.1550	2857.3452	3802.8215	819.8872	2314.2619
%RSD		0.8089	10.8394	1.6085	2.9189	6.9980	2.4570	14.1563	3.5879	2.6652	1.8707	2.5448	4.7534	2.4926

6100168-01@MH1H68 10/19/2016 18:58:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	18:58:41	111334.2600	96.6672	139048.6600	13246.3100	30123.1580	8142.9786	1101.4000	20038.7280	4014.2194	73.3336	94.4449	56.6668	20.0000	146609.4000	3293.9300	4421.0748	5084.7549	2920.469
2	18:58:54	113770.8200	103.3339	144970.0900	13727.0230	30244.8950	8105.6119	1064.7290	21572.2310	4250.9937	66.6669	92.2227	60.0002	10.0000	151285.0700	3504.0085	4861.2994	5661.7625	2980.488
3	18:59:07	112437.7200	126.6676	148154.1400	14524.9280	30200.0790	8123.6280	1084.0646	21137.8790	4454.4244	66.6669	122.2230	66.6669	16.6667	154867.9800	3827.4722	4851.2941	5778.5026	3080.521
x		112514.2600	108.8896	144057.6300	13832.7530	30189.3770	8124.0729	1083.3979	20916.2790	4239.8791	68.8892	102.9636	61.1113	15.5556	150920.8200	3541.8036	4711.2228	5508.3400	2993.826
σ		1220.0799	15.7529	4620.8081	645.8327	61.5698	18.6873	18.3446	790.4038	220.3129	3.8490	16.7162	5.0918	5.0918	4141.3251	268.7716	251.3253	371.4503	80.855
%RSD		1.0844	14.4669	3.2076	4.6689	0.2039	0.2300	1.6932	3.7789	5.1962	5.5873	16.2350	8.3320	32.7327	2.7440	7.5886	5.3346	6.7434	2.700

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:58:41	41990.0840	193.3354	5054.7382	13.3333	113.3340	192472.8400	2643.7177	22146.9440	303051.7400	154061.1100	150464.9600	5858.5538	123185.6600
2	18:58:54	40419.6570	206.6690	5454.9695	20.0000	116.6674	197989.4300	2607.0404	23400.0770	314921.8000	158883.0500	154142.4800	6362.2255	128021.7900
3	18:59:07	41276.8290	190.0020	5328.2277	16.6667	133.3343	204368.2800	2843.7781	24656.7260	327155.9900	162910.0500	157160.1500	6572.3749	130469.5600
x		41228.8570	196.6668	5279.3118	16.6667	121.1119	198276.8500	2698.1787	23401.2490	315043.1800	158618.0700	153922.5300	6264.3847	127225.6700
σ		786.3119	8.8194	204.5503	3.3333	10.7153	5952.9276	127.4193	1254.8912	12052.5830	4430.4167	3353.0098	366.8307	3706.6357
%RSD		1.9072	4.4844	3.8746	20.0000	8.8474	3.0023	4.7224	5.3625	3.8257	2.7931	2.1784	5.8558	2.9134

6100168-02@MH1H69 10/19/2016 19:02:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:02:41	110146.5900	123.3342	143212.5600	15135.9230	29658.9690	7782.6632	1024.7244	21976.5310	3767.4472	23.3334	106.6673	76.6670	16.6667	144959.9300	3800.7944	5558.3654	6522.3389	3587.37
2	19:02:54	111891.0300	106.6673	147378.3500	16237.8220	30284.3590	7842.7148	1044.0599	22384.1910	4080.9158	53.3335	102.2228	63.3336	16.6667	149092.6300	4170.9566	5841.8764	6805.8800	3574.03
3	19:03:08	111641.3200	193.3354	149729.6400	16398.1090	30233.5240	7828.0355	1064.7290	23039.1570	4307.6870	73.3336	98.8894	26.6667	13.3333	152776.3700	4317.6918	6122.0607	7436.3736	3907.50
x		111226.3200	141.1123	146773.5200	15923.9520	30058.9500	7817.8045	1044.5045	22466.6260	4052.0166	50.0002	102.5932	55.5557	15.5556	148942.9800	4096.4809	5840.7675	6921.5308	3689.63
σ		943.3687	45.9879	3309.3712	687.1423	347.3255	31.3058	20.0060	536.0879	271.2769	25.1662	3.9021	25.8917	1.9245	3910.3697	266.3751	281.8493	467.8634	188.79
%RSD		0.8482	32.5896	2.2486	4.3151	1.1555	0.4004	1.9154	2.3862	6.6949	50.3323	3.8035	46.6048	12.3716	2.6254	6.5025	4.8256	6.7595	5.11

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:02:41	42040.3150	220.0027	28594.9010	36.6667	556.6837	199788.1500	48609.6130	29818.8240	263120.1200	155691.8800	151495.2000	4134.2732	235344.0100
2	19:02:54	41919.7610	220.0027	30083.0250	53.3335	480.0127	208108.3800	51404.9260	31731.9510	275038.5400	161142.3000	155715.6100	4354.3759	244863.8900
3	19:03:08	42468.9680	160.0014	31467.7010	53.3335	596.6863	212788.1900	52326.8300	32223.6760	284685.4700	163120.4400	159524.1300	4804.6026	252902.8700
x		42143.0150	200.0022	30048.5430	47.7779	544.4609	206894.9100	50780.4560	31258.1500	274281.3600	159984.8700	155578.3100	4431.0839	244370.2600
σ		288.6475	34.6417	1436.7104	9.6226	59.2894	6584.4274	1935.6905	1270.5091	10802.5940	3847.1565	4016.2277	341.6848	8789.6277
%RSD		0.6849	17.3207	4.7813	20.1402	10.8896	3.1825	3.8119	4.0646	3.9385	2.4047	2.5815	7.7111	3.5969

6100168-03@MH1H70 10/19/2016 19:06:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:06:39	110271.4200	43.3334	141516.3000	11994.5740	13357.8070	5241.5106	744.0305	13954.0340	3193.8943	30.0000	68.8892	40.0001	13.3333	130777.2600	2236.9418	3207.2323	4054.2372	1993.551
2	19:06:52	109394.2500	63.3336	144827.8500	13934.0040	13130.8090	5172.8046	736.6965	14471.5090	3457.3240	50.0001	92.2227	63.3336	3.3333	133222.3800	2413.6537	3280.5918	4314.3568	2073.569
3	19:07:06	110365.8900	66.6669	145566.1700	12802.3410	13170.2000	5306.8818	698.6935	14534.9440	3193.8943	36.6667	81.1115	30.0000	16.6667	136838.8400	2600.3719	3443.9856	4034.2283	2066.901
x		110010.5200	57.7780	143970.1100	12910.3070	13219.6050	5240.3990	726.4735	14320.1620	3281.7042	38.8890	80.7411	44.4446	11.1111	133612.8300	2416.9891	3310.6032	4134.2741	2044.674
σ		535.7909	12.6199	2156.8814	974.2120	121.2955	67.0455	24.3360	318.6585	152.0912	10.1835	11.6712	17.1054	6.9389	3049.5928	181.7380	121.1963	156.2768	44.396
%RSD		0.4870	21.8420	1.4981	7.5460	0.9175	1.2794	3.3499	2.2252	4.6345	26.1862	14.4551	38.4871	62.4500	2.2824	7.5192	3.6609	3.7800	2.171

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:06:39	41263.4350	256.6703	17951.0390	80.0004	913.3792	219054.4100	3930.8497	20810.4590	186160.0700	152081.5300	148791.0800	3103.8631	153176.3500
2	19:06:52	40359.3900	313.3387	19013.1950	66.6669	973.3854	225929.6400	3847.4807	21478.6770	192864.3400	156810.8700	153789.9100	3133.8734	159608.9300
3	19:07:06	40610.5050	250.0034	19841.6290	73.3336	970.0518	234123.0900	4094.2551	22090.1390	201713.3000	160630.0200	159941.3700	3257.2501	164966.6400
x		40744.4430	273.3375	18935.2880	73.3336	952.2721	226369.0500	3957.5285	21459.7580	193579.2400	156507.4700	154174.1200	3164.9955	159250.6400
σ		466.6679	34.8021	947.6999	6.6667	33.7235	7543.9411	125.5318	640.0501	7801.2195	4282.3104	5585.0618	81.2916	5903.3074
%RSD		1.1454	12.7323	5.0049	9.0909	3.5414	3.3326	3.1720	2.9826	4.0300	2.7362	3.6226	2.5685	3.7069

6100168-04@MH1H71 10/19/2016 19:10:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:10:40	107495.1300	116.6674	141553.5400	10429.3120	17943.0230	5284.8690	798.0350	29741.9060	3977.5366	86.6671	98.8894	43.3334	30.0000	155003.6000	2500.3438	3373.9593	4170.9566	2240.276
2	19:10:53	109232.3200	160.0014	143432.6500	10165.6810	18258.9850	5218.8309	746.6973	30815.4730	4277.6728	66.6669	120.0008	93.3338	26.6667	160338.2700	2710.4040	3427.3126	4271.0030	2313.627
3	19:11:06	111573.8400	136.6677	146802.4800	11183.5410	18347.8300	5230.8378	758.0316	32002.8980	4134.2732	63.3336	111.1118	103.3339	33.3334	165071.8600	2640.3834	3690.7490	4317.6918	2273.617
x		109433.7700	137.7788	143929.5600	10592.8450	18183.2790	5244.8459	767.5880	30853.4250	4129.8276	72.2225	110.0007	80.0004	30.0000	160137.9100	2617.0437	3497.3403	4253.2171	2275.840
σ		2046.7995	21.6884	2659.5128	528.2682	212.7572	35.1771	26.9700	1130.9737	150.1175	12.6199	10.5995	32.1458	3.3333	5037.1208	106.9574	169.6079	74.9670	36.726
%RSD		1.8704	15.7414	1.8478	4.9870	1.1701	0.6707	3.5136	3.6656	3.6350	17.4736	9.6358	40.1820	11.1111	3.1455	4.0870	4.8496	1.7626	1.613

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:10:40	41320.3590	483.3462	17430.0270	296.6715	3750.7736	209182.6100	4354.3759	18475.4210	182479.9100	156800.6900	149990.5500	2850.4468	155179.9000
2	19:10:53	42244.5920	623.3547	18295.0570	303.3384	3997.5454	218173.6100	4404.4000	20042.0680	189212.1200	162143.1900	156566.7100	3037.1739	162625.0200
3	19:11:06	40761.1770	626.6883	18271.6770	320.0056	4107.5944	221868.0900	4664.5297	20810.4590	195445.2600	163459.7900	159978.6800	3127.2044	167821.5200
x		41442.0430	577.7964	17998.9200	306.6718	3951.9711	216408.1100	4474.4352	19775.9830	189045.7600	160801.2200	155511.9800	3004.9417	161875.4800
σ		749.1567	81.8133	492.8150	12.0189	182.7239	6524.4230	166.5159	1190.0424	6484.2761	3526.5493	5076.9097	141.1662	6354.0536
%RSD		1.8077	14.1595	2.7380	3.9191	4.6236	3.0149	3.7215	6.0176	3.4300	2.1931	3.2646	4.6978	3.9253

Q114034-MS1@MH1H71S 10/19/2016 19:14:42 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	19:14:42	107936.9900	3784.1207	140805.3900	15099.1950	109551.4600	52666.7840	6707.8071	631443.6200	132322.7200	253.3369	706.6941	386.6749	33.3334	153562.7900	197212.8200	346271.4700	380291.220
2	19:14:54	110392.8800	4047.5675	146775.3800	15149.2790	109351.7500	52678.1840	6713.8116	662232.7100	136591.8300	256.6703	747.8085	326.6725	10.0000	160694.4700	207307.0400	365318.9400	400958.090
3	19:15:08	111924.7800	3927.5149	148662.3400	15426.4110	110214.0700	52399.2450	6710.4758	672776.2400	140534.5800	276.6709	765.5878	360.0071	20.0000	163877.2000	211334.8800	373866.1100	405973.480
x		110084.8800	3919.7344	145414.3700	15224.9620	109705.7600	52581.4040	6710.6981	655484.1900	136483.0500	262.2260	740.0302	357.7849	21.1111	159378.1600	205284.9100	361818.8400	395740.930
σ		2011.6564	131.8956	4101.4812	176.2481	451.3915	157.8575	3.0084	21476.8090	4107.0122	12.6202	30.2075	30.0628	11.7063	5281.6963	7274.9472	14126.3630	13612.814
%RSD		1.8274	3.3649	2.8205	1.1576	0.4115	0.3002	0.0448	3.2765	3.0092	4.8127	4.0819	8.4025	55.4509	3.3139	3.5438	3.9043	3.4398

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:14:42	41008.9540	1576.8034	72917.9350	1063.3955	16374.7340	218938.3300	5978.6319	62430.2980	771511.7200	156064.8600	151261.3500	82936.5990	209035.9700
2	19:14:54	40754.4800	1653.4837	76880.3800	1310.0944	17232.9850	225960.3900	6245.4779	65239.9230	800217.7800	162200.8700	157170.3300	87458.6820	219781.6500
3	19:15:08	40948.6830	1730.1646	77572.8930	1310.0944	17369.9120	232635.6300	6465.6318	66458.7040	822923.3600	162065.1500	161294.9700	90020.1710	223907.1800
x		40904.0390	1653.4839	75790.4030	1227.8614	16992.5440	225844.7800	6229.9139	64709.6420	798217.6200	160110.3000	156575.5500	86805.1500	217574.9300
σ		132.9814	76.6806	2511.6124	142.4317	539.4013	6849.3776	243.8727	2065.8926	25764.1180	3504.1073	5043.1829	3586.7222	7677.2708
%RSD		0.3251	4.6375	3.3139	11.6000	3.1743	3.0328	3.9145	3.1926	3.2277	2.1886	3.2209	4.1319	3.5286

Q314034-DUP1@MH1H71D 10/19/2016 19:18:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:18:43	107029.6900	156.6680	141059.2800	11867.7410	24657.3940	6699.1341	922.0468	29333.9170	4234.3192	96.6672	124.4453	76.6670	23.3334	150051.5500	3423.9780	5094.7605	5965.2898	3290.59
2	19:18:57	109593.3000	140.0011	144939.6100	12735.5810	24510.3300	6743.8338	913.3792	30644.8970	4507.7840	93.3338	165.5571	76.6670	6.6667	156563.3200	3644.0635	5378.2571	6482.3103	3480.66
3	19:19:10	110119.6000	140.0011	147520.6300	12675.4970	24787.7480	6625.7470	844.0392	32012.9330	4884.6453	73.3336	141.1122	86.6671	20.0000	159842.9900	3627.3902	5498.3289	6388.9109	3360.62
x		108914.2000	145.5567	144506.5100	12426.2730	24651.8240	6689.5716	893.1551	30663.9160	4542.2495	87.7782	143.7049	80.0004	16.6667	155485.9500	3565.1439	5323.7822	6278.8370	3377.29
σ		1653.1085	9.6227	3252.3729	484.6349	138.7925	59.6213	42.7558	1339.6094	326.5301	12.6199	20.6781	5.7736	8.8192	4983.8373	122.5372	207.2257	275.5263	96.12
%RSD		1.5178	6.6109	2.2507	3.9001	0.5630	0.8913	4.7871	4.3687	7.1887	14.3770	14.3893	7.2169	52.9151	3.2053	3.4371	3.8925	4.3882	2.84

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:18:43	40834.8390	600.0198	21552.1840	443.3441	5271.5280	219665.5700	56753.2670	27040.1550	232399.7100	155983.4800	149607.6500	4017.5542	204300.1100
2	19:18:57	40717.6490	673.3583	21796.0980	390.0084	5915.2572	227419.4400	59416.8710	28839.0040	244168.9000	161278.0000	155919.0600	4147.6126	213269.2700
3	19:19:10	41183.0720	733.3629	22260.5540	363.3406	6222.1286	234359.0500	60816.0780	29858.9550	252848.0400	164114.7700	160212.7500	4544.4689	215640.9100
x		40911.8530	668.9137	21869.6120	398.8977	5802.9712	227148.0200	58995.4050	28579.3710	243138.8800	160458.7500	155246.4900	4236.5452	211070.1000
σ		242.0805	66.7826	359.8617	40.7358	485.1459	7350.5034	2063.9364	1427.2232	10263.0050	4127.0856	5334.4417	274.4841	5981.6976
%RSD		0.5917	9.9837	1.6455	10.2121	8.3603	3.2360	3.4985	4.9939	4.2210	2.5721	3.4361	6.4790	2.8340

SEQ-SRD1@MH1H71L@5X 10/19/2016 19:22:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98
1	19:22:45	108179.8500	26.6667	131839.1000	2156.9225	3597.3783	1092.0656	140.0011	5941.9412	1233.4170	13.3333	42.2223	20.0000	33.3334	117075.7100	496.6802	676.6919	873.3753	466.6786	1156.74
2	19:22:58	109579.8000	46.6668	136771.1700	2380.3116	3620.7209	1108.7343	150.0012	6218.7930	1250.0859	23.3334	35.5556	26.6667	20.0000	120293.9900	566.6843	726.6957	906.7119	523.3484	1110.06
3	19:23:10	110568.3300	40.0001	138744.0600	2303.6252	3636.0603	1055.3946	134.6677	6348.8829	1290.0915	16.6667	28.8889	23.3334	20.0000	123084.3000	573.3514	750.0309	906.7119	550.0166	1290.09
x		109442.6600	37.7779	135784.7800	2280.2864	3618.0532	1085.3982	141.5567	6169.8724	1257.8648	17.7778	35.5556	23.3334	24.4445	120151.3300	545.5720	717.8062	895.5997	513.3479	1185.63
σ		1200.1307	10.1835	3556.5903	113.5086	19.4785	27.2878	7.7842	207.8348	29.1270	5.0918	6.6667	3.3333	7.6980	3006.8324	42.4725	37.4690	19.2469	42.5595	93.42
%RSD		1.0966	26.9564	2.6193	4.9778	0.5384	2.5141	5.4990	3.3685	2.3156	28.6411	18.7500	14.2857	31.4919	2.5025	7.7850	5.2199	2.1491	8.2906	7.87

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:22:45	41430.8600	176.6684	3347.2828	66.6669	773.3662	195748.3400	1040.0595	4074.2461	36452.9390	150830.9500	146755.0500	753.3646	104382.5100
2	19:22:58	42274.7320	206.6690	3674.0756	43.3334	926.7139	202026.8100	916.7129	3954.1931	38498.0100	156173.3700	151227.4600	836.7052	106786.8600
3	19:23:10	41933.1560	196.6688	3790.7902	73.3336	900.0446	205039.8200	1093.3991	4070.9113	39344.9580	158764.3400	154213.6700	833.3715	108449.7000
x		41879.5830	193.3354	3604.0495	61.1113	866.7082	200938.3300	1016.7238	4033.1168	38098.6350	155256.2200	150732.0600	807.8138	106539.6900
σ		424.4790	15.2756	229.8966	15.7528	81.9290	4740.4106	90.6252	68.3703	1486.7980	4045.4301	3753.9046	47.1838	2044.8320
%RSD		1.0136	7.9011	6.3788	25.7772	9.4529	2.3591	8.9134	1.6952	3.9025	2.6056	2.4904	5.8409	1.9193

6100168-05@MH1H72 10/19/2016 19:26:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:26:45	107839.1700	133.3343	141770.2100	10779.7210	18502.8100	6027.3308	862.7076	29611.4810	4067.5764	43.3334	111.1118	40.0001	26.6667	141858.2400	2677.0608	3834.1417	4731.2308	2290.288
2	19:26:58	109681.0100	100.0006	145508.5900	11517.2910	18884.9280	6128.0647	861.3741	31303.8030	4044.2327	73.3336	98.8894	40.0001	30.0000	144506.1200	2753.7503	3884.1629	4794.5973	2580.366
3	19:27:11	109701.2500	106.6673	149468.7300	11991.2370	18705.8920	6204.7834	841.3723	31558.0130	4454.4244	66.6669	102.2228	73.3336	16.6667	148557.3100	2853.7812	4097.5899	4964.6886	2390.314
x		109073.8100	113.3341	145582.5100	11429.4160	18697.8770	6120.0596	855.1513	30824.4330	4188.7445	61.1113	104.0747	51.1113	24.4445	144973.8900	2761.5308	3938.6315	4830.1723	2420.322
σ		1069.2775	17.6386	3849.7906	610.5196	191.1850	88.9968	11.9516	1058.1088	230.3814	15.7528	6.3181	19.2451	6.9389	3373.9417	88.6167	139.9156	120.7262	147.348
%RSD		0.9803	15.5633	2.6444	5.3417	1.0225	1.4542	1.3976	3.4327	5.5000	25.7772	6.0708	37.6534	28.3864	2.3273	3.2090	3.5524	2.4994	6.088

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:26:45	40975.4700	316.6722	19567.7030	103.3339	1566.8017	223555.3500	4614.5042	28788.8450	178335.5400	151691.7700	148360.8000	3544.0240	157366.5800
2	19:26:58	40841.5360	343.3398	20726.9350	96.6672	1666.8195	228806.9400	4911.3263	29641.5790	185843.7000	155474.8800	153078.0500	3514.0124	174607.5500
3	19:27:11	41551.4090	340.0064	20997.5550	103.3339	1640.1479	235809.1700	5191.4819	31273.7000	192289.0100	159293.4700	155576.6000	3500.6739	178196.1800
x		41122.8050	333.3395	20430.7310	101.1117	1624.5897	229390.4900	4905.7708	29901.3750	185489.4200	155486.7100	152338.4800	3519.5701	173390.1000
σ		377.1743	14.5302	759.5534	3.8490	51.7922	6147.7181	288.5290	1262.6347	6983.4800	3800.8662	3664.3061	22.2030	5516.4896
%RSD		0.9172	4.3590	3.7177	3.8067	3.1880	2.6800	5.8814	4.2227	3.7649	2.4445	2.4054	0.6308	3.1815

6100168-06@MH1H73 10/19/2016 19:30:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:30:46	108034.8100	103.3339	136649.3600	24666.7530	26999.3670	6943.9844	953.3833	25361.9950	4464.4293	83.3337	117.7785	46.6668	23.3334	138090.8900	3423.9780	5324.8924	6082.0338	3207.232
2	19:30:59	108932.0900	113.3340	139810.2100	25612.6960	27291.5710	7143.4722	934.7147	26027.2050	4571.1490	56.6668	121.1119	96.6672	13.3333	144340.1800	3544.0240	5358.2453	6362.2255	3347.282
3	19:31:12	110828.1300	90.0004	143303.9800	26956.5740	27238.0780	7176.1646	961.3842	26742.6100	4724.5607	70.0003	120.0008	63.3336	10.0000	146152.1200	3677.4103	5611.7315	6468.9675	3470.662
x		109265.0100	102.2228	139921.1800	25745.3410	27176.3380	7087.8737	949.8274	26043.9360	4586.7130	70.0003	119.6304	68.8892	15.5556	142861.0700	3548.4708	5431.6231	6304.4089	3341.725
σ		1426.1106	11.7064	3328.7007	1150.6589	155.5782	125.6794	13.6857	690.4594	130.7623	13.3334	1.6973	25.4590	6.9389	4229.2657	126.7747	156.8674	199.8411	131.802
%RSD		1.3052	11.4519	2.3790	4.4694	0.5725	1.7732	1.4409	2.6511	2.8509	19.0477	1.4188	36.9564	44.6072	2.9604	3.5727	2.8880	3.1699	3.944

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:30:46	40948.6830	140.0011	7669.9008	26.6667	143.3345	195874.3500	2943.8099	17096.0600	473498.0400	153552.6200	148326.9200	3390.6322	219033.9300
2	19:30:59	41578.1970	170.0016	7476.4064	16.6667	133.3343	202047.2600	3007.1640	18007.8180	493402.4400	159897.2700	155146.0000	3530.6855	227781.6700
3	19:31:12	40727.6940	193.3354	7820.0286	13.3333	160.0014	207119.5100	3290.5954	18672.4900	511302.0100	159995.6400	156037.7300	3737.4348	232980.9700
x		41084.8580	167.7794	7655.4453	18.8889	145.5567	201680.3700	3080.5231	17925.4560	492734.1700	157815.1800	153170.2200	3552.9175	226598.8600
σ		441.3013	26.7365	172.2666	6.9389	13.4717	5631.5511	184.6652	791.4357	18910.8430	3691.8105	4218.0476	174.4669	7048.3523
%RSD		1.0741	15.9355	2.2502	36.7353	9.2553	2.7923	5.9946	4.4151	3.8379	2.3393	2.7538	4.9105	3.1105

6100168-07@MH1H74 10/19/2016 19:34:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:34:46	107356.8500	96.6672	137539.2900	15519.9030	28553.4360	7368.9854	978.7194	15162.6340	3437.3164	46.6668	158.8903	93.3338	16.6667	120824.2800	3373.9593	4954.6832	5818.5281	2997.160
2	19:34:59	108092.1500	76.6670	141844.7000	17092.7200	28727.3180	7334.2907	958.0505	15807.0640	3807.4638	53.3335	141.1122	76.6670	16.6667	126318.2100	3740.7695	5321.5571	6355.5542	3200.563
3	19:35:12	110399.6300	116.6674	145390.0500	17106.0790	28729.9930	7332.9563	958.0515	16191.0720	3830.8070	56.6668	172.2239	86.6671	6.6667	127636.4300	3834.1417	5268.1927	6662.4405	3277.257
x		108616.2100	96.6672	141591.3500	16572.9010	28670.2490	7345.4108	968.2736	15720.2570	3691.8624	52.2224	157.4088	85.5560	13.3333	124926.3100	3649.6235	5181.4776	6278.8409	3158.327
σ		1587.6437	20.0002	3931.5046	911.9472	101.1707	20.4271	10.3362	519.6852	220.7521	5.0918	15.6086	8.3888	5.7735	3613.0831	243.2543	198.2139	427.1542	144.746
%RSD		1.4617	20.6898	2.7767	5.5026	0.3529	0.2781	1.0675	3.3058	5.9794	9.7502	9.9160	9.9050	43.3013	2.8922	6.6652	3.8254	6.8031	4.583

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:34:46	40439.7460	253.3369	13369.8240	23.3334	743.3637	209366.7800	2983.8229	16094.2340	280037.7400	151518.9200	148696.2200	3737.4348	172508.0300
2	19:34:59	41253.3890	253.3369	13907.2960	76.6670	766.6990	217449.9100	3203.8978	17336.5150	293196.3200	156624.3600	152179.8200	4044.2327	178291.3500
3	19:35:12	41574.8490	196.6688	14361.3350	63.3336	730.0293	223401.6400	3037.1739	17991.1180	301721.9200	160758.9300	156868.5100	4200.9704	183966.0800
x		41089.3280	234.4475	13879.4850	54.4446	746.6973	216739.4400	3074.9649	17140.6220	291651.9900	156300.7400	152581.5200	3994.2126	178255.1500
σ		585.0656	32.7173	496.3400	27.7557	18.5607	7044.3499	114.8014	963.4952	10924.2690	4628.4988	4100.9310	235.7813	5729.1119
%RSD		1.4239	13.9551	3.5761	50.9797	2.4857	3.2501	3.7334	5.6211	3.7457	2.9613	2.6877	5.9031	3.2140

6100168-08@MH1H75 10/19/2016 19:38:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:38:46	106699.1700	173.3350	150061.7100	111658.2000	40197.3410	11662.8100	1465.4514	15536.5980	3554.0279	76.6670	155.5569	53.3335	23.3334	146538.2600	3924.1801	5041.3975	6308.8550	3260.58
2	19:38:59	108021.3200	170.0016	153915.3400	117730.7600	40449.7900	11696.1860	1483.4544	16371.3950	3824.1375	73.3336	150.0012	60.0002	16.6667	150908.9000	4107.5944	5184.8114	6372.2325	3383.96
3	19:39:12	105940.3800	210.0024	157092.3300	121432.3100	40475.9060	11701.5250	1490.7889	16748.7480	3574.0358	80.0004	132.2232	90.0004	26.6667	154908.6700	4080.9158	5525.0117	6845.9100	3377.29
x		106886.9500	184.4463	153689.8000	116940.4200	40374.3460	11686.8410	1479.8982	16218.9140	3650.7337	76.6670	145.9271	67.7780	22.2222	150785.2800	4037.5634	5250.4069	6508.9992	3340.61
σ		1053.1025	22.1949	3520.7309	4934.7518	153.8459	20.9819	13.0377	620.2939	150.5049	3.3334	12.1887	19.5317	5.0918	4186.5710	99.0948	248.3903	293.4891	69.38
%RSD		0.9852	12.0333	2.2908	4.2199	0.3810	0.1795	0.8810	3.8245	4.1226	4.3478	8.3526	28.8172	22.9129	2.7765	2.4543	4.7309	4.5090	2.07

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:38:46	40697.5590	213.3358	10032.1990	20.0000	340.0064	197025.4900	2256.9468	24716.8890	659390.1600	153189.9100	148943.5500	3050.5117	135035.5100
2	19:38:59	40550.2360	173.3350	10876.5030	26.6667	306.6718	203120.7900	2400.3168	25489.0160	677681.2200	157940.1600	150847.9000	3487.3354	138974.2000
3	19:39:12	39981.0570	250.0034	10729.6620	26.6667	306.6718	208466.4400	2360.3064	26180.9790	705409.3000	159673.3800	156902.4300	3330.6100	142792.7000
x		40409.6180	212.2248	10546.1210	24.4445	317.7834	202870.9100	2339.1900	25462.2940	680826.9000	156934.4900	152231.2900	3289.4857	138934.1400
σ		378.3835	38.3463	451.0847	3.8490	19.2457	5724.5669	73.9809	732.4107	23170.2760	3356.6950	4155.8706	221.2965	3878.7497
%RSD		0.9364	18.0687	4.2773	15.7459	6.0562	2.8218	3.1627	2.8765	3.4033	2.1389	2.7300	6.7274	2.7918

6100168-09@MH1H76 10/19/2016 19:42:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	19:42:45	107184.8400	83.3337	138974.2000	11520.6290	18974.4480	6047.3440	737.3632	12788.9890	2843.7781	63.3336	158.8903	86.6671	26.6667	128373.3600	3950.8583	6515.6675	7092.7658	3837.476
2	19:42:58	108375.4900	106.6673	142125.7000	12098.0450	19184.2210	6013.3215	821.3704	13563.4440	2967.1508	56.6668	161.1125	56.6668	13.3333	132045.4000	4137.6080	6705.8057	7433.0375	4130.938
3	19:43:12	109083.8900	60.0002	146477.2900	12388.4350	19355.2490	5965.9570	813.3697	13576.7970	3007.1640	53.3335	162.2237	73.3336	30.0000	134068.0100	4124.2686	6562.3677	8183.6818	3950.858
x		108214.7400	83.3337	142525.7300	12002.3690	19171.3060	6008.8742	790.7011	13309.7440	2939.3643	57.7780	160.7422	72.2225	23.3334	131495.5900	4070.9117	6594.6136	7569.8284	3973.091
σ		959.6793	23.3335	3767.5075	441.7436	190.7290	40.8754	46.3649	451.0357	85.1634	5.0918	1.6973	15.0310	8.8192	2886.6625	104.1830	99.0857	558.1740	147.988
%RSD		0.8868	28.0001	2.6434	3.6805	0.9949	0.6803	5.8638	3.3888	2.8973	8.8127	1.0559	20.8120	37.7965	2.1954	2.5592	1.5025	7.3737	3.724

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:42:45	41189.7690	306.6718	30661.6200	116.6674	1403.4417	218180.4400	5998.6451	27979.6580	290333.2700	151556.2000	147080.2500	4167.6217	180347.9900
2	19:42:58	41099.3610	320.0056	31889.1660	116.6674	1450.1156	226343.0700	6425.6034	29163.3690	305818.7900	156485.3300	151413.8600	4474.4342	185962.7600
3	19:43:12	41363.8900	303.3384	33016.5130	106.6673	1603.4747	230991.1500	6599.0609	31370.7000	312997.0000	156526.0200	155576.6000	4721.2256	189052.1800
x		41217.6730	310.0053	31855.7660	113.3340	1485.6773	225171.5500	6341.1031	29504.5760	303049.6900	154855.8500	151256.9000	4454.4272	185120.9800
σ		134.4541	8.8195	1177.8015	5.7736	104.6508	6485.2078	308.9984	1721.0776	11582.8400	2857.6524	4248.4620	277.3437	4412.7264
%RSD		0.3262	2.8449	3.6973	5.0943	7.0440	2.8801	4.8729	5.8333	3.8221	1.8454	2.8069	6.2262	2.3837

6100168-10@MH1H77 10/19/2016 19:46:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	19:46:45	109343.6500	66.6669	143507.1500	13686.9620	17303.1180	4709.2194	706.0274	8594.0603	2243.6102	80.0004	215.5581	96.6672	13.3333	131429.9100	5408.2749	9187.9740	10429.3120	5845.2
2	19:46:58	111988.8900	50.0001	149278.9800	14257.8390	17473.4430	4866.6356	656.6904	8981.1008	2243.6102	86.6671	234.4475	153.3346	6.6667	134944.1700	5938.6057	9484.9455	10946.5870	6075.3
3	19:47:11	109846.3200	86.6671	153250.9200	14992.3520	17775.3610	4861.2994	662.6908	9101.2202	2180.2614	70.0003	187.7797	133.3343	26.6667	137227.9700	6055.3494	9862.0130	11123.4680	5928.5
x		110392.9600	67.7780	148679.0200	14312.3840	17517.3070	4812.3848	675.1362	8892.1271	2222.4939	78.8892	212.5951	127.7787	15.5556	134534.0200	5800.7433	9511.6442	10833.1220	5949.7
σ		1404.7894	18.3587	4899.5159	654.4022	239.1578	89.3837	26.9203	265.0284	36.5744	8.3888	23.4745	28.7393	10.1835	2920.7124	344.8636	337.8117	360.7195	116.5
%RSD		1.2725	27.0865	3.2954	4.5723	1.3653	1.8574	3.9874	2.9805	1.6456	10.6336	11.0419	22.4915	65.4654	2.1710	5.9452	3.5516	3.3298	1.9

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:46:45	41367.2380	176.6684	29955.9400	16.6667	186.6686	201665.5900	22755.1100	66317.6790	615643.1800	152132.3700	149506.0000	2373.6432	426599.8400
2	19:46:58	41792.5100	193.3354	31069.6690	30.0000	210.0024	207347.9600	24008.3270	69172.1660	637791.2300	158805.0400	153176.3500	2597.0376	447132.0600
3	19:47:11	42532.5970	233.3363	31534.5990	40.0001	213.3358	214245.1500	24416.0770	71483.2750	662830.6900	163259.5700	158126.7000	2707.0697	460148.0400
x		41897.4490	201.1134	30853.4030	28.8889	203.3356	207752.9000	23726.5050	68991.0400	638755.0300	158065.6600	153603.0200	2559.2501	444626.6500
σ		589.7241	29.1236	811.2455	11.7063	14.5300	6299.5494	865.6045	2587.5566	23608.5150	5600.3271	4326.1571	169.8947	16913.8470
%RSD		1.4075	14.4812	2.6294	40.5218	7.1458	3.0322	3.6483	3.7506	3.6950	3.5430	2.8165	6.6385	3.8041

6100168-11@MH1H78 10/19/2016 19:50:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	19:50:43	109596.6700	96.6672	148482.7700	15499.8690	19936.5030	6321.5305	849.3730	21094.4450	3800.7944	63.3336	137.7788	86.6671	20.0000	139451.4300	4377.7205	5191.4819	6295.5124	3330.610
2	19:50:56	111513.1000	70.0003	154461.1500	15473.1570	19983.2720	6385.5752	906.7119	21913.0450	3670.7409	50.0001	134.4454	80.0004	36.6667	144086.2000	4371.0506	5268.1927	6662.4405	3353.951
3	19:51:09	112326.3500	96.6672	156658.2700	16805.5190	20219.1260	6336.2073	894.0440	21612.3260	4040.8979	56.6668	148.8901	63.3336	13.3333	146453.5800	4317.6918	5201.4876	6672.4478	3480.666
x		111145.3700	87.7782	153200.7300	15926.1820	20046.3010	6347.7710	883.3763	21539.9390	3837.4777	56.6668	140.3715	76.6670	23.3334	143330.4000	4355.4876	5220.3874	6543.4669	3388.409
σ		1401.5017	15.3961	4230.9799	761.6457	151.4872	33.5518	30.1212	414.0728	187.7852	6.6667	7.5633	12.0186	12.0185	3561.7365	32.9016	41.7018	214.7932	80.744
%RSD		1.2610	17.5398	2.7617	4.7823	0.7557	0.5286	3.4098	1.9223	4.8935	11.7647	5.3881	15.6764	51.5079	2.4850	0.7554	0.7986	3.2826	2.383

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:50:43	41919.7610	356.6737	17820.7830	110.0007	1526.7949	222131.0700	7156.1488	26271.2380	250679.2000	154559.4700	150234.5300	3460.6586	166144.4700
2	19:50:56	41601.6380	333.3394	18822.8000	136.6677	1663.4855	229333.2900	7242.8841	27110.3630	263123.5500	156471.7600	151942.5700	3647.3982	173601.8900
3	19:51:09	42633.0660	336.6729	20219.1260	140.0011	1730.1646	235542.3900	7596.5059	28180.2760	270632.5600	162882.9100	156505.6700	3687.4144	177122.1600
x		42051.4880	342.2287	18954.2360	128.8898	1640.1483	229002.2500	7331.8463	27187.2930	261478.4400	157971.3800	152894.2600	3598.4904	172289.5100
σ		528.1812	12.6203	1204.5619	16.4432	103.6739	6711.7860	233.2687	956.8411	10077.8950	4359.6499	3242.0807	121.0311	5605.2814
%RSD		1.2560	3.6877	6.3551	12.7575	6.3210	2.9309	3.1816	3.5194	3.8542	2.7598	2.1205	3.3634	3.2534

6100168-12@MH1H79 10/19/2016 19:54:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	19:54:43	112039.5100	76.6670	161970.1500	216579.5000	38373.4850	6726.4876	918.7131	15953.9870	3127.2044	60.0002	170.0016	90.0004	23.3334	149800.8000	4471.0992	6765.8501	8143.6459	4467.76
2	19:54:56	112569.3300	80.0004	165275.5100	224720.2100	38283.1050	6917.9645	904.0450	16184.3940	3147.2113	83.3337	205.5579	60.0002	30.0000	154128.9200	4691.2101	7106.1096	8490.6298	4267.66
3	19:55:09	113271.3000	86.6671	169624.5300	231825.3200	38111.7210	6779.8605	932.0478	16585.1150	3273.9227	113.3340	210.0024	73.3336	23.3334	159792.1100	4824.6132	7446.3818	8820.9441	4978.02
x		112626.7100	81.1115	165623.4000	224375.0100	38256.1040	6808.1042	918.2686	16241.1650	3182.7795	85.5560	195.1873	74.4448	25.5556	154573.9400	4662.3075	7106.1138	8485.0733	4571.15
σ		617.8970	5.0918	3839.0289	7628.7692	132.9547	98.8136	14.0067	319.3711	79.5637	26.7363	21.9244	15.0310	3.8490	5010.5007	178.5205	340.2658	338.6833	366.29
%RSD		0.5486	6.2775	2.3179	3.4000	0.3475	1.4514	1.5253	1.9664	2.4998	31.2500	11.2325	20.1908	15.0613	3.2415	3.8290	4.7884	3.9915	8.01

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:54:43	42917.7340	253.3369	6909.2913	13.3333	146.6679	201328.2400	3233.9084	17680.5100	280938.2300	154105.1800	148269.3300	2917.1346	184744.9700
2	19:54:56	41544.7120	176.6684	7126.1252	26.6667	120.0008	206652.3900	3143.8769	18295.0570	295413.0500	160209.3600	151590.0900	2927.1378	191917.9600
3	19:55:09	43309.5860	130.0009	7182.8365	40.0001	96.6672	213453.5200	3443.9856	18829.4800	303709.8300	162275.5200	157957.1200	3250.5810	196535.0500
x		42590.6770	186.6687	7072.7510	26.6667	121.1119	207144.7200	3273.9236	18268.3490	293353.7000	158863.3500	152605.5100	3031.6178	191065.9900
σ		926.7795	62.2731	144.3723	13.3334	25.0188	6077.6161	154.0040	574.9506	11524.6340	4248.2224	4923.0733	189.6937	5941.0304
%RSD		2.1760	33.3602	2.0412	50.0001	20.6576	2.9340	4.7040	3.1473	3.9286	2.6741	3.2260	6.2572	3.1094

6100168-13@MH1H80 10/19/2016 19:58:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	19:58:43	109637.1500	120.0008	150878.4000	20446.3000	52183.3420	6775.1904	915.3794	17660.4710	3657.4022	56.6668	136.6677	80.0004	20.0000	135888.0700	5284.8690	8520.6579	10055.5580	5258.
2	19:58:57	112042.8900	93.3338	153274.6500	20987.5320	52197.4220	6828.5636	916.7129	18224.9160	3704.0878	33.3334	154.4458	93.3338	30.0000	140297.6300	5988.6385	9017.8038	10392.6040	5628.
3	19:59:10	112589.5800	90.0004	155535.9100	21632.3740	52657.3970	6805.8800	920.7133	18435.3400	3830.8070	60.0002	161.1125	83.3337	30.0000	142559.0700	5791.8444	9167.9538	10849.8040	5785.
x		111423.2100	101.1117	153229.6500	21022.0690	52346.0540	6803.2113	917.6019	18106.9090	3730.7657	50.0001	150.7420	85.5560	26.6667	139581.5900	5688.4507	8902.1385	10432.6550	5557.
σ		1570.7339	16.4431	2329.0815	593.7906	269.7230	26.7865	2.7758	400.6868	89.7278	14.5297	12.6363	6.9390	5.7735	3392.6539	363.0986	338.7947	398.6248	270.
%RSD		1.4097	16.2623	1.5200	2.8246	0.5153	0.3937	0.3025	2.2129	2.4051	29.0594	8.3827	8.1104	21.6507	2.4306	6.3831	3.8058	3.8210	4.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:58:43	42241.2440	410.0093	31246.9420	216.6693	3057.1806	216268.9000	10342.5470	51535.6630	268215.8300	151501.9700	147161.5500	5775.1671	273688.7100
2	19:58:57	42227.8480	450.0111	32481.2570	243.3366	3373.9593	224754.3700	10923.2250	+71504.4730	280549.8400	158265.7500	152037.4700	5898.5797	286195.1100
3	19:59:10	42211.1040	423.3432	34144.0000	233.3363	3307.2681	231801.3800	11086.7560	55713.5320	288375.7500	160372.1900	155329.0800	5995.3096	292208.6100
x		42226.7320	427.7879	32624.0660	231.1141	3246.1360	224274.8900	10784.1760	+59584.5560	279047.1400	156713.3100	151509.3700	5889.6855	284030.8100
σ		15.1007	20.3680	1453.7992	13.4718	167.0031	7777.3354	391.1049	+10532.1870	10163.6200	4634.4097	4109.2997	110.3404	9447.7418
%RSD		0.0358	4.7612	4.4562	5.8291	5.1447	3.4678	3.6267	+17.6760	3.6423	2.9573	2.7122	1.8735	3.3263

6100168-14@MH1H81 10/19/2016 20:02:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	20:02:44	110423.2500	80.0004	150000.7200	16508.3090	35446.9720	7437.0408	1033.3921	24238.9380	4407.7350	96.6672	168.8905	80.0004	16.6667	150688.6200	6812.5516	10776.3830	11921.1440	6622.
2	20:02:58	110622.3100	86.6671	156627.7500	17166.1920	35635.0390	7568.4825	1004.7222	25599.3260	4621.1742	90.0004	168.8905	100.0006	16.6667	154945.9600	6799.2083	11210.2410	12855.7500	7066.
3	20:03:11	111897.7800	90.0004	159330.7800	18194.8560	35533.3080	7574.4875	1002.7220	25799.8910	4674.5348	56.6668	186.6686	76.6670	33.3334	159439.3300	7229.5402	11473.9030	12819.0320	7312.
x		110981.1200	85.5560	155319.7500	17289.7860	35538.4400	7526.6703	1013.6121	25212.7180	4567.8147	81.1115	174.8165	85.5560	22.2223	155024.6400	6947.1000	11153.5090	12531.9750	7000.
σ		800.0721	5.0918	4800.5908	850.0397	94.1382	77.6795	17.1591	849.2603	141.1771	21.4305	10.2642	12.6199	9.6225	4375.8835	244.6913	352.2034	529.3136	349.
%RSD		0.7209	5.9514	3.0908	4.9164	0.2649	1.0321	1.6929	3.3684	3.0907	26.4211	5.8714	14.7505	43.3013	2.8227	3.5222	3.1578	4.2237	4.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:02:44	42371.8490	533.3490	32083.1800	280.0043	3797.4996	220734.3200	13293.0450	46893.9700	256642.1600	153478.0400	149099.4100	3457.3240	273671.5400
2	20:02:58	42251.2900	576.6850	33622.0600	276.6709	4140.9429	230690.3200	14087.5740	50908.8130	269678.1500	160172.0400	154373.0000	3774.1166	283317.0300
3	20:03:11	42130.7330	480.0127	34562.2420	243.3366	3917.5106	235320.0700	14231.1300	51163.5700	275423.2600	161135.5100	156807.4800	3700.7531	292669.7600
x		42251.2910	530.0155	33422.4940	266.6706	3951.9710	228914.9100	13870.5830	49655.4510	267247.8600	158261.8600	153426.6300	3644.0646	283219.4400
σ		120.5584	48.4223	1251.5219	20.2765	174.3153	7453.1935	505.2867	2394.9027	9623.5216	4170.9260	3940.2159	165.8300	9499.4876
%RSD		0.2853	9.1360	3.7445	7.6036	4.4108	3.2559	3.6429	4.8230	3.6010	2.6354	2.5681	4.5507	3.3541

6100168-15@MH1H82 10/19/2016 20:06:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	20:06:46	111438.8600	140.0011	149231.5500	67358.6240	38213.4800	7694.5883	1054.0611	37008.5100	6272.1630	33.3334	98.8894	40.0001	36.6667	154715.4200	6909.2913	10846.4670	12515.2760	6525.6
2	20:06:59	112265.6100	140.0011	155407.0700	70881.9270	38099.0010	7839.3786	1006.0557	37741.5140	6879.2685	40.0001	82.2226	46.6668	23.3334	158567.6100	7202.8523	11170.1920	13072.7260	6895.9
3	20:07:12	113396.1800	140.0011	158096.1800	73106.1040	38399.5950	7821.3631	1055.3946	38913.1050	6759.1785	76.6670	70.0003	46.6668	23.3334	164739.2400	7633.2033	11690.8460	13616.8570	7052.7
x		112366.8800	140.0011	154244.9300	70448.8850	38237.3580	7785.1100	1038.5038	37887.7100	6636.8700	50.0002	83.7041	44.4446	27.7778	159340.7600	7248.4490	11235.8350	13068.2860	6824.7
σ		982.5796	0.0000	4545.1429	2898.1071	151.7130	78.9099	28.1088	960.6769	321.5024	23.3335	14.5014	3.8490	7.6980	5056.4392	364.1036	425.9997	550.8042	270.6
%RSD		0.8744	0.0000	2.9467	4.1138	0.3968	1.0136	2.7067	2.5356	4.8442	46.6668	17.3247	8.6603	27.7129	3.1733	5.0232	3.7914	4.2148	3.9

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:06:46	42254.6390	1136.7377	14601.7170	796.7016	11413.8270	220372.3700	3380.6285	11907.7940	85382.4180	151776.5000	148536.9800	2330.2986	140737.6900
2	20:06:59	42020.2230	1273.4225	15436.4280	810.0361	11847.7150	227245.1600	3500.6739	12134.7600	89360.3760	157746.8500	152057.8100	2530.3521	145576.3300
3	20:07:12	42834.0080	1313.4282	15306.2080	840.0388	12001.2500	233162.1900	3630.7249	12608.7380	92312.9920	158537.0900	153878.0500	2610.3747	148093.1600
x		42369.6230	1241.1962	15114.7840	815.5922	11754.2640	226926.5700	3504.0091	12217.0970	89018.5950	156020.1500	151490.9500	2490.3418	144802.3900
σ		418.9002	92.6487	449.0743	22.1964	304.6574	6400.8635	125.0816	357.6524	3477.9052	3696.2863	2715.2840	144.2611	3738.3102
%RSD		0.9887	7.4645	2.9711	2.7215	2.5919	2.8207	3.5697	2.9275	3.9069	2.3691	1.7924	5.7928	2.5817

6100168-16@MH1H83 10/19/2016 20:10:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	
1	20:10:44	111337.6300	126.6676	151678.2100	63625.2060	40785.2840	9038.4910	1228.0829	44696.2740	6302.1837	76.6670	140.0011	56.6668	26.6667	147395.2900	10913.2130	17967.7390	20880.6190	1126
2	20:10:57	111516.4700	96.6672	154776.4400	65085.4890	40992.2120	9184.6373	1213.4143	46136.7770	6939.3141	56.6668	146.6679	123.3342	23.3334	152776.3700	11390.4650	19080.0020	21174.6310	1184
3	20:11:10	114351.3600	133.3343	159900.6600	68302.2930	41810.5930	9054.5168	1220.7486	48009.7710	7192.8444	66.6669	144.4456	50.0001	13.3333	156780.3500	12078.0180	19370.6150	21518.7710	1215
x		112401.8200	118.8897	155451.7700	65670.9960	41196.0300	9095.8817	1220.7486	46280.9410	6811.4474	66.6669	143.7048	76.6671	21.1111	152317.3300	11460.5650	18806.1180	21191.3410	1175
σ		1690.7180	19.5318	4152.6157	2392.8849	542.1907	77.9584	7.3343	1661.4462	458.6917	10.0001	3.3946	40.5521	6.9389	4709.3389	585.5580	740.4557	319.4041	45
%RSD		1.5042	16.4285	2.6713	3.6437	1.3161	0.8571	0.6008	3.5899	6.7371	15.0001	2.3622	52.8938	32.8684	3.0918	5.1093	3.9373	1.5072	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:10:44	42596.2280	646.6897	48465.5130	323.3391	4344.3711	231281.7300	21431.9000	40493.3170	147717.1100	153210.2500	147093.8000	2483.6726	362877.3500
2	20:10:57	42689.9990	570.0179	51482.0270	353.3402	4511.1190	239093.3000	22608.0770	43272.7450	151871.4000	155769.8600	149211.2200	2460.3329	376487.7100
3	20:11:10	43379.9200	570.0179	52068.6870	380.0079	4834.6185	244805.6800	23299.8200	44254.1190	155549.4700	160056.7000	153535.6700	2773.7564	389467.7200
x		42888.7160	595.5751	50672.0760	352.2291	4563.3696	238393.5700	22446.5990	42673.3930	151712.6600	156345.6000	149946.8900	2572.5873	376277.5900
σ		427.9717	44.2665	1933.3215	28.3508	249.2654	6789.0746	944.3718	1950.7239	3918.5909	3459.3489	3283.3442	174.6080	13296.4320
%RSD		0.9979	7.4326	3.8154	8.0490	5.4623	2.8478	4.2072	4.5713	2.5829	2.2126	2.1897	6.7873	3.5337

6100168-17@MH1H84 10/19/2016 20:14:42

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	20:14:42	115269.5200	343.3398	155329.0800	69125.1440	31844.3430	12850.4090	1650.1498	120976.2900	18619.0470	83.3337	103.3339	83.3337	16.6667	237375.8300	3183.8908	4651.1895	5331.5629	2870.45
2	20:14:55	117592.3200	333.3394	159262.9400	71479.9150	32043.7080	13007.2990	1639.4812	129150.9300	19407.3600	63.3336	101.1117	60.0002	26.6667	245908.1800	3247.2465	4981.3644	5785.1735	2997.16
3	20:15:08	120098.0900	393.3418	165082.0400	75011.5320	32470.5520	13089.4170	1793.5102	133002.5300	20275.9190	70.0003	104.4450	63.3336	16.6667	252841.1900	3507.3431	5198.1524	5965.2898	3250.58
x		117653.3100	356.6737	159891.3600	71872.1970	32119.5340	12982.3750	1694.3804	127709.9200	19434.1090	72.2225	102.9636	68.8892	20.0000	245375.0600	3312.8268	4943.5688	5694.0088	3039.39
σ		2414.8636	32.1468	4906.7541	2962.7361	319.9167	121.4373	86.0145	6141.2576	828.7599	10.1836	1.6973	12.6199	5.7735	7746.4493	171.4087	275.4332	326.5512	193.55
%RSD		2.0525	9.0129	3.0688	4.1222	0.9960	0.9354	5.0765	4.8088	4.2645	14.1003	1.6484	18.3191	28.8675	3.1570	5.1741	5.5715	5.7350	6.36

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:14:42	43436.8580	543.3495	7122.7893	120.0008	2243.6102	203734.2900	2126.9154	5074.7494	184428.6500	158075.8300	151932.4000	1300.0930	108237.1900
2	20:14:55	43842.1300	496.6802	7366.3166	136.6677	2296.9568	210939.1800	2200.2662	4844.6239	191114.6300	159982.0700	157801.1100	1430.1125	111843.7900
3	20:15:08	43704.8040	513.3478	7786.6667	160.0014	2193.5980	215101.6900	2336.9670	5148.1239	197706.7100	163110.2600	158024.9500	1480.1205	113507.5600
x		43661.2640	517.7925	7425.2575	138.8900	2244.7216	209925.0500	2221.3829	5022.4990	191083.3300	160389.3900	155919.4900	1403.4420	111196.1800
σ		206.1143	23.6500	335.8405	20.0927	51.6884	5751.1560	106.6061	158.3529	6639.0876	2541.8136	3454.7325	92.9299	2694.2020
%RSD		0.4721	4.5675	4.5229	14.4666	2.3027	2.7396	4.7991	3.1529	3.4744	1.5848	2.2157	6.6216	2.4229

SEQIBL2 AM1928

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User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	
1	20:18:40	112147.5000	970.0518	151935.7900	3994.2106	2026.8926	606.6869	160.0014	32056.4190	1993.5519	30.0000	38.8890	20.0000	30.0000	245418.5500	2660.3892	4197.6356	4784.5921	2563.6948	71
2	20:18:53	113136.3000	976.7191	153583.1300	3964.1975	1970.8803	622.6880	161.3348	32959.6400	2120.2472	50.0001	38.8890	60.0002	26.6667	250490.7800	2733.7443	4307.6870	5498.3289	2553.6920	71
3	20:19:07	114547.1400	1000.0550	154644.2200	3794.1249	2040.2289	613.3540	149.3346	33294.1900	2140.2519	46.6668	37.7779	30.0000	13.3333	254636.9400	2627.0462	4601.1641	5608.3961	2873.7875	73
x		113276.9800	982.2753	153387.7100	3917.5110	2012.6673	614.2430	156.8902	32770.0830	2084.6837	42.2223	38.5186	36.6668	23.3334	250182.0900	2673.7266	4368.8289	5297.1057	2663.7247	72
σ		1205.9903	15.7544	1364.7491	107.9041	36.7978	8.0375	6.5773	640.2873	79.5537	10.7152	0.6415	20.8168	8.8192	4616.9451	54.5851	208.5967	447.2487	181.9884	1
%RSD		1.0646	1.6039	0.8897	2.7544	1.8283	1.3065	4.1923	1.9539	3.8161	25.3781	1.6654	56.7728	37.7965	1.8454	2.0415	4.7747	8.4433	6.8321	

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:18:40	41618.3810	500.0138	1403.4417	146.6679	1990.2178	210581.0200	426.6767	6909.2913	15890.5430	158859.3100	153132.2800	426.6767	93309.7570
2	20:18:53	42130.7330	366.6741	1600.1408	143.3345	1693.4911	215507.8100	403.3423	6919.2989	16501.6300	162021.0400	158523.5200	380.0079	96027.8430
3	20:19:07	41551.4090	473.3457	1620.1444	123.3342	1933.5389	220351.8800	343.3398	7222.8682	17129.4560	165903.4600	161454.4300	390.0084	98153.7000
x		41766.8410	446.6778	1541.2423	137.7788	1872.4159	215480.2300	391.1196	7017.1526	16507.2090	162261.2700	157703.4100	398.8977	95830.4330
σ		316.9137	70.5567	119.7572	12.6200	157.5237	4885.4896	42.9919	178.2250	619.4756	3528.2172	4221.2506	24.5715	2427.9975
%RSD		0.7588	15.7959	7.7702	9.1596	8.4129	2.2673	10.9920	2.5398	3.7528	2.1744	2.6767	6.1598	2.5336

SEQ-IBL1@ZZZZZZ 10/19/2016 20:22:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	20:22:39	114293.9800	106.6673	156366.6500	11590.7180	19335.8750	5622.4048	818.7035	32611.7220	4311.0219	73.3336	118.8897	80.0004	10.0000	171577.3300	2530.3521	3830.8070	4587.8240	2273.617
2	20:22:52	115586.8400	130.0009	157238.1500	11947.8460	19090.6910	5468.3108	782.7004	34281.1810	4767.9167	73.3336	121.1119	93.3338	26.6667	174366.3100	2703.7353	4100.9248	4581.1540	2436.993
3	20:23:05	115914.3100	93.3338	161437.4600	11974.5480	19410.7010	5566.3703	770.6993	34461.8620	4591.1590	83.3337	130.0009	50.0001	23.3334	178383.1300	2753.7503	3897.5020	4651.1895	2507.012
x		115265.0400	110.0007	158347.4200	11837.7040	19279.0890	5552.3620	790.7011	33784.9220	4556.6992	76.6670	123.3342	74.4448	20.0000	174775.5900	2662.6126	3943.0779	4606.7225	2405.874
σ		856.7537	18.5594	2711.3019	214.3127	167.3920	77.9962	24.9822	1020.0290	230.3884	5.7736	5.8795	22.1946	8.8192	3421.3075	117.2391	140.7081	38.6537	119.768
%RSD		0.7433	16.8721	1.7122	1.8104	0.8683	1.4047	3.1595	3.0192	5.0560	7.5307	4.7672	29.8135	44.0959	1.9575	4.4032	3.5685	0.8391	4.978

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:22:39	43704.8040	576.6850	18044.5570	260.0037	4274.3379	225622.1400	4554.4739	19540.9790	192173.2700	156620.9700	151159.6800	2823.7718	155291.7900
2	20:22:52	43651.2140	676.6919	18886.2640	256.6703	4371.0506	230194.6600	4661.1947	21040.9880	199921.0200	164270.8800	157733.2900	3263.9192	161810.6800
3	20:23:05	43403.3650	646.6897	19868.3540	290.0046	4607.8341	238166.1000	5234.8401	21318.3000	205667.0900	165197.4500	160036.3500	3097.1942	164630.6400
x		43586.4610	633.3555	18933.0590	268.8929	4417.7409	231327.6300	4816.8362	20633.4220	199253.7900	162029.7700	156309.7700	3061.6284	160577.7000
σ		160.8138	51.3195	912.7986	18.3591	171.5806	6348.2620	365.9136	956.1902	6771.6076	4707.0104	4606.3660	222.2186	4789.9571
%RSD		0.3690	8.1028	4.8212	6.8277	3.8839	2.7443	7.5966	4.6342	3.3985	2.9050	2.9469	7.2582	2.9830

SEQ-CCV@CCV04 10/19/2016 20:26:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	20:26:39	111023.8300	200449.1300	138615.4500	538765.2900	454202.6300	606199.8500	75340.9060	τ3430987.3000	721627.7000	4831.2834	16202.2030	7543.1281	113.3340	112535.5800	1393146.7000	τ2507165.30
2	20:26:52	111060.9500	201859.8300	142115.5400	556132.3800	451721.4700	611248.3100	75445.0980	τ3509140.1000	749322.6300	4911.3263	16138.7570	7673.2370	103.3339	117690.2400	1460362.1000	τ2603960.80
3	20:27:05	113838.3200	205551.1800	142873.9600	564413.4200	456374.7900	614759.6200	75851.1220	τ3556380.8000	759623.8000	4938.0074	16434.8420	7643.2117	110.0007	118412.8700	1497003.0000	τ2661924.50
x		111974.3700	202620.0500	141201.6500	553103.6900	454099.6300	610735.9300	75545.7080	τ3498836.1000	743524.7100	4893.5391	16258.6010	7619.8589	108.8895	116212.9000	1450170.6000	τ2591016.90
σ		1614.3375	2634.6098	2271.5886	13089.5500	2328.3691	4302.8279	269.5776	τ63328.5820	19650.3880	55.5409	155.8915	68.1255	5.0918	3205.0769	52672.9130	τ78187.33
%RSD		1.4417	1.3003	1.6088	2.3666	0.5127	0.7045	0.3568	τ1.8100	2.6429	1.1350	0.9588	0.8941	4.6761	2.7579	3.6322	τ3.01

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:26:39	43065.0950	54482.7730	359122.5700	40995.5600	617182.4700	228690.7400	2100045.0000	2099136.6000	730203.5600	158896.6200	155593.5500	τ4679967.8000	94407.6720
2	20:26:52	42793.8190	56431.2720	373838.3400	42964.6220	645862.2400	236855.8600	2221171.1000	2216789.8000	757091.7600	164124.9500	159931.1900	τ4868947.6000	99905.9660
3	20:27:05	43460.3030	59473.9090	381851.2800	44796.7670	665230.1300	243823.1300	2302209.8000	2297501.9000	791690.8500	169699.2300	165112.5900	τ4937710.2000	102652.9800
x		43106.4060	56795.9840	371604.0600	42918.9830	642758.2800	236456.5800	2207808.6000	2204476.1000	759662.0600	164240.2700	160212.4400	τ4828875.2000	98988.8740
σ		335.1568	2515.4763	11527.9010	1901.0141	24173.7520	7574.0946	101742.6800	99754.2680	30824.1230	5402.2320	4765.7496	τ133462.1300	4198.4616
%RSD		0.7775	4.4290	3.1022	4.4293	3.7609	3.2032	4.6083	4.5251	4.0576	3.2892	2.9746	τ2.7638	4.2413

SEQ-CCB@CCB04 10/19/2016 20:30:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:30:42	109765.3500	50.0001	133557.2400	233.3363	276.0042	232.6696	96.0005	613.3540	516.6814	0.0000	7.7778	23.3334	16.6667	110018.3900	443.3441	843.3725	976.7191	516.6814	1470.1189
2	20:30:55	110571.7000	76.6670	136673.0400	153.3346	290.0046	224.6694	104.6673	730.0293	530.0154	3.3333	16.6667	23.3334	13.3333	113450.1800	513.3478	960.0507	1026.7246	626.6883	1473.4527
3	20:31:08	111344.3800	60.0002	138155.1900	203.3356	276.0042	253.3369	102.6673	753.3646	523.3484	0.0000	13.3333	10.0000	20.0000	114796.9300	633.3554	923.3802	1100.0666	603.3534	1460.1172
x		110560.4800	62.2224	136128.4900	196.6689	280.6710	236.8920	101.1117	698.9160	523.3484	1.1111	12.5926	18.8889	16.6667	112755.1600	530.0158	908.9345	1034.5034	582.2410	1467.8963
σ		789.5743	13.4716	2346.8460	40.4154	8.0832	14.7928	4.5380	75.0118	6.6671	1.9245	4.4905	7.6980	3.3333	2463.9199	96.0960	59.6654	62.0405	57.9627	6.9400
%RSD		0.7142	21.6507	1.7240	20.5500	2.8799	6.2445	4.4881	10.7326	1.2739	173.2051	35.6599	40.7542	20.0000	2.1852	18.1308	6.5643	5.9971	9.9551	0.4728

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:30:42	41886.2740	110.0007	83.3337	23.3334	113.3340	197907.6800	640.0225	556.6837	153.3346	155651.1900	152396.7400	1080.0642	92986.4700
2	20:30:55	42532.5970	166.6682	70.0003	0.0000	173.3350	205517.0900	616.6876	526.6819	186.6686	160697.8700	155417.2400	910.0456	94363.8880
3	20:31:08	42793.8190	133.3343	100.0006	20.0000	116.6674	210192.1700	653.3568	570.0179	183.3352	160823.3900	157377.1900	843.3725	95765.0930
x		42404.2300	136.6677	84.4448	14.4445	134.4455	204538.9800	636.6690	551.1278	174.4461	159057.4800	155063.7300	944.4941	94371.8170
σ		467.1920	28.4804	15.0310	12.6198	33.7205	6200.3785	18.5605	22.1958	18.3589	2950.6026	2508.9733	122.0482	1389.3283
%RSD		1.1018	20.8392	17.7998	87.3678	25.0812	3.0314	2.9152	4.0273	10.5241	1.8551	1.6180	12.9221	1.4722

Analyte ICPS

SEQ-CAL1@S01 10/19/2016 14:24:35

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:24:35	99.4%	-6.3611	99.2%	-26.2220	-32.5828	-6.1259	-10.7586	6.4536	-164.0864	1.0377	-1.8189	-1.3364	-4.5143	-855.2720	-1.6337	1.0013	1.7579	-5.2895	-10.6783
2	14:24:48	100.4%	3.4087	100.3%	46.3950	-113.8001	15.2293	14.2394	-7.1674	-178.8664	1.1454	0.4475	-1.0399	2.2311	4.7625	-15.4558	-5.9739	-8.8651	7.7910	12.2742
3	14:25:01	100.2%	3.3596	100.5%	-20.1731	-45.5498	4.5230	-3.4808	-0.6179	-91.7910	-2.1831	-0.6504	2.3763	2.2832	850.5095	17.0896	6.9600	7.1072	-2.5015	-1.5959
x		100.0%	0.1357	100.0%	-0.0000	-63.9776	4.5421	0.0000	-0.4439	-144.9146	0.0000	-0.6739	0.0000	-0.0000	0.0000	0.0000	0.6625	-0.0000	0.0000	0.0000
σ		0.5%	5.6265	0.7%	40.2930	43.6320	10.6776	12.8574	6.8122	46.5961	1.8913	1.1334	2.0633	3.9096	852.9008	16.3341	6.4736	8.1300	6.8897	11.5592
%RSD		0.5	4145.8817	0.7	0.0000	68.1989	235.0796	0.0000	1534.6002	32.1542	0.0000	168.1721	0.0000	0.0000	0.0000	0.0000	977.1791	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:24:35	101.3%	-6.8063	0.2034	4.5376	-2.1730	415.2590	-20.5493	-3.1866	4.7421	97.0%	98.1%	4.1528	-321.0297
2	14:24:48	99.6%	-21.9543	0.0011	-2.2688	-2.1667	847.6626	-8.4306	-0.3650	-0.0571	99.6%	99.8%	-2.9964	1187.7408
3	14:25:01	99.1%	28.7605	-0.2053	-2.2688	4.3479	-1262.9217	28.9798	5.4811	-4.9857	103.4%	102.2%	-0.2059	-866.7111
x		100.0%	0.0000	-0.0002	-0.0000	0.0027	-0.0000	-0.0000	0.6432	-0.1002	100.0%	100.0%	0.3166	-0.0000
σ		1.1%	26.0335	0.2044	3.9296	3.7630	1114.8864	25.8184	4.4209	4.8640	3.2%	2.1%	3.6031	1064.1843
%RSD		1.1	0.0000	83076.0130	0.0000	137525.6600	0.0000	0.0000	687.3724	-4852.0746	3.2	2.1	1137.3543	0.0000

SEQ-CAL2@S02 10/19/2016 14:28:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:28:41	98.4%	48.6974	97.4%	-1.5737	895.5177	540.4299	14.2134	1424.2400	250.2161	7.8079	36.0487	5.6817	5.5479	-358.5620	1969.4017	3755.9238	4072.1874	2189.0603	6107.3997
2	14:28:54	99.7%	53.9228	99.4%	37.3157	940.5988	528.7542	6.0513	1379.3445	228.6367	1.2383	26.5167	5.8868	2.3705	-1142.0988	2012.5019	3882.9801	4063.6364	2299.2605	6052.3729
3	14:29:07	101.2%	71.5777	102.0%	8.5658	789.4213	519.0156	24.4837	1361.6705	344.5424	7.9468	27.4700	12.5371	2.3135	-1965.0836	2206.0540	3865.9441	4085.0366	2369.5391	6209.7363
x		99.7%	58.0659	99.6%	14.7693	875.1793	529.3999	14.9161	1388.4184	274.4651	5.6643	30.0118	8.0352	3.4106	-1155.2482	2062.6525	3834.9494	4073.6201	2285.9533	6123.1696
σ		1.4%	11.9896	2.3%	20.1732	77.6138	10.7217	9.2363	32.2566	61.6405	3.8337	5.2498	3.9001	1.8511	803.3415	126.0452	68.9662	10.7718	90.9723	79.8582
%RSD		1.4	20.6483	2.3	136.5893	8.8683	2.0253	61.9215	2.3233	22.4584	67.6808	17.4924	48.5377	54.2749	69.5384	6.1108	1.7984	0.2644	3.9796	1.3042

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:28:41	99.8%	47.1973	1054.9675	14.6859	211.3824	-224.7933	6245.2279	1736.4031	2867.6431	99.0%	100.3%	1701.7677	-626.6455
2	14:28:54	98.3%	51.5425	1154.8599	37.7786	211.2173	-2213.7574	6523.7552	1716.9154	2911.1421	100.2%	101.7%	1877.3354	-216.8195
3	14:29:07	98.8%	32.0176	1136.7281	27.1327	252.4306	1315.8969	6414.9360	1505.1742	2896.7094	102.0%	102.1%	1870.1852	-41.7178
x		99.0%	43.5858	1115.5185	26.5324	225.0101	-374.2179	6394.6397	1652.8309	2891.8315	100.4%	101.4%	1816.4294	-295.0609
σ		0.8%	10.2512	53.2166	11.5580	23.7470	1769.5651	140.3685	128.2452	22.1560	1.5%	1.0%	99.3643	300.2106
%RSD		0.8	23.5197	4.7706	43.5620	10.5537	472.8702	2.1951	7.7591	0.7662	1.5	0.9	5.4703	101.7453

SEQ-CAL3@S03 10/19/2016 14:32:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:32:44	99.0%	212.5379	96.2%	54.6948	2178.4318	1162.0752	3.9415	3319.0756	929.9447	31.3675	89.9489	39.1932	-1.0946	-1056.4783	4365.6033	7385.5163	8250.2821	4729.7637	11763.6730
2	14:32:57	99.0%	224.1889	98.4%	35.0611	2031.4661	1153.5556	39.1855	3273.7272	1069.4941	11.2355	95.5580	-4.0283	19.0444	-98.7692	4371.9438	7590.6698	8405.1423	4799.7211	12290.8040
3	14:33:10	99.9%	171.8702	99.1%	7.3849	2137.4654	1150.2329	20.2704	3270.1230	999.2927	7.6708	54.3616	34.9815	-7.8062	465.4732	4542.4933	7642.2189	8468.1078	5082.4212	12043.3950
x		99.3%	202.8657	97.9%	32.3802	2115.7878	1155.2879	21.1325	3287.6419	999.5772	16.7579	79.9562	23.3821	3.3812	-229.9248	4426.6802	7539.4683	8374.5107	4870.6353	12032.6240
σ		0.5%	27.4677	1.5%	23.7686	75.8431	6.1082	17.6378	27.2819	69.7752	12.7772	22.3423	23.8314	13.9737	769.4059	100.3473	135.7949	112.0969	186.7176	263.7309
%RSD		0.5	13.5399	1.6	73.4046	3.5846	0.5287	83.4630	0.8298	6.9805	76.2457	27.9432	101.9213	413.2771	334.6337	2.2669	1.8011	1.3385	3.8335	2.1918

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:32:44	99.3%	48.5751	2376.3255	62.7605	620.5957	-3150.5185	12301.1440	3858.3633	6825.4118	98.4%	98.8%	4301.1672	-537.7988
2	14:32:57	99.3%	100.3913	2658.7578	38.2094	621.6738	1177.3014	12948.5450	4021.2180	6802.5227	99.2%	99.8%	4196.7024	1041.8365
3	14:33:10	100.9%	68.2638	2664.1131	37.7823	554.8294	458.6179	12741.4780	3899.3255	7026.9172	100.5%	101.9%	4497.1793	-26.0617
x		99.8%	72.4101	2566.3988	46.2508	599.0329	-504.8664	12663.7220	3926.3023	6884.9506	99.4%	100.2%	4331.6830	159.3253
σ		0.9%	26.1558	164.6301	14.2995	38.2852	2319.2096	330.6305	84.7126	123.4783	1.0%	1.6%	152.5451	805.9703
%RSD		0.9	36.1217	6.4148	30.9173	6.3912	459.3710	2.6108	2.1576	1.7935	1.1	1.6	3.5216	505.8645

SEQ-CAL4@S04 10/19/2016 14:36:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:36:45	97.4%	369.3664	96.8%	-4.6031	4118.9538	2355.2001	61.1576	6576.8096	1244.3018	28.1151	157.5618	39.7527	19.1228	-511.3721	10311.9430	18284.6380	19891.1110	11570.9550	29504.4110
2	14:36:58	99.7%	460.6831	98.5%	1.0834	4386.5253	2337.3192	11.1335	6705.7683	1334.4698	34.8966	155.5117	86.7287	5.6747	-800.8506	10609.0180	19046.4300	20664.8390	11761.5100	30608.4540
3	14:37:11	99.5%	362.1119	98.6%	-26.0423	4264.1963	2341.7671	10.3382	6751.8706	1364.3940	27.3523	158.2867	45.1760	18.5125	954.0118	10896.7540	19276.5200	20864.3920	11934.1970	31276.0840
x		98.9%	397.3871	98.0%	-9.8540	4256.5585	2344.7621	27.5431	6678.1495	1314.3885	30.1213	157.1201	57.2191	14.4367	-119.4036	10605.9050	18869.1960	20473.4470	11755.5540	30462.9830
σ		1.2%	54.9357	1.0%	14.3049	133.9492	9.3091	29.1138	90.7396	62.5138	4.1530	1.4393	25.6995	7.5942	940.8055	292.4178	519.1500	514.0937	181.6944	894.7502
%RSD		1.2	13.8242	1.0	145.1679	3.1469	0.3970	105.7026	1.3588	4.7561	13.7877	0.9161	44.9142	52.6038	787.9205	2.7571	2.7513	2.5110	1.5456	2.9372

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:36:45	99.0%	104.2055	5196.9159	118.0671	1236.2965	-1426.5112	31260.4170	7589.1864	13428.0400	97.1%	97.9%	8460.7813	436.8308
2	14:36:58	98.9%	147.3859	5431.0918	81.9810	1139.8259	326.6974	31221.3860	7653.3048	13623.5450	99.2%	100.0%	8681.4063	842.8968
3	14:37:11	101.3%	97.7681	5416.8672	97.5582	1174.3238	-332.3419	32685.4050	7518.4357	13769.0950	101.5%	102.0%	8474.9316	79.9688
x		99.8%	116.4532	5348.2916	99.2021	1183.4821	-477.3852	31722.4030	7586.9756	13606.8930	99.3%	100.0%	8539.0397	453.2322
σ		1.4%	26.9812	131.2880	18.0991	48.8830	885.5581	834.2126	67.4618	171.1362	2.2%	2.1%	123.4959	381.7283
%RSD		1.4	23.1692	2.4548	18.2447	4.1304	185.5018	2.6297	0.8892	1.2577	2.2	2.1	1.4463	84.2236

SEQ-CAL5@S05 10/19/2016 14:40:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	14:40:46	96.8%	4332.2864	94.9%	10690.5330	8445.7301	12047.2460	113.5438	66748.2860	14169.0080	103.5232	327.7432	121.7869	-0.9894	-1867.7129	26210.0380	46062.5540	50469.8880	28914.2700	75676.171(
2	14:40:59	98.0%	4266.4526	97.2%	10767.9330	8396.8692	11868.3650	116.8507	66087.9520	14180.1240	105.2850	296.0173	146.6401	-4.4477	-378.6616	27155.3350	47686.9530	51715.9110	29836.6990	76627.071(
3	14:41:13	99.7%	3932.9206	98.9%	11009.6140	8448.8793	12010.8270	115.5418	67173.8210	14131.9600	139.0693	308.7623	150.5573	12.3725	74.7762	27035.5090	47929.7930	52093.8020	30290.9090	78386.157(
x		98.1%	4177.2199	97.0%	10822.6930	8430.4928	11975.4790	115.3121	66670.0200	14160.3640	115.9592	310.8410	139.6614	2.3118	-723.8661	26800.2940	47226.4330	51426.5340	29680.6260	76896.466(
σ		1.5%	214.1147	2.0%	166.4399	29.1615	94.5338	1.6654	547.1487	25.2188	20.0333	15.9648	15.6032	8.8828	1016.2138	514.6755	1015.2361	849.7522	701.4648	1374.9312
%RSD		1.5	5.1258	2.0	1.5379	0.3459	0.7894	1.4442	0.8207	0.1781	17.2762	5.1360	11.1722	384.2359	140.3870	1.9204	2.1497	1.6524	2.3634	1.788(

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:40:46	97.8%	987.0791	6805.5572	785.6826	11586.9040	-1478.5560	39554.5060	38340.5620	13336.5620	97.7%	99.0%	86054.8570	-679.8155
2	14:40:59	99.3%	1097.8141	6665.6333	767.9586	11872.0960	-906.5033	39689.9840	39287.0220	13389.4730	99.9%	100.0%	87605.8810	1068.4625
3	14:41:13	99.1%	945.1864	6987.7588	867.8300	12130.4160	-415.7476	39578.0010	39263.5850	13867.1830	100.9%	101.4%	87901.2020	2526.9262
x		98.7%	1010.0265	6819.6498	807.1570	11863.1390	-933.6023	39607.4970	38963.7230	13531.0730	99.5%	100.1%	87187.3130	971.8577
σ		0.8%	78.8590	161.5245	53.2864	271.8668	531.9222	72.3948	539.8003	292.2802	1.6%	1.2%	991.7892	1605.5521
%RSD		0.8	7.8076	2.3685	6.6017	2.2917	56.9752	0.1828	1.3854	2.1601	1.6	1.2	1.1375	165.2044

