Appendix A

VIRGIN ISLAND PORT AUTHORITY
SCHOONER CHANNEL
DREDGE PROJECT

ST. CROIX
U.S. VIRGIN ISLANDS

NOVEMBER 2014

CDR|Maguire Inc.
1142 King Street. P.O. Box 223039
Christiansted, St. Croix
USVI 00822
304-713-5361
www.cdrmaguire.com

PERMIT PLANS

DRAWING FILE: S:\PROJECTS\19379-07-VIPA_Schooner_Channel\ACAD\CIVIL\Production Drawings\DWG\19379-G-01_Cover.dwg PLOTTED: Oct 28,2014-2:41pm BY: kevin.chon

St. Croix

Not to Scale

INDEX OF DRAWINGS

SHEET NO.		TITLE
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G01	1 OF 7	COVER SHEET
G02	2 OF 7	LOCATION AND DRAWING INDEX
		SITE PLANS
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C02	4 OF 7	DREDGE SECTIONS
C03	5 OF 7	ST. CROIX DREDGE MATERIALTRANSFER SITE - MOLASSES PIER
C04	6 OF 7	DREDGE MATERIAL DISPOSAL SITE PLAN
C05	7 OF 7	DREDGE MATERIAL DISPOSAL SITE SECTIONS & DETAILS

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

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www.cdrmaguire.com

MARK	DATE	DESCRIPTION	BY	APP'D

PROJECT NO.:	19379.07
DESIGNED BY:	---
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	AS NOTED