SEQ-CAL6@S06 10/19/2016 14:44:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	14:44:47	97.7%	20003.2580	94.2%	52906.8490	41740.5600	58655.5520	680.9703	329763.1900	68918.4320	410.9373	1623.3366	682.1447	12.6761	-1219.6960	132583.6000	231978.6700	252526.0900	144934.8600
2	14:45:00	97.9%	20083.8300	95.9%	53485.7350	41898.9250	58671.7980	608.8119	329989.1100	69909.6190	531.3946	1520.7921	712.1388	5.8375	-1930.2293	133208.0700	234875.1600	253657.7500	145131.3300
3	14:45:13	98.9%	20778.8550	95.9%	53716.4500	42179.3780	58841.9390	578.7080	336592.1500	70961.6480	414.5239	1523.8118	727.1043	26.3451	104.5829	136404.3700	238528.8900	260623.7600	149378.0800
x		98.2%	20288.6480	95.3%	53369.6780	41939.6210	58723.0960	622.8301	332114.8200	69929.9000	452.9519	1555.9801	707.1293	14.9529	-1015.1142	134065.3400	235127.5700	255602.5300	146481.4200
σ		0.6%	426.4390	1.0%	417.0912	222.2214	103.2408	52.5526	3879.1296	1021.7585	69.6885	58.3519	22.8946	10.4417	1032.7175	2049.5772	3282.3993	4385.1719	2510.4998
%RSD		0.6	2.1019	1.0	0.7815	0.5299	0.1758	8.4377	1.1680	1.4611	15.3854	3.7502	3.2377	69.8304	101.7341	1.5288	1.3960	1.7156	1.7139

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:44:47	97.6%	5379.2873	34070.3340	4074.5363	58734.5910	-3255.5130	194618.2100	190968.8000	66969.9450	97.8%	99.0%	434068.3600	527.9361
2	14:45:00	97.7%	5530.0774	33496.3950	3885.7923	58642.3620	-1696.8002	197814.4700	192528.4600	67614.9540	101.3%	101.7%	442319.6000	991.1637
3	14:45:13	97.6%	5325.1664	35175.4920	3924.6890	59606.7610	636.6504	199732.5400	193775.3100	67805.9500	103.3%	102.8%	442431.3000	330.0466
x		97.7%	5411.5104	34247.4070	3961.6725	58994.5710	-1438.5543	197388.4100	192424.1900	67463.6160	100.8%	101.2%	439606.4200	616.3821
σ		0.1%	106.1879	853.4391	99.6589	532.1738	1958.8906	2583.6461	1406.1591	438.0679	2.8%	2.0%	4796.4250	339.3170
%RSD		0.1	1.9623	2.4920	2.5156	0.9021	136.1708	1.3089	0.7308	0.6493	2.7	1.9	1.0911	55.0498

SEQ-CAL7@S07 10/19/2016 14:48:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	14:48:47	95.0%	205829.5900	93.3%	534364.3900	416718.9600	585258.1200	5478.0076	r 3309921.9000	706425.0200	4669.8702	15165.1300	7410.0094	77.6778	-3761.0538	1346360.3000	2419258.1000	r 2598419
2	14:49:00	96.0%	205916.9000	95.3%	538670.0200	419411.5900	583398.5800	4865.1635	r 3304451.2000	709818.2300	4407.5531	15309.6420	7025.0973	93.4654	-2101.0220	1380197.5000	r 2433769.7000	r 2637320
3	14:49:13	96.7%	204197.3000	96.6%	542843.1000	419594.8900	592648.3300	5275.2445	r 3308206.9000	710209.2700	4595.0204	15785.5060	7124.8861	101.3797	-2115.8729	1373796.7000	r 2414310.7000	r 2633016
x		95.9%	205314.6000	95.0%	538625.8400	418575.1500	587101.6800	5206.1385	r 3307526.7000	709817.5100	4557.4813	15420.0930	7186.6643	90.8410	-2659.3162	1366784.8000	r 2422416.1000	r 2622918
σ		0.9%	968.5934	1.6%	4239.5277	1610.1167	4892.6987	312.2118	r 2798.0516	2081.1612	135.1276	324.6011	199.7542	12.0669	954.1616	17975.3570	r 10113.6630	r 21325
%RSD		0.9	0.4718	1.7	0.7871	0.3847	0.8334	5.9970	r 0.0846	0.2936	2.9650	2.1051	2.7795	13.2836	35.8800	1.3152	r 0.4175	r 0

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:48:47	97.5%	50723.6540	337563.8300	39524.6170	582911.5800	-7384.3698	2026380.8000	2006686.4000	681653.6500	100.3%	102.1%	r 4519522.8000	3082.3253
2	14:49:00	98.7%	52453.3800	342985.8700	40370.3450	599441.4800	-7342.5378	2070955.3000	2022167.6000	687281.7100	104.6%	106.2%	r 4454854.8000	3188.9537
3	14:49:13	97.7%	52599.0270	345478.9000	39806.1870	603441.3100	-6355.3962	2100941.2000	2056685.7000	694643.8600	106.6%	108.3%	r 4483720.4000	4062.2185
x		98.0%	51925.3540	342009.5300	39900.3830	595264.7900	-7027.4346	2066092.5000	2028513.2000	687859.7400	103.8%	105.5%	r 4486032.7000	3444.4992
σ		0.7%	1043.2475	4046.8487	430.6609	10683.5220	582.3781	37517.3310	25596.5520	6514.3665	3.2%	3.1%	r 32395.9100	537.6107
%RSD		0.7	2.0091	1.1833	1.0793	1.8283	8.2872	1.8159	1.2618	0.9470	3.1	3.0	r 0.7222	15.6078

SEQ-CAL8@S08 10/19/2016 14:52:47

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	
1	14:52:47	93.9%	u 417080.5000	90.5%	1073931.7000	836887.7400	1165854.0000	8524.6161	r 6580355.5000	1409621.1000	8890.6481	30120.7510	14096.3280	205.3011	-3826.9249	r 2724424.1000	r 47630
2	14:52:59	95.4%	410123.1000	93.7%	1076839.9000	u 861805.4800	u 1204067.3000	8234.0467	r 6500795.7000	1409226.7000	9241.8057	u 31225.5640	14266.4200	164.4669	-5316.2749	r 2714294.6000	r 47676
3	14:53:13	95.3%	410031.8500	94.7%	1080849.5000	u 841008.6000	u 1182985.8000	8916.0342	r 6530088.3000	u 1410362.7000	9564.1572	30702.6920	14014.3080	164.4106	-4151.0517	r 2741723.3000	TM 48523
x		94.9%	u 412411.8200	93.0%	1077207.0000	u 846567.2700	u 1184302.3000	8558.2323	r 6537079.9000	u 1409736.8000	9232.2037	u 30583.0030	14125.6860	178.0595	-4431.4172	r 2726814.0000	TM 47943
σ		0.8%	u 4043.4561	2.2%	3473.4512	u 13356.5560	u 19140.6390	342.2342	r 40238.0610	u 576.7557	336.8572	u 552.6694	128.5942	23.5920	783.2589	r 13869.6520	TM 502
%RSD		0.9	u 0.9804	2.4	0.3224	u 1.5777	u 1.6162	3.9989	r 0.6155	u 0.0409	3.6487	u 1.8012	0.9104	13.2495	17.6751	r 0.5086	TI

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:52:47	97.0%	104350.4700	679017.3600	77795.7220	1169768.6000	-12448.4510	r 3977795.7000	r 3848256.3000	r 1346570.0000	102.4%	102.1%	TM 9261897.6000	6100.5576
2	14:52:59	94.8%	103068.3100	680452.1900	77742.9340	u 1186148.3000	-12369.0240	r 3940980.5000	TM 3888444.0000	r 1353360.7000	105.6%	106.7%	TM 9125695.2000	5289.9549
3	14:53:13	96.8%	104912.5300	u 684909.1900	79229.5640	u 1210554.4000	-11728.8920	r 3997519.4000	TM 3905644.2000	TM 1363342.4000	107.0%	108.6%	TM 9072459.8000	6318.3812
x		96.2%	104110.4400	u 681459.5800	78256.0730	u 1188823.8000	-12182.1220	r 3972098.6000	TM 3880781.5000	TM 1354424.4000	105.0%	105.8%	TM 9153350.9000	5902.9646
σ		1.2%	945.2480	u 3072.3862	843.4805	u 20524.1180	394.5130	r 28696.7880	TM 29451.2460	TM 8436.6569	2.3%	3.4%	TM 97700.0570	541.9386
%RSD		1.2	0.9079	u 0.4509	1.0778	u 1.7264	3.2385	r 0.7225	TM 0.7589	TM 0.6229	2.2	3.2	TM 1.0674	9.1808

SEQ-ICV@ICV01 10/19/2016 14:56:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	14:56:47	94.3%	43253.8580	88.0%	118.6180	82728.5250	114359.7100	969.2206	673019.8600	139807.1300	2001.8480	6238.5070	2914.6001	39.5809	-1554.8465	11961.9210	19908.8290	21245.0110	12535.6700
2	14:57:00	95.8%	41534.3730	90.3%	180.1469	84182.9180	117740.2900	1033.1870	677372.0900	141641.0100	2024.6377	6479.3761	2920.8303	23.2647	-2179.7886	11878.7760	20524.4570	22004.4940	12513.6970
3	14:57:13	94.7%	41227.0020	92.0%	226.3663	84494.7790	117330.6000	1247.9845	683690.4700	143981.0000	1921.6319	6495.9297	2910.5877	78.0667	-1160.4461	11118.5470	20344.9770	22346.2090	12520.9040
x		94.9%	103.289%	90.1%	175.0438	99.732%	101.146%	1083.4640	103.542%	102.614%	1982.7059	102.118%	2915.3394	46.9708	-1631.6937	11653.0810	20259.4240	21865.2380	12523.4240
σ		0.8%	n/a	2.0%	54.0551	n/a	n/a	146.0246	n/a	n/a	54.1051	n/a	5.1612	28.1385	513.9979	464.7835	316.6103	563.6520	11.2008
%RSD		0.8	2.6005	2.2	30.8809	1.1249	1.5839	13.4776	0.7913	1.4752	2.7289	2.2497	0.1770	59.9063	31.5009	3.9885	1.5628	2.5778	0.0894

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	14:56:47	98.5%	10360.1670	537330.6000	7639.2262	119284.1800	-2261.1025	1032.9843	763834.6300	136016.4300	101.7%	103.0%	r 1905688.5000	2153.0586
2	14:57:00	96.6%	10935.4710	536347.5600	7834.2152	118638.2800	-4461.4907	923.4368	780065.1200	137662.3900	104.9%	106.4%	r 1880574.5000	1632.9943
3	14:57:13	97.0%	10281.4480	536542.4200	7867.5315	120295.2400	-650.3686	1033.2067	793590.7800	140005.6100	105.4%	107.5%	r 1898723.0000	3580.2364
x		97.4%	10525.6960	103.311%	7780.3243	101.915%	-2457.6539	996.5426	101.694%	101.614%	104.0%	105.7%	r 104.055%	2455.4298
σ		1.0%	357.0523	n/a	123.3248	n/a	1913.1485	63.3116	n/a	n/a	2.0%	2.3%	r 0/a	1008.2208
%RSD		1.0	3.3922	0.0970	1.5851	0.6994	77.8445	6.3531	1.9121	1.4538	2.0	2.2	r 0.6842	41.0609

SEQ-ICB@ICB01 10/19/2016 15:00:50 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:00:50	93.7%	10.6200	88.8%	23.3817	-45.8727	32.0363	-0.9534	101.5671	-99.6082	1.4462	6.4751	13.2654	-4.3100	-2892.8533	100.7006	196.0518	244.2666	117.4385	327.3388
2	15:01:03	93.1%	10.1089	90.1%	3.5650	-34.3347	29.1812	1.2482	231.3650	-116.7308	-2.0826	4.0681	2.7840	2.5844	-1075.2712	141.4081	214.2970	226.1881	154.4085	347.0041
3	15:01:17	95.0%	16.9804	91.3%	17.2341	-35.0737	43.4659	-0.7188	188.3988	-125.6301	1.4563	2.9889	-0.6343	-0.8038	-1516.5585	145.9591	284.3175	215.4924	200.7048	456.4558
x		93.9%	12.5698	90.1%	14.7270	-38.4270	34.8944	-0.1413	173.7770	-113.9897	0.2733	4.5107	5.1384	-0.8431	-1828.2277	129.3559	231.5554	228.6490	157.5173	376.9329
σ		1.0%	3.8283	1.3%	10.1435	6.4587	7.5591	1.2090	66.1228	13.2257	2.0403	1.7847	7.2428	3.4474	948.0266	24.9204	46.5950	14.5441	41.7201	69.5672
%RSD		1.1	30.4563	1.4	68.8767	16.8077	21.6628	855.5492	38.0504	11.6026	746.5604	39.5670	140.9541	408.8895	51.8550	19.2650	20.1226	6.3609	26.4861	18.4561

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:00:50	95.3%	22.3186	146.4109	4.8345	25.9899	-5777.7836	231.1944	485.3585	8.8442	98.4%	99.5%	476.0133	2207.5104
2	15:01:03	96.2%	-14.4567	81.1320	1.2333	18.5947	-2852.0080	299.8315	485.2708	48.9097	99.7%	101.9%	503.7763	2168.6867
3	15:01:17	95.2%	5.0457	86.6961	-2.2688	21.6620	-2467.3289	256.5162	504.7644	64.0391	101.4%	104.3%	453.2700	341.0871
x		95.6%	4.3025	104.7463	1.2663	22.0822	-3699.0402	262.5140	491.7979	40.5976	99.8%	101.9%	477.6865	1572.4281
σ		0.6%	18.3989	36.1897	3.5518	3.7155	1810.4903	34.7094	11.2294	28.5208	1.5%	2.4%	25.2947	1066.5492
%RSD		0.6	427.6296	34.5498	280.4728	16.8257	48.9449	13.2219	2.2833	70.2524	1.5	2.3	5.2953	67.8282

SEQ-IFA@ICSA01 10/19/2016 15:04:53 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	15:04:53	86.7%	137.2949	89.3%	911882.8100	-435.8612	26330.1690	160.7793	8828.6283	7666.7016	2.2181	2.4567	-14.7719	11.6044	-1071.4727	2235767.6000	±4018899.3000	±4392991.0000	2482024.6000
2	15:05:05	88.6%	118.9071	93.8%	913583.2400	-546.8497	26533.9480	207.9108	8857.6395	8080.8858	2.2210	6.3426	-22.3850	19.3788	-1097.7824	2269918.3000	±4023535.9000	±4371043.6000	±2496598.1000
3	15:05:19	88.3%	116.5153	95.5%	931271.7000	-1002.5875	26246.5210	351.5839	8848.1103	7964.3626	-1.6803	7.5840	-14.6800	15.3890	-1731.1144	±2285908.1000	±4037827.9000	±4404623.0000	2538922.1000
x		87.8%	1.#IO%	92.9%	918912.5800	-157.511%	106.864%	240.0913	133.716%	93.416%	0.9196	58.340%	-17.2790	15.4574	-1300.1232	±2263864.7000	±4026754.3000	±4389552.5000	±2505848.3000
σ		1.0%	n/a	3.2%	10737.0250	n/a	n/a	99.3896	n/a	n/a	2.2516	n/a	4.4222	3.8877	373.4812	±25612.5310	±9866.1763	±17051.7040	±29555.1370
%RSD		1.2	9.1515	3.4	1.1684	45.3833	0.5606	41.3966	0.1672	2.7023	244.8519	48.9818	25.5930	25.1508	28.7266	±1.1314	±0.2450	±0.3885	±1.1794

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:04:53	85.9%	6.4582	66.0767	1746.8885	-1334.6928	-3497.2560	638.6135	4633.7684	2638.9314	94.4%	95.2%	201.0705	-1345.8622
2	15:05:05	85.8%	8.8469	62.7919	1844.8023	-1430.1177	-2856.3755	629.0227	4286.2772	2728.0994	98.2%	98.5%	220.6404	-1012.3054
3	15:05:19	86.2%	56.8729	74.4770	1669.6996	-1622.1092	-2736.0978	704.2028	4447.8374	2646.3438	101.5%	102.0%	199.2129	-1746.0110
x		86.0%	24.0593	1.#IO%	1753.7968	-176.517%	-3029.9098	657.2797	76.769%	164.028%	98.0%	98.6%	1.#IO%	-1368.0596
σ		0.2%	28.4425	n/a	87.7555	n/a	409.1773	40.9186	n/a	n/a	3.6%	3.4%	n/a	367.3562
%RSD		0.3	118.2179	8.8907	5.0037	10.0107	13.5046	6.2254	3.9024	1.8524	3.6	3.4	5.7356	26.8523

SEQ-IFB@ICSA01 10/19/2016 15:08:52 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	15:08:52	84.2%	7892.5403	98.0%	900284.9000	18676.5640	51831.5570	402.5684	137162.5700	34520.3570	206.5431	633.5297	265.5756	11.1301	-1591.6914	2239292.2000	±4002302.7000	±4357686.3000	2472538.
2	15:09:05	85.3%	7982.5722	99.5%	916519.2200	18288.7630	51924.2590	535.2088	140728.7700	35420.1800	182.7717	650.0921	222.6138	11.0254	-412.2312	±2293548.0000	±4004954.4000	±4397254.1000	±2519389.
3	15:09:18	83.9%	7723.7149	102.5%	916361.4800	18615.7950	52046.9330	602.2815	139607.5400	35008.5130	230.1266	607.9865	278.0687	15.0006	199.2259	±2266392.5000	±4013157.6000	±4380377.6000	±2504025.
x		84.5%	100.786%	100.0%	911055.2000	116.046%	110.492%	513.3529	105.198%	103.365%	206.4804	106.356%	255.4193	12.3854	-601.5656	±2266410.9000	±4006804.9000	±4378439.3000	±2498651.
σ		0.8%	n/a	2.3%	9327.6855	n/a	n/a	101.6346	n/a	n/a	23.6775	n/a	29.0891	2.2654	910.3471	±27127.9180	±5659.0657	±19854.9480	±23883.
%RSD		0.9	1.6706	2.3	1.0238	1.1258	0.2080	19.7982	1.3104	1.2876	11.4672	3.3641	11.3868	18.2912	151.3297	±1.1970	±0.1412	±0.4535	±0.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:08:52	88.0%	2009.6189	96565.5910	3157.1967	21083.1800	-592.4560	624.5708	80930.2230	30674.7940	97.5%	97.1%	172732.7000	-977.5446
2	15:09:05	88.5%	2186.1323	97437.9150	3406.2443	21669.2930	-1460.2044	604.5478	81879.1870	31243.2660	100.4%	101.0%	173293.2900	-1492.1675
3	15:09:18	87.7%	1998.8955	97594.2870	3327.9651	21132.2440	-1541.9771	604.2741	82787.7020	31860.0810	102.6%	103.9%	173799.2500	-2609.0166
x		88.1%	2064.8822	102.898%	3297.1354	89.969%	-1198.2125	611.1309	96.164%	104.704%	100.1%	100.6%	92.881%	-1692.9096
σ		0.4%	105.1424	n/a	127.3539	n/a	526.1914	11.6401	n/a	n/a	2.5%	3.4%	n/a	834.0553
%RSD		0.5	5.0919	0.5703	3.8626	1.5269	43.9147	1.9047	1.1346	1.8964	2.5	3.4	0.3079	49.2676

SEQ-CCV@CCV01 10/19/2016 15:12:53 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	15:12:53	89.9%	200655.6800	106.9%	522346.6000	430437.2300	601847.9700	5380.9468	±3283741.2000	694745.0800	4743.0628	16025.5480	7517.9065	124.6776	-1967.8347	1329636.7000	±2350503.3000	±257133
2	15:13:06	90.1%	199225.6400	109.4%	525563.7800	428706.3400	595895.7000	5246.0925	±3289921.0000	711671.3000	4788.0833	15984.1960	7463.2693	139.1209	-597.2365	1347450.4000	±2377989.8000	±261543
3	15:13:19	91.0%	195172.8800	111.9%	527996.0000	433356.2100	606886.5700	5081.9221	±3281348.2000	701493.0000	4641.4731	16519.8800	7453.6361	112.4529	-2165.2298	1348533.3000	±2377413.4000	±260500
x		90.3%	96.572%	109.4%	525302.1300	102.546%	102.384%	5236.3205	±99.327%	99.653%	4724.2064	103.687%	7478.2706	125.4171	-1576.7670	1341873.4000	±2368635.5000	±259725
σ		0.6%	n/a	2.5%	2833.7736	n/a	n/a	149.7517	±n/a	n/a	75.1020	n/a	34.6619	13.3493	854.0206	10611.1580	±15705.5770	±2304
%RSD		0.7	1.4338	2.3	0.5395	0.5455	0.9146	2.8599	±0.1347	1.2127	1.5897	1.8425	0.4635	10.6439	54.1628	0.7908	±0.6631	±

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:12:53	105.7%	51604.2860	341521.6800	38902.8570	591336.0300	-4769.2791	±1962568.7000	2007238.3000	690236.5400	105.9%	105.9%	±4427700.4000	659.9788
2	15:13:06	106.6%	53271.0640	343297.4000	40230.9750	599924.1500	-4326.9178	±1978710.9000	2041440.6000	697405.4200	109.6%	109.7%	±4398057.2000	1756.7501
3	15:13:19	105.3%	53467.1280	346678.2300	41307.5160	607561.0300	-2807.3926	2093678.1000	2071676.1000	708245.3800	110.4%	111.6%	±4392164.8000	2533.3585
x		105.9%	52780.8260	100.798%	40147.1160	101.331%	-3967.8631	±2011652.6000	105.443%	102.963%	108.7%	109.1%	±99.193%	1650.0291
σ		0.7%	1023.6186	n/a	1204.5208	n/a	1029.0480	±71493.2630	n/a	n/a	2.4%	2.9%	±n/a	941.2385
%RSD		0.6	1.9394	0.7619	3.0003	1.3537	25.9346	±3.5540	1.5803	1.2978	2.2	2.7	±0.4322	57.0437

SEQ-CCB@CCB01 10/19/2016 15:16:55 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:16:55	88.3%	23.4232	100.2%	69.8773	9.9302	92.8195	8.5646	225.8534	7.8841	-5.5462	5.5527	-10.8954	11.3264	947.6768	424.1246	640.0973	723.7969	387.4280	1164.6004
2	15:17:08	88.1%	15.0907	104.5%	60.9922	-0.2920	111.8791	15.6404	315.1050	-41.8545	4.1474	5.6801	-20.5839	11.5810	295.6566	411.0418	700.0629	671.0938	385.8084	1076.6426
3	15:17:21	90.0%	8.7260	104.5%	61.0255	1.2524	126.5406	10.2066	324.5232	18.5631	-5.5462	3.3315	-7.6894	14.2291	901.8949	425.8859	656.4905	752.4106	407.0800	1054.2142
x		88.8%	15.7467	103.1%	63.9650	3.6302	110.4130	11.4705	288.4939	-5.1358	-2.3150	4.8548	-13.0562	12.3788	715.0761	420.3507	665.5502	715.7671	393.4388	1098.4857
σ		1.1%	7.3706	2.5%	5.1202	5.5103	16.9083	3.7034	54.4523	32.2445	5.5966	1.3207	6.7133	1.6074	363.9485	8.1098	30.9924	41.2488	11.8414	58.3449
%RSD		1.2	46.8071	2.4	8.0047	151.7914	15.3137	32.2860	18.8747	627.8441	241.7569	27.2042	51.4187	12.9851	50.8965	1.9293	4.6567	5.7629	3.0097	5.3114

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:16:55	104.5%	21.2470	39.9562	14.3849	63.8690	1834.3463	391.1881	302.7328	49.7638	100.0%	100.9%	640.7715	-514.2111
2	15:17:08	103.2%	4.2470	18.9415	0.9478	42.2482	-76.5960	420.7716	266.1801	4.5047	102.9%	101.5%	709.6351	292.5089
3	15:17:21	105.9%	-5.7163	60.5079	13.7579	51.7399	230.8568	415.5045	255.2909	78.0707	103.6%	103.8%	532.3198	-100.8079
x		104.5%	6.5925	39.8019	9.6969	52.6190	662.8723	409.1547	274.7346	44.1131	102.2%	102.1%	627.5755	-107.5034
σ		1.4%	13.6338	20.7836	7.5834	10.8372	1026.1076	15.7809	24.8509	37.1071	1.9%	1.5%	89.3912	403.4017
%RSD		1.3	206.8067	52.2177	78.2042	20.5956	154.7972	3.8569	9.0454	84.1182	1.9	1.5	14.2439	375.2456

SEQ-CCV@CCV02 10/19/2016 16:57:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	16:57:33	90.8%	214030.9500	88.6%	522618.3000	427348.9300	596818.8600	5133.9617	±3303092.2000	705303.1800	4897.7475	15769.0870	7207.7271	119.2455	-2064.8557	1325830.1000	2387604.9000	2618518
2	16:57:46	90.6%	217768.0000	88.8%	537086.7000	431309.2700	599356.1100	5020.7869	±3348930.6000	716968.7000	5003.3002	15870.9850	7257.8715	119.5051	-2049.3763	1338718.9000	2411980.4000	±2600674
3	16:57:59	90.9%	213711.4500	89.9%	534210.3800	434222.7700	606431.8300	5404.1530	±3337111.4000	722567.6800	5085.3363	16145.2520	7391.2722	130.4205	-2162.0624	1354814.0000	±2393213.2000	±2611320
x		90.8%	104.761%	89.1%	531305.1300	102.576%	102.269%	5186.3005	±100.679%	101.399%	4995.4613	102.096%	7285.6236	123.0570	-2092.0981	1339787.7000	±2397599.5000	±2610171
σ		0.2%	n/a	0.7%	7659.2413	n/a	n/a	196.9693	±n/a	n/a	94.0397	n/a	94.8675	6.3783	61.0832	14521.4820	±12766.0120	±8977
%RSD		0.2	1.0482	0.8	1.4416	0.8006	0.8291	3.7979	±0.7147	1.2320	1.8825	1.2214	1.3021	5.1832	2.9197	1.0839	±0.5324	±0

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:57:33	94.5%	52709.2650	338399.0000	39481.5240	584525.1700	-9801.3680	1976381.4000	1974017.3000	679538.9400	98.4%	98.0%	±4630162.2000	3145.6575
2	16:57:46	94.3%	53025.4130	345148.0600	39461.0360	595628.9100	-5631.4923	2027786.3000	2019836.9000	688411.7700	101.8%	102.3%	±4564434.1000	4809.1987
3	16:57:59	94.0%	53412.4630	347239.5200	40343.6410	603552.4200	-5317.0311	2045949.4000	2046457.9000	694129.4800	103.3%	104.3%	±4558422.3000	3003.2739
x		94.3%	53049.0470	100.729%	39762.0670	100.480%	-6916.6304	2016705.7000	104.064%	101.302%	101.2%	101.5%	±103.208%	3652.7100
σ		0.2%	352.1945	n/a	503.7622	n/a	2503.1988	36083.4240	n/a	n/a	2.5%	3.2%	±n/a	1004.0756
%RSD		0.2	0.6639	1.3447	1.2669	1.6075	36.1910	1.7892	1.8199	1.0696	2.5	3.2	±0.8681	27.4885

SEQ-CCB@CCB02 10/19/2016 17:01:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:01:37	89.8%	38.6412	86.3%	76.1371	24.7377	83.5077	2.1333	521.3488	-49.1994	1.4841	-0.4984	-17.9568	9.7696	-3856.8801	434.6735	791.6195	815.4194	417.5034	1110.7135
2	17:01:50	90.1%	7.3219	87.5%	142.6642	10.3828	111.0893	6.4653	558.0612	-67.8065	-5.5462	7.6769	-24.7454	20.2509	-2340.6750	439.2519	647.3072	702.8151	386.2217	1078.2241
3	17:02:03	90.6%	33.4397	88.3%	69.0538	-2.5450	95.7799	11.6518	444.9987	-12.0573	8.1425	1.6901	-14.3580	9.3046	-687.8028	422.2405	787.9152	641.2779	445.2714	1248.6827
x		90.2%	26.4676	87.4%	95.9517	10.6585	96.7923	6.7501	508.1362	-43.0211	1.3601	2.9562	-19.0201	13.1084	-2295.1193	432.0553	742.2806	719.8375	416.3322	1145.8734
σ		0.4%	16.7834	1.0%	40.6090	13.6476	13.8187	4.7656	57.6777	28.3835	6.8452	4.2322	5.2747	6.1900	1585.0298	8.8028	82.2702	88.3099	29.5423	90.5052
%RSD		0.4	63.4112	1.2	42.3223	125.6859	14.2766	70.6008	11.3508	65.9759	503.2695	143.1626	27.7325	47.2217	69.0609	2.0374	11.0834	12.2680	7.0958	7.8984

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:01:37	94.8%	55.4573	77.9844	12.3832	88.4618	-3925.0159	498.8536	327.8525	110.9611	95.2%	96.0%	730.3546	3159.8187
2	17:01:50	95.0%	26.7509	58.0029	8.4579	114.8777	-7392.4441	512.3531	332.6669	109.5433	98.5%	99.2%	692.6859	1046.5189
3	17:02:03	97.4%	22.6347	39.8918	4.8524	107.1930	-472.7434	408.1747	349.1994	67.7784	98.4%	98.8%	692.0121	3602.5398
x		95.8%	34.9476	58.6264	8.5645	103.5108	-3930.0678	473.1271	336.5730	96.0943	97.4%	98.0%	705.0175	2602.9591
σ		1.4%	17.8807	19.0540	3.7665	13.5874	3459.8531	56.6540	11.1966	24.5325	1.9%	1.7%	21.9451	1365.9722
%RSD		1.5	51.1643	32.5007	43.9784	13.1266	88.0355	11.9744	3.3267	25.5296	1.9	1.8	3.1127	52.4777

SEQ-CCV@CCV03 10/19/2016 18:42:33 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	18:42:33	98.3%	209436.1200	97.3%	531452.4800	436701.2200	608616.6800	5227.8605	±3367635.3000	716441.5600	4738.7342	16051.6610	7795.0846	110.1810	-591.2855	1344606.8000	±2435059.3000	±265656
2	18:42:47	98.4%	206542.3800	100.0%	530944.3600	432403.9200	600437.8500	4653.6603	±3322674.2000	715907.0200	4476.0232	15805.5070	7297.4271	61.6329	-2864.9230	1351779.4000	±2386450.9000	±260782
3	18:43:00	98.1%	206501.6600	101.0%	536850.6200	435371.2200	607938.9600	5334.6812	±3343399.5000	718406.0700	4824.7817	15989.2820	7379.1597	108.6773	-1814.2664	1363490.5000	±2425058.7000	±261670
x		98.3%	101.023%	99.4%	533082.4900	103.496%	103.085%	5072.0673	±101.129%	101.678%	4679.8464	102.227%	7490.5571	93.4971	-1756.8250	1353292.3000	±2415523.0000	±262703
σ		0.2%	n/a	1.9%	3273.1729	n/a	n/a	366.2663	±n/a	n/a	181.6836	n/a	266.8760	27.6055	1137.9066	9532.3025	±25668.8830	±2596
%RSD		0.2	0.8109	1.9	0.6140	0.5060	0.7494	7.2212	±0.6728	0.1836	3.8823	0.8024	3.5628	29.5255	64.7706	0.7044	±1.0627	±

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:42:33	98.9%	52650.4670	346503.2100	39733.3400	601231.8400	-4294.0512	2031208.8000	2027928.3000	700335.2800	101.6%	103.0%	±4526715.1000	748.8946
2	18:42:47	100.8%	52197.8150	346192.0200	39810.2290	600769.8900	-7747.5911	2052171.8000	2029803.0000	697470.9300	107.1%	107.0%	±4496468.1000	1247.9906
3	18:43:00	100.2%	53441.9920	346880.8600	40238.3410	602368.8400	-4120.4527	±1992094.4000	2054941.8000	699539.7400	109.0%	109.6%	±4484336.0000	2451.5041
x		99.9%	52763.4250	101.587%	39927.3030	101.644%	-5387.3650	±2025158.3000	105.311%	103.035%	105.9%	106.5%	±101.366%	1482.7964
σ		1.0%	629.7329	n/a	272.0961	n/a	2045.8579	±30492.2790	n/a	n/a	3.9%	3.3%	±n/a	875.2543
%RSD		1.0	1.1935	0.0995	0.6815	0.1368	37.9751	±1.5057	0.7403	0.2115	3.6	3.1	±0.4847	59.0273

SEQ-CCB@CCB03 10/19/2016 18:46:37 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:46:37	96.2%	45.6798	92.0%	128.8661	16.4122	119.3536	7.0512	485.7189	-48.0948	-2.1198	5.1235	-7.6460	2.4730	-341.4869	462.8247	794.6872	900.6636	492.7996	1243.8345
2	18:46:49	97.3%	22.9100	94.0%	121.0711	62.3942	87.7066	-8.5066	520.6131	12.1492	-2.1436	6.1941	-7.7394	-1.0011	886.7049	466.4591	712.6891	847.1522	475.4378	1097.6337
3	18:47:02	98.2%	32.4287	95.9%	106.9718	-0.3195	110.5201	-2.7000	434.3032	19.0957	-2.1581	2.7627	-0.9104	2.3581	873.6982	318.6787	692.0272	756.2359	472.7418	1109.7679
x		97.2%	33.6729	94.0%	118.9696	26.1623	105.8601	-1.3851	480.2118	-5.6166	-2.1405	4.6934	-5.4319	1.2766	472.9720	415.9875	733.1278	834.6839	480.3264	1150.4120
σ		1.0%	11.4358	2.0%	11.0974	32.4739	16.3300	7.8618	43.4177	36.9508	0.0193	1.7557	3.9160	1.9735	705.3722	84.2915	54.2867	73.0167	10.8859	81.1334
%RSD		1.0	33.9613	2.1	9.3279	124.1246	15.4261	567.5787	9.0414	657.8822	0.9037	37.4072	72.0926	154.5822	149.1361	20.2630	7.4048	8.7478	2.2663	7.0526

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:46:37	97.3%	23.2780	63.1084	11.6482	87.4018	-1095.5116	467.5905	407.5614	52.3447	99.1%	101.6%	816.6896	-1583.2698
2	18:46:49	98.0%	78.8304	51.3946	18.1845	106.0702	259.9913	463.4646	398.9206	66.9523	101.1%	102.3%	716.7266	188.3620
3	18:47:02	98.4%	25.2357	46.8840	7.7640	40.6060	72.4705	453.2591	317.9319	94.2058	102.9%	104.0%	618.1694	769.6069
x		97.9%	42.4480	53.7957	12.5322	78.0260	-254.3500	461.4380	374.8046	71.1676	101.0%	102.6%	717.1952	-208.4336
σ		0.6%	31.5232	8.3745	5.2662	33.7242	734.4765	7.3775	49.4423	21.2465	1.9%	1.2%	99.2610	1225.5987
%RSD		0.6	74.2631	15.5672	42.0209	43.2217	288.7661	1.5988	13.1915	29.8542	1.9	1.2	13.8402	588.0044

QJ14034-BLK1@PBS01@MH1H68 10/19/2016 18:50:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:50:39	95.9%	-1.4660	92.1%	2.0902	-10.3909	-45.1891	-44.1265	18.7956	225.2741	-5.5462	6.2563	-11.1411	-0.9596	145.6649	38.3726	107.6815	66.6803	41.1291	152.3920
2	18:50:52	96.5%	-2.3056	95.9%	48.0913	-13.0911	-35.5260	-39.4020	34.7331	138.6619	-2.1459	1.6536	-21.0709	12.5956	-2031.9979	49.6549	116.9826	104.1138	49.2534	139.1911
3	18:51:05	97.3%	4.5963	96.0%	37.4408	-24.0736	-37.9179	-45.0856	27.6440	208.3822	1.3884	0.6095	-0.7374	-0.8716	-1653.7666	52.3467	115.7961	62.3558	41.8759	151.0910
x		96.6%	0.2749	94.7%	29.2074	-15.8519	-39.5443	-42.8714	27.0576	190.7727	-2.1012	2.8398	-10.9831	3.5881	-1180.0332	46.7914	113.4867	77.7166	44.0861	147.5580
σ		0.7%	3.7659	2.2%	24.0804	7.2471	5.0327	3.0426	7.9849	45.9128	3.4675	3.0045	10.1677	7.8008	1163.5598	7.4140	5.0624	22.9626	4.4905	7.2751
%RSD		0.7	1369.8532	2.3	82.4461	45.7176	12.7267	7.0971	29.5109	24.0668	165.0257	105.7976	92.5756	217.4066	98.6040	15.8449	4.4607	29.5466	10.1858	4.9304

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:50:39	97.4%	55.9735	-2.9789	-2.2688	8.2494	-2073.3523	166.0667	39.2205	-29.1644	97.3%	98.9%	142.0499	-132.5041
2	18:50:52	98.0%	23.5270	3.5663	1.1225	11.2719	-2638.9968	218.7117	6.6654	-6.5868	100.4%	101.1%	95.6800	2377.7570
3	18:51:05	96.1%	15.5261	6.7782	-2.2688	7.7720	744.5761	188.3787	29.5512	-30.4509	102.2%	101.8%	91.6136	2767.1835
x		97.2%	31.6755	2.4552	-1.1384	9.0978	-1322.5910	191.0524	25.1457	-22.0674	100.0%	100.6%	109.7812	1670.8121
σ		1.0%	21.4195	4.9725	1.9579	1.8980	1812.4219	26.4241	16.7187	13.4220	2.5%	1.5%	28.0194	1573.8092
%RSD		1.0	67.6217	202.5326	171.9941	20.8618	137.0357	13.8308	66.4875	60.8228	2.5	1.5	25.5229	94.1943

QJ14034-BS1@LCS01 10/19/2016 18:54:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:54:40	95.6%	917.9914	91.0%	10.2376	9273.8094	5050.4508	35.3581	13810.3420	2713.1512	76.5861	314.2531	177.0799	-0.9619	-13.5917	9070.1043	15450.8220	17119.8710	9653.8771	25093.9700
2	18:54:53	95.9%	930.7408	94.4%	-3.0525	9421.8937	5110.1481	38.8710	13421.9230	2846.6990	97.6209	367.3933	154.2029	12.8271	-1160.2582	8895.1322	15739.8660	16899.0160	9220.2376	25316.3970
3	18:55:06	96.6%	855.3561	96.4%	44.0156	9300.7005	4931.3362	81.2499	13325.5120	2876.3226	129.8572	342.3973	110.7881	2.3490	1411.4372	8817.2743	15669.5720	17633.9690	9732.5652	25967.2170
x		96.0%	109.712%	93.9%	17.0669	111.060%	107.028%	51.8263	102.194%	99.706%	101.3547	109.397%	147.3570	4.7381	79.1958	8927.5036	15620.0870	17217.6190	9535.5600	25459.1950
σ		0.5%	n/a	2.7%	24.2659	n/a	n/a	25.5420	n/a	n/a	26.8311	n/a	33.6719	7.1983	1288.3561	129.4862	150.7423	377.1005	275.8969	453.7987
%RSD		0.5	4.4765	2.9	142.1808	0.8453	1.8096	49.2838	1.8984	3.0912	26.4725	7.7884	22.8506	151.9242	1626.7994	1.4504	0.9651	2.1902	2.8933	1.7825

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:54:40	97.4%	201.6230	10884.3020	181.2100	2330.0143	-1391.7563	184.5257	15851.6830	28250.1650	97.5%	97.9%	16760.0090	965.3097
2	18:54:53	96.9%	205.4679	10767.6950	182.0499	2458.0122	129.6743	118.3539	15912.8390	27898.3340	100.5%	99.9%	17240.9380	2294.6608
3	18:55:06	98.5%	144.4707	10736.7350	169.8088	2565.5995	-1097.5232	173.5323	16330.5640	28642.8100	100.8%	103.0%	17526.3650	790.5330
x		97.6%	183.8539	102.863%	177.6896	103.561%	-786.5351	158.8039	103.575%	104.137%	99.6%	100.3%	96.671%	1350.1678
σ		0.8%	34.1610	n/a	6.8379	n/a	806.9839	35.4594	n/a	n/a	1.9%	2.6%	n/a	822.6099
%RSD		0.8	18.5805	0.7208	3.8482	4.8115	102.5999	22.3291	1.6257	1.3177	1.9	2.5	2.2550	60.9265

6100168-01@MH1H68 10/19/2016 18:58:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	18:58:41	97.1%	71.9075	101.7%	12964.5040	29386.1430	7963.3526	92.9726	19720.7630	3439.6319	67.2982	89.8012	25.5415	12.0604	34508.0960	3227.5808	4355.1418	4995.6228	2869.1951	7316.4117
2	18:58:54	99.2%	74.3132	106.0%	12888.2110	30754.6460	8239.0617	66.2018	20390.8040	3507.6311	63.2488	91.1530	40.5247	2.5130	33630.9870	3309.4763	4616.3061	5363.9138	2822.3378	7265.9879
3	18:59:07	98.1%	93.7576	108.3%	13345.8750	30017.8790	8083.5691	80.6532	19542.1040	3607.7248	61.8202	119.4919	39.5837	9.0353	33687.4950	3534.1577	4500.8067	5348.7767	2850.2159	7231.7306
x		98.1%	79.9928	105.3%	13066.1970	30052.8890	8095.3278	79.9425	19884.5570	3518.3293	64.1224	100.1487	35.2166	7.8696	33942.1930	3357.0716	4490.7515	5236.1044	2847.2496	7271.3767
σ		1.1%	11.9812	3.4%	245.1939	684.9227	138.2302	13.3995	447.4307	84.5556	2.8415	16.7653	8.3921	4.8793	490.8999	158.7335	130.8722	208.4007	23.5691	42.5970
%RSD		1.1	14.9779	3.2	1.8766	2.2791	1.7075	16.7614	2.2501	2.4033	4.4214	16.7404	23.8299	62.0017	1.4463	4.7283	2.9143	3.9801	0.8278	0.5858

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	18:58:41	100.7%	92.7131	4993.8697	10.9318	106.1421	-5623.5433	2541.5988	21929.0030	300883.3600	100.5%	100.9%	5780.8157	30771.2660
2	18:58:54	96.9%	98.7093	5200.4581	16.8386	105.1870	-6897.4007	2417.1375	22386.6210	302551.0300	103.6%	103.4%	6129.4130	32536.4350
3	18:59:07	99.0%	78.5766	4961.0033	13.2832	118.2462	-5390.0319	2579.5875	23031.5640	306728.6700	106.2%	105.4%	6210.5964	32480.9090
x		98.8%	89.9997	5051.7770	13.6845	109.8584	-5970.3253	2512.7746	22449.0630	303387.6800	103.4%	103.3%	6040.2750	31929.5370
σ		1.9%	10.3370	129.8060	2.9738	7.2797	811.3159	84.9743	553.9267	3011.1284	2.9%	2.2%	228.3354	1003.4761
%RSD		1.9	11.4856	2.5695	21.7311	6.6264	13.5891	3.3817	2.4675	0.9925	2.8	2.2	3.7802	3.1428

6100168-02@MH1H69 10/19/2016 19:02:41

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:02:41	96.1%	94.6090	104.7%	14395.1540	28996.4040	7596.2043	57.4546	21049.6860	3097.7448	17.6038	101.8154	48.5815	8.7295	29747.2830	3649.6034	5364.8467	6283.5174	3455.7975	8948.2591
2	19:02:54	97.6%	75.8135	107.8%	15007.9580	29664.8340	7678.1611	70.2724	20819.0190	3284.7955	47.5203	97.6975	35.4869	8.7770	29354.2090	3883.9512	5465.4514	6355.1602	3336.1203	9190.9865
3	19:03:08	97.4%	153.4213	109.5%	14918.6300	29165.1850	7562.8302	90.2879	21101.4700	3434.8641	66.4768	93.1034	2.0789	5.2888	30758.1880	3964.3007	5647.2631	6848.5873	3597.6079	9463.2862
x		97.0%	107.9479	107.3%	14773.9140	29275.4750	7612.3985	72.6716	20990.0580	3272.4681	43.8670	97.5405	28.7158	7.5984	29953.2270	3832.6184	5492.5204	6495.7550	3463.1752	9200.8439
σ		0.8%	40.4869	2.4%	331.0429	347.5954	59.3464	16.5476	150.3703	168.8974	24.6404	4.3556	23.9793	2.0003	724.2922	163.5081	143.1409	307.6543	130.8998	257.6550
%RSD		0.8	37.5059	2.2	2.2407	1.1873	0.7796	22.7704	0.7164	5.1612	56.1709	4.4655	83.5057	26.3256	2.4181	4.2662	2.6061	4.7362	3.7798	2.8003

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:02:41	100.8%	114.9543	27761.6660	33.3520	534.2206	-2429.8460	47272.1060	29042.9690	257562.3100	101.5%	101.6%	4044.7806	140297.0100
2	19:02:54	100.5%	108.2729	28291.6650	47.9176	444.8783	-771.5684	48399.6420	29917.9500	260405.5200	105.1%	104.5%	4145.2243	143133.9100
3	19:03:08	101.8%	49.7647	29187.6240	47.2297	546.9244	932.2067	48608.0540	29977.5050	266089.0900	106.4%	107.0%	4466.4044	145049.4900
x		101.0%	90.9973	28413.6520	42.8331	508.6744	-756.4026	48093.2670	29646.1410	261352.3100	104.3%	104.4%	4218.8031	142826.8000
σ		0.7%	35.8644	720.7635	8.2181	55.6130	1681.0777	718.7408	523.2109	4341.5177	2.5%	2.7%	220.2318	2391.0782
%RSD		0.7	39.4126	2.5367	19.1863	10.9329	222.2464	1.4945	1.7649	1.6612	2.4	2.6	5.2202	1.6741

6100168-03@MH1H70 10/19/2016 19:06:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:06:39	96.3%	18.7075	103.5%	11533.4060	13037.7340	5172.9309	69.1663	13539.2930	2589.3213	24.7785	65.6210	15.9468	5.6714	18137.9520	2173.1725	3142.2819	3961.6172	1945.7001	4896.1661
2	19:06:52	95.6%	36.6363	105.9%	13099.2020	13094.0980	5220.6053	72.9976	13707.5850	2765.1905	46.1271	91.2952	50.7989	-4.3613	17170.1000	2285.1798	3130.0925	4106.5121	1970.8872	4923.3108
3	19:07:06	96.4%	39.4647	106.4%	11964.6790	13217.6590	5325.2560	17.3257	13665.4300	2492.2781	32.1132	79.2938	2.7587	9.3117	19003.7170	2431.1387	3242.4585	3785.2107	1937.2152	5248.9838
x		96.1%	31.6028	105.3%	12199.0960	13116.4970	5239.5974	53.1632	13637.4360	2615.5966	34.3396	78.7366	23.1681	3.5406	18103.9230	2296.4970	3171.6109	3951.1133	1951.2675	5022.8262
σ		0.5%	11.2568	1.6%	808.7910	92.0300	77.9183	31.0952	87.5686	138.3405	10.8470	12.8461	24.8209	7.0812	917.2822	129.3549	61.6577	160.9081	17.5127	196.3331
%RSD		0.5	35.6197	1.5	6.6299	0.7016	1.4871	58.4902	0.6421	5.2891	31.5876	16.3153	107.1337	200.0008	5.0668	5.6327	1.9441	4.0725	0.8975	3.9088

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:06:39	98.9%	155.1315	17746.0710	76.8921	899.7846	20992.7050	3825.5300	20664.4480	186134.1500	99.2%	99.8%	3086.4349	62189.0910
2	19:06:52	96.8%	202.8481	18290.7190	61.9196	933.0539	21669.7250	3637.2537	20735.3180	187284.7800	102.3%	103.2%	3014.4509	63435.9520
3	19:07:06	97.4%	138.2411	18794.1320	67.2400	914.7460	25796.0350	3807.6200	20948.9650	191910.6700	104.8%	107.3%	3012.6099	62479.2890
x		97.7%	165.4069	18276.9740	68.6839	915.8615	22819.4880	3756.8012	20782.9100	188443.2000	102.1%	103.4%	3037.8319	62701.4440
σ		1.1%	33.5068	524.1657	7.5900	16.6627	2599.8963	103.9178	148.1093	3057.5322	2.8%	3.7%	42.1015	652.4415
%RSD		1.1	20.2572	2.8679	11.0506	1.8193	11.3933	2.7661	0.7126	1.6225	2.7	3.6	1.3859	1.0406

6100168-04@MH1H71 10/19/2016 19:10:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:10:40	93.8%	89.5483	103.5%	10011.7610	17499.6190	5209.3990	118.4858	28760.6830	3334.2761	81.9380	95.8082	2.7867	22.4767	40105.3490	2399.5430	3261.1590	4019.4907	2157.5724	5272.2914
2	19:10:53	95.3%	129.3902	104.9%	9625.0168	17558.0310	5027.4835	70.9157	29335.9300	3559.6372	60.2770	114.4684	55.0719	18.5230	42046.1490	2546.4980	3240.2456	4025.3027	2178.9385	5540.1631
3	19:11:06	97.4%	104.1504	107.3%	10353.2890	18258.0920	5227.2942	86.5619	29822.2040	3340.2715	59.2615	109.6844	61.0340	26.3030	43839.5270	2438.3412	3432.8074	4002.6689	2105.9416	5781.0834
x		95.5%	107.6963	105.2%	9996.6887	17771.9140	5154.7256	91.9878	29306.2720	3411.3950	67.1588	106.6537	39.6309	22.4342	41997.0080	2461.4607	3311.4040	4015.8208	2147.4842	5531.1793
σ		1.8%	20.1563	1.9%	364.3698	422.0542	110.5575	24.2447	531.3815	128.4166	12.8092	9.6923	32.0469	3.8902	1867.5741	76.1566	105.6572	11.7547	37.5295	254.5149
%RSD		1.9	18.7159	1.8	3.6449	2.3748	2.1448	26.3565	1.8132	3.7643	19.0730	9.0876	80.8635	17.3405	4.4469	3.0940	3.1907	0.2927	1.7476	4.6015

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:10:40	99.1%	371.3671	16941.4070	286.2870	3644.2176	7272.5534	4161.2392	17967.7490	177977.8200	102.3%	100.6%	2809.7240	62953.0520
2	19:10:53	101.3%	493.1095	17356.7040	285.6565	3788.5172	10640.1530	4099.0735	18978.7810	179165.1500	105.7%	105.0%	2868.5159	63563.7350
3	19:11:06	97.7%	487.3366	17076.2160	296.9932	3836.7644	11232.4920	4286.2962	19449.7680	183041.1200	106.6%	107.3%	2890.7318	65103.4640
x		99.4%	450.6044	17124.7760	289.6456	3756.4997	9715.0660	4182.2030	18798.7660	180061.3700	104.9%	104.3%	2856.3239	63873.4170
σ		1.8%	68.6822	211.8642	6.3711	100.1869	2135.9113	95.3556	757.2314	2647.9547	2.3%	3.4%	41.8575	1108.1490
%RSD		1.8	15.2422	1.2372	2.1996	2.6670	21.9856	2.2800	4.0281	1.4706	2.2	3.3	1.4654	1.7349

Q14034-MS1@MH1H71S 10/19/2016 19:14:42 QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	19:14:42	94.2%	3652.2900	103.0%	14601.8710	109259.0900	53441.7210	635.9411	614159.6300	128202.6400	252.1210	714.7601	348.7812	26.0969	39464.1870	192472.0500	338016.2700	371247.8200	214129.9400
2	19:14:54	96.3%	3748.2674	107.3%	14052.6220	109722.6000	53787.8630	645.2191	618133.0700	127000.9100	257.1414	761.3264	313.0232	2.4282	40218.1650	194343.0500	342551.9800	376003.1500	213708.4800
3	19:15:08	97.6%	3589.9542	108.7%	14131.7040	109993.4800	53248.0510	670.7833	621052.4600	129251.2200	276.2680	775.8065	335.4573	12.5656	42058.5670	196764.1300	348210.4700	378192.9800	217212.5900
x		96.0%	86.561%	106.3%	14262.0660	109.353%	102.640%	650.6478	88.968%	88.458%	261.8435	103.192%	332.4206	13.6969	40580.3060	194526.4100	88.130%	375147.9900	215017.0100
σ		1.7%	n/a	3.0%	296.9244	n/a	n/a	18.0443	n/a	n/a	12.7417	n/a	18.0714	11.8748	1334.5642	2151.9044	n/a	3550.6745	1913.0764
%RSD		1.8	2.1769	2.8	2.0819	0.3387	0.5112	2.7733	0.5600	0.8787	4.8662	4.2494	5.4363	86.6972	3.2887	1.1062	1.4894	0.9465	0.8897

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:14:42	98.3%	1442.3401	71259.2820	1037.1886	15704.0920	17801.5680	5771.4316	61077.9700	756296.0200	101.8%	101.5%	81706.6780	114729.7800
2	19:14:54	97.7%	1454.0216	72192.4930	1228.2673	15881.5440	16067.9710	5795.1380	61352.1490	754333.3000	105.8%	105.4%	82922.7070	117176.4300
3	19:15:08	98.2%	1517.2320	72457.0950	1221.8972	15925.8170	21393.9910	5977.9101	62271.4010	774382.0000	105.7%	108.2%	83168.8070	115658.7700
x		98.1%	1471.1979	104.509%	1162.4511	102.079%	18421.1760	5848.1599	55.262%	107.146%	104.4%	105.0%	89.764%	115854.9900
σ		0.3%	40.2923	n/a	108.5272	n/a	2716.5341	112.9904	n/a	n/a	2.3%	3.4%	n/a	1235.0702
%RSD		0.3	2.7387	0.8743	9.3361	0.7409	14.7468	1.9321	1.0153	1.4510	2.2	3.2	0.9478	1.0660

QJ14034-DUP1@MH1H71D 10/19/2016 19:18:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:18:43	93.3%	128.7253	103.1%	11442.3020	24680.3130	6717.4000	82.7908	28471.4370	3598.0575	93.1925	123.0986	43.6752	16.0272	35906.8890	3310.7188	4953.6992	5787.3382	3191.7099	7921.4852
2	19:18:57	95.6%	108.9321	106.0%	11951.9900	24643.0570	6782.8832	69.1562	28925.6200	3742.9491	90.0621	165.5781	60.5648	-0.9771	37809.5670	3420.9151	5075.7655	6105.1871	3276.8042	8135.2258
3	19:19:10	96.0%	106.6209	107.9%	11686.0470	24815.0630	6585.2142	10.8934	29689.4630	4018.3094	68.7256	138.9039	56.6470	12.4497	38279.0420	3345.3631	5098.8490	5911.4968	3107.7733	8281.8660
x		95.0%	114.7594	105.7%	11693.4460	24712.8110	6695.1658	54.2801	29028.8400	3786.4387	83.9934	142.5268	53.6290	9.1666	37331.8330	3358.9990	5042.7712	5934.6740	3192.0958	8112.8590
σ		1.4%	12.1499	2.4%	254.9247	90.4906	100.6927	38.1874	615.5385	213.4747	13.3147	21.4702	8.8400	8.9649	1256.1652	56.3494	77.9973	160.1870	84.5161	181.2285
%RSD		1.5	10.5872	2.3	2.1801	0.3662	1.5040	70.3525	2.1204	5.6379	15.8520	15.0640	16.4836	97.8002	3.3649	1.6776	1.5467	2.6992	2.6477	2.2338

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:18:43	97.9%	487.4135	21043.6800	430.8734	5145.4586	17798.6560	55435.0510	26432.5310	227794.1300	101.7%	100.4%	3979.8109	112288.2200
2	19:18:57	97.6%	539.2965	20641.4380	367.2823	5599.3561	18584.3290	56259.2200	27322.8870	231751.4000	105.2%	104.6%	3942.1177	112623.2900
3	19:19:10	98.7%	584.0684	20714.9090	336.0300	5787.7165	21300.6480	56584.8160	27798.7220	235832.1600	107.0%	107.5%	4205.0825	109365.6600
x		98.1%	536.9261	20800.0090	378.0619	5510.8437	19227.8780	56093.3620	27184.7130	231792.5500	104.6%	104.2%	4042.3370	111425.7200
σ		0.6%	48.3710	214.1989	48.3319	330.1509	1837.5536	592.0700	693.4975	4019.1746	2.7%	3.6%	142.1962	1791.9169
%RSD		0.6	9.0089	1.0298	12.7841	5.9909	9.5567	1.0555	2.5511	1.7340	2.6	3.4	3.5177	1.6082

SEQ-SRD1@MH1H71L@SX 10/19/2016 19:22:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:22:45	94.6%	4.4923	96.4%	2170.1425	3554.1686	974.1267	-63.2231	6131.6738	761.3968	7.8770	38.4932	-24.0300	25.7517	10159.4940	482.0263	679.8500	865.7118	460.8284	1157.1591
2	19:22:58	95.8%	23.4936	100.0%	2312.8595	3481.8655	968.6265	-55.5429	6187.5300	732.3103	17.4754	31.0670	-4.3057	11.9266	9094.2495	533.4635	704.9206	867.1322	500.1294	1069.6160
3	19:23:10	96.7%	16.2586	101.4%	2203.3774	3553.2617	924.4815	-64.5559	6225.6553	753.5712	11.0318	24.7216	-7.5645	12.0873	10029.3040	531.4822	716.8125	853.5093	518.3038	1228.6924
x		95.7%	14.7481	99.3%	2228.7931	3529.7652	955.7449	-61.1073	6181.6197	749.0928	12.1281	31.4273	-11.9668	16.5885	9761.0157	515.6574	700.5277	862.1178	493.0872	1151.8225
σ		1.0%	9.5902	2.6%	74.6760	41.4849	27.2142	4.8648	47.2687	15.0515	4.6922	6.8928	10.5734	7.9359	581.0940	29.1422	18.8687	7.4889	29.3777	79.6723
%RSD		1.1	65.0268	2.6	3.3505	1.1753	2.8474	7.9610	0.7647	2.0093	40.3382	21.9327	88.3562	47.8398	5.9532	5.6515	2.6935	0.8687	5.9579	6.9171

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:22:45	99.3%	82.6522	3424.5964	66.1251	790.1954	4263.6985	986.5941	4143.0796	37147.9800	98.4%	98.5%	742.1554	14757.7770
2	19:22:58	101.4%	106.0005	3627.7264	40.6291	914.1529	3468.0398	827.5276	3879.2137	37876.8160	101.8%	101.5%	801.6717	13992.1680
3	19:23:10	100.5%	93.1116	3685.6706	69.2120	874.0172	3302.5203	985.3483	3931.7412	38094.6430	103.5%	103.5%	782.4796	13561.2480
x		100.4%	93.9214	3579.3312	58.6554	859.4552	3678.0862	933.1567	3984.6782	37706.4790	101.3%	101.1%	775.4356	14103.7310
σ		1.0%	11.6952	137.1004	15.6873	63.2488	513.8633	91.4796	139.6712	495.7857	2.6%	2.5%	30.3770	606.0157
%RSD		1.0	12.4521	3.8303	26.7449	7.3592	13.9709	9.8032	3.5052	1.3149	2.6	2.5	3.9174	4.2968

6100168-05@MH1H72 10/19/2016 19:26:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:26:45	94.2%	105.4541	103.7%	10340.6360	18277.9310	6010.0706	99.8053	28714.9480	3433.6855	38.5640	109.0898	2.8373	19.3385	29015.8110	2606.7378	3760.2350	4629.4621	2238.6660	5917.1345
2	19:26:58	95.8%	70.8194	106.4%	10767.3070	18767.4560	6133.0665	87.2994	29581.8880	3310.8916	69.3467	96.9785	-0.4526	22.8317	28046.2090	2614.2095	3713.5534	4573.4681	2460.8638	6040.1911
3	19:27:11	95.8%	74.4292	109.3%	10914.7740	18353.3340	6103.1587	55.6025	29041.2350	3588.7192	61.3750	98.5992	45.9397	8.9240	28298.8680	2640.6938	3818.7040	4616.0178	2220.0705	6127.8579
x		95.2%	83.5676	106.4%	10674.2390	18466.2400	6082.0986	80.9024	29112.6900	3444.4321	56.4286	101.5558	16.1081	17.0314	28453.6290	2620.5470	3764.1641	4606.3160	2306.5334	6028.3945
σ		0.9%	19.0400	2.8%	298.1692	263.5710	64.1455	22.7852	437.8648	139.2253	15.9764	6.5748	25.8872	7.2352	502.9866	17.8431	52.6853	29.2306	133.9771	105.8558
%RSD		1.0	22.7840	2.6	2.7934	1.4273	1.0547	28.1638	1.5040	4.0420	28.3126	6.4740	160.7092	42.4813	1.7677	0.6809	1.3997	0.6346	5.8086	1.7560

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:26:45	98.2%	214.6429	19357.2390	100.0484	1547.7129	25656.2910	4509.2930	28630.2750	178621.3000	98.9%	99.5%	3537.6890	76891.2720
2	19:26:58	97.9%	232.5516	19993.0060	91.0614	1605.7799	25224.7610	4683.2639	28748.1740	181566.0100	101.4%	102.7%	3398.7377	78760.3050
3	19:27:11	99.6%	221.0979	19745.6550	94.9967	1540.2514	26314.1360	4829.7932	29580.0490	183271.9000	103.9%	104.4%	3331.0044	79468.0460
x		98.6%	222.7641	19698.6330	95.3688	1564.5814	25731.7290	4674.1167	28986.1660	181153.0700	101.4%	102.2%	3422.4771	78373.2070
σ		0.9%	9.0699	320.4810	4.5050	35.8735	548.5915	160.4457	517.6852	2352.6402	2.5%	2.5%	105.3674	1331.2866
%RSD		0.9	4.0715	1.6269	4.7238	2.2928	2.1320	3.4326	1.7860	1.2987	2.4	2.4	3.0787	1.6987

6100168-06@MH1H73 10/19/2016 19:30:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:30:46	94.2%	80.2491	99.9%	24619.6260	26986.7040	6947.7783	85.8238	25358.9140	3952.0784	79.3367	115.9545	12.9645	15.9609	27732.8080	3394.7507	5308.1294	6048.8165	3187.7571	8233.7431
2	19:30:59	95.0%	87.6931	102.2%	24979.5340	26995.5650	7040.8083	41.7857	25381.6650	3945.2749	51.3002	117.4821	72.5873	5.5694	29771.1710	3408.7494	5180.3663	6136.7139	3226.1363	8761.4397
3	19:31:12	96.6%	62.7218	104.8%	25661.2440	27434.4670	7223.9366	67.7992	25517.8270	3996.6374	66.1423	118.8813	43.5466	2.4350	29353.7210	3487.1195	5349.5015	6153.1256	3299.7330	8710.0308
x		95.3%	76.8880	102.3%	25086.8010	27138.9120	7070.8411	65.1362	25419.4690	3964.6636	65.5931	117.4393	43.0328	7.9984	28952.5670	3430.2066	5279.3324	6112.8853	3237.8755	8568.4045
σ		1.2%	12.8205	2.4%	529.0289	255.9969	140.5074	22.1395	85.9369	27.8983	14.0263	1.4639	29.8147	7.0800	1076.7659	49.7826	88.1682	56.0887	56.9035	290.9629
%RSD		1.3	16.6742	2.4	2.1088	0.9433	1.9871	33.9895	0.3381	0.7037	21.3839	1.2465	69.2837	88.6286	3.7191	1.4513	1.6701	0.9175	1.7574	3.3958

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:30:46	98.2%	41.2933	7656.9583	24.3872	136.3205	-557.0674	2863.5342	17057.7650	472982.1600	100.1%	99.5%	3384.3522	128852.4600
2	19:30:59	99.7%	65.8922	7225.3473	13.8577	122.1240	-1069.3727	2826.1091	17357.5840	474938.4300	104.3%	104.1%	3369.1477	127582.3500
3	19:31:12	97.6%	86.2698	7470.1864	10.4856	146.0814	1850.4739	3070.3622	17843.2290	489569.0500	104.3%	104.7%	3547.2659	131298.4700
x		98.5%	64.4851	7450.8307	16.2435	134.8420	74.6779	2920.0018	17419.5260	479163.2100	102.9%	102.8%	3433.5886	129244.4300
σ		1.1%	22.5212	216.4555	7.2514	12.0469	1559.0711	131.5535	396.3790	9064.6463	2.4%	2.8%	98.7405	1888.8141
%RSD		1.1	34.9247	2.9051	44.6417	8.9341	2087.7266	4.5053	2.2755	1.8918	2.3	2.8	2.8757	1.4614

6100168-07@MH1H74 10/19/2016 19:34:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:34:46	93.7%	72.9508	100.6%	15370.1970	29001.0230	7475.1434	64.0469	15092.4420	2911.0829	42.5864	159.8673	68.1410	9.3839	10609.2450	3351.6626	4949.0088	5799.3271	2985.4459	7471.0528
2	19:34:59	94.4%	50.7497	103.7%	16417.9080	28655.1240	7290.1607	44.3313	15252.1310	3163.6819	48.3775	138.6603	49.7233	9.0449	12160.4900	3601.7725	5149.4946	6137.7674	3088.6466	7957.9000
3	19:35:12	96.4%	86.5739	106.3%	16028.1290	28405.5260	7231.4852	53.5654	15239.1090	3095.3317	51.3048	168.7698	69.1161	-1.1179	10356.1230	3599.5043	4969.9862	6274.0865	3083.5690	8111.3451
x		94.8%	70.0915	103.5%	15938.7450	28687.2240	7332.2631	53.9812	15194.5610	3056.6988	47.4229	155.7658	62.3268	5.7703	11041.9520	3517.6465	5022.8299	6070.3937	3052.5538	7846.7660
σ		1.4%	18.0824	2.9%	529.5442	299.0435	127.1683	9.8643	88.6765	130.6558	4.4369	15.4681	10.9258	5.9678	976.9146	143.7508	110.1952	244.4454	58.1726	334.3002
%RSD		1.4	25.7983	2.8	3.3224	1.0424	1.7344	18.2737	0.5836	4.2744	9.3560	9.9304	17.5299	103.4219	8.8473	4.0866	2.1939	4.0268	1.9057	4.2604

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:34:46	97.0%	155.6386	13412.4790	21.1601	740.1152	14129.4470	2922.1468	16165.4830	282386.3300	98.8%	99.8%	3723.5413	81665.9950
2	19:34:59	98.9%	147.6125	13511.1250	72.2794	738.9931	15315.0560	3041.0130	16859.7030	286145.1200	102.1%	102.1%	3938.2856	83372.1490
3	19:35:12	99.7%	87.7261	13601.8900	57.7671	685.6171	15629.3670	2804.0305	17054.3390	286967.4800	104.8%	105.2%	3968.8201	83544.6490
x		98.5%	130.3257	13508.4980	50.4022	721.5751	15024.6230	2922.3967	16693.1750	285166.3100	101.9%	102.4%	3876.8823	82860.9310
σ		1.4%	37.1100	94.7332	26.3434	31.1456	791.0142	118.4914	467.2420	2442.3899	3.0%	2.8%	133.6720	1038.4327
%RSD		1.4	28.4748	0.7013	52.2664	4.3163	5.2648	4.0546	2.7990	0.8565	3.0	2.7	3.4479	1.2532

6100168-08@MH1H75 10/19/2016 19:38:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:38:46	93.2%	134.8027	109.7%	101862.2300	40759.4840	11827.6300	60.2212	14312.1290	2765.9000	73.0279	155.4129	19.9466	16.1076	28252.9390	3698.4288	4776.3530	5969.9260	3085.7518	7703.4821
2	19:38:59	94.3%	127.8855	112.5%	104704.9500	41123.5010	11905.3860	75.3297	14693.9480	2924.3311	69.8847	150.2775	33.6376	9.3371	28520.0450	3766.0579	4777.8326	5864.0830	3114.7841	7858.7786
3	19:39:12	92.5%	159.6548	114.9%	105831.9600	41715.4340	12062.2290	84.5406	14747.2280	2638.6578	77.9135	133.9272	55.3508	20.0136	29860.4550	3681.0970	5011.0681	6202.0788	3059.3471	7854.3857
x		93.3%	140.7810	112.4%	104133.0500	41199.4730	11938.4150	73.3639	14584.4350	2776.2963	73.6087	146.5392	36.3117	15.1528	28677.8130	3715.1979	4855.0846	6012.0293	3086.6277	7805.5488
σ		0.9%	16.7071	2.6%	2045.7237	482.4823	130.4737	12.2783	237.3237	143.1202	4.0458	11.2200	17.8529	5.4019	861.4086	44.8990	135.0877	172.8867	27.7289	88.4196
%RSD		1.0	11.8674	2.3	1.9645	1.1711	1.0929	16.7362	1.6272	5.1551	5.4964	7.6567	49.1657	35.6497	2.9829	1.2085	2.7824	2.8757	0.8984	1.1328

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:38:46	97.6%	105.9855	9621.2625	16.9477	320.9601	-5903.1364	2107.7607	23974.2550	648545.5500	99.9%	99.9%	3029.8587	43876.9560
2	19:38:59	97.2%	62.9845	10140.5910	22.6374	280.5647	-5557.9192	2180.6807	24018.6930	647090.4900	103.0%	101.2%	3422.9649	46062.9090
3	19:39:12	95.9%	130.9810	9854.0493	22.2676	276.1531	-3330.7152	2111.8293	24330.6020	665121.6100	104.1%	105.3%	3141.0988	44391.3870
x		96.9%	99.9836	9871.9676	20.6176	292.5593	-4930.5903	2133.4236	24107.8500	653585.8900	102.3%	102.1%	3197.9741	44777.0840
σ		0.9%	34.3933	260.1275	3.1836	24.6945	1396.2428	40.9764	194.1846	10016.6870	2.2%	2.8%	202.6308	1142.8775
%RSD		0.9	34.3989	2.6350	15.4412	8.4409	28.3180	1.9207	0.8055	1.5326	2.1	2.7	6.3362	2.5524

6100168-09@MH1H76 10/19/2016 19:42:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:42:45	93.6%	58.8372	101.6%	11275.9860	19048.0360	5998.4161	-30.3619	12611.4150	2294.0546	58.5872	156.8832	50.0201	19.1972	17344.2540	3906.0879	6474.9181	7035.3204	3805.8754	9943.6898
2	19:42:58	94.6%	79.4717	103.9%	11578.4610	19035.2950	5977.3587	58.9367	13063.5770	2347.2685	51.9625	159.4924	32.9699	5.7252	17604.6560	3983.9594	6488.5072	7178.8315	3989.3218	10579.0090
3	19:43:12	95.2%	32.8505	107.1%	11509.6720	19093.7540	5890.5704	55.4338	12735.2110	2311.0273	48.2335	159.5672	33.0231	22.4448	17194.7950	3903.2494	6243.1718	7776.6466	3752.6190	10511.6680
x		94.5%	57.0531	104.2%	11454.7070	19059.0280	5955.4484	28.0029	12803.4010	2317.4501	52.9277	158.6476	38.6710	15.7891	17381.2350	3931.0989	6402.1991	7330.2662	3849.2720	10344.7890
σ		0.8%	23.3618	2.8%	158.5519	30.7407	57.1640	50.5757	233.6660	27.1822	5.2439	1.5285	9.8286	8.8655	207.4180	45.8005	137.8891	393.1799	124.1753	348.9900
%RSD		0.9	40.9474	2.6	1.3842	0.1613	0.9599	180.6089	1.8250	1.1729	9.9077	0.9634	25.4160	56.1499	1.1933	1.1651	2.1538	5.3638	3.2259	3.3736

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:42:45	98.8%	207.6686	30624.4250	114.3235	1395.5387	22053.7630	5930.8400	28022.9580	292135.6000	98.8%	98.7%	4200.6831	91511.4860
2	19:42:58	98.5%	212.2861	30980.9830	111.1307	1402.1431	23885.2900	6177.0425	28378.0790	298568.3000	102.1%	101.6%	4381.8392	91807.7530
3	19:43:12	99.2%	192.0120	31640.8200	100.0294	1531.9078	25825.9160	6276.8699	30223.2520	303783.0800	102.1%	104.4%	4500.4330	89869.3370
x		98.8%	203.9889	31082.0760	108.4945	1443.1965	23921.6560	6128.2508	28874.7630	298162.3300	101.0%	101.5%	4360.9851	91062.8590
σ		0.3%	10.6261	515.6836	7.5028	76.8972	1886.3397	178.1001	1181.2473	5834.3453	1.9%	2.9%	150.9591	1044.1812
%RSD		0.3	5.2092	1.6591	6.9154	5.3283	7.8855	2.9062	4.0909	1.9568	1.8	2.8	3.4616	1.1467

6100168-10@MH1H77 10/19/2016 19:46:45

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:46:45	95.5%	40.3633	104.9%	12989.6000	16914.3300	4622.9353	91.6717	8230.5134	1639.5166	75.1169	213.3302	73.0150	5.6376	17678.6360	5252.7246	8961.0799	10162.7230	5697.7932	14325.1880
2	19:46:58	97.8%	22.6376	109.2%	13007.4950	17113.4490	4731.7234	22.7843	8264.9988	1555.2323	80.9496	229.9706	135.2332	-1.1527	15843.7110	5537.7818	8878.8858	10238.1160	5683.7963	14186.0520
3	19:47:11	95.9%	54.1721	112.1%	13324.3860	17091.9420	4641.9761	27.4975	8156.7791	1444.2758	63.1001	180.1341	93.8494	18.3447	14583.6040	5496.6728	8987.0949	10127.0270	5398.2417	14366.8710
x		96.4%	39.0577	108.7%	13107.1600	17039.9070	4665.5450	47.3178	8217.4304	1546.3415	73.0555	207.8116	100.6992	7.6098	16035.3170	5429.0598	8942.3535	10175.9550	5593.2770	14292.7040
σ		1.2%	15.8078	3.6%	188.3361	109.2836	58.0976	38.4838	55.2833	97.9236	9.1015	25.3724	31.6696	9.8972	1556.3868	154.0878	56.4829	56.7144	169.0505	94.6850
%RSD		1.3	40.4729	3.3	1.4369	0.6413	1.2452	81.3305	0.6728	6.3326	12.4584	12.2093	31.4497	130.0579	9.7060	2.8382	0.6316	0.5573	3.0224	0.6625

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:46:45	99.2%	74.8933	29431.6330	14.1198	173.5230	2419.4777	22406.6150	65599.8120	613925.2400	99.2%	100.3%	2343.5231	334063.5300
2	19:46:58	100.2%	83.5736	29288.5280	26.0341	188.1733	-318.4510	22675.7910	65622.1750	609681.2700	103.6%	102.8%	2504.2078	343852.4800
3	19:47:11	102.0%	115.4121	28933.6260	34.4612	185.8396	783.2317	22441.8650	65994.3880	616490.0600	106.5%	106.1%	2528.8123	342500.3000
x		100.4%	91.2930	29217.9290	24.8717	182.5120	961.4195	22508.0900	65738.7920	613365.5200	103.1%	103.0%	2458.8477	340138.7700
σ		1.4%	21.3339	256.4003	10.2204	7.8717	1377.6344	146.2986	221.6353	3438.7282	3.7%	2.9%	100.6289	5304.5762
%RSD		1.4	23.3686	0.8775	41.0925	4.3130	143.2917	0.6500	0.3371	0.5606	3.5	2.8	4.0925	1.5595

6100168-11@MH1H78 10/19/2016 19:50:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:50:43	95.6%	65.8665	108.6%	14228.1280	19432.1840	6164.5915	49.1372	19594.8030	3021.3038	57.4703	133.0756	55.4533	12.0937	21904.4170	4136.7731	4927.1510	5966.0644	3156.5568	7747.2344
2	19:50:56	97.3%	38.8091	112.9%	13657.9420	19477.3280	6276.9010	100.2824	19637.5050	2780.7296	44.5841	130.7818	32.9036	28.9560	22468.8080	4018.7130	4866.6388	6148.1436	3095.1716	8039.1207
3	19:51:09	98.0%	61.2200	114.5%	14623.7260	19257.0170	6073.7128	89.0629	19030.5130	3049.0589	49.8936	141.6526	37.9004	5.2384	21357.4450	3867.2430	4680.6685	5996.6402	3128.1475	8292.7345
x		97.0%	55.2985	112.0%	14169.9320	19388.8430	6171.7351	79.4942	19420.9400	2950.3641	50.6494	135.1700	42.0858	15.4294	21910.2230	4007.5764	4824.8194	6036.9494	3126.6253	8026.3632
σ		1.2%	14.4680	3.1%	485.5150	116.3750	101.7823	26.8817	338.7935	147.5618	6.4763	5.7300	11.8431	12.2056	555.7041	135.1097	128.4525	97.5030	30.7209	272.9737
%RSD		1.3	26.1635	2.8	3.4264	0.6002	1.6492	33.8160	1.7445	5.0015	12.7865	4.2391	28.1405	79.1060	2.5363	3.3714	2.6623	1.6151	0.9826	3.4010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:50:43	100.5%	243.4011	17091.6260	103.3614	1462.3371	17918.1470	6837.9370	25413.4090	245197.5100	100.8%	100.8%	3410.5656	73581.4690
2	19:50:56	99.7%	213.3302	17622.6940	125.8713	1557.2181	20007.2630	6772.5634	25684.3390	252985.2700	102.0%	101.9%	3555.1645	79044.3360
3	19:51:09	102.2%	207.5639	18392.4270	125.2372	1572.4354	19153.1450	6885.6217	25858.1690	251136.4600	106.2%	105.0%	3488.9502	77431.5880
x		100.8%	221.4318	17702.2490	118.1566	1530.6636	19026.1850	6832.0407	25651.9720	249773.0800	103.0%	102.6%	3484.8934	76685.7980
σ		1.3%	19.2433	654.0394	12.8170	59.6596	1050.3291	56.7593	224.1398	4068.9572	2.8%	2.2%	72.3847	2806.7563
%RSD		1.3	8.6904	3.6947	10.8474	3.8976	5.5204	0.8308	0.8738	1.6291	2.8	2.1	2.0771	3.6601

6100168-12@MH1H79 10/19/2016 19:54:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:54:43	97.3%	41.5649	118.4%	183349.1600	36830.4150	6411.8923	68.6769	13746.7870	2187.3110	52.7655	161.2038	53.9664	14.8705	24823.7090	4035.4243	6143.1148	7391.8881	4060.0436	9974.2259
2	19:54:56	97.7%	43.0285	120.8%	186369.9000	38067.5150	6820.1799	36.9058	13630.7970	2142.8085	78.1189	202.3618	19.4438	22.3131	24878.7130	4113.9732	6267.4549	7485.1190	3764.4393	10008.5140
3	19:55:09	98.3%	46.7064	124.0%	187381.0600	36223.9580	6404.1474	74.3238	13635.1000	2184.2080	103.6018	198.2323	37.3249	14.6653	27013.0940	4148.1105	6439.7875	7625.9918	4309.0330	9955.4282
x		97.8%	43.7666	121.1%	185700.0400	37040.6290	6545.4065	59.9689	13670.8950	2171.4425	78.1621	187.2659	36.9117	17.2830	25571.8390	4099.1694	6283.4524	7500.9996	4044.5053	9979.3893
σ		0.5%	2.6490	2.8%	2097.7591	939.5837	237.9923	20.1718	65.7601	24.8463	25.4182	22.6648	17.2650	4.3574	1248.4667	57.7833	148.9819	117.8570	272.6292	26.9168
%RSD		0.5	6.0526	2.3	1.1296	2.5366	3.6360	33.6371	0.4810	1.1442	32.5199	12.1030	46.7738	25.2124	4.8822	1.4096	2.3710	1.5712	6.7407	0.2697

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:54:43	102.9%	135.6478	6389.3476	10.0981	128.7893	-7690.5569	2963.7642	16675.9890	271297.7300	100.5%	99.5%	2909.6525	94466.1030
2	19:54:56	99.6%	59.7708	6388.4629	21.7053	100.3644	-8859.7287	2783.6923	16691.4070	275280.2900	104.5%	101.7%	2855.2445	97450.7330
3	19:55:09	103.8%	15.7909	6322.2214	33.0431	77.5919	-6036.9328	3003.7404	16893.5430	278781.8300	105.8%	106.0%	3044.4501	94200.9220
x		102.1%	70.4032	6366.6773	21.6155	102.2486	-7529.0728	2917.0656	16753.6460	275119.9500	103.6%	102.4%	2936.4490	95372.5860
σ		2.2%	60.6317	38.5025	11.4727	25.6507	1418.3096	117.2214	121.3988	3744.6236	2.8%	3.3%	97.4076	1804.6057
%RSD		2.2	86.1207	0.6047	53.0764	25.0866	18.8378	4.0185	0.7246	1.3611	2.7	3.2	3.3172	1.8922

6100168-13@MH1H80 10/19/2016 19:58:43

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	19:58:43	95.6%	85.6033	110.3%	18502.7360	51083.0600	6564.6751	62.2639	16218.4570	2850.9650	50.4079	130.9351	48.3626	11.9422	18350.5720	5001.2178	8101.6861	9557.0887	5000.3787	13135.4180
2	19:58:57	97.7%	60.1087	112.1%	18686.7040	51127.2600	6619.5159	57.6148	16414.5000	2827.3637	27.3784	148.5379	51.8716	21.8259	18967.5500	5511.4640	8332.7097	9596.2585	5199.4790	13525.4290
3	19:59:10	98.2%	55.9669	113.7%	18982.3670	51582.5370	6599.7770	64.1775	16365.6250	2892.1284	53.7416	155.1861	42.0153	21.8376	19216.2910	5254.8840	8353.7793	9880.2901	5270.4258	13887.9660
x		97.2%	67.2263	112.0%	18723.9350	51264.2860	6594.6560	61.3521	16332.8600	2856.8190	43.8426	144.8864	47.4165	18.5352	18844.8040	5255.8553	8262.7250	9677.8791	5156.7612	13516.2710
σ		1.4%	16.0491	1.7%	241.9737	276.4982	27.7767	3.3750	102.0456	32.7768	14.3556	12.5311	4.9958	5.7097	445.7212	255.1245	139.8612	176.3837	139.9999	376.3573
%RSD		1.4	23.8733	1.5	1.2923	0.5394	0.4212	5.5011	0.6248	1.1473	32.7434	8.6489	10.5360	30.8046	2.3652	4.8541	1.6927	1.8225	2.7149	2.7845

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	19:58:43	101.3%	296.1461	30107.0210	206.7664	2948.3992	13664.8040	9995.5852	50314.5490	265927.7900	98.8%	98.7%	5826.6357	185955.5100
2	19:58:57	101.2%	321.2932	30323.3010	225.1398	3150.1599	14702.3690	10203.1650	r 67422.1840	267601.9300	103.2%	102.0%	5760.0291	189326.4100
3	19:59:10	101.2%	290.9708	31437.7370	212.7989	3045.2478	18349.9190	10215.0200	51813.2120	271384.7300	104.6%	104.2%	5730.3047	189151.1500
x		101.2%	302.8034	30622.6870	214.9017	3047.9356	15572.3640	10137.9230	r 56516.6480	268304.8200	102.2%	101.6%	5772.3232	188144.3600
σ		0.0%	16.2204	714.0904	9.3654	100.9072	2460.7403	123.4107	r 9474.1506	2795.5440	3.0%	2.8%	49.3282	1897.6237
%RSD		0.0	5.3568	2.3319	4.3580	3.3107	15.8020	1.2173	r 16.7635	1.0419	3.0	2.7	0.8546	1.0086

6100168-14@MH1H81 10/19/2016 20:02:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:02:44	96.2%	49.7696	109.7%	15008.7710	34324.9730	7195.5651	103.7129	22340.5590	3554.2749	89.6109	162.2385	51.3944	8.6001	32103.9480	6437.7743	10221.3790	11301.7900	6282.4464	16796.2140
2	20:02:58	96.4%	52.5047	114.5%	14946.4280	34737.9240	7346.2119	61.1362	22597.9180	3571.1249	83.3011	162.7129	71.3171	8.6469	29961.8540	6153.5498	10185.4870	11676.1890	6421.7928	16295.1360
3	20:03:11	97.5%	54.0821	116.5%	15579.2950	34744.6460	7373.5367	58.8786	22421.5020	3554.6096	50.5547	180.7905	32.2828	25.1942	32227.1930	6465.9352	10301.1130	11504.8860	6568.7429	16596.3900
x		96.7%	52.1188	113.6%	15178.1650	34602.5140	7305.1046	74.5759	22453.3260	3560.0032	74.4889	168.5807	51.6648	14.1471	31430.9980	6352.4198	10235.9930	11494.2880	6424.3273	16562.5800
σ		0.7%	2.1820	3.5%	348.7846	240.3811	95.8427	25.2586	131.5977	9.6332	20.9664	10.5767	19.5186	9.5671	1273.8080	172.8011	59.1818	187.4247	143.1651	252.2439
%RSD		0.7	4.1865	3.1	2.2979	0.6947	1.3120	33.8697	0.5861	0.2706	28.1470	6.2740	37.7793	67.6263	4.0527	2.7202	0.5782	1.6306	2.2285	1.5230

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:02:44	101.6%	412.5144	30763.6710	266.5215	3642.6209	16650.1600	12784.0850	45456.4040	252015.9700	100.1%	100.0%	3433.3727	182335.2800
2	20:02:58	101.3%	430.8226	30884.6840	252.1633	3805.8174	16909.6180	12980.7970	47278.8420	253725.3500	104.5%	103.6%	3621.1869	182302.2800
3	20:03:11	101.0%	337.2845	31407.2500	219.1245	3562.2887	19020.2960	12985.8140	47067.4280	257071.1800	105.1%	105.2%	3494.8705	186945.7400
x		101.3%	393.5405	31018.5350	245.9364	3670.2424	17526.6910	12916.8980	46600.8920	254270.8300	103.2%	102.9%	3516.4767	183861.1000
σ		0.3%	49.5717	342.0316	24.3043	124.0918	1299.9889	115.0474	996.7759	2571.3704	2.7%	2.6%	95.7531	2671.4288
%RSD		0.3	12.5963	1.1027	9.8823	3.3810	7.4172	0.8907	2.1390	1.0113	2.6	2.6	2.7230	1.4530

6100168-15@MH1H82 10/19/2016 20:06:46

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:06:46	96.7%	105.1328	109.1%	61768.9920	37176.8410	7470.0999	95.6348	34322.2950	5310.2290	27.3575	93.6011	-7.2638	28.3878	37025.1920	6581.3398	10369.7980	11961.8050	6240.3846	16708.1400
2	20:06:59	97.3%	100.0344	113.6%	62419.9260	37462.8340	7656.1930	32.5699	33619.6200	5621.8892	34.1585	77.6019	12.3463	15.3548	34808.9950	6594.2586	10264.0860	12009.3400	6338.6952	16732.8000
3	20:07:12	98.3%	97.9387	115.6%	63298.6890	36893.2730	7490.8132	80.4982	34129.3220	5422.5261	69.1088	64.1497	11.8975	14.9148	38635.1940	6908.8589	10620.0660	12368.2810	6410.1824	17220.2980
x		97.4%	101.0353	112.8%	62495.8690	37177.6490	7539.0353	69.5676	34023.7460	5451.5481	43.5416	78.4509	5.6600	19.5525	36823.1270	6694.8191	10417.9840	12113.1420	6329.7541	16887.0790
σ		0.8%	3.7000	3.3%	767.6707	284.7810	101.9887	32.9227	363.0397	157.8440	22.4015	14.7440	11.1946	7.6548	1921.0863	185.4764	182.8163	222.2315	85.2513	288.8390
%RSD		0.9	3.6621	2.9	1.2284	0.7660	1.3528	47.3247	1.0670	2.8954	51.4484	18.7939	197.7832	39.1500	5.2171	2.7704	1.7548	1.8346	1.3468	1.7104

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:06:46	101.3%	1000.1043	14115.9100	769.1280	11067.8870	18338.9600	3222.5913	11630.0820	84654.3770	99.0%	99.6%	2315.4648	49969.1280
2	20:06:59	100.7%	1084.6097	14346.0110	751.7260	11045.2310	16504.2560	3208.2526	11395.6480	85215.6350	102.9%	102.0%	2457.4275	51442.1840
3	20:07:12	102.7%	1109.2283	14079.9560	771.7725	11078.7890	20005.4510	3299.5234	11738.1000	87405.1900	103.4%	103.2%	2505.6028	52192.1180
x		101.6%	1064.6474	14180.6260	764.2088	11063.9690	18282.8890	3243.4557	11587.9430	85758.4010	101.7%	101.6%	2426.1650	51201.1440
σ		1.0%	57.2353	144.3519	10.8910	17.1187	1751.2712	49.0824	175.0721	1453.5095	2.4%	1.8%	98.8490	1130.9275
%RSD		1.0	5.3760	1.0180	1.4251	0.1547	9.5787	1.5133	1.5108	1.6949	2.4	1.8	4.0743	2.2088

6100168-16@MH1H83 10/19/2016 20:10:44

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	20:10:44	96.5%	91.0409	110.9%	57406.7820	39335.7660	8725.1305	114.5933	40823.9040	5249.3322	69.5256	133.0745	18.6201	18.3056	28175.7070	10275.5140	16964.8990	19719.7330	10645.7390	27552.29
2	20:10:57	96.6%	62.2460	113.2%	57552.8840	39543.3330	8848.4810	83.5556	41316.4510	5708.2672	49.8197	139.2871	86.8829	14.9915	30569.9870	10528.3850	17685.0890	19630.8320	10987.3570	27677.64
3	20:11:10	99.1%	90.8700	116.9%	58468.8280	39540.3140	8590.2645	101.1941	41646.4060	5733.7849	58.5542	134.8713	24.2336	5.0138	29941.6840	10833.7430	17422.7410	19359.8210	10948.6160	27978.17
x		97.4%	81.3856	113.7%	57809.4980	39506.4710	8721.2920	99.7810	41262.2540	5563.7948	59.2598	135.7443	43.2456	12.7703	29562.4590	10545.8810	17357.5770	19570.1290	10860.5710	27736.03
σ		1.5%	16.5756	3.0%	575.6503	155.5840	129.1511	15.5670	413.9209	272.6312	9.8741	3.1970	37.8951	6.9187	1241.3716	279.5257	364.4904	187.4773	187.0553	218.86
%RSD		1.5	20.3667	2.7	0.9958	0.3938	1.4809	15.6012	1.0031	4.9001	16.6511	2.3551	87.6278	54.1779	4.1991	2.6506	2.0999	0.9580	1.7223	0.78

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:10:44	102.1%	518.7095	46300.0550	306.9715	4148.6250	26082.4690	20605.4790	39159.0370	144950.2900	99.9%	98.7%	2493.8329	276464.1500
2	20:10:57	102.3%	435.7144	48298.0470	329.5997	4230.6330	29512.6130	21355.7470	41113.9230	146483.6500	101.6%	100.1%	2434.8005	284842.3900
3	20:11:10	104.0%	420.1680	47429.3280	344.2957	4404.1172	28275.2250	21380.8940	40851.3540	145872.8500	104.4%	103.0%	2669.8609	286850.7100
x		102.8%	458.1973	47342.4770	326.9556	4261.1251	27956.7690	21114.0400	40374.7720	145768.9300	102.0%	100.6%	2532.8314	282719.0800
σ		1.0%	52.9785	1001.8236	18.8021	130.4469	1737.1046	440.6060	1061.0103	771.9400	2.3%	2.2%	122.2866	5509.2154
%RSD		1.0	11.5624	2.1161	5.7506	3.0613	6.2135	2.0868	2.6279	0.5296	2.2	2.2	4.8281	1.9487

6100168-17@MH1H84 10/19/2016 20:14:42

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:14:42	98.4%	279.1293	113.6%	60898.9230	30024.8370	12214.2150	98.7819	107818.9200	16096.5510	74.4744	95.2121	53.0586	8.1978	106834.5600	2896.8517	4261.6086	4875.2960	2625.5249	6834.7568
2	20:14:55	100.4%	263.0749	116.5%	61433.3230	30018.2740	12249.4090	69.9720	112457.2700	16403.6200	54.7072	92.1807	20.9417	17.5636	110258.2200	2898.6424	4479.1489	5193.3349	2690.9783	7124.6881
3	20:15:08	102.5%	302.6938	120.7%	62216.1300	30105.8320	12366.6810	208.5023	111978.2900	16578.5280	61.2590	95.6642	33.5769	8.0997	109982.1000	3044.8429	4544.4820	5207.1270	2839.3074	6978.3953
x		100.4%	281.6327	116.9%	61516.1250	30049.6470	12276.7620	125.7521	110751.5000	16359.5660	63.4802	94.3523	35.8591	11.2870	109024.9600	2946.7790	4428.4132	5091.9193	2718.6035	6979.2801
σ		2.1%	19.9277	3.6%	662.4956	48.7677	79.8193	73.0972	2550.9487	243.9903	10.0690	1.8942	16.1796	5.4359	1901.9613	84.9306	148.1044	187.7280	109.5359	144.9677
%RSD		2.1	7.0758	3.1	1.0769	0.1623	0.6502	58.1280	2.3033	1.4914	15.8617	2.0076	45.1199	48.1602	1.7445	2.8821	3.3444	3.6868	4.0291	2.0771

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:14:42	104.1%	405.7490	6607.8646	109.3197	2085.5617	-5717.7187	1916.0226	4743.8149	175649.7300	103.1%	101.9%	1252.4729	14926.7120
2	20:14:55	105.1%	354.3274	6714.6965	122.6146	2098.6693	-2244.4050	1951.2997	4454.9903	179433.9900	104.3%	105.9%	1327.8533	14384.2270
3	20:15:08	104.8%	357.2509	6913.0121	140.1430	1952.5621	-3355.2058	2024.4439	4620.7099	181536.4300	106.4%	106.0%	1373.1108	15803.9580
x		104.7%	372.4424	6745.1911	124.0257	2045.5977	-3772.4432	1963.9221	4606.5050	178873.3800	104.6%	104.6%	1317.8123	15038.2990
σ		0.5%	28.8813	154.8425	15.4600	80.8373	1773.8496	55.3018	144.9363	2983.1236	1.7%	2.3%	60.9425	716.4132
%RSD		0.5	7.7546	2.2956	12.4652	3.9518	47.0212	2.8159	3.1463	1.6677	1.6	2.2	4.6245	4.7639

SEQ1B12 QM 10/26

~~[illegible]~~ 10/19/2016 20:18:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:18:40	98.0%	850.0039	111.1%	3533.0657	1737.5947	482.7268	12.2156	29092.2170	1296.6757	24.5199	34.9610	-20.6987	22.2598	116708.6700	2440.2245	3882.1022	4413.6805	2364.7972	6589.4276
2	20:18:53	98.9%	846.5754	112.3%	3467.1378	1662.2181	491.1739	10.6224	29557.3030	1388.7822	43.9545	34.4870	22.2505	18.5941	118097.4400	2471.1414	3925.3957	5001.2615	2320.1652	6566.8290
3	20:19:07	100.1%	861.2451	113.1%	3291.3385	1788.2277	490.3993	0.8917	29588.9890	1389.1812	41.2986	33.9084	5.7200	5.5780	118750.3600	2339.4439	4133.4984	5027.5903	2574.8097	6613.8278
x		99.0%	852.6081	112.2%	3430.5140	1729.3468	488.1000	7.9099	29412.8360	1358.2130	36.5910	34.4521	2.4239	15.4773	117852.1600	2416.9366	3980.3321	4814.1775	2419.9240	6590.0282
σ		1.1%	7.6737	1.0%	124.9560	63.4084	4.6694	6.1299	278.1164	53.2933	10.5379	0.5271	21.6635	8.7668	1042.7133	68.8680	134.4006	347.0903	135.9786	23.5052
%RSD		1.1	0.9000	0.9	3.6425	3.6666	0.9567	77.4971	0.9456	3.9238	28.7992	1.5300	893.7357	56.6429	0.8848	2.8494	3.3766	7.2098	5.6191	0.3567

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:18:40	99.8%	368.8189	1302.9111	135.0223	1860.6930	1684.5668	323.3223	6491.8566	15081.2860	103.6%	102.7%	392.2879	-435.8478
2	20:18:53	101.0%	238.8170	1463.4937	129.7918	1557.0510	3020.1022	295.0831	6392.1785	15381.9110	105.7%	106.3%	334.2801	-969.0145
3	20:19:07	99.6%	330.0449	1457.9021	109.5194	1748.6459	3982.6716	233.8851	6552.5191	15643.0480	108.2%	108.3%	337.0263	-645.4961
x		100.1%	312.5602	1408.1023	124.7778	1722.1299	2895.7802	284.0968	6478.8514	15368.7480	105.8%	105.8%	354.5315	-683.4528
σ		0.8%	66.7414	91.1412	13.4705	153.5478	1154.0855	45.7196	80.9575	281.1118	2.3%	2.8%	32.7269	268.6023
%RSD		0.8	21.3531	6.4726	10.7956	8.9162	39.8540	16.0930	1.2496	1.8291	2.2	2.7	9.2310	39.3008

SEQ-IBL1@ZZZZZZ 10/19/2016 20:22:39

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:22:39	99.7%	70.1237	114.3%	10091.1020	17924.0350	5240.4781	90.7176	28920.8590	3314.5883	64.4402	109.4495	55.7181	1.7373	46610.8260	2297.6630	3509.6522	4194.3399	2077.7855	5543.1491
2	20:22:52	100.8%	89.9017	115.0%	10338.0520	17764.6260	5099.8246	73.3122	30065.8420	3671.9408	64.5261	111.7122	52.9338	17.6745	45581.1180	2396.7082	3665.2211	4082.6339	2171.4178	5612.6648
3	20:23:05	101.1%	55.8978	118.0%	10093.8520	18240.5430	5223.8955	51.9035	29517.7400	3423.2866	74.5361	120.9152	14.7968	14.6168	46331.9950	2399.8160	3424.1094	4076.4262	2197.4791	5500.1623
x		100.6%	71.9744	115.8%	10174.3350	17976.4020	5188.0661	71.9778	29501.4800	3469.9386	67.8341	114.0256	41.1496	11.3429	46174.6460	2364.7291	3532.9942	4117.8000	2148.8941	5551.9921
σ		0.7%	17.0773	2.0%	141.7895	242.2413	76.8678	19.4414	572.6645	183.1871	5.8043	6.0729	22.8646	8.4580	532.5819	58.1017	122.2389	66.3581	62.9454	56.7701
%RSD		0.7	23.7269	1.7	1.3936	1.3476	1.4816	27.0103	1.9411	5.2793	8.5566	5.3259	55.5646	74.5663	1.1534	2.4570	3.4599	1.6115	2.9292	1.0225

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:22:39	104.8%	437.9032	16795.5630	240.1205	3991.1422	15470.7430	4209.1591	18423.0000	184207.7300	102.1%	101.4%	2761.5098	61870.6090
2	20:22:52	104.7%	512.9373	17069.9490	229.9966	3957.2665	12883.5720	4165.5345	19166.2150	184096.8900	107.1%	105.8%	3061.4079	61649.0860
3	20:23:05	104.1%	477.1996	17696.2540	256.3835	4114.2278	17279.8940	4627.6403	19183.7810	187621.4200	107.7%	107.4%	2861.7298	62075.0770
x		104.5%	476.0134	17187.2550	242.1669	4020.8788	15211.4030	4334.1113	18924.3320	185308.6800	105.7%	104.9%	2894.8825	61864.9240
σ		0.4%	37.5311	461.6618	13.3119	82.5979	2209.6052	255.1377	434.2552	2003.6588	3.1%	3.1%	152.6730	213.0525
%RSD		0.4	7.8845	2.6861	5.4970	2.0542	14.5260	5.8867	2.2947	1.0813	2.9	2.9	5.2739	0.3444

SEQ-CCV@CCV04 10/19/2016 20:26:39 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	9
1	20:26:39	97.1%	197745.9800	101.4%	531301.5900	421810.4400	586998.5800	5947.3931	r3376060.4000	709427.3300	4673.7058	15688.3370	7186.9098	101.9614	-259.4674	1361573.6000	r2449904.7000	r2664307.
2	20:26:52	97.2%	194232.7900	103.9%	534857.0200	423444.6600	595641.0400	5526.1014	r3364938.1000	717835.2600	4781.3838	15725.9740	7368.9054	92.9104	1631.6216	1387745.6000	r2473872.1000	r2687707.
3	20:27:05	99.6%	196735.0600	104.5%	539698.6500	421400.2100	589874.5800	5445.5839	r3380983.5000	721291.8400	4733.5806	15768.9070	7220.6406	97.7641	547.8571	1398490.1000	r2485532.2000	r2715599.
x		98.0%	95.543%	103.2%	535285.7500	100.495%	100.562%	5639.6928	r102.018%	101.574%	4729.5567	100.810%	7258.8186	97.5453	640.0038	1382603.1000	r2469769.7000	r2689204.
σ		1.4%	n/a	1.7%	4214.9154	n/a	n/a	269.5002	rn/a	n/a	53.9517	n/a	96.8183	4.5295	948.9060	18987.8840	r18164.5760	r25678.
%RSD		1.4	0.9216	1.6	0.7874	0.2562	0.7449	4.7786	r0.2436	0.8520	1.1407	0.2563	1.3338	4.6434	148.2657	1.3733	r0.7355	r0.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:26:39	103.2%	53026.3750	350094.9600	39956.1140	599016.2100	143.5197	2042850.5000	2040822.1000	707652.8900	103.6%	104.4%	r4483434.3000	-820.8099
2	20:26:52	102.6%	53360.8110	354049.1400	40678.5870	608834.8700	692.1481	2097555.7000	2091829.8000	711381.9400	107.0%	107.3%	r4537968.7000	1850.7485
3	20:27:05	104.2%	55126.3920	354381.9100	41552.0290	613918.4500	1831.4818	2124651.7000	2117109.0000	723514.6800	110.7%	110.8%	r4457639.3000	1408.6514
x		103.3%	53837.8590	103.439%	40728.9100	102.624%	889.0499	2088352.6000	107.673%	105.256%	107.1%	107.5%	r101.152%	812.8633
σ		0.8%	1128.3609	n/a	799.1469	n/a	861.0353	41669.8770	n/a	n/a	3.5%	3.2%	rn/a	1431.9667
%RSD		0.8	2.0959	0.6759	1.9621	1.2475	96.8489	1.9953	1.8653	1.1613	3.3	3.0	r0.9128	176.1633

SEQ-CCB@CCB04 10/19/2016 20:30:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	20:30:42	96.0%	28.0298	97.7%	172.2059	46.6294	106.3955	-9.6321	608.0247	11.7180	-5.5462	3.7315	-4.3075	8.7903	658.3203	417.8066	833.2912	951.0132	501.0642	1446.6639
2	20:30:55	96.7%	53.5468	99.9%	86.7373	31.1552	95.0293	-1.2897	709.2295	12.4057	-2.2773	12.3308	-1.2099	5.2692	1140.9241	474.6671	925.1810	973.9010	594.9677	1411.5879
3	20:31:08	97.4%	36.2251	101.0%	134.5832	32.5987	121.6257	-6.8982	725.2776	0.8395	-5.5462	8.9821	-20.6349	11.6872	1673.7425	588.2766	883.3582	1038.8676	568.3788	1389.6269
x		96.7%	39.2672	99.5%	131.1755	36.7944	107.6835	-5.9400	680.8440	8.3211	-4.4566	8.3481	-8.7174	8.5823	1157.6623	493.5834	880.6101	987.9273	554.8036	1415.9595
σ		0.7%	13.0277	1.7%	42.8361	8.5478	13.3449	4.2529	63.5717	6.4883	1.8873	4.3346	10.4364	3.2141	507.9180	86.7950	46.0065	45.5758	48.4013	28.7687
%RSD		0.7	33.1770	1.7	32.6556	23.2313	12.3927	71.5983	9.3372	77.9746	42.3483	51.9225	119.7187	37.4500	43.8744	17.5847	5.2244	4.6133	8.7240	2.0317

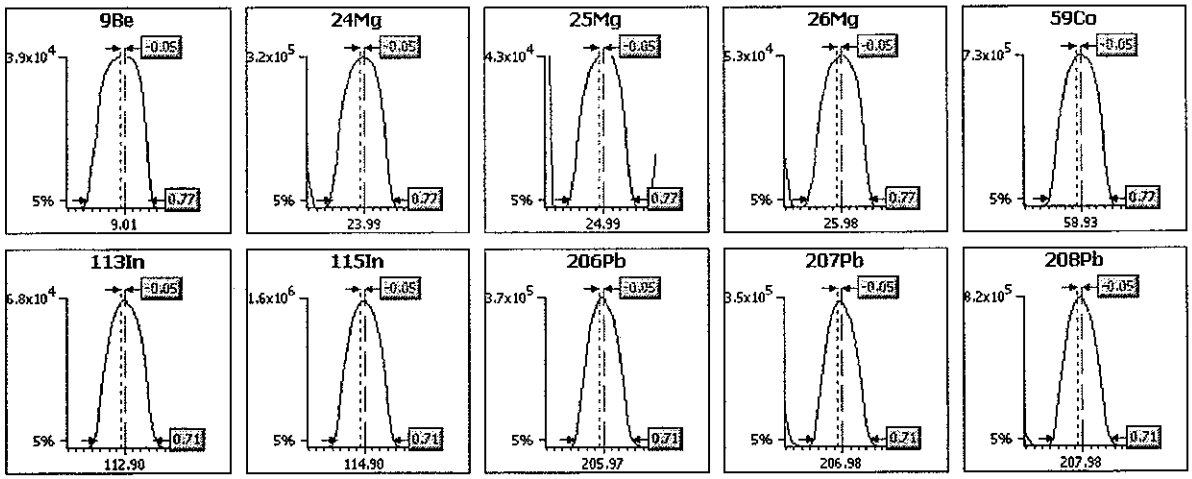
Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	20:30:42	100.4%	11.6991	73.5704	21.1240	110.5890	1634.4008	560.9548	528.5640	95.3489	101.5%	102.2%	1033.3749	-313.6755
2	20:30:55	102.0%	63.9826	58.2756	-2.2688	165.7927	3488.3730	520.2480	483.6598	122.9369	104.8%	104.3%	849.7794	-760.2009
3	20:31:08	102.6%	30.7349	87.0076	17.1271	110.0682	7066.7508	553.0132	523.3571	119.2355	104.9%	105.6%	775.7598	-560.1725
x		101.7%	35.4722	72.9512	11.9941	128.8166	4063.1749	544.7387	511.8603	112.5071	103.7%	104.0%	886.3047	-544.6830
σ		1.1%	26.4617	14.3760	12.5127	32.0232	2761.4135	21.5780	24.5607	14.9742	1.9%	1.7%	132.6347	223.6653
%RSD		1.1	74.5984	19.7063	104.3233	24.8596	67.9620	3.9612	4.7983	13.3096	1.9	1.6	14.9649	41.0634

Performance Report

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/20/2016 09:46:04
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.11	0.77	-0.05
24Mg	0.85	0.65	0.11	0.77	-0.05
25Mg	0.85	0.65	0.11	0.77	-0.05
26Mg	0.85	0.65	0.11	0.77	-0.05
59Co	0.85	0.65	0.11	0.77	-0.05
113In	0.85	0.65	0.11	0.71	-0.05
115In	0.85	0.65	0.11	0.71	-0.05
206Pb	0.85	0.65	0.11	0.71	-0.05
207Pb	0.85	0.65	0.11	0.71	-0.05
208Pb	0.85	0.65	0.11	0.71	-0.05

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/20/2016 09:46:04
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Tune conditions

Major	
Extraction	-188
Lens 1	0.3
Focus	18.0
D1	-42.4
Pole Bias	1.5
Hexapole Bias	-3.5
Nebuliser	0.78
Sampling Depth	130

Minor	
Lens 2	-26.7
Lens 3	-189.0
Forward power	1400
Horizontal	95
Vertical	375
D2	-160
DA	-33.7
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT 7% h2/He	0.00
Dont touch this thing	0.00

Sensitivity and stability results

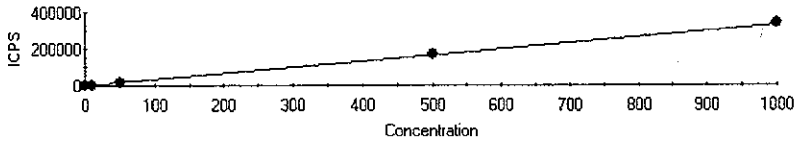
Acquisition parameters
Sweeps : 30

Run	Time	6Li	9Be	24Mg	25Mg	26Mg	45Sc	59Co	89Y	113In	115In	159Tb	206Pb	207Pb	208Pb	209Bi
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	>4000	>4000	>4000	>4000	>4000	>5000	>4000	>5000	>10000	>20000	>20000	>20000	>20000	>20000	>20000
1	09:46:43	100236.24	42830.658	333846.07	45969.265	54563.253	1085783.6	768799.06	100927.15	70173.127	1676669.3	153739.06	388038.51	343115.11	849557.44	103489.05
2	09:46:55	100232.87	43580.878	334727.61	46297.591	54620.261	1090340.4	775870.26	100903.56	70535.918	1700732.1	156088.59	392152.87	351129.24	857134.94	103994.77
3	09:47:03	99767.794	43661.262	339012.07	46706.341	54630.321	1097657.3	779063.44	100691.23	71113.727	1697416.3	155603.72	393467.90	351797.68	859408.64	103654.25
4	09:47:10	101311.39	43081.841	338074.78	46351.197	54409.000	1096203.2	777606.26	101729.35	71012.944	1712865.3	157075.37	395207.65	354946.61	870031.28	105451.41
5	09:47:19	101830.48	44488.592	337604.44	45480.147	54274.868	1098766.8	777348.92	101223.76	72286.254	1719280.8	157227.98	397184.39	354028.49	867758.71	105023.16
x		100675.75	43528.646	336652.99	46160.908	54499.540	1093750.3	775737.59	101095.01	71024.394	1701392.8	155946.95	393210.26	351003.43	860778.20	104322.53
σ		858.94	638.09	2240.42	461.67	153.63	5512.32	4040.74	402.13	800.57	16424.82	1407.75	3453.79	4678.99	8297.62	868.04
%RSD		0.8532	1.4659	0.6655	1.0001	0.2819	0.5040	0.5209	0.3978	1.1272	0.9654	0.9027	0.8784	1.3330	0.9640	0.8321

Result : The performance report passed.

Fully Quant Calibration

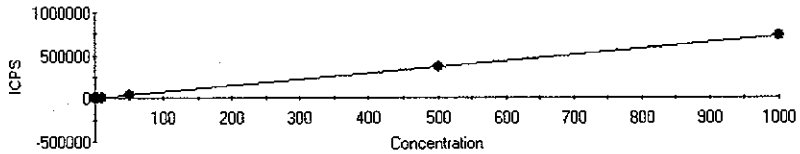
9Be FQ Block 1



Intercept CPS=11.162488 Intercept Conc=0.033764
Sensitivity=330.604376 Correlation Coeff=0.999999

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.010	0.010	14.52	0.00
SEQ-CAL4@S04	1.000	0.971	0.029	332.25	2.88
SEQ-CAL5@S05	10.000	9.849	0.151	3267.43	1.51
SEQ-CAL6@S06	50.000	49.417	0.583	16348.50	1.17
SEQ-CAL7@S07	500.000	511.505	11.505	169117.07	2.30
SEQ-CAL8@S08	1000.000	1022.905	22.905	338188.04	2.29

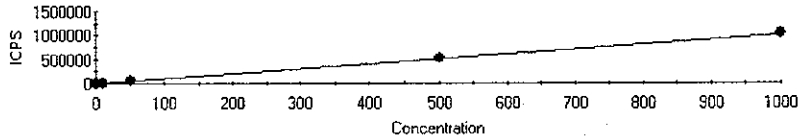
51V FQ Block 1



Intercept CPS=-8.889835 Intercept Conc=-0.012282
Sensitivity=723.832215 Correlation Coeff=0.999987

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.034	0.034	-33.82	0.00
SEQ-CAL4@S04	5.000	5.177	0.177	3738.69	3.55
SEQ-CAL5@S05	10.000	9.846	0.154	7117.93	1.54
SEQ-CAL6@S06	50.000	49.457	0.543	35789.76	1.09
SEQ-CAL7@S07	500.000	496.132	3.868	359107.34	0.77
SEQ-CAL8@S08	1000.000	1003.301	3.301	726213.03	0.33

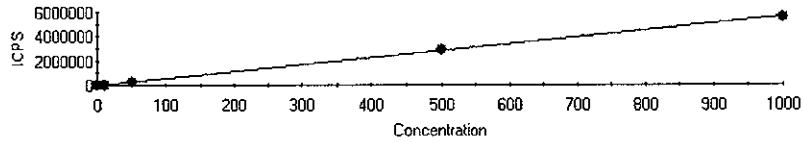
52Cr FQ Block 1



Intercept CPS=161.626559 Intercept Conc=0.159302
Sensitivity=1014.594077 Correlation Coeff=0.999982

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.016	0.016	145.60	0.00
SEQ-CAL4@S04	2.000	2.048	0.048	2239.99	2.42
SEQ-CAL5@S05	10.000	9.896	0.104	10201.95	1.04
SEQ-CAL6@S06	50.000	50.058	0.058	50949.82	0.12
SEQ-CAL7@S07	500.000	499.189	0.811	506635.70	0.16
SEQ-CAL8@S08	1000.000	1011.102	11.102	1026020.22	1.11

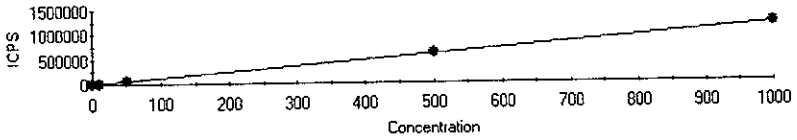
59Co FQ Block 1



Intercept CPS=13.566717 Intercept Conc=0.002401
Sensitivity=5651.021730 Correlation Coeff=0.999934

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	14.36	0.00
SEQ-CAL4@S04	1.000	0.991	0.009	5615.88	0.86
SEQ-CAL5@S05	10.000	9.963	0.037	56315.63	0.37
SEQ-CAL6@S06	50.000	49.721	0.279	280985.20	0.56
SEQ-CAL7@S07	500.000	505.427	5.427	2856191.81	1.09
SEQ-CAL8@S08	1000.000	986.767	13.233	5576255.13	1.32

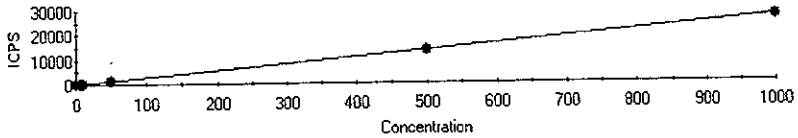
60Ni FQ Block 1



Intercept CPS=305.795489 Intercept Conc=0.255652
Sensitivity=1196.139179 Correlation Coeff=0.999979

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.009	0.009	317.12	0.00
SEQ-CAL4@S04	1.000	1.005	0.005	1507.36	0.45
SEQ-CAL5@S05	10.000	9.980	0.020	12243.59	0.20
SEQ-CAL6@S06	50.000	49.330	0.670	59311.54	1.34
SEQ-CAL7@S07	500.000	502.717	2.717	601625.00	0.54
SEQ-CAL8@S08	1000.000	992.098	7.902	1186992.82	0.79

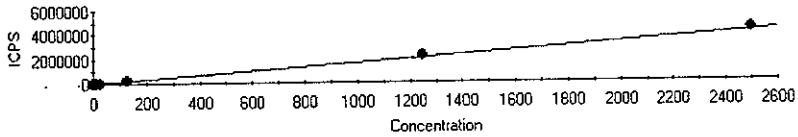
78Se FQ Block 1



Intercept CPS=3.333466 Intercept Conc=0.122315
Sensitivity=27.253082 Correlation Coeff=0.999974

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.000	0.000	3.33	0.00
SEQ-CAL4@S04	5.000	5.506	0.506	153.38	10.11
SEQ-CAL5@S05	10.000	9.944	0.056	274.35	0.56
SEQ-CAL6@S06	50.000	50.099	0.099	1368.68	0.20
SEQ-CAL7@S07	500.000	491.333	8.667	13393.68	1.73
SEQ-CAL8@S08	1000.000	967.586	32.414	26373.03	3.24

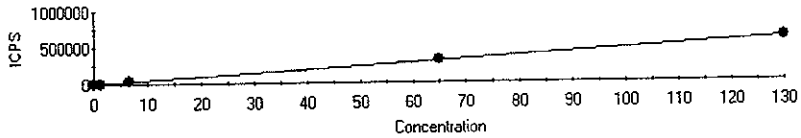
95Mo FQ Block 1



Intercept CPS=4.027555 Intercept Conc=0.002462
Sensitivity=1635.688690 Correlation Coeff=0.999960

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	4.43	0.00
SEQ-CAL2@S02	2.000	1.989	0.011	3257.88	0.54
SEQ-CAL3@S03	4.000	4.002	0.002	6550.26	0.05
SEQ-CAL4@S04	10.000	10.123	0.123	16561.62	1.23
SEQ-CAL5@S05	25.000	24.934	0.066	40788.75	0.26
SEQ-CAL6@S06	125.000	125.110	0.110	204645.78	0.09
SEQ-CAL7@S07	1250.000	1318.057	68.057	2155934.29	5.44
SEQ-CAL8@S08	2500.000	2586.616	86.616	4230902.04	3.46

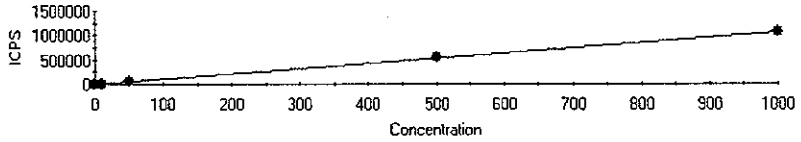
107Ag FQ Block 1



Intercept CPS=6.344770 Intercept Conc=0.001371
Sensitivity=4628.364791 Correlation Coeff=0.999955

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	6.69	0.00
SEQ-CAL4@S04	1.000	0.975	0.025	4517.65	2.53
SEQ-CAL5@S05	1.300	1.299	0.001	6017.97	0.09
SEQ-CAL6@S06	6.500	6.490	0.010	30042.52	0.16
SEQ-CAL7@S07	65.000	65.817	0.817	304633.12	1.26
SEQ-CAL8@S08	130.000	129.043	0.957	597266.08	0.74

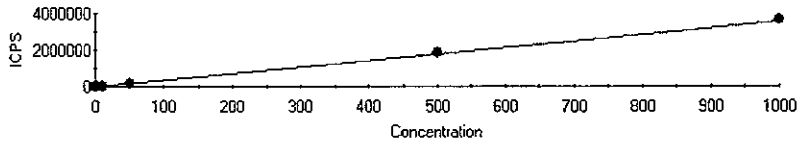
111Cd FQ Block 1



Intercept CPS=3.332402 Intercept Conc=0.003134
Sensitivity=1063.331046 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	3.33	0.00
SEQ-CAL4@S04	1.000	0.984	0.016	1049.15	1.65
SEQ-CAL5@S05	10.000	9.840	0.160	10466.34	1.60
SEQ-CAL6@S06	50.000	49.819	0.181	52977.66	0.36
SEQ-CAL7@S07	500.000	503.157	3.157	535025.60	0.63
SEQ-CAL8@S08	1000.000	1002.467	2.467	1065958.00	0.25

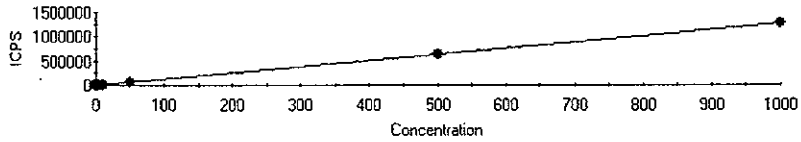
121Sb FQ Block 1



Intercept CPS=18.251902 Intercept Conc=0.005106
Sensitivity=3574.825567 Correlation Coeff=0.999946

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	18.99	0.00
SEQ-CAL4@S04	2.000	1.937	0.063	6944.23	3.13
SEQ-CAL5@S05	10.000	9.784	0.216	34994.83	2.16
SEQ-CAL6@S06	50.000	49.592	0.408	177302.52	0.82
SEQ-CAL7@S07	500.000	513.748	13.748	1836577.25	2.75
SEQ-CAL8@S08	1000.000	1005.856	5.856	3595778.50	0.59

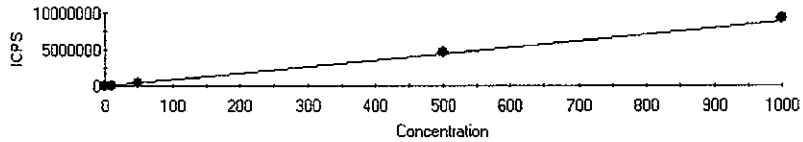
137Ba FQ Block 1



Intercept CPS=44.375495 Intercept Conc=0.035050
Sensitivity=1266.062515 Correlation Coeff=1.000000

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	44.54	0.00
SEQ-CAL3@S03	5.000	5.079	0.079	6474.13	1.57
SEQ-CAL5@S05	10.000	9.846	0.154	12509.51	1.54
SEQ-CAL6@S06	50.000	49.621	0.379	62868.03	0.76
SEQ-CAL7@S07	500.000	501.196	1.196	634589.34	0.24
SEQ-CAL8@S08	1000.000	1001.674	1.674	1268225.83	0.17

205Tl FQ Block 1

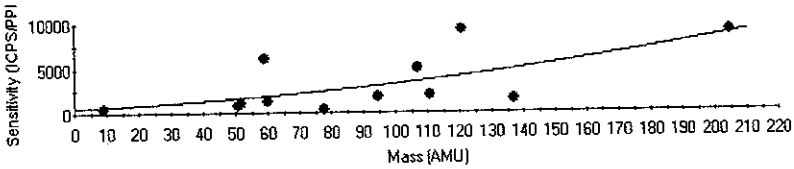


Intercept CPS=18.403516 Intercept Conc=0.002059
Sensitivity=8940.110422 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	18.93	0.00
SEQ-CAL4@S04	1.000	0.974	0.026	8725.36	2.61
SEQ-CAL5@S05	10.000	9.876	0.124	88315.28	1.24
SEQ-CAL6@S06	50.000	49.637	0.363	443774.39	0.73
SEQ-CAL7@S07	500.000	510.416	10.416	4563190.69	2.08
SEQ-CAL8@S08	1000.000	1038.367	38.367	9283137.97	3.84

Semi Quant Calibration

[redacted]



Coeff 0=566.105903 Coeff 1=14.434535 Coeff 2=0.122017

Symbol	Mass	RSF	Available	Excluded	Sensitivity Measured	Corrected	Calculated	%Error
9Be	9.01	0.7500	1	1	330.60	440.81	706.10	60.2
51V	50.94	0.9900	1	1	723.83	732.90	1618.13	120.8
52Cr	51.94	0.9800	1	1	1014.59	1236.03	1645.02	33.1
59Co	58.93	0.9300	1	1	5651.02	6076.37	1840.56	-69.7
60Ni	59.93	0.9100	1	1	1196.14	5024.61	1869.43	-62.8
78Se	77.92	0.1000	1	1	27.25	1154.30	2431.59	110.7
95Mo	94.91	0.9800	1	1	1635.69	11292.76	3035.05	-73.1
107Ag	106.91	0.9300	1	1	4628.36	9691.79	3503.73	-63.8
111Cd	110.90	0.5660	1	1	1063.33	14608.68	3667.74	-74.9
121Sb	120.90	0.3900	1	1	3574.83	16010.86	4094.91	-74.4
137Ba	136.91	0.9100	1	1	1266.06	12290.44	4829.27	-60.7
205Tl	204.97	1.0000	1	1	8940.11	12681.01	8651.15	-31.8

Dilution Corrected Concentrations

SEQ-CAL1@S01 10/20/2016 09:57:59

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:59	98.9%	0.0275	98.8%	-0.0040	-0.0439	-0.0059	1.8770	-0.0012	0.0213	-0.0046	0.0007	0.0609	-1.2380	0.0000	-0.0007	-0.0025	0.0008	-0.0003
2	09:58:14	100.7%	0.0170	99.4%	0.0070	-0.0656	-0.0090	4.5070	-0.0000	0.0411	0.0093	-0.0001	-0.0628	1.4880	0.0000	-0.0007	0.0037	-0.0004	-0.0004
3	09:58:28	100.4%	-0.0140	101.8%	-0.0030	0.0062	-0.0325	-6.3840	0.0017	-0.0340	-0.0046	-0.0006	0.0018	-0.2503	0.0000	0.0014	-0.0005	-0.0004	0.0007
x		100.0%	0.0102	100.0%	0.0000	-0.0344	-0.0158	-0.0000	0.0001	0.0095	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	0.0002	-0.0000	0.0000
σ		1.0%	0.0216	1.6%	0.0060	0.0368	0.0145	5.6830	0.0014	0.0389	0.0060	0.0007	0.0619	1.3800	0.0000	0.0012	0.0031	0.0007	0.0006
%RSD		1.0	212.1000	1.6	0.0000	106.9000	91.9000	0.0000	1029.0000	411.2000	0.0000	29260.0000	0.0000	0.0000	0.0000	0.0000	1277.0000	0.0000	0.0000

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:59	-0.0010	99.4%	0.0103	0.0001	0.0000	0.0001	0.0000	-0.0025	0.0035	0.0107	97.5%	98.1%	-0.0002	0.0000
2	09:58:14	0.0000	100.1%	-0.0114	0.0008	0.0000	-0.0000	0.0000	-0.0012	-0.0023	-0.0141	100.6%	99.6%	0.0009	0.0000
3	09:58:28	0.0010	100.5%	0.0011	-0.0007	0.0000	-0.0001	0.0000	0.0037	-0.0005	0.0037	101.9%	102.2%	-0.0006	0.0000
x		-0.0000	100.0%	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	100.0%	100.0%	0.0001	0.0000
σ		0.0010	0.6%	0.0109	0.0007	0.0000	0.0001	0.0000	0.0033	0.0030	0.0128	2.2%	2.1%	0.0008	0.0000
%RSD		0.0000	0.6	0.0000	978.9000	0.0000	0.0000	0.0000	0.0000	1431.0000	10020.0000	2.2	2.1	1343.0000	0.0000

SEQ-CAL4@S04 10/20/2016 10:10:24

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:24	98.4%	1.0240	95.3%	0.0185	5.1950	2.0260	15.7800	1.0110	0.9793	0.1480	5.3330	0.3244	-0.2223	0.0000	3.1970	9.9880	5.9850	3.4340
2	10:10:38	100.2%	0.9895	96.6%	-0.0123	5.0950	2.0710	22.6300	0.9832	1.0470	0.2220	6.1110	0.2944	-0.9298	0.0000	3.1470	10.1400	5.8610	3.3600
3	10:10:51	99.8%	0.9002	98.2%	0.0325	5.2420	2.0480	19.6900	0.9802	0.9869	0.2343	5.0730	0.3347	-1.2010	0.0000	3.2130	10.2400	6.0490	3.4650
x		99.5%	0.9712	96.7%	0.0129	5.1770	2.0480	19.3700	0.9914	1.0050	0.2015	5.5060	0.3178	-0.7845	0.0000	3.1850	10.1200	5.9650	3.4200
σ		1.0%	0.0638	1.5%	0.0229	0.0752	0.0226	3.4360	0.0168	0.0373	0.0467	0.5400	0.0209	0.5055	0.0000	0.0342	0.1290	0.0955	0.0539
%RSD		1.0	6.5720	1.5	177.5000	1.4520	1.1020	17.7400	1.6970	3.7170	23.1700	9.8090	6.5880	64.4300	0.0000	1.0750	1.2740	1.6010	1.5750

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:24	8.6820	100.1%	0.0420	0.9806	0.0433	1.0370	0.0000	7.6230	1.9150	9.8400	96.3%	96.0%	0.9349	0.0000
2	10:10:38	8.5520	98.1%	0.0521	0.9594	0.0424	0.9854	0.0000	7.6290	2.0110	9.8710	99.1%	98.4%	0.9983	0.0000
3	10:10:51	8.8690	98.9%	0.0361	0.9841	0.0431	0.9286	0.0000	7.6500	1.8870	9.8710	101.8%	101.7%	0.9886	0.0000
x		8.7010	99.0%	0.0434	0.9747	0.0430	0.9835	0.0000	7.6340	1.9370	9.8610	99.1%	98.7%	0.9739	0.0000
σ		0.1595	1.0%	0.0081	0.0134	0.0005	0.0541	0.0000	0.0141	0.0651	0.0177	2.7%	2.8%	0.0342	0.0000
%RSD		1.8330	1.0	18.6400	1.3730	1.1140	5.4960	0.0000	0.1844	3.3590	0.1791	2.8	2.9	3.5060	0.0000

SEQ-CAL5@S05 10/20/2016 10:14:26

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:14:26	100.2%	9.8880	96.0%	6.2620	10.0500	9.8540	75.7900	9.9540	9.9700	0.2602	9.2420	0.4676	0.2407	0.0000	7.8700	24.9800	14.6500	8.4880
2	10:14:40	100.8%	9.6280	99.3%	5.9090	9.7630	9.9790	93.7600	9.9350	10.1100	0.4376	10.7800	0.5962	-0.0444	0.0000	8.1420	24.9400	14.6800	8.3030
3	10:14:53	102.0%	10.0300	99.9%	6.2360	9.7230	9.8550	75.9500	10.0000	9.8580	0.3106	9.8100	0.4908	-1.5830	0.0000	8.0810	24.8900	14.7800	8.5960
x		101.0%	9.8490	98.4%	6.1360	9.8460	9.8960	81.8400	9.9630	9.9800	0.3361	9.9440	0.5182	-0.4623	0.0000	8.0310	24.9300	14.7000	8.4620
σ		0.9%	0.2047	2.1%	0.1968	0.1797	0.0718	10.3300	0.0333	0.1282	0.0914	0.7787	0.0686	0.9812	0.0000	0.1430	0.0421	0.0657	0.1484
%RSD		0.9	2.0790	2.1	3.2080	1.8250	0.7256	12.6200	0.3344	1.2840	27.1800	7.8310	13.2300	212.2000	0.0000	1.7800	0.1686	0.4469	1.7540

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:14:26	21.4800	99.7%	0.4935	1.3150	0.3153	9.6710	0.0000	9.3200	9.6080	9.6380	97.7%	98.1%	9.9410	0.0000
2	10:14:40	21.5000	100.6%	0.5100	1.3330	0.3740	9.8830	0.0000	9.3380	9.7970	9.9520	99.7%	100.4%	9.8390	0.0000
3	10:14:53	21.8400	101.4%	0.4845	1.2490	0.3298	9.9650	0.0000	9.4760	9.9470	9.9470	101.5%	100.9%	9.8490	0.0000
x		21.6100	100.6%	0.4960	1.2990	0.3397	9.8400	0.0000	9.3780	9.7840	9.8460	99.7%	99.8%	9.8760	0.0000
σ		0.2010	0.8%	0.0130	0.0440	0.0306	0.1518	0.0000	0.0849	0.1698	0.1801	1.9%	1.5%	0.0563	0.0000
%RSD		0.9303	0.8	2.6100	3.3900	9.0040	1.5430	0.0000	0.9049	1.7350	1.8290	1.9	1.5	0.5703	0.0000

SEQ-CAL6@S06 10/20/2016 10:18:25

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:25	101.0%	49.6600	97.2%	30.3900	50.0600	50.6000	281.2000	49.4900	49.1900	1.6520	50.0800	2.4450	0.4447	0.0000	39.5700	124.1000	73.9400	41.8400
2	10:18:38	101.3%	49.3700	99.5%	30.3300	48.6900	49.2800	330.7000	49.9400	49.1600	1.6130	50.2700	2.5930	-0.1076	0.0000	39.2000	125.9000	74.5700	42.2400
3	10:18:52	101.9%	49.2200	101.2%	30.7600	49.6200	50.3000	378.1000	49.7300	49.6400	1.7530	49.9500	2.5360	0.1822	0.0000	39.3800	125.2000	74.1200	42.3400
x		101.4%	49.4200	99.3%	30.4900	49.4600	50.0500	330.0000	49.7200	49.3300	1.6730	50.1000	2.5250	0.1731	0.0000	39.3800	125.1000	74.2100	42.1400
σ		0.5%	0.2205	2.0%	0.2321	0.7021	0.6930	48.4300	0.2282	0.2685	0.0723	0.1643	0.0748	0.2763	0.0000	0.1844	0.9126	0.3245	0.2608
%RSD		0.4	0.4463	2.0	0.7612	1.4200	1.3840	14.6700	0.4590	0.5444	4.3240	0.3279	2.9610	159.6000	0.0000	0.4683	0.7295	0.4372	0.6190

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:25	107.8000	99.8%	2.2000	6.5480	1.7280	49.2100	0.0000	46.2800	49.0500	49.1200	98.4%	98.4%	49.7400	0.0000
2	10:18:38	108.6000	101.4%	2.3450	6.4210	1.7920	49.9900	0.0000	47.2700	49.9900	49.4100	101.4%	101.6%	49.6200	0.0000
3	10:18:52	108.5000	100.4%	2.3330	6.5000	1.8150	50.2500	0.0000	46.9200	49.7300	50.3300	103.5%	103.9%	49.5400	0.0000
x		108.3000	100.5%	2.2920	6.4900	1.7780	49.8200	0.0000	46.8200	49.5900	49.6200	101.1%	101.3%	49.6400	0.0000
σ		0.4009	0.8%	0.0805	0.0645	0.0455	0.5391	0.0000	0.5035	0.4879	0.6353	2.6%	2.7%	0.1013	0.0000
%RSD		0.3702	0.8	3.5130	0.9944	2.5600	1.0820	0.0000	1.0750	0.9838	1.2800	2.5	2.7	0.2041	0.0000

SEQ-CAL7@S07 10/20/2016 10:22:25

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:25	99.2%	519.3000	96.8%	308.0000	489.8000	495.3000	2960.0000	±505.9000	501.6000	17.3100	487.8000	24.2600	0.2057	0.0000	405.1000	1307.0000	779.5000	432.3000
2	10:22:38	101.8%	508.7000	100.2%	306.0000	498.4000	500.4000	2776.0000	±503.3000	502.0000	16.8900	499.8000	23.5800	-0.6147	0.0000	406.1000	1316.0000	781.9000	436.8000
3	10:22:52	101.0%	506.5000	100.9%	308.5000	500.2000	501.9000	2819.0000	±507.1000	504.6000	17.8200	486.4000	24.5300	0.4327	0.0000	409.6000	1331.0000	±779.5000	440.4000
x		100.7%	511.5000	99.3%	307.5000	496.1000	499.2000	2852.0000	±505.4000	502.7000	17.3400	491.3000	24.1200	0.0079	0.0000	406.9000	1318.0000	±780.3000	436.5000
σ		1.3%	6.8150	2.2%	1.3160	5.5670	3.4540	96.0700	±1.9390	1.6210	0.4682	7.3920	0.4861	0.5510	0.0000	2.3510	12.2100	±1.3890	4.0430
%RSD		1.3	1.3320	2.2	0.4280	1.1220	0.6920	3.3690	±0.3837	0.3224	2.7000	1.5040	2.0150	6974.0000	0.0000	0.5777	0.9260	±0.1780	0.9262

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:25	±1134.0000	102.7%	23.7100	65.3500	17.5100	500.1000	0.0000	487.8000	509.4000	498.4000	100.6%	102.3%	±511.5000	0.0000
2	10:22:38	±1125.0000	102.5%	24.4200	66.0400	18.0300	501.5000	0.0000	489.5000	510.3000	499.1000	103.8%	103.4%	±514.3000	0.0000
3	10:22:52	±1136.0000	102.5%	24.2300	66.0600	17.8500	507.9000	0.0000	497.3000	521.5000	506.0000	106.4%	107.2%	±505.4000	0.0000
x		±1132.0000	102.6%	24.1200	65.8200	17.8000	503.2000	0.0000	491.5000	513.7000	501.2000	103.6%	104.3%	±510.4000	0.0000
σ		±5.5980	0.1%	0.3674	0.4044	0.2676	4.1600	0.0000	5.0900	6.7440	4.2050	2.9%	2.6%	±4.5550	0.0000
%RSD		±0.4947	0.1	1.5230	0.6145	1.5040	0.8267	0.0000	1.0360	1.3130	0.8390	2.8	2.5	±0.8924	0.0000

SEQ-CAL8@S08 10/20/2016 10:26:23

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:23	98.7%	u 1028.0000	96.6%	601.9000	u 1014.0000	u 1024.0000	4903.0000	r 992.0000	992.0000	34.5100	969.9000	48.5700	2.8860	0.0000	r 818.5000	tu 2595.0000	r 1537.0000	r 870.3000
2	10:26:36	101.1%	u 1015.0000	99.1%	595.6000	u 1016.0000	u 1017.0000	4795.0000	r 973.0000	978.8000	33.8900	983.4000	49.2300	0.3998	0.0000	r 810.3000	tu 2553.0000	r 1509.0000	r 863.0000
3	10:26:49	99.9%	u 1025.0000	98.1%	614.6000	980.3000	992.2000	4451.0000	r 995.3000	u 1006.0000	33.3000	949.5000	48.1300	0.1001	0.0000	r 826.2000	tu 2611.0000	r 1540.0000	r 877.5000
x		99.9%	u 1023.0000	97.9%	604.0000	u 1003.0000	u 1011.0000	4717.0000	r 986.8000	u 992.1000	33.9000	967.6000	48.6400	1.1290	0.0000	r 818.3000	tu 2587.0000	r 1529.0000	r 870.3000
σ		1.2%	u 6.6430	1.3%	9.6840	u 19.9600	u 16.7100	236.5000	r 12.0700	u 13.4000	0.6065	17.0500	0.5549	1.5290	0.0000	r 7.9690	tu 29.8100	r 17.0700	r 7.2740
%RSD		1.2	u 0.6495	1.3	1.6030	u 1.9900	u 1.6530	5.0130	r 1.2230	u 1.3510	1.7890	1.7620	1.1410	135.5000	0.0000	r 0.9738	tu 1.1530	r 1.1160	r 0.8358

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:23	r 2225.0000	97.1%	46.7000	128.5000	34.6600	991.0000	0.0000	r 950.9000	r 998.5000	r 997.8000	101.0%	101.8%	tu 1041.0000	0.0000
2	10:26:36	r 2200.0000	97.8%	46.5700	128.6000	34.7600	u 1000.0000	0.0000	r 947.3000	r 999.1000	r 997.8000	105.0%	104.9%	tu 1041.0000	0.0000
3	10:26:49	r 2232.0000	101.4%	48.1500	u 130.0000	34.7700	u 1016.0000	0.0000	r 972.1000	tu 1020.0000	tu 1009.0000	106.6%	107.6%	tu 1033.0000	0.0000
x		r 2219.0000	98.8%	47.1400	u 129.0000	34.7300	u 1002.0000	0.0000	r 956.8000	tu 1006.0000	tu 1002.0000	104.2%	104.8%	tu 1038.0000	0.0000
σ		r 16.6800	2.3%	0.8790	u 0.8640	0.0620	u 12.8200	0.0000	r 13.4100	tu 12.2700	tu 6.7570	2.9%	2.9%	tu 4.4560	0.0000
%RSD		r 0.7516	2.3	1.8650	u 0.6696	0.1786	u 1.2780	0.0000	r 1.4020	tu 1.2200	tu 0.6746	2.8	2.8	tu 0.4292	0.0000

SEQ-ICV@ICV01 10/20/2016 10:30:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:40	98.8%	106.7000	93.9%	0.0833	98.5400	98.2100	558.9000	100.6000	99.5900	6.4550	203.6000	10.6600	-2.7530	0.0000	3.4570	10.7200	6.3250	3.6610
2	10:30:53	98.8%	105.8000	93.7%	0.0859	98.9800	98.0500	635.7000	101.5000	100.6000	6.6810	200.8000	9.6430	0.6618	0.0000	3.4090	11.0100	6.4590	3.7470
3	10:31:06	98.4%	104.3000	95.3%	0.1187	98.2800	98.2600	631.7000	101.8000	100.2000	7.3810	196.5000	9.7890	-0.4046	0.0000	3.4390	10.9200	6.5730	3.7000
x		98.7%	106.669%	94.3%	0.0960	98.598%	100.175%	608.7000	102.363%	102.199%	6.8390	99.655%	10.0300	-0.8370	0.0000	3.4350	10.8800	6.4520	3.7030
σ		0.3%	n/a	0.9%	0.0198	n/a	n/a	43.2200	n/a	n/a	0.4828	n/a	0.5486	1.7470	0.0000	0.0241	0.1508	0.1243	0.0427
%RSD		0.3	1.1540	0.9	20.5900	0.3552	0.1132	7.1000	0.6177	0.5244	7.0590	1.8000	5.4700	210.0000	0.0000	0.7019	1.3860	1.9260	1.1540

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:30:40	9.2520	99.6%	4.8770	101.3000	3.3790	99.9100	0.0000	0.1412	198.6000	99.1600	102.5%	103.0%	r 221.4000	0.0000
2	10:30:53	9.3810	99.8%	4.8670	101.9000	3.4800	100.2000	0.0000	0.2102	199.5000	101.3000	105.0%	104.5%	r 220.6000	0.0000
3	10:31:06	9.5910	99.7%	4.6860	101.9000	3.4780	102.2000	0.0000	0.1865	202.9000	100.7000	104.9%	106.3%	r 218.9000	0.0000
x		9.4080	99.7%	4.8100	102.746%	3.4460	101.790%	0.0000	0.1793	101.174%	100.386%	104.1%	104.6%	r 107.461%	0.0000
σ		0.1709	0.1%	0.1076	n/a	0.0581	n/a	0.0000	0.0351	n/a	n/a	1.4%	1.6%	r n/a	0.0000
%RSD		1.8160	0.1	2.2370	0.3290	1.6860	1.2740	0.0000	19.5600	1.1300	1.0950	1.4	1.6	r 0.5818	0.0000

SEQ-ICB@ICB01 10/20/2016 10:34:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:42	99.0%	0.1287	93.1%	0.0367	0.0698	-0.0119	-8.7820	0.0259	0.0446	0.0095	0.1271	0.0574	0.1607	0.0000	0.0257	0.0895	0.0532	0.0479
2	10:34:55	100.4%	0.0636	93.2%	0.0103	-0.0830	-0.0278	7.3640	0.0240	0.0407	0.0093	0.0416	0.0878	-0.8127	0.0000	0.0337	0.1015	0.0550	0.0316
3	10:35:09	98.9%	0.0623	94.4%	0.0096	-0.0270	-0.0095	5.0330	0.0199	0.0074	0.0238	0.0445	-0.0352	1.4960	0.0000	0.0296	0.1334	0.0598	0.0143
x		99.4%	0.0849	93.6%	0.0189	-0.0134	-0.0164	1.2050	0.0233	0.0309	0.0142	0.0711	0.0367	0.2815	0.0000	0.0297	0.1081	0.0560	0.0312
σ		0.8%	0.0379	0.7%	0.0154	0.0773	0.0100	8.7270	0.0031	0.0204	0.0083	0.0485	0.0641	1.1590	0.0000	0.0040	0.0227	0.0034	0.0168
%RSD		0.8	44.7000	0.8	81.6800	576.4000	60.8200	724.4000	13.2500	66.0900	58.2600	68.3000	174.6000	411.9000	0.0000	13.4900	20.9500	6.1170	53.8900

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:42	0.0749	98.1%	-0.0111	0.0242	0.0000	0.0197	0.0000	0.0333	0.1100	0.0056	98.2%	98.8%	0.0478	0.0000
2	10:34:55	0.0863	99.5%	-0.0063	0.0269	0.0017	0.0323	0.0000	0.0335	0.1142	0.0397	100.1%	100.7%	0.0535	0.0000
3	10:35:09	0.0885	97.8%	-0.0088	0.0235	0.0017	0.0095	0.0000	0.0336	0.1396	0.0122	101.8%	102.6%	0.0554	0.0000
x		0.0832	98.4%	-0.0088	0.0249	0.0011	0.0205	0.0000	0.0335	0.1213	0.0192	100.0%	100.7%	0.0522	0.0000
σ		0.0073	0.9%	0.0024	0.0018	0.0010	0.0114	0.0000	0.0001	0.0160	0.0181	1.8%	1.9%	0.0040	0.0000
%RSD		8.7970	0.9	27.3200	7.1630	86.6100	55.7800	0.0000	0.4420	13.2000	94.3100	1.8	1.9	7.6110	0.0000

SEQ-IFA@ICSA01 10/20/2016 10:38:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:42	94.1%	0.3454	98.4%	510.2000	-0.8532	21.7100	144.7000	1.2740	5.7310	-0.0046	0.0549	-0.4262	6.9720	0.0000	662.9000	r 2180.0000	r 1285.0000	712.9000
2	10:38:55	96.9%	0.3301	102.5%	514.2000	-0.8213	22.0000	136.3000	1.2760	5.7760	-0.0046	0.0110	-0.3037	4.9190	0.0000	665.7000	r 2142.0000	r 1272.0000	713.8000
3	10:39:08	98.8%	0.2577	103.8%	527.2000	-0.8256	22.2400	135.3000	1.3250	5.6640	-0.0046	0.0107	-0.3158	5.5940	0.0000	685.0000	r 2184.0000	r 1292.0000	r 734.2000
x		96.6%	1.#IO%	101.6%	517.2000	-166.675%	104.686%	138.8000	129.165%	95.394%	-0.0046	8.514%	-0.3486	5.8280	0.0000	671.2000	r 2169.0000	r 1283.0000	r 720.3000
σ		2.3%	n/a	2.8%	8.8840	n/a	n/a	5.1850	n/a	n/a	0.0000	n/a	0.0675	1.0470	0.0000	12.0400	r 23.0000	r 10.3600	r 12.0300
%RSD		2.4	15.0500	2.8	1.7180	2.0730	1.2080	3.7360	2.2530	0.9803	0.0000	99.6000	19.3600	17.9600	0.0000	1.7930	r 1.0600	r 0.8077	r 1.6710

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:42	r 1869.0000	92.0%	-0.0052	0.0089	0.7862	0.5312	0.0000	0.1543	1.1210	2.0450	97.4%	97.7%	0.0220	0.0000
2	10:38:55	r 1844.0000	91.8%	0.0022	0.0105	0.8046	0.5602	0.0000	0.1916	1.0900	2.0260	103.1%	101.7%	0.0218	0.0000
3	10:39:08	r 1865.0000	91.9%	-0.0037	0.0131	0.8399	0.4498	0.0000	0.1651	1.1660	2.0730	105.4%	105.8%	0.0201	0.0000
x		r 1859.0000	91.9%	-0.0022	1.#IO%	0.8102	73.391%	0.0000	0.1703	75.019%	170.631%	102.0%	101.7%	1.#IO%	0.0000
σ		r 13.6900	0.1%	0.0039	n/a	0.0273	n/a	0.0000	0.0192	n/a	n/a	4.1%	4.1%	n/a	0.0000
%RSD		r 0.7366	0.1	176.5000	19.2900	3.3700	11.1400	0.0000	11.2500	3.3930	1.1530	4.0	4.0	4.7360	0.0000

SEQ-IFB@ICSAB01 10/20/2016 10:42:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:40	90.7%	20.1500	105.6%	509.9000	22.1500	44.0600	200.5000	20.4900	24.3200	0.4798	19.3700	0.6037	6.5400	0.0000	666.8000	r 2159.0000	r 1273.0000	707.7000
2	10:42:54	90.7%	20.4100	107.8%	518.7000	21.8200	43.9700	280.1000	20.8200	24.3200	0.7968	20.8100	0.7312	6.9890	0.0000	671.0000	r 2154.0000	r 1274.0000	720.4000
3	10:43:07	92.8%	19.0200	109.8%	515.3000	21.4900	43.1800	206.8000	20.9700	24.2800	0.4536	18.7400	0.7499	6.6050	0.0000	673.0000	r 2153.0000	r 1271.0000	720.9000
x		91.4%	104.522%	107.7%	514.6000	114.845%	109.345%	229.1000	103.806%	101.280%	0.5767	103.377%	0.6949	6.0450	0.0000	670.3000	r 2155.0000	r 1272.0000	716.3000
σ		1.2%	n/a	2.1%	4.4540	n/a	n/a	44.2700	n/a	n/a	0.1910	n/a	0.0796	1.2670	0.0000	3.1540	r 3.2910	r 1.6800	7.4510
%RSD		1.3	3.7200	1.9	0.8655	1.4960	1.1080	19.3200	1.1950	0.1089	33.1300	5.4170	11.4500	20.9600	0.0000	0.4705	r 0.1527	r 0.1320	1.0400

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:40	r 1842.0000	91.8%	0.9369	18.3700	1.5810	19.2800	0.0000	0.1605	20.8800	22.5300	103.3%	102.6%	19.7800	0.0000
2	10:42:54	r 1850.0000	91.9%	0.8277	18.2700	1.5950	19.2100	0.0000	0.1738	20.9600	22.6100	106.4%	105.1%	20.0200	0.0000
3	10:43:07	r 1843.0000	94.0%	0.8971	18.4100	1.5030	19.7200	0.0000	0.1395	21.0000	22.7700	107.8%	108.1%	20.1100	0.0000
x		r 1845.0000	92.6%	0.8872	101.941%	1.5600	97.010%	0.0000	0.1579	95.206%	102.900%	105.8%	105.2%	95.094%	0.0000
σ		r 4.5420	1.3%	0.0552	n/a	0.0493	n/a	0.0000	0.0173	n/a	n/a	2.3%	2.7%	n/a	0.0000
%RSD		r 0.2462	1.4	6.2250	0.3797	3.1600	1.4200	0.0000	10.9700	0.3042	0.5344	2.2	2.6	0.8759	0.0000

SEQ-CCV@CCV01 10/20/2016 10:46:45 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:59	95.2%	516.2000	113.2%	303.4000	516.5000	517.1000	2610.0000	r509.2000	504.4000	17.4500	519.1000	26.3500	0.0966	0.0000	405.9000	r1325.0000	r784.4000	436.2000
2	10:47:12	96.1%	512.9000	115.4%	302.7000	513.3000	514.4000	2855.0000	r508.8000	506.5000	17.0500	523.6000	25.0800	-0.4255	0.0000	409.2000	r1320.0000	r780.5000	439.0000
3	10:47:26	97.3%	503.8000	117.6%	304.9000	507.9000	510.7000	3093.0000	r506.1000	502.4000	17.8800	509.4000	26.2400	2.8280	0.0000	408.2000	r1308.0000	r777.4000	438.2000
x		96.2%	102.197%	115.4%	303.7000	102.511%	102.611%	2852.0000	r101.610%	100.882%	17.4600	103.468%	25.8900	0.8329	0.0000	407.8000	r1318.0000	r780.8000	437.8000
σ		1.1%	n/a	2.2%	1.0840	n/a	n/a	241.5000	r n/a	n/a	0.4145	n/a	0.7004	1.7470	0.0000	1.7070	r8.7240	r3.5330	1.3970
%RSD		1.1	1.2590	1.9	0.3569	0.8556	0.6181	8.4700	r0.3389	0.4040	2.3740	1.3980	2.7060	209.8000	0.0000	0.4187	r0.6619	r0.4525	0.3191

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:59	r1133.0000	109.3%	24.2400	66.9900	17.9800	517.3000	0.0000	r490.8000	528.9000	521.1000	113.7%	114.5%	r512.4000	0.0000
2	10:47:12	r1141.0000	111.1%	25.0500	67.0400	18.3700	515.0000	0.0000	498.0000	533.5000	518.8000	115.7%	117.0%	r505.7000	0.0000
3	10:47:26	r1134.0000	111.3%	24.2700	66.3900	18.3000	518.1000	0.0000	503.5000	534.2000	521.7000	117.2%	117.9%	r508.7000	0.0000
x		r1136.0000	110.5%	24.5200	102.784%	18.2200	103.360%	0.0000	r497.4000	106.441%	104.109%	115.5%	116.4%	r101.793%	0.0000
σ		r4.8280	1.1%	0.4586	n/a	0.2095	n/a	0.0000	r6.3810	n/a	n/a	1.7%	1.8%	r n/a	0.0000
%RSD		r0.4250	1.0	1.8700	0.5423	1.1500	0.3090	0.0000	r1.2830	0.5402	0.2883	1.5	1.5	r0.6975	0.0000

SEQ-CCB@CCB01 10/20/2016 10:51:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:00	93.7%	0.1661	105.9%	0.0605	0.0636	0.1070	8.0090	0.0918	0.1524	-0.0046	0.1467	0.0736	-1.0670	0.0000	0.1300	0.3332	0.2636	0.1155
2	10:51:13	94.7%	0.1616	108.4%	0.0849	0.0346	0.1060	10.9600	0.1016	0.0994	0.0082	0.1042	-0.0372	1.1810	0.0000	0.1364	0.4009	0.2257	0.1411
3	10:51:26	95.3%	0.1137	109.4%	0.0450	0.0103	0.0962	11.9900	0.0909	0.1749	0.0211	0.1796	0.0682	-1.1930	0.0000	0.1587	0.4467	0.2424	0.1574
x		94.6%	0.1471	107.9%	0.0635	0.0362	0.1031	10.3200	0.0948	0.1423	0.0082	0.1435	0.0349	-0.3598	0.0000	0.1417	0.3936	0.2439	0.1380
σ		0.8%	0.0290	1.8%	0.0201	0.0267	0.0060	2.0650	0.0060	0.0388	0.0129	0.0378	0.0625	1.3360	0.0000	0.0150	0.0571	0.0190	0.0212
%RSD		0.8	19.7400	1.7	31.6600	73.8000	5.8090	20.0200	6.2840	27.2400	156.2000	26.3500	179.1000	371.2000	0.0000	10.6100	14.5100	7.7750	15.3300

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:00	0.3353	106.1%	-0.0058	0.0102	0.0047	0.1214	0.0000	0.1232	0.1133	0.0973	105.3%	106.7%	0.1080	0.0000
2	10:51:13	0.3774	108.0%	-0.0070	0.0120	0.0046	0.1388	0.0000	0.1369	0.1158	0.0943	107.8%	107.7%	0.1191	0.0000
3	10:51:26	0.3870	108.0%	0.0033	0.0111	0.0106	0.0912	0.0000	0.1062	0.1015	0.0926	109.3%	108.7%	0.1039	0.0000
x		0.3666	107.4%	-0.0031	0.0111	0.0067	0.1171	0.0000	0.1221	0.1102	0.0947	107.5%	107.7%	0.1103	0.0000
σ		0.0275	1.1%	0.0056	0.0009	0.0034	0.0241	0.0000	0.0154	0.0076	0.0024	2.0%	1.0%	0.0078	0.0000
%RSD		7.5020	1.0	179.9000	7.8060	51.7800	20.5600	0.0000	12.6200	6.9330	2.5370	1.9	0.9	7.1130	0.0000

Q314034-PS1@MH1H71A 10/20/2016 10:55:01

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:01	95.2%	0.3264	120.4%	5.5070	21.3700	4.5120	61.3600	4.3610	2.5220	0.2678	4.5590	0.2835	-0.9363	0.0000	0.6903	1.9350	1.1300	0.6171
2	10:55:15	97.0%	0.3027	122.9%	5.8290	21.4000	4.4670	18.6100	4.3870	2.6170	0.3395	3.5790	0.1687	0.1124	0.0000	0.7158	1.8630	1.1550	0.6559
3	10:55:28	96.3%	0.2732	124.8%	5.8610	21.6400	4.4600	27.5400	4.4250	2.6280	0.2401	4.3360	0.1176	0.1994	0.0000	0.7453	1.8830	1.1810	0.6511
x		96.1%	0.3008	122.7%	5.7320	21.4700	4.4800	35.8400	4.3910	2.5890	0.2825	4.1580	0.1899	-0.2082	0.0000	0.7171	1.8940	1.1550	0.6414
σ		0.9%	0.0267	2.2%	0.1956	0.1510	0.0281	22.5500	0.0323	0.0586	0.0513	0.5135	0.0849	0.6320	0.0000	0.0275	0.0374	0.0254	0.0212
%RSD		0.9	8.8660	1.8	3.4120	0.7034	0.6282	62.9200	0.7359	2.2630	18.1600	12.3500	44.7200	303.6000	0.0000	3.8350	1.9740	2.1940	3.2980

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:01	1.6630	107.1%	0.2212	3.2780	0.1085	3.1820	0.0000	1.0160	14.7800	129.5000	108.3%	107.1%	0.3448	0.0000
2	10:55:15	1.6650	109.1%	0.1854	3.2510	0.1302	3.1850	0.0000	1.0130	15.4100	131.7000	111.2%	110.4%	0.3337	0.0000
3	10:55:28	1.6830	107.9%	0.1951	3.1760	0.1109	3.0600	0.0000	1.0040	15.2300	132.2000	113.6%	112.1%	0.3538	0.0000
x		1.6700	108.0%	0.2005	3.2350	0.1165	3.1420	0.0000	1.0110	15.1400	131.1000	111.0%	109.9%	0.3441	0.0000
σ		0.0108	1.0%	0.0185	0.0527	0.0119	0.0715	0.0000	0.0063	0.3229	1.4170	2.7%	2.6%	0.0101	0.0000
%RSD		0.6471	0.9	9.2330	1.6300	10.2300	2.2740	0.0000	0.6199	2.1330	1.0810	2.4	2.3	2.9300	0.0000

SEQ-CCV@CCV02 10/20/2016 10:59:05 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:18	97.3%	531.8000	108.3%	303.4000	510.4000	509.6000	2510.0000	r511.2000	506.6000	18.1600	508.6000	24.6700	0.1455	0.0000	407.0000	r1316.0000	r785.5000	438.4000
2	10:59:32	96.2%	523.9000	110.7%	304.6000	515.9000	515.5000	2668.0000	r508.6000	505.9000	18.1700	506.8000	25.6800	-0.2260	0.0000	406.1000	r1311.0000	r775.9000	434.2000
3	10:59:45	97.9%	526.7000	110.3%	302.7000	511.9000	515.7000	2697.0000	r511.8000	510.4000	17.0300	514.0000	25.3900	1.8970	0.0000	408.7000	r1310.0000	r773.3000	437.6000
x		97.1%	105.491%	109.8%	303.6000	102.542%	102.726%	2625.0000	r102.108%	101.530%	17.7900	101.962%	25.2500	0.6055	0.0000	407.3000	r1312.0000	r778.2000	436.7000
σ		0.9%	n/a	1.3%	0.9638	n/a	n/a	100.7000	r n/a	n/a	0.6565	n/a	0.5185	1.1340	0.0000	1.3050	r3.4640	r6.4090	2.1890
%RSD		0.9	0.7525	1.2	0.3175	0.5564	0.6789	3.8360	r0.3332	0.4813	3.6910	0.7274	2.0540	187.2000	0.0000	0.3204	r0.2640	r0.8236	0.5013

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:18	r1138.0000	106.0%	24.0300	66.8300	18.2000	515.4000	0.0000	490.0000	527.7000	516.0000	108.9%	109.5%	r517.6000	0.0000
2	10:59:32	r1222.0000	105.6%	24.3000	66.2000	17.9700	514.0000	0.0000	490.6000	522.0000	510.4000	111.7%	111.1%	r518.2000	0.0000
3	10:59:45	r1135.0000	106.7%	24.3300	66.6500	18.4600	517.6000	0.0000	501.5000	532.1000	517.5000	113.1%	113.1%	r515.9000	0.0000
x		r1132.0000	106.1%	24.2200	102.401%	18.2100	103.137%	0.0000	494.0000	105.450%	102.923%	111.2%	111.2%	r103.445%	0.0000
σ		r8.7800	0.5%	0.1647	n/a	0.2451	n/a	0.0000	6.5060	n/a	n/a	2.1%	1.8%	r n/a	0.0000
%RSD		r0.7759	0.5	0.6800	0.4877	1.3460	0.3471	0.0000	1.3170	0.9629	0.7310	1.9	1.6	r0.2295	0.0000

SEQ-CCB@CCB02 10/20/2016 11:03:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:20	93.3%	0.1491	99.2%	0.0541	0.0649	0.0615	4.9110	0.0896	0.0668	0.0088	0.3094	-0.0203	0.3162	0.0000	0.0972	0.3430	0.1995	0.1148
2	11:03:33	94.8%	0.1373	100.2%	0.0376	0.0534	0.0746	5.6630	0.1108	0.1404	0.0088	0.0350	0.0765	-1.7260	0.0000	0.1131	0.3425	0.2207	0.1158
3	11:03:47	93.1%	0.0846	102.2%	0.0208	0.1259	0.1213	0.8302	0.0885	0.0976	0.0091	0.1195	-0.0452	0.9660	0.0000	0.1364	0.3959	0.2180	0.1455
x		93.7%	0.1237	100.6%	0.0375	0.0814	0.0858	3.8010	0.0963	0.1016	0.0089	0.1546	0.0037	-0.1481	0.0000	0.1156	0.3604	0.2127	0.1254
σ		0.9%	0.0344	1.5%	0.0167	0.0390	0.0315	2.6010	0.0126	0.0369	0.0002	0.1405	0.0643	1.4050	0.0000	0.0197	0.0307	0.0115	0.0175
%RSD		1.0	27.7900	1.5	44.5200	47.8900	36.6900	68.4100	13.0400	36.3600	2.2660	90.8800	1749.0000	948.7000	0.0000	17.0700	8.5090	5.4270	13.9300

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:20	0.2882	103.9%	0.0074	0.0152	0.0067	0.0752	0.0000	0.0927	0.1059	0.1149	100.3%	102.2%	0.1132	0.0000
2	11:03:33	0.3165	103.7%	0.0128	0.0106	0.0098	0.0888	0.0000	0.1149	0.1115	0.0776	103.5%	102.8%	0.1114	0.0000
3	11:03:47	0.3300	101.1%	-0.0048	0.0084	0.0016	0.0541	0.0000	0.1162	0.1232	0.0937	104.8%	105.3%	0.1035	0.0000
x		0.3116	102.9%	0.0051	0.0114	0.0060	0.0727	0.0000	0.1079	0.1135	0.0954	102.9%	103.4%	0.1094	0.0000
σ		0.0214	1.5%	0.0090	0.0035	0.0041	0.0175	0.0000	0.0132	0.0088	0.0187	2.3%	1.6%	0.0052	0.0000
%RSD		6.8570	1.5	175.1000	30.6600	68.5900	24.0800	0.0000	12.2400	7.7590	19.6100	2.3	1.6	4.7320	0.0000

Mass Uncorrected ICPS

SEQ-CAL1@S01 10/20/2016 09:57:59

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	09:57:59	94640.0700	20.0000	111934.9000	60.0002	170.6683	154.6680	88.0004	6.6667	326.6725	0.0000	3.3333	6.6667	106.6673	92760.8490	13.3333	0.0000	10.0000	6.6667
2	09:58:14	96381.5560	16.6667	112653.7000	76.6670	169.3349	152.6680	92.6671	13.3333	353.3402	3.3333	3.3333	16.6667	150.0012	93430.9930	13.3333	10.0000	6.6667	6.6667
3	09:58:28	96155.8520	6.6667	115421.4300	63.3336	167.3349	129.3343	72.0003	23.3334	270.0040	0.0000	3.3333	6.6667	123.3342	95805.5160	20.0000	3.3333	6.6667	10.0000
x		95725.8260	14.4445	113336.6800	66.6669	169.1127	145.5567	84.2226	14.4445	316.6723	1.1111	3.3333	10.0000	126.6676	93999.1190	15.5556	4.4444	7.7778	7.7778
σ		947.0404	6.9389	1840.8715	8.8192	1.6778	14.0846	10.8390	8.3887	42.5586	1.9245	0.0000	5.7735	21.8584	1599.8667	3.8490	5.0918	1.9245	1.9245
%RSD		0.9893	48.0385	1.6243	13.2288	0.9921	9.6764	12.8694	58.0757	13.4393	173.2051	0.0000	57.7351	17.2565	1.7020	24.7436	114.5644	24.7436	24.7436

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:57:59	3.3333	36422.8180	130.0009	6.6667	0.0000	3.3333	169658.4800	66.6669	30.0000	56.6668	142576.0000	141634.7900	16.6667	91107.5900
2	09:58:14	6.6667	36677.1710	90.0004	10.0000	0.0000	3.3333	173238.3900	73.3336	10.0000	26.6667	147005.7200	143832.2300	26.6667	92464.5200
3	09:58:28	10.0000	36824.4310	116.6674	3.3333	0.0000	3.3333	178192.7800	93.3338	16.6667	50.0001	148916.4400	147547.7300	13.3333	93855.3310
x		6.6667	36641.4740	112.2229	6.6667	0.0000	3.3333	173696.5500	77.7781	18.8889	44.4446	146166.0600	144338.2500	18.8889	92475.8130
σ		3.3333	203.1723	20.3672	3.3333	0.0000	0.0000	4285.5557	13.8779	10.1835	15.7528	3252.5492	2988.7699	6.9389	1373.9052
%RSD		50.0000	0.5545	18.1489	50.0000	0.0000	0.0000	2.4673	17.8429	53.9127	35.4437	2.2252	2.0707	36.7353	1.4857

SEQ-CAL4@S04 10/20/2016 10:10:24

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:10:24	94188.7520	333.3394	108044.9300	90.0004	4039.5640	2220.2711	347.3400	5464.9755	1410.1094	36.6667	148.8901	90.0004	123.3342	90141.3630	9007.7938	15650.1260	17269.7210	10035.5360
2	10:10:38	95970.5760	326.6725	109441.4800	46.6668	3920.1784	2220.2711	356.6737	5394.9337	1510.1254	53.3335	166.6682	70.0003	110.0007	91743.9410	9041.1603	16194.4110	17246.3430	10015.5140
3	10:10:51	95583.1940	303.3384	111337.6300	113.3340	4041.5649	2214.9365	352.0068	5478.3168	1466.7850	56.6668	140.0011	76.6670	106.6673	92969.6330	9428.2198	16722.0320	18184.8360	10552.7880
x		95247.5070	321.1168	109603.0200	83.3338	4000.4357	2218.4929	352.0068	5446.0753	1462.3399	48.8890	151.8531	78.8892	113.3340	91618.3120	9159.0580	16188.8560	17566.9670	10201.2790
σ		937.1435	15.7533	1652.6580	33.8299	69.5121	3.0800	4.6668	44.7895	50.1560	10.7152	13.5782	10.1836	8.8193	1418.3141	233.6973	535.9746	535.2182	304.5800
%RSD		0.9839	4.9058	1.5078	40.5957	1.7376	0.1388	1.3258	0.8224	3.4298	21.9174	8.9417	12.9087	7.7817	1.5481	2.5515	3.3108	3.0467	2.9857

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:10:24	25672.8660	36693.9050	186.6686	4357.7108	83.3337	1066.7292	167757.0200	27919.4730	6589.0537	12021.2760	140829.0900	138601.9200	8043.5569	90053.8350
2	10:10:38	25796.5490	35950.9460	210.0024	4354.3759	83.3337	1036.7258	171855.8500	28578.1820	7079.4221	12365.0700	144844.7800	142095.2300	8804.2613	93616.2170
3	10:10:51	27337.7090	36232.0580	183.3352	4567.8139	86.6671	1000.0550	174903.1500	29333.9170	6802.5442	12678.8350	148804.6400	146751.6700	9004.4572	95034.1490
x		26269.0410	36292.3030	193.3354	4426.6336	84.4448	1034.5033	171505.3400	28610.5240	6823.6733	12355.0610	144826.1700	142482.9400	8617.4251	92901.4000
σ		927.5575	375.1257	14.5300	122.2772	1.9245	33.3926	3585.9368	707.7762	245.8661	328.8938	3987.8061	4088.6843	506.9647	2565.9511
%RSD		3.5310	1.0336	7.5154	2.7623	2.2790	3.2279	2.0909	2.4738	3.6031	2.6620	2.7535	2.8696	5.8830	2.7620

SEQ-CAL5@S05 10/20/2016 10:14:26

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	10:14:26	95882.9930	3150.5458	108857.8700	9074.5268	7827.3683	10128.9730	1348.7667	54154.1510	11774.2870	63.3336	254.4480	133.3343	130.0009	91097.4890	22384.1910	39539.1310	42716.7910	25057.8
2	10:14:40	96475.8820	3170.5528	112495.0900	8850.9733	7775.9909	10345.8840	1405.4420	55773.9000	12318.3400	106.6673	298.8938	163.3348	126.6676	93198.6260	23804.4580	40573.6740	43976.1080	25184.8
3	10:14:53	97584.2850	3323.9409	113203.8000	9398.1888	7719.2759	10302.5010	1372.1035	56568.7890	12108.0580	76.6670	274.4486	113.3340	103.3339	94963.4160	23891.3530	40958.7280	44776.6680	26374.8
x		96647.7200	3215.0132	111518.9200	9107.8963	7774.2117	10259.1190	1375.4374	55498.9470	12066.8950	82.2226	275.9301	136.6677	120.0008	93086.5100	23360.0010	40357.1780	43823.1890	25539.1
σ		863.5656	94.8631	2331.6197	275.1297	54.0681	114.7783	28.4843	1230.5764	274.3526	22.1946	22.2599	25.1665	14.5298	1935.4003	846.1923	734.1440	1038.4176	726.5
%RSD		0.8935	2.9506	2.0908	3.0208	0.6955	1.1188	2.0709	2.2173	2.2736	26.9934	8.0672	18.4144	12.1081	2.0791	3.6224	1.8191	2.3696	2.8

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:14:26	64185.7930	36533.2600	1046.7269	5905.2507	613.3540	9995.4920	169512.4600	34522.0900	33391.2110	11927.8200	142846.8700	141624.6400	87223.1020	92097.4890
2	10:14:40	66012.1340	36854.5530	1106.7340	6145.4098	746.6973	10479.3700	170269.7500	35459.0190	34890.1580	12598.7240	145776.1600	144902.3500	88323.6510	93693.6760
3	10:14:53	67825.4090	37152.4290	1070.0630	5831.8700	666.6911	10702.9630	176870.6700	36469.6720	35920.8270	12788.9890	148377.7400	145677.9400	88889.1230	95630.3520
x		66007.7790	36846.7470	1074.5080	5960.8435	675.5808	10392.6080	172217.6300	35483.5940	34734.0650	12438.5110	145666.9200	144068.3100	88145.2920	93807.1730
σ		1819.8119	309.6580	30.2495	163.9961	67.1147	361.6277	4047.4006	974.0236	1272.0113	452.3874	2767.0526	2151.5177	847.2104	1769.1640
%RSD		2.7570	0.8404	2.8152	2.7512	9.9344	3.4797	2.3502	2.7450	3.6621	3.6370	1.8996	1.4934	0.9612	1.8860

SEQ-CAL6@S06 10/20/2016 10:18:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	10:18:25	96657.8000	15964.0040	110136.4700	44307.7120	37773.6470	51404.2550	6398.2508	272167.3800	57568.3680	396.6753	1365.6581	643.3561	133.3343	92185.0370	113564.9300	198381.1700	217555.730
2	10:18:38	97028.3830	16247.8400	112744.8200	45269.0980	37604.9500	50846.4650	6426.9377	281398.8100	58940.4510	393.3418	1392.3288	683.3590	126.6676	95350.7720	115488.9400	206621.7000	225249.740
3	10:18:52	97513.5320	16474.9150	114661.9100	46692.9390	38166.6170	51406.9370	6564.3691	285129.0500	60557.6950	423.3432	1370.1032	666.6911	130.0009	94508.7140	118189.9900	209322.4500	228099.490
x		97066.5710	16228.9200	112514.4000	45423.2500	37848.4050	51219.2190	6463.1859	279565.0800	59022.1710	404.4535	1376.0301	664.4687	130.0009	94014.8410	115747.9600	204775.1100	223634.990
σ		429.1427	255.9801	2271.5009	1200.0620	288.1994	322.8174	88.7935	6672.5694	1496.3382	16.4437	14.2891	20.0938	3.3334	1639.6350	2323.3841	5699.5908	5454.201
%RSD		0.4421	1.5773	2.0189	2.6420	0.7615	0.6303	1.3738	2.3868	2.5352	4.0657	1.0384	3.0240	2.5641	1.7440	2.0073	2.7833	2.438

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:18:25	325211.3800	36576.7680	4327.6965	29654.9560	3390.6322	51297.6560	172817.1500	172569.1700	171804.9000	61071.1120	143791.5900	142037.6700	437639.8100	91878.6250
2	10:18:38	336200.4900	37145.7350	4731.2308	29868.9880	3614.0516	53540.5330	177931.0600	181191.1800	180031.8200	63225.7670	148154.1400	146612.7800	450660.0200	95660.6690
3	10:18:52	342222.3900	36790.9630	4797.9324	30818.8170	3730.7654	54858.3550	180079.4100	183364.1000	182626.1300	65709.9570	151281.6800	149909.2300	460021.8900	96408.5070
x		334544.7500	36837.8220	4618.9533	30114.2540	3578.4830	53232.1810	176942.5400	179041.4900	178154.2800	63335.6120	147742.4700	146186.5600	449440.5700	94649.2670
σ		8625.5238	287.3632	254.4310	619.4835	172.8337	1800.2651	3730.6827	5709.5104	5649.6571	2321.3723	3761.9776	3953.0484	11240.7600	2428.4065
%RSD		2.5783	0.7801	5.5084	2.0571	4.8298	3.3819	2.1084	3.1889	3.1712	3.6652	2.5463	2.7041	2.5011	2.5657

SEQ-CAL7@S07 10/20/2016 10:22:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95
1	10:22:25	95000.4660	166219.1500	109728.2400	446901.1100	379523.4400	516216.4000	64013.2490	±2780540.4000	584008.1500	4264.3332	13655.8040	6408.9250	133.3343	92848.4030	1171103.7000	2104666.7
2	10:22:38	97510.1630	168507.3700	113548.0600	459517.3100	384377.8100	520727.0500	64204.5910	±2861527.2000	604633.1700	4154.2823	13970.7270	6208.7861	120.0008	95135.1980	1213126.0000	2189344.9
3	10:22:52	96711.7020	169006.5100	114374.9900	466790.8500	385693.1300	521921.3700	64411.3800	±2910156.8000	613512.8100	4381.0554	13584.5870	6468.9675	136.6677	97634.8240	1241752.1000	2248285.2
x		96407.4440	167911.0100	112550.4300	457736.4200	383198.1300	519621.6100	64209.7400	±2850741.5000	600718.0400	4266.5570	13737.0390	6362.2262	130.0009	95206.1420	1208660.6000	2180765.6
σ		1282.2145	1486.2949	2478.8126	10063.7490	3249.6168	3008.8495	199.1153	±65477.8780	15136.9520	113.4029	205.4881	136.2320	8.8193	2393.9988	35535.2480	72192.6
%RSD		1.3300	0.8852	2.2024	2.1986	0.8480	0.5790	0.3101	±2.2969	2.5198	2.6579	1.4959	2.1413	6.7840	2.5145	2.9401	3.3

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:22:25	±3446662.5000	37627.7110	46026.2190	298942.3200	34719.5060	527139.2200	193432.9000	1841413.5000	1808378.5000	630069.7000	147036.2100	147703.5600	±4679456.9000	97153.0370
2	10:22:38	±3535945.7000	37570.8090	48971.5470	312096.8400	36948.2660	545994.7100	198166.5600	1908495.8000	1870798.5000	651346.9000	151688.3800	149289.1500	±4755943.9000	99852.0450
3	10:22:52	±3624699.0000	37544.0320	49403.8770	317471.5500	37195.9390	562687.8900	204473.9500	1975168.7000	1948447.3000	674683.4300	155535.9100	154745.9300	±4844323.8000	101314.7600
x		±3535769.1000	37580.8510	48133.8810	309503.5700	36287.9040	545273.9400	198691.1400	1908359.3000	1875874.8000	652033.3400	151420.1700	150579.5500	±4759908.2000	99439.9480
σ		±89018.3590	42.7333	1838.0446	9532.9384	1363.9055	17785.2940	5539.1888	66877.7180	70172.2530	22314.7860	4256.1935	3694.2640	±82504.9080	2111.2456
%RSD		±2.5177	0.1137	3.8186	3.0801	3.7586	3.2617	2.7878	3.5045	3.7408	3.4223	2.8108	2.4534	±1.7333	2.1231

SEQ-CAL8@S08 10/20/2016 10:26:23

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94M
1	10:26:23	94481.7690	u 328213.0900	109458.3500	871337.9900	u 736566.0400	u 1008834.8000	123055.9200	r 5443363.8000	1152816.0000	8036.8843	25665.0660	12158.1250	166.6682	89663.3370	r 2366728.90
2	10:26:36	96792.5550	u 332563.6600	112279.1100	884605.4700	u 743088.0800	u 1009768.5000	123049.8400	r 5484786.2000	1168773.8000	7953.4777	26224.4370	12381.7600	130.0009	90895.4820	r 2416763.40
3	10:26:49	95626.9840	u 332480.7100	111148.6800	904005.1100	742425.7800	1021097.2000	124044.5500	r 5570221.2000	u 1192351.3000	8100.2739	26245.6090	12541.9790	130.0009	93915.9520	r 2464880.30
x		95633.7700	u 331085.8200	110962.0500	886649.5200	u 740693.3000	u 1013233.5000	123383.4400	r 5499457.1000	u 1171313.7000	8030.2119	26045.0370	12360.6210	142.2234	91491.5900	r 2416124.20
σ		1155.4079	u 2488.2024	1419.6085	16429.2070	u 3589.6228	u 6826.1593	572.5516	r 64688.6880	u 19889.6670	73.6252	329.2350	192.7982	21.1699	2188.0796	r 49078.83
%RSD		1.2082	u 0.7515	1.2794	1.8530	u 0.4846	u 0.6737	0.4640	r 1.1763	u 1.6981	0.9169	1.2641	1.5598	14.8849	2.3916	r 2.03

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:26:23	r 6769250.9000	35572.7960	90646.3470	588383.8900	68809.4290	1045906.2000	209445.2300	r 3595975.3000	r 3550947.3000	r 1264797.7000	147639.2000	146897.3200	TM 9471202.3000	98851.1960
2	10:26:36	r 6907787.0000	35850.5500	93370.3750	608370.5700	71311.9370	u 1090823.5000	216658.0000	r 3705776.7000	r 3676994.5000	r 1311431.2000	153498.3800	151454.5300	TM 9764889.4000	102261.9500
3	10:26:49	r 7015005.2000	37159.1220	96822.8760	u 617100.5100	71560.5460	u 1113036.2000	220543.1000	r 3824115.5000	TM 3777539.6000	TM 1339996.5000	155824.1200	155339.2600	TM 9941158.8000	105158.0400
x		r 6897347.7000	36194.1560	93613.1990	u 604618.3200	70560.6370	u 1083255.3000	215548.7800	r 3708622.5000	TM 3668493.8000	TM 1305408.5000	152320.5600	151230.3700	TM 9725750.2000	102090.3900
σ		r 123209.2700	847.1463	3095.4160	u 14721.4310	1521.6767	u 34198.9640	5631.4730	r 114096.7300	TM 113535.0700	TM 37959.4230	4217.6607	4225.4281	TM 237410.3500	3156.9185
%RSD		r 1.7863	2.3406	3.3066	u 2.4348	2.1566	u 3.1571	2.6126	r 3.0765	TM 3.0949	TM 2.9079	2.7689	2.7940	TM 2.4410	3.0923

SEQ-ICV@ICV01 10/20/2016 10:30:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96
1	10:30:40	94629.9660	33133.6040	106429.3700	180.0018	74040.9570	99429.4510	12335.6970	539556.8900	113392.8000	1543.4643	5531.6825	2693.7324	83.3337	90595.8470	9905.3935	17089.3810	18585.6
2	10:30:53	94545.7630	32799.0610	106213.5400	183.3352	74865.6700	99426.7550	12465.2070	544912.6000	114709.1600	1600.1408	5464.9755	2490.3411	136.6677	92097.4890	9855.3391	17717.2480	19156.8
3	10:31:06	94178.6480	32865.9690	108004.4500	233.3363	74311.8210	99595.2510	12477.2230	554613.6800	115931.1900	1766.8383	5343.7923	2510.3466	120.0008	92686.7660	10035.5360	17737.2870	19671.2
x		94451.4590	32932.8780	106882.4500	198.8911	74406.1490	99483.8190	12426.0420	546361.0600	114677.7200	1636.8145	5446.8168	2564.8067	113.3341	91793.3670	9932.0896	17514.6380	19137.9
σ		239.9827	177.0238	977.6537	29.8770	420.3705	96.5124	78.4717	7632.1862	1269.4834	116.1151	95.2522	112.1001	27.2848	1078.1250	93.0175	368.4202	543.0
%RSD		0.2541	0.5375	0.9147	15.0218	0.5650	0.0970	0.6315	1.3969	1.1070	7.0940	1.7488	4.3707	24.0747	1.1745	0.9365	2.1035	2.8

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:30:40	27902.7550	36503.1400	9508.3032	461371.0800	6672.4478	104844.4500	169430.9700	610.0205	706078.3700	126463.5400	149777.0800	148686.0500	r 2038930.2000	99316.2240
2	10:30:53	28564.8070	36563.3810	9598.3978	469533.4800	6955.9935	106449.6100	173564.5200	883.3763	719945.1700	131670.0100	153528.8900	150905.5100	r 2061980.5000	99568.9660
3	10:31:06	29460.9930	36546.6470	9314.7696	472957.6400	7002.6960	109394.2500	177519.8000	796.7016	735957.6000	131206.7200	153284.8200	153417.0200	r 2079983.4000	101159.7200
x		28642.8520	36537.7230	9473.8235	467954.0700	6877.0458	106896.1000	173505.1000	763.3661	720660.3800	129780.0900	152196.9300	151002.8600	r 2060298.0000	100014.9700
σ		782.0452	31.0965	144.9237	5952.5609	178.7192	2307.5325	4044.7467	139.6936	14952.4510	2881.5427	2099.2040	2366.9883	r 20578.2710	999.4027
%RSD		2.7303	0.0851	1.5297	1.2720	2.5988	2.1587	2.3312	18.2997	2.0748	2.2203	1.3793	1.5675	r 0.9988	0.9993

SEQ-ICB@ICB01 10/20/2016 10:34:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:34:42	94727.6420	50.0001	105525.5900	113.3340	196.6688	146.6679	68.6669	150.0012	336.6729	3.3333	6.6667	26.6667	126.6676	88650.1390	86.6671	143.3345	160.0014	146.6679
2	10:34:55	95081.7410	30.0000	105616.6400	76.6670	170.0016	132.6676	94.6672	140.0011	333.3394	3.3333	4.4444	20.0000	113.3340	89804.7220	110.0007	163.3348	166.6682	100.0006
3	10:35:09	94693.9600	30.0000	107022.9500	76.6670	195.3354	148.6679	91.3338	120.0008	300.0050	6.6667	4.4444	23.3334	146.6679	90878.6490	100.0006	216.6693	183.3352	50.0001
x		95167.7810	36.6667	106055.0600	88.8893	187.3353	142.6678	84.8893	136.6677	323.3391	4.4444	5.1852	23.3334	128.8898	89777.8370	98.8894	174.4462	170.0016	98.8895
σ		791.6919	11.5471	839.4486	21.1697	15.0262	8.7179	14.1475	15.2755	20.2766	1.9245	1.2830	3.3333	16.7777	1114.4979	11.7064	37.9090	12.0187	48.3434
%RSD		0.8319	31.4919	0.7915	23.8158	8.0210	6.1107	16.6658	11.1771	6.2710	43.3013	24.7436	14.2857	13.0170	1.2414	11.8379	21.7311	7.0698	48.8863

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:34:42	226.6695	35940.9060	86.6671	113.3340	0.0000	23.3334	164735.8500	196.6688	396.6753	50.0001	143469.9000	142616.6300	440.0107	94326.8400
2	10:34:55	263.3372	36446.2450	96.6672	126.6676	3.3333	36.6667	166976.1700	200.0022	416.6762	93.3338	146280.8300	145288.4400	500.0138	95330.5620
3	10:35:09	273.3374	35830.4710	93.3338	113.3340	3.3333	13.3333	171298.8200	203.3356	513.3478	60.0002	148841.9000	148042.3400	526.6819	97436.0410
x		254.4480	36072.5410	92.2227	117.7785	2.2222	24.4445	167670.2800	200.0022	442.2331	67.7780	146197.5500	145315.8100	488.9021	95697.8140
σ		24.5711	328.3141	5.0918	7.6981	1.9245	11.7063	3336.0875	3.3334	62.3938	22.6897	2686.9696	2712.9573	44.3912	1586.8017
%RSD		9.6566	0.9101	5.5212	6.5361	86.6025	47.8894	1.9897	1.6667	14.1088	33.4765	1.8379	1.8669	9.0798	1.6581

SEQ-IFA@ICSA01 10/20/2016 10:38:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	10:38:42	90097.5990	123.3342	111509.7200	751794.7600	278.6709	20417.5690	2613.0422	7089.4299	7036.0551	0.0000	4.4444	6.6667	216.6693	91107.5900	1908105.1000	r 3494154.1000	r 3791047.9000
2	10:38:55	92777.6870	123.3342	116211.4000	789734.5200	260.0037	20632.0530	2623.7119	7409.6851	7403.0130	0.0000	3.3333	6.6667	186.6686	94411.0400	2009978.6000	r 3601739.4000	r 3936080.3000
3	10:39:08	94535.6590	100.0006	117609.2000	819635.3000	253.3369	20891.9790	2652.3869	7800.0114	7362.9805	0.0000	3.3333	13.3333	196.6688	97887.5190	2102123.2000	r 3731531.1000	r 4065181.0000
x		92470.3150	115.5563	115110.1100	787054.8600	264.0038	20647.2000	2629.7136	7433.0422	7267.3496	0.0000	3.7037	8.8889	200.0022	94468.7160	2006735.6000	r 3609141.5000	r 3930769.7000
σ		2234.9390	13.4717	3195.3918	33999.5590	13.1322	237.5671	20.3474	355.8661	201.3045	0.0000	0.6415	3.8490	15.2756	3390.3328	97049.7160	r 118861.5100	r 137143.6900
%RSD		2.4169	11.6581	2.7759	4.3198	4.9742	1.1506	0.7738	4.7876	2.7700	0.0000	17.3205	43.3013	7.6377	3.5888	4.8362	r 3.2933	r 3.4890

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:38:42	r 5649660.1000	33715.7390	100.0006	46.6668	1543.4643	1953.5432	168711.1000	650.0232	3934.1844	2570.3633	142423.6400	140978.0400	210.0024	88852.0970
2	10:38:55	r 5848437.7000	33625.4050	120.0008	56.6668	1660.1516	2056.8993	177669.3500	830.0379	4027.5586	2687.0637	150708.9600	146819.4100	216.6693	92966.2650
3	10:39:08	r 6014425.8000	33682.2820	110.0007	70.0003	1763.5044	1996.8860	184170.1500	740.0301	4387.7253	2803.7656	154050.9400	152715.3600	210.0024	96856.5650
x		r 5837507.9000	33674.4750	110.0007	57.7780	1655.7068	2002.4428	176850.2000	740.0304	4116.4894	2687.0642	149061.1800	146837.6000	212.2247	92891.6420
σ		r 182628.3400	45.6700	10.0001	11.7064	110.0873	51.9017	7762.0137	90.0073	239.4918	116.7012	5986.2262	5868.6816	3.8491	4002.7559
%RSD		r 3.1285	0.1356	9.0910	20.2609	6.6490	2.5919	4.3890	12.1627	5.8179	4.3431	4.0160	3.9967	1.8137	4.3091

SEQ-IFB@ICSAB01 10/20/2016 10:42:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	10:42:40	86688.0200	7049.3988	119709.6800	806301.7100	15820.4200	41192.4470	5066.7449	121959.2900	30955.9490	106.6673	487.7909	243.3366	210.0024	97995.3380	2048911.3000	r 3692699.3000	r 400
2	10:42:54	86731.7680	7282.9161	122155.2300	837155.6300	15987.3790	41156.2840	5185.4785	126649.4400	31634.9470	176.6684	524.4596	280.0043	216.6693	100569.8900	2112699.5000	r 3774925.6000	r 410
3	10:43:07	88646.7730	6915.9630	124442.6000	847176.5500	15788.3650	41348.4870	5103.4321	129837.2700	32140.0470	103.3339	483.3462	256.6703	186.6686	103114.8300	2153276.4000	r 3834514.6000	r 416
x		87355.5200	7082.7593	122102.5100	830211.3000	15865.3880	41232.4060	5118.5518	126148.6600	31576.9810	128.8899	498.5322	260.0037	204.4468	100560.0200	2104962.4000	r 3767379.8000	r 409
σ		1118.4718	185.7373	2366.9009	21303.8960	106.8560	102.1420	60.7937	3962.7908	594.1737	41.4110	22.5635	18.5597	15.7531	2559.7612	52610.9810	r 71208.1130	r 7
%RSD		1.2804	2.6224	1.9385	2.5661	0.6735	0.2477	1.1877	3.1414	1.8817	32.1290	4.5260	7.1383	7.7052	2.5455	2.4994	r 1.8901	

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:42:40	r 5939585.0000	33642.1340	2033.5608	88690.5300	3307.2681	22848.6770	181980.0400	716.6949	77660.3010	29628.2020	150925.8400	148062.6700	181374.7900	93592.6430
2	10:42:54	r 6115855.4000	33678.9360	1856.8563	90511.6810	3423.9780	23363.3160	186374.4000	790.0343	80064.3540	30581.3510	155488.4400	151678.2100	188095.9800	94394.2000
3	10:43:07	r 6189656.2000	34455.1700	2033.5608	92605.9490	3277.2573	24309.1250	189515.0000	660.0240	81429.7350	31223.5280	157506.0600	155976.7000	194345.3900	97011.5380
x		r 6081698.9000	33925.4130	1974.6593	90602.7200	3336.1678	23507.0390	185956.4800	722.2511	79718.1300	30477.6940	154640.1200	151905.8600	187938.7200	94999.4600
σ		r 128487.0000	459.1518	102.0204	1959.2961	77.5122	740.7556	3784.8254	65.1830	1908.4185	802.6985	3371.1375	3961.9239	6486.7298	1788.0058
%RSD		r 2.1127	1.3534	5.1665	2.1625	2.3234	3.1512	2.0353	9.0250	2.3940	2.6337	2.1800	2.6081	3.4515	1.8821

SEQ-CCV@CCV01 10/20/2016 10:46:45 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	9
1	10:46:59	90898.8490	193215.0100	128305.7500	514480.7000	423039.8000	573360.7600	70218.1390	±3259610.6000	683708.3800	4574.4840	15459.8010	7403.0130	140.0011	105394.0800	1352396.0000	±2458914.
2	10:47:12	91767.5110	195738.1300	130811.0800	523412.8900	428975.8200	580125.6800	71528.2940	±3319670.4000	699767.2900	4544.4689	15859.3770	7159.4848	133.3343	109077.1400	1388677.4000	±2495141.
3	10:47:26	92932.5900	195860.7300	133266.3500	536906.6900	426490.2100	576716.7100	71588.7670	±3361374.4000	706657.5400	4771.2517	15449.7840	7553.1364	190.0020	109367.2700	1408122.3000	±2512648.
x		91866.3170	194937.9500	130794.4000	524933.4300	426168.6100	576734.3900	71111.7330	±3313551.8000	696711.0700	4630.0682	15569.6540	7371.8781	154.4458	107946.1600	1383065.2000	±2488901.
σ		1020.4644	1493.3748	2480.3435	11290.0510	2981.0490	3382.4954	774.4657	±51157.0230	11775.8820	123.1861	233.6408	198.6642	30.9725	2214.9239	28283.8890	±27405.
%RSD		1.1108	0.7661	1.8964	2.1508	0.6995	0.5865	1.0891	±1.5439	1.6902	2.6606	1.4987	2.6949	20.0539	2.0519	2.0450	±1.

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:46:59	±3965093.4000	40034.6250	54056.9080	351887.7400	40938.6380	625360.6400	223237.6800	±2120435.3000	2146919.7000	749676.7900	166215.7600	165224.6000	±5244005.5000	105694.2000
2	10:47:12	±4069760.7000	40717.6490	56870.6640	358567.9800	42596.2280	633842.2100	227282.7500	2190412.0000	2204394.9000	759544.2100	169067.6300	168870.6900	±5289840.4000	108571.1400
3	10:47:26	±4107416.6000	40767.8730	55968.4230	360665.2100	43095.2380	647474.4100	232016.7800	2248163.2000	2240489.5000	774547.6300	171288.6300	170103.3500	±5360115.2000	109974.5300
x		±4047423.6000	40506.7160	55631.9990	357040.3100	42210.0340	635559.0900	227512.4000	±2186336.8000	2197268.0000	761256.2100	168857.3400	168066.2100	±5297987.0000	108079.9600
σ		±73744.0450	409.6128	1436.7292	4583.8127	1128.9772	11156.4100	4394.0495	±63961.3590	47190.2650	12523.4930	2542.9653	2536.9140	±58482.0110	2182.0267
%RSD		±1.8220	1.0112	2.5826	1.2838	2.6747	1.7554	1.9313	±2.9255	2.1477	1.6451	1.5060	1.5095	±1.1039	2.0189

SEQ-CCB@CCB01 10/20/2016 10:51:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:51:00	89484.9250	70.0003	120057.5600	166.6682	297.3382	286.6712	118.6674	563.3508	516.6814	0.0000	7.7778	13.3333	116.6674	101001.3000	420.0097	580.0185	846.7061	380.0079
2	10:51:13	90474.6490	70.0003	122841.0400	210.0024	296.0048	290.6713	126.0009	635.6890	450.0116	3.3333	6.6667	20.0000	156.6680	102447.3500	450.0111	713.3613	743.3637	473.3457
3	10:51:26	90959.4510	53.3335	123986.4400	146.6679	282.6711	280.0043	126.6676	576.6850	563.3508	6.6667	8.8889	10.0000	116.6674	104574.7000	526.6819	803.3688	806.7025	533.3490
x		90306.3420	64.4447	122295.0100	174.4462	292.0047	285.7823	123.7786	592.2416	513.3479	3.3333	7.7778	14.4445	130.0010	102674.4500	465.5676	698.9162	798.9241	462.2342
σ		751.5331	9.6226	2020.5513	32.3758	8.1106	5.3888	4.4389	39.0657	51.7502	3.3333	1.1111	5.0918	23.0944	1797.4905	55.0113	112.3737	52.1084	77.2720
%RSD		0.8322	14.9315	1.6522	18.5592	2.7776	1.8856	3.5862	6.5962	10.0809	100.0000	14.2857	35.2506	17.7648	1.7507	11.8160	16.0783	6.5223	16.7171

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:51:00	1100.0666	38872.9330	106.6673	56.6668	10.0000	140.0011	187510.7400	576.6850	446.6776	176.6684	153898.3900	154033.9900	1050.0606	97708.9470
2	10:51:13	1266.7549	39572.6090	106.6673	66.6669	10.0000	163.3348	189671.5500	646.6897	466.6786	176.6684	157550.1500	155485.0500	1166.7415	98584.9960
3	10:51:26	1313.4282	39582.6530	130.0009	63.3336	23.3334	110.0007	191934.9800	526.6819	416.6762	176.6684	159778.5400	156912.6000	1030.0584	99016.3120
x		1226.7499	39342.7320	114.4452	62.2224	14.4445	137.7789	189705.7600	583.3522	443.3442	176.6684	157075.6900	155477.2100	1082.2868	98436.7520
σ		112.1655	406.8883	13.4717	5.0918	7.6980	26.7364	2212.3182	60.2810	25.1673	0.0000	2968.6472	1439.3189	73.8205	666.1704
%RSD		9.1433	1.0342	11.7713	8.1832	53.2939	19.4053	1.1662	10.3336	5.6767	0.0000	1.8899	0.9257	6.8208	0.6767

Q314034-PS1@MH1H71A 10/20/2016 10:55:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	10:55:01	91205.2280	143.3345	136412.5100	9988.8180	17106.0790	5077.4175	761.3652	29277.0670	3940.8540	70.0003	136.6677	73.3336	120.0008	150536.1300	2346.9696	3637.3942	3910.8410	2163.59
2	10:55:15	92929.2230	136.6677	139261.8900	10789.7330	17201.5920	5118.7740	691.3596	30089.7140	4164.2869	90.0004	110.0007	60.0002	140.0011	156268.3100	2490.3411	3584.0397	4090.9203	2353.63
3	10:55:28	92255.7490	126.6676	141455.3700	11020.0090	17261.7060	5057.4064	699.3602	30855.6080	4250.9937	63.3336	131.1121	46.6668	140.0011	159093.3500	2640.3834	3690.7490	4260.9984	2380.31
x		92130.0660	135.5566	139043.2500	10599.5200	17189.7920	5084.5326	717.3617	30074.1300	4118.7115	74.4448	125.9268	60.0002	133.3343	155299.2600	2492.5647	3637.3943	4087.5865	2299.18
σ		868.8419	8.3888	2528.5297	541.2709	78.4817	31.2964	38.3176	789.3859	160.0140	13.8779	14.0694	13.3334	11.5472	4360.1364	146.7195	53.3547	175.1025	118.178
%RSD		0.9431	6.1884	1.8185	5.1066	0.4566	0.6155	5.3415	2.6248	3.8851	18.6419	11.1727	22.2223	8.6603	2.8076	5.8863	1.4668	4.2838	5.140

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:55:01	5878.5667	39254.5680	620.0211	17222.9660	246.6700	3830.8070	205783.0000	4431.0796	59225.6290	181119.7800	158252.1900	154562.8600	3320.6063	165414.6800
2	10:55:15	6028.6650	39957.6210	553.3502	17493.4820	303.3384	3927.5149	213419.4000	4527.7939	63272.7590	188858.2100	162489.2900	159371.4900	3313.9372	170932.0100
3	10:55:28	6205.4505	39539.1310	586.6856	17423.3470	263.3372	3847.4807	216835.4900	4577.8190	63809.8270	193596.3200	166086.7600	161858.1800	3567.3665	175032.2600
x		6037.5607	39583.7730	586.6856	17379.9320	271.1152	3868.6008	212012.6300	4512.2308	62102.7380	187858.1000	162276.0800	158597.5100	3400.6367	170459.6500
σ		163.6234	353.6462	33.3355	140.3866	29.1239	51.6977	5658.9443	74.5974	2506.0783	6298.1110	3921.6376	3708.7355	144.4307	4826.1617
%RSD		2.7101	0.8934	5.6820	0.8078	10.7422	1.3363	2.6692	1.6532	4.0354	3.3526	2.4166	2.3385	4.2472	2.8313

SEQ-CCV@CCV02 10/20/2016 10:59:05 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	9
1	10:59:18	92932.5900	190450.9200	122773.4700	492291.2300	405239.1100	548370.1500	67048.3430	±3131552.0000	657203.3500	4617.8392	14700.7650	6729.1562	136.6677	102467.5800	1298091.5000	±2337660.
2	10:59:32	91902.1950	191832.8600	125510.4700	505338.7200	408689.8900	552555.8700	67786.4530	±3186206.4000	671213.4900	4604.4991	14590.5880	6969.3371	130.0009	103344.0800	1325952.3000	±2383346.
3	10:59:45	93538.7590	192129.0200	125050.8700	500477.2100	409890.8500	558368.7400	68550.1480	±3200414.3000	676139.1700	4357.7108	14945.6090	6996.0242	166.6682	104547.7300	1338454.3000	±2389769.
x		92791.1810	191470.9300	124444.9400	499369.0500	407939.9500	553098.2600	67794.9810	±3172224.2000	668185.3400	4526.6831	14745.6540	6898.1725	144.4456	103453.1300	1320832.7000	±2370258.
σ		827.3956	895.6804	1465.6571	6593.9562	2414.8443	5021.3116	750.9387	±36356.9580	9824.3912	146.4862	181.7172	146.9794	19.5319	1044.3537	20662.6920	±28412.
%RSD		0.8917	0.4678	1.1778	1.3205	0.5920	0.9079	1.1077	±1.1459	1.4703	3.2361	1.2323	2.1307	13.5220	1.0095	1.5644	±1.

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:59:18	±3813370.9000	38849.5000	51280.8950	335979.2000	39659.6540	596337.9000	212255.9700	2026366.3000	2050260.9000	710561.6100	159130.6600	158028.3400	±5096305.6000	102575.4500
2	10:59:32	±3848475.9000	38695.5120	53114.7130	340918.0600	40121.6750	609317.6100	216480.5200	2079169.7000	2078404.0000	720640.4800	163279.9300	160338.2700	±5146103.0000	105404.2000
3	10:59:45	±3908756.7000	39087.1830	53429.8850	344925.0400	41420.8150	616836.8200	219703.1200	2139088.7000	2133169.5000	737357.8600	165272.1200	163198.4900	±5214824.8000	105906.6500
x		±3856867.8000	38877.3980	52608.4970	340607.4300	40400.7140	607497.4400	216146.5300	2081541.6000	2087278.1000	722853.3200	162560.9000	160521.7000	±5142411.1000	104628.7700
σ		±48243.4520	197.3198	1160.4867	4481.0014	913.1371	10369.9640	3734.7952	56398.6520	42160.6820	13534.4820	3133.2315	2589.9501	±74328.3760	1795.8845
%RSD		±1.2508	0.5075	2.2059	1.3156	2.2602	1.7070	1.7279	2.7095	2.0199	1.8724	1.9274	1.6135	±1.4454	1.7164

SEQ-CCB@CCB02 10/20/2016 11:03:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	11:03:20	89084.3530	60.0002	112478.2100	146.6679	276.0042	232.6696	105.3339	516.6814	383.3414	3.3333	12.2222	10.0000	136.6677	93673.4690	300.0050	563.3508	606.6869	356.6737
2	11:03:33	90568.9140	56.6668	113578.4300	123.3342	270.6707	246.0033	108.0006	643.3561	476.6792	3.3333	4.4444	3.3333	103.3339	95876.2550	353.3402	573.3514	683.3590	366.6741
3	11:03:47	88980.0050	40.0001	115880.5500	100.0006	292.6714	288.0046	102.6673	526.6819	433.3437	3.3333	6.6667	13.3333	143.3345	96974.4790	430.0102	673.3583	686.6926	466.6786
x		89544.4240	52.2224	113979.0600	123.3342	279.7821	255.5592	105.3339	562.2398	431.1214	3.3333	7.7778	8.8889	127.7787	95508.0680	361.1184	603.3535	658.9128	396.6755
σ		888.7669	10.7152	1736.1875	23.3336	11.4766	28.8786	2.6667	70.4265	46.7085	0.0000	4.0062	5.0918	21.4306	1681.0228	65.3507	60.8318	45.2597	60.8304
%RSD		0.9925	20.5185	1.5233	18.9190	4.1020	11.3002	2.5317	12.5261	10.8342	0.0000	51.5079	57.2822	16.7717	1.7601	18.0968	10.0823	6.8688	15.3351

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	11:03:20	893.3772	38062.8500	126.6676	76.6670	13.3333	83.3337	173849.9000	430.0102	396.6753	190.0020	146582.3000	147534.1800	1053.3944	95104.8830
2	11:03:33	1000.0550	37985.8620	140.0011	56.6668	20.0000	100.0006	178250.5600	526.6819	426.6767	146.6679	151254.5700	148418.4000	1043.3932	96556.7340
3	11:03:47	1060.0618	37062.0610	106.6673	46.6668	3.3333	63.3336	181344.1900	540.0160	476.6792	170.0016	153186.5200	151942.5700	993.3876	96934.0510
x		984.4980	37703.5910	124.4453	60.0002	12.2222	82.2226	177814.8800	498.9027	433.3437	168.8905	150341.1300	149298.3800	1030.0584	96198.5560
σ		84.4242	556.9133	16.7776	15.2754	8.3887	18.3587	3766.0924	60.0340	40.4165	21.6884	3395.5432	2332.2215	32.1491	965.7549
%RSD		8.5754	1.4771	13.4819	25.4588	68.6349	22.3281	2.1180	12.0332	9.3267	12.8417	2.2586	1.5621	3.1211	1.0039

Analyte ICPS

SEQ-CAL1@S01 10/20/2016 09:57:59

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	09:57:59	98.9%	9.0880	98.8%	-5.9258	-31.7801	-6.0301	3.1398	-6.8063	25.5081	-1.1100	0.0199	15.6438	-19.3205	371.8016	-1.9456	-4.0276	2.3821	-0.9706
2	09:58:14	100.7%	5.6052	99.4%	10.4267	-47.5001	-9.1072	7.5389	-0.1717	49.1434	2.2201	-0.0034	-16.1090	23.2271	-429.0251	-2.1714	5.9815	-1.1276	-1.0878
3	09:58:28	100.4%	-4.6162	101.8%	-4.5009	4.4859	-32.9349	-10.6787	9.3440	-40.6827	-1.1100	-0.0167	0.4652	-3.9067	57.2234	4.1170	-0.7550	-1.2546	2.0584
x		100.0%	3.3590	100.0%	0.0000	-24.9315	-16.0241	-0.0000	0.7887	11.3229	0.0000	-0.0001	-0.0000	0.0000	0.0000	-0.0000	0.3997	-0.0000	0.0000
σ		1.0%	7.1229	1.6%	9.0579	26.6611	14.7258	9.5060	8.1179	46.5628	1.9226	0.0185	15.8815	21.5412	403.4684	3.5672	5.1035	2.0640	1.7836
%RSD		1.0	212.0541	1.6	0.0000	106.9377	91.8982	0.0000	1029.2766	411.2252	0.0000	29257.5650	0.0000	0.0000	0.0000	0.0000	1276.9812	0.0000	0.0000

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	09:57:59	-3.2329	99.4%	20.1673	0.4512	0.0000	0.0671	-586.1927	-9.5888	12.3768	13.5795	97.5%	98.1%	-1.4187	363.2046
2	09:58:14	0.0431	100.1%	-22.3611	3.6519	0.0000	-0.0056	-654.0902	-4.4045	-8.2697	-17.8004	100.6%	99.6%	8.3570	306.4219
3	09:58:28	3.1899	100.5%	2.1938	-3.0724	0.0000	-0.0614	1240.2829	13.9933	-1.8908	4.7051	101.9%	102.2%	-5.3602	-669.6265
x		-0.0000	100.0%	0.0000	0.3436	0.0000	0.0001	-0.0000	0.0000	0.7388	0.1614	100.0%	100.0%	0.5260	-0.0000
σ		3.2116	0.6%	21.3489	3.3634	0.0000	0.0644	1074.6529	12.3927	10.5714	16.1759	2.2%	2.1%	7.0624	580.6081
%RSD		0.0000	0.6	0.0000	978.9325	0.0000	126898.7000	0.0000	0.0000	1430.9637	10021.2810	2.2	2.1	1342.5712	0.0000

SEQ-CAL4@S04 10/20/2016 10:10:24

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:10:24	98.4%	338.5030	95.3%	27.7018	3760.5315	2055.4720	26.4023	5711.6886	1171.3361	35.5043	145.3439	83.2757	-3.4702	168.7899	9390.6347	16336.6830	18022.2940	10468.6560
2	10:10:38	100.2%	327.1368	96.6%	-18.3829	3687.8450	2101.2904	37.8589	5555.9777	1252.8560	53.2479	166.5360	75.5722	-14.5146	71.2709	9244.7663	16579.1090	17648.5150	10243.5070
3	10:10:51	99.8%	297.6223	98.2%	48.6115	3794.3727	2078.3383	32.9358	5539.2861	1180.4875	56.1971	138.2496	85.9168	-18.7555	-641.5782	9437.6436	16756.9970	18213.7480	10563.0210
x		99.5%	321.0874	96.7%	19.3101	3747.5831	2078.3669	32.3990	5602.3175	1201.5599	48.3164	150.0432	81.5882	-12.2467	-133.8391	9357.6815	16557.5970	17961.5190	10425.0620
σ		1.0%	21.1011	1.5%	34.2765	54.4314	22.9092	5.7471	95.0852	44.6588	11.1932	14.7171	5.3748	7.8910	442.4101	100.5726	210.9815	287.4758	164.1574
%RSD		1.0	6.5718	1.5	177.5052	1.4524	1.1023	17.7386	1.6972	3.7167	23.1664	9.8086	6.5877	64.4333	330.5536	1.0748	1.2742	1.6005	1.5746

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:10:24	26791.5970	100.1%	82.3649	4538.5682	86.9055	1102.2806	770.2473	29011.3550	6844.8840	12458.2260	96.3%	96.0%	8358.0530	1297.5009
2	10:10:38	26389.9660	98.1%	102.1653	4440.4066	85.0822	1047.8140	1115.6662	29033.7690	7188.3188	12496.7800	99.1%	98.4%	8924.8359	2610.5781
3	10:10:51	27369.1300	98.9%	70.7897	4554.9430	86.5161	987.3696	145.2305	29113.2830	6744.7292	12497.1360	101.8%	101.7%	8837.9702	987.8556
x		26850.2310	99.0%	85.1066	4511.3059	86.1680	1045.8214	677.0480	29052.8020	6925.9774	12484.0480	99.1%	98.7%	8706.9530	1631.9782
σ		492.2082	1.0%	15.8665	61.9441	0.9602	57.4814	491.3851	53.5634	232.6478	22.3626	2.7%	2.8%	305.2620	861.5181
%RSD		1.8332	1.0	18.6431	1.3731	1.1144	5.4963	72.6514	0.1844	3.3591	0.1791	2.8	2.9	3.5060	52.7898

SEQ-CAL5@S05 10/20/2016 10:14:26

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:14:26	100.2%	3269.0081	96.0%	9378.4897	7276.1369	9997.3490	126.7876	56250.4940	11925.3840	62.4111	251.8682	120.0496	3.7579	214.5342	23117.6770	40851.9130	44124.9200	25876.7030
2	10:14:40	100.8%	3183.1096	99.3%	8849.7901	7066.4264	10124.4410	156.8510	56144.9140	12096.9650	104.9406	293.8322	153.0726	-0.6929	-279.4674	23917.9410	40787.8080	44202.9110	25310.3690
3	10:14:53	102.0%	3316.6799	99.9%	9340.0138	7037.9110	9999.1850	127.0496	56510.7670	11791.0410	74.5026	267.3407	125.9995	-24.7153	484.0398	23739.0740	40714.4540	44499.9120	26204.9590
x		101.0%	3256.2659	98.4%	9189.4312	7126.8248	10040.3250	136.8961	56302.0580	11937.7970	80.6181	271.0137	133.0406	-7.2168	139.7022	23591.5640	40784.7250	44275.9140	25797.3440
σ		0.9%	67.6907	2.1%	294.7663	130.0918	72.8524	17.2820	188.2982	153.3392	21.9143	21.2218	17.6015	15.3167	387.2153	420.0295	68.7809	197.8686	452.5444
%RSD		0.9	2.0788	2.1	3.2077	1.8254	0.7256	12.6242	0.3344	1.2845	27.1829	7.8305	13.2302	212.2379	277.1719	1.7804	0.1686	0.4469	1.7542

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:14:26	66286.5280	99.7%	967.4353	6084.4306	632.5273	10283.5980	477.7929	35469.3360	34348.4970	12201.9030	97.7%	98.1%	88875.9450	1378.7296
2	10:14:40	66352.0920	100.6%	999.8300	6168.9958	750.3026	10509.0020	-3103.5390	35537.6310	35021.2200	12599.7550	99.7%	100.4%	87961.4040	845.5247
3	10:14:53	67392.2180	101.4%	949.7833	5781.4364	661.5569	10596.4220	1179.4380	36059.7010	35560.0070	12593.7500	101.5%	100.9%	88053.2760	2267.5129
x		66676.9460	100.6%	972.3495	6011.6209	681.4623	10463.0070	-482.1027	35688.8890	34976.5750	12465.1360	99.7%	99.8%	88296.8750	1497.2557
σ		620.3105	0.8%	25.3827	203.7806	61.3590	161.4043	2297.1771	322.9428	606.9878	227.9861	1.9%	1.5%	503.5885	718.3655
%RSD		0.9303	0.8	2.6105	3.3898	9.0040	1.5426	476.4913	0.9049	1.7354	1.8290	1.9	1.5	0.5703	47.9788

SEQ-CAL6@S06 10/20/2016 10:18:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97M
1	10:18:25	101.0%	16416.7040	97.2%	45519.2070	36235.0970	51333.5650	470.4400	279646.0500	58840.9920	396.2670	1364.7406	627.6941	6.9421	415.5254	116238.1400	203052.0800	222650.7900	127564.74
2	10:18:38	101.3%	16321.9710	99.5%	45425.9790	35240.7080	49994.5870	553.2314	282222.2400	58800.3280	386.8921	1370.0942	665.7319	-1.6801	1163.0159	115154.7700	206013.6800	224546.6100	128767.09
3	10:18:52	101.9%	16273.3400	101.2%	46069.2820	35920.1460	51036.4340	632.4461	281046.6200	59375.9180	420.5130	1361.2028	651.1976	2.8446	-1396.4592	115679.9500	204859.5000	223188.2600	129067.35
x		101.4%	16337.3380	99.3%	45671.4890	35798.6500	50788.1950	552.0392	280971.6400	59005.7460	401.2241	1365.3458	648.2078	2.7022	60.6940	115690.9500	204641.7500	223461.8900	128466.40
σ		0.5%	72.9070	2.0%	347.6379	508.2061	703.1586	81.0097	1289.7296	321.2223	17.3499	4.4765	19.1943	4.3129	1316.1144	541.7662	1492.7595	977.0790	795.15
%RSD		0.4	0.4463	2.0	0.7612	1.4196	1.3845	14.6746	0.4590	0.5444	4.3243	0.3279	2.9611	159.6048	2168.4415	0.4683	0.7295	0.4372	0.61

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:18:25	332760.4500	99.8%	4312.0953	30308.2450	3465.6790	52331.6890	562.1551	176121.0700	175343.2800	62183.3530	98.4%	98.4%	444709.8300	883.3753
2	10:18:38	335045.7500	101.4%	4596.5266	29716.5700	3595.7852	53158.0690	830.6179	179900.7800	178719.9500	62561.2110	101.4%	101.6%	443650.1300	1693.1973
3	10:18:52	334724.0800	100.4%	4573.0709	30083.6970	3641.8150	53433.2160	-441.2676	178556.3100	177789.5900	63726.4020	103.5%	103.9%	442908.0000	342.3383
x		334176.7500	100.5%	4493.8976	30036.1710	3567.7597	52974.3250	317.1685	178192.7200	177284.2700	62823.6550	101.1%	101.3%	443755.9900	972.9703
σ		1237.0562	0.8%	157.8816	298.6867	91.3512	573.2906	670.4007	1915.9100	1744.1273	804.3059	2.6%	2.7%	905.5706	679.8717
%RSD		0.3702	0.8	3.5132	0.9944	2.5605	1.0822	211.3705	1.0752	0.9838	1.2803	2.5	2.7	0.2041	69.8759

SEQ-CAL7@S07 10/20/2016 10:22:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	
1	10:22:25	99.2%	171674.1400	96.8%	461242.1200	354527.3900	502524.9400	4951.5127	r2858816.4000	599947.3000	4151.4534	13294.5470	6227.8004	3.2115	511.5151	1190105.6000	2138122.4000	234
2	10:22:38	101.8%	168182.5100	100.2%	458330.9000	360743.5300	507684.9400	4644.1407	r2844139.9000	600473.3700	4050.4137	13621.8190	6054.6150	-9.5956	-310.2687	1192874.6000	2152156.3000	235
3	10:22:52	101.0%	167461.0700	100.9%	462088.9100	362077.7700	509212.7500	4716.4159	r2865578.4000	603536.9400	4274.6248	13254.6800	6296.8375	6.7541	821.9775	1203208.4000	2177512.1000	r234
x		100.7%	169105.9100	99.3%	460553.9800	359116.2300	506474.0700	4770.6897	r2856178.2000	601319.2000	4158.8306	13390.3490	6193.0843	0.1233	341.0746	1195396.2000	2155930.3000	r234
σ		1.3%	2253.2114	2.2%	1971.2485	4029.6541	3504.6657	160.7129	r10960.0120	1938.5474	112.2874	201.4481	124.7872	8.6012	585.0494	6905.7764	19964.1970	r
%RSD		1.3	1.3324	2.2	0.4280	1.1221	0.6920	3.3688	r0.3837	0.3224	2.7000	1.5044	2.0149	6974.1932	171.5312	0.5777	0.9260	

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:22:25	r3497922.8000	102.7%	46473.0600	302466.1600	35117.6860	531791.8000	-2290.3103	1856180.7000	1821088.7000	631024.3700	100.6%	102.3%	r4572820.7000	2456.0766
2	10:22:38	r3472661.1000	102.5%	47864.0270	305653.6400	36175.0260	533211.4900	-3962.3420	1862689.6000	1824251.1000	631940.7700	103.8%	103.4%	r4598203.4000	4057.2343
3	10:22:52	r3505205.5000	102.5%	47492.2590	305760.5200	35807.8840	540063.4900	-1757.8238	1892510.3000	1864337.2000	640669.7600	106.4%	107.2%	r4518492.8000	2017.2760
x		r3492096.5000	102.6%	47276.4490	304626.7700	35700.1990	535022.2600	-2670.1587	1870460.2000	1836559.0000	634544.9700	103.6%	104.3%	r4563172.3000	2843.5290
σ		r17275.4770	0.1%	720.1582	1871.9102	536.8328	4423.1650	1150.2994	19371.3070	24108.5090	5323.9832	2.9%	2.6%	r40721.7860	1073.7537
%RSD		r0.4947	0.1	1.5233	0.6145	1.5037	0.8267	43.0798	1.0356	1.3127	0.8390	2.8	2.5	r0.8924	37.7613

SEQ-CAL8@S08 10/20/2016 10:26:23

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo
1	10:26:23	98.7%	µ339831.1600	96.6%	901485.7300	µ733893.5500	µ1038980.6000	8202.1168	τ5606095.0000	1186518.3000	8277.2183	26432.7630	12469.2360	45.0471	-2730.4693	τ2404466.0000
2	10:26:36	101.1%	µ335684.9500	99.1%	892028.7100	µ735218.7100	µ1031884.0000	8023.0308	τ5498208.7000	1170745.6000	8127.8347	26799.6580	12638.8090	6.2409	-4252.9021	τ2380221.4000
3	10:26:49	99.9%	µ339014.5400	98.1%	920504.9000	709553.5100	1006711.1000	7445.2610	τ5624421.0000	µ1202797.2000	7986.3222	25876.6580	12355.7340	1.5618	-1191.6334	τ2427032.0000
x		99.9%	µ338176.8800	97.9%	904673.1200	µ726221.9200	µ1025858.6000	7690.1362	τ5576241.6000	µ1185687.0000	8130.4584	26369.6930	12487.9260	17.6166	-2725.0016	τ2403906.5000
σ		1.2%	µ2196.3646	1.3%	14503.2040	µ14450.4670	µ16957.5940	395.5419	τ68196.8290	µ16026.4810	145.4658	464.7210	142.4600	23.8705	1530.6417	τ23410.3050
%RSD		1.2	µ0.6495	1.3	1.6031	µ1.9898	µ1.6530	5.0131	τ1.2230	µ1.3505	1.7891	1.7623	1.1408	135.4996	56.1703	τ0.9738

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:26:23	τ6866416.4000	97.1%	91546.1080	594712.7700	69522.8950	1053808.8000	-9041.9948	τ3618846.7000	τ3569339.3000	τ1263239.6000	101.0%	101.8%	τM9306187.8000	4645.7243
2	10:26:36	τ6789487.6000	97.8%	91284.0820	595197.4900	69732.7780	µ1063364.1000	-8817.8613	τ3605030.7000	τ3571545.7000	τ1263244.9000	105.0%	104.9%	τM9306055.7000	4973.6407
3	10:26:49	τ6887189.9000	101.4%	94391.0480	µ601868.9500	69743.7150	µ1080691.1000	-7328.3846	τ3699529.4000	τM3646395.7000	τM1278059.9000	106.6%	107.6%	τM9237115.2000	5227.4244
x		τ6847698.0000	98.8%	92407.0790	µ597259.7400	69666.4630	µ1065954.7000	-8396.0802	τ3641135.6000	τM3595760.2000	τM1268181.5000	104.2%	104.8%	τM9283119.6000	4948.9298
σ		τ51470.5690	2.3%	1723.1548	µ3999.0467	124.4537	µ13627.1320	931.4180	τ51040.1960	τM43865.4910	τM8554.9552	2.9%	2.9%	τM39840.9650	291.6363
%RSD		τ0.7516	2.3	1.8647	µ0.6696	0.1786	µ1.2784	11.0935	τ1.4018	τM1.2199	τM0.6746	2.8	2.8	τM0.4292	5.8929

SEQ-ICV@ICV01 10/20/2016 10:30:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97
1	10:30:40	98.8%	35272.8250	93.9%	124.7272	71322.8290	99644.6270	934.8881	568707.8600	119127.7800	1548.2035	5549.3121	2736.0628	-42.9786	-632.5967	10154.5060	17528.5420	19045.3270	11161.1
2	10:30:53	98.8%	34987.5460	93.7%	128.5893	71641.5240	99477.4860	1063.3308	573804.8100	120372.7100	1602.4484	5473.3142	2475.5382	10.3315	191.7923	10014.4660	18009.2750	19449.8120	11421.3
3	10:31:06	98.4%	34477.4130	95.3%	177.7940	71140.6780	99692.0420	1056.6345	575505.6200	119897.9700	1770.3127	5354.3243	2513.0528	-6.3159	-159.8546	10102.9900	17864.9720	19793.0020	11280.2
x		98.7%	106.669%	94.3%	143.7035	98.598%	100.175%	1018.2844	102.363%	102.199%	1640.3215	99.655%	2574.8846	-12.9877	-200.2197	10090.6540	17800.9300	19429.3800	11287.5
σ		0.3%	n/a	0.9%	29.5863	n/a	n/a	72.3009	n/a	n/a	115.7968	n/a	140.8391	27.2741	413.6742	70.8304	246.6823	374.2558	130.2
%RSD		0.3	1.1542	0.9	20.5885	0.3552	0.1132	7.1003	0.6177	0.5244	7.0594	1.8003	5.4697	209.9997	206.6102	0.7019	1.3858	1.9262	1.1

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:30:40	28552.5520	99.6%	9560.7848	469002.2700	6777.6924	106242.0300	-2537.6192	537.2448	710022.2300	125546.9400	102.5%	103.0%	τ1979290.4000	3928.6668
2	10:30:53	28948.9480	99.8%	9539.7892	471681.9700	6980.8968	106497.7000	-764.4357	799.9876	713050.6800	128239.7500	105.0%	104.5%	τ1972226.7000	2752.4200
3	10:31:06	29597.0410	99.7%	9185.3793	471688.2000	6978.1076	108723.6200	2132.4745	709.5719	725305.2000	127499.8700	104.9%	106.3%	τ1956877.6000	2689.9758
x		29032.8470	99.7%	9428.6511	102.746%	6912.2323	101.790%	-389.8601	682.2681	101.174%	100.386%	104.1%	104.6%	τ107.461%	3123.6876
σ		527.2751	0.1%	210.9409	n/a	116.5233	n/a	2357.4719	133.4825	n/a	n/a	1.4%	1.6%	τn/a	697.8313
%RSD		1.8161	0.1	2.2372	0.3290	1.6858	1.2738	604.6969	19.5645	1.1300	1.0946	1.4	1.6	τ0.5818	22.3400

SEQ-ICB@ICB01 10/20/2016 10:34:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:34:42	99.0%	42.5387	93.1%	54.9288	50.5231	-12.0998	-14.6915	146.5281	53.3693	2.2883	3.4632	14.7313	2.5085	-676.1283	75.5106	146.4511	160.0992	146.0768
2	10:34:55	100.4%	21.0304	93.2%	15.4866	-60.0973	-28.2483	12.3187	135.4072	48.6923	2.2412	1.1348	22.5435	-12.6870	-188.7995	99.0365	165.9634	165.5526	96.1868
3	10:35:09	98.9%	20.6074	94.4%	14.4016	-19.5523	-9.5937	8.4185	112.3878	8.8915	5.7075	1.2116	-9.0277	23.3595	-456.6044	87.0797	218.1228	180.0497	43.4383
x		99.4%	28.0588	93.6%	28.2723	-9.7089	-16.6473	2.0152	131.4410	36.9843	3.4123	1.9365	9.4157	4.3937	-440.5107	87.2089	176.8458	168.5672	95.2339
σ		0.8%	12.5417	0.7%	23.0916	55.9633	10.1246	14.5992	17.4123	24.4413	1.9879	1.3227	16.4431	18.0970	244.0627	11.7635	37.0544	10.3112	51.3259
%RSD		0.8	44.6979	0.8	81.6755	576.4148	60.8186	724.4460	13.2473	66.0854	58.2550	68.3020	174.6355	411.8885	55.4045	13.4889	20.9529	6.1170	53.8945

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:34:42	231.0100	98.1%	-21.8165	111.9786	0.0000	20.9232	-2352.6832	126.6475	393.1930	7.0983	98.2%	98.8%	426.9188	2982.1175
2	10:34:55	266.3295	99.5%	-12.4243	124.4986	3.4411	34.3807	-2091.2148	127.5383	408.3762	50.2185	100.1%	100.7%	478.3401	2223.6932
3	10:35:09	273.0703	97.8%	-17.3401	108.9371	3.3884	10.1061	-389.8791	127.6884	499.0608	15.4391	101.8%	102.6%	495.1006	2514.7426
x		256.8033	98.4%	-17.1936	115.1381	2.2765	21.8033	-1611.2590	127.2914	433.5433	24.2520	100.0%	100.7%	466.7865	2573.5178
σ		22.5905	0.9%	4.6978	8.2479	1.9717	12.1612	1065.7946	0.5627	57.2454	22.8711	1.8%	1.9%	35.5289	382.6131
%RSD		8.7968	0.9	27.3229	7.1634	86.6103	55.7767	66.1467	0.4420	13.2041	94.3063	1.8	1.9	7.6114	14.8673

SEQ-IFA@ICSA01 10/20/2016 10:38:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:38:42	94.1%	114.1924	98.4%	764169.1400	-617.5519	22027.7080	242.1171	7200.5622	6854.6296	-1.1100	1.4967	-109.4178	108.8430	-1055.4564	1947449.5000	τ3566530.4000	τ3869899.4000	2173439.0000
2	10:38:55	96.9%	109.1208	102.5%	770061.0800	-594.5098	22321.0410	227.9271	7207.9429	6908.8608	-1.1100	0.2989	-77.9805	76.7839	-2123.7884	1955580.4000	τ3504114.3000	τ3829202.8000	2175890.4000
3	10:39:08	98.8%	85.2052	103.8%	789590.0500	-597.6047	22565.8380	226.3817	7488.9633	6775.4131	-1.1100	0.2927	-81.0650	87.3192	-231.3573	2012344.8000	τ3571699.6000	τ3890525.2000	τ2238163.5000
x		96.6%	1.#IO%	101.6%	774606.7600	-166.675%	104.686%	232.1420	129.165%	95.394%	-1.1100	8.514%	-89.4878	90.9820	-1136.8674	1971791.6000	τ3547448.1000	τ3863209.2000	τ2195831.0000
σ		2.3%	n/a	2.8%	13306.1280	n/a	n/a	8.6732	n/a	n/a	0.0000	n/a	17.3287	16.3404	948.8386	35354.6890	τ37617.0670	τ31203.8170	τ36681.5400
%RSD		2.4	15.0534	2.8	1.7178	2.0732	1.2079	3.7362	2.2526	0.9803	0.0000	99.6049	19.3643	17.9600	83.4608	1.7930	τ1.0604	τ0.8077	τ1.6705

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:38:42	τ5768154.9000	92.0%	-10.1733	41.3374	1577.1797	564.8367	-1195.7040	587.1565	4006.3140	2588.6111	97.4%	97.7%	196.6043	-1513.5150
2	10:38:55	τ5689080.0000	91.8%	4.3447	48.7539	1614.1305	595.7016	-1014.5329	729.0040	3895.1727	2564.5000	103.1%	101.7%	194.6042	-1088.2131
3	10:39:08	τ5754453.7000	91.9%	-7.2096	60.5477	1684.9801	478.2898	2100.8767	628.4830	4166.6582	2623.9375	105.4%	105.8%	180.0794	-939.8452
x		τ5737229.5000	91.9%	-4.3461	1.#IO%	1625.4301	73.391%	-36.4534	648.2145	75.019%	170.631%	102.0%	101.7%	1.#IO%	-1180.5244
σ		τ42257.7070	0.1%	7.6709	n/a	54.7813	n/a	1853.1974	72.9532	n/a	n/a	4.1%	4.1%	n/a	297.7672
%RSD		τ0.7366	0.1	176.5020	19.2937	3.3703	11.1421	5083.7410	11.2545	3.3928	1.1532	4.0	4.0	4.7361	25.2233

SEQ-IFB@ICSAB01 10/20/2016 10:42:40 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	10:42:40	90.7%	6662.9461	105.6%	763601.0900	16030.8660	44703.3030	335.3197	115775.4800	29089.8960	115.0671	527.9460	154.9792	102.0969	-405.5881	1958891.0000	τ3531186.4000	τ3834054.4000
2	10:42:54	90.7%	6745.9990	107.8%	776824.0900	15794.0110	44614.9330	468.5433	117681.7300	29095.9460	191.0988	567.2597	187.7195	109.1003	-219.3275	1971255.2000	τ3522625.4000	τ3835027.3000
3	10:43:07	92.8%	6287.5827	109.8%	771746.5500	15558.4230	43810.5690	345.9055	118509.2400	29038.3170	108.7808	510.6828	192.5125	71.8853	594.3849	1977023.7000	τ3521251.9000	τ3825819.1000
x		91.4%	104.522%	107.7%	770723.9100	114.845%	109.345%	383.2562	103.806%	101.280%	138.3156	103.377%	178.4037	94.3608	-10.1769	1969056.6000	τ3525021.2000	τ3831633.6000
σ		1.2%	n/a	2.1%	6670.5524	n/a	n/a	74.0502	n/a	n/a	45.8196	n/a	20.4273	19.7769	531.7842	9264.0705	τ5383.1623	τ5058.9689
%RSD		1.3	3.7201	1.9	0.8655	1.4956	1.1085	19.3213	1.1949	0.1089	33.1268	5.4168	11.4500	20.9588	5225.4164	0.4705	τ0.1527	τ0.1320

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:42:40	τ5683187.3000	91.8%	1836.5403	85007.9030	3170.8093	20498.6850	1021.9228	610.8590	74630.1520	28525.1080	103.3%	102.6%	176794.0200	-1245.0195
2	10:42:54	τ5709064.8000	91.9%	1622.6078	84572.7180	3199.9198	20427.0200	623.6716	661.5544	74918.6930	28631.0960	106.4%	105.1%	178975.3000	-2657.0939
3	10:43:07	τ5686797.9000	94.0%	1758.4776	85202.5260	3015.9760	20966.5500	914.6429	530.7723	75079.7920	28827.0020	107.8%	108.1%	179825.5900	-2710.5343
x		τ5693016.7000	92.6%	1739.2086	101.941%	3128.9017	97.010%	853.4124	601.0619	95.206%	102.900%	105.6%	105.2%	95.094%	-2204.2159
σ		τ14014.8150	1.3%	108.2601	n/a	98.8737	n/a	206.0652	65.9392	n/a	n/a	2.3%	2.7%	n/a	831.1181
%RSD		τ0.2462	1.4	6.2247	0.3797	3.1600	1.4203	24.1460	10.9705	0.3042	0.5344	2.2	2.6	0.8759	37.7058

SEQ-CCV@CCV01 10/20/2016 10:46:45 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	10:46:59	95.2%	170661.9800	113.2%	454357.0800	373894.6900	524603.7000	4365.3804	r2877735.3000	603282.7800	4185.6616	14146.1650	6764.0936	1.5071	-1065.3867	1192304.3000	r2167775.8000
2	10:47:12	96.1%	169579.2800	115.4%	453409.7500	371510.0300	521888.6500	4775.8961	r2875440.8000	605811.8400	4088.4198	14268.3880	6439.2727	-6.6417	424.5751	1202039.5000	r2159778.2000
3	10:47:26	97.3%	166559.0400	117.6%	456572.5700	367607.2300	518181.5800	5173.6302	r2859854.6000	600938.5500	4287.2102	13882.6700	6735.3745	44.1425	-869.8991	1199264.8000	r2140051.1000
x		96.2%	102.197%	115.4%	454779.8000	102.511%	102.811%	4771.6356	r101.610%	100.882%	4187.0972	103.468%	6646.2470	13.0026	-503.5703	1197869.5000	r2155868.3000
σ		1.1%	n/a	2.2%	1623.2316	n/a	n/a	404.1418	r n/a	n/a	99.4030	n/a	179.8192	27.2739	809.7186	5015.3688	r14269.8730
%RSD		1.1	1.2587	1.9	0.3569	0.8556	0.6181	8.4697	r0.3389	0.4040	2.3740	1.3981	2.7056	209.7567	160.7956	0.4187	r0.6619

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:46:59	r3495200.6000	109.3%	47523.5810	310071.2600	36073.0230	550100.5500	-947.0015	r1867604.2000	1890767.1000	659776.6800	113.7%	114.5%	r4581082.6000	-150.2014
2	10:47:12	r3522552.0000	111.1%	49104.3300	310297.5300	36861.9740	547616.8600	-1288.2899	1895103.5000	1907152.2000	656888.5600	115.7%	117.0%	r4521348.4000	315.2297
3	10:47:26	r3498639.9000	111.3%	47572.2600	307286.3200	36718.9380	550864.5300	-482.3292	1916019.4000	1909708.7000	660470.5400	117.2%	117.9%	r4548214.5000	833.5766
x		r3505464.2000	110.5%	48066.7240	102.784%	36551.3120	103.360%	-905.8736	r1892909.1000	106.441%	104.109%	115.5%	116.4%	r101.793%	332.8683
σ		r14898.1200	1.1%	898.9230	n/a	420.3386	n/a	404.5513	r24282.0690	n/a	n/a	1.7%	1.8%	r n/a	492.1262
%RSD		r0.4250	1.0	1.8702	0.5423	1.1500	0.3090	44.6587	r1.2828	0.5402	0.2883	1.5	1.5	r0.6575	147.8441

SEQ-CCB@CCB01 10/20/2016 10:51:00 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:51:00	93.7%	54.9191	105.9%	90.6639	46.0230	108.5886	13.3977	518.6413	182.3490	-1.1100	3.9978	18.8958	-16.6579	1567.5318	382.0128	544.9781	793.6768	351.9685
2	10:51:13	94.7%	53.4218	108.4%	127.0821	25.0281	107.5148	18.3327	574.2577	118.9318	1.9764	2.8394	-9.5451	18.4356	719.8149	400.6623	655.7373	679.7468	430.0655
3	10:51:26	95.3%	37.5899	109.4%	67.3815	7.4519	97.5721	20.0539	513.6332	209.2180	5.0613	4.8949	17.5171	-18.6296	1617.6162	466.0824	730.5820	729.8632	479.9477
x		94.6%	48.6436	107.9%	95.0425	26.1677	104.5585	17.2614	535.5107	170.1663	1.9759	3.9107	8.9559	-5.6173	1301.6543	416.2525	643.7658	734.4289	420.6606
σ		0.8%	9.6020	1.8%	30.0902	19.3108	6.0742	3.4550	33.6491	46.3596	3.0857	1.0305	16.0372	20.8537	504.5096	44.1499	93.3793	57.1020	64.5059
%RSD		0.8	19.7395	1.7	31.6597	73.7963	5.8093	20.0156	6.2836	27.2437	156.1657	26.3514	179.0682	371.2403	38.7591	10.6065	14.5052	7.7750	15.3344

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:51:00	1034.7860	106.1%	-11.3179	47.3264	9.4719	129.0761	3979.7987	468.8881	405.1275	123.2205	105.3%	106.7%	965.5606	-924.7915
2	10:51:13	1164.5903	108.0%	-13.6351	55.3492	9.2545	147.5839	1896.7409	521.1399	413.9090	119.3527	107.8%	107.7%	1064.6937	-966.0137
3	10:51:26	1194.4101	108.0%	6.5422	51.5728	21.3382	96.9704	1836.8641	404.0478	362.8280	117.2176	109.3%	108.7%	929.1101	-1401.8621
x		1131.2621	107.4%	-6.1369	51.4162	13.3548	124.5435	2571.1346	464.6920	393.9549	119.9303	107.5%	107.7%	986.4548	-1097.5558
σ		84.8707	1.1%	11.0414	4.0137	6.9146	25.6094	1220.3062	58.6587	27.3119	3.0429	2.0%	1.0%	70.1652	264.3418
%RSD		7.5023	1.0	179.9167	7.8063	51.7760	20.5626	47.4618	12.6231	6.9327	2.5372	1.9	0.9	7.1129	24.0846

Q114034-PS1@MH1H71A 10/20/2016 10:55:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	10:55:01	95.2%	107.9252	120.4%	8247.8299	15465.3720	4577.7979	102.6457	24642.0030	3016.1831	64.2305	124.2366	72.7783	-14.6155	36447.2960	2027.8565	3165.8138	3403.5227	1881.2488
2	10:55:15	97.0%	100.0629	122.9%	8729.8050	15486.5620	4532.3322	31.1296	24788.8800	3129.8830	81.4211	97.5381	43.3048	1.7541	38331.7890	2102.7782	3047.2739	3478.1142	1999.5730
3	10:55:28	96.3%	90.3259	124.8%	8777.2114	15664.3930	4525.1437	46.0737	25004.9890	3143.9605	57.5821	118.1699	30.1992	3.1129	38295.8700	2189.3084	3080.4541	3556.2051	1984.8427
x		96.1%	99.4380	122.7%	8584.9488	15538.7760	4545.0913	59.9497	24811.9570	3096.6755	67.7446	113.3149	48.7608	-3.2495	37691.6520	2106.6477	3097.8473	3479.2807	1955.2215
σ		0.9%	8.8163	2.2%	292.9142	109.3026	28.5519	37.7233	182.5903	70.0630	12.3019	13.9958	21.8075	9.8667	1077.7931	80.7955	61.1541	76.3479	64.4843
%RSD		0.9	8.8661	1.8	3.4119	0.7034	0.6282	62.9249	0.7359	2.2625	18.1592	12.3512	44.7235	303.6347	2.8595	3.8353	1.9741	2.1944	3.2981

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:55:01	5130.6735	107.1%	433.5403	15171.1750	217.5756	3383.7144	8969.0654	3866.9084	52849.1830	163992.9400	108.3%	107.1%	3082.5388	61988.8000
2	10:55:15	5139.5361	109.1%	363.3398	15044.8620	261.2173	3386.4438	11191.9490	3855.5104	55087.6170	166711.6800	111.2%	110.4%	2982.9357	62324.8850
3	10:55:28	5192.3612	107.9%	382.4402	14699.6770	222.4496	3253.5026	10501.2480	3821.0912	54458.3320	167380.1900	113.6%	112.1%	3162.8224	63602.9360
x		5154.1903	108.0%	393.1068	14971.9050	233.7475	3341.2203	10220.7540	3847.8366	54131.7110	166028.2700	111.0%	109.9%	3076.0990	62638.8740
σ		33.3527	1.0%	36.2954	244.0690	23.9140	75.9780	1137.6777	23.8530	1154.4081	1794.0602	2.7%	2.6%	90.1161	851.6453
%RSD		0.6471	0.9	9.2330	1.6302	10.2307	2.2740	11.1311	0.6199	2.1326	1.0806	2.4	2.3	2.9296	1.3596

SEQ-CCV@CCV02 10/20/2016 10:59:05 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	10:59:18	97.3%	175801.0400	108.3%	454347.5500	369417.7700	517041.6900	4198.4535	r2889077.9000	605987.0200	4354.2725	13861.9080	6334.4785	2.2720	406.9151	1195734.1000	r2153260.2000
2	10:59:32	96.2%	173215.0100	110.7%	456191.3000	373414.4100	523063.4300	4462.4380	r2874113.1000	605118.2800	4358.9727	13812.7560	6592.8505	-3.5279	-993.6860	1192879.4000	r2144013.2000
3	10:59:45	97.9%	174120.0900	110.3%	453345.3900	370514.7500	523269.6400	4511.6420	r2892047.8000	610558.9600	4083.9362	14007.1190	6519.2625	29.6116	-131.4820	1200467.6000	r2142961.3000
x		97.1%	105.491%	109.8%	454628.0800	102.542%	102.726%	4390.8445	r102.108%	101.530%	4265.7271	101.962%	6482.1972	9.4519	-239.4177	1196360.4000	r2146744.9000
σ		0.9%	n/a	1.3%	1443.5434	n/a	n/a	168.4220	r n/a	n/a	157.4531	n/a	133.1143	17.6980	706.5114	3832.6652	r5666.8404
%RSD		0.9	0.7525	1.2	0.3175	0.5564	0.6789	3.8358	r0.3332	0.4813	3.6911	0.7274	2.0535	187.2425	295.0958	0.3204	r0.2640

Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	10:59:18	r3512095.6000	106.0%	47100.6500	309307.4200	36510.4090	548048.2200	-2218.4540	1864561.7000	1886359.5000	653259.9200	108.9%	109.5%	r4627390.0000	1205.8709
2	10:59:32	r3461219.3000	105.6%	47628.6200	306396.7900	36056.9580	546602.4000	-3149.4568	1867024.7000	1865968.0000	646153.1300	111.7%	111.1%	r4632559.4000	2402.6017
3	10:59:45	r3502810.5000	106.7%	47686.3750	308499.4600	37039.3900	550374.9200	-1973.2339	1908623.6000	1902168.0000	655198.9000	113.1%	113.1%	r4612148.5000	1184.0136
x		r3492041.8000	106.1%	47471.8820	102.401%	36535.5860	103.137%	-2447.0483	1880070.0000	105.450%	102.923%	111.2%	111.2%	r103.445%	1597.4954
σ		r27093.7970	0.5%	322.7902	n/a	491.6996	n/a	620.5373	24758.8100	n/a	n/a	2.1%	1.8%	r n/a	697.3282
%RSD		r0.7759	0.5	0.6800	0.4877	1.3458	0.3471	25.3586	1.3169	0.9629	0.7310	1.9	1.6	r0.2295	43.6513

SEQ-CCB@CCB02 10/20/2016 11:03:20 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	11:03:20	93.3%	49.2956	99.2%	81.0716	47.0008	62.3545	8.2143	506.3987	79.9473	2.0988	8.4324	-5.2076	4.9360	7.8395	285.4287	561.0402	600.6807	349.9360
2	11:03:33	94.8%	45.3837	100.2%	56.3169	38.6158	75.6703	9.4739	625.9491	167.9067	2.1053	0.9537	19.6308	-26.9513	505.8496	332.2930	560.1935	664.4883	352.8728
3	11:03:47	93.1%	27.9595	102.2%	31.0755	91.1303	123.1097	1.3887	500.0206	116.6836	2.1855	3.2575	-11.5931	15.0798	-48.8348	400.6475	647.5103	656.4966	443.6008
x		93.7%	40.8796	100.6%	56.1547	58.9157	87.0448	6.3590	544.1228	121.5125	2.1299	4.2145	0.9434	-2.3118	154.9515	339.4564	589.5813	640.5552	382.1366
σ		0.9%	11.3588	1.5%	24.9985	28.2120	31.9348	4.3502	70.9354	44.1781	0.0483	3.8301	16.4957	21.9329	305.2050	57.9425	50.1697	34.7628	53.2499
%RSD		1.0	27.7860	1.5	44.5172	47.8854	36.6878	68.4103	13.0367	36.3568	2.2658	90.8779	1748.6020	948.7196	196.9682	17.0692	8.5094	5.4270	13.9348

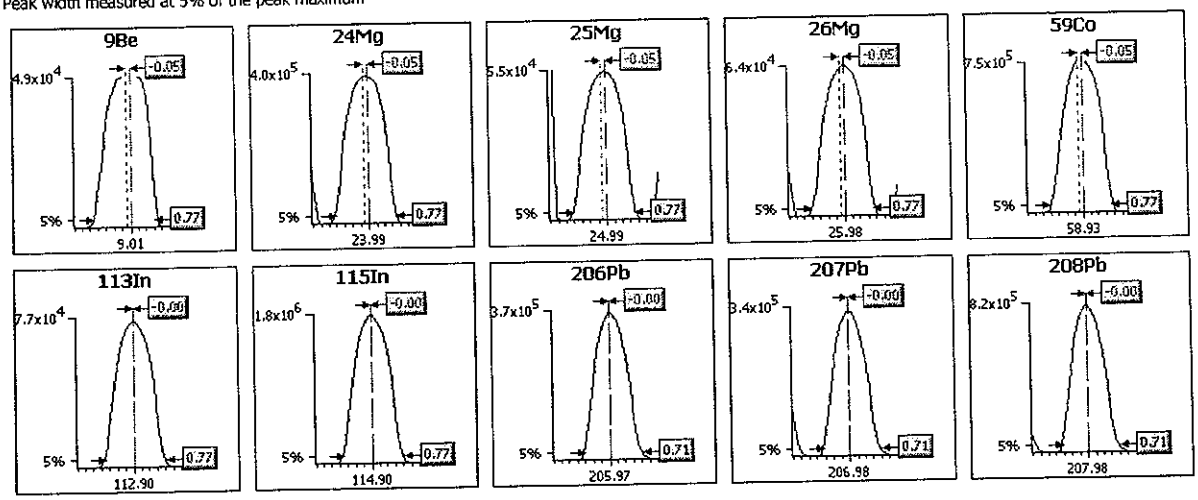
Run	Time	98Mo	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	11:03:20	889.2261	103.9%	14.5845	70.4713	13.3580	79.9070	364.1756	352.7810	378.6840	145.4717	100.3%	102.2%	1012.1719	561.2907
2	11:03:33	976.6718	103.7%	25.0045	49.2315	19.6096	94.4082	724.0198	437.3125	398.5602	98.2519	103.5%	102.8%	996.3059	1418.9051
3	11:03:47	1018.4157	101.1%	-9.3763	38.6923	3.2162	57.4766	1007.2244	442.2823	440.3817	118.6199	104.8%	105.3%	925.2677	-400.6417
x		961.4378	102.9%	10.0709	52.7984	12.0613	77.2640	698.4733	410.7919	405.8753	120.7812	102.9%	103.4%	977.9152	526.5180
σ		65.9283	1.5%	17.6292	16.1869	8.2733	18.6071	322.2847	50.3003	31.4926	23.6840	2.3%	1.6%	46.2790	910.2717
%RSD		6.8573	1.5	175.0508	30.6580	68.5934	24.0826	46.1413	12.2447	7.7592	19.6090	2.3	1.6	4.7324	172.8852

Performance Report

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/28/2016 15:46:28
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.11	0.77	-0.05
24Mg	0.85	0.65	0.11	0.77	-0.05
25Mg	0.85	0.65	0.11	0.77	-0.05
26Mg	0.85	0.65	0.11	0.77	-0.05
59Co	0.85	0.65	0.11	0.77	-0.05
113In	0.85	0.65	0.11	0.77	-0.00
115In	0.85	0.65	0.11	0.77	-0.00
206Pb	0.85	0.65	0.11	0.71	-0.00
207Pb	0.85	0.65	0.11	0.71	-0.00
208Pb	0.85	0.65	0.11	0.71	-0.00

Sample details
Sample name : SEQ-TUN1@TUNE01
Acquired at : 10/28/2016 15:46:28
Report name : 200_8 + IS TEST_NO SCREEN [7/9/2015 09:58:10]

Tune conditions

Major	
Extraction	-165
Lens 1	0.3
Focus	17.3
D1	-43.1
Pole Bias	1.5
Hexapole Bias	-3.5
Nebuliser	0.78
Sampling Depth	130

Minor	
Lens 2	-26.7
Lens 3	-189.0
Forward power	1404
Horizontal	87
Vertical	425
D2	-160
DA	-29.8
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT 7% h2/He	0.00
Dont touch this thing	0.00

Sensitivity and stability results

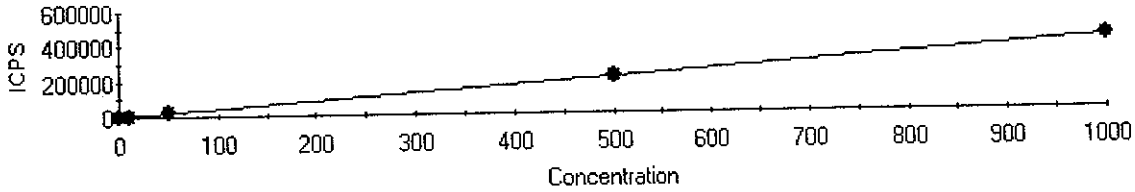
Acquisition parameters
Sweeps : 30

Run	Time	6Li	9Be	24Mg	25Mg	26Mg	45Sc	59Co	89Y	113In	115In	159Tb	206Pb	207Pb	208Pb	209Bi
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	>4000	>4000	>4000	>4000	>4000	>5000	>4000	>5000	>10000	>20000	>20000	>20000	>20000	>20000	>20000
1	15:47:06	114398.62	54881.829	395806.20	53228.710	63071.367	1116400.3	806014.51	115877.17	80346.830	1885547.8	167566.89	375265.36	347164.58	818091.79	100994.56
2	15:47:14	114996.09	55093.101	397320.14	53376.238	62779.356	1130214.5	811774.77	114712.54	80568.781	1896671.7	168551.51	379777.04	348023.16	817385.65	99936.297
3	15:47:22	115603.72	54244.689	393888.89	52903.486	62326.254	1128044.9	813946.68	116954.16	80336.741	1904439.0	170147.50	382806.90	349570.87	831223.24	102619.27
4	15:47:30	116545.63	55565.966	392271.15	53201.887	63598.353	1136203.3	819140.18	116373.45	81618.079	1911923.2	171315.80	385055.61	351326.65	830366.68	102652.98
5	15:47:37	116272.17	55737.008	394059.38	52880.017	62275.911	1138450.0	819071.01	116103.36	82088.957	1901823.5	169220.43	382181.39	353061.97	834052.24	101021.53
x		115563.25	55104.519	394669.15	53118.067	62810.248	1129862.6	813989.43	116004.14	80991.878	1900081.0	169360.43	381017.26	349829.45	826223.92	101444.93
σ		887.03	592.03	1939.82	217.16	550.00	8640.15	5496.79	826.61	809.32	9812.02	1443.41	3724.54	2404.26	7869.00	1172.24
%RSD		0.7676	1.0744	0.4915	0.4088	0.8757	0.7647	0.6753	0.7126	0.9993	0.5164	0.8523	0.9775	0.6873	0.9524	1.1555

Result : The performance report passed.

Fully Quant Calibration

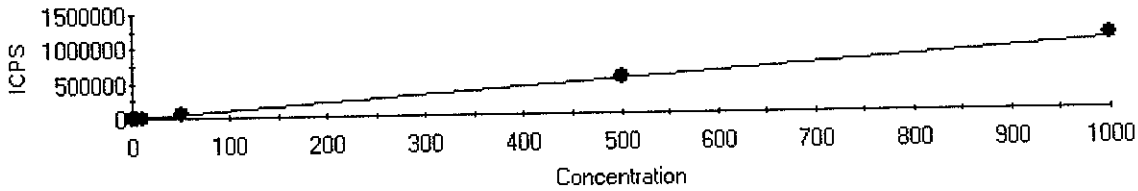
9Be FQ Block 1



Intercept CPS=100.506574 Intercept Conc=0.243278
Sensitivity=413.134384 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.012	0.012	105.32	0.00
SEQ-CAL4@S04	1.000	0.959	0.041	496.55	4.14
SEQ-CAL5@S05	10.000	10.036	0.036	4246.82	0.36
SEQ-CAL6@S06	50.000	51.006	1.006	21172.85	2.01
SEQ-CAL7@S07	500.000	498.193	1.807	205921.07	0.36
SEQ-CAL8@S08	1000.000	999.554	0.446	413050.83	0.04

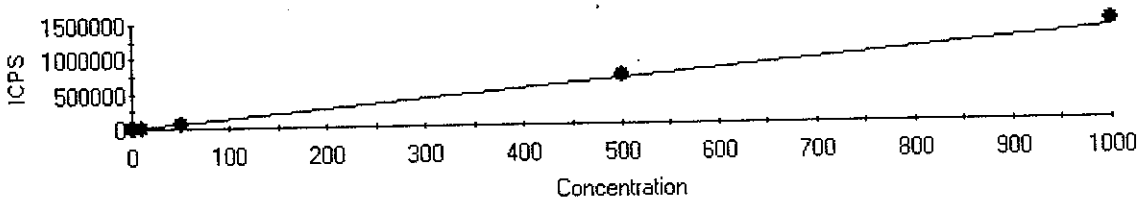
51V FQ Block 1



Intercept CPS=51.541631 Intercept Conc=0.051290
Sensitivity=1004.906541 Correlation Coeff=0.999902

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.006	0.006	57.29	0.00
SEQ-CAL4@S04	5.000	4.830	0.170	4905.50	3.39
SEQ-CAL5@S05	10.000	9.839	0.161	9938.37	1.61
SEQ-CAL6@S06	50.000	48.715	1.285	49005.66	2.57
SEQ-CAL7@S07	500.000	521.914	21.914	524526.54	4.38
SEQ-CAL8@S08	1000.000	1075.755	75.755	1081085.00	7.58

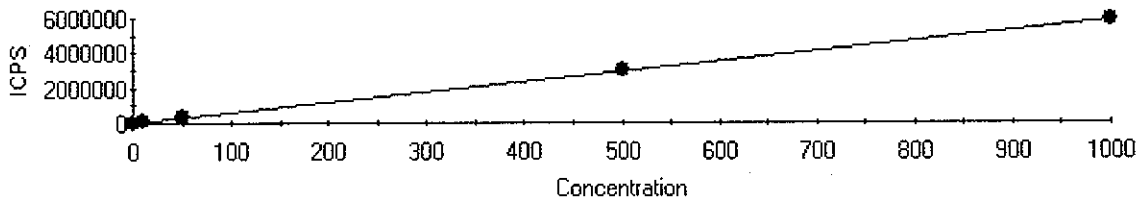
52Cr FQ Block 1



Intercept CPS=570.361660 Intercept Conc=0.432308
Sensitivity=1319.340686 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.030	0.030	610.13	0.00
SEQ-CAL4@S04	2.000	1.904	0.096	3082.48	4.80
SEQ-CAL5@S05	10.000	10.041	0.041	13817.62	0.41
SEQ-CAL6@S06	50.000	49.624	0.376	66041.04	0.75
SEQ-CAL7@S07	500.000	522.876	22.876	690421.36	4.58
SEQ-CAL8@S08	1000.000	1060.607	60.607	1399872.52	6.06

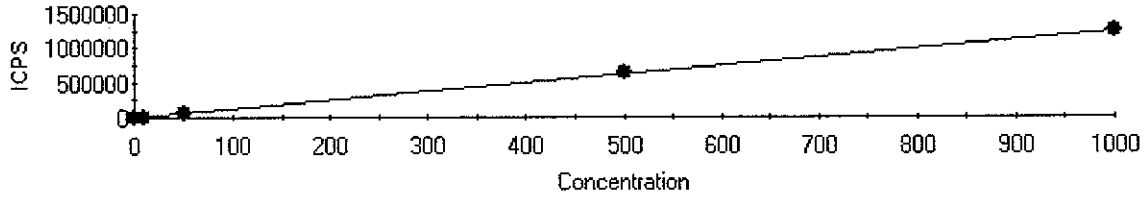
59Co FQ Block 1



Intercept CPS=945.479304 Intercept Conc=0.160633
Sensitivity=5885.956107 Correlation Coeff=0.999946

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.004	0.004	966.85	0.00
SEQ-CAL4@S04	1.000	1.003	0.003	6846.49	0.26
SEQ-CAL5@S05	10.000	9.969	0.031	59620.07	0.31
SEQ-CAL6@S06	50.000	50.123	0.123	295967.59	0.25
SEQ-CAL7@S07	500.000	508.122	8.122	2991729.18	1.62
SEQ-CAL8@S08	1000.000	994.239	5.761	5852992.87	0.58

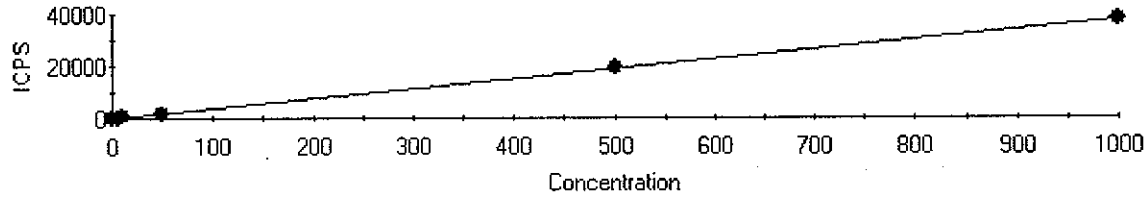
60Ni FQ Block 1



Intercept CPS=305.038218 Intercept Conc=0.243572
Sensitivity=1252.355760 Correlation Coeff=0.999982

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.033	0.033	264.16	0.00
SEQ-CAL4@S04	1.000	1.149	0.149	1743.92	14.89
SEQ-CAL5@S05	10.000	9.971	0.029	12792.14	0.29
SEQ-CAL6@S06	50.000	50.227	0.227	63207.55	0.45
SEQ-CAL7@S07	500.000	501.793	1.793	628728.49	0.36
SEQ-CAL8@S08	1000.000	990.739	9.261	1241062.17	0.93

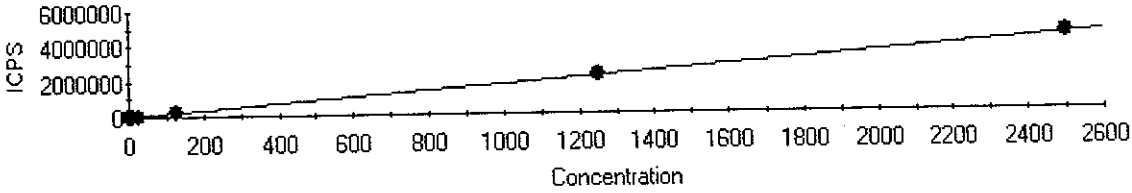
78Se FQ Block 1



Intercept CPS=8.073496 Intercept Conc=0.214763
Sensitivity=37.592619 Correlation Coeff=0.999970

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.002	0.002	8.14	0.00
SEQ-CAL4@S04	5.000	4.993	0.007	195.76	0.15
SEQ-CAL5@S05	10.000	10.563	0.563	405.16	5.63
SEQ-CAL6@S06	50.000	49.179	0.821	1856.85	1.64
SEQ-CAL7@S07	500.000	508.451	8.451	19122.07	1.69
SEQ-CAL8@S08	1000.000	1000.953	0.953	37636.52	0.10

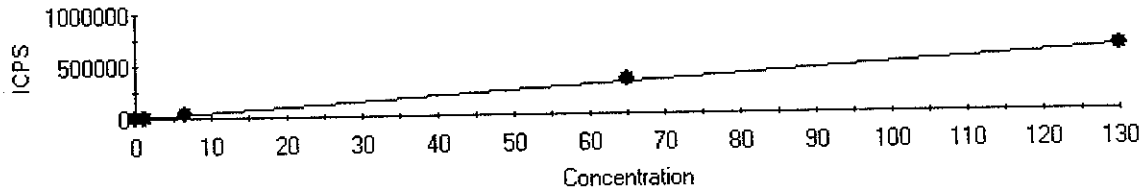
95Mo FQ Block 1



Intercept CPS=549.328665 Intercept Conc=0.318081
Sensitivity=1727.009520 Correlation Coeff=0.999969

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.062	0.062	655.65	0.00
SEQ-CAL2@S02	2.000	1.973	0.027	3956.70	1.35
SEQ-CAL3@S03	4.000	4.041	0.041	7528.37	1.03
SEQ-CAL4@S04	10.000	9.988	0.012	17799.44	0.12
SEQ-CAL5@S05	25.000	24.204	0.796	42350.36	3.18
SEQ-CAL6@S06	125.000	121.064	3.936	209627.78	3.15
SEQ-CAL7@S07	1250.000	1276.621	26.621	2205286.21	2.13
SEQ-CAL8@S08	2500.000	2511.445	11.445	4337838.97	0.46

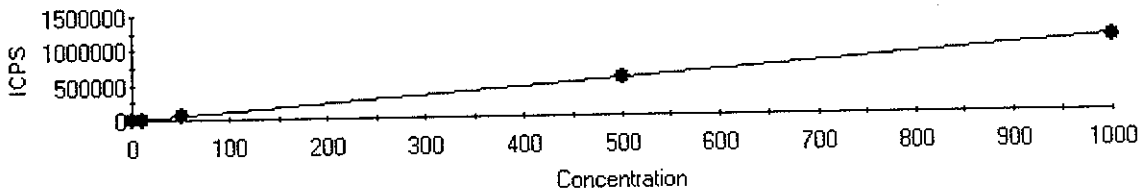
107Ag FQ Block 1



Intercept CPS=140.134127 Intercept Conc=0.029163
Sensitivity=4805.130458 Correlation Coeff=0.999855

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	-0.001	0.001	136.82	0.00
SEQ-CAL4@S04	1.000	0.978	0.022	4838.40	2.22
SEQ-CAL5@S05	1.300	1.332	0.032	6541.32	2.47
SEQ-CAL6@S06	6.500	6.649	0.149	32091.16	2.30
SEQ-CAL7@S07	65.000	66.023	1.023	317387.72	1.57
SEQ-CAL8@S08	130.000	127.409	2.591	612354.76	1.99

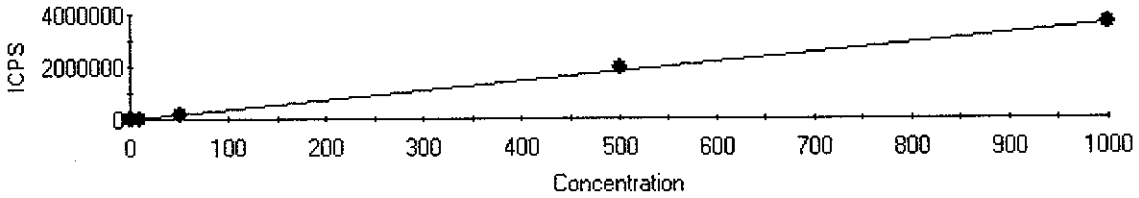
111Cd FQ Block 1



Intercept CPS=137.001284 Intercept Conc=0.123671
Sensitivity=1107.785565 Correlation Coeff=0.999917

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.027	0.027	166.79	0.00
SEQ-CAL4@S04	1.000	0.938	0.062	1175.71	6.24
SEQ-CAL5@S05	10.000	10.155	0.155	11386.63	1.55
SEQ-CAL6@S06	50.000	49.503	0.497	54975.68	0.99
SEQ-CAL7@S07	500.000	500.572	0.572	554663.73	0.11
SEQ-CAL8@S08	1000.000	974.389	25.611	1079551.58	2.56

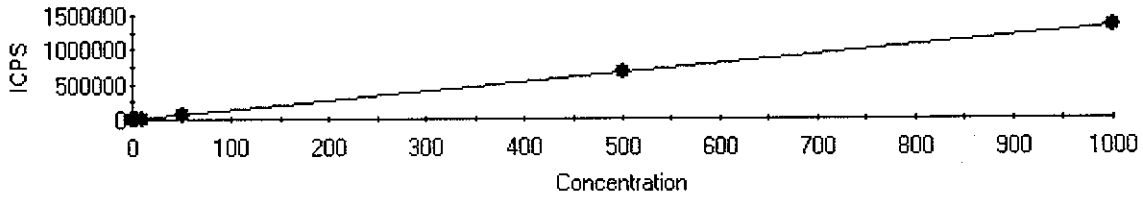
1215b FQ Block 1



Intercept CPS=665.510718 Intercept Conc=0.182762
Sensitivity=3641.407624 Correlation Coeff=0.999792

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.000	0.000	665.65	0.00
SEQ-CAL4@S04	2.000	1.912	0.088	7626.23	4.42
SEQ-CAL5@S05	10.000	9.873	0.127	36615.80	1.27
SEQ-CAL6@S06	50.000	49.527	0.473	181013.60	0.95
SEQ-CAL7@S07	500.000	520.085	20.085	1894507.03	4.02
SEQ-CAL8@S08	1000.000	997.288	2.712	3632196.04	0.27

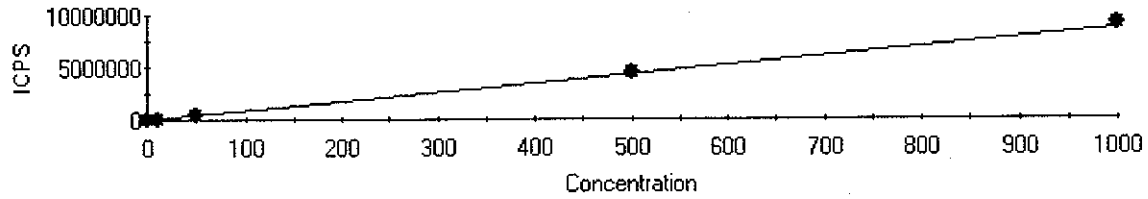
137Ba FQ Block 1



Intercept CPS=250.980612 Intercept Conc=0.188487
Sensitivity=1331.555597 Correlation Coeff=0.999997

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.001	0.001	252.39	0.00
SEQ-CAL3@S03	5.000	4.945	0.055	6836.08	1.09
SEQ-CAL5@S05	10.000	9.980	0.020	13539.60	0.20
SEQ-CAL6@S06	50.000	49.587	0.413	66279.11	0.83
SEQ-CAL7@S07	500.000	504.750	4.750	672354.18	0.95
SEQ-CAL8@S08	1000.000	1004.935	4.935	1338377.63	0.49

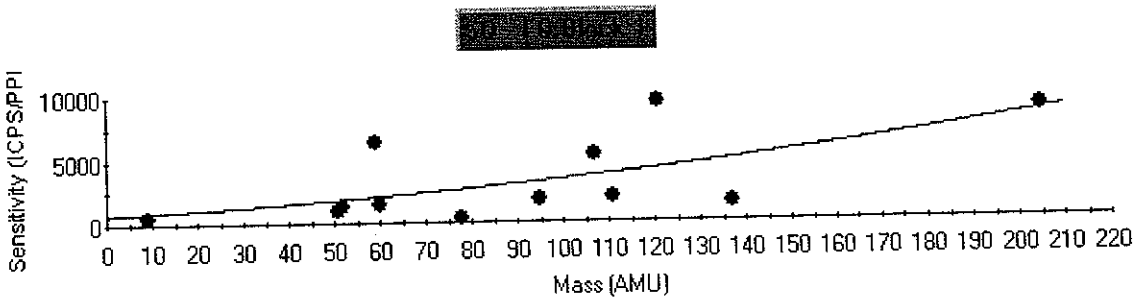
205Tl FQ Block 1



Intercept CPS=1388.836811 Intercept Conc=0.159128
Sensitivity=8727.783597 Correlation Coeff=0.999984

Label	Defined	Measured	Error	Mean CPS	% Error
SEQ-CAL1@S01	0.000	0.003	0.003	1418.07	0.00
SEQ-CAL4@S04	1.000	0.928	0.072	9487.47	7.21
SEQ-CAL5@S05	10.000	9.669	0.331	85780.77	3.31
SEQ-CAL6@S06	50.000	48.921	1.079	428363.46	2.16
SEQ-CAL7@S07	500.000	509.947	9.947	4452100.04	1.99
SEQ-CAL8@S08	1000.000	1031.946	31.946	9007991.42	3.19

Semi Quant Calibration



Coeff 0=706.975228 Coeff 1=16.348376 Coeff 2=0.104244

Symbol	Mass	RSF	Available	Excluded	Sensitivity Measured	Corrected	Calculated	%Error
9Be	9.01	0.7500	1	1	413.13	550.85	862.78	56.6
51V	50.94	0.9900	1	1	1004.91	1017.50	1810.37	77.9
52Cr	51.94	0.9800	1	1	1319.34	1607.29	1837.35	14.3
59Co	58.93	0.9300	1	1	5885.96	6328.99	2032.49	-67.9
60Ni	59.93	0.9100	1	1	1252.36	5260.76	2061.16	-60.8
78Se	77.92	0.1000	1	1	37.59	1592.23	2613.67	64.2
95Mo	94.91	0.9800	1	1	1727.01	11923.24	3197.47	-73.2
107Ag	106.91	0.9300	1	1	4805.13	10061.94	3646.07	-63.8
111Cd	110.90	0.5660	1	1	1107.79	15219.43	3802.25	-75.0
121Sb	120.90	0.3900	1	1	3641.41	16309.07	4207.36	-74.2
137Ba	136.91	0.9100	1	1	1331.56	12926.22	4899.02	-62.1
205Tl	204.97	1.0000	1	1	8727.78	12379.83	8437.58	-31.8

Dilution Corrected Concentrations

SEQ-CAL1@S01 10/28/2016 15:58:01

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:01	98.9%	-0.0167	96.1%	0.0228	-0.0117	0.0443	-1.4730	0.0130	0.0053	0.0039	0.0190	-0.0047	-0.1312	0.0000	0.0029	0.0846	-0.0019	0.0006	0.0138
2	15:58:15	100.8%	0.0109	101.6%	-0.0150	0.0148	0.0262	3.8420	0.0097	-0.0703	-0.0085	0.0225	-0.0567	1.1590	0.0000	0.0122	0.0829	-0.0179	-0.0094	-0.0002
3	15:58:28	100.3%	0.0408	102.3%	-0.0078	0.0141	0.0199	-2.3680	-0.0118	-0.0329	0.0046	-0.0360	0.0614	-1.0280	0.0000	-0.0151	0.0172	0.0198	0.0088	-0.0136
x		100.0%	0.0116	100.0%	0.0000	0.0057	0.0301	-0.0000	0.0036	-0.0326	0.0000	0.0018	-0.0000	0.0000	0.0000	-0.0000	0.0616	0.0000	0.0000	-0.0000
σ		1.0%	0.0288	3.4%	0.0201	0.0151	0.0127	3.3570	0.0135	0.0378	0.0074	0.0329	0.0592	1.0990	0.0000	0.0139	0.0384	0.0189	0.0091	0.0137
%RSD		1.0	246.9000	3.4	0.0000	264.0000	42.0600	0.0000	370.5000	115.9000	0.0000	1778.0000	0.0000	0.0000	0.0000	0.0000	62.3800	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:01	101.1%	-0.0077	-0.0004	-0.0046	0.0413	0.0000	-0.0165	0.0011	0.0031	96.8%	98.6%	0.0078	0.0000
2	15:58:15	99.6%	-0.0019	0.0032	0.0016	0.0344	0.0000	0.0084	-0.0008	0.0110	100.1%	99.5%	-0.0002	0.0000
3	15:58:28	99.2%	0.0097	-0.0048	0.0030	0.0050	0.0000	0.0080	-0.0002	-0.0109	103.0%	101.9%	0.0024	0.0000
x		100.0%	-0.0000	-0.0007	0.0000	0.0269	0.0000	-0.0000	0.0009	0.0011	100.0%	100.0%	0.0033	0.0000
σ		1.0%	0.0089	0.0040	0.0040	0.0193	0.0000	0.0143	0.0009	0.0111	3.1%	1.7%	0.0041	0.0000
%RSD		1.0	0.0000	582.2000	0.0000	71.5700	0.0000	0.0000	2446.0000	1042.0000	3.1	1.7	122.3000	0.0000

SEQ-CAL2@S02 10/28/2016 16:02:09

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:22	100.4%	0.1889	100.8%	-0.0261	0.9327	0.4275	16.0900	0.1948	0.1793	-0.0218	1.0840	0.1065	0.1864	0.0000	0.6800	2.0800	1.0910	0.6290	1.6770
2	16:02:36	102.1%	0.1967	104.5%	-0.0269	1.0910	0.3953	4.3600	0.1648	0.2254	0.0295	1.1610	0.1971	-1.9040	0.0000	0.5947	2.0030	1.1350	0.7009	1.6100
3	16:02:49	100.9%	0.1296	103.9%	-0.0340	1.0100	0.4259	5.9850	0.1996	0.1176	0.0164	1.1530	0.0569	0.2383	0.0000	0.6679	1.8360	1.1820	0.6726	1.6780
x		101.1%	0.1718	103.1%	-0.0290	1.0110	0.4162	8.8110	0.1864	0.1741	0.0080	1.1320	0.1202	-0.4932	0.0000	0.6475	1.9730	1.1360	0.6675	1.6550
σ		0.9%	0.0367	2.0%	0.0044	0.0792	0.0182	6.3540	0.0189	0.0541	0.0267	0.0425	0.0711	1.2220	0.0000	0.0462	0.1248	0.0456	0.0362	0.0390
%RSD		0.9	21.3700	1.9	15.1100	7.8300	4.3650	72.1100	10.1300	31.0900	331.7000	3.7490	59.1500	247.8000	0.0000	7.1310	6.3240	4.0130	5.4240	2.3540

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:22	102.4%	-0.0131	0.1892	0.0032	0.2496	0.0000	-0.0123	0.3904	2.1100	100.1%	102.0%	0.1606	0.0000
2	16:02:36	101.0%	-0.0007	0.1901	0.0059	0.1438	0.0000	-0.0174	0.3428	2.0070	103.7%	104.3%	0.1720	0.0000
3	16:02:49	101.6%	-0.0085	0.2221	0.0028	0.1755	0.0000	-0.0208	0.3586	2.0650	104.3%	104.7%	0.1864	0.0000
x		101.7%	-0.0074	0.2005	0.0040	0.1896	0.0000	-0.0168	0.3639	2.0610	102.7%	103.7%	0.1730	0.0000
σ		0.7%	0.0063	0.0187	0.0017	0.0543	0.0000	0.0043	0.0243	0.0517	2.3%	1.4%	0.0129	0.0000
%RSD		0.7	84.1200	9.3380	41.8400	28.6200	0.0000	25.4200	6.6620	2.5070	2.2	1.4	7.4520	0.0000

SEQ-CAL3@S03 10/28/2016 16:06:25

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:25	98.0%	0.4744	96.7%	0.0017	2.4240	1.0140	16.5600	0.5065	0.6685	0.1319	2.6850	0.1763	0.8719	0.0000	1.3310	3.9160	2.3580	1.4000	3.3350
2	16:06:39	100.9%	0.5282	100.4%	-0.0277	2.5960	1.0300	7.6470	0.4709	0.5037	0.0562	2.6590	0.1874	1.3510	0.0000	1.3790	3.9730	2.3180	1.2950	3.5020
3	16:06:52	101.5%	0.5040	102.6%	-0.0197	2.7020	1.0350	-3.5810	0.4914	0.5023	0.1334	2.7410	0.2472	0.3335	0.0000	1.2900	4.2350	2.3490	1.4110	3.6010
x		100.2%	0.5022	99.9%	-0.0152	2.5740	1.0260	6.8760	0.4896	0.5582	0.1072	2.6950	0.2036	0.8522	0.0000	1.3340	4.0410	2.3420	1.3690	3.4790
σ		1.9%	0.0269	3.0%	0.0152	0.1400	0.0109	10.0900	0.0179	0.0956	0.0442	0.0417	0.0381	0.5091	0.0000	0.0447	0.1700	0.0210	0.0637	0.1346
%RSD		1.9	5.3640	3.0	99.7200	5.4410	1.0650	146.8000	3.6480	17.1200	41.2100	1.5450	18.7300	59.7400	0.0000	3.3520	4.2070	0.8951	4.6550	3.8680

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:25	100.9%	0.0252	0.5043	0.0101	0.4810	0.0000	0.0022	0.9311	4.8600	98.3%	98.7%	0.4484	0.0000
2	16:06:39	99.8%	0.0128	0.5135	0.0127	0.5016	0.0000	0.0017	0.8850	5.0330	100.8%	100.9%	0.4424	0.0000
3	16:06:52	100.0%	0.0134	0.5257	0.0062	0.6444	0.0000	-0.0032	0.9653	4.9430	101.4%	101.6%	0.4739	0.0000
x		100.2%	0.0171	0.5145	0.0097	0.5424	0.0000	0.0002	0.9271	4.9450	100.1%	100.4%	0.4549	0.0000
σ		0.6%	0.0070	0.0107	0.0033	0.0890	0.0000	0.0030	0.0403	0.0863	1.6%	1.6%	0.0167	0.0000
%RSD		0.6	40.8000	2.0830	33.9400	16.4100	0.0000	1243.0000	4.3430	1.7460	1.6	1.5	3.6720	0.0000

SEQ-CAL4@S04 10/28/2016 16:10:27

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:27	97.9%	1.0150	96.8%	-0.0229	4.7740	1.9290	40.2700	0.9596	1.2380	0.1844	5.0890	0.1638	1.3120	0.0000	3.1640	9.8500	5.7080	3.3880	8.5780
2	16:10:40	100.7%	0.9477	100.3%	-0.0336	4.9510	1.8990	27.4000	1.0400	1.1300	0.0937	5.0060	0.5108	-1.3010	0.0000	3.1420	10.0800	5.8670	3.4850	8.5450
3	16:10:53	99.7%	0.9130	101.2%	-0.0205	4.7660	1.8840	41.0500	1.0080	1.0780	0.2313	4.8820	0.1562	2.5600	0.0000	3.2990	10.0400	5.7770	3.4650	8.5610
x		99.4%	0.9586	99.4%	-0.0257	4.8300	1.9040	36.2400	1.0030	1.1490	0.1698	4.9930	0.2769	0.8569	0.0000	3.2020	9.9880	5.7840	3.4460	8.5610
σ		1.4%	0.0520	2.3%	0.0069	0.1044	0.0226	7.6680	0.0403	0.0816	0.0699	0.1041	0.2026	1.9700	0.0000	0.0851	0.1210	0.0793	0.0509	0.0165
%RSD		1.4	5.4220	2.3	26.9800	2.1610	1.1880	21.1600	4.0240	7.1010	41.1900	2.0850	73.1500	229.9000	0.0000	2.6590	1.2120	1.3720	1.4780	0.1923

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:10:27	100.3%	0.0284	0.9736	0.0297	0.9173	0.0000	-0.0074	1.9640	9.7970	98.3%	97.9%	0.9344	0.0000
2	16:10:40	100.8%	0.0387	1.0150	0.0397	0.9700	0.0000	-0.0187	1.9080	9.5900	100.9%	101.6%	0.9025	0.0000
3	16:10:53	102.1%	0.0257	0.9449	0.0498	0.9257	0.0000	-0.0251	1.8630	10.0500	103.7%	103.3%	0.9468	0.0000
x		101.0%	0.0310	0.9778	0.0398	0.9376	0.0000	-0.0171	1.9120	9.8110	101.0%	100.9%	0.9279	0.0000
σ		0.9%	0.0069	0.0352	0.0100	0.0284	0.0000	0.0089	0.0505	0.2284	2.7%	2.8%	0.0229	0.0000
%RSD		0.9	22.1300	3.5970	25.2000	3.0250	0.0000	52.3400	2.6400	2.3280	2.6	2.8	2.4620	0.0000

SEQ-CAL5@S05 10/28/2016 16:14:28

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:28	97.5%	10.4100	96.9%	5.4630	10.0700	10.2600	97.5300	9.9710	10.0300	0.3333	11.2100	0.8750	-0.1700	0.0000	7.8740	24.0400	14.3500	8.2570	21.3100
2	16:14:41	100.6%	9.9130	100.9%	5.4060	9.6890	9.8900	78.9400	9.9310	9.7620	0.3213	9.7600	0.6548	0.6275	0.0000	7.8080	24.2600	14.3400	8.6750	21.2400
3	16:14:55	100.5%	9.7880	103.9%	5.3310	9.7610	9.9740	87.8100	10.0000	10.1200	0.4624	10.7200	0.6677	0.6447	0.0000	7.6600	24.3200	14.0800	8.2870	20.9400
x		99.5%	10.0400	100.6%	5.4000	9.8390	10.0400	88.0900	9.9690	9.9710	0.3724	10.5600	0.7325	0.3674	0.0000	7.7810	24.2000	14.2600	8.4070	21.1600
σ		1.8%	0.3276	3.5%	0.0663	0.2002	0.1925	9.3010	0.0370	0.1877	0.0782	0.7371	0.1236	0.4655	0.0000	0.1093	0.1493	0.1533	0.2332	0.1992
%RSD		1.8	3.2650	3.5	1.2270	2.0350	1.9160	10.5600	0.3706	1.8820	21.0000	6.9780	16.8700	126.7000	0.0000	1.4050	0.6170	1.0750	2.7740	0.9414

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:28	98.3%	0.5189	1.3260	0.3520	10.0900	0.0000	9.1740	9.7660	10.0200	97.6%	97.5%	9.7220	0.0000
2	16:14:41	101.6%	0.4503	1.3760	0.3999	10.0600	0.0000	9.3620	10.0100	10.1400	100.6%	100.5%	9.5520	0.0000
3	16:14:55	101.4%	0.5260	1.2940	0.3599	10.3200	0.0000	9.1870	9.8440	9.7770	103.9%	102.8%	9.7340	0.0000
x		100.4%	0.4984	1.3320	0.3706	10.1600	0.0000	9.2410	9.8730	9.9800	100.7%	100.3%	9.6690	0.0000
σ		1.8%	0.0418	0.0417	0.0257	0.1409	0.0000	0.1050	0.1234	0.1855	3.2%	2.6%	0.1018	0.0000
%RSD		1.8	8.3860	3.1270	6.9420	1.3870	0.0000	1.1360	1.2500	1.8590	3.1	2.6	1.0530	0.0000

SEQ-CAL6@S06 10/28/2016 16:18:29

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:29	99.8%	51.9700	97.2%	27.5700	48.3200	49.7700	400.1000	49.9300	50.3400	2.1480	49.5900	3.5500	0.9337	0.0000	38.7100	120.2000	70.3200	41.4100	104.6000
2	16:18:42	100.5%	49.9200	100.4%	27.6500	48.6100	49.1500	289.1000	49.8900	49.7600	2.3630	49.4500	3.1320	1.5580	0.0000	39.1500	121.6000	71.2300	41.6800	106.8000
3	16:18:55	101.5%	51.1200	102.3%	27.4800	49.2100	49.9600	346.9000	50.5500	50.5900	2.1800	48.4900	2.9260	-1.1350	0.0000	39.3300	121.5000	72.3800	42.5200	107.2000
x		100.6%	51.0100	100.0%	27.5700	48.7200	49.6200	345.4000	50.1200	50.2300	2.2300	49.1800	3.2030	0.4521	0.0000	39.0600	121.1000	71.3100	41.8700	106.2000
σ		0.9%	1.0310	2.6%	0.0893	0.4550	0.4233	55.5600	0.3729	0.4266	0.1158	0.6008	0.3178	1.4100	0.0000	0.3167	0.7926	1.0310	0.5766	1.3850
%RSD		0.9	2.0200	2.6	0.3240	0.9341	0.8529	16.0900	0.7439	0.8493	5.1910	1.2220	9.9230	311.8000	0.0000	0.8107	0.6547	1.4450	1.3770	1.3040

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:29	100.0%	2.4600	6.5880	1.7440	49.2400	0.0000	45.6500	48.6900	48.8100	98.5%	98.5%	48.8900	0.0000
2	16:18:42	102.4%	2.3750	6.6510	1.7660	49.3200	0.0000	46.1800	49.3400	49.9200	101.4%	101.9%	48.7600	0.0000
3	16:18:55	101.5%	2.5470	6.7100	1.9030	49.9400	0.0000	46.7400	50.5500	50.0200	103.7%	105.1%	49.1200	0.0000
x		101.3%	2.4610	6.6490	1.8040	49.5000	0.0000	46.1900	49.5300	49.5900	101.2%	101.8%	48.9200	0.0000
σ		1.2%	0.0863	0.0609	0.0864	0.3806	0.0000	0.5444	0.9463	0.6710	2.6%	3.3%	0.1316	0.0000
%RSD		1.2	3.5060	0.9162	4.7890	0.7688	0.0000	1.1790	1.9110	1.3530	2.6	3.2	0.3712	0.0000

SEQ-CAL7@S07 10/28/2016 16:22:29

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:29	97.5%	504.6000	96.5%	275.7000	528.2000	528.3000	2891.0000	r511.7000	505.2000	22.5400	515.6000	32.3100	0.1082	0.0000	409.2000	1281.0000	765.6000	437.4000	r1136.0000
2	16:22:42	98.4%	494.4000	101.0%	275.8000	521.7000	523.9000	2991.0000	r504.5000	498.3000	22.9300	506.4000	33.2700	1.2910	0.0000	401.5000	1272.0000	752.3000	437.0000	r1125.0000
3	16:22:55	99.2%	495.6000	102.4%	278.3000	515.8000	516.4000	3082.0000	r508.2000	501.8000	23.2200	503.4000	32.5700	0.9586	0.0000	407.3000	1278.0000	760.1000	435.2000	r1125.0000
x		98.3%	498.2000	99.9%	276.6000	521.9000	522.9000	2988.0000	r508.1000	501.8000	22.9000	508.5000	32.7200	0.7861	0.0000	406.0000	1277.0000	759.3000	436.6000	r1129.0000
σ		0.8%	5.5750	3.1%	1.4630	6.1970	6.0600	95.1200	r3.6050	3.4520	0.3432	6.3510	0.4950	0.6102	0.0000	4.0460	4.6040	6.7110	1.1650	r6.1480
%RSD		0.8	1.1190	3.1	0.5290	1.1870	1.1590	3.1830	r0.7094	0.6879	1.4990	1.2490	1.5130	77.6300	0.0000	0.9965	0.3606	0.8838	0.2669	r0.5446

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:29	93.7%	24.1500	66.3200	17.8200	501.5000	0.0000	487.5000	516.2000	500.1000	98.1%	99.5%	r510.7000	0.0000
2	16:22:42	95.0%	23.7600	65.6300	17.6900	500.5000	0.0000	486.4000	515.9000	502.2000	102.8%	103.0%	r507.7000	0.0000
3	16:22:55	96.7%	24.0400	66.1200	17.6100	499.7000	0.0000	494.3000	528.2000	511.9000	105.1%	105.8%	r511.9000	0.0000
x		95.1%	23.9800	66.0200	17.7100	500.6000	0.0000	489.4000	520.1000	504.8000	102.0%	102.8%	r509.9000	0.0000
σ		1.5%	0.2052	0.3581	0.1060	0.8992	0.0000	4.2510	7.0570	6.2650	3.6%	3.1%	r2.0800	0.0000
%RSD		1.6	0.8556	0.5425	0.5984	0.1796	0.0000	0.8685	1.3570	1.2410	3.5	3.1	r0.4079	0.0000

SEQ-CAL8@S08 10/28/2016 16:26:27

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:27	93.2%	u1003.0000	93.9%	541.5000	u1100.0000	u1083.0000	4946.0000	r987.2000	981.8000	44.8500	u1025.0000	64.1500	2.1700	0.0000	822.4000	TM2529.0000	r1498.0000	879.3000	r2218.0000
2	16:26:41	95.5%	u1005.0000	96.2%	545.9000	u1073.0000	u1054.0000	4616.0000	r994.9000	994.6000	44.7800	995.2000	62.6300	1.8790	0.0000	828.4000	TM2509.0000	r1504.0000	r886.2000	r2226.0000
3	16:26:54	96.2%	990.0000	98.3%	556.8000	u1054.0000	u1045.0000	4648.0000	TM1001.0000	995.9000	44.1500	982.6000	62.0700	3.2420	0.0000	r830.4000	r2497.0000	r1509.0000	r889.1000	r2243.0000
x		95.0%	u999.6000	96.1%	548.1000	u1076.0000	u1061.0000	4736.0000	TM994.2000	990.7000	44.5900	u1001.0000	62.9500	2.4300	0.0000	r827.1000	TM2511.0000	r1504.0000	r884.9000	r2229.0000
σ		1.6%	u8.3700	2.2%	7.8600	u23.0100	u19.6400	181.8000	TM6.7040	7.8100	0.3862	u21.7700	1.0770	0.7182	0.0000	r3.1380	TM16.0800	r5.0300	r5.0000	r12.4700
%RSD		1.6	u0.8374	2.3	1.4340	u2.1390	u1.8510	3.8380	TM0.6743	0.7883	0.8660	u2.1750	1.7110	29.5500	0.0000	r0.5003	TM0.6402	r0.3345	r0.5650	r0.5596

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:27	89.6%	45.2700	127.1000	34.5300	966.0000	0.0000	r931.4000	r982.3000	990.1000	97.0%	97.4%	TM1034.0000	0.0000
2	16:26:41	93.0%	46.5700	127.0000	34.1600	969.2000	0.0000	r936.4000	r992.6000	TM1009.0000	100.8%	101.6%	TM1025.0000	0.0000
3	16:26:54	94.4%	46.1900	128.2000	34.7900	987.9000	0.0000	r948.9000	TM1010.0000	TM1016.0000	104.2%	104.1%	TM1036.0000	0.0000
x		92.3%	46.0100	127.4000	34.4900	974.4000	0.0000	r938.9000	TM997.3000	TM1005.0000	100.7%	101.1%	TM1032.0000	0.0000
σ		2.5%	0.6689	0.6547	0.3130	11.8300	0.0000	r9.0300	TM11.0800	TM13.3200	3.6%	3.4%	TM5.8200	0.0000
%RSD		2.7	1.4540	0.5139	0.9073	1.2140	0.0000	r0.9618	TM1.1110	TM1.3250	3.6	3.3	TM0.5640	0.0000

SEQ-ICV@ICV01 10/28/2016 16:36:14 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:27	98.2%	94.8700	104.2%	0.1230	94.7000	94.3900	593.0000	98.3400	98.2700	8.6570	194.5000	11.6400	0.2697	0.0000	3.3360	10.2600	6.2770	3.6110	8.9460
2	16:36:40	99.2%	94.1700	105.4%	0.0568	93.4900	93.3800	524.0000	98.4700	98.0700	8.3890	193.4000	12.1100	0.7432	0.0000	3.4380	10.4500	6.1270	3.5700	9.2000
3	16:36:54	98.6%	94.0500	106.0%	0.0578	94.9000	94.5500	495.3000	99.1500	99.1500	8.4010	192.6000	12.7100	-0.1695	0.0000	3.4100	10.2600	6.0820	3.5560	8.9160
x		98.7%	95.317%	105.2%	0.0792	94.363%	96.023%	537.4000	99.650%	100.505%	8.4820	96.271%	12.1500	0.2811	0.0000	3.3950	10.3200	6.1620	3.5790	9.0200
σ		0.5%	n/a	0.9%	0.0379	n/a	n/a	50.2600	n/a	n/a	0.1515	n/a	0.5366	0.4564	0.0000	0.0526	0.1094	0.1026	0.0281	0.1559
%RSD		0.5	0.4651	0.8	47.8600	0.8108	0.6737	9.3510	0.4392	0.5811	1.7860	0.4952	4.4150	162.4000	0.0000	1.5500	1.0590	1.6650	0.7862	1.7280

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:27	101.0%	4.6190	99.1800	3.4880	96.6200	0.0000	0.1902	191.1000	97.8500	106.0%	105.0%	206.5000	0.0000
2	16:36:40	102.9%	4.7200	100.1000	3.4920	97.3000	0.0000	0.1413	194.4000	99.5900	106.1%	107.2%	206.6000	0.0000
3	16:36:54	101.8%	4.8070	99.1500	3.4980	97.0400	0.0000	0.1269	195.0000	100.0000	107.8%	107.9%	207.0000	0.0000
x		101.9%	4.7150	100.494%	3.4920	97.964%	0.0000	0.1528	97.739%	99.152%	106.6%	106.7%	100.831%	0.0000
σ		0.9%	0.0941	n/a	0.0051	n/a	0.0000	0.0331	n/a	n/a	1.0%	1.5%	n/a	0.0000
%RSD		0.9	1.9950	0.5619	0.1466	0.3520	0.0000	21.6900	1.0850	1.1570	0.9	1.4	0.1366	0.0000

SEQ-ICB@ICB01 10/28/2016 16:40:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:29	97.2%	0.0199	98.1%	0.0425	0.1299	0.1252	-3.8450	0.0989	0.0682	-0.0088	0.0203	0.0308	0.6942	0.0000	0.0912	0.3582	0.1958	0.0920	0.2506
2	16:40:42	100.0%	0.0393	102.8%	0.0167	0.0129	0.0989	10.0300	0.0822	0.0444	-0.0091	0.2490	0.0686	-0.7661	0.0000	0.0738	0.3108	0.1373	0.1114	0.2601
3	16:40:55	98.7%	0.0112	104.6%	0.0108	0.0156	0.0913	8.4020	0.0712	0.0244	0.0295	0.2829	0.0429	-0.1207	0.0000	0.0826	0.3584	0.1478	0.1031	0.2583
x		98.7%	0.0235	101.8%	0.0233	0.0528	0.1051	4.8620	0.0841	0.0456	0.0039	0.1841	0.0474	-0.0642	0.0000	0.0825	0.3425	0.1603	0.1022	0.2563
σ		1.4%	0.0144	3.4%	0.0168	0.0668	0.0178	7.5840	0.0140	0.0219	0.0222	0.1429	0.0193	0.7318	0.0000	0.0087	0.0274	0.0312	0.0097	0.0050
%RSD		1.4	61.2700	3.3	72.1500	126.4000	16.9500	156.0000	16.6000	47.9900	570.0000	77.6200	40.7400	1139.0000	0.0000	10.5200	8.0100	19.4700	9.5140	1.9570

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:29	100.6%	0.0045	0.0596	-0.0063	0.1601	0.0000	0.0676	0.5159	0.1567	98.8%	99.4%	0.1558	0.0000
2	16:40:42	102.0%	0.0198	0.0327	0.0015	0.0885	0.0000	0.0836	0.6043	0.1319	101.3%	100.6%	0.1740	0.0000
3	16:40:55	101.0%	0.0061	0.0219	0.0045	0.1471	0.0000	0.0795	0.5953	0.0872	102.1%	102.4%	0.1630	0.0000
x		101.2%	0.0101	0.0381	-0.0001	0.1319	0.0000	0.0769	0.5718	0.1253	100.7%	100.8%	0.1643	0.0000
σ		0.7%	0.0084	0.0194	0.0056	0.0381	0.0000	0.0083	0.0486	0.0352	1.8%	1.5%	0.0091	0.0000
%RSD		0.7	83.1500	50.9900	5391.0000	28.9100	0.0000	10.8300	8.5020	28.1300	1.8	1.5	5.5570	0.0000

SEQ-IFA@ICSA01 10/28/2016 16:44:30 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:30	87.5%	0.3642	91.6%	450.1000	-0.2623	21.2500	68.9100	1.2890	5.9900	-0.0344	0.1123	-0.1983	3.7220	0.0000	653.8000	±2091.0000	±1225.0000	705.6000	±1830.0000
2	16:44:43	89.2%	0.3112	94.6%	458.6000	-0.0699	20.9600	34.6500	1.3390	5.5820	-0.0188	0.0362	-0.4932	9.6530	0.0000	655.4000	±2069.0000	±1230.0000	711.3000	±1819.0000
3	16:44:57	89.2%	0.3953	97.3%	458.8000	-0.6011	20.9900	132.4000	1.3350	5.7440	-0.0344	0.0707	-0.2331	3.5490	0.0000	666.8000	±2100.0000	±1240.0000	718.6000	±1835.0000
x		88.6%	1.#IO%	94.5%	455.9000	-62.216%	100.301%	78.6600	132.127%	96.203%	-0.0292	24.350%	-0.3082	5.6410	0.0000	658.7000	±2087.0000	±1232.0000	711.8000	±1828.0000
σ		1.0%	n/a	2.8%	4.9480	n/a	n/a	49.6100	n/a	n/a	0.0090	n/a	0.1612	3.4750	0.0000	7.0880	±15.7800	±7.4840	6.4920	±7.8110
%RSD		1.1	11.9100	3.0	1.0860	86.4500	0.7520	63.0700	2.0930	3.5610	30.9600	52.1900	52.2800	61.6000	0.0000	1.0760	±0.7564	±0.6075	0.9121	±0.4273

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:30	81.3%	0.0034	0.0068	0.6149	0.1651	0.0000	0.1660	1.2780	2.0240	93.5%	93.5%	0.0827	0.0000
2	16:44:43	82.5%	-0.0059	0.0098	0.5981	0.2110	0.0000	0.1589	1.2650	1.8930	97.7%	97.1%	0.0922	0.0000
3	16:44:57	82.8%	0.0010	0.0166	0.5737	0.1254	0.0000	0.1460	1.2840	1.9750	99.8%	100.5%	0.0869	0.0000
x		82.2%	-0.0005	1.#IO%	0.5956	23.880%	0.0000	0.1570	85.045%	163.680%	97.0%	97.0%	1.#IO%	0.0000
σ		0.8%	0.0048	n/a	0.0207	n/a	0.0000	0.0102	n/a	n/a	3.2%	3.5%	n/a	0.0000
%RSD		0.9	976.7000	45.3800	3.4760	25.6100	0.0000	6.4720	0.7477	3.3710	3.3	3.6	5.4400	0.0000

SEQ-IFB@ICSAB01 10/28/2016 16:48:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:29	88.2%	18.4700	96.6%	448.0000	20.8500	42.5700	282.5000	20.2500	24.1700	0.7043	17.9500	0.6558	9.2210	0.0000	648.6000	±2089.0000	±1222.0000	706.2000	±1811.0000
2	16:48:42	90.6%	18.8500	100.1%	450.2000	20.7400	41.9400	271.3000	20.3900	24.4100	0.8234	18.2300	0.8024	6.2300	0.0000	662.9000	±2104.0000	±1230.0000	705.5000	±1809.0000
3	16:48:55	90.3%	18.4900	102.6%	456.1000	20.8400	42.4200	306.8000	20.2000	24.5700	0.7675	17.8600	0.9200	4.8800	0.0000	663.5000	±2097.0000	±1227.0000	714.6000	±1827.0000
x		89.7%	97.930%	99.8%	451.4000	109.511%	105.767%	286.9000	101.399%	101.602%	0.7651	94.802%	0.7927	6.7770	0.0000	658.3000	±2097.0000	±1226.0000	708.8000	±1816.0000
σ		1.3%	n/a	3.0%	4.1610	n/a	n/a	18.1100	n/a	n/a	0.0596	n/a	0.1323	2.2220	0.0000	8.4380	±7.5700	±3.9780	5.0660	±10.1300
%RSD		1.5	1.1450	3.0	0.9217	0.2961	0.7765	6.3150	0.4964	0.8184	7.7900	1.0630	16.6900	32.7800	0.0000	1.2820	±0.3610	±0.3243	0.7148	±0.5580

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:29	82.2%	0.8364	18.0700	1.2770	18.2300	0.0000	0.1952	20.3700	22.0900	96.4%	97.2%	18.8400	0.0000
2	16:48:42	84.3%	0.8891	17.8600	1.2900	18.3700	0.0000	0.1548	20.4100	21.7800	100.4%	100.3%	19.0200	0.0000
3	16:48:55	83.7%	0.9655	18.4000	1.2580	18.3400	0.0000	0.1909	20.4900	22.4000	102.5%	103.7%	19.0400	0.0000
x		83.4%	0.8970	100.620%	1.2750	91.570%	0.0000	0.1803	92.841%	100.408%	99.7%	100.4%	90.315%	0.0000
σ		1.1%	0.0649	n/a	0.0159	n/a	0.0000	0.0222	n/a	n/a	3.1%	3.2%	n/a	0.0000
%RSD		1.3	7.2350	1.4920	1.2440	0.3844	0.0000	12.3000	0.3044	1.4010	3.1	3.2	0.5853	0.0000

SEQ-CCV@CCV01 10/28/2016 17:01:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:41	93.3%	491.8000	99.8%	0.2201	480.8000	486.6000	2975.0000	±520.3000	511.0000	22.0800	497.0000	30.9800	0.0721	0.0000	379.2000	1184.0000	704.5000	409.5000	±1068.0000
2	17:01:54	93.7%	500.3000	99.7%	0.1687	485.4000	495.4000	2823.0000	±518.1000	514.0000	23.1200	498.0000	32.1000	1.3930	0.0000	381.7000	1179.0000	715.3000	413.7000	±1076.0000
3	17:02:08	92.5%	504.2000	99.4%	0.1577	482.0000	487.7000	2929.0000	±521.9000	514.8000	22.5800	501.8000	32.0800	0.4523	0.0000	384.8000	1168.0000	±722.1000	413.1000	±1076.0000
x		93.2%	99.752%	99.6%	0.1822	96.550%	97.983%	2909.0000	±104.016%	102.654%	22.5900	99.790%	31.7200	0.6392	0.0000	381.9000	1177.0000	±714.0000	412.1000	±1073.0000
σ		0.6%	n/a	0.2%	0.0334	n/a	n/a	78.0900	±n/a	n/a	0.5191	n/a	0.6400	0.6801	0.0000	2.7990	8.1260	±8.8850	2.2880	±4.4670
%RSD		0.7	1.2760	0.2	18.3100	0.4893	0.9829	2.6840	±0.3685	0.3942	2.2980	0.5106	2.0170	106.4000	0.0000	0.7331	0.6903	±1.2440	0.5551	±0.4162

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:41	97.7%	24.5000	65.9300	18.3500	505.2000	0.0000	0.2725	518.7000	505.8000	103.3%	104.5%	±515.1000	0.0000
2	17:01:54	96.4%	24.3800	66.8400	18.1700	510.9000	0.0000	0.2213	531.4000	509.6000	104.7%	106.1%	±514.9000	0.0000
3	17:02:08	98.1%	24.7100	66.7000	18.5600	513.7000	0.0000	0.2169	524.0000	509.1000	107.0%	107.8%	±509.8000	0.0000
x		97.4%	24.5300	102.297%	18.3600	101.983%	0.0000	0.2369	104.941%	101.636%	105.0%	106.1%	±102.654%	0.0000
σ		0.9%	0.1678	n/a	0.1925	n/a	0.0000	0.0309	n/a	n/a	1.9%	1.7%	±n/a	0.0000
%RSD		0.9	0.6839	0.7357	1.0490	0.8514	0.0000	13.0400	1.2090	0.4006	1.8	1.6	±0.5865	0.0000

SEQ-CCB@CCB1 10/28/2016 17:05:46 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:17	91.5%	0.1028	95.6%	0.0028	0.1617	0.1734	-2.1610	0.0698	0.0305	0.0448	0.2689	-0.0389	1.2920	0.0000	0.4577	1.3920	0.8103	0.4587	1.0760
2	17:06:30	91.1%	0.0578	96.5%	0.0244	0.0840	0.1695	2.8530	0.0548	0.0690	-0.0080	0.3291	0.1069	-1.3670	0.0000	0.4471	1.3490	0.7490	0.4417	1.1360
3	17:06:43	91.7%	0.0725	97.1%	0.0337	0.1442	0.2053	-1.5720	0.0760	0.0452	-0.0344	0.5703	-0.0266	0.8765	0.0000	0.4220	1.2970	0.7231	0.4058	1.0970
x		91.4%	0.0777	96.4%	0.0203	0.1300	0.1827	-0.2934	0.0669	0.0483	0.0008	0.3894	0.0138	0.2672	0.0000	0.4423	1.3460	0.7608	0.4354	1.1030
σ		0.3%	0.0229	0.8%	0.0158	0.0408	0.0196	2.7400	0.0109	0.0194	0.0404	0.1595	0.0809	1.4310	0.0000	0.0183	0.0477	0.0448	0.0270	0.0304
%RSD		0.4	29.5200	0.8	77.9900	31.3500	10.7400	934.1000	16.3500	40.2500	5104.0000	40.9600	586.1000	535.4000	0.0000	4.1440	3.5410	5.8850	6.1940	2.7550

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:17	97.8%	0.0165	0.0225	0.0035	0.1329	0.0000	0.0065	0.2634	0.0413	100.0%	101.4%	0.1471	0.0000
2	17:06:30	97.8%	-0.0058	0.0199	0.0034	0.1421	0.0000	0.0117	0.3179	0.1084	101.3%	101.7%	0.1301	0.0000
3	17:06:43	97.9%	-0.0127	0.0043	0.0001	0.0411	0.0000	0.0169	0.3023	0.0943	101.9%	102.9%	0.1126	0.0000
x		97.8%	-0.0007	0.0156	0.0023	0.1054	0.0000	0.0117	0.2945	0.0813	101.1%	102.0%	0.1299	0.0000
σ		0.1%	0.0153	0.0099	0.0019	0.0558	0.0000	0.0052	0.0281	0.0354	0.9%	0.8%	0.0173	0.0000
%RSD		0.1	2300.0000	63.4700	82.5500	52.9800	0.0000	44.3200	9.5390	43.4900	0.9	0.8	13.3000	0.0000

Q3Z8005-BLK1@PBW03 2 10/28/2016 17:09:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:39	90.6%	-0.0292	94.2%	0.0233	0.0590	-0.0839	-52.2700	0.0872	0.0714	-0.0210	0.1229	0.0540	-0.6730	0.0000	0.1355	0.4935	0.3096	0.1753	0.4520
2	17:09:52	91.0%	0.0184	95.6%	0.0276	0.0724	-0.1049	-52.2300	0.0534	0.0084	-0.0344	0.1217	0.0182	0.1369	0.0000	0.1465	0.4762	0.2075	0.1646	0.3476
3	17:10:05	91.0%	-0.0508	96.4%	-0.0022	0.0498	-0.1308	-48.9900	0.0422	-0.0129	-0.0344	0.0302	-0.0072	0.1422	0.0000	0.1444	0.4526	0.2482	0.1232	0.3615
x		90.9%	-0.0205	95.4%	0.0162	0.0604	-0.1065	-51.1600	0.0609	0.0223	-0.0300	0.0916	0.0217	-0.1313	0.0000	0.1421	0.4741	0.2551	0.1543	0.3870
σ		0.3%	0.0354	1.1%	0.0161	0.0114	0.0235	1.8840	0.0234	0.0438	0.0077	0.0532	0.0308	0.4691	0.0000	0.0059	0.0206	0.0514	0.0275	0.0567
%RSD		0.3	172.7000	1.2	99.1900	18.8500	22.0700	3.6830	38.4700	196.6000	25.8500	58.0800	142.0000	357.3000	0.0000	4.1200	4.3370	20.1500	17.8300	14.6400

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:39	96.3%	-0.0160	0.0142	0.0037	0.1229	0.0000	0.0252	0.1349	0.0334	97.7%	98.5%	0.0805	0.0000
2	17:09:52	96.6%	-0.0085	0.0056	0.0003	0.0938	0.0000	0.0040	0.1456	0.0390	99.9%	100.4%	0.0352	0.0000
3	17:10:05	96.5%	0.0193	0.0011	0.0034	0.0313	0.0000	0.0134	0.1037	0.0100	100.4%	102.0%	0.0419	0.0000
x		96.5%	-0.0017	0.0069	0.0025	0.0827	0.0000	0.0142	0.1281	0.0275	99.4%	100.3%	0.0525	0.0000
σ		0.2%	0.0186	0.0066	0.0019	0.0468	0.0000	0.0106	0.0218	0.0154	1.4%	1.8%	0.0245	0.0000
%RSD		0.2	1087.0000	95.5800	77.9000	56.6000	0.0000	74.5300	17.0100	56.0500	1.4	1.8	46.5700	0.0000

DEL 10/31/16

QJ28005-BS1@LCS03 10/28/2016 17:12:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:56	93.5%	1.9310	96.9%	0.0035	9.7000	3.7670	21.2100	1.9600	1.8080	0.4496	9.1280	0.4197	1.4280	0.0000	2.4320	7.3810	4.4660	2.6180	6.5370
2	17:13:09	93.4%	1.9290	99.2%	-0.0010	9.8040	3.6860	18.1000	1.9600	1.8930	0.5139	9.1680	0.5518	-0.8106	0.0000	2.4330	7.5900	4.5480	2.6710	6.6350
3	17:13:22	93.0%	1.6380	100.4%	0.0018	9.5840	3.6530	73.3000	1.8670	1.8620	0.3838	9.4470	0.4916	0.0037	0.0000	2.4570	7.3370	4.3020	2.5850	6.6370
x̄		93.3%	91.621%	98.8%	0.0014	96.957%	92.552%	37.5400	96.459%	92.723%	0.4491	92.475%	0.4877	0.2069	0.0000	2.4400	7.4360	4.4390	2.6250	6.6030
σ		0.3%	n/a	1.8%	0.0022	n/a	n/a	31.0100	n/a	n/a	0.0651	n/a	0.0661	1.1330	0.0000	0.0140	0.1355	0.1250	0.0436	0.0574
%RSD		0.3	9.1820	1.8	155.5000	1.1330	1.5770	82.6100	2.7770	2.3340	14.4900	1.8780	13.5600	547.5000	0.0000	0.5746	1.8220	2.8160	1.6610	0.8697

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:56	98.7%	0.1183	1.9430	0.0843	1.8130	0.0000	0.0055	3.8240	19.2000	100.4%	99.3%	1.8340	0.0000
2	17:13:09	98.9%	0.0621	1.9620	0.0799	1.9950	0.0000	-0.0038	3.8340	19.2400	100.9%	101.4%	1.8460	0.0000
3	17:13:22	98.8%	0.0846	1.9090	0.0787	1.8960	0.0000	-0.0130	3.8820	19.5500	102.4%	103.7%	1.8560	0.0000
x̄		98.8%	0.0883	96.899%	0.0810	95.066%	0.0000	-0.0038	96.161%	96.659%	101.2%	101.5%	92.263%	0.0000
σ		0.1%	0.0283	n/a	0.0029	n/a	0.0000	0.0093	n/a	n/a	1.0%	2.2%	n/a	0.0000
%RSD		0.1	32.0700	1.3950	3.6350	4.7990	0.0000	244.3000	0.8020	0.9787	1.0	2.2	0.6045	0.0000

SEQ-IBL1@ZZZZZZ 10/28/2016 17:16:03

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:16	96.0%	0.6315	107.9%	10.3800	9.8960	3.6010	21.2300	25.6600	12.6700	0.2899	2.7840	0.1046	3.7770	0.0000	3.0700	8.6610	5.3620	2.9680	7.7810
2	17:16:30	98.1%	0.5420	108.9%	10.5800	9.8190	3.6290	28.8400	26.3900	12.5300	0.2240	2.5950	0.0933	3.7400	0.0000	3.0270	9.1740	5.2850	3.0360	7.7490
3	17:16:43	98.9%	0.4266	110.8%	10.9100	9.9680	3.6500	16.0900	26.2000	13.3800	0.2866	2.6650	0.0476	4.6710	0.0000	3.0110	8.7380	5.2360	3.0400	7.5760
x̄		97.7%	0.5334	109.2%	10.6200	9.8940	3.6270	22.0500	26.0900	12.8600	0.2668	2.6820	0.0819	4.0620	0.0000	3.0360	8.8570	5.2940	3.0150	7.7020
σ		1.5%	0.1027	1.5%	0.2664	0.0743	0.0247	6.4150	0.3775	0.4562	0.0371	0.0956	0.0302	0.5272	0.0000	0.0307	0.2766	0.0632	0.0406	0.1101
%RSD		1.5	19.2600	1.3	2.5080	0.7510	0.6810	29.0900	1.4470	3.5470	13.9000	3.5630	36.8600	12.9800	0.0000	1.0120	3.1230	1.1940	1.3470	1.4300

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:16	99.5%	10.3400	4.9490	7.7390	214.3000	0.0000	0.3961	1.9930	33.3600	107.7%	106.5%	0.4643	0.0000
2	17:16:30	99.9%	11.0600	4.9330	7.9770	220.9000	0.0000	0.3873	2.0330	33.7800	108.4%	108.7%	0.4389	0.0000
3	17:16:43	100.6%	10.8100	4.9570	7.7250	220.3000	0.0000	0.4175	2.0250	33.8800	110.8%	109.6%	0.3980	0.0000
x̄		100.0%	10.7400	4.9460	7.8140	218.5000	0.0000	0.4003	2.0170	33.6700	109.0%	108.2%	0.4338	0.0000
σ		0.5%	0.3635	0.0121	0.1417	3.6700	0.0000	0.0155	0.0212	0.2747	1.7%	1.6%	0.0334	0.0000
%RSD		0.5	3.3850	0.2451	1.8130	1.6790	0.0000	3.8790	1.0510	0.8157	1.5	1.5	7.7100	0.0000

SEQ-IBL2@ZZZZZZ 10/28/2016 17:20:20

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:33	82.5%	0.0997	117.6%	2.7890	30.6400	10.4600	45.2500	3.1840	0.4157	0.1424	2.1730	0.1721	1.8020	0.0000	2.0470	6.5360	5.1310	1.9010	4.7650
2	17:20:47	82.9%	-0.0177	118.0%	2.8840	30.0600	10.3800	36.0400	3.0990	0.5257	0.0690	2.0340	-0.1134	3.7420	0.0000	2.1070	6.4580	5.1970	2.0670	4.9500
3	17:21:00	81.1%	0.0562	118.5%	2.7760	30.3000	10.2900	91.4300	3.1190	0.4284	0.1051	2.3390	-0.1655	5.4730	0.0000	2.1240	6.2540	5.2440	1.9650	4.8680
x̄		82.2%	0.0461	118.1%	2.8160	30.3300	10.3800	57.5700	3.1340	0.4566	0.1055	2.1820	-0.0356	3.6730	0.0000	2.0920	6.4160	5.1910	1.9770	4.8610
σ		1.0%	0.0594	0.5%	0.0585	0.2927	0.0860	29.6800	0.0447	0.0602	0.0367	0.1530	0.1818	1.8370	0.0000	0.0403	0.1458	0.0567	0.0836	0.0927
%RSD		1.2	128.9000	0.4	2.0780	0.9650	0.8286	51.5600	1.4260	13.1800	34.8100	7.0100	510.8000	50.0100	0.0000	1.9230	2.2720	1.0930	4.2270	1.9060

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:20:33	73.0%	0.0275	1.4410	0.0188	0.3987	0.0000	0.1512	8.4500	18.5900	91.9%	92.2%	-0.0186	0.0000
2	17:20:47	74.9%	0.0168	1.4680	0.0138	0.4408	0.0000	0.1485	8.5710	18.3000	93.8%	93.6%	-0.0261	0.0000
3	17:21:00	74.1%	0.0238	1.4830	0.0212	0.3595	0.0000	0.1337	8.7680	18.8200	95.2%	95.4%	-0.0438	0.0000
x̄		74.0%	0.0227	1.4640	0.0179	0.3996	0.0000	0.1445	8.5970	18.5700	93.6%	93.7%	-0.0295	0.0000
σ		1.0%	0.0054	0.0216	0.0038	0.0407	0.0000	0.0094	0.1606	0.2622	1.7%	1.6%	0.0129	0.0000
%RSD		1.3	23.8900	1.4780	21.1700	10.1800	0.0000	6.5310	1.8680	1.4120	1.8	1.7	43.8200	0.0000

61001[illegible]IB@MH1H85 10/28/2016 17:24:21

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:34	87.8%	13.9600	158.7%	10.4400	24.6600	5.0020	67.5300	39.3200	8.2290	1.5900	10.8200	-0.0556	18.4900	0.0000	6.8810	21.9300	12.6400	6.7640	16.8000
2	17:24:48	88.3%	13.5300	165.0%	10.1900	24.9800	5.0040	7.9520	39.7400	7.8030	1.5770	10.7400	0.3986	12.5200	0.0000	6.8570	22.1300	12.8300	6.8110	16.9500
3	17:25:01	87.8%	13.2900	167.1%	10.4000	25.7800	5.1800	4.4110	40.0000	7.9190	1.7690	11.1400	0.2408	14.8700	0.0000	6.8590	22.1200	13.0200	6.8410	17.0600
x̄		88.0%	13.5900	163.6%	10.3400	25.1400	5.0620	26.6300	39.6900	7.9840	1.6450	10.9000	0.1946	15.3000	0.0000	6.8660	22.0600	12.8300	6.8050	16.9400
σ		0.3%	0.3377	4.4%	0.1342	0.5814	0.1021	35.4600	0.3430	0.2199	0.1071	0.2155	0.2306	3.0090	0.0000	0.0132	0.1126	0.1903	0.0384	0.1303
%RSD		0.3	2.4840	2.7	1.2980	2.3130	2.0170	133.2000	0.8643	2.7550	6.5090	1.9770	118.5000	19.6700	0.0000	0.1916	0.5105	1.4830	0.5644	0.7694

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:34	76.3%	0.9948	2.0900	0.4501	11.4500	0.0000	1.0240	10.2100	111.7000	129.8%	126.0%	0.4063	0.0000
2	17:24:48	76.1%	0.9581	2.0290	0.4306	11.1700	0.0000	1.0160	10.0600	111.4000	132.7%	129.4%	0.3999	0.0000
3	17:25:01	75.2%	0.9335	2.0980	0.4649	11.5000	0.0000	1.0000	10.2000	113.5000	134.0%	130.6%	0.3709	0.0000
x̄		75.9%	0.9621	2.0720	0.4485	11.3700	0.0000	1.0130	10.1600	112.2000	132.2%	128.7%	0.3924	0.0000
σ		0.6%	0.0309	0.0377	0.0172	0.1801	0.0000	0.0120	0.0855	1.0950	2.1%	2.4%	0.0188	0.0000
%RSD		0.8	3.2100	1.8190	3.8300	1.5830	0.0000	1.1880	0.8423	0.9759	1.6	1.8	4.7990	0.0000

61001[illegible]-IBRE1@MH1H85@2X 10/28/2016 17:27:40

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:54	94.1%	10.9800	148.0%	7.6430	14.9100	3.0180	6.1560	29.0900	5.6690	1.0600	7.2320	0.1561	6.6100	0.0000	4.9990	15.8500	9.3710	5.0700	12.5100
2	17:28:07	95.1%	10.6100	149.3%	7.7030	14.9700	2.9350	-10.6900	29.0500	6.1480	0.9219	7.1730	-0.3644	15.1900	0.0000	5.0730	15.9500	9.5010	5.0110	12.5100
3	17:28:21	93.8%	10.3400	152.6%	7.3890	14.8400	2.9300	-5.9440	28.9400	5.7230	1.0490	6.6360	0.0512	11.8300	0.0000	4.9590	15.5900	9.4170	4.9080	12.2800
x̄		94.3%	10.6400	150.0%	7.5780	14.9000	2.9610	-3.4920	29.0300	5.8470	1.0100	7.0130	-0.0524	11.2100	0.0000	5.0100	15.8000	9.4300	4.9960	12.4300
σ		0.6%	0.3238	2.4%	0.1667	0.0624	0.0497	8.6850	0.0784	0.2625	0.0767	0.3283	0.2752	4.3220	0.0000	0.0579	0.1817	0.0657	0.0820	0.1361
%RSD		0.7	3.0420	1.6	2.2000	0.4185	1.6780	248.7000	0.2700	4.4900	7.5930	4.6810	525.6000	38.5500	0.0000	1.1560	1.1500	0.6963	1.6420	1.0950

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:54	84.9%	0.7827	1.5390	0.3090	8.3910	0.0000	0.7617	7.7200	80.2200	124.7%	122.8%	0.2926	0.0000
2	17:28:07	86.4%	0.6787	1.5310	0.3556	8.5720	0.0000	0.7436	7.3690	79.2900	126.6%	122.6%	0.2879	0.0000
3	17:28:21	85.9%	0.6189	1.5060	0.3101	8.1400	0.0000	0.7650	7.3730	79.4100	128.3%	124.6%	0.2730	0.0000
x̄		85.7%	0.6934	1.5260	0.3249	8.3680	0.0000	0.7568	7.4870	79.6400	126.5%	123.4%	0.2845	0.0000
σ		0.7%	0.0829	0.0175	0.0266	0.2172	0.0000	0.0115	0.2018	0.5098	1.8%	1.1%	0.0102	0.0000
%RSD		0.9	11.9500	1.1460	8.1840	2.5950	0.0000	1.5220	2.6950	0.6401	1.5	0.9	3.5950	0.0000

SEQ-CCV@CCV02 10/28/2016 17:30:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:59	97.0%	458.4000	108.8%	0.4244	488.0000	493.1000	3154.0000	±504.8000	500.0000	23.1300	501.9000	31.2700	2.5990	0.0000	372.9000	1201.0000	697.1000	399.3000	±1042.0000
2	17:31:12	99.0%	454.9000	109.7%	0.3785	483.1000	488.5000	2620.0000	±504.0000	501.0000	21.7200	499.8000	31.4500	0.6275	0.0000	377.0000	1203.0000	704.4000	407.7000	±1047.0000
3	17:31:25	98.7%	453.0000	110.0%	0.3104	489.0000	497.0000	2778.0000	±506.7000	503.7000	22.7600	507.4000	31.2600	3.9100	0.0000	375.7000	1178.0000	700.0000	402.5000	±1047.0000
x		98.3%	91.089%	109.5%	0.3711	97.337%	98.575%	2850.0000	±101.035%	100.311%	22.5400	100.605%	31.3300	2.3790	0.0000	375.2000	1194.0000	700.5000	403.2000	±1046.0000
σ		1.1%	n/a	0.6%	0.0573	n/a	n/a	274.5000	±n/a	n/a	0.7281	n/a	0.1073	1.6520	0.0000	2.1220	13.6700	3.6600	4.2460	±2.7950
%RSD		1.1	0.6002	0.6	15.4500	0.6493	0.8635	9.6316	±0.2790	0.3864	3.2309	0.7785	0.3425	69.4600	0.0000	0.5656	1.1450	0.5224	1.0530	±0.2673

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:59	99.2%	24.1300	66.2800	18.0300	497.4000	0.0000	0.2607	511.7000	497.3000	106.4%	106.3%	±497.4000	0.0000
2	17:31:12	101.6%	24.0400	66.3700	17.7500	500.0000	0.0000	0.2469	510.2000	496.8000	108.4%	108.8%	±501.1000	0.0000
3	17:31:25	100.2%	23.8600	65.9700	18.0800	506.7000	0.0000	0.1861	519.1000	504.0000	112.4%	111.3%	±502.1000	0.0000
x		100.4%	24.0100	101.859%	17.9500	100.275%	0.0000	0.2312	102.735%	99.872%	109.1%	108.8%	±100.037%	0.0000
σ		1.2%	0.1353	n/a	0.1796	n/a	0.0000	0.0397	n/a	n/a	3.1%	2.5%	±n/a	0.0000
%RSD		1.2	0.5634	0.3185	1.0010	0.9576	0.0000	17.1700	0.9348	0.8021	2.8	2.3	±0.4953	0.0000

SEQ-CCB@CCB02 10/28/2016 17:35:00 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:00	95.5%	0.0309	97.1%	0.0622	0.2344	0.2203	-17.3500	0.1615	0.1062	0.0180	0.3254	0.0356	-0.3827	0.0000	0.4184	1.3800	0.7261	0.4484	1.1220
2	17:35:13	95.6%	0.1045	102.1%	0.0349	0.0627	0.1811	-1.2170	0.1307	0.1710	-0.0214	0.2311	0.0504	-0.4345	0.0000	0.4354	1.3600	0.7732	0.4374	1.1550
3	17:35:27	97.0%	0.1252	102.9%	0.0472	0.2092	0.2289	-22.1800	0.1121	0.0478	-0.0081	0.1461	0.0116	0.6453	0.0000	0.4014	1.4660	0.7575	0.4316	1.2190
x		96.0%	0.0869	100.7%	0.0481	0.1688	0.2101	-13.5800	0.1348	0.1083	-0.0039	0.2342	0.0325	-0.0573	0.0000	0.4184	1.4020	0.7523	0.4392	1.1650
σ		0.9%	0.0496	3.1%	0.0137	0.0927	0.0255	10.9800	0.0250	0.0617	0.0201	0.0897	0.0196	0.6090	0.0000	0.0170	0.0562	0.0240	0.0085	0.0496
%RSD		0.9	57.0200	3.1	28.4400	54.9200	12.1200	80.8200	18.5400	56.9300	521.2000	38.3000	60.2800	1063.0000	0.0000	4.0680	4.0080	3.1910	1.9340	4.2570

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:00	98.5%	-0.0121	0.0322	0.0035	0.1654	0.0000	0.0518	0.2920	0.1602	99.6%	99.0%	0.1430	0.0000
2	17:35:13	99.4%	0.0053	0.0198	0.0015	0.1670	0.0000	0.0347	0.2969	0.1400	102.1%	102.4%	0.1348	0.0000
3	17:35:27	98.3%	-0.0055	0.0214	0.0059	0.1289	0.0000	0.0284	0.3283	0.0833	105.5%	106.3%	0.1153	0.0000
x		98.7%	-0.0041	0.0244	0.0036	0.1538	0.0000	0.0383	0.3057	0.1278	102.4%	102.6%	0.1310	0.0000
σ		0.6%	0.0088	0.0067	0.0022	0.0216	0.0000	0.0121	0.0197	0.0398	3.0%	3.7%	0.0142	0.0000
%RSD		0.6	213.6000	27.5900	61.0500	14.0400	0.0000	31.6100	6.4400	31.1600	2.9	3.6	10.8700	0.0000

Mass Uncorrected ICPS

SEQ-CAL1@S01 10/28/2016 15:58:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:58:01	111725.6800	90.0004	119861.6700	203.3356	460.6783	636.0223	212.6692	983.3865	300.0050	10.0000	8.8889	6.6667	96.6672	105016.4100	376.6745	673.3583	673.3583	410.0093	1060.0618
2	15:58:15	113919.3200	106.6673	126652.8100	150.0012	510.0143	602.6866	216.6693	1016.7235	220.0027	6.6667	8.8889	13.3333	116.6674	108122.5100	423.3432	693.3598	653.3568	396.6753	1063.3955
3	15:58:28	113355.6800	120.0008	127477.5600	163.3348	472.6790	592.0193	203.3356	896.7109	270.0040	10.0000	6.6667	10.0000	80.0004	108055.0500	343.3398	596.6863	786.7007	463.3451	1036.7258
x		113000.2300	105.5562	124664.0100	172.2239	481.1239	610.2427	210.8913	965.6070	263.3372	8.8889	8.1482	10.0000	97.7783	107064.6600	381.1192	654.4681	704.4719	423.3432	1053.3944
σ		1139.1977	15.0310	4179.3473	27.7561	25.7293	22.9540	6.8423	61.9503	40.4157	1.9245	1.2830	3.3333	18.3588	1774.1504	40.1865	51.0301	71.9110	35.2784	14.5313
%RSD		1.0081	14.2398	3.3525	16.1163	5.3477	3.7615	3.2445	6.4157	15.3475	21.6506	15.7459	33.3333	18.7759	1.6571	10.5413	7.7972	10.2078	8.3333	1.3795

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:58:01	44297.6630	106.6673	133.3343	6.6667	176.6684	198796.7700	440.0107	646.6897	246.6700	151166.4600	152166.2700	1436.7802	90417.4170
2	15:58:15	43641.1660	123.3342	156.6680	20.0000	176.6684	201519.0600	556.6837	666.6911	266.6706	156295.4400	153535.6700	1380.1047	92387.0720
3	15:58:28	43456.9540	150.0012	120.0008	23.3334	146.6679	206308.0300	566.6843	683.3590	243.3366	160847.1400	157333.1100	1436.7802	94437.9850
x		43798.5940	126.6676	136.6677	16.6667	166.6682	202207.9500	521.1262	665.5799	252.2257	156103.0100	154345.0100	1417.8884	92414.1580
σ		441.9117	21.8584	18.5595	8.8192	17.3208	3802.7245	70.4259	18.3599	12.6202	4843.2077	2676.8158	32.7216	2010.4207
%RSD		1.0090	17.2565	13.5800	52.9151	10.3924	1.8806	13.5142	2.7585	5.0035	3.1026	1.7343	2.3078	2.1754

SEQ-CAL2@S02 10/28/2016 16:02:09

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98
1	16:02:22	113396.1800	180.0018	125665.9300	130.0009	1539.4637	1162.0743	308.0052	2106.9108	533.3490	3.3333	50.0001	43.3334	103.3339	107633.4200	2500.3438	4144.2777	4180.9612	2450.3302	6519.0
2	16:02:36	115401.1700	190.0020	130307.2500	133.3343	1612.1429	1102.7335	276.6709	2000.2200	613.3540	16.6667	52.2224	33.3334	66.6669	110740.4100	2316.9619	4157.6172	4481.1041	2780.4251	6532.2
3	16:02:49	114064.4600	160.0014	129475.5000	120.0008	1547.4650	1150.0727	286.0045	2203.6004	470.0122	13.3333	52.2224	30.0000	103.3339	111465.8600	2550.3577	3880.8282	4631.1793	2683.7294	6755.8
x		114287.2700	176.6684	128482.8900	127.7787	1566.3572	1138.2935	290.2269	2103.5771	538.9051	11.1111	51.4816	35.5556	91.1116	109946.5600	2455.8878	4060.9077	4431.0816	2638.1616	6602.2
σ		1020.8985	15.2755	2474.7572	6.9390	39.8529	31.3750	16.0882	101.7312	71.8323	6.9389	1.2830	6.9389	21.1697	2035.8120	122.8847	156.0960	229.2396	169.6997	133.0
%RSD		0.8933	8.6465	1.9261	5.4305	2.5443	2.7563	5.5433	4.8361	13.3293	62.4500	2.4922	19.5157	23.2349	1.8516	5.0037	3.8439	5.1734	6.4325	2.0

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:02:22	44867.1120	100.0006	1053.3944	23.3334	416.6762	203666.1200	473.3457	2093.5744	3067.1840	156197.1000	157465.3700	2847.1124	96789.1860
2	16:02:36	44234.0210	130.0009	1096.7328	30.0000	310.0053	207821.9400	470.0122	1990.2178	3037.1739	161922.6500	160938.7400	3013.8328	98355.8670
3	16:02:49	44485.2430	113.3340	1256.7535	23.3334	346.6733	210946.0000	456.6781	2053.5652	3127.2044	162845.5800	161610.5000	3157.2148	98588.3650
x		44528.7920	114.4452	1135.6269	25.5556	357.7849	207478.0200	466.6787	2045.7858	3077.1875	160321.7800	160004.8700	3006.0534	97911.1400
σ		318.7844	15.0310	107.1135	3.8490	54.1966	3652.1040	8.8196	52.1156	45.8413	3601.7574	2224.7722	155.1975	978.5694
%RSD		0.7159	13.1338	9.4321	15.0613	15.1478	1.7602	1.8899	2.5475	1.4897	2.2466	1.3904	5.1628	0.9994

SEQ-CAL3@S03 10/28/2016 16:06:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	9
1	16:06:25	110757.2800	286.6712	120530.4200	170.0016	3031.8388	1925.5372	393.3418	3804.1291	1106.7340	43.3334	110.0007	73.3336	113.3340	105367.1000	4387.7253	7186.1725	7963.4864	4781.2570	11554.
2	16:06:39	114067.8400	320.0056	125165.7600	126.6676	3119.8686	1924.8704	374.6744	3734.1001	940.0486	23.3334	107.7784	83.3337	120.0008	108527.2900	4681.2049	7469.7342	8096.9376	4601.1641	12475.
3	16:06:52	114725.9100	316.6722	127876.4300	143.3345	3170.5528	1935.5394	355.3403	3930.8497	956.7170	43.3334	111.1118	83.3337	103.3339	109994.7700	4467.7642	7970.1589	8313.7998	5044.7327	12979.
x		113180.3400	307.7830	124524.2100	146.6679	3107.4201	1928.6490	374.4522	3823.0263	1001.1665	36.6667	109.6303	80.0004	112.2229	107963.0500	4512.2315	7542.0219	8124.7413	4809.0512	12336.
σ		2123.3083	18.3592	3714.7904	21.8585	70.1899	5.9765	19.0018	99.7268	91.8032	11.5470	1.6973	5.7736	8.3888	2364.8658	151.7089	396.9607	176.8040	223.0867	722.
%RSD		1.8760	5.9650	2.9832	14.9034	2.2588	0.3099	5.0745	2.6086	9.1696	31.4919	1.5482	7.2169	7.4751	2.1904	3.3622	5.2633	2.1761	4.6389	5.

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:06:25	44200.5260	173.3350	2500.3438	36.6667	656.6904	194474.7800	516.6814	3964.1975	6585.7179	153413.6300	152278.1100	5231.5048	91420.7100
2	16:06:39	43691.4070	153.3346	2623.7119	43.3334	700.0270	202807.2400	530.0154	3914.1758	7002.6960	157353.4500	155763.0800	5298.2101	94252.7440
3	16:06:52	43801.9370	156.6680	2717.0726	30.0000	870.0416	204167.1700	516.6814	4254.3286	6942.6500	158238.6200	156871.9100	5615.0669	97146.2990
x		43897.9560	161.1125	2613.7094	36.6667	742.2530	200483.0600	521.1261	4044.2339	6843.6880	156335.2400	154971.0300	5381.5940	94273.2510
σ		267.7972	10.7154	108.7101	6.6667	112.7695	5247.5692	7.6984	183.6583	225.4170	2568.5987	2397.1305	204.9259	2862.8496
%RSD		0.6100	6.6509	4.1592	18.1819	15.1929	2.6175	1.4773	4.5412	3.2938	1.6430	1.5468	3.8079	3.0368

SEQ-CAL4@S04 10/28/2016 16:10:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	16:10:27	110618.9400	503.3473	120689.1700	130.0009	5515.0057	3124.5369	573.3514	6395.5822	1800.1782	56.6668	200.0022	76.6670	120.0008	105697.5700	9925.4153	17269.7210	18321.7780	10999.9840
2	16:10:40	113811.3200	493.3467	124996.8000	116.6674	5647.0867	3099.8617	547.3498	7089.4299	1726.8307	33.3334	197.7799	130.0009	76.6670	108456.4500	10172.3550	18118.0370	19404.0200	11657.4700
3	16:10:53	112643.5700	483.3462	126139.0800	140.0011	5607.7290	3119.2017	578.0184	6982.6807	1680.1552	70.0003	195.5577	96.6672	143.3345	109819.3300	10839.7920	18542.2240	19444.1050	11790.9750
x		112357.9400	493.3467	123941.6800	128.8898	5589.9405	3114.5334	566.2399	6822.5643	1735.7214	53.3335	197.7799	101.1117	113.3341	107991.1200	10312.5210	17976.6600	19056.6340	11482.8100
σ		1615.2419	10.0005	2874.0765	11.7064	67.8135	12.9831	16.5249	373.6095	60.5034	18.5593	2.2223	26.9433	33.6300	2099.9108	473.0286	647.9245	636.7200	423.4337
%RSD		1.4376	2.0271	2.3189	9.0825	1.2131	0.4169	2.9183	5.4761	3.4858	34.7986	1.1236	26.6471	29.8498	1.9445	4.5869	3.6043	3.3412	3.6875

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:10:27	43932.5650	180.0018	4704.5503	76.6670	1133.4040	197277.5400	480.0127	7646.5478	13036.0070	153515.3300	151064.7900	9341.4637	92137.8960
2	16:10:40	44136.8840	206.6690	5048.0678	100.0006	1226.7494	203710.4300	450.0111	7666.5647	13126.1360	157563.7200	156827.8200	9414.8727	94737.7460
3	16:10:53	44699.6240	183.3352	4797.9324	123.3342	1200.0792	206577.3800	433.3437	7659.8924	14060.8660	161817.4600	159459.6800	9972.1331	97122.7150
x		44256.3570	190.0020	4850.1835	100.0006	1186.7442	202521.7800	454.4558	7657.6683	13407.6690	157632.1700	155784.1000	9576.1565	94666.1190
σ		397.2408	14.5300	177.6196	23.3336	48.0802	4762.5030	23.6499	10.1921	567.4767	4151.4906	4293.6667	344.8845	2493.1816
%RSD		0.8976	7.6473	3.6621	23.3335	4.0514	2.3516	5.2040	0.1331	4.2325	2.6337	2.7562	3.6015	2.6337

SEQ-CAL5@S05 10/28/2016 16:14:28

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	9
1	16:14:28	110220.8200	4264.3332	120814.1500	9101.2202	10949.2560	13866.5670	1898.8650	57836.7300	12475.2210	93.3338	422.2320	243.3366	93.3338	103074.3800	24078.5120	41032.3930	44897.2610	26134
2	16:14:41	113672.9400	4234.3192	125801.1100	9378.1681	10827.7780	13841.8630	1871.5260	59913.4470	12638.7800	93.3338	381.1191	203.3356	110.0007	106756.5100	24760.3400	42679.9520	46485.2120	28437
3	16:14:55	113571.6800	4304.3521	129482.2600	9521.6505	10923.2250	13917.9790	1896.1977	62145.0200	13486.6630	130.0009	416.6762	206.6690	110.0007	110203.9500	25047.7920	44200.5260	47078.2520	28026
x		112488.4800	4267.6682	125365.8400	9333.6796	10900.0860	13875.4700	1888.8629	59965.0660	12866.8880	105.5562	406.6758	217.7804	104.4451	106678.2800	24628.8810	42637.6230	46153.5750	27532
σ		1964.5057	35.1353	4350.4153	213.7167	63.9595	38.8311	15.0733	2154.6089	542.9356	21.1698	22.3064	22.1950	9.6226	3565.4279	497.8324	1584.4905	1127.6826	1228
%RSD		1.7464	0.8233	3.4702	2.2897	0.5868	0.2799	0.7980	3.5931	4.2196	20.0555	5.4851	10.1914	9.2131	3.3422	2.0213	3.7162	2.4433	4

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:14:28	43061.7460	1153.4065	6335.5402	730.0293	11023.3460	195302.2300	35509.2150	35264.9330	13246.3100	152291.6700	150525.9600	84103.9160	94902.7870
2	16:14:41	44515.3900	1053.3944	6802.5442	856.7070	11377.1150	203001.5000	37477.0900	37359.9430	13840.5280	156980.4200	155098.5300	85170.4430	97429.3030
3	16:14:55	44398.1520	1246.7522	6602.3967	796.7016	12031.2890	207088.8200	37949.0420	37925.6110	13783.7750	162156.7600	158628.6600	88744.3860	99319.5930
x		43991.7630	1151.1843	6580.1603	794.4793	11477.2500	201797.5200	36978.4490	36850.1620	13623.5380	157142.9500	154751.0500	86006.2480	97217.2280
σ		807.5480	96.6980	234.2947	63.3681	511.3784	5984.8215	1294.0912	1401.6809	327.9187	4934.5537	4062.5124	2430.5177	2216.0270
%RSD		1.8357	8.3999	3.5606	7.9761	4.4556	2.9658	3.4996	3.8037	2.4070	3.1402	2.6252	2.8260	2.2795

SEQ-CAL6@S06 10/28/2016 16:18:29

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96M
1	16:18:29	112775.1900	20960.8030	121131.6700	45386.3470	51274.8610	66230.3800	8439.2487	286951.7400	61661.7460	563.3508	1872.4150	1000.0550	113.3340	104439.8300	117599.0700	204971.6400	218559.38(
2	16:18:42	113521.0600	20813.8000	125199.5600	47041.3950	52143.1120	66958.3500	8331.1490	296184.2100	62963.9590	633.3554	1911.3120	916.7129	126.6676	108061.7900	122695.7700	213405.7500	228355.81(
3	16:18:55	114739.5400	21705.8820	127507.9800	47604.3140	52637.9520	67461.3820	8491.9644	305811.9000	65226.4940	580.0185	1857.9576	806.7025	80.0004	110426.6200	125736.9000	218084.8500	236749.82(
x		113678.6000	21160.1620	124613.0700	46677.3520	52018.6420	66883.3710	8420.7874	296315.9500	63284.0670	592.2416	1880.5649	907.8235	106.6673	107642.7500	122010.5800	212154.0800	227888.33(
σ		991.6067	478.2893	3228.3607	1152.9267	690.0171	618.9167	81.9818	9430.7700	1803.8040	36.5679	27.5902	96.9823	24.0373	3015.3151	4111.9552	6645.6049	9104.22
%RSD		0.8723	2.2603	2.5907	2.4700	1.3265	0.9254	0.9736	3.1827	2.8503	6.1745	1.4671	10.6829	22.5348	2.8012	3.3702	3.1324	3.99

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:18:29	43798.5870	5041.3975	31126.5300	3577.3704	53647.8290	199658.6800	175956.5200	174519.2100	64111.9410	153793.3000	152081.5300	421838.5400	92757.4820
2	16:18:42	44833.6140	5021.3864	32400.9710	3734.1001	55398.2810	206761.5000	183428.7200	182238.4700	67526.5290	158258.9700	157275.4600	435021.8700	94993.7300
3	16:18:55	44445.0470	5488.3229	33364.4460	4107.5944	57259.7610	207586.6500	189596.6800	190685.7700	69138.5790	161854.7900	162194.0900	451927.3400	99147.7330
x		44359.0830	5183.7022	32297.3160	3806.3550	55435.2900	204668.9400	182993.9700	182481.1500	66925.6830	157969.0200	157183.6900	436262.5800	95632.9820
σ		522.8409	263.9989	1122.5534	272.3967	1806.2504	4358.5840	6830.4639	8086.0129	2566.6191	4038.5561	5056.9026	15082.7210	3242.7316
%RSD		1.1787	5.0929	3.4757	7.1564	3.2583	2.1296	3.7326	4.4311	3.8350	2.5565	3.2172	3.4573	3.3908

SEQ-CAL7@S07 10/28/2016 16:22:29

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95M
1	16:22:29	110193.8200	201168.0800	120243.3200	448965.8800	513171.7400	653941.6000	79750.2780	r 2911893.8000	611917.1300	5461.6401	18175.9300	8327.1454	93.3338	104146.4900	1232029.6000	2169534.200
2	16:22:42	111168.9200	206348.9500	125888.9800	470182.4300	514408.0900	657218.3800	80369.6970	r 3006036.2000	631978.9600	5631.7439	18091.3170	8707.5015	113.3340	107458.0300	1265946.4000	2257704.400
3	16:22:55	112069.8800	209776.0600	127656.7100	481161.8000	518400.9300	659350.0700	80874.1410	r 3073302.3000	645998.0700	5805.1863	18308.4170	8674.1363	110.0007	107812.1900	1306976.4000	2319537.400
x		111144.2100	205764.3600	124596.3400	466770.0300	515326.9200	656836.6900	80331.3720	r 2997077.4000	629964.7200	5632.8568	18191.8880	8569.5944	105.5562	106472.2400	1268317.5000	2248925.300
σ		938.2734	4333.6600	3872.0498	16366.9680	2732.9995	2724.3636	562.9109	r 81076.3190	17129.5190	171.7758	109.4266	210.6287	10.7153	2021.9237	37529.5880	75385.946
%RSD		0.8442	2.1061	3.1077	3.5064	0.5303	0.4148	0.7007	r 2.7052	2.7191	3.0495	0.6015	2.4579	10.1513	1.8990	2.9590	3.352

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:22:29	41055.8310	48117.0020	310310.5600	36195.2450	542045.2400	215664.8000	1863665.0000	1833751.4000	651268.2200	153101.7800	153600.0800	r 4433073.1000	93134.6420
2	16:22:42	41608.3350	49574.8040	321644.4600	37634.4050	566660.2600	223750.0500	1948067.3000	1920032.3000	685283.9700	160450.2200	159045.8600	r 4567846.3000	95798.7780
3	16:22:55	42355.1050	51096.5280	330068.4800	38166.6170	576444.2200	229323.0400	2017747.4000	2004491.8000	712915.6300	164043.5000	163266.3600	r 4727198.5000	100313.7500
x		41673.0900	49596.1110	320674.5000	37332.0890	561716.5700	222912.6300	1943159.9000	1919425.2000	683155.9400	159198.5000	158637.4300	r 4576039.3000	96415.7250
σ		652.0528	1489.8770	9914.6114	1019.8639	17724.3490	6867.5189	77158.3410	85371.8230	30878.7500	5577.2227	4846.0673	r 147233.7600	3629.1013
%RSD		1.5647	3.0040	3.0918	2.7319	3.1554	3.0808	3.9708	4.4478	4.5200	3.5033	3.0548	r 3.2175	3.7640

SEQ-CAL8@S08 10/28/2016 16:26:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo
1	16:26:27	105323.2700	u 389311.2300	117058.8300	858618.9900	u 1015385.5000	u 1280271.2000	154366.9000	r 5478325.5000	1159607.1000	10379.2550	u 34527.6670	15820.4200	120.0008	98436.7350	2426074.1000
2	16:26:41	107953.8600	u 399534.0700	119885.3100	886610.7600	u 1027132.4000	u 1292912.1000	155552.1800	r 5664559.4000	1205372.4000	10753.0220	34786.4280	16024.1100	120.0008	103546.3600	2518387.0000
3	16:26:54	108685.8300	402086.3100	122530.2200	924445.4200	u 1024918.9000	u 1302457.5000	156823.7500	m 5829573.0000	1235302.3000	10766.3720	34879.0040	16147.6620	143.3345	104288.1000	r 2591912.2000
x		107320.9900	u 396977.2000	119824.7900	889891.7200	u 1022478.9000	u 1291880.3000	155580.9500	m 5657486.0000	1200093.9000	10632.8830	u 34731.0330	15997.3970	127.7787	102090.4000	r 2512124.4000
σ		1768.3624	u 6760.4634	2736.1982	33035.6340	u 6241.9891	u 11129.0980	1228.6774	m 175730.5500	38122.6760	219.7496	u 182.1015	165.2480	13.4717	3185.8270	r 83096.2570
%RSD		1.6477	u 1.7030	2.2835	3.7123	u 0.6105	u 0.8615	0.7897	m 3.1062	3.1766	2.0667	u 0.5243	1.0330	10.5430	3.1206	r 3.3078

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:26:27	39237.8290	88424.6260	583543.0000	68853.0910	1025521.5000	227064.0500	r 3500165.6000	r 3456583.0000	1270867.3000	151400.3000	150407.3600	m 8797091.1000	90784.3800
2	16:26:41	40714.3010	93892.3770	602092.5900	70331.0060	1062785.8000	236657.4600	r 3638308.7000	r 3587117.1000	m 1341936.2000	157394.1500	156858.3400	m 9096097.4000	95364.2460
3	16:26:54	41347.1470	95724.6710	624633.0600	73623.5880	1113993.5000	242960.4900	r 3794051.8000	m 3756857.6000	m 1393488.1000	162631.8000	160745.3600	m 9421351.2000	98942.1780
x		40433.0920	92680.5580	603422.8900	70935.8950	1067433.6000	235560.6700	r 3644175.4000	m 3600185.9000	m 1335430.5000	157142.0900	156003.6900	m 9104846.6000	95030.2680
σ		1082.4112	3797.8998	20577.3200	2442.0952	44418.7670	8004.7757	r 147030.9200	r 150563.2800	m 61568.7320	5619.9925	5221.7256	m 312221.9800	4089.1406
%RSD		2.6770	4.0978	3.4101	3.4427	4.1613	3.3982	r 4.0347	m 4.1821	m 4.6104	3.5764	3.3472	m 3.4292	4.3030

SEQ-ICV@ICV01 10/28/2016 16:36:14 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	16:36:27	110969.8400	40962.0770	129958.9900	396.6753	99992.2400	126407.4400	15673.5000	605618.9900	128890.6100	2266.9493	7396.3409	3243.9120	103.3339	110848.3800	11253.6280	19373.9560	21632.374(
2	16:36:40	112107.0000	41102.7090	131365.6600	283.3378	100160.7500	127333.5600	15669.4930	612259.0400	129857.5500	2236.9418	7489.7507	3443.9856	113.3340	113652.6800	11660.8070	19728.0490	21264.842(
3	16:36:54	111448.9900	41283.5260	132106.2700	286.6712	100411.4900	127588.4300	15632.0950	620686.0200	132190.8200	2216.9369	7379.6607	3560.6972	96.6672	112093.5000	11684.1700	19681.2810	21328.323(
x		111508.6100	41116.1040	131143.6400	322.2281	100188.1600	127109.8100	15658.3620	612854.6800	130312.9900	2240.2760	7421.9174	3416.1982	104.4451	112198.1900	11532.8680	19594.4290	21408.513(
σ		570.9190	161.1427	1090.7233	64.4947	210.9649	621.4781	22.8363	7551.1562	1696.5929	25.1723	59.3344	160.2102	8.3888	1405.0820	242.1115	192.3619	196.450
%RSD		0.5120	0.3919	0.8317	20.0152	0.2106	0.4889	0.1458	1.2321	1.3019	1.1236	0.7994	4.6897	8.0318	1.2523	2.0993	0.9817	0.917

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:36:27	44257.4680	10052.2210	501494.3600	7669.9008	112812.3100	211038.1000	1333.4311	734333.8500	137935.2200	165479.1700	162038.0100	1893802.2000	97644.9310
2	16:36:40	45061.4030	10325.8610	509033.1900	7719.9431	114172.4700	215388.3600	1136.7377	750038.1800	140771.5400	165608.1500	165468.9800	1934201.2000	101284.4300
3	16:36:54	44595.7820	10629.5440	509660.2300	7820.0286	115185.1200	214968.6000	1090.0653	761801.9000	143324.3000	168239.1400	166585.7700	1951704.4000	102154.0800
x		44638.2180	10335.8750	506729.2600	7736.6242	114056.6400	213798.3500	1186.7447	748724.6400	140677.0200	166442.1500	164697.5900	1926569.3000	100361.1500
σ		403.6439	288.7917	4544.3831	76.4414	1190.6387	2389.6459	129.1598	13781.0530	2695.7802	1557.5701	2369.9847	29695.9860	2392.1612
%RSD		0.9043	2.7941	0.8968	0.9880	1.0439	1.1224	10.8835	1.8406	1.9163	0.9358	1.4390	1.5414	2.3836

SEQ-ICB@ICB01 10/28/2016 16:40:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:40:29	109849.7000	106.6673	122310.6300	240.0032	588.0190	740.0301	219.3360	1500.1238	383.3414	6.6667	8.8889	30.0000	110.0007	105876.3000	653.3568	1153.4065	1303.4268	706.6941	1836.8522
2	16:40:42	112957.4300	120.0008	128157.0100	206.6690	555.3503	714.6948	244.6700	1466.7850	370.0075	6.6667	17.7778	16.6667	86.6671	108469.9400	623.3547	1100.0666	1163.4078	796.7016	1936.8730
3	16:40:55	111553.5900	110.0007	130432.3600	200.0022	543.3496	697.3601	238.0031	1423.4448	350.0067	16.6667	18.8889	20.0000	96.6672	109755.2300	660.0240	1193.4117	1213.4143	780.0335	1956.8773
x		111453.5700	112.2229	126966.6700	215.5581	562.2396	717.3617	234.0030	1463.4512	367.7852	10.0000	15.1852	22.2223	97.7783	108033.8300	645.5785	1148.9616	1226.7496	761.1431	1910.2008
σ		1556.2804	6.9398	4189.6684	21.4309	23.1179	21.4597	13.1321	38.4481	16.7781	5.7735	5.4816	6.9389	11.7064	1975.8983	19.5329	46.8310	70.9556	47.8850	64.3044
%RSD		1.3963	6.1832	3.2998	9.9420	4.1118	2.9915	5.6120	2.6272	4.5619	57.7351	36.0943	31.2250	11.9724	1.8290	3.0256	4.0759	5.7840	6.2912	3.3664

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:40:29	44063.1950	133.3343	420.0097	3.3333	310.0053	198425.4500	773.3662	2507.0123	453.3446	154152.6500	153491.6000	2733.7443	93117.8040
2	16:40:42	44662.7760	170.0016	303.3384	20.0000	240.0032	205179.5800	863.3743	2917.1346	433.3437	158109.7400	155227.3700	2923.8034	94454.8250
3	16:40:55	44217.2730	143.3345	253.3369	26.6667	310.0053	207951.5200	856.7070	2917.1346	376.6745	159452.9000	158113.1300	2880.4563	96684.7510
x		44314.4150	148.8901	325.5617	16.6667	286.6713	203852.1900	831.1492	2780.4272	421.1209	157238.4300	155610.7000	2846.0013	94752.4600
σ		311.3711	18.9545	85.5299	12.0185	40.4157	4899.7932	50.1524	236.7842	39.7697	2755.4592	2334.4906	99.6041	1802.0034
%RSD		0.7026	12.7305	26.2715	72.1110	14.0983	2.4036	6.0341	8.5161	9.4438	1.7524	1.5002	3.4998	1.9018

SEQ-IFA@ICSA01 10/28/2016 16:44:30 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	16:44:30	98891.6320	230.0029	114239.9800	695406.7000	486.0130	23261.7230	2871.7869	7840.0459	7172.8286	0.0000	10.0000	13.3333	130.0009	97567.4390	1872270.4000	r.3375765.8000	r.3590911.9000
2	16:44:43	100839.5200	216.6693	117909.7200	732483.1100	494.0134	23270.4120	2823.1049	8380.5277	6929.3065	3.3333	7.7778	26.6667	213.3358	102629.3900	1947470.8000	r.3490829.8000	r.3741596.6000
3	16:44:57	100849.6300	256.6703	121293.8100	753670.9700	507.3475	23406.7610	2990.4918	8594.0603	7319.6122	0.0000	8.8889	3.3333	130.0009	105549.2000	2032103.9000	r.3619361.5000	r.3867551.9000
x		100193.6000	234.4475	117814.5000	727520.2600	495.7913	23312.9650	2895.1279	8271.5446	7140.5824	1.1111	8.8889	14.4445	157.7792	101915.3400	1950615.0000	r.3495319.0000	r.3733353.5000
σ		1127.5448	20.3675	3527.8793	28952.9180	10.7778	81.3457	86.0999	388.6418	197.1408	1.9245	1.1111	11.7063	48.1134	4038.5038	79963.1100	r.121859.8600	r.138504.0700
%RSD		1.1254	8.6875	2.9944	3.9797	2.1739	0.3489	2.9740	4.6985	2.7609	173.2051	12.5000	81.0435	30.4941	3.9626	4.0994	r.3.4864	r.3.7099

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:44:30	35622.9920	123.3342	160.0014	1203.4130	1646.8158	183670.1900	1086.7316	4938.0074	2743.7473	145928.5700	144323.2500	1973.5475	85789.5570
2	16:44:43	36114.9270	110.0007	180.0018	1216.7481	1753.5024	189610.2900	1103.4003	5094.7605	2690.3980	152471.3100	149912.6200	2130.2496	89023.7640
3	16:44:57	36278.9110	126.6676	216.6693	1196.7454	1720.1627	195635.9600	1080.0642	5284.8690	2860.4499	155769.8600	155064.6300	2156.9225	92595.8470
x		36005.6100	120.0008	185.5575	1205.6355	1706.6270	189638.8100	1090.0654	5105.8790	2764.8651	151389.9200	149766.8300	2086.9065	89136.3890
σ		341.3507	8.8193	28.7395	10.1649	54.5792	5982.9383	12.0199	173.6979	86.9706	5008.9728	5372.1719	99.0735	3404.5422
%RSD		0.9480	7.3494	15.4882	0.8448	3.1977	3.1549	1.1027	3.4019	3.1456	3.3087	3.5870	4.7474	3.8195

SEQ-IFB@ICSAB01 10/28/2016 16:48:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	5
1	16:48:29	99693.6540	7473.0703	120479.7600	730758.9700	18901.6300	46613.1980	5863.8906	116062.8500	29544.5970	156.6680	561.1284	280.0043	206.6690	103711.5600	1940347.9000	r.3478604.8000	r.3739153
2	16:48:42	102376.5600	7900.0978	124837.9700	760915.4000	19248.3560	47127.1710	5919.2598	121175.5800	30922.5020	186.6686	584.4632	280.0043	170.0016	108540.7800	2059093.4000	r.3647675.5000	r.3907372
3	16:48:55	102086.6600	7940.1327	127869.6700	789516.7700	19370.6150	47335.5830	5994.6425	122895.1000	31872.4410	173.3350	568.9067	286.6712	150.0012	110716.7900	2107804.3000	r.3711037.5000	r.3987782
x		101385.6200	7771.1003	124395.8000	760397.0500	19173.5340	47025.3170	5925.9309	120044.5100	30779.8470	172.2239	571.4995	282.2266	175.5573	107656.3800	2035748.6000	r.3612439.3000	r.3878102
σ		1472.4405	258.8766	3714.7474	29382.3270	243.2811	371.8073	65.6307	3553.7867	1170.4600	15.0311	11.8815	3.8491	28.7395	3585.3760	86134.4750	r.120155.9000	r.126872
%RSD		1.4523	3.3313	2.9862	3.8641	1.2688	0.7907	1.1075	2.9604	3.8027	8.7277	2.0790	1.3638	16.3704	3.3304	4.2311	r.3.3262	r.3

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:48:29	35987.7570	1770.1723	83945.7980	2587.0347	21017.6010	193851.6800	1240.0846	72225.7760	28614.9640	150488.6800	150075.2700	161223.7200	87472.1440
2	16:48:42	36924.8370	1946.8751	86200.0800	2713.7383	21999.9210	199372.5000	1130.0702	75186.3000	29343.9490	156668.4400	154874.7600	167936.9600	90067.3010
3	16:48:55	36673.8240	2150.2543	90770.9140	2707.0697	22447.6800	205356.8600	1300.0930	77169.4810	30818.8170	159927.8000	160002.4300	173734.3900	92225.4430
x		36528.8060	1955.7672	86972.2640	2669.2809	21821.7340	199527.0100	1223.4159	74860.5190	29592.5770	155694.9700	154984.1500	167631.6900	89921.6290
σ		485.0798	190.1969	3477.4634	71.3053	731.5016	5754.1455	86.2283	2487.9019	1122.7662	4794.2610	4964.4833	6260.9172	2379.9955
%RSD		1.3279	9.7249	3.9984	2.6713	3.3522	2.8839	7.0482	3.3234	3.7941	3.0793	3.2032	3.7349	2.6467

SEQ-CCV@CCV01 10/28/2016 17:01:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	17:01:41	105356.9900	202759.5200	124354.7500	543.3496	488670.8600	627585.0200	77115.6940	r.3068596.3000	641552.5500	5575.0423	18258.3170	8320.4726	96.6672	108142.7500	1189917.9000	2114049.4000
2	17:01:54	105849.3200	206246.6600	124331.0900	456.6781	485999.2000	630802.6700	77137.2090	r.3059723.9000	646280.4500	5761.8253	18057.9170	8530.6673	116.6674	109117.6300	1204140.7000	2131642.4000
3	17:02:08	104456.6900	207064.9500	123864.7900	436.6772	491886.8700	631996.8100	77559.4450	r.3079908.0000	646938.1800	5728.4709	18519.9560	8660.7902	103.3339	109998.1400	1222237.2000	2159503.5000
x		105221.0000	205357.0500	124183.5500	478.9016	488852.3100	630128.1600	77270.7830	r.3069409.4000	644923.7300	5688.4462	18278.7300	8503.9767	105.5562	109086.1700	1205432.0000	2135065.1000
σ		706.2072	2286.4262	276.3003	56.7024	2948.0227	2281.9271	250.2204	r.10116.6160	2937.9869	99.6166	231.6950	171.7216	10.1836	928.0974	16198.2740	22919.5680
%RSD		0.6712	1.1134	0.2225	11.8401	0.6030	0.3621	0.3238	r.0.3296	0.4556	1.7512	1.2676	2.0193	9.6476	0.8508	1.3438	1.0735

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:01:41	42780.4230	50972.5010	322241.7300	38936.5380	570634.3200	204358.0600	1620.1444	1929416.2000	691481.2000	161308.5400	161267.8300	r.4699033.6000	99545.3760
2	17:01:54	42231.1970	51049.5990	328862.6100	38826.0670	581228.2000	209417.9400	1426.7786	1992796.7000	703690.0900	163368.1600	163758.4300	r.4769383.6000	102197.9000
3	17:02:08	42978.0180	52246.3690	331454.2200	40051.3660	590746.6500	213978.9900	1426.7786	1991356.2000	714946.1700	167023.7000	166405.8500	r.4798594.5000	101503.5200
x		42663.2130	51422.8230	327519.5200	39271.3240	580869.7200	209251.6600	1491.2339	1971189.7000	703372.4900	163900.1300	163810.7000	r.4755670.6000	101082.2600
σ		386.9613	714.2528	4750.8354	677.7906	10060.9560	4812.6219	111.6398	36184.0960	11735.7060	2894.4776	2569.4127	r.51177.4120	1375.5215
%RSD		0.9070	1.3890	1.4506	1.7259	1.7321	2.2999	7.4864	1.8356	1.6685	1.7660	1.5685	r.1.0761	1.3608

SEQ-CCB@CCB1 10/28/2016 17:05:46 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	17:06:17	103381.1600	136.6677	119152.4300	170.0016	612.0206	781.3669	223.3361	1303.4268	330.0060	20.0000	17.7778	20.0000	116.6674	104561.2100	1753.5024	2953.8131	3190.5598	1846.8542	4431.079
2	17:06:30	102885.5900	120.0008	120253.4600	206.6690	563.3508	776.6998	232.0030	1230.0832	380.0079	6.6667	20.0000	16.6667	73.3336	105390.7100	1740.1665	2917.1346	3033.8395	1813.5142	4671.199
3	17:06:43	103610.4200	126.6676	121037.0900	223.3361	598.6864	823.3706	229.3362	1360.1017	353.3402	0.0000	28.8889	16.6667	110.0007	106021.3100	1673.4873	2840.4437	2970.4852	1710.1608	4574.484
x		103292.3900	127.7787	120147.6000	200.0022	591.3526	793.8125	228.2251	1297.8706	354.4514	8.8889	22.2223	17.7778	100.0006	105324.4100	1722.3854	2903.7971	3064.9615	1790.1764	4558.921
σ		370.4792	8.3888	946.7701	27.2851	25.1501	25.7043	4.4390	65.1871	25.0195	10.1835	5.8795	1.9245	23.3336	732.3035	42.8687	57.8496	113.2901	71.2724	120.814
%RSD		0.3587	6.5651	0.7880	13.6424	4.2530	3.2381	1.9450	5.0226	7.0587	114.5644	26.4575	10.8253	23.3334	0.6953	2.4889	1.9922	3.6963	3.9813	2.650

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:06:17	42827.3090	156.6680	243.3366	23.3334	280.0043	199001.1700	536.6825	1600.1408	303.3384	156156.4100	156512.4600	2710.4040	95818.9900
2	17:06:30	42844.0550	113.3340	233.3363	23.3334	293.3381	198626.4400	563.3508	1816.8482	396.6753	158191.1400	156946.5100	2567.0290	94353.7840
3	17:06:43	42870.8470	100.0006	160.0014	16.6667	183.3352	201979.1000	586.6856	1770.1723	380.0079	159011.9400	158845.7400	2440.3275	97351.8130
x		42847.4040	123.3342	212.2248	21.1111	252.2259	199368.9000	562.2396	1729.0538	360.0072	157786.5000	157434.9000	2572.5868	95841.5290
σ		21.9613	29.6277	45.5023	3.8490	60.0324	1837.0681	25.0201	114.0551	49.7792	1470.1404	1240.9460	135.1240	1499.1416
%RSD		0.0513	24.0223	21.4406	18.2321	23.8011	0.9191	4.4501	6.5964	13.8273	0.9317	0.7882	5.2525	1.5642

Q328005-BLK1@PBW0/2 10/28/2016 17:09:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:09:39	102295.6600	83.3337	117437.0000	200.0022	233.3363	442.6774	92.6671	1380.1047	373.3410	3.3333	12.2222	13.3333	83.3337	101048.4900	766.6990	1370.1032	1613.4765	943.3823	2413.6537
2	17:09:52	102848.5100	103.3339	119138.9300	210.0024	247.3367	417.3429	90.0004	1210.0805	303.3384	0.0000	12.2222	16.6667	96.6672	103600.3100	813.3697	1370.1032	1326.7635	926.7139	2126.9154
3	17:10:05	102835.0200	76.6670	120219.6800	163.3348	242.6699	384.0081	92.0005	1156.7403	280.0043	0.0000	8.8889	10.0000	96.6672	105289.5500	813.3697	1336.7649	1463.4511	803.3688	2186.9297
x		102659.7300	87.7782	118931.8700	191.1131	241.1143	414.6762	91.5560	1248.9752	318.8946	1.1111	11.1111	13.3333	92.2227	103312.7800	797.8128	1358.9905	1467.8970	891.1550	2242.4996
σ		315.3687	13.8779	1402.8507	24.5709	7.1286	29.4254	1.3878	116.6513	48.5740	1.9245	1.9245	3.3333	7.6981	2135.0980	26.9454	19.2479	143.4082	76.4805	151.2307
%RSD		0.3072	15.8102	1.1795	12.8567	2.9565	7.0960	1.5158	9.3398	15.2320	173.2051	17.3205	25.0000	8.3473	2.0666	3.3774	1.4163	9.7696	8.5822	6.7438

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:09:39	42174.2670	90.0004	200.0022	23.3334	263.3372	193266.0700	596.6863	1116.7353	286.6712	152589.9500	152044.2500	2060.2334	92026.7790
2	17:09:52	42318.2670	106.6673	163.3348	16.6667	236.6698	195649.5800	526.6819	1176.7428	300.0050	155925.8400	155034.1100	1703.4929	94821.9510
3	17:10:05	42281.4300	163.3348	143.3345	23.3334	170.0016	198783.1400	566.6843	1033.3921	263.3372	156790.5200	157499.2800	1790.1762	94390.8320
x		42257.9880	120.0009	168.8905	21.1111	223.3362	195899.6000	563.3508	1108.9567	283.3378	155102.1000	154859.2100	1851.3009	93746.5200
σ		74.8074	38.4424	28.7395	3.8490	48.0751	2767.0174	35.1210	71.9912	18.5598	2218.1329	2731.7185	186.0594	1504.8587
%RSD		0.1770	32.0351	17.0166	18.2321	21.5259	1.4125	6.2343	6.4918	6.5504	1.4301	1.7640	10.0502	1.6052

10/31/16

QJ28005-BS1@LCS0/12 10/28/2016 17:12:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	17:12:56	105630.1300	870.0416	120773.6200	173.3350	10207.7280	5468.3108	802.0354	12144.7740	2500.3438	123.3342	346.6733	146.6679	120.0008	105717.8100	7786.6667	13353.1330	14625.0880	8677.4728
2	17:13:09	105552.5700	890.0436	123658.6800	170.0016	10315.1820	5374.9218	786.0340	12408.4630	2660.3892	140.0011	348.8956	146.6679	83.3337	107134.2400	7913.4427	13783.7750	15109.2120	8981.1008
3	17:13:22	105019.7900	780.0335	125104.9400	176.6684	10391.9360	5326.2265	882.0428	12007.9250	2653.7206	106.6673	358.8960	143.3345	96.6672	108139.3700	8090.2649	13536.7380	14518.2500	8817.6075
x		105400.8300	846.7062	123179.0800	173.3350	10304.9490	5389.8197	823.3707	12187.0540	2604.8179	123.3342	351.4883	145.5567	100.0006	106997.1400	7930.1248	13557.8820	14750.8500	8825.3937
σ		332.2633	58.6000	2205.1292	3.3334	92.5297	72.2042	51.4375	203.5885	90.5386	16.6669	6.5108	1.9245	18.5594	1216.5913	152.4851	216.0982	314.9144	151.9637
%RSD		0.3152	6.9209	1.7902	1.9231	0.8979	1.3396	6.2472	1.6705	3.4758	13.5136	1.8523	1.3222	18.5593	1.1370	1.9229	1.5939	2.1349	1.7219

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:12:56	43232.5540	363.3406	9358.1475	190.0020	2126.9154	197345.6600	536.6825	14474.8480	25746.4070	156763.3900	153206.8600	17266.3810	94946.5740
2	17:13:09	43322.9830	253.3369	9581.7135	183.3352	2356.9722	198762.7000	506.6808	14675.1690	26027.2050	157539.9800	156519.2400	17743.9660	95613.5100
3	17:13:22	43279.4430	303.3384	9448.2406	183.3352	2276.9518	203683.1600	476.6792	15052.4510	26806.1300	159846.3800	160127.9400	18248.2970	96334.3940
x		43278.3270	306.6720	9462.7005	185.5575	2253.6131	199930.5100	506.6808	14734.1560	26193.2470	158049.9200	156618.0100	17752.8820	95631.4930
σ		45.2248	55.0776	112.4823	3.8491	116.7906	3326.2324	30.0017	293.2850	549.0271	1603.5088	3461.5985	491.0183	694.0845
%RSD		0.1045	17.9598	1.1887	2.0743	5.1824	1.6637	5.9212	1.9905	2.0961	1.0146	2.2102	2.7659	0.7258

SEQ-IBL1@ZZZZZZ 10/28/2016 17:16:03

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	17:16:16	109077.1400	390.0084	134538.2200	19083.3420	10490.7160	5296.8760	784.0338	163999.3800	17450.0650	83.3337	112.2229	100.0006	160.0014	242542.9000	10666.2540	16695.3160	19076.6610
2	17:16:30	111475.9800	353.3402	135773.0400	19631.1730	10496.0560	5353.5759	805.3690	170120.3300	17413.3280	66.6669	105.5562	96.6672	160.0014	250185.8900	10609.5210	17770.6850	18966.4310
3	17:16:43	112373.6000	306.6718	138145.0400	20583.2760	10643.5600	5417.6138	790.0343	171961.1500	18909.6460	83.3337	108.8895	100.0006	176.6684	252289.5100	10759.6970	17333.1750	19170.1910
x		110975.5700	350.0068	136152.1000	19765.9300	10543.4440	5356.0219	793.1457	168693.6200	17924.3460	77.7781	108.8895	98.8894	165.5571	248339.4300	10678.4900	17266.3920	19071.0940
σ		1704.2463	41.7681	1833.0468	758.9927	86.7443	60.4060	11.0026	4168.2211	853.4923	9.6226	3.3334	1.9245	9.6227	5128.9524	75.8323	540.7861	101.9940
%RSD		1.5357	11.9335	1.3463	3.8399	0.8227	1.1278	1.3672	2.4709	4.7616	12.3718	3.0612	1.9461	5.8123	2.0653	0.7101	3.1320	0.5348

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:16:16	43597.6250	22902.1450	25779.8350	17413.3280	255970.2800	216146.0300	2233.6077	8537.3402	48120.3530	168065.9800	164382.8800	5795.1799	119314.5400
2	17:16:30	43765.0930	24673.4370	25903.5190	18091.3170	266005.6300	221171.4200	2213.6028	8760.8861	49078.7900	169227.2200	167712.8800	5671.7687	119726.5700
3	17:16:43	44053.1460	24603.2480	26552.0520	17874.2210	270574.2000	225929.6400	2390.3142	8911.0319	50275.3020	173010.7800	169118.5600	5328.2277	124263.5100
x		43805.2880	24059.6100	26078.4690	17792.9550	264183.3700	221082.3600	2279.1749	8736.4194	49158.1480	170101.3300	167071.4400	5598.3921	121101.5400
σ		230.4054	1003.0083	414.7719	346.2229	7470.5458	4892.4135	96.7678	188.0434	1079.6637	2585.6948	2432.1305	241.9694	2746.0867
%RSD		0.5260	4.1688	1.5905	1.9458	2.8278	2.2129	4.2457	2.1524	2.1963	1.5201	1.4557	4.3221	2.2676

SEQ-IBL2@ZZZZZZ 10/28/2016 17:20:20

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	17:20:33	93272.7130	166.6682	146616.1700	5711.7938	23015.7650	10494.7210	1361.4353	22390.8740	936.7149	33.3334	65.5558	63.3336	93.3338	132468.1500	7059.4065	10876.5030	17733.9470	6795.8725
2	17:20:47	93723.9860	110.0007	147151.3800	5921.9282	23137.4060	10686.9450	1374.7706	21956.4830	1100.0666	20.0000	63.3336	30.0000	120.0008	132113.0400	7342.9644	10979.9600	18178.1560	7443.0457
3	17:21:00	91619.3610	146.6679	147781.4800	5735.1418	23285.1160	10476.0330	1425.4451	22217.1150	966.7181	26.6667	71.1114	40.0001	140.0011	134497.6200	7466.3982	10806.4190	18508.8230	7166.1567
x		92872.0200	141.1122	147183.0100	5789.6213	23146.0960	10552.5660	1387.2170	22188.1570	1001.1665	26.6667	66.6669	44.4446	117.7786	133026.2700	7289.5697	10887.6270	18140.3090	7135.0250
σ		1108.0513	28.7394	583.2978	115.1743	134.8857	116.7498	33.7713	218.6385	86.9538	6.6667	4.0062	17.1054	23.4129	1286.5405	208.6796	87.3038	388.8218	324.7078
%RSD		1.1931	20.3663	0.3963	1.9893	0.5828	1.1064	2.4345	0.9854	8.6852	25.0000	6.0093	38.4871	19.8787	0.9671	2.8627	0.8019	2.1434	4.5509

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:20:33	31982.8270	186.6686	7209.5243	56.6668	590.0192	387204.0400	1110.0678	31159.9770	23984.9320	143425.8800	142234.0400	1130.0702	103195.7400
2	17:20:47	32815.7880	166.6682	7449.7178	46.6668	646.6897	394041.9800	1116.7353	32109.9410	24051.7750	146477.2900	144512.8900	1086.7316	105013.0400
3	17:21:00	32437.7680	183.3352	7603.1781	63.3336	560.0172	402441.5200	1070.0630	33217.2420	25054.4770	148628.4500	147249.6200	960.0507	108517.1700
x		32412.1280	178.8907	7420.8067	55.5557	598.9087	394562.5100	1098.9553	32162.3870	24363.7280	146177.2100	144665.5200	1058.9508	105575.3200
σ		417.0719	10.7154	198.4130	8.3888	44.0147	7632.0688	25.2426	1029.6347	599.1394	2614.2357	2511.2704	88.3487	2704.9050
%RSD		1.2868	5.9899	2.6737	15.0997	7.3492	1.9343	2.2970	3.2014	2.4591	1.7884	1.7359	8.3430	2.5621

610039-18@MH1H85 10/28/2016 17:24:21

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	17:24:34	99744.2040	9308.0961	197805.4900	28126.7770	19563.0270	5472.9803	828.0377	359018.5800	16361.3770	320.0056	316.6722	226.6695	310.0053	1431550.0000	31437.5970	49883.1500	58846.5120
2	17:24:48	100249.7200	9391.5152	205735.2700	28544.7440	19499.5570	5459.6389	741.3636	376397.4200	16117.6080	316.6722	313.3387	246.6700	233.3363	1481852.2000	32307.3050	51421.6870	61544.2870
3	17:25:01	99737.4640	9341.4637	208299.3400	29477.7140	19860.3370	5568.3715	747.3641	383456.7800	16548.3810	350.0067	321.1168	240.0032	260.0037	1510722.4000	32688.6650	51931.2380	63172.0620
x		99910.4630	9347.0250	203946.7000	28716.4120	19640.9730	5500.3302	772.2551	372957.5900	16342.4550	328.8949	317.0426	237.7809	267.7818	1474708.2000	32144.5220	51078.6920	61187.6210
σ		293.8242	41.9867	5470.7829	691.6356	192.6066	59.3018	48.4022	12576.9900	216.0039	18.3592	3.9022	10.1838	38.9218	40066.7790	641.2224	1066.2551	2184.7206
%RSD		0.2941	0.4492	2.6825	2.4085	0.9806	1.0782	6.2676	3.3722	1.3218	5.5821	1.2308	4.2828	14.5349	2.7169	1.9948	2.0875	3.5705

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:24:34	33431.3580	3060.5151	14418.0910	1350.1002	18051.2370	268191.8100	6298.8481	52306.7150	200527.4900	202691.3600	194515.6400	6218.7930	103974.5400
2	17:24:48	33337.6820	3040.5084	14411.4140	1330.0973	18111.3570	272854.1800	6425.6034	52926.9560	204923.9200	207071.7700	199777.9300	6315.5263	105930.2600
3	17:25:01	32936.2220	3000.4951	15062.4680	1450.1156	18856.2020	276512.2500	6408.9250	54261.4550	210894.8300	209240.5900	201576.9900	6042.0072	107012.8300
x		33235.0880	3033.8395	14630.6580	1376.7711	18339.5990	272519.4100	6377.7921	53165.0420	205448.7500	206334.5800	198623.5200	6192.1088	105639.2100
σ		261.0286	30.5607	373.9736	64.3009	448.4004	4170.3121	68.8743	998.8825	5203.5575	3336.2702	3669.4925	138.6983	1539.9117
%RSD		0.7914	1.0073	2.5561	4.6704	2.4450	1.5303	1.0799	1.8788	2.5328	1.6169	1.8475	2.2399	1.4577

610039-18RE1@MH1H85@2X 10/28/2016 17:27:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	17:27:54	106621.6000	6865.9251	184557.9000	19287.1050	13156.1790	3866.8222	570.6846	249182.2100	10699.6260	240.0032	237.7809	136.6677	176.6684	998322.4900	21742.6360	34803.1590	41527.9690
2	17:28:07	107707.6300	6695.7983	186126.0500	19604.4490	13357.1390	3839.4773	542.6829	251237.6400	11677.4950	213.3358	240.0032	136.6677	303.3384	1034852.0000	22320.7010	35559.4100	42592.8790
3	17:28:21	106375.4100	6672.4478	190294.3600	19233.6580	13184.8880	3808.1308	546.0164	255555.5200	11130.1430	240.0032	221.1138	186.6686	253.3369	1049631.0000	22230.4810	35268.2790	42994.7640
x		106901.5500	6744.7237	186992.7700	19375.0710	13232.7350	3838.1434	553.1280	251991.7900	11169.0880	231.1141	232.9660	153.3347	244.4479	1027601.8000	22097.9400	35210.2830	42371.8700
σ		708.8553	105.6108	2964.8194	200.4369	108.6886	29.3684	15.2956	3252.8957	490.0965	15.3964	10.3242	28.8680	63.8011	26411.4530	310.9907	381.4470	757.9614
%RSD		0.6631	1.5658	1.5855	1.0345	0.8214	0.7652	2.7653	1.2909	4.3880	6.6618	4.4316	18.8268	26.1001	2.5702	1.4073	1.0833	1.7888

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:27:54	37202.6330	2320.2961	10125.6360	886.7099	12612.0760	263675.8800	4634.5144	37872.0550	137681.4200	194593.9500	189525.2100	4841.2888	102885.5900
2	17:28:07	37851.9720	2060.2334	10202.3880	1030.0584	13046.0210	262327.7100	4601.1641	36677.1710	138040.1300	197635.1800	189269.9700	4784.5921	104658.9900
3	17:28:21	37604.2810	1926.8709	10209.0620	916.7129	12608.7380	267841.7100	4791.2623	37293.0020	140348.4100	200350.3200	192384.3300	4701.2153	103660.9900
x		37552.9620	2102.4668	10179.0290	944.4937	12755.6120	264615.1000	4675.6469	37280.7430	138689.9900	197526.4800	190393.1700	4775.6987	103735.1900
σ		327.6972	200.0840	46.3599	75.6044	251.5074	2874.4832	101.5049	597.5365	1447.3896	2879.7213	1729.1114	70.4590	889.0278
%RSD		0.8726	9.5166	0.4554	8.0048	1.9717	1.0863	2.1709	1.6028	1.0436	1.4579	0.9082	1.4754	0.8570

SEQ-CCV@CCV02 10/28/2016 17:30:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo
1	17:30:59	109637.1500	206123.9300	135610.6400	966.7181	504550.0000	646081.7100	79643.3470	±3224154.6000	679427.9800	5931.9347	18728.1600	8570.7049	140.0011	136764.4000	1245043.3000	2207240.7000
2	17:31:12	111901.1600	206236.4400	136730.5600	890.0436	508773.9300	655630.3000	79864.6090	±3250210.5000	687466.5400	5708.4584	19104.4970	8797.5881	110.0007	131446.8200	1275340.2000	2253328.4000
3	17:31:25	111560.3400	205990.9600	137133.2300	766.6990	508554.1300	657795.2800	80336.0690	±3290535.6000	696183.9000	5898.5797	19125.6530	8677.4728	163.3348	127386.2900	1292529.7000	2287771.4000
x		111032.8800	206117.1100	136491.4800	874.4869	507292.6900	653169.0900	79948.0080	±3254966.9000	687692.8100	5846.3242	18986.1030	8681.9219	137.7789	131865.8400	1270971.0000	2249446.8000
σ		1220.6901	122.8781	788.9477	100.9129	2377.7739	6232.5821	353.6114	±33445.1570	8380.2525	120.5545	223.6359	113.5070	26.7364	4703.0757	24042.8110	40405.4390
%RSD		1.0994	0.0596	0.5780	11.5397	0.4687	0.9542	0.4426	±1.0275	1.2186	2.0621	1.1779	1.3074	19.4053	3.5666	1.8917	1.7962

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:30:59	43456.9540	53097.9480	342405.7700	40429.7010	592740.3500	221997.8700	1653.4837	1997644.7000	707693.6700	166066.4000	164053.6800	±4615634.6000	99572.3360
2	17:31:12	44515.3900	53644.4760	347801.5800	40362.7380	604537.0800	225379.5700	1620.1444	2022879.1000	719224.6900	169274.7600	167984.4900	±4761190.6000	102063.0600
3	17:31:25	43899.0700	54358.7000	352930.3400	41990.0840	626220.2200	227436.5200	1393.4401	2110079.3000	751335.7100	175440.0100	171832.0700	±4880275.2000	103795.8500
x		43957.1380	53700.3750	347712.5600	40927.5080	607832.5500	224937.9900	1555.6894	2043534.4000	726084.6900	170260.3900	167956.7500	±4752366.8000	101810.4200
σ		531.6019	632.2319	5262.8505	920.8269	16981.4760	2746.0845	141.4973	58994.6170	22615.2930	4763.9008	3889.2720	±132540.7900	2123.0617
%RSD		1.2094	1.1773	1.5136	2.2499	2.7938	1.2208	9.0955	2.8869	3.1147	2.7980	2.3156	±2.7889	2.0853

SEQ-CCB@CCB02 10/28/2016 17:35:00 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	17:35:00	107940.3600	110.0007	121047.2200	270.0040	604.6868	848.0396	204.0023	1846.8542	426.6767	13.3333	20.0000	13.3333	90.0004	107869.5300	1646.8158	2920.4690	2950.4787	1826.8502	4607.834
2	17:35:13	108011.2000	146.6679	127240.9400	236.6698	528.6820	804.7023	230.0029	1750.1685	530.0154	3.3333	16.6667	16.6667	90.0004	108429.4700	1766.8383	2960.4820	3220.5704	1863.5243	4897.985
3	17:35:27	109643.9000	156.6680	128295.6100	260.0037	552.0168	857.3738	196.0021	1656.8176	376.6745	6.6667	13.3333	23.3334	106.6673	112164.3700	1690.1571	3250.5810	3230.5739	1880.1944	5211.493
x		108531.8200	137.7788	125527.9200	255.5592	561.7952	836.7052	210.0024	1751.2801	444.4555	7.7778	16.6667	17.7778	95.5561	109487.7900	1701.2704	3043.8440	3133.8743	1856.8563	4905.771
σ		963.7413	24.5707	3916.0710	17.1058	38.9345	28.1055	17.7768	95.0232	78.2012	5.0918	3.3333	5.0918	9.6226	2334.8342	60.7781	180.1539	158.9040	27.2901	301.904
%RSD		0.8880	17.8335	3.1197	6.6935	6.9304	3.3591	8.4650	5.4259	17.5948	65.4654	20.0000	28.6411	10.0701	2.1325	3.5725	5.9186	5.0705	1.4697	6.154

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:35:00	43135.4280	100.0006	290.0046	23.3334	316.6722	201519.0600	713.3613	1706.8269	460.0116	155437.5800	152789.9300	2610.3747	91733.8400
2	17:35:13	43547.3850	140.0011	240.0032	20.0000	330.0060	206072.7900	670.0247	1783.5083	446.6776	159452.9000	158069.0400	2627.0462	94111.2900
3	17:35:27	43048.3500	120.0008	253.3369	30.0000	293.3381	212399.2600	660.0240	1946.8751	380.0079	164695.1200	164145.3100	2547.0234	96640.9550
x		43243.7210	120.0008	261.1149	24.4445	313.3388	206663.7000	681.1367	1812.4034	428.8991	159861.8700	158334.7600	2594.8148	94162.0280
σ		266.5605	20.0003	25.8923	5.0918	18.5598	5464.1133	28.3518	122.6050	42.8626	4642.2999	5682.3522	42.2196	2453.9509
%RSD		0.6164	16.6668	9.9160	20.8299	5.9233	2.6440	4.1624	6.7648	9.9936	2.9039	3.5888	1.6271	2.6061

Analyte ICPS

SEQ-CAL1@S01 10/28/2016 15:58:01

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	15:58:01	98.9%	-6.9002	96.1%	38.5077	-11.7662	58.4950	-2.7481	76.4193	6.6963	1.0018	0.7153	-1.2823	-2.1871	1820.0558	9.0485	146.0191	-5.9437	1.8313	44.5551
2	15:58:15	100.8%	4.4857	101.6%	-25.2677	14.8586	34.4991	7.1656	57.0720	-88.0743	-2.1948	0.8475	-15.5724	19.3231	-77.0432	37.8033	143.1775	-56.7332	-30.1617	-0.4938
3	15:58:28	100.3%	16.8457	102.3%	-13.2400	14.1490	26.3118	-4.4176	-69.3709	-41.2553	1.1931	-1.3544	16.8546	-17.1359	-1743.0126	-46.8518	29.7585	62.6769	28.3304	-44.0613
x		100.0%	4.8104	100.0%	0.0000	5.7471	39.7686	-0.0000	21.3735	-40.8778	0.0000	0.0694	-0.0000	0.0000	0.0000	-0.0000	106.3184	0.0000	0.0000	-0.0000
σ		1.0%	11.8763	3.4%	33.8865	15.1711	16.7262	6.2615	79.1801	47.3864	1.9032	1.2349	16.2515	18.3276	1782.7832	43.0469	66.3180	59.9265	29.2890	44.3102
%RSD		1.0	246.8867	3.4	0.0000	263.9777	42.0587	0.0000	370.4597	115.9222	0.0000	1778.4807	0.0000	0.0000	0.0000	0.0000	62.3768	0.0000	0.0000	0.0000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	15:58:01	101.1%	-15.8032	-1.9943	-9.5852	45.7095	3585.0114	-64.4910	3.8974	4.0982	96.8%	98.6%	68.5155	-698.1395
2	15:58:15	99.6%	-3.9705	15.3052	3.3540	38.0961	-2125.6903	33.0506	-2.8620	14.6154	100.1%	99.5%	-1.4570	463.9070
3	15:58:28	99.2%	19.7737	-23.2657	6.2311	5.5675	-1459.3212	31.4404	-0.6132	-14.4718	103.0%	101.9%	20.6558	234.2325
x		100.0%	-0.0000	-3.3183	0.0000	29.7910	0.0000	0.0000	0.1408	1.4139	100.0%	100.0%	29.2381	0.0000
σ		1.0%	18.1177	19.3195	8.4247	21.3208	3122.5378	55.8567	3.4422	14.7282	3.1%	1.7%	35.7670	615.4159
%RSD		1.0	0.0000	582.2195	0.0000	71.5679	0.0000	0.0000	2445.5163	1041.6616	3.1	1.7	122.3301	0.0000

SEQ-CAL2@S02 10/28/2016 16:02:09

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:02:22	100.4%	78.0601	100.8%	-43.9692	937.2820	564.0376	30.0068	1146.5259	224.5720	-5.6316	40.7359	29.2386	3.1078	-23.5069	2106.7943	3592.4526	3457.3352	2015.7957	5434.4209
2	16:02:36	102.1%	81.2670	104.5%	-45.3733	1096.3776	521.5169	8.1324	969.9125	282.3434	7.6171	43.6348	54.1075	-31.7546	-845.5916	1842.4222	3458.8603	3597.7279	2246.1170	5216.8948
3	16:02:49	100.9%	53.5490	103.9%	-57.4167	1014.5896	561.9592	11.1637	1175.0928	147.2471	4.2420	43.3428	15.6256	3.9737	37.2148	2069.4200	3170.8151	3746.2503	2155.5909	5436.5937
x		101.1%	70.9587	103.1%	-48.9198	1016.0831	549.1713	16.4343	1097.1771	218.0542	2.0758	42.5712	32.9906	-8.2244	-277.2945	2006.2122	3407.3760	3600.4378	2139.1678	5362.6365
σ		0.9%	15.1623	2.0%	7.3920	79.5583	23.9719	11.8515	111.1360	67.7836	6.8848	1.5961	19.5134	20.3823	493.0953	143.0719	215.4821	144.4766	116.0356	126.2207
%RSD		0.9	21.3677	1.9	15.1105	7.8299	4.3651	72.1141	10.1293	31.0857	331.6703	3.7492	59.1485	247.8291	177.8237	7.1314	6.3240	4.0128	5.4243	2.3537

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:02:22	102.4%	-26.7247	909.0788	6.7506	276.4772	693.2562	-48.2418	1421.6502	2809.9842	100.1%	102.0%	1401.8569	2461.0273
2	16:02:36	101.0%	-1.4391	913.4904	12.3311	159.3010	-2508.7595	-68.1732	1248.2818	2672.7084	103.7%	104.3%	1501.5181	1916.0160
3	16:02:49	101.6%	-17.4564	1067.0202	5.9200	194.4476	285.6213	-81.5777	1305.9370	2749.3090	104.3%	104.7%	1626.4399	1745.9795
x		101.7%	-15.2067	963.1965	8.3339	210.0753	-509.9607	-65.9976	1325.2896	2744.0005	102.7%	103.7%	1509.9383	2041.0076
σ		0.7%	12.7920	89.9410	3.4865	60.1310	1742.9685	16.7741	88.2896	68.7917	2.3%	1.4%	112.5280	373.5512
%RSD		0.7	84.1208	9.3378	41.8357	28.6235	341.7849	25.4163	6.6619	2.5070	2.2	1.4	7.4525	18.3023

SEQ-CAL3@S03 10/28/2016 16:06:25

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:06:25	98.0%	195.9960	96.7%	2.8347	2436.0924	1337.6660	30.8927	2981.3401	837.2275	34.0538	100.9269	48.4021	14.5382	1196.1454	4125.1255	6762.8190	7472.9240	4485.5091	10806.0140
2	16:06:39	100.9%	218.2163	100.4%	-46.7982	2609.2367	1359.2310	14.2624	2771.8598	630.7584	14.5050	99.9693	51.4416	22.5300	823.3752	4273.0106	6861.0457	7346.1879	4151.2467	11348.0760
3	16:06:52	101.5%	208.2104	102.6%	-33.1882	2714.8498	1365.0300	-6.6792	2892.1914	629.0977	34.4446	103.0298	67.8605	5.5608	619.6950	3996.2891	7313.2639	7444.0528	4521.4846	11668.8990
x		100.2%	207.4742	99.9%	-25.7172	2586.7263	1353.9757	12.8253	2881.7971	699.0279	27.6678	101.3087	55.9014	14.2097	879.7385	4131.4751	6979.0429	7421.0549	4386.0802	11274.3300
σ		1.9%	11.1284	3.0%	25.6460	140.7354	14.4191	18.8271	105.1263	119.6873	11.4010	1.5656	10.4678	8.4893	292.3293	138.4700	293.5811	66.4243	204.1656	436.1438
%RSD		1.9	5.3638	3.0	99.7231	5.4407	1.0649	146.7967	3.6479	17.1220	41.2066	1.5453	18.7255	59.7434	33.2291	3.3516	4.2066	0.8951	4.6549	3.8685

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:06:25	100.9%	51.4048	2423.1910	21.0933	532.8987	-3131.8474	8.8142	3390.3710	6471.5366	98.3%	98.7%	3913.6762	251.4077
2	16:06:39	99.8%	26.0755	2467.4480	26.5739	555.6562	-768.9440	6.5101	3222.7071	6701.3996	100.8%	100.9%	3861.1383	984.4935
3	16:06:52	100.0%	27.3838	2525.8386	12.9472	713.9033	-1775.1471	-12.5012	3514.8868	6582.3632	101.4%	101.6%	4135.7826	3171.2942
x		100.2%	34.9547	2472.1592	20.2048	600.8194	-1891.9795	0.9410	3375.9883	6585.0998	100.1%	100.4%	3970.1991	1469.0651
σ		0.6%	14.2612	51.4857	6.8566	98.5924	1185.7763	11.6982	146.6199	114.9559	1.6%	1.6%	145.7858	1519.0595
%RSD		0.6	40.7992	2.0826	33.9357	16.4096	62.6738	1243.1017	4.3430	1.7457	1.6	1.5	3.6720	103.4031

SEQ-CAL4@S04 10/28/2016 16:10:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:10:27	97.9%	419.4182	96.8%	-38.7020	4797.3572	2544.6471	75.1107	5648.2063	1550.6470	47.6085	191.3188	44.9837	21.8696	1419.9546	9802.3231	17011.4940	18089.5960	10858.5080	27799.1810
2	16:10:40	100.7%	391.5267	100.3%	-56.6057	4975.0105	2505.7410	51.0984	6119.3667	1415.7044	24.1923	188.1905	140.2395	-21.6858	787.4274	9734.9146	17400.7430	18591.0470	11168.1340	27692.5860
3	16:10:53	99.7%	377.1874	101.2%	-34.6408	4789.4961	2485.9650	76.5657	5935.4457	1350.2852	59.7037	183.5422	42.8750	42.6800	431.9231	10221.6730	17338.0910	18307.5830	11103.0530	27741.8760
x		99.4%	396.0441	99.4%	-43.3162	4853.9546	2512.1177	67.5916	5901.0062	1438.8788	43.8348	187.6839	76.0327	14.2879	879.7684	9919.6368	17250.1100	18329.4090	11043.2320	27744.5480
σ		1.4%	21.4748	2.3%	11.6868	104.9112	29.8562	14.3020	237.4607	102.1715	18.0539	3.9130	55.6146	32.8459	500.4465	263.7333	209.0081	251.4368	163.2512	53.3477
%RSD		1.4	5.4223	2.3	26.9803	2.1614	1.1885	21.1595	4.0241	7.1008	41.1862	2.0849	73.1456	229.8856	56.8839	2.6587	1.2116	1.3718	1.4783	0.1923

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:10:27	100.3%	58.0617	4678.2730	62.0200	1016.1215	-446.5255	-29.1610	7150.9801	13045.2940	98.3%	97.9%	8155.4676	1728.4082
2	16:10:40	100.8%	79.0672	4876.3749	82.8779	1074.5940	69.4232	-73.1347	6946.8969	12770.2420	100.9%	101.6%	7876.9850	827.7404
3	16:10:53	102.1%	52.5553	4540.1362	103.7924	1025.4234	-1108.1658	-98.3173	6784.2915	13377.5610	103.7%	103.3%	8263.4402	1597.3332
x		101.0%	63.2280	4698.2614	82.8967	1038.7130	-495.0894	-66.8710	6960.7229	13064.3660	101.0%	100.9%	8098.6310	1384.4939
σ		0.9%	13.9906	169.0082	20.8862	31.4200	590.2947	35.0010	183.7349	304.1081	2.7%	2.8%	199.3984	486.5964
%RSD		0.9	22.1273	3.5972	25.1954	3.0249	119.2299	52.3411	2.6396	2.3278	2.6	2.8	2.4621	35.1462

SEQ-CAL5@S05 10/28/2016 16:14:28

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:14:28	97.5%	4299.7138	96.9%	9217.2535	10115.3610	13533.4830	181.9179	58686.0670	12556.5720	86.0453	421.3835	240.2609	-2.8343	-1016.8120	24393.6290	41509.9640	45486.7800	26462.3570	69072.9290
2	16:14:41	100.6%	4095.5392	100.9%	9120.9891	9736.2222	13048.6170	147.2353	58451.6060	12225.1960	82.9454	366.9088	179.7893	10.4642	-1170.9160	24191.6560	41892.0720	45432.5920	27802.1440	68825.7700
3	16:14:55	100.5%	4043.6736	103.9%	8994.3656	9808.8951	13159.6680	163.7743	58886.1070	12679.5510	119.3598	402.9759	183.3259	10.7500	-1006.3408	23732.9020	42001.0710	44619.7950	26558.7910	67851.6890
x		99.5%	4146.3089	100.6%	9110.8694	9886.8263	13247.2560	164.3092	58674.5930	12487.1060	96.1168	397.0894	201.1254	6.1266	-1064.6896	24106.0620	41801.0360	45179.7220	26941.0970	68583.4630
σ		1.8%	135.3600	3.5%	111.7880	201.2252	254.0224	17.3475	217.4772	235.0076	20.1886	27.7103	33.9384	7.7617	92.1436	338.5778	257.8997	485.6675	747.2459	645.6713
%RSD		1.8	3.2646	3.5	1.2270	2.0353	1.9175	10.5578	0.3706	1.8820	21.0042	6.9784	16.8743	126.6886	8.6545	1.4045	0.6170	1.0750	2.7736	0.9414

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:14:28	98.3%	1059.6235	6373.7585	734.0450	11177.1450	-2027.8988	35965.3390	35562.5180	13344.3590	97.6%	97.5%	84848.9130	4900.4308
2	16:14:41	101.6%	919.4929	6613.6584	834.1028	11143.0210	-1145.0104	36700.9990	36442.5840	13502.9560	100.6%	100.5%	83367.8220	4545.7886
3	16:14:55	101.4%	1073.9560	6216.1424	750.5101	11428.7210	-3365.9375	36013.9110	35845.7680	13018.5310	103.9%	102.8%	84959.0720	4227.3685
x		100.4%	1017.6908	6401.1898	772.8860	11249.6290	-2179.6158	36226.7500	35950.2900	13288.6150	100.7%	100.3%	84391.9350	4557.8626
σ		1.8%	85.3433	200.1777	53.6507	156.0338	1118.2096	411.4291	449.2471	246.9762	3.2%	2.6%	888.6171	336.6936
%RSD		1.8	8.3860	3.1272	6.9416	1.3870	51.3031	1.1357	1.2496	1.8586	3.1	2.6	1.0530	7.3871

SEQ-CAL6@S06 10/28/2016 16:18:29

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	16:18:29	99.8%	21471.5390	97.2%	46526.2300	48560.3450	65660.0290	746.3419	293879.5300	63040.9180	554.4653	1864.3418	974.7805	15.5688	-187.6703	119933.3800	207500.6300	222848.4500	132713.3700
2	16:18:42	100.5%	20624.2610	100.4%	46659.9050	48846.3730	64842.2010	539.1584	293634.4600	62312.7240	609.8483	1859.1143	860.0741	25.9781	106.3780	121297.5100	209949.2000	225721.9700	133580.7800
3	16:18:55	101.5%	21121.2430	102.3%	46359.0990	49455.6480	65909.7960	647.0624	297552.3600	63353.8820	562.6966	1822.8700	803.5017	-18.9285	296.6664	121837.1500	209785.5200	229366.2900	136258.3600
x		100.6%	21072.3480	100.0%	46515.0780	48954.1220	65470.6750	644.1876	295022.1200	62902.5080	575.6701	1848.7754	879.4521	7.5395	71.7914	121022.6800	209078.4500	225978.9100	134184.1700
σ		0.9%	425.7499	2.6%	150.7123	457.2735	558.4180	103.6217	2194.6812	534.2008	29.8840	22.5865	87.2682	23.5054	244.0137	981.1914	1368.8791	3266.5091	1847.9149
%RSD		0.9	2.0204	2.6	0.3240	0.9341	0.8529	16.0856	0.7439	0.8493	5.1912	1.2217	9.9230	311.7635	339.8928	0.8107	0.6547	1.4455	1.3771

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:18:29	100.0%	5023.9869	31654.9730	3637.2744	54552.7920	-818.4313	178975.5800	177298.8200	64999.1500	98.5%	98.5%	426728.0700	1727.8517
2	16:18:42	102.4%	4848.5081	31957.7710	3682.3749	54640.3880	99.5470	181027.4100	179659.0000	66477.6680	101.4%	101.9%	425527.4700	813.5828
3	16:18:55	101.5%	5200.7789	32240.3440	3969.4866	55322.8520	-3350.1824	183242.8500	184086.4500	66607.5580	103.7%	105.1%	428668.3400	1939.4949
x		101.3%	5024.4246	31951.0290	3763.0453	54836.6770	-1356.3556	181081.9500	180348.0900	66028.1260	101.2%	101.8%	426974.6300	1493.6431
σ		1.2%	176.1358	292.7438	180.2000	421.5886	1786.6673	2134.1602	3445.8816	893.4825	2.6%	3.3%	1584.8816	598.3809
%RSD		1.2	3.5056	0.9162	4.7887	0.7638	131.7256	1.1786	1.9107	1.3532	2.6	3.2	0.3712	40.0618

SEQ-CAL7@S07 10/28/2016 16:22:29

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96
1	16:22:29	97.5%	208463.4200	96.5%	465170.6600	530799.6800	697058.2600	5393.1159	τ3011912.5000	632737.1100	5817.6232	19382.1120	8871.6610	1.8038	182.8284	1267872.6000	2211514.0000	2426250.9
2	16:22:42	98.4%	204240.5500	101.0%	465298.4200	524275.9000	691243.9400	5578.3662	τ2969479.3000	624090.9800	5919.3129	19035.5690	9134.7424	21.5347	-1410.3808	1243816.9000	2195985.3000	2383911.5
3	16:22:55	99.2%	204757.7000	102.4%	469508.8500	518349.4200	681250.7900	5747.8178	τ2990959.2000	628442.2500	5994.1452	18924.3070	8944.0746	15.9843	-2855.9001	1261959.5000	2206711.4000	2408605.5
x		98.3%	205820.5600	99.9%	466659.3100	524475.0000	689851.0000	5573.1000	τ2990783.7000	628423.4500	5910.3604	19113.9960	8983.4927	13.1076	-1361.1508	1257883.0000	2204736.9000	2406256.0
σ		0.8%	2303.3487	3.1%	2468.5975	6227.5204	7995.2622	177.4096	τ21217.1270	4323.0959	88.6009	238.7665	135.8981	10.1751	1519.9623	12535.2850	7950.4360	21267.2
%RSD		0.8	1.1191	3.1	0.5290	1.1874	1.1590	3.1833	τ0.7094	0.6879	1.4991	1.2492	1.5128	77.6277	111.6674	0.9965	0.3606	0.8

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:22:29	93.7%	49318.3980	318686.2800	37166.6110	555565.7900	-5427.0049	1911200.8000	1879540.8000	665945.2900	98.1%	99.5%	τ4453184.0000	1176.1586
2	16:22:42	95.0%	48506.1010	315341.1200	36891.0460	554434.4000	-7506.9967	1906952.8000	1878477.5000	668766.9700	102.8%	103.0%	τ4431447.8000	557.1257
3	16:22:55	96.7%	49090.7510	317715.3700	36729.5500	553579.9900	-6662.1913	1937704.1000	1923506.3000	681597.3300	105.1%	105.8%	τ4467501.9000	2422.1472
x		95.1%	48971.7500	317247.5900	36929.0690	554526.7300	-6532.0643	1918619.2000	1893841.5000	672103.2000	102.0%	102.8%	τ4450711.2000	1385.1438
σ		1.5%	419.0199	1720.9426	220.9972	996.1109	1046.0838	16663.8810	25695.9480	8342.3247	3.6%	3.1%	τ18153.7990	949.9118
%RSD		1.6	0.8556	0.5425	0.5984	0.1796	16.0146	0.8685	1.3568	1.2412	3.5	3.1	τ0.4079	68.5786

SEQ-CAL8@S08 10/28/2016 16:26:27

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	
1	16:26:27	93.2%	μ414503.8400	93.9%	913744.8400	μ1105259.2000	μ1428511.7000	9224.3094	τ5810662.6000	1229504.1000	11576.7910	μ38532.8780	17613.8120	36.1837	-3557.5488	2548022.1000	τM436685
2	16:26:41	95.5%	μ415359.2400	96.2%	921069.1700	μ1078639.1000	μ1390285.7000	8609.2429	τ5856226.4000	1245546.2000	11558.7270	37413.5850	17197.2920	31.3262	-1347.0229	2566463.2000	τM433325
3	16:26:54	96.2%	408987.8900	98.3%	939485.2000	μ1059202.1000	μ1379109.1000	8669.3692	τM5889253.1000	1247221.1000	11395.8180	36938.8850	17042.0430	54.0675	-3311.6497	τ2572666.7000	τ431176
x		95.0%	μ412950.3200	96.1%	924766.4100	μ1081033.5000	μ1399302.2000	8834.3072	τM5852047.4000	1240757.1000	11510.4450	μ37628.4490	17284.3830	40.5258	-2738.7405	τ2562384.0000	τM433728
σ		1.6%	μ3458.1158	2.2%	13262.4950	μ23121.7490	μ25906.1290	339.0871	τM39461.5820	9781.3157	99.6804	μ818.4301	295.6659	11.9763	1211.5176	τ12818.7240	τM2776
%RSD		1.6	μ0.8374	2.3	1.4341	μ2.1389	μ1.8514	3.8383	τM0.6743	0.7883	0.8660	μ2.1750	1.7106	29.5523	44.2363	τ0.5003	τM

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:26:27	89.6%	92440.9190	610567.8100	72021.3470	1070131.9000	-11960.5070	τ3651123.1000	τ3602418.9000	1318424.2000	97.0%	97.4%	τM9026009.8000	750.9395
2	16:26:41	93.0%	95097.0590	610233.8300	71252.2110	1073703.8000	-10216.5970	τ3670943.7000	τ3614594.4000	τM1343149.5000	100.8%	101.6%	τM8948962.6000	1426.0603
3	16:26:54	94.4%	94320.9500	615842.2200	72550.2800	1094408.0000	-11360.4960	τ3719897.4000	τM3677578.3000	τM1352806.3000	104.2%	104.1%	τM9044835.4000	2592.4562
x		92.3%	93952.9760	612214.6200	71941.2790	1079414.6000	-11179.2000	τ3680654.7000	τM3631530.5000	τM1338126.6000	100.7%	101.1%	τM9006602.6000	1589.8187
σ		2.5%	1365.7681	3146.0295	652.7281	13106.9710	885.9782	τ35400.6250	τM40340.5730	τM17732.8540	3.6%	3.4%	τM50797.3850	931.6161
%RSD		2.7	1.4537	0.5139	0.9073	1.2143	7.9252	τ0.9618	τM1.1108	τM1.3252	3.6	3.3	τM0.5640	58.5989

SEQ-ICV@ICV01 10/28/2016 16:36:14 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	16:36:27	98.2%	39192.6340	104.2%	207.4586	95161.5880	124526.4500	1106.1354	578823.7100	123066.1200	2234.5594	7311.5801	3195.8536	4.4973	-1451.6979	10336.7520	17726.8860	19893.1840	11570.8730
2	16:36:40	99.2%	38905.3400	105.4%	95.9035	93946.2820	123194.7800	977.3477	579602.9900	122819.5800	2165.3678	7271.7831	3325.3086	12.3927	471.1539	10652.4920	18046.4220	19415.3740	11442.4890
3	16:36:54	98.6%	38857.2950	106.0%	97.4964	95369.7770	124737.3100	923.7577	583578.7200	124165.9100	2168.4217	7239.6695	3489.7990	-2.8260	-2007.6645	10565.2170	17712.2210	19272.2410	11396.9830
x		98.7%	95.317%	105.2%	133.6195	94.363%	96.023%	1002.4136	99.650%	100.505%	2189.4496	96.271%	3336.9871	4.6880	-996.0695	10518.1540	17828.5100	19526.9330	11470.1150
σ		0.5%	n/a	0.9%	63.9515	n/a	n/a	93.7370	n/a	n/a	39.0960	n/a	147.3203	7.6112	1300.7048	163.0466	188.8601	325.1562	90.1766
%RSD		0.5	0.4651	0.8	47.8609	0.8108	0.6737	9.3511	0.4392	0.5811	1.7857	0.4952	4.4148	162.3547	130.5837	1.5501	1.0593	1.6652	0.7862

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:36:27	101.0%	9430.8334	476585.9200	7273.5292	107033.2000	-1906.6162	745.4792	695963.3700	130293.3100	106.0%	105.0%	1802502.3000	598.9217
2	16:36:40	102.9%	9637.5574	481160.6000	7282.4319	107782.2400	1276.3535	554.0618	707921.8200	132614.6100	106.1%	107.2%	1802782.0000	2065.2145
3	16:36:54	101.8%	9814.6493	476434.1100	7294.7944	107499.2900	-1507.9334	497.5921	710202.1500	133172.3800	107.8%	107.9%	1806903.9000	2237.6016
x		101.9%	9627.6801	100.494%	7283.5852	97.964%	-712.7320	599.0444	97.739%	99.152%	106.6%	106.7%	100.831%	1633.9126
σ		0.9%	192.0985	n/a	10.6794	n/a	1734.0943	129.9215	n/a	n/a	1.0%	1.5%	n/a	900.4632
%RSD		0.9	1.9953	0.5619	0.1466	0.3520	243.3024	21.6881	1.0853	1.1565	0.9	1.4	0.1366	55.1109

SEQ-ICB@ICB01 10/28/2016 16:40:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	16:40:29	97.2%	8.2131	98.1%	71.6451	130.5044	165.2246	-7.1717	582.3038	85.3491	-2.2589	0.7620	8.4593	11.5749	540.5519	282.5609	618.6709	620.6183	294.9494	812.2445
2	16:40:42	100.0%	16.2235	102.8%	28.1366	12.9939	130.5044	18.7041	483.9309	55.5885	-2.3479	9.3603	18.8466	-12.7751	-982.4187	228.7389	536.7758	435.2119	357.0483	842.8408
3	16:40:55	98.7%	4.6293	104.6%	18.2848	15.6949	120.3953	15.6704	419.0413	30.5510	7.6233	10.6366	11.7665	-2.0133	-1221.7065	255.8877	619.0111	468.2784	330.5607	837.0869
x		98.7%	9.6887	101.8%	39.3555	53.0644	138.7081	9.0676	495.0920	57.1629	1.0055	6.9196	13.0241	-1.0712	-554.5245	255.7292	591.4859	508.0362	327.5195	830.7241
σ		1.4%	5.9363	3.4%	28.3942	67.0786	23.5136	14.1452	82.2015	27.4330	5.7314	5.3707	5.3066	12.2023	955.8812	26.9113	47.3806	98.8909	31.1609	16.2603
%RSD		1.4	61.2703	3.3	72.1479	126.4098	16.9519	155.9970	16.6033	47.9909	570.0015	77.6153	40.7443	1139.1502	172.3785	10.5234	8.0104	19.4653	9.5142	1.9574

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:40:29	100.6%	9.1085	286.4539	-13.1063	177.3192	-835.8011	264.9414	1878.7363	208.6774	98.8%	99.4%	1360.1071	1225.3667
2	16:40:42	102.0%	40.3693	157.3361	3.1240	98.0500	-852.6627	327.8410	2200.4140	175.6427	101.3%	100.6%	1518.3469	1507.7453
3	16:40:55	101.0%	12.4520	105.1936	9.3374	162.9934	-554.1931	311.4978	2167.7253	116.0894	102.1%	102.4%	1422.9730	1970.4076
x		101.2%	20.6433	182.9945	-0.2150	146.1208	-747.5523	301.4268	2082.2919	166.8032	100.7%	100.8%	1433.8090	1567.8399
σ		0.7%	17.1649	93.3145	11.5884	42.2423	167.6661	32.6368	177.0404	46.9227	1.8%	1.5%	79.6745	376.1383
%RSD		0.7	83.1499	50.9930	5390.8388	28.9092	22.4287	10.8274	8.5022	28.1306	1.8	1.5	5.5568	23.9909

SEQ-IFA@ICSA01 10/28/2016 16:44:30 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98
1	16:44:30	87.5%	150.4834	91.6%	759529.0800	-263.5605	28030.0090	128.5388	7589.3796	7502.1196	-8.8856	4.2215	-54.4538	62.0714	-1442.8555	2025439.1000	r3610581.8000	r3883351.4000	2261285.6000	r5931974.5
2	16:44:43	89.2%	128.5743	94.6%	773861.3000	-70.2476	27650.9700	64.6222	7880.9363	6990.9121	-4.8430	1.3591	-135.4169	160.9591	81.5088	2030689.3000	r3573428.1000	r3899311.1000	2279657.1000	r5896255.6
3	16:44:57	89.2%	163.2954	97.3%	774117.3000	-604.0038	27688.0180	247.0042	7860.5095	7193.4302	-8.8856	2.6578	-63.9909	59.1816	335.2163	2065827.6000	r3626552.9000	r3930015.8000	2302806.5000	r5945186.3
x		88.6%	1.#IO%	94.5%	769169.2300	-62.216%	100.301%	146.7218	132.127%	96.203%	-7.5381	24.350%	-84.6205	94.0707	-342.0435	2040652.0000	r3603520.9000	r3904226.1000	2281249.7000	r5924472.1
σ		1.0%	n/a	2.8%	8349.5925	n/a	n/a	92.5406	n/a	n/a	2.3340	n/a	44.2487	57.9451	961.7340	21960.1500	r27257.1520	r23717.2900	20806.1790	r25313.3
%RSD		1.1	11.9077	3.0	1.0855	86.4470	0.7520	63.0722	2.0928	3.5612	30.9622	52.1927	52.2907	61.5974	281.1730	1.0761	r0.7564	r0.6075	0.9121	r0.4

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:44:30	81.3%	6.8475	32.5963	1282.4321	182.8730	-4280.8462	650.8827	4652.2752	2695.4868	93.5%	93.5%	721.7533	-663.4139
2	16:44:43	82.5%	-11.9871	46.9070	1247.4825	233.7173	-5708.1273	622.9396	4607.5303	2520.9100	97.7%	97.1%	804.3969	-754.2841
3	16:44:57	82.8%	2.1292	79.5371	1196.5656	138.9459	-4291.4553	572.3083	4675.9185	2629.7733	99.8%	100.5%	758.0760	-244.0379
x		82.2%	-1.0034	1.#IO%	1242.1601	23.880%	-4760.1429	615.3769	85.045%	163.680%	97.0%	97.0%	1.#IO%	-553.9119
σ		0.8%	9.8003	n/a	43.1800	n/a	820.9957	39.8294	n/a	n/a	3.2%	3.5%	n/a	272.1779
%RSD		0.9	976.6803	45.3825	3.4762	25.6119	17.2473	6.4724	0.7477	3.3713	3.3	3.6	5.4402	49.1374

SEQ-IFB@ICSA801 10/28/2016 16:48:29 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo
1	16:48:29	88.2%	7632.1031	96.6%	755996.6000	20947.8620	56159.8350	526.9022	119184.6800	30275.5890	181.7859	674.8431	180.0753	153.7596	312.1151	2009500.0000	r3607832.8000	r3872613.1000	2263119.500
2	16:48:42	90.6%	7788.5827	100.1%	759654.0700	20837.7180	55329.7850	506.1080	120028.5300	30565.4240	212.5324	685.1907	220.3060	103.8831	1192.6457	2053885.5000	r3613961.4000	r3897357.7000	2261106.900
3	16:48:55	90.3%	7640.5690	102.6%	769566.0100	20941.7610	55961.2930	572.1873	118885.9600	30773.1740	198.1239	671.3570	252.5969	81.3774	886.0697	2055624.2000	r3621736.1000	r3889161.2000	2290180.600
x		89.7%	97.930%	99.8%	761738.8900	109.511%	105.767%	535.0658	101.399%	101.602%	197.4807	94.802%	217.6594	113.0067	796.9435	2039669.9000	r3621176.8000	r3886377.3000	2271469.000
σ		1.3%	n/a	3.0%	7020.8293	n/a	n/a	33.7876	n/a	n/a	15.3833	n/a	36.3332	37.0436	446.9800	26142.3730	r13073.2830	r12604.9860	16235.959
%RSD		1.5	1.1448	3.0	0.9217	0.2961	0.7765	6.3147	0.4964	0.8184	7.7898	1.0626	16.6927	32.7800	56.0868	1.2817	r0.3610	r0.3243	0.714

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	16:48:29	82.2%	1707.7666	85838.6140	2664.0707	20200.0250	-1390.8471	765.1519	74192.6570	29417.2690	96.4%	97.2%	164421.8100	-2449.3846
2	16:48:42	84.3%	1815.5353	85836.0920	2690.1466	20348.9090	-3456.8257	606.8484	74305.0580	28999.6360	100.4%	100.3%	165973.6900	-2650.9479
3	16:48:55	83.7%	1971.3522	88412.0740	2624.4367	20314.7100	-1927.5692	748.4144	74628.6710	29823.9050	102.5%	103.7%	166202.6000	-3445.6631
x		83.4%	1831.5514	100.620%	2659.5514	91.570%	-2258.4140	706.8049	92.841%	100.408%	99.7%	100.4%	90.315%	-2848.6652
σ		1.1%	132.5207	n/a	33.0872	n/a	1071.9891	86.9685	n/a	n/a	3.1%	3.2%	n/a	526.7464
%RSD		1.3	7.2354	1.4920	1.2441	0.3844	47.4665	12.3045	0.3044	1.4012	3.1	3.2	0.5853	18.4910

SEQ-CCV@CCV01 10/28/2016 17:01:28 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	17:01:41	93.3%	203163.2700	99.8%	371.4368	483177.4300	641951.1400	5549.4224	r3062283.9000	639930.1100	5698.8424	18684.7900	8507.3036	1.2026	-140.0543	1174753.1000	2045278.3000	2232559.3000
2	17:01:54	93.7%	206698.4200	99.7%	284.5928	487765.6500	653644.3400	5265.2521	r3049390.1000	643725.4400	5966.7881	18720.0570	8814.4954	23.2323	324.3348	1182628.0000	2036296.7000	2266689.6000
3	17:02:08	92.5%	208300.5000	99.4%	266.0228	484414.3900	643493.1200	5462.8455	r3071871.5000	644736.5100	5828.9587	18865.4830	8808.7420	7.5416	560.6800	1192075.9000	2017757.1000	r2288415.3000
x		93.2%	99.752%	99.6%	307.3508	96.550%	97.983%	5425.8400	r104.016%	102.654%	5831.5297	99.790%	8716.1803	10.6569	248.3202	1183152.3000	2033110.7000	r2262554.7000
σ		0.6%	n/a	0.2%	56.2714	n/a	n/a	145.6546	r n/a	n/a	133.9913	n/a	175.7200	11.3408	356.4980	8673.3015	14034.5000	r28156.6340
%RSD		0.7	1.2757	0.2	18.3085	0.4893	0.9829	2.6845	r0.3685	0.3942	2.2977	0.5106	2.0174	106.3980	143.5639	0.7331	0.6903	r1.2445

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:01:41	97.7%	50026.1790	316819.4300	38269.9270	559616.2300	-1785.0906	1068.1035	1888879.5000	673563.3100	103.3%	104.5%	r4495927.3000	2861.9773
2	17:01:54	96.4%	49773.7380	321181.1400	37903.1710	565968.6000	1626.9735	867.5186	1934882.4000	678561.1000	104.7%	106.1%	r4493833.8000	3913.0303
3	17:02:08	98.1%	50451.4960	320519.8800	38705.3080	569047.3800	3629.3183	850.3704	1908253.5000	677880.7000	107.0%	107.8%	r4449410.9000	1736.5262
x		97.4%	50083.8040	102.297%	38292.8020	101.983%	1157.0671	928.6642	104.941%	101.636%	105.0%	106.1%	r102.654%	2837.1779
σ		0.9%	342.5337	n/a	401.5575	n/a	2737.6203	121.0620	n/a	n/a	1.9%	1.7%	r n/a	1088.4640
%RSD		0.9	0.6839	0.7357	1.0486	0.8514	236.6000	13.0361	1.2088	0.4006	1.8	1.6	r0.5865	38.3643

SEQ-CCB@CCB1 10/28/2016 17:05:46 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:06:17	91.5%	42.4829	95.6%	4.7837	162.4915	228.7260	-4.0298	410.8374	38.2239	11.5680	10.1075	-10.6807	21.5481	417.2624	1418.0397	2403.4744	2567.6999	1469.8739	3485.8795
2	17:06:30	91.1%	23.8955	96.5%	41.1278	84.4418	223.6426	5.3205	322.2428	86.4314	-2.0704	12.3721	29.3626	-22.7978	127.6016	1385.2362	2329.2997	2373.4873	1415.6192	3680.0582
3	17:06:43	91.7%	29.9566	97.1%	56.8993	144.9401	270.8271	-2.9322	447.3792	56.6625	-8.8856	21.4406	-7.3134	14.6159	123.6908	1307.4677	2239.1526	2291.4295	1300.6043	3554.7664
x		91.4%	32.1117	96.4%	34.2703	130.6245	241.0652	-0.5472	393.4864	60.4392	0.2040	14.6401	3.7895	4.4554	222.8516	1370.2479	2323.9755	2410.8722	1395.3658	3573.5680
σ		0.3%	9.4792	0.8%	26.7260	40.9468	25.8996	5.1111	64.3473	24.3247	10.4148	5.9973	22.2109	23.8551	168.3761	56.7893	82.2902	141.8787	86.4332	98.4453
%RSD		0.4	29.5196	0.8	77.9859	31.3470	10.7438	934.0952	16.3531	40.2465	5104.2664	40.9650	586.1214	535.4174	75.5553	4.1445	3.5409	5.8850	6.1943	2.7548

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:06:17	97.8%	33.6918	108.2994	7.3209	147.2055	234.4851	25.4635	958.9802	54.9874	100.0%	101.4%	1284.0325	2081.8808
2	17:06:30	97.8%	-11.8518	95.4389	7.0552	157.4589	-2450.0687	45.9922	1157.6132	144.2845	101.3%	101.7%	1135.6420	379.6326
3	17:06:43	97.9%	-25.9036	20.4678	0.2305	45.5727	-232.2495	66.1078	1100.8030	125.6218	101.9%	102.9%	982.3466	2183.2805
x		97.8%	-1.3545	74.7354	4.8689	116.7457	-815.9444	45.8545	1072.4555	108.2979	101.1%	102.0%	1134.0070	1548.2646
σ		0.1%	31.1536	47.4350	4.0191	61.8504	1434.3054	20.3225	102.3036	47.1018	0.9%	0.8%	150.8496	1013.3341
%RSD		0.1	2299.9570	63.4706	82.5476	52.9788	175.7847	44.3196	9.5391	43.4928	0.9	0.8	13.3024	65.4497

QJ2800S-BLK1@PBW01 10/28/2016 17:09:26 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:09:39	90.6%	-12.0445	94.2%	39.2323	59.3272	-110.6347	-97.5009	513.0782	89.3996	-5.4238	4.6195	14.8272	-11.2219	-1336.0998	419.6925	852.3184	980.9651	561.6701	1464.7077
2	17:09:52	91.0%	7.6195	95.6%	46.6335	72.7510	-138.4198	-97.4203	314.0474	10.5749	-8.8856	4.5763	4.9947	2.2835	-504.3181	453.7843	822.3314	657.4370	527.3786	1126.5603
3	17:10:05	91.0%	-21.0053	96.4%	-3.6891	49.9980	-172.5744	-91.3730	248.1942	-16.1952	-8.8856	1.1344	-1.9816	2.3706	400.9471	447.4889	781.5747	786.4752	394.7186	1171.4697
x		90.9%	-8.4768	95.4%	27.3923	60.6921	-140.5429	-95.4314	358.4399	27.9264	-7.7317	3.4434	5.9468	-2.1893	-479.8236	440.3219	818.7415	808.2924	494.5891	1254.2459
σ		0.3%	14.6421	1.1%	27.1704	11.4377	31.0244	3.5149	137.9091	54.8942	1.9986	1.9998	8.4447	7.8226	868.7825	18.1408	35.5082	162.8638	88.1735	183.6432
%RSD		0.3	172.7316	1.2	99.1901	18.8455	22.0747	3.6832	38.4748	196.5670	25.8499	58.0763	142.0055	357.3142	181.0629	4.1199	4.3369	20.1491	17.8276	14.6417

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:09:39	96.3%	-32.6352	67.9919	7.7816	136.1066	-1688.9337	98.6582	491.2972	44.4258	97.7%	98.5%	702.5725	1009.1746
2	17:09:52	96.6%	-17.2865	26.7619	0.5318	103.8935	-2989.3240	15.8190	530.3445	51.9897	99.9%	100.4%	307.0844	1990.3114
3	17:10:05	96.5%	39.4417	5.2797	7.1717	34.6779	-1193.2425	52.5968	377.6192	13.3077	100.4%	102.0%	365.4872	90.2773
x		96.5%	-3.4933	33.3445	5.1617	91.5593	-1957.1667	55.6913	466.4203	36.5744	99.4%	100.3%	458.3814	1029.9211
σ		0.2%	37.9666	31.8701	4.0212	51.8270	927.5985	41.5062	79.3436	20.5014	1.4%	1.8%	213.4823	950.1870
%RSD		0.2	1086.8273	95.5783	77.9045	56.6048	47.3950	74.5291	17.0112	56.0541	1.4	1.8	46.5731	92.2582

10/31/16

10/31/16

QJ28005-BS1@LCS2 10/28/2016 17:12:42 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:12:56	93.5%	797.5611	96.9%	5.8637	9747.2064	4969.5453	39.5572	11536.5930	2263.9502	116.0634	343.1388	115.2404	23.8067	536.0527	7534.2981	12747.5530	14154.2560	8389.8478	21183.9490
2	17:13:09	93.4%	796.7729	99.2%	-1.6148	9851.6234	4863.5675	33.7677	11537.7750	2370.9844	132.6525	344.6524	151.5071	-13.5166	189.2344	7537.6932	13108.7210	14411.6010	8560.3451	21503.0560
3	17:13:22	93.0%	676.7777	100.4%	3.0376	9630.9229	4819.7547	136.7231	10991.0120	2332.4331	99.0612	355.1276	134.9763	0.0615	-174.4939	7611.1851	12670.3980	13634.0520	8283.4321	21509.4440
x		93.3%	91.621%	98.8%	2.4288	96.957%	92.552%	70.0160	96.459%	92.723%	115.9257	92.475%	133.9079	3.4505	183.5978	7561.0588	12842.2240	14066.6360	8411.2084	21398.8160
σ		0.3%	n/a	1.8%	3.7762	n/a	n/a	57.8425	n/a	n/a	16.7960	n/a	18.1570	18.8911	355.3068	43.4438	233.9950	396.1104	139.6868	186.1061
%RSD		0.3	9.1816	1.8	155.4751	1.1331	1.5768	82.6133	2.7770	2.3342	14.4886	1.8780	13.5593	547.4825	193.5246	0.5746	1.8221	2.8160	1.6607	0.8697

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:12:56	98.7%	241.6504	9334.3145	175.8109	2008.2254	-2987.7787	21.4191	13924.4100	25568.3160	100.4%	99.3%	16005.8150	3241.7492
2	17:13:09	98.9%	126.7392	9429.6958	166.5884	2210.1163	-4000.8139	-14.8371	13960.3340	25625.6480	100.9%	101.4%	16108.6460	1875.1610
3	17:13:22	98.8%	172.7226	9172.7122	164.1843	2100.3974	-1796.6908	-51.1129	14134.4230	26030.5120	102.4%	103.7%	16200.4330	445.1613
x		98.8%	180.3707	96.899%	168.8612	95.066%	-2928.4278	-14.8436	96.161%	96.659%	101.2%	101.5%	92.263%	1854.0238
σ		0.1%	57.8361	n/a	6.1375	n/a	1103.2595	36.2660	n/a	n/a	1.0%	2.2%	n/a	1398.4138
%RSD		0.1	32.0651	1.3950	3.6346	4.7987	37.6741	244.3201	0.8020	0.9787	1.0	2.2	0.6045	75.4259

SEQ-IBL1@ZZZZZZ 10/28/2016 17:16:03

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	17:16:16	96.0%	260.8778	107.9%	17510.5060	9944.7907	4750.9311	39.5951	151061.6800	15869.3540	74.8323	104.6667	28.7300	62.9737	117844.3000	9512.0283	14957.6120	16991.3620	9511.1927	25215.31
2	17:16:30	98.1%	223.9231	108.9%	17853.3850	9867.2380	4787.3123	53.7845	155343.9700	15693.2270	57.8324	97.5635	25.6125	62.3587	123022.3300	9379.3431	15843.1730	16746.6720	9728.8167	25111.87
3	17:16:43	98.9%	176.2384	110.8%	18401.6370	10016.5500	4815.9476	30.0033	154231.7100	16758.9430	73.9666	100.1869	13.0808	77.8823	120551.6300	9327.5311	15089.9330	16594.1910	9743.5342	24552.01
x		97.7%	220.3464	109.2%	17921.8430	9942.8597	4784.7303	41.1276	153545.7900	16107.1750	68.8771	100.8057	22.4745	67.7382	120472.7500	9406.3008	15296.9060	16777.4080	9661.1812	24959.73
σ		1.5%	42.4329	1.5%	449.4926	74.6749	32.5851	11.9644	2222.0218	571.2762	9.5748	3.5918	8.2831	8.7904	2589.9184	95.1570	477.6848	200.3617	130.1021	356.86
%RSD		1.5	19.2574	1.3	2.5081	0.7510	0.6810	29.0910	1.4471	3.5467	13.9013	3.5631	36.8557	12.9770	2.1498	1.0116	3.1228	1.1942	1.3466	1.42

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:16:16	99.5%	21122.0450	23778.6230	16140.0850	237368.1700	-1715.7775	1552.7928	7257.8312	44423.5640	107.7%	106.5%	4052.4666	19618.5530
2	17:16:30	99.9%	22584.5790	23703.9760	16637.1880	244753.6900	1363.3451	1518.4814	7403.4538	44981.0690	108.4%	108.7%	3830.8531	17773.3710
3	17:16:43	100.6%	22074.1430	23818.7800	16112.0670	244004.6700	1569.3237	1636.7924	7375.0940	45112.4490	110.8%	109.6%	3473.9373	20998.1570
x		100.0%	21926.9220	23767.1260	16296.4470	242042.1800	405.6304	1569.3556	7345.4597	44839.0270	109.0%	108.2%	3785.7523	19463.3600
σ		0.5%	742.2987	58.2588	295.4228	4065.0958	1840.0776	60.8697	77.2019	365.7496	1.7%	1.6%	291.8897	1617.9849
%RSD		0.5	3.3853	0.2451	1.8128	1.6795	453.6340	3.8786	1.0510	0.8157	1.5	1.5	7.7102	8.3130

SEQ-IBL2@ZZZZZZ 10/28/2016 17:20:20

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:20:33	82.5%	41.2072	117.6%	4706.2878	30790.0260	13801.5390	84.4021	18742.6720	520.5632	36.7626	81.7013	47.2654	30.0499	17676.6950	6342.0248	11288.5260	16260.3280	6091.9731	15441.4040
2	17:20:47	82.9%	-7.3160	118.0%	4865.5483	30203.8920	13693.2950	67.2184	18240.4180	658.3222	17.8081	76.4566	-31.1263	62.3975	15937.4460	6527.7026	11152.1770	16470.0970	6623.0369	16040.7040
3	17:21:00	81.1%	23.2180	118.5%	4684.7825	30453.2430	13574.7390	170.5418	18355.9270	536.5614	27.1207	87.9436	-45.4514	91.2691	17060.6670	6579.0401	10800.5470	16618.0130	6296.4787	15775.8550
x		82.2%	19.0364	118.1%	4752.2062	30482.3870	13689.8560	107.3874	18446.3390	571.8156	27.2305	82.0338	-9.7707	61.2388	16891.6030	6482.9225	11080.4170	16449.4790	6337.1629	15752.6540
σ		1.0%	24.5304	0.5%	98.7443	294.1518	113.4390	55.3640	263.0503	75.3427	9.4777	5.7507	49.9114	30.6260	881.8637	124.6916	251.7796	179.7312	267.8593	300.3229
%RSD		1.2	128.8603	0.4	2.0779	0.9650	0.8286	51.5554	1.4260	13.1761	34.8056	7.0102	510.8246	50.0108	5.2207	1.9234	2.2723	1.0926	4.2268	1.9065

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:20:33	73.0%	56.1504	6922.3735	39.1380	441.6220	183614.3200	592.9118	30771.1940	24749.5390	91.9%	92.2%	-162.5431	19572.5020
2	17:20:47	74.9%	34.3402	7055.3993	28.6723	488.3108	184468.7100	582.1544	31211.4940	24364.9500	93.8%	93.6%	-228.1680	19747.5670
3	17:21:00	74.1%	48.5871	7127.3778	44.1607	398.1949	188338.2000	524.1382	31929.4180	25061.9490	95.2%	95.4%	-382.5250	21336.0220
x		74.0%	46.3593	7035.0502	37.3237	442.7092	185473.7500	566.4015	31304.0350	24725.4790	93.6%	93.7%	-257.7454	20218.6970
σ		1.0%	11.0744	104.0060	7.9020	45.0678	2517.2077	36.9942	584.6313	349.1216	1.7%	1.6%	112.9341	971.5831
%RSD		1.3	23.8883	1.4784	21.1715	10.1800	1.3572	6.5314	1.8676	1.4120	1.8	1.7	43.8162	4.8054

6100142-18@MH1H85 10/28/2016 17:24:21

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	9
1	17:24:34	87.8%	5765.7846	158.7%	17619.0610	24776.2620	6599.8179	125.9536	231442.5500	10305.5220	410.3555	406.8004	-15.2632	308.3743	872241.3000	21318.5410	37868.2430	40059.8240	21678.2700	5444
2	17:24:48	88.3%	5590.2239	165.0%	17193.8580	25098.2600	6602.4379	14.8318	233915.3300	9772.7571	407.1541	403.5867	109.4414	208.7889	875222.3700	21244.9430	38215.3950	40653.4630	21826.9610	5494
3	17:25:01	87.8%	5490.2184	167.1%	17541.4380	25910.0960	6834.4597	8.2281	235443.4100	9917.9046	456.5535	418.9477	66.1110	247.9878	882885.7100	21251.4250	38193.7400	41266.1120	21922.5490	5528
x		88.0%	5615.4090	163.6%	17451.4530	25261.5390	6678.9052	49.6712	233600.4300	9998.7280	424.6877	409.7782	53.4298	255.0503	876783.1300	21271.6360	38092.4590	40659.8000	21809.2600	5488
σ		0.3%	139.4988	4.4%	226.4342	584.2860	134.7206	66.1450	2018.9313	275.4252	27.6430	8.1019	63.3121	50.1670	5491.1585	40.7500	194.4787	603.1691	123.0973	42
%RSD		0.3	2.4842	2.7	1.2975	2.3129	2.0171	133.1658	0.8643	2.7546	6.5090	1.9771	118.4959	19.6694	0.6263	0.1916	0.5105	1.4835	0.5644	(

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:24:34	76.3%	2031.3562	10042.3820	938.6496	12685.8700	-10237.3040	4013.5112	37174.8770	148759.9900	129.8%	126.0%	3545.6749	-9908.0545
2	17:24:48	76.1%	1956.3908	9750.2099	898.0610	12372.4220	-12184.1080	3981.5388	36619.9270	148371.3600	132.7%	129.4%	3490.4309	-10570.2630
3	17:25:01	75.2%	1906.0325	10081.7650	969.4832	12742.9680	-11757.0020	3920.5953	37142.4800	151068.3700	134.0%	130.6%	3237.4535	-10471.7720
x		75.9%	1964.5931	9958.1189	935.3980	12600.4200	-11392.8050	3971.8818	36979.0950	149399.9100	132.2%	128.7%	3424.5198	-10316.6970
σ		0.6%	63.0632	181.1281	35.8220	199.5055	1023.2259	47.2047	311.4697	1457.9378	2.1%	2.4%	164.3421	357.3043
%RSD		0.8	3.2100	1.8189	3.8296	1.5833	8.9813	1.1865	0.8423	0.9759	1.6	1.8	4.7990	3.4634

6100145-18RE1@MH1H85@2X 10/28/2016 17:27:40

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98M
1	17:27:54	94.1%	4537.2455	148.0%	12895.6770	14978.8020	3982.0413	11.4820	171218.9300	7099.4020	273.6697	271.8655	42.8598	110.2262	615954.9400	15487.0780	27369.7190	29697.0430	16248.0640	40538.50
2	17:28:07	95.1%	4384.2234	149.3%	12996.9630	15039.8710	3872.3054	-19.9324	171005.5400	7699.5086	237.9658	269.6347	-100.0424	253.2283	633871.5300	15718.2360	27537.4270	30107.6820	16059.4550	40553.95
3	17:28:21	93.8%	4270.6903	152.6%	12466.9610	14914.5140	3865.0582	-11.0874	170335.0100	7166.7907	270.6518	249.4630	14.0439	197.3022	630657.7800	15364.8450	26929.9620	29843.7870	15728.7110	39782.28
x		94.3%	4397.3864	150.0%	12786.5330	14977.7290	3906.4683	-6.5126	170853.1600	7321.9005	260.7624	263.6544	-14.3796	186.9189	626828.0800	15523.3870	27279.0360	29882.8380	16012.0770	40291.58
σ		0.6%	133.7642	2.4%	281.3536	62.6857	65.5484	16.1992	461.2434	328.7495	19.8001	12.3406	75.5724	72.0643	9552.5340	179.4715	313.7212	208.0861	262.8977	441.12
%RSD		0.7	3.0419	1.6	2.2004	0.4185	1.6779	248.7349	0.2700	4.4899	7.5931	4.6806	525.5539	38.5538	1.5239	1.1561	1.1500	0.6963	1.6419	1.09

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:27:54	84.9%	1598.1086	7396.4323	644.4773	9295.9434	-3668.0381	2986.1662	28112.8820	106822.9200	124.7%	122.8%	2553.7985	-8622.4905
2	17:28:07	86.4%	1385.7817	7358.6283	741.6871	9496.3325	-7248.3793	2915.1660	26833.6340	105575.4800	126.6%	122.6%	2512.8805	-7063.3326
3	17:28:21	85.9%	1263.7159	7235.7525	646.8166	9017.2859	-6425.8751	2998.9586	26846.7730	105735.1200	128.3%	124.6%	2382.8276	-9245.6183
x		85.7%	1415.8687	7330.2710	677.6603	9269.8539	-5780.7642	2966.7636	27264.4300	106044.5100	126.5%	123.4%	2483.1689	-8310.4805
σ		0.7%	169.2145	84.0095	55.4611	240.5865	1875.3231	45.1403	734.8105	678.8366	1.8%	1.1%	89.2740	1124.1020
%RSD		0.9	11.9513	1.1461	8.1842	2.5954	32.4407	1.5215	2.6951	0.6401	1.5	0.9	3.5952	13.5263

OXM10731

SEQ-CCV@CCV02 10/28/2016 17:30:59 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo
1	17:30:59	97.0%	189384.8900	108.8%	716.0675	490392.7300	650590.5800	5882.7813	r2971095.3000	626118.2200	5969.6836	18867.3200	8585.5973	43.3365	19711.8530	1155229.9000	2074264.8000	2209199.8000
2	17:31:12	99.0%	187935.4500	109.7%	638.7017	485447.9200	644502.8500	4886.0466	r2966556.5000	627429.5300	5607.6541	18788.8000	8635.6556	10.4642	13270.6250	1168119.8000	2077441.2000	2232238.1000
3	17:31:25	98.7%	187160.1600	110.0%	523.7889	491372.4900	655719.3600	5180.7233	r2982652.6000	630821.9300	5876.1935	19073.8050	8583.7028	65.1957	7752.6773	1163924.1000	2035063.9000	2218396.9000
x		98.3%	91.089%	109.5%	626.1861	97.337%	98.575%	5316.5171	r101.035%	100.311%	5817.8437	100.605%	8601.6519	39.6655	13578.3850	1162424.6000	2062256.6000	2219944.9000
σ		1.1%	n/a	0.6%	96.7484	n/a	n/a	512.0547	rn/a	n/a	187.9358	n/a	29.4633	27.5498	5985.5248	6574.4575	23603.1120	11596.9210
%RSD		1.1	0.6002	0.6	15.4504	0.6493	0.8635	9.6314	r0.2790	0.3864	3.2303	0.7785	0.3425	69.4554	44.0813	0.5656	1.1445	0.5224

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:30:59	99.2%	49273.5660	318480.6700	37612.1420	551038.2900	4620.2731	1021.8896	1863303.9000	662147.4400	106.4%	106.3%	r4341093.4000	1269.4921
2	17:31:12	101.6%	49083.2170	318939.5600	37016.7380	553871.0400	4650.8463	967.9385	1857757.5000	661557.1000	108.4%	108.8%	r4373217.6000	1365.8942
3	17:31:25	100.2%	48729.2490	317000.7700	37708.4170	561334.4300	1777.9516	729.4948	1890433.5000	671075.4700	112.4%	111.3%	r4382229.0000	822.5494
x		100.4%	49028.6770	101.859%	37445.7660	100.275%	3683.0237	906.4410	102.735%	99.872%	109.1%	106.8%	r100.037%	1152.6452
σ		1.2%	276.2265	n/a	374.6541	n/a	1649.9116	155.5961	n/a	n/a	3.1%	2.5%	rn/a	289.9065
%RSD		1.2	0.5634	0.3185	1.0005	0.9576	44.7977	17.1656	0.9348	0.8021	2.8	2.3	r0.4953	25.1514

SEQ-CCB@CCB02 10/28/2016 17:35:00 QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	45Sc	47Ti	51V	52Cr	53Cl O	59Co	60Ni	77Se	78Se	82Se	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	17:35:00	95.5%	12.7808	97.1%	105.0068	235.5659	290.7157	-32.3604	950.7959	132.9604	4.6528	12.2340	9.7746	-6.3811	2924.9693	1296.4165	2383.6429	2300.8572	1436.9191	3635.8475
2	17:35:13	95.6%	43.1909	102.1%	58.9240	63.0454	238.9827	-2.2707	769.0828	214.1908	-5.5330	8.6893	13.8463	-7.2456	-902.3451	1348.9621	2348.9576	2450.2059	1401.9198	3742.7373
3	17:35:27	97.0%	51.7267	102.9%	79.5910	210.2260	301.9544	-41.3624	659.6212	59.7997	-2.1027	5.4922	3.1770	10.7611	854.3758	1243.4918	2531.6702	2400.6493	1383.3204	3951.9208
x		96.0%	35.8995	100.7%	81.1739	169.6124	277.2176	-25.3312	793.1666	135.6503	-0.9943	8.8052	8.9326	-0.9552	959.0000	1296.2901	2421.4236	2383.9041	1407.3864	3776.8352
σ		0.9%	20.4712	3.1%	23.0821	93.1554	33.5858	20.4719	147.0738	77.2307	5.1826	3.3724	5.3843	10.1558	1915.8010	52.7352	97.0387	76.0695	27.2143	160.7718
%RSD		0.9	57.0236	3.1	28.4354	54.9225	12.1153	80.8169	18.5426	56.9337	521.2206	38.3000	60.2765	1063.2004	199.7707	4.0682	4.0075	3.1910	1.9337	4.2568

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	115In	118Sn	121Sb	137Ba	159Tb	165Ho	205Tl	209Bi
1	17:35:00	98.5%	-24.7013	154.5034	7.2092	183.2593	2095.0486	202.9487	1063.2119	213.2774	99.6%	99.0%	1248.1061	257.3286
2	17:35:13	99.4%	10.7873	94.9098	3.0950	185.0173	-470.4522	136.0856	1080.9789	186.3783	102.1%	102.4%	1176.3175	-516.0982
3	17:35:27	98.3%	-11.2481	102.7480	12.2641	142.7400	998.2116	111.2197	1195.3092	110.9560	105.5%	106.3%	1006.1166	-1539.1656
x		98.7%	-8.3873	117.3871	7.5227	170.3389	874.2693	150.0846	1113.1667	170.2039	102.4%	102.6%	1143.5134	-599.3118
σ		0.6%	17.9164	32.3817	4.5926	23.9175	1287.2334	47.4398	71.6900	53.0436	3.0%	3.7%	124.2852	901.1333
%RSD		0.6	213.6126	27.5854	61.0493	14.0411	147.2353	31.6087	6.4402	31.1648	2.9	3.6	10.8687	150.3614

PREPARATION BENCH SHEET

QJ14034

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPMS (2658.0)

Prepared: 10/18/2016 14:30 using METALS - 200.8

Case: 46282

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-01	MH1H68	1	500				
6100168-02	MH1H69	1	500				
6100168-03	MH1H70	1	500				
6100168-04	MH1H71	1	500				
6100168-05	MH1H72	1	500				
6100168-06	MH1H73	1	500				
6100168-07	MH1H74	1	500				
6100168-08	MH1H75	1	500				
6100168-09	MH1H76	1	500				
6100168-10	MH1H77	1	500				
6100168-11	MH1H78	1	500				
6100168-12	MH1H79	1	500				
6100168-13	MH1H80	1	500				
6100168-14	MH1H81	1	500				
6100168-15	MH1H82	1	500				
6100168-16	MH1H83	1	500				
6100168-17	MH1H84	1	500				
QJ14034-PS1	MH1H71A	1	500	B6J0157	500000		
QJ14034-MS1	MH1H71S	1	500	B6B0062	1000	B6H0062	1000
QJ14034-BS1	LCS01	1	500	B6A0009	1000	B6H0062	40
QJ14034-DUP1	MH1H71D	1	500				
QJ14034-BLK1	PBS01	1	500				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6A0009	QC - BAT-11	Inorganic Ventures	J2-MEB613056	02/01/17
B6B0062	QC - CLP-MS-SPK-REV1	Inorganic Ventures	K2-MEB619110	09/10/17
B6D0003	R - Hydrochloric Acid - 1:4	In House	NA	09/28/18
B6H0062	Std - Molybdenum - 100ppm	Inorganic Ventures	H2-MO02073	02/10/17
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6J0157	PS-MH1H71	In House	NA	02/19/17

Table 2: Metals Apparatus

Balance ID		Mettler II	
Dig. Block ID		4	
Start Temp	Stop Temp	95.0	96.0
Start Time	Stop Time	1430	1500

Comments:

MQJ
EEM
Perpared By

10/18/2016
Date

10/31/16
Preparation Reviewed By

Date

PREPARATION BENCH SHEET

QJ28005

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - ICPMS (2658.0)

Prepared: 10/27/2016 11:00 using METALS - 200.8

Case: 46282

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-18	MH1H85	11.7	500				
6100168-18RE1	MH1H85	11.7	500				
QJ28005-BS1	LCS0~~3~~ 2	1	500	B6A0009	1000	B6H0062	40
QJ28005-BLK1	PBS0~~3~~ 2	1	500				

10/31/16

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B6A0009	QC - BAT-11	Inorganic Ventures	J2-MEB613056	02/01/17
B6E0054	R - Hydrogen Peroxide 30%	Fisher	143279	05/16/19
B6H0062	Std - Molybdenum - 100ppm	Inorganic Ventures	H2-MO02073	02/10/17
B6H0063	R - Nitric Acid - 1:1	In House	NA	08/15/17
B6I0064	R - Hydrochloric - Concentrate	Fisher	4116040	05/13/19
B6I0123	R - Nitric Acid, Concentrated	Fisher	1116020	04/17/18

Table 2: Metals Apparatus

Balance ID		Satorius BP601	
Dig. Block ID		1	
Start Temp	Stop Temp	95.0	96.0
Start Time	Stop Time	1100	1130

Comments:

MQJ ~~LEM~~ 10/27/2016

Perpared By Date

10/31/2016

Preparation Reviewed By Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101916B **Std. Prep Date:** 10/18/16

Analyst: LEM **SDG:** MH1H68 **Calibration ID:** B644001 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ62401-TUN1	TUNE01	10/19/16 14:13	B6G0089	1	
BJ62401-CAL1	S01	10/19/16 14:24	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CAL2	S02	10/19/16 14:28	B6A0044	1	MO
BJ62401-CAL3	S03	10/19/16 14:32	B6A0043	1	BA MO
BJ62401-CAL4	S04	10/19/16 14:36	B6A0042	1	AG BE CD CO CR MO NI SB SE TL V
BJ62401-CAL5	S05	10/19/16 14:40	B6A0041	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CAL6	S06	10/19/16 14:44	B6A0040	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CAL7	S07	10/19/16 14:48	B6A0039	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CAL8	S08	10/19/16 14:52	B6A0038	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-ICV1	ICV01	10/19/16 14:56	B6J0139	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-ICB1	ICB01	10/19/16 15:00	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-IFA1	ICSA01	10/19/16 15:04	B6A0093	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-IFB1	ICSAB01	10/19/16 15:08	B6A0095	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCV1	CCV01	10/19/16 15:12	B6A0045	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCB1	CCB01	10/19/16 15:16	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCV2	CCV02	10/19/16 16:57	B6A0045	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCB2	CCB02	10/19/16 17:01	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCV3	CCV03	10/19/16 18:42	B6A0045	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCB3	CCB03	10/19/16 18:46	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14034-BLK1	PBS01	10/19/16 18:50		1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14034-BS1	LCS01	10/19/16 18:54		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-01	MH1H68	10/19/16 18:58		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-02	MH1H69	10/19/16 19:02		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-03	MH1H70	10/19/16 19:06		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-04	MH1H71	10/19/16 19:10		1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14034-MS1	MH1H71S	10/19/16 19:14		1	AG BA BE CD CO CR MO NI SB SE TL V
QJ14034-DUP1	MH1H71D	10/19/16 19:18		1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-SRD1	MH1H71L	10/19/16 19:22		5	AG BA BE CD CO CR MO NI SB SE TL V
6100168-05	MH1H72	10/19/16 19:26		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-06	MH1H73	10/19/16 19:30		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-07	MH1H74	10/19/16 19:34		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-08	MH1H75	10/19/16 19:38		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-09	MH1H76	10/19/16 19:42		1	AG BA BE CD CO CR MO NI SB SE TL V

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M101916B **Std. Prep Date:** 10/18/16

Analyst: LEM **SDG:** MH1H68 **Calibration ID:** B644001 **Std. Log Page No.:** 5

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
6100168-10	MH1H77	10/19/16 19:46		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-11	MH1H78	10/19/16 19:50		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-12	MH1H79	10/19/16 19:54		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-13	MH1H80	10/19/16 19:58		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-14	MH1H81	10/19/16 20:02		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-15	MH1H82	10/19/16 20:06		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-16	MH1H83	10/19/16 20:10		1	AG BA BE CD CO CR MO NI SB SE TL V
6100168-17	MH1H84	10/19/16 20:14		1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-IBL2	ZZZZZZ	10/19/16 20:18		1	non-report
BJ62401-IBL1	ZZZZZZ	10/19/16 20:22		1	non-report
BJ62401-CCV4	CCV04	10/19/16 20:26	B6A0045	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ62401-CCB4	CCB04	10/19/16 20:30	B6I0135	1	AG BA BE CD CO CR MO NI SB SE TL V

File Name: ~~M101916B~~ M102016A SDG No.: MH1H60 Standards Prep Date: 10/10/2016

Instrument: ICPMS01 Case No.: 46757 Standards Log Page No.: 5

Analyst: LEM

Lab ID	EPA Sample #	Date&Time 08/10/31/16	Elements circled for S0-S# were used throughout this run unless otherwised noted. ~~Al, As,~~ (Sb) Ba~~, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn,~~ Ni~~, K, Se, Ag, Na, Tl, V,~~ Zn
~~QJ14034-BS1~~	~~LCS01~~	~~10/19/16 18:54~~	
6100168-04	MH1H71	10/19/16 19:10	
~~QJ14034-MS1~~	~~MH1H71S~~	~~10/19/16 19:14~~	
BJ62402-TUN1	TUNE01	10/20/16 9:46	
BJ62402-CAL1	S01	10/20/16 9:57	
BJ62402-CAL4	S04	10/20/16 10:10	
BJ62402-CAL5	S05	10/20/16 10:14	
BJ62402-CAL6	S06	10/20/16 10:18	
BJ62402-CAL7	S07	10/20/16 10:22	
BJ62402-CAL8	S08	10/20/16 10:26	
BJ62402-ICV1	ICV01	10/20/16 10:30	
BJ62402-ICB1	ICB01	10/20/16 10:34	
BJ62402-IFA1	ICSA01	10/20/16 10:38	
BJ62402-IFB1	ICSAB01	10/20/16 10:42	
BJ62402-CCV1	CCV01	10/20/16 10:46	
BJ62402-CCB1	CCB01	10/20/16 10:51	
QJ14034-PS1	MH1H71A	10/20/16 10:55	
BJ62402-CCV2	CCV02	10/20/16 10:59	
BJ62402-CCB2	CCB02	10/20/16 11:03	

DM 10/24

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: ICPMS01 **Case:** 46282 **FileID:** M102816D **Std. Prep Date:** 10/24/16

Analyst: LEM **SDG:** MH1H68 **Calibration ID:** B645004 **Std. Log Page No.:** 6

Lab Number	EPA ID	Analyzed Date/Time	STD ID	ISTD ID	DF	Elements list are used per QC/sample
BJ63102-TUN1	TUNE01	10/28/16 15:46	B6G0089	B6G0072	1	
BJ63102-CAL1	S01	10/28/16 15:58	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CAL2	S02	10/28/16 16:02	B6A0044	B6G0072	1	MO
BJ63102-CAL3	S03	10/28/16 16:06	B6A0043	B6G0072	1	BA MO
BJ63102-CAL4	S04	10/28/16 16:10	B6A0042	B6G0072	1	AG BE CD CO CR MO NI SB SE TL V
BJ63102-CAL5	S05	10/28/16 16:14	B6A0041	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CAL6	S06	10/28/16 16:18	B6A0040	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CAL7	S07	10/28/16 16:22	B6A0039	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CAL8	S08	10/28/16 16:26	B6A0038	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-ICV1	ICV01	10/28/16 16:36	B6J0139	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-ICB1	ICB01	10/28/16 16:40	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-IFA1	ICSA01	10/28/16 16:44	B6A0093	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-IFB1	ICSAB01	10/28/16 16:48	B6A0095	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CCV1	CCV01	10/28/16 17:01	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CCB1	CCB01	10/28/16 17:05	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ28005-BLK1	PBS0~~1~~2	10/28/16 17:09		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
QJ28005-BS1	LCS0~~1~~2	10/28/16 17:12		B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-IBL1	ZZZZZZ	10/28/16 17:16		B6G0072	1	non-report
BJ63102-IBL2	ZZZZZZ	10/28/16 17:20		B6G0072	1	non-report
6100168-18	MH1H85	10/28/16 17:24		B6G0072	1	AG BA BE CD CO CR MO NI SB SE V
6100168-18RE1	MH1H85	10/28/16 17:27		B6G0072	2	~~non-report~~ TL
BJ63102-CCV2	CCV02	10/28/16 17:30	B6A0045	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V
BJ63102-CCB2	CCB02	10/28/16 17:35	B6I0135	B6G0072	1	AG BA BE CD CO CR MO NI SB SE TL V

Bonner Analytical Testing Company
Instrument: ICPMS01
Serial No: X0494

ISM02.3 Calibration & QC Preparation Log

Standards & QC for ICPMS01 MA 2658.0 Prepared On: 10/18/2016

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot Number	Date Lot Expires	LIMS ID
Initial Calibration High - CAL8	S08	NA	100 mL	In House	NA	2 Weeks	B6A0038
BONNER-16		2.5 mL	Composite	Inorganic Ventures	K2-MEB624149	Apr-17	B6F0009
BAISM-MIX1		2.0 mL			J2-MEB613059	Feb-17	B6A0011
BONNER-1		0.25 mL			J2-MEB613058	Feb-17	B6A0010
Initial Calibration Mid - CAL7	S07	NA	50 mL	In House	NA	2 Weeks	B6A0039
CAL8		25 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL6	S06	NA	50 mL	In House	NA	2 Weeks	B6A0040
CAL8		2.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL5	S05	NA	50 mL	In House	NA	2 Weeks	B6A0041
CAL8		0.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Low - CAL4	S04	NA	50 mL	In House	NA	2 Weeks	B6A0042
BAT- 11		0.05 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.5 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL3	S03	NA	50 mL	In House	NA	2 Weeks	B6A0043
BAT- 11		0.025 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.2 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL2	S02	NA	50 mL	In House	NA	2 Weeks	B6A0044
BAT- 11		0.01 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.1 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL1	S01	NA	50 mL	In-House	NA	1 Year	B6I0135
Initial Calibration Blank	ICB						
Continuing Calibration Blank	CCB						
Initial Calibration Verification	ICV		50 mL	NA	NA	2 Weeks	B6A0064
ICV-1 (0307)		1.0 mL	Composite	EPA	ICV-1 (0307)	2 Weeks	B6J0139
Molybdenum - 10 PPM		0.05 mL		In House	From Mo-1000 mg/L Lot No. K2-MO02086	Oct-17	B6J0148
Interelement Check Standard A	ICSA	5.0 mL	50 mL	EPA	NA	2 Weeks	B4J0066
Interelement Check Standard AB	ICSAB		50 mL	EPA	ICSA-0803	2 Weeks	B4J0067
ICS PART A		5.0 mL	Composite	EPA	ICSB-0803	2 Weeks	B4J0066
ICS PART B		5.0 mL					B4J0067
Continuing Calibration Verificatio	CCV		50 mL	NA	NA	2 Weeks	B6A0045
Initial Calibration High - CAL8		25 mL	Composite	In-House	From S08		B6A0038
BONNER-1		0.2375 mL		Inorganic Ventures	J2-MEB613058	Feb-17	B6A0010
BAT-15		1.0 mL		Inorganic Ventures	K2-MEB650369	Jul-17	B6G0108
ISM TUNE	TUNE		50 mL	In-House	NA	2 Weeks	B6G0089
ISM Stock TUNE		0.5 mL				Jul-16	B6G0088
CLP-MS-SPK-REV1	Matrix Spike	1.0 mL	500 mL	Inorganic Ventures	K2-MEB619110	Sep-17	B6B0062
Molybdenum - 100 PPM		1.0 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062
BAT-11	LCS	1.0 mL	500 mL	Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 100 PPM		0.04 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062

* Dilutions of calibration standards, CCV, & ISM TUNE are made with the same acid water as the S0, ICB & CCB.
* Dilutions of ICV, ICSA, and ICSAB are made with 1% HNO3.
**Date Lot Expires reflects the date that the standard being used will expire.

Prepared By: Lauren Meadows Digitally signed by Lauren Meadows Reason: I am the author of this document Date: 2016.10.21 10:27:54-05'00'
Analyst/Date

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.21 10:29:35-05'00'
Name/Date

Bonner Analytical Testing Company
Instrument: ICPMS01
Serial No: X0494

ISM02.3 Calibration & QC Preparation Log
Standards & QC for ICPMS01 MA 2658.0 Prepared On: 10/24/2016

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Lot Number	Date Lot Expires	LIMS ID
Initial Calibration High - CAL8	S08	NA	100 mL	In House	NA	2 Weeks	B6A0038
BONNER-16		2.5 mL	Composite	Inorganic Ventures	K2-MEB624149	Apr-17	B6F0009
BAISM-MIX1		2.0 mL			J2-MEB613059	Feb-17	B6A0011
BONNER-1		0.25 mL			J2-MEB613058	Feb-17	B6A0010
Initial Calibration Mid - CAL7	S07	NA	50 mL	In House	NA	2 Weeks	B6A0039
CAL8		25 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL6	S06	NA	50 mL	In House	NA	2 Weeks	B6A0040
CAL8		2.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Mid - CAL5	S05	NA	50 mL	In House	NA	2 Weeks	B6A0041
CAL8		0.5 mL		Inorganic Ventures			B6A0038
Initial Calibration Low - CAL4	S04	NA	50 mL	In House	NA	2 Weeks	B6A0042
BAT- 11		0.05 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.5 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL3	S03	NA	50 mL	In House	NA	2 Weeks	B6A0043
BAT- 11		0.025 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.2 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL2	S02	NA	50 mL	In House	NA	2 Weeks	B6A0044
BAT- 11		0.01 mL		Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 1 PPM		0.1 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0092
Initial Calibration Low - CAL1	S01	NA	50 mL	In-House	NA	1 Year	B6I0135
Initial Calibration Blank	ICB						
Continuing Calibration Blank	CCB						
Initial Calibration Verification	ICV		50 mL	NA	NA	2 Weeks	B6A0064
ICV-1 (0307)		1.0 mL	Composite	EPA	ICV-1 (0307)	2 Weeks	B6J0139
Molybdenum - 10 PPM		0.05 mL		In House	From Mo-1000 mg/L Lot No. K2-MO02086	Oct-17	B6J0148
Interelement Check Standard A	ICSA	5.0 mL	50 mL	EPA	NA	2 Weeks	B4J0066
Interelement Check Standard AB	ICSAB		50 mL	EPA	ICSA-0803	2 Weeks	B4J0067
ICS PART A		5.0 mL	Composite	EPA	ICSB-0803	2 Weeks	B4J0066
ICS PART B		5.0 mL					B4J0067
Continuing Calibration Verificati	CCV		50 mL	NA	NA	2 Weeks	B6A0045
Initial Calibration High - CAL8		25 mL	Composite	In-House	From S08		B6A0038
BONNER-1		0.2375 mL		Inorganic Ventures	J2-MEB613058	Feb-17	B6A0010
BAT-15		1.0 mL		Inorganic Ventures	K2-MEB650369	Jul-17	B6G0108
ISM TUNE	TUNE		50 mL	In-House	NA	2 Weeks	B6G0089
ISM Stock TUNE		0.5 mL				Jul-16	B6G0088
CLP-MS-SPK-REV1	Matrix Spike	1.0 mL	500 mL	Inorganic Ventures	K2-MEB619110	Sep-17	B6B0062
Molybdenum - 100 PPM		1.0 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062
BAT-11	LCS	1.0 mL	500 mL	Inorganic Ventures	J2-MEB613056	Feb-17	B6A0009
Molybdenum - 100 PPM		0.04 mL		In House	From Mo-1000 mg/L Lot No. H2-MO02073	Feb-17	B6H0062

* Dilutions of calibration standards, CCV, & ISM TUNE are made with the same acid water as the S0, ICB & CCB.
* Dilutions of ICV, ICSA, and ICSAB are made with 1% HNO3.
**Date Lot Expires reflects the date that the standard being used will expire.

Prepared By: Lauren Meadows Digitally signed by Lauren Meadows Reason: I am the author of this document Date: 2016.10.25 08:37:50-05'00' Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.21 10:29:35-05'00'
Analyst/Date Name/Date

TUNE PREPARATION LOG

200.8 Tune Standard

LIMS ID: B6G0073

Preparation Date: 7/18/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	46.95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	0.5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Hydrochloric Acid	Neat	0.25 mL	Fisher Scientific	4115100	12/1/2015	11/16/2018
Beryllium	1000	0.5 mL	High Purity Standards	1525435	1/4/2016	6/29/2017
Cobalt	1000	0.5 mL	High Purity Standards	1519648	1/4/2016	6/29/2017
Indium (IS_Sc_In)	667	0.75 mL	BATCO	See Below	See Below	See Below
Lead	1000	0.5 mL	High Purity Standards	1528221	1/4/2016	6/29/2017
Magnesium	10000	0.05 mL	High Purity Standards	1510445	1/4/2016	6/29/2017

IS_Sc_In

LIMS ID: B6C0054

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Scandium(III) Ox	Neat	100 mg	Aldrich Chemistry	751863-10	1/27/2016	1/27/2019
Indium(III) Chlori	Neat	66.7 mg	Aldrich Chemistry	MKBS6036V	8/4/2015	8/4/2018

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 50 mL

Concentration: 10 mg/L

Expiration Date: 12 Months After Preparation Date

Comments: Daily 200.8TS - 0.5 mL to 50 mL

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:56:21-05'00'

Supervisor/Date

REAGENTS PREPARATION LOG

ICP-MS Internal Standard

LIMS ID: B6G0072

Preparation Date: 7/18/2016 Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19780 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
6020ISS	10	20 mL	Inorganic Ventures	J2-MEB562038	1/14/2016	3/29/2017
^{6}Lithium	1000	1.2 mL	Inorganic Ventures	J2-LI03018	4/8/2016	4/8/2017
IS_Sc_In	1000/667	0.3 mL	BATCO	See Below	See Below	See Below

IS_Sc_In

LIMS ID: B6C0054

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	95 mL	BATCO	NA	NA	NA
Nitric Acid	Neat	5 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017
Scandium(III) Oxide	Neat	100 mg	Aldrich Chemistry	751863-10	1/27/2016	1/27/2019
Indium(III) Chloride	Neat	66.7 mg	Aldrich Chemistry	MKBS6036V	8/4/2015	8/4/2018

Balance ID: Mettler IV

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: B, Ho, Rh, Tb, Y @ 10 ug/L; ^{6}Li @ 70 ug/L; Sc @ 25 ug/L; In @ 20 ug/L

Expiration Date: 12 Months After Preparation Date

Comments: 5% HNO_3 should be warm when adding Sc & In.

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:55:55-05'00'

Supervisor/Date

REAGENTS PREPARATION LOG

Acidified Water

LIMS ID: B6I0135

Preparation Date: 09/27/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19700	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1116020	08/2016	02/2017
Hydrochloric Acid	Neat	100 mL	Fisher Scientific	4116040	09/2016	05/2019

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: 1% HNO_3 / 0.5% HCl

Used For: Preparation of Standards and Controls

Expiration Date: 12 Months After Preparation Date

Comments:

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:56:08-05'00'

Supervisor/Date

REAGENTS PREPARATION LOG

1% HNO_3

LIMS ID: B6G0132

Preparation Date: 07/29/2016 Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled Water	Neat	19800	BATCO	NA	NA	NA
Nitric Acid	Neat	200 mL	Fisher Scientific	1115060	12/1/2015	7/3/2017

Balance ID: N/A

Instrument: ICPMS01

Final Volume: 20 Liters

Concentration: 1% HNO_3

Used For: Preparation of Tunes, ICV, ICSA, ICSAB, Dilutions

Expiration Date: 12 Months After Preparation Date

Comments:

Reviewed By: Maxwell S. Bonner Digitally signed by Maxwell S. Bonner Reason: I have reviewed this document Date: 2016.10.17 15:56:33-05'00'

Supervisor/Date

Bonner Analytical Testing Company

ICP-MS ISM02.3 CLP Standard Concentration Page

Element	S02	S03	S04	S05	S06	S07	S08	S09	S10	ICV	LCS (ug/L)	LCS (mg/kg)	ICSA	ICSAB	CCV	MS (ug/L)	MS (mg/kg)	TUNE
Al	4	10	20	260	1300	13000	26000		125000	504	40		(100000)	(100000)	62500			
Ag	0.2	0.5	1	1.3	6.5	65	130			100	2	1	(0)	18	65	50	5	
As	0.2	0.5	1	10	50	500	1000			200	2	1	(0.1)	19	500	40	4	
B	0.5	1	2	12.5	62.5	625	1250			100					625			
Ba	2	5		10	50	500	1000	5000		99	20	10	(1.2)	22	2500	2000	200	
Be	0.2	0.5	1	10	50	500	1000			99	2	1	(0)	19	500	50	5	100
Ca	100	250	500	250	1250	12500	25000		125000	2005	1000		(100000)	(100000)	62500			
Cd	0.2	0.5	1	10	50	500	1000			99	2	1	(0.7)	20	500	50	5	
Co	0.2	0.5	1	10	50	500	1000			100	2	1	(1)	20	500	500	50	100
Cr	0.4	1	2	10	50	500	1000			98	4	2	21	40	500	200	20	
Cu	0.4	1	2	10	50	500	1000			98	4	2	8	25	500	250	25	
Fe	40	100	200	250	1250	12500	25000		125000	1016	400		(100000)	(100000)	62500			
Mg	100	250	500	250	1250	12500	25000		125000	1215	1000		(100000)	(100000)	62500			100
Mn	0.2	0.5	1	10	50	500	1000	5000		100	2	1	7	27	500	500	50	
Mo	0.5	1	2	25	125	1250	2500			100			2000	2000	1250			
Na	100	250	500	250	1250	12500	25000		125000	2019	1000		(100000)	(100000)	62500			
Ni	0.2	0.5	1	10	50	500	1000			101	2	1	6	24	500	500	50	
Pb	0.2	0.5	1	10	50	500	1000			200	2	1	4	25	500	20	2	100
K	100	250	500	250	1250	12500	25000		125000	2004	1000		(100000)	(100000)	62500			
Sb	0.4	1	2	10	50	500	1000			199	4	2	(1.5)	22	500	100	10	
Se	1	2.5	5	10	50	500	1000			206	10	5	(0.3)	19	500	100	10	
Sn	0.5	1	2	12.5	62.5	625	1250			100					625			
Sr	0.5	1	2	6.25	31.25	312.5	625			100					312.5			
Tl	0.2	0.5	1	10	50	500	1000			206	2	1	(0)	21	500	50	5	
U	0.2	0.5	1	2	10	100	200			50	2	NA	(0)	(0)	100	100	NA	
V	1	2.5	5	10	50	500	1000			100	10	5	(0.5)	19	500	500	50	
Zn	0.4	1	2	10	50	500	1000	5000		205	4	2	11	29	2500	500	50	

Units are in ug/L unless otherwise noted.

( ) Indicated analyte values that are less than the CRQL and the value is to be used as a set point for the ±CRQL acceptance criteria calculatio

In is also in the TUNE at 100 ug/L.

Effective Date: 07/06/16
LEM

EPA SAMPLE NO.

MH1H68

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-01

% Solids: 64.8 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.063	J	10/19/2016	1640

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H69

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-02
% Solids: 81.9
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.036	J	10/19/2016	1643

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H70

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-03

% Solids: 53.1 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.14	J	10/19/2016	1645

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H71

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-04
% Solids: 80.2
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.14		10/19/2016	1648

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H72

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-05

% Solids: 64.9 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.12	J	10/19/2016	1655

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H73

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-06
% Solids: 79.0
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.028	J	10/19/2016	1658

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H74

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-07

% Solids: 70.2 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.15		10/19/2016	1700

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H75

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-08

% Solids: 90.0 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.075	J	10/19/2016	1703

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H76

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-09

% Solids: 55.7 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.24		10/19/2016	1710

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H77

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-10

% Solids: 94.1 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.048	J	10/19/2016	1713

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H78

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-11

% Solids: 67.4 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.15	J	10/19/2016	1716

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H79

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-12

% Solids: 87.2 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.024	J	10/19/2016	1718

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H80

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-13

% Solids: 60.1 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.17		10/19/2016	1721

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H81

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-14
% Solids: 94.4
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.25		10/19/2016	1723

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H82

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-15

% Solids: 78.4 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.076	J	10/19/2016	1726

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H83

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-16
% Solids: 91.6
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.26		10/19/2016	1728

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H84

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Lab Sample ID: 6100168-17

% Solids: 61.7 Date Received: 10/13/2016

Analytical method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.027	J	10/19/2016	1731

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MH1H85

FORM 1-IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON Case No.: 46282
MA No.:
SDG No.: MH1H68
Matrix: Soil
Lab Sample ID: 6100168-18
% Solids: 8.8
Date Received: 10/13/2016
Analytical method: CVAA
Concentration Units (µg/L, mg/L, mg/kg dry weight or µg): mg/Kg

CAS NO.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.044	JD	10/28/2016	1254

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63111H101916E Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury	4.0000	4.1	101		3.0000	3.0	100		3.0	100	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63111H101916E Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	3.0	100		3.0	100	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63111H101916E Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	3.0	100				

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID: ICV01				ID: CCV01				ID: CCV02		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury	4.0000	3.8	94		3.0000	2.8	92		3.0	100	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV03				ID: CCV04		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	2.8	94		2.8	94	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID:CCV05				ID:CCV06		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	2.8	93		2.8	94	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV07				ID: CCV08		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	2.9	95		2.9	95	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV09				ID: CCV10		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	2.8	95		2.8	94	

FORM 2-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Initial Calibration Verification Source: USEPA, Lot: EPA (0508)

Continuing Calibration Verification Source: In House, Lot: B6G0099

Run Batch: BJ63112H102816B Analytical method: CVAA

Concentration Units: ug/L

	Initial Calibration Verification				Continuing Calibration Verification						
	ID:				ID: CCV11				ID:CCV12		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	Found	%R	%RSD
Mercury					3.0000	2.8	94		2.8	93	

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ14045

Run Batch: BJ63111H101916E Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS01	Q
Mercury	0.20	U	0.20	U	0.20	U	0.20	U	-0.0070	J

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ14045

Run Batch: BJ63111H101916E Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID:	Q	ID:	Q
Mercury			0.20	U	0.20	U				

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ28011

Run Batch: BJ63112H102816B Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID: ICB01	Q	ID: CCB01	Q	ID: CCB02	Q	ID: CCB03	Q	ID: PBS02	Q
Mercury	0.20	U	0.20	U	0.20	U	0.20	U	0.10	U

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ28011

Run Batch: BJ63112H102816B Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB04	Q	ID: CCB05	Q	ID: CCB06	Q	ID:	Q
Mercury			0.20	U	0.20	U	0.20	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ28011

Run Batch: BJ63112H102816B Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB07	Q	ID: CCB08	Q	ID: CCB09	Q	ID:	Q
Mercury			0.20	U	0.20	U	0.20	U		

NOTE: Hardness (total) is reported in mg/L

FORM 3-IN
BLANKS

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Preparation Blank Matrix: Soil

Preparation Blank Concentration Units (µg/L, mg/L, mg/kg dry weight, or µg): mg/kg

Analytical method: CVAA Preparation Batch: QJ28011

Run Batch: BJ63112H102816B Preparation Method: 7471B

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank/Leachate Extraction Blank	
Analyte	ID:	Q	ID: CCB10	Q	ID: CCB11	Q	ID: CCB12	Q	ID:	Q
Mercury			0.20	U	0.20	U	0.20	U		

NOTE: Hardness (total) is reported in mg/L

EPA SAMPLE NO.

MH1H71S

FORM 5A-IN
MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Matrix: Soil Analytical Method: CVAA

% Solids: 80.2

Concentration Units (µg/L, mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	Q	Sample Result (SR)	Q	Spike Added (SA)	%R	Q
Mercury	75-125	0.78		0.14		0.624	102	

EPA SAMPLE NO.

FORM 6-IN
DUPLICATES

MH1H71D

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.:46282 MA No.: SDG No.: MH1H68

Matrix: Soil Analytical Method: CVAA

% Solids: 80.2

Concentration Units (µg/L, mg/L, or mg/kg dry weight): mg/Kg

Analyte	Control Limit	Sample (S)	Q	Duplicate (D)	Q	RPD	Q
Mercury	0.12	0.14		0.13		6	

NOTE: Hardness (total) is reported in mg/L

FORM 9-IN
METHOD DETECTION LIMIT

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Analytical Method: CVAA Instrument ID: CETAC01

Preparation Method: 7471B

Concentration Units (µg/L, µg, or mg/kg): mg/Kg

Analyte	Wavelength/Mass	MDL	Date Analyzed
Mercury	257.00 nm	0.0032	01/14/2016

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co. Contract: EPW14029

Lab Code: BON Case No.: 46282 MA No.: SDG No.: MH1H68

Instrument ID: CETAC01 Analytical Method: CVAA

Start Date: 10/19/2016 End Date: 10/19/2016

Run Batch: BJ63111H101916E

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	1507															X										
S02	1.0	1509															X										
S03	1.0	1512															X										
S04	1.0	1514															X										
S05	1.0	1517															X										
S06	1.0	1519															X										
S07	1.0	1522															X										
ICV01	1.0	1524															X										
ICB01	1.0	1527															X										
CCV01	1.0	1529															X										
CCB01	1.0	1532															X										
CCV02	1.0	1605															X										
CCB02	1.0	1607															X										
CCV03	1.0	1633															X										
CCB03	1.0	1635															X										
PBS01	1.0	1638															X										
MH1H68	1.0	1640															X										
MH1H69	1.0	1643															X										
MH1H70	1.0	1645															X										
MH1H71	1.0	1648															X										
MH1H71S	1.0	1650															X										
MH1H71D	1.0	1653															X										
MH1H72	1.0	1655															X										
MH1H73	1.0	1658															X										
MH1H74	1.0	1700															X										
MH1H75	1.0	1703															X										
CCV04	1.0	1705															X										
CCB04	1.0	1708															X										
MH1H76	1.0	1710															X										
MH1H77	1.0	1713															X										

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.: SDG No.: MH1H68

Instrument ID: CETAC01

Analytical Method: CVAA

Start Date: 10/19/2016

End Date: 10/19/2016

Run Batch: BJ63111H101916E

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
MH1H78	1.0	1716															X										
MH1H79	1.0	1718															X										
MH1H80	1.0	1721															X										
MH1H81	1.0	1723															X										
MH1H82	1.0	1726															X										
MH1H83	1.0	1728															X										
MH1H84	1.0	1731															X										
ZZZZZZ	1.0	1733																									
CCV05	1.0	1736															X										
CCB05	1.0	1738															X										

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Analytical Method: CVAA
Start Date: 10/28/2016
End Date: 10/28/2016
Run Batch: BJ63112H102816B

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
S01	1.0	1022															X										
S02	1.0	1025															X										
S03	1.0	1027															X										
S04	1.0	1030															X										
S05	1.0	1032															X										
S06	1.0	1035															X										
S07	1.0	1038															X										
ICV01	1.0	1040															X										
ICB01	1.0	1043															X										
CCV01	1.0	1045															X										
CCB01	1.0	1048															X										
CCV02	1.0	1103															X										
CCB02	1.0	1109															X										
CCV03	1.0	1117															X										
CCB03	1.0	1119															X										
CCV04	1.0	1127															X										
CCB04	1.0	1129															X										
CCV05	1.0	1139															X										
CCB05	1.0	1142															X										
CCV06	1.0	1149															X										
CCB06	1.0	1152															X										
CCV07	1.0	1159															X										
CCB07	1.0	1202															X										
CCV08	1.0	1211															X										
CCB08	1.0	1213															X										
CCV09	1.0	1223															X										
CCB09	1.0	1226															X										
CCV10	1.0	1237															X										
CCB10	1.0	1239															X										
CCV11	1.0	1247															X										

FORM 12-IN
ANALYSIS LOG

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Analytical Method: CVAA
Start Date: 10/28/2016
End Date: 10/28/2016
Run Batch: BJ63112H102816B

EPA Sample NO.	D/F	Time	Analytes																								
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN	
CCB11	1.0	1249															X										
PBS02	1.0	1252															X										
MH1H85	2.0	1254															X										
CCV12	1.0	1257															X										
CCB12	1.0	1259															X										

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Start Date: 10/19/2016
Analytical method: CVAA
Run Batch: BJ63111H101916E

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.0	0.015		0.10	0.11	-12	0.20	0.21	-4

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: CETAC01

Start Date: 10/19/2016

Analytical method: CVAA

Run Batch: BJ63111H101916E

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.50	0.49	1	1.0	0.99	1	3.0	3.0	1

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Start Date: 10/19/2016
Analytical method: CVAA
Run Batch: BJ63111H101916E
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	6.0	6.0	0						

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: CETAC01

Start Date: 10/28/2016

Analytical method: CVAA

Run Batch: BJ63112H102816B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.0	0.026		0.10	0.13	-26	0.20	0.22	-10

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Start Date: 10/28/2016
Analytical method: CVAA
Run Batch: BJ63112H102816B
Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	0.50	0.51	-1	1.0	1.0	-3	3.0	2.8	6

FORM 15-IN
INITIAL CALIBRATION

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON

Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: CETAC01

Start Date: 10/28/2016

Analytical method: CVAA

Run Batch: BJ63112H102816B

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Mercury	6.0	6.1	-2						

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.
Contract: EPW14029
Lab Code: BON
Case No.: 46282
MA No.:
SDG No.: MH1H68
Instrument ID: CETAC01
Start Date: 10/19/2016
Analytical method: CVAA
Run Batch: BJ63111H101916E

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Mercury	0.999912	18698.4	0.0484939	Lin. Reg	None

FORM 16-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Bonner Analytical Testing Co.

Contract: EPW14029

Lab Code: BON Case No.: 46282

MA No.:

SDG No.: MH1H68

Instrument ID: CETAC01

Start Date: 10/28/2016

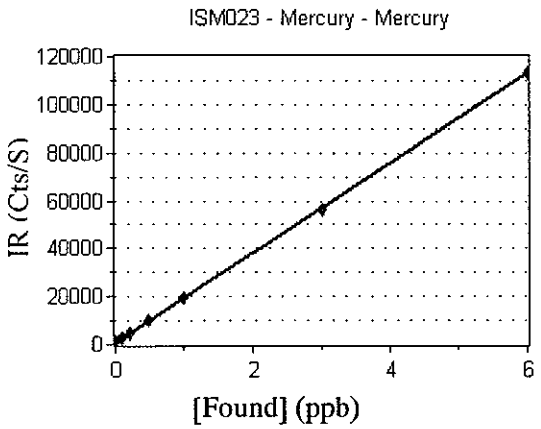
Analytical method: CVAA

Run Batch: BJ63112H102816B

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Mercury	0.9983684	26447.74	0.0152182	Lin. Reg	None

Bonner Analytical Testing Company

Instrument ID: CETAC01 Calibration ID: B645013 Calibration Date: 10/19/2016 **414**



Calibration Plot: Mercury
Calibration Type: Linear Regression
Corr. Coeff.: 0.999912
Fit: [Y] = 18698.4 * [X] + 906.7577
[y-intercept] = -0.05

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63111-CAL1	B6G0104	0	0.02	1189	0
BJ63111-CAL2	B6G0103	0.1	0.11	2994	-12
BJ63111-CAL3	B6G0102	0.2	0.21	4797	-4
BJ63111-CAL4	B6G0101	0.5	0.49	10120	1
BJ63111-CAL5	B6G0100	1	0.99	19430	1
BJ63111-CAL6	B6G0099	3	2.96	56260	1
BJ63111-CAL7	B6G0098	6	6.02	113500	0

Bonner Analytical Testing Company

Report Generated By Teledyne Leeman QuickTrace

Analyst: caultman

Worksheet file: X:\2016\Worksheets\Hg 10-16 Worksheets\H101916E.wszf

Creation Date: 8/3/2016 10:18:10 AM

Comment:

Results

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CAL1@S01		STD	10/19/16 03:07:03 pm	0.0000	1189	0.00	15.29		N/A
Replicates	1188.7								
SEQ-CAL2@S02		STD	10/19/16 03:09:34 pm	0.1000	2994	0.00	11.77		N/A
Replicates	2993.6								
SEQ-CAL3@S03		STD	10/19/16 03:12:06 pm	0.2000	4797	0.00	8.16		N/A
Replicates	4796.6								
SEQ-CAL4@S04		STD	10/19/16 03:14:38 pm	0.5000	10119	0.00	-7.34		N/A
Replicates	10118.6								
SEQ-CAL5@S05		STD	10/19/16 03:17:10 pm	1.0000	19434	0.00	-9.35		N/A
Replicates	19434.0								
SEQ-CAL6@S06		STD	10/19/16 03:19:43 pm	3.0000	56264	0.00	-40.47		N/A
Replicates	56264.0								
SEQ-CAL7@S07		STD	10/19/16 03:22:16 pm	6.0000	113550	0.00	21.94		N/A
Replicates	113549.7								
SEQ-ICV@ICV01		ICV	10/19/16 03:24:49 pm	4.0480	76628	0.00			101.20
Replicates	76627.5								
SEQ-ICB@ICB01		ICB	10/19/16 03:27:20 pm	0.0068	1030	0.00			N/A
Replicates	1029.9								
SEQ-CCV@CCV01		CCV	10/19/16 03:29:52 pm	2.9860	56762	0.00			99.54
Replicates	56762.0								
SEQ-CCB@CCB01		CCB	10/19/16 03:32:24 pm	0.0098	1086	0.00			N/A
Replicates	1085.7								
~~QJ1442-BLK1@PBS01~~		~~UNK~~	~~10/19/16 03:34:55 pm~~	~~0.0019~~	~~868~~	~~0.00~~			N/A
Replicates	867.6								
6100166-01@MH1H32		UNK	10/19/16 03:37:26 pm	0.0668	2153	0.00			N/A
Replicates	2152.6								
6100166-02@MH1H33		UNK	10/19/16 03:39:57 pm	0.2280	5168	0.00			N/A
Replicates	5168.5								
6100166-03@MH1H34		UNK	10/19/16 03:42:29 pm	0.6498	13059	0.00			N/A
Replicates	13058.9								
~~6100166-04@MH1H35~~		~~UNK~~	~~10/19/16 03:45:01 pm~~	~~0.2467~~	5518	0.00			N/A
Replicates	5517.9								

AS 10/31

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
QJ1443-MS1@MH1H35S	UNK	10/19/16 03:47:32 pm	2.8390	54013	0.00			N/A
Replicates 54012.8								
QJ1443-DUP1@MH1H35D	UNK	10/19/16 03:50:05 pm	0.1451	3618	0.00			N/A
Replicates 3617.6								
6100166-05@MH1H36	UNK	10/19/16 03:52:36 pm	0.3749	7916	0.00			N/A
Replicates 7916.0								
6100166-06@MH1H37	UNK	10/19/16 03:55:07 pm	0.1250	3240	0.00			N/A
Replicates 3240.5								
6100166-07@MH1H38	UNK	10/19/16 03:57:38 pm	0.0208	1292	0.00			N/A
Replicates 1292.4								
6100166-08@MH1H39	UNK	10/19/16 04:00:10 pm	0.1052	2871	0.00			N/A
Replicates 2871.4								
6100166-09@MH1H40	UNK	10/19/16 04:02:42 pm	0.0562	1954	0.00			N/A
Replicates 1953.7								
SEQ-CCV@CCV~~1~~02	CCV	10/19/16 04:05:14 pm	2.9910	56856	0.00			99.71
Replicates 56855.7								
SEQ-CCB@CCB~~1~~02	CCB	10/19/16 04:07:45 pm	0.0102	1093	0.00			N/A
Replicates 1093.5								
6100166-10@MH1H41	UNK	10/19/16 04:10:17 pm	0.1153	3060	0.00			N/A
Replicates 3059.7								
6100166-11@MH1H42	UNK	10/19/16 04:12:50 pm	0.1997	4639	0.00			N/A
Replicates 4638.9								
6100166-12@MH1H43	UNK	10/19/16 04:15:21 pm	0.1005	2783	0.00			N/A
Replicates 2783.0								
6100166-13@MH1H44	UNK	10/19/16 04:17:52 pm	0.0623	2067	0.00			N/A
Replicates 2067.0								
6100166-14@MH1H45	UNK	10/19/16 04:20:23 pm	0.1374	3474	0.00			N/A
Replicates 3473.6								
6100166-15@MH1H46	UNK	10/19/16 04:22:55 pm	0.1587	3872	0.00			N/A
Replicates 3871.9								
6100166-16@MH1H47	UNK	10/19/16 04:25:27 pm	0.2717	5985	0.00			N/A
Replicates 5984.7								
6100166-17@MH1H48	UNK	10/19/16 04:27:59 pm	0.4572	9456	0.00			N/A
Replicates 9456.1								
6100166-18@MH1H49	UNK	10/19/16 04:30:31 pm	0.5132	10503	0.00			N/A
Replicates 10503.2								
SEQ-CCV@CCV~~1~~03	CCV	10/19/16 04:33:04 pm	2.9880	56799	0.00			99.60
Replicates 56799.3								
SEQ-CCB@CCB~~1~~03	CCB	10/19/16 04:35:35 pm	0.0093	1076	0.00			N/A
Replicates 1076.3								

10/31

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
QJ14045@BLK1@PBS01	UNK	10/19/16 04:38:06 pm	-0.0350	248	0.00			N/A
Replicates 248.4								
6100168-01@MH1H68	UNK	10/19/16 04:40:38 pm	0.2044	4727	0.00			N/A
Replicates 4727.0								
6100168-02@MH1H69	UNK	10/19/16 04:43:09 pm	0.1459	3631	0.00			N/A
Replicates 3631.1								
6100168-03@MH1H70	UNK	10/19/16 04:45:41 pm	0.3726	7872	0.00			N/A
Replicates 7872.2								
6100168-04@MH1H71	UNK	10/19/16 04:48:12 pm	0.5731	11623	0.00			N/A
Replicates 11623.2								
QJ14045@MS1@MH1H71S	UNK	10/19/16 04:50:45 pm	3.1140	59149	0.00			N/A
Replicates 59148.9								
QJ14045@DUP1@MH1H71D	UNK	10/19/16 04:53:17 pm	0.5393	10992	0.00			N/A
Replicates 10991.7								
6100168-05@MH1H72	UNK	10/19/16 04:55:49 pm	0.3809	8027	0.00			N/A
Replicates 8027.5								
6100168-06@MH1H73	UNK	10/19/16 04:58:20 pm	0.1098	2957	0.00			N/A
Replicates 2957.1								
6100168-07@MH1H74	UNK	10/19/16 05:00:52 pm	0.5220	10666	0.00			N/A
Replicates 10666.5								
6100168-08@MH1H75	UNK	10/19/16 05:03:24 pm	0.3360	7188	0.00			N/A
Replicates 7187.9								
SEQ-CCV@CCV~~1~~04	CCV	10/19/16 05:05:56 pm	3.0050	57112	0.00			100.16
Replicates 57112.5								
SEQ-CCB@CCB~~1~~04	CCB	10/19/16 05:08:27 pm	0.0110	1108	0.00			N/A
Replicates 1108.2								
6100168-09@MH1H76	UNK	10/19/16 05:10:59 pm	0.6794	13612	0.00			N/A
Replicates 13612.3								
6100168-10@MH1H77	UNK	10/19/16 05:13:32 pm	0.2251	5113	0.00			N/A
Replicates 5113.0								
6100168-11@MH1H78	UNK	10/19/16 05:16:04 pm	0.4991	10238	0.00			N/A
Replicates 10238.0								
6100168-12@MH1H79	UNK	10/19/16 05:18:36 pm	0.1031	2832	0.00			N/A
Replicates 2831.6								
6100168-13@MH1H80	UNK	10/19/16 05:21:08 pm	0.5246	10716	0.00			N/A
Replicates 10716.4								
6100168-14@MH1H81	UNK	10/19/16 05:23:40 pm	1.1610	22623	0.00			N/A
Replicates 22622.7								
6100168-15@MH1H82	UNK	10/19/16 05:26:12 pm	0.2961	6441	0.00			N/A
Replicates 6440.8								

SEL 10/31/16

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
6100168-16@MH1H83		UNK	10/19/16 05:28:44 pm	1.1870	23107	0.00			N/A
Replicates	23107.3								
6100168-17@MH1H84		UNK	10/19/16 05:31:16 pm	0.0828	2451	0.00			N/A
Replicates	2451.1								
~~6100168-18@MH1H85~~ SEQ-IBL1		UNK	10/19/16 05:33:49 pm	0.0100	1089	0.00			N/A
Replicates	1089.2		10/20		Redigest due to % S				
SEQ-CCV@CCV~~B~~05		CCV	10/19/16 05:36:21 pm	3.0120	57252	0.00			100.41
Replicates	57251.6								
SEQ-CCB@CCB~~B~~05	10/31/16	CCB	10/19/16 05:38:52 pm	0.0104	1097	0.00			N/A
Replicates	1097.3								
~~QJ17030-BLK1@PBS01~~		~~UNK~~	~~10/19/16 05:41:25 pm~~	~~0.0048~~	~~256~~	0.00			N/A
Replicates	256.4								

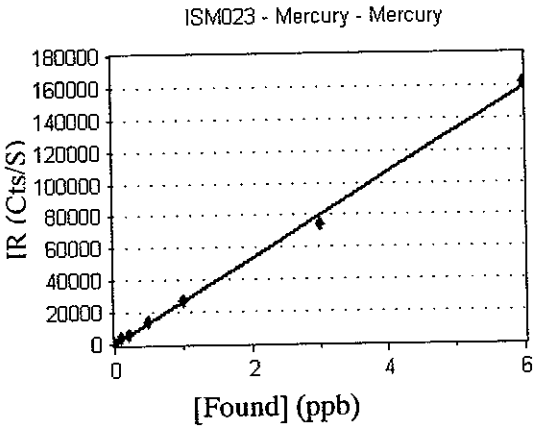
10/31

Notes

INSTRUMENT ID: CETAC01

Bonner Analytical Testing Company

Instrument ID: CETAC01 Calibration ID: B645014 Calibration Date: 10/28/2016



Calibration Plot: Mercury
Calibration Type: Linear Regression
Corr. Coeff.: 0.9983684
Fit: [Y] = 26447.74 * [X] + 402.4879
[y-intercept] = -0.02

Sequence Std. Name	LIMS ID	True Conc. (ppb)	Found Conc. (ppb)	IR (Cts/S)	Difference (%)
BJ63112-CAL1	B6G0104	0	0.03	1091	0
BJ63112-CAL2	B6G0103	0.1	0.13	3722	-26
BJ63112-CAL3	B6G0102	0.2	0.22	6200	-10
BJ63112-CAL4	B6G0101	0.5	0.51	13790	-1
BJ63112-CAL5	B6G0100	1	1.03	27540	-3
BJ63112-CAL6	B6G0099	3	2.81	74610	6
BJ63112-CAL7	B6G0098	6	6.09	161500	-2

Bonner Analytical Testing Company

Report Generated By Teledyne Leeman QuickTrace

Analyst: caultman

Worksheet file: X:\2016\Worksheets\Hg 10-16 Worksheets\H102816B.wszf

Creation Date: 8/3/2016 10:18:10 AM

Comment:

Results

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CAL1@S01		STD	10/28/16 10:22:48 am	0.0000	1091	0.00	26.10		N/A
Replicates	1090.6								
SEQ-CAL2@S02		STD	10/28/16 10:25:19 am	0.1000	3722	0.00	25.59		N/A
Replicates	3722.1								
SEQ-CAL3@S03		STD	10/28/16 10:27:51 am	0.2000	6200	0.00	19.27		N/A
Replicates	6199.9								
SEQ-CAL4@S04		STD	10/28/16 10:30:23 am	0.5000	13793	0.00	6.32		N/A
Replicates	13792.7								
SEQ-CAL5@S05		STD	10/28/16 10:32:55 am	1.0000	27537	0.00	25.93		N/A
Replicates	27536.8								
SEQ-CAL6@S06		STD	10/28/16 10:35:27 am	3.0000	74605	0.00	-194.59		N/A
Replicates	74605.3								
SEQ-CAL7@S07		STD	10/28/16 10:38:00 am	6.0000	161522	0.00	91.38		N/A
Replicates	161521.6								
SEQ-ICV@ICV01		ICV	10/28/16 10:40:33 am	3.7640	99949	0.00			94.09
Replicates	99949.0								
SEQ-ICB@ICB01		ICB	10/28/16 10:43:04 am	0.0266	1103	0.00			N/A
Replicates	1103.1								
SEQ-CCV@CCV01		CCV	10/28/16 10:45:37 am	2.7690	73634	0.00			92.29
Replicates	73634.1								
SEQ-CCB@CCB01		CCB	10/28/16 10:48:08 am	0.0291	1171	0.00			N/A
Replicates	1171.2								
~~QJ28001-BLK1@RBS01~~		~~UNK~~	~~10/28/16 10:50:39 am~~	0.0033	487	0.00			N/A
Replicates	486.7								
6100155-01RE1@MH1G05@5X		UNK	10/28/16 10:53:10 am	0.3003	8344	0.00			N/A
Replicates	8344.4								
6100155-02RE1@MH1G06@5X		UNK	10/28/16 10:55:42 am	1.1850	31747	0.00			N/A
Replicates	31747.0								
QJ28001-MS2@MH1G06S@5X		UNK	10/28/16 10:58:13 am	1.3270	35506	0.00			N/A
Replicates	35506.4								
~~QJ28001-DUP2@M1G06D@5X~~		~~UNK~~	~~10/28/16 11:00:45 am~~	~~0.7755~~	~~20912~~	~~0.00~~			N/A
Replicates	20912.4								

Ok 10/31

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CCV@CCV02	CCB	10/28/16 11:03:18 am	3.0060	79899	0.00		Q	N/A
Replicates 79899.4								
SEQ-CCB@CCB02	CCB	10/28/16 11:09:37 am	0.0296	1182	0.00			N/A
Replicates 1181.9								
QJ25014-BLK1@PBS01	UNK	10/28/16 11:12:07 am	-0.0074	205	0.00			N/A
Replicates 204.7								
6100173-06@MH1J64@2X	UNK	10/28/16 11:14:38 am	0.2148	6081	0.00			N/A
Replicates 6080.8								
SEQ-CCV@CCV03	CCV	10/28/16 11:17:11 am	2.8130	74814	0.00			93.78
Replicates 74813.6								
SEQ-CCB@CCB03	ICB	10/28/16 11:19:42 am	0.0267	1106	0.00			N/A
Replicates 1105.9								
QJ25015-BLK1@PBS01	UNK	10/28/16 11:22:13 am	0.0015	441	0.00			N/A
Replicates 440.8								
6100177-15@MH1K46@2X	UNK	10/28/16 11:24:44 am	0.2677	7482	0.00			N/A
Replicates 7481.7								
SEQ-CCV@CCV04	CCV	10/28/16 11:27:17 am	2.8260	75142	0.00			94.19
Replicates 75142.1								
SEQ-CCB@CCB04	CCB	10/28/16 11:29:48 am	0.0266	1104	0.00			N/A
Replicates 1103.7								
QJ25020-BLK1@PBS01	UNK	10/28/16 11:32:19 am	0.0019	451	0.00			N/A
Replicates 451.4								
6100169-04@MH1H89@2X	UNK	10/28/16 11:34:51 am	0.1056	3192	0.00			N/A
Replicates 3192.3								
6100169-12@MH1H97@2X	UNK	10/28/16 11:37:23 am	0.0524	1787	0.00			N/A
Replicates 1786.6								
SEQ-CCV@CCV05	CCV	10/28/16 11:39:55 am	2.7980	74413	0.00			93.27
Replicates 74413.4								
SEQ-CCB@CCB05	CCB	10/28/16 11:42:26 am	0.0296	1182	0.00			N/A
Replicates 1182.0								
6100155-01RE1@MH1G05	UNK	10/28/16 11:44:58 am	[illegible]	37353	0.00			N/A
Replicates 37353.2								
SEQ-CCV@CCV06	UNK	10/28/16 11:49:32 am	2.8260	75157	0.00			N/A
Replicates 75156.7								
SEQ-CCB@CCB06	UNK	10/28/16 11:52:03 am	0.0267	1108	0.00			N/A
Replicates 1107.6								
QJ25021-BLK1@PBS01	UNK	10/28/16 11:54:34 am	0.0038	500	0.00			N/A
Replicates 500.5								
6100162-11@MH1G69@2X	UNK	10/28/16 11:57:06 am	0.2295	6471	0.00			N/A
Replicates 6471.2								

SD 11/31

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
SEQ-CCV@CCV07	CCV	10/28/16 11:59:38 am	2.8480	75735	0.00			94.94
Replicates 75734.9								
SEQ-CCB@CCB07	CCB	10/28/16 12:02:10 pm	0.0275	1128	0.00			N/A
Replicates 1128.1								
QJ25008-BLK1@PBS01	UNK	10/28/16 12:04:40 pm	0.0031	481	0.00			N/A
Replicates 481.2								
6100179-03@MH1K70@2X	UNK	10/28/16 12:08:28 pm	0.9369	25182	0.00			N/A
Replicates 25182.0								
SEQ-CCV@CCV08	CCV	10/28/16 12:11:00 pm	2.8530	75858	0.00			95.09
Replicates 75857.9								
SEQ-CCB@CCB08	CCB	10/28/16 12:13:31 pm	0.0269	1113	0.00			N/A
Replicates 1112.9								
QJ25018-BLK1@PBS01	UNK	10/28/16 12:16:02 pm	0.0023	461	0.00			N/A
Replicates 460.7								
6100178-03@MH1K52@2X	UNK	10/28/16 12:18:35 pm	0.4839	13200	0.00			N/A
Replicates 13200.3								
6100178-07@MH1K56@2X	UNK	10/28/16 12:21:08 pm	0.9793	26303	0.00			N/A
Replicates 26303.4								
SEQ-CCV@CCV09	CCV	10/28/16 12:23:40 pm	2.8380	75475	0.00			94.61
Replicates 75475.4								
SEQ-CCB@CCB09	CCB	10/28/16 12:26:12 pm	0.0271	1116	0.00			N/A
Replicates 1116.4								
QJ28009-BLK1@PBS01	UNK	10/28/16 12:32:10 pm	0.0020	453	0.00			N/A
Replicates 453.5								
6100175-18@MH1K13@2X	UNK	10/28/16 12:34:42 pm	0.3122	8657	0.00			N/A
Replicates 8657.2								
SEQ-CCV@CCV10	CCV	10/28/16 12:37:14 pm	2.8080	74687	0.00			93.62
Replicates 74686.6								
SEQ-CCB@CCB10	CCB	10/28/16 12:39:45 pm	0.0258	1083	0.00			N/A
Replicates 1083.3								
QJ28010-BLK1@PBS01	UNK	10/28/16 12:42:17 pm	0.0022	459	0.00			N/A
Replicates 459.4								
6100178-15@MH1K65@2X	UNK	10/28/16 12:44:48 pm	0.0463	1624	0.00			N/A
Replicates 1623.7								
SEQ-CCV@CCV11	CCV	10/28/16 12:47:21 pm	2.8150	74858	0.00			93.83
Replicates 74857.5								
SEQ-CCB@CCB11	CCB	10/28/16 12:49:52 pm	0.0265	1102	0.00			N/A
Replicates 1102.2								
QJ28011-BLK1@PBS01/2 10/31	UNK	10/28/16 12:52:23 pm	0.0018	448	0.00			N/A
Replicates 448.4								

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Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags	% Recovery
6100168-18@MH1H85@2X		UNK	10/28/16 12:54:55 pm	0.1099	3308	0.00			N/A
Replicates	3307.6								
SEQ-CCV@CCV12		CCV	10/28/16 12:57:28 pm	2.7970	74394	0.00			93.25
Replicates	74394.1								
SEQ-CCB@CCB12		CCB	10/28/16 12:59:59 pm	0.0256	1078	0.00			N/A
Replicates	1078.2								

Notes

INSTRUMENT ID: CETAC01

PREPARATION BENCH SHEET

QJ14045

Bonner Analytical Testing Co.

Matrix: Soil

Analysis: ISM023 - Mercury

Prepared: 10/~~19~~18/2016 11:30 using METALS - 7471B

Case: 46282

SDG: MH1H68

Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-01	MH1H68	0.5	100				
6100168-02	MH1H69	0.5	100				
6100168-03	MH1H70	0.5	100				
6100168-04	MH1H71	0.5	100				
6100168-05	MH1H72	0.5	100				
6100168-06	MH1H73	0.5	100				
6100168-07	MH1H74	0.5	100				
6100168-08	MH1H75	0.5	100				
6100168-09	MH1H76	0.5	100				
6100168-10	MH1H77	0.5	100				
6100168-11	MH1H78	0.5	100				
6100168-12	MH1H79	0.5	100				
6100168-13	MH1H80	0.5	100				
6100168-14	MH1H81	0.5	100				
6100168-15	MH1H82	0.5	100				
6100168-16	MH1H83	0.5	100				
6100168-17	MH1H84	0.5	100				
QJ14045-MS1	MH1H71S	0.5	100	B5I0091	2500		
QJ14045-DUP1	MH1H71D	0.5	100				
QJ14045-BLK1	PBS01	0.5	100				

Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum	Expiration
B3E0023	R - Distilled Water	In-House	NA	04/25/20
B5I0091	HG - S-WS (100ppb)	Inorganic Ventures	H2-HG02129	07/20/16
B6J0126	R - Sodium Chloride Hydroxyla	In-House	NA	04/10/17
B6J0127	R - Stannous Chloride	In House	010SC505	04/10/17
B6J0128	R - Potassium Permanganate	In House	NA	04/10/17
B6J0177	R - Aqua Regia	na	na	04/24/17

Table 2: Metals Apparatus

Balance ID		Mettler III	
Dig. Block ID		1	
Start Temp	Stop Temp	97	95
Start Time	Stop Time	1130	1205

Comments:

NDP — 10/~~19~~18/2016

Perpared By — Date

10/31/16

Preparation Reviewed By — 10/31/2016 — Date

PREPARATION BENCH SHEET

QJ28011

Bonner Analytical Testing Co.

Matrix: Soil
Analysis: ISM023 - Mercury
Prepared: 10/28/2016 08:30 using METALS - 7471B

Case: 46282
SDG: MH1H68
Work Order: 6100168

Lab Number	Sample ID	Initial (g)	Final (mL)	Spike ID	Spike Amount (uL)	Spike ID	Spike Amount (uL)
6100168-18	MH1H85	5.72	100				
QJ28011-BLK1	PBS0~~1~~2	0.5	100				

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Table 1: Quality Controls (QC), Reagents (R) and Standards (Std)

LIMS ID	Description	Vendor	LotNum
B3E0023	R - Distilled Water	In-House	NA
B6J0126	R - Sodium Chloride Hydroxylam	In-House	NA
B6J0127	R - Stannous Chloride	In House	010SC505
B6J0128	R - Potassium Permanganate	In House	NA
B6J0177	R - Aqua Regia	na	na

Table 3: Hg Calibration Curve Procedure

EPA ID	Std. Discription	WATER		SOIL	
		Spike V. (uL)	F.V. (mL)	Spike V. (uL)	F.V. (mL)
S01/ICB/CCB	Cal Blank/ICB/CCB	0	50	0	100
S02	Cal Std 0.1 ppb	50	50	100	100
S03	Cal Std 0.2 ppb	100	50	200	100
S04	Cal Std 0.5 ppb	250	50	500	100
S05	Cal Std 1 ppb	500	50	1000	100
S06/CCV	Cal Std/CCV 3 ppb	1500	50	3000	100
S07	Cal Std 6 ppb	3000	50	6000	100
ICV	ICV 4.0 ppb	500	50	1000	100

These are the spike values used for Water and Soil calibration curves. These standards are associated to this batch only and were digested under the same conditions as the samples. See Matrix type to determine which spike volume (Spike V.) and final volume (F.V.) were used.

Table 2: Hg Digestion Apparatus

Balance ID		Mettler III					
Dig. Block ID		2					
Start Temp	Stop Temp	97	98				
Start Time	Stop Time	0830	0910				

Comments:From QJ14045 on 10/28/2016 by MSB2

MSB2 10/28/2016

Perpared By Date

10/31/2016

Preparation Reviewed By Date

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101916E **Std. Prep Date:** 101816

Analyst: MSB2 **SDG:** MH1H68 **Calibration ID:** B645013 **Std. Log Page No.:** ~~30~~ 37

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ63111-CAL1	S01	10/19/16 15:07	B6G0104	1	HG
BJ63111-CAL2	S02	10/19/16 15:09	B6G0103	1	HG
BJ63111-CAL3	S03	10/19/16 15:12	B6G0102	1	HG
BJ63111-CAL4	S04	10/19/16 15:14	B6G0101	1	HG
BJ63111-CAL5	S05	10/19/16 15:17	B6G0100	1	HG
BJ63111-CAL6	S06	10/19/16 15:19	B6G0099	1	HG
BJ63111-CAL7	S07	10/19/16 15:22	B6G0098	1	HG
BJ63111-ICV1	ICV01	10/19/16 15:24	B6G0105	1	HG
BJ63111-ICB1	ICB01	10/19/16 15:27	B6G0104	1	HG
BJ63111-CCV1	CCV01	10/19/16 15:29	B6G0099	1	HG
BJ63111-CCB1	CCB01	10/19/16 15:32	B6G0104	1	HG
BJ63111-CCV2	CCV02	10/19/16 16:05	B6G0099	1	HG
BJ63111-CCB2	CCB02	10/19/16 16:07	B6G0104	1	HG
BJ63111-CCV3	CCV03	10/19/16 16:33	B6G0099	1	HG
BJ63111-CCB3	CCB03	10/19/16 16:35	B6G0104	1	HG
QJ14045-BLK1	PBS01	10/19/16 16:38		1	HG
6100168-01	MH1H68	10/19/16 16:40		1	HG
6100168-02	MH1H69	10/19/16 16:43		1	HG
6100168-03	MH1H70	10/19/16 16:45		1	HG
6100168-04	MH1H71	10/19/16 16:48		1	HG
QJ14045-MS1	MH1H71S	10/19/16 16:50		1	HG
QJ14045-DUP1	MH1H71D	10/19/16 16:53		1	HG
6100168-05	MH1H72	10/19/16 16:55		1	HG
6100168-06	MH1H73	10/19/16 16:58		1	HG
6100168-07	MH1H74	10/19/16 17:00		1	HG
6100168-08	MH1H75	10/19/16 17:03		1	HG
BJ63111-CCV4	CCV04	10/19/16 17:05	B6G0099	1	HG
BJ63111-CCB4	CCB04	10/19/16 17:08	B6G0104	1	HG
6100168-09	MH1H76	10/19/16 17:10		1	HG
6100168-10	MH1H77	10/19/16 17:13		1	HG
6100168-11	MH1H78	10/19/16 17:16		1	HG
6100168-12	MH1H79	10/19/16 17:18		1	HG
6100168-13	MH1H80	10/19/16 17:21		1	HG

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H101916E **Std. Prep Date:** 101816

Analyst: MSB2 **SDG:** MH1H68 **Calibration ID:** B645013 **Std. Log Page No.:** ~~30~~ 37 OEL 11/1/16

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
6100168-14	MH1H81	10/19/16 17:23		1	HG
6100168-15	MH1H82	10/19/16 17:26		1	HG
6100168-16	MH1H83	10/19/16 17:28		1	HG
6100168-17	MH1H84	10/19/16 17:31		1	HG
BJ63111-IBL1	ZZZZZZ	10/19/16 17:33		1	non-report
BJ63111-CCV5	CCV05	10/19/16 17:36	B6G0099	1	HG
BJ63111-CCB5	CCB05	10/19/16 17:38	B6G0104	1	HG

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H102816B **Std. Prep Date:** 102816
Analyst: MSB2 **SDG:** MH1H68 **Calibration ID:** B645014 **Std. Log Page No.:** 39

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ63112-CAL1	S01	10/28/16 10:22	B6G0104	1	HG
BJ63112-CAL2	S02	10/28/16 10:25	B6G0103	1	HG
BJ63112-CAL3	S03	10/28/16 10:27	B6G0102	1	HG
BJ63112-CAL4	S04	10/28/16 10:30	B6G0101	1	HG
BJ63112-CAL5	S05	10/28/16 10:32	B6G0100	1	HG
BJ63112-CAL6	S06	10/28/16 10:35	B6G0099	1	HG
BJ63112-CAL7	S07	10/28/16 10:38	B6G0098	1	HG
BJ63112-ICV1	ICV01	10/28/16 10:40	B6G0105	1	HG
BJ63112-ICB1	ICB01	10/28/16 10:43	B6G0104	1	HG
BJ63112-CCV1	CCV01	10/28/16 10:45	B6G0099	1	HG
BJ63112-CCB1	CCB01	10/28/16 10:48	B6G0104	1	HG
BJ63112-CCV2	CCV02	10/28/16 11:03	B6G0099	1	HG
BJ63112-CCB2	CCB02	10/28/16 11:09	B6G0104	1	HG
BJ63112-CCV3	CCV03	10/28/16 11:17	B6G0099	1	HG
BJ63112-CCB3	CCB03	10/28/16 11:19	B6G0104	1	HG
BJ63112-CCV4	CCV04	10/28/16 11:27	B6G0099	1	HG
BJ63112-CCB4	CCB04	10/28/16 11:29	B6G0104	1	HG
BJ63112-CCV5	CCV05	10/28/16 11:39	B6G0099	1	HG
BJ63112-CCB5	CCB05	10/28/16 11:42	B6G0104	1	HG
BJ63112-CCV6	CCV06	10/28/16 11:49	B6G0099	1	HG
BJ63112-CCB6	CCB06	10/28/16 11:52	B6G0104	1	HG
BJ63112-CCV7	CCV07	10/28/16 11:59	B6G0099	1	HG
BJ63112-CCB7	CCB07	10/28/16 12:02	B6G0104	1	HG
BJ63112-CCV8	CCV08	10/28/16 12:11	B6G0099	1	HG
BJ63112-CCB8	CCB08	10/28/16 12:13	B6G0104	1	HG
BJ63112-CCV9	CCV09	10/28/16 12:23	B6G0099	1	HG
BJ63112-CCB9	CCB09	10/28/16 12:26	B6G0104	1	HG
BJ63112-CCVA	CCV10	10/28/16 12:37	B6G0099	1	HG
BJ63112-CCBA	CCB10	10/28/16 12:39	B6G0104	1	HG
BJ63112-CCVB	CCV11	10/28/16 12:47	B6G0099	1	HG
BJ63112-CCBB	CCB11	10/28/16 12:49	B6G0104	1	HG
QJ28011-BLK1	PBS02	10/28/16 12:52		1	HG
6100168-18	MH1H85	10/28/16 12:54		2	HG

Bonner Analytical Testing Company
Analytical Run Log

Instrument ID: CETAC01 **Case:** 46282 **FileID:** H102816B **Std. Prep Date:** 102816

Analyst: MSB2 **SDG:** MH1H68 **Calibration ID:** B645014 **Std. Log Page No.:** 39

Lab Number	EPA ID	Analyzed Date/Time	STD ID	DF	Elements list are used per QC/sample
BJ63112-CCVC	CCV12	10/28/16 12:57	B6G0099	1	HG
BJ63112-CCBC	CCB12	10/28/16 12:59	B6G0104	1	HG

Bonner Analytical Testing Company

ISM02.3 Hg Standard and Quality Control Log

Analyst: NDP Date: 10/19/2016

Description	EPA ID	Amount Spiked	Volume Made	Vendor	Lot Number	Date Lot Expires	Final Conc.	LIMS ID
Mercury Working Standard	S-WS		50 mL	In House	NA	1 Day	100 ug/L	B6G0097
MSHG-10 PPM		0.5 mL		Inorganic Ventures	J2-HG02138	Jul-17		B6G0096
Initial Calibration High	S07		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	6.0 ug/L	B6G0098
Mercury Working Standard	S-WS	6.0 mL (Soil) 3.0 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid/ Continuing Calibration Verification	S06/ CCV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	3.0 ug/L	B6G0099
Mercury Working Standard	S-WS	3.0 mL (Soil) 1.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid	S05		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	B6G0100
Mercury Working Standard	S-WS	1.5 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S04		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.5 ug/L	B6G0101
Mercury Working Standard	S-WS	0.5 mL (Soil) 0.25 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S03		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.2 ug/L	B6G0102
Mercury Working Standard	S-WS	0.2 mL (Soil) 0.1 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S02		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.1 ug/L	B6G0103
Mercury Working Standard	S-WS	0.1 mL (Soil) 0.05 mL (Water)			From S-WS			B6G0097
Initial Calibration Blank	S01		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	NA	B6G0104
Initial Calibration Blank	ICB							
Continuing Calibration Blank	CCB							
Initial Calibration Verification	ICV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	4.0 ug/L	B6G0105
ICV5 (0508)				USEPA (0508)	0508	NA		B6G0106
Matrix Spike	MS		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	NA
Mercury Working Standard	S-WS	1.0 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097

Note: All standards and quality control are brought to final volume with the same water used for S01, ICB & CCB.

10/20/16

Bonner Analytical Testing Company

ISM02.3 Hg Standard and Quality Control Log

Analyst: MSHZ Date: 10/25/16

Description	EPA ID	Amount Spiked	Volume Made	Vendor	Lot Number	Date Lot Expires	Final Conc.	LIMS ID
Mercury Working Standard	S-WS		50 mL	In House	NA	1 Day	100 ug/L	B6G0097
MSHG-10 PPM		0.5 mL		Inorganic Ventures	J2-HG02138	Jul-17		B6G0096
Initial Calibration High	S07		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	6.0 ug/L	B6G0098
Mercury Working Standard	S-WS	6.0 mL (Soil) 3.0 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid/ Continuing Calibration Verification	S06/ CCV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	3.0 ug/L	B6G0099
Mercury Working Standard	S-WS	3.0 mL (Soil) 1.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Mid	S05		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	B6G0100
Mercury Working Standard	S-WS	1.5 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S04		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.5 ug/L	B6G0101
Mercury Working Standard	S-WS	0.5 mL (Soil) 0.25 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S03		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.2 ug/L	B6G0102
Mercury Working Standard	S-WS	0.2 mL (Soil) 0.1 mL (Water)			From S-WS			B6G0097
Initial Calibration Low	S02		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	0.1 ug/L	B6G0103
Mercury Working Standard	S-WS	0.1 mL (Soil) 0.05 mL (Water)			From S-WS			B6G0097
Initial Calibration Blank	S01		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	NA	B6G0104
Initial Calibration Blank	ICB							
Continuing Calibration Blank	CCB							
Initial Calibration Verification	ICV		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	4.0 ug/L	B6G0105
ICV5 (0508)				USEPA (0508)	0508	NA		B6G0106
Matrix Spike	MS		100 mL (Soil) 50 mL (Water)	In House	NA	1 Day	1.0 ug/L	NA
Mercury Working Standard	S-WS	1.0 mL (Soil) 0.5 mL (Water)			From S-WS			B6G0097

Note: All standards and quality control are brought to final volume with the same water used for S01, ICB & CCB.

REAGENTS PREPARATION LOG

Sodium Chloride Hydroxylamine Sulfate Solution

LIMS ID: BbT0126

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Distilled H2O	Neat	1000 mL	BATCO	NA	NA	NA
Hydroxylamine Sulfate	Neat	120g	ALFA AESAR	Z16A019	09/26/16	09/26/19
Sodium Chloride	Neat	120g	FISHER	140290	09/22/16	09/22/19

Balance ID: MIV

Instrument: Cetac M-7600

Final Volume: 1 Liter

Concentration: 24%

Used For: Mercury Digestion

Expiration Date: 6 months after preparation date

Comments: 120 g Hydroxylamine Sulfate and 120 g NaCl to 1 L of Distilled Water

Reviewed By: 10/10/16

Supervisor/Date

Reagents Preparation Log

Stannous Chloride

LIMS ID: B6J0127

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Vendor	Lot Number	Date Received	Expiration Date
Distilled Water	Neat	900 mL	BATCO	NA	NA	NA
Stannous Chloride	Neat	100 g	BDH	0105G505	06/09/16	11/2018
Hydrochloric Acid	Neat	100 mL	Fisher Scientific	4115100	02/10/16	11/16/2010

Balance ID: MIV

Instrument: CETAC01

Final Volume: 1 Liter

Concentration 10%

Used For: Mercury Analysis

Expiration Date: Six Months After Preparation Date

Reviewed By: 10/11/16

Supervisor/Date

Bonner Analytical Testing Company

REAGENTS PREPARATION LOG

Potassium Permanganate Solution

Lims ID: B6J0120

Preparation Date: 10/11/2016

Prepared By: LEM

Reagents	Concentration (mg/L)	Amount	Vendor	Lot Number	Received Date	Expiration Date
Distilled H_2O	Neat	1000 mL	BATCO	NA	NA	NA
Potassium Permanganate	Neat	50 g	FISHER	U96009	05/03/16	NA

Balance ID: MIV

Instrument: Cetac M-7600

Final Volume: 1 Liter

Concentration: 5%

Used For: Mercury Digestion

Expiration Date: 6 Months From Expiration Date

Reviewed By: [signature] 10/11/16

Supervisor/Date

Analytical Standard Record

B6J0177

Description:	R - Aqua Regia	Expires:	04/24/2017
Standard Type:	Reagent	Prepared:	10/18/2016
Solvent:	na	Prepared By:	Nathan Price
Final Volume (mls):	100	Department:	METALS
Vials:	1	Last Edit:	10/26/2016 13:44 by LEM
Comments:	25 mL Nitric Acid (1115060) 75 mL Hydrochloric Acid (4115050)		

Analyte	Parent	CAS Number	Concentration	Units
				ug/mL

Reviewed By

10/31/16
Date

Mercury Weekly Digestion Block Temperature Verification

Date	08/08/16	08/08/16	08/16/16	08/16/16	08/30/16	08/30/16	9/7/16	9/7/16
Initials	LEM	LEM	LEM	LEM	LEM	LEM	MSBr	MSBr
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
Hg Digester 01	114.9	96.0	115.0	95.5	115.0	95.5	115.0	95.5
Hg Digester 02	115.0	95.0	115.0	96.0	NOT IN USE	NOT IN USE	115.0	96.0
Hg Digester 03	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE	NOT IN USE
Reviewed/Date:	[illegible]	8/11/16	[illegible]	8/18/16	[illegible]	8/30/16	[illegible]	9/20/16

Date	9/13/16	9/13/16	10/16/16	10/16/16				
Initials	MSB2	MSB2	LEM					
	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer	Temp Read Out	Thermometer
Hg Digester 01	115.0	96.0	95.0	95.3				
Hg Digester 02	115.0	95.4	96.0	96.2				
Hg Digester 03	NOT IN USE	NOT IN USE	NIU	NIU				
Reviewed/Date:	9/20/16	[illegible]	[illegible]	10/24/16				

If temperature does not agree with the certified thermometer than either recalibrate the digestion block or use the thermometer to regulate the digestion block and record the thermometer temperature on digestion logs.

A copy of this page must accompany each SDG digested during the week.

**Certification cannot exceed 1 year

Thermometer Serial No./ID: BAT-33

**Date of certification: 07/07/16

Percent Solids/Moisture

Analyst: MSB2

Reviewer:

Batch ID: QJ18005

SDG: MH1H68
Case 46282

Oven	Date In	Time In	Date Out	Date Out
Dry Cycle #1	10/17/16	18:45 Temp In @ 104C	10/18/16	10:30 **Temp Out @ 105C**

Volume

INST

A	B	C	D	E	F	G	H
SampID	Client ID	Pan #	PAN Weight (g)	Pan + Sample (g)	Pan + Dry Sample (g)	Value % Solids	Value % Moisture
QJ18005-DUP1	Duplicate	1	0.9700	8.2900	6.9200	81.2842	18.7158
6100168-01	MH1H68	2	0.9900	7.9500	5.5000	64.7989	35.2011
6100168-02	MH1H69	3	0.9800	7.4400	6.2700	81.8885	18.1115
6100168-03	MH1H70	4	0.9800	9.1400	5.3100	53.0637	46.9363
6100168-04	MH1H71	5	1.0100	7.5700	6.2700	80.1829	19.8171
6100168-05	MH1H72	6	0.9900	10.4500	7.1300	64.9049	35.0951
6100168-06	MH1H73	7	0.9800	8.0700	6.5800	78.9845	21.0155
6100168-07	MH1H74	8	1.0500	8.3000	6.1400	70.2069	29.7931
6100168-08	MH1H75	9	0.9700	7.3500	6.7100	89.9687	10.0313
6100168-09	MH1H76	10	0.9400	7.1300	4.3900	55.7351	44.2649
6100168-10	MH1H77	11	0.9400	8.2800	7.8500	94.1417	5.8583
6100168-11	MH1H78	12	0.9800	10.0000	7.0600	67.4058	32.5942
6100168-12	MH1H79	13	0.9900	8.0900	7.1800	87.1831	12.8169
6100168-13	MH1H80	14	1.0000	8.1700	5.3100	60.1116	39.8884
6100168-14	MH1H81	15	0.9900	8.7100	8.2800	94.4301	5.5699
6100168-15	MH1H82	16	1.0300	7.9600	6.4600	78.3550	21.6450
6100168-16	MH1H83	17	1.0300	7.7300	7.1700	91.6418	8.3582
6100168-17	MH1H84	18	1.0300	9.5200	6.2700	61.7197	38.2803
6100168-18	MH1H85	19	1.0200	8.7200	1.7000	8.8312	91.1688

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 50.00 LB
CAD: 102215893/INET3790
DIMS: 20x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA9M500A119
INV:
PO: DEPT:

544J3/FB42/14E8

FedEx Express

J162016070401ex

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

4 of 10
MPS# 0263 7774 5569 7132
Mstr# 7774 5569 7187 0201

39402
XH HBGA MS-US MSY

COPY
ORIGINAL IN CSF: MHIF86
Signature: P. Ack

CUSTODY SEAL
DATE 10/12/16
SIGNATURE
Quality Environmental Containers
800-255-3950 • 304-255-3950

CUSTODY SEAL
DATE 10/12/16
SIGNATURE
Quality Environmental Containers
800-255-3950 • 304-255-3950

P. Ack
10-13-16
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1 of 10
TRK# 7774 5569 187
MASTER
XH HBGA

PRIORITY OVERNIGHT
7774 5569 7187
39402
MS-US MSY

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ORIGINAL IN CSR: M71605
Signature: P. Hd

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-2300
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC
800-255-3950
DATE 10/12/16
SIGNATURE

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA8M500A119
INV:
PO: DEPT:

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PRIORITY OVERNIGHT

7 of 10

MPS# 0263 7774 5569 7338
Mstr# 7774 5569 7187 0201

39402
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CUSTODY SEAL QEC Quality Environmental Containers 800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC Quality Environmental Containers 800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

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P. Ack
10-13-16
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COPY
ORIGINAL IN CSF: M1F86
Signature: P. Ack

ORIGIN (303) 312-7726
SCOTT W. KER
TECHLAW
16194 WE 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854 REF: 0307240202B1AA
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PO: DEPT:

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CUSTODY SEAL
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Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/13/16
SIGNATURE

COPY
ORIGINAL IN CSF: MH1F86
Signature: P. Ash

442

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 50.00 LB
CAD: 102215893/INET3790
DIMS: 20x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854
INV:
PO:

REF: 0307240202B1AA8M500A119

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2 of 10

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Quality Environmental Containers
800-255-3950 • 304-255-3900

CUSTODY SEAL
DATE
SIGNATURE
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

COPY

ORIGINAL IN CSF: MHIF86

Signature: P. Ash

P. Ash
10-13-16
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0°C

ORIGIN ID:WHHA (303) 312-7726
SCOTT WALKER
TECHLAW
16194 WEST 45TH DRIVE

GOLDEN, CO 80403
UNITED STATES US

SHIP DATE: 12OCT16
ACTWGT: 25.00 LB
CAD: 102215893/INET3790
DIMS: 15x11x14 IN

BILL SENDER

TO CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402
(601) 264-2854
REF: 0307240202B1AA9M500A119
INV:
PO:
DEPT:

544J3/FB42/14E8

FedEx Express

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THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

10 of 10

MPS# 7774 5569 7740
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Mstr# 7774 5569 7187
0201

39402
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MS-US

XH HBGA

After printing this label:

P. Aik
10-13-16
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CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 10/12/16
SIGNATURE

COPY
ORIGINAL IN CSF: MHIG05
Signature: P. Aik

CHADWELL SHANNON
BONNER ANALYTICAL TESTING COMPANY
2703 OAK GROVE ROAD

HATTIESBURG MS 39402

FedEx

THU - 13 OCT 10:30A
PRIORITY OVERNIGHT

5 of 10

7774 5569 6905

Mstr# 7774 5569 7107

XH HBGA

39402
MS-US MSY

CUSTODY SEAL
SIGNATURE
DATE 10/13
Quality Environmental Containers
800-255-3850 • 504-255-3850

COPY
ORIGINAL IN CSF PH1F88
Signature: R. Aik

10-13-16
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0°C

Bonner Analytical Testing Company

SAMPLE RECEIPT FORM

28[illegible]

Client: CLP

Date: 10-13-16

Sample Type: Grab Composite SDG#: MH1H68

Case#: 46282

Matrix: SW (stormwater) GW (groundwater) WW (wastewater) DW (drinkingwater) SL (sludge)

SO (soil) AS (asbestos) PE (petroleum) other

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines?	NA	YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, FedEx, other:	NA	YES	NO
If YES, enter airbill number here: See below			
3) Are custody seals intact? Custody Seal#: N/A Custody Seal#: N/A	NA	YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	YES	NO
5) Are samples requiring no headspace, headspace free?	NA	YES	NO
6) Packing Material: Bubblewrap, peanuts, vermiculite, ice, other:		YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, QC listed, etc.)		YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation)		YES	NO
9) Were all bottles received intact?		YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/Client		YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		YES	NO
12) Are samples within holding times for requested analysis?		YES	NO
13) Sample Preservation?			
A) If samples were collected within 6 hours of receipt, has chilling begun?	NA	YES	NO
B) If samples were received beyond 6 hours of collection:			
1) Is there a temperature blank?	NA	YES	NO
2) Temperature 0°C All coolers			
C) Were correct preservatives added to sample/s?	NA	YES	NO

14) Describe "NO" items for the above if # 1) response is NA or YES

No temp blanks 7774 5569 7187 / 7774 5569 6905 / 7774 5569 7132
7774 5569 7235 / 7774 5569 7740 / 7774 5569 7739 / 7774 5569 7522
7774 5569 7420 / 7774 5569 6548 / 7774 5569 7338

15) Is there a Corrective Action and/or Client Contact form attached? YES NO

Signature: P. Aick

COPY

ORIGINAL IN CSF: MH1F86

Signature: P. Aick

Rev No. 1.4

Date: 07/15/05

WORK ORDER

6100168

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H68

Report To:
Environmental Protection Agency, Region 8
Don Goodrich
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: (303)-312-6687
Fax: (303) 312-7517

Date Due: 11/03/2016 16:00 (15 day TAT)

Cooler ID: Cooler-132	**Temp Received: 0.0°C**	**Airbill No.: 777455697132**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-187	**Temp Received: 0.0°C**	**Airbill No.: 777455697187**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-338	**Temp Received: 0.0°C**	**Airbill No.: 777455697338**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-522	**Temp Received: 0.0°C**	**Airbill No.: 777455697522**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-548	**Temp Received: 0.0°C**	**Airbill No.: 777455696548**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-740	**Temp Received: 0.0°C**	**Airbill No.: 777455697740**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**
Cooler ID: Cooler-905	**Temp Received: 0.0°C**	**Airbill No.: 777455696905**	**TR/COC No.: 2016_OCT_Sed&Soil_4628**

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100168-01	**MH1H68**	**[Soil]**	**09/29/2016 10:40**	**10/13/2016 08:55**	**Cooler-905**	

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100168-02	**MH1H69**	**[Soil]**	**09/29/2016 10:40**	**10/13/2016 08:55**	**Cooler-187**	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)

6100168-03	**MH1H70**	**[Soil]**	**09/29/2016 11:30**	**10/13/2016 08:55**	**Cooler-905**	

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

WORK ORDER

6100168

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H68

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100168-04	MH1H71	[Soil]	09/29/2016 11:30	10/13/2016 08:55	Cooler-522	QC

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100168-05	MH1H72	[Soil]	09/29/2016 12:30	10/13/2016 08:55	Cooler-132

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPAES (1-4)
Analysis: Solids, Dry Weight

6100168-06	MH1H73	[Soil]	09/29/2016 12:30	10/13/2016 08:55	Cooler-905

Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100168-07	MH1H74	[Soil]	09/29/2016 12:00	10/13/2016 08:55	Cooler-338

Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPAES (1-4)
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPMS (2658.0)

6100168-08	MH1H75	[Soil]	09/29/2016 12:00	10/13/2016 08:55	Cooler-905

Analysis: Solids, Dry Weight
Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)

6100168-09	MH1H76	[Soil]	09/29/2016 09:15	10/13/2016 08:55	Cooler-740

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight

6100168-10	MH1H77	[Soil]	09/29/2016 09:15	10/13/2016 08:55	Cooler-905

Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)
Analysis: ISM023 - Mercury
Analysis: ISM023 - ICPMS (2658.0)

6100168-11	MH1H78	[Soil]	09/29/2016 09:45	10/13/2016 08:55	Cooler-338

Analysis: ISM023 - ICPMS (2658.0)
Analysis: ISM023 - Mercury
Analysis: Solids, Dry Weight
Analysis: ISM023 - ICPAES (1-4)

WORK ORDER

6100168

Bonner Analytical Testing Co.

Client: Environmental Protection Agency, Region 8
Case: 46282 SDG: MH1H68

LAB ID	EPA ID	Matrix	Sampled Date/Time	Received Date/Time	Cooler ID	QC Source
6100168-12	MH1H79	[Soil]	09/28/2016 09:45	10/13/2016 08:55	Cooler-338	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4)						
6100168-13	MH1H80	[Soil]	09/28/2016 16:20	10/13/2016 08:55	Cooler-548	
Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4)						
6100168-14	MH1H81	[Soil]	09/28/2016 16:20	10/13/2016 08:55	Cooler-338	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100168-15	MH1H82	[Soil]	09/28/2016 15:10	10/13/2016 08:55	Cooler-548	
Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight Analysis: ISM023 - Mercury						
6100168-16	MH1H83	[Soil]	09/28/2016 15:10	10/13/2016 08:55	Cooler-548	
Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - Mercury Analysis: Solids, Dry Weight						
6100168-17	MH1H84	[Soil]	09/28/2016 14:00	10/13/2016 08:55	Cooler-187	
Analysis: ISM023 - Mercury Analysis: ISM023 - ICPMS (2658.0) Analysis: ISM023 - ICPAES (1-4) Analysis: Solids, Dry Weight						
6100168-18	MH1H85	[Soil]	09/28/2016 08:45	10/13/2016 08:55	Cooler-548	
Analysis: ISM023 - ICPMS (2658.0) Analysis: Solids, Dry Weight Analysis: ISM023 - ICPAES (1-4) Analysis: ISM023 - Mercury						

D. Aitken
Reviewed By

10-14-16
Date

Bonner Analytical Testing Co.
In-House Chain of Custody
for Samples

SDG Number: MH1H68 **Case No.:** 46282

Work Order No.: 6100168

1) MH1H68	7) MH1H74	13) MH1H80	19)
2) MH1H69	8) MH1H75	14) MH1H81	20)
3) MH1H70	9) MH1H76	15) MH1H82	21)
4) MH1H71	10) MH1H77	16) MH1H83	22)
5) MH1H72	11) MH1H78	17) MH1H84	23)
6) MH1H73	12) MH1H79	18) MH1H85	24)

Sample to be used for QC: MH1H71

Name: P. Ach	Signature: P. Ach	Date &Time: 10-13-16	1516	Purpose: S
Name: NPPrin	Signature: Matthew Prin	Date &Time: 10-17-16	1450	Purpose: W
Name: NPPrin	Signature: Matthew Prin	Date &Time: 10-17-16	1700	Purpose: S
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:
Name:	Signature:	Date &Time:		Purpose:

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H68 **Case No.:** 46282

Work Order No.: 6100168 **Fraction:** AES

1) MH1H68	7) MH1H74	13) MH1H80	19)
2) MH1H69	8) MH1H75	14) MH1H81	20)
3) MH1H70	9) MH1H76	15) MH1H82	21)
4) MH1H71	10) MH1H77	16) MH1H83	22)
5) MH1H72	11) MH1H78	17) MH1H84	23)
6) MH1H73	12) MH1H79	18) MH1H85	24)

Sample to be used for QC: MH1H71

Name	Signature	Date &Time	Purpose
N D Prin	Nathan Prin	10/17/16 1450	W
N D Prin	Nathan Prin	10/17/16 1700	S
M Jo		10/18/16 1130	A
M A		10/18/16 1510	S 10/31
MATT JOHNSON		10/24/16 0800	W
MATT JOHNSON		10/24/16 1200	SID
Mat Bonner		10/25/16 0900	S
MATT JOHNSON		10/25/16 1130	A
M. A		10/31/16 1610	S

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H68 **Case No.:** 46282

Work Order No.: 6100168 **Fraction:** _____

1) MH1H68	7) MH1H74	13) MH1H80	19)
2) MH1H69	8) MH1H75	14) MH1H81	20)
3) MH1H70	9) MH1H76	15) MH1H82	21)
4) MH1H71	10) MH1H77	16) MH1H83	22)
5) MH1H72	11) MH1H78	17) MH1H84	23)
6) MH1H73	12) MH1H79	18) MH1H85	24)

Sample to be used for QC: MH1H71

Name	Signature	Date &Time	Purpose
N Prin	Nathan Prin	10/17/16 1450	W
N Prin	Nathan Prin	10/17/16 1700	S
M. Jo		10/18/16 1430	D
M. Jo		10/18/16 1540	S
L MEADOWS		10/19/16 1030	A
L MEADOWS		10/19/16 1030	A
L MEADOWS		10/24/16 1200	S
M Johnson		10/27/16 1100	WID
M Johnson		10/28/16 1200	S
L MEADOWS		10/28/16 1530	A
L MEADOWS		10/28/16 1600	S

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Bonner Analytical Testing Co.
Digestate Chain of Custody
for Samples

SDG Number: MH1H68 **Case No.:** 46282

Work Order No.: 6100168 **Fraction:** Hg

1) MH1H68	7) MH1H74	13) MH1H80	19)
2) MH1H69	8) MH1H75	14) MH1H81	20)
3) MH1H70	9) MH1H76	15) MH1H82	21)
4) MH1H71	10) MH1H77	16) MH1H83	22)
5) MH1H72	11) MH1H78	17) MH1H84	23)
6) MH1H73	12) MH1H79	18) MH1H85	24)

Sample to be used for QC: MH1H71

Name	Signature	Date & Time	Purpose
N Price	Nathan Price	10/17/16 1450	W
N Price	Nathan Price	10/17/16 1700	S
Nathan Price	Nathan Price	10/18/16 1130	Hg
M. R	[illegible]	10/18/16 1210	S
M. Bon	[illegible]	10/19/16 1500	A
M. Bon	[illegible]	10/20/16 1200	S/DP
M. R	[illegible]	10/25/16 830	W/D
M. R	[illegible]	10/25/16 1020	S/A
M. Bon	[illegible]	10/29/16 1500	DP

Purpose: S - Storage; A - Analyze; DP - Disposal; D - Digest; W - Weigh; P-Pour; T-TCLP;

Tricia Aiken

From: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Sent: Monday, October 17, 2016 8:44 AM
To: 'Chris Bonner'; 'Max Bonner'; Tricia Aiken
Cc: "Goodrich, Donald"
Subject: Region 08 | Case 46282 | Lab BON | Issue Multiple | FINAL

Good morning,

Discrepancies with tags, jars, and/or COC
Issue 1: There is no relinquished time on any of the 24 pages of the COC.
Resolution 1: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.
Resolution 2: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Resolution 3: Per Region 8, the samples selected for QC are acceptable to the Region. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Missing temperature blank
Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.
Resolution 4: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Non-standard matrix
Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.
Resolution 5: Per Region 8, the laboratory shall decant the sediment samples. The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Laboratory problems
Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.
Resolution 6: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.
Resolution 7: Per Region 8, shipping for this Case is complete. . The laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Please let me know if you have any questions. To waive any defect(s) associated with this issue, please contact your Regional CLP COR.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 |Alexandra.Vanaman@csra.com
www.csra.com

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 9:06 AM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: RE: Region 08 | Case 46282 | Lab BON | Issue Multiple

Ali, resolve the issues as following:

Issue 1: The laboratory shall make note of the issue and continue with sample analysis.
Issue 2: The laboratory shall make note of the issue and continue with sample analysis.
Issue 3: The samples selected for QC are acceptable to the Region.
Issue 4: The laboratory shall make note of the issue and continue with sample analysis.
Issue 5: The laboratory shall decant the sediment samples.
Issue 6: The laboratory shall make note of the issue and continue with sample analysis.
Issue 7: The case is complete.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Vanaman, Alexandra [mailto:Alexandra.Vanaman@csra.com]
Sent: Friday, October 14, 2016 8:50 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: Region 08 | Case 46282 | Lab BON | Issue Multiple

Good morning,

BON is reporting the following issues regarding Case 46282. Please advise.

Discrepancies with tags, jars, and/or COC
Issue 1: There is no relinquished time on any of the 24 pages of the COC.

Issue 2: The COC lists the Case as 46382 in the instruction box; however, these samples are for Case 46282.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC states "QC to be determined by lab." The laboratory has provided the list below of SDGs and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86

MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

Missing temperature blank
Issue 4: There were no temperature blanks in any of the coolers. A thermometer was inserted directly into the cooler, allowed to stabilize, and the temperature was then recorded. All coolers were received at 0°C.

Non-standard matrix
Issue 5: The laboratory is asking if they should decant or homogenize the sediment samples.

Laboratory problems
Issue 6: Three of the 10 airbills were not removable. The laboratory took pictures of those labels and removed what parts of the label were possible.

Issue 7: The laboratory received 419 samples of the 500 that were scheduled and the shipping end date is tomorrow, 10/14/16. Please advise if this Case is complete.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 |Alexandra.Vanaman@csra.com
www.csra.com

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From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Thursday, October 13, 2016 4:44 PM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Max Bonner <maxbonner@batco.com>; Chris Bonner <cmbonner@batco.com>
Subject: Region 8 | Case 46282 | Sample Receipt

Alexandra;

On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

1. There is no relinquished time on any of the 24 pages of the TR/COC. Please advise.
2. There were no temp blanks in any of the cooler's a thermometer was inserted directly into the cooler, allowed to stabilize and the temp was then recorded; therefore the temp for all coolers was 0°C.
3. Please advise if the lab should decant or homogenize the sediment samples.
4. The TR/COC states "QC to be determined by lab" below is a list of SDG's and the sample selected for QC.

SDG	QC
MH1F86	MH1F87
MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

5. 3 of the 10 air bills were not removable, the lab took pictures of those labels and removed what parts of the label were possible.
6. The TR/COC states Case# 46382 in the instruction box; however this is Case 46282.
7. The lab received 419 samples of the 500 that were scheduled, the shipping end date is tomorrow 10/14/16 please advise if this case is complete.

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

Tricia Aiken

From: Danganan, Eloise B <Eloise.Danganan@csra.com>
Sent: Monday, October 17, 2016 10:53 AM
To: Max Bonner; cmbonner@batco.com; ' (taiken@batco.com)'
Cc: goodrich.donald@epa.gov; Vanaman, Alexandra
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT | FINAL

Good morning Max,

Regarding the lab's issue involving Case 46282, please see the Region's response below. In addition, as soon as the lab determines which samples will require an analysis change, please provide the information to SMO as soon as possible so that scheduling information may be updated accordingly.

ISSUE: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

LAB: "All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes"

REGION: the Region approves reporting the metals in question from the ICP-AES as described below.

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 11:26 AM
To: Danganan, Eloise B <Eloise.Danganan@csra.com>
Subject: RE: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Hi Eloise, the Region approves reporting the metals in question from the ICP-AES as described below.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Danganan, Eloise B [mailto:Eloise.Danganan@csra.com]
Sent: Monday, October 17, 2016 9:16 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Hi Don,

Regarding the issue involving Case 46282, the lab has provided the following additional information.

LAB: "All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes"

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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From: maxbonner@batco.com [mailto:maxbonner@batco.com]
Sent: Monday, October 17, 2016 11:14 AM
To: Danganan, Eloise B <Eloise.Danganan@csra.com>; ' (taiken@batco.com)' <taiken@batco.com>; 'Chris Bonner' <cmbonner@batco.com>
Cc: Brett Moody (moody.brett@epa.gov) <moody.brett@epa.gov>
Subject: Re: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

All analytes are above the aes crql. If we identify a sample that's below CRQL we will analyze by icpms. In terms of concentrations all analytes we choosen to protect the icpms. For example, a large portion on the

samples are over 10ppm for pb, zn &mn. They're actually high enough that we are having to do dilutions on the icp aes

Please give me a ring at the lab if you have any concerns.

Thanks,
Max

Maxwell S. Bonner, Ph.D., President
Bonner Analytical Testing Co.
2703 Oak Grove Rd.
Hattiesburg, MS 39402
(O) 601.264.2854
(C) 601.467.9172

sent from my droid

On Mon, Oct 17, 2016 at 10:07 AM -0500, "Danganan, Eloise B" <Eloise.Danganan@csra.com> wrote:

Hi Tricia,

Please see the Region's inquiry below requesting additional information in response to the lab's reported issue involving Case 46282.

REGION: what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?

Please provide as much detailed information as possible.

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Monday, October 17, 2016 11:04 AM

To: Danganan, Eloise B <Eloise.Danganan@csra.com>
Subject: RE: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Eloise, what concentration levels are the labs finding for the metals in question? Is the lab seeing the elevated levels in all samples?
Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687
cell: 303-905-4024

From: Danganan, Eloise B [mailto:Eloise.Danganan@csra.com]
Sent: Monday, October 17, 2016 8:46 AM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Subject: REGION 8 | CASE 46282 | LAB BON | SOW ISM02.3 | CONTRACT EPW14029 | ISSUE DASS SUPPORT

Good morning Don,

BON is reporting the following issue for Case 46282. Please advise.

LAB: The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

Thank you,

ELOISE DANGANAN
DASS Environmental Coordinator - Team Leader
CSRA Inc.
6361 Walker Lane, Alexandria, VA 22310
Office: 703-461-2019 | Eloise.Danganan@csra.com
www.csra.com

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From: Jarosz, Margaret T
Sent: Monday, October 17, 2016 10:10 AM
To: DASSsupport <DASSsupport@csra.com>
Cc: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Subject: FW: Region 8 | Case 46282 | Sample Receipt

From: Vanaman, Alexandra
Sent: Monday, October 17, 2016 9:49 AM
To: Baciocco, Kerrie <Kerrie.Baciocco@csra.com>; Jarosz, Margaret T <Margaret.Jarosz@csra.com>
Subject: FW: Region 8 | Case 46282 | Sample Receipt

From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Monday, October 17, 2016 9:35 AM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Chris Bonner <cmbonner@batco.com>; Max Bonner <maxbonner@batco.com>; moody.brett@epa.gov
Subject: FW: Region 8 | Case 46282 | Sample Receipt

Alexandra;

The lab requests to move the following analytes from ICP-MS to ICP-AES due to elevated concentrations, As, Pb, Cu, Mn, & Zn. Bonner will keep the original MA prices for 1-4 and 11+.

By chance are there any resolutions from Thursday's email?

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

From: Tricia Aiken [mailto:taiken@batco.com]
Sent: Thursday, October 13, 2016 3:44 PM
To: Alexandra Vanaman (alexandra.vanaman@csra.com)
Cc: Max Bonner; Chris Bonner (cmbonner@batco.com)
Subject: Region 8 | Case 46282 | Sample Receipt

Alexandra;

On October 13, 2016 we received 419 soils in 10 coolers via FedEx air bills listed below

- 7774 5569 7187
- 7774 5569 6905
- 7774 5569 7132
- 7774 5569 7235
- 7774 5569 7740
- 7774 5569 7739
- 7774 5569 7522
- 7774 5569 7420
- 7774 5569 6548
- 7774 5569 7338

Custody seals were present and intact, Samples were in good condition except for the following discrepancies.

1. There is no relinquished time on any of the 24 pages of the TR/COC. Please advise.
2. There were no temp blanks in any of the cooler's a thermometer was inserted directly into the cooler, allowed to stabilize and the temp was then recorded; therefore the temp for all coolers was 0°C.
3. Please advise if the lab should decant or homogenize the sediment samples.
4. The TR/COC states "QC to be determined by lab" below is a list of SDG's and the sample selected for QC.

SDG	QC
MH1F86	MH1F87

MH1G05	MH1G06
MH1G23	MH1G28
MH1G77	MH1G80
MH1G59	MH1G59
MH1H14	MH1H17
MH1G95	MH1G96
MH1H50	MH1H52
MH1H32	MH1H35
MH1H68	MH1H71
MH1H86	MH1H86
MH1J05	MH1J05
MH1J23	MH1J23
MH1J41	MH1J51
MH1J59	MH1J59
MH1J77	MH1J77
MH1J95	MH1J95
MH1K14	MH1K16
MH1K32	MH1K35
MH1K50	MH1K51
MH1K68	MH1K71
MH1K86	MH1K97
MH1L05	MH1L08

5. 3 of the 10 air bills were not removable, the lab took pictures of those labels and removed what parts of the label were possible.
6. The TR/COC states Case# 46382 in the instruction box; however this is Case 46282.
7. The lab received 419 samples of the 500 that were scheduled, the shipping end date is tomorrow 10/14/16 please advise if this case is complete.

Thanks and have a blessed day;
Patricia Aiken
Bonner Analytical Testing
(601)264-2854

Tricia Aiken

From: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Sent: Tuesday, October 18, 2016 3:25 PM
To: 'Chris Bonner'; 'Max Bonner'; Tricia Aiken
Cc: "Goodrich, Donald"
Subject: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC | FINAL

Good afternoon Tricia,

Issue: The COC received with the samples for Case 46282 does not list a station location.
Resolution: Per Region 8, the laboratory will note the issue in the SDG Narrative and proceed with analysis of the samples.

Please let me know if you have any questions. To waive any defect(s) associated with this issue, please contact your Regional CLP COR.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 |Alexandra.Vanaman@csra.com
www.csra.com

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From: Goodrich, Donald [mailto:Goodrich.Donald@epa.gov]
Sent: Tuesday, October 18, 2016 4:20 PM
To: Vanaman, Alexandra <Alexandra.Vanaman@csra.com>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: RE: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC

Hi Ali, have the laboratory note the issue and continue with samples analysis.

Thanks,
Don

Don Goodrich
US EPA Region 8
office: 303-312-6687

cell: 303-905-4024

From: Vanaman, Alexandra [mailto:Alexandra.Vanaman@csra.com]
Sent: Tuesday, October 18, 2016 2:18 PM
To: Goodrich, Donald <Goodrich.Donald@epa.gov>
Cc: Walker, Scott <Walker.Scott@epa.gov>
Subject: Region 08 | Case 46282 | Lab BON | Issue Discrepancies with tags, jars, and/or COC

Good afternoon,

The following issue was noted during the SDG coversheet review process. Please advise.

Issue: The COC received with the samples for Case 46282 does not list a station location.

Thanks,

ALEXANDRA VANAMAN
Environmental Coordinator - Regions 1, 2, 7, and 8
CSRA, LLC
6361 Walker Lane, Alexandria, VA 22310
t: +1.703.461.2134 | Alexandra.Vanaman@csra.com
www.csra.com

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Bonner Analytical Testing Company

Corrective Action

8853

Topic: MH1H68 46282 Date: 10/24/16

Nature of Problem: MS FAILED FOR SD

Action Requested:

1 New Sample Requested: YES (NO)

2 Retest or Reanalysis Necessary: (YES) NO

3 Other Action: POSTSPIKE

Submitter

Signature: [signature] Date: 10/24/16

Corrective Action Taken: PS FOR SD @ 2x INDIGENOUS

Was the problem resolved: (YES) NO

Responder

Signature: [signature] Date: 10/28/16

Bonner Analytical Testing Company

Corrective Action

8874

Topic: MH1H68 (46282) Date: 10/24/16

Nature of Problem: 1) 2S <30% for MH1H55

2) Hg initial dilution

Action Requested:

1 New Sample Requested: YES (NO)

2 Retest or Reanalysis Necessary: (YES) NO

3 Other Action: Remelt + digest

Submitter

Signature: [illegible] Date: 10/25/16

Corrective Action Taken: 1) Increased mass for all fraction

2) Initial dilution was perform to protect instrument.

Was the problem resolved: (YES) NO

Responder

Signature: [illegible] Date: 10/26