SCHOONER CHANNEL DREDGING PROJECT

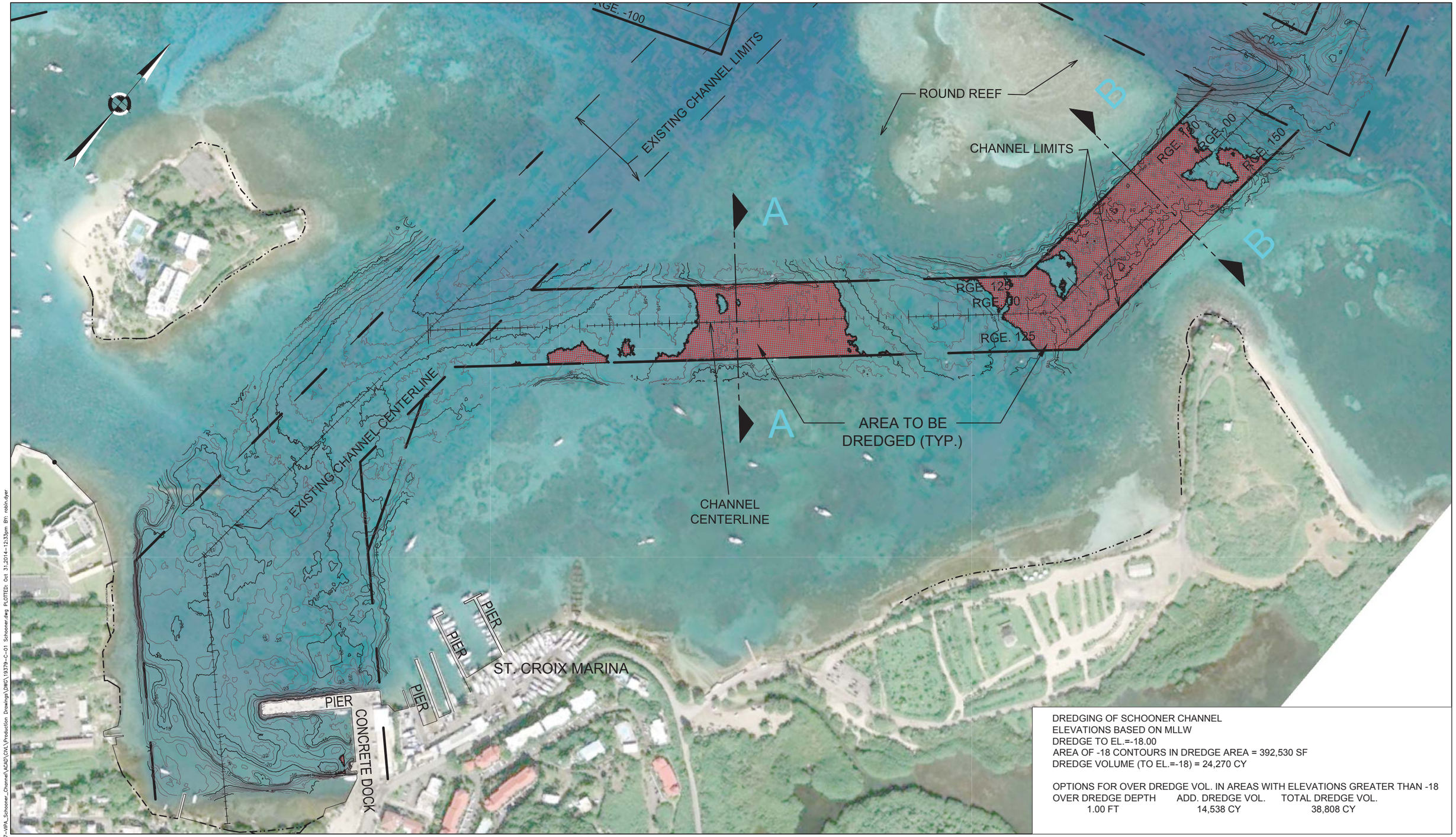
LOCATION AND INDEX OF DRAWINGS

DRAWING NO.

G-02

SHEET 2 OF 7

DRAWING FILE: S:\PROJECTS\19379.07-VIPA_Schooner_Channel\ACAD\Civil\Production Drawings\DWG\19379-G-02_Index.dwg PLOTTED: Oct 28,2014-2:44pm BY: kevin.chon



DREDGING OF SCHOONER CHANNEL
ELEVATIONS BASED ON MLLW
DREDGE TO EL.=-18.00
AREA OF -18 CONTOURS IN DREDGE AREA = 392,530 SF
DREDGE VOLUME (TO EL.=-18) = 24,270 CY

OPTIONS FOR OVER DREDGE VOL. IN AREAS WITH ELEVATIONS GREATER THAN -18

OVER DREDGE DEPTH	ADD. DREDGE VOL.	TOTAL DREDGE VOL.
1.00 FT	14,538 CY	38,808 CY

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

SCALE IN FEET
0 150' 300'

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MARK	DATE	DESCRIPTION	BY	APP'D

PROJECT NO.:	19379.07
DESIGNED BY:	
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	

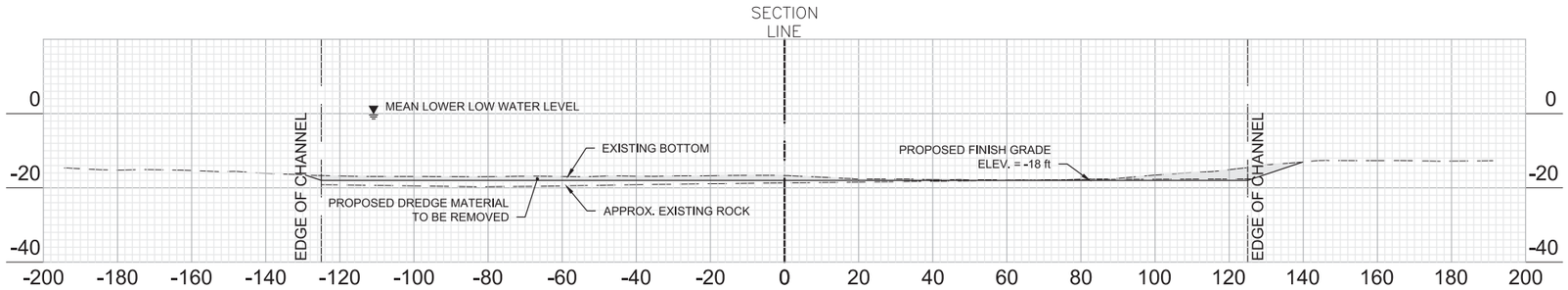
SCHOONER CHANNEL DREDGING PROJECT

DREDGE PLAN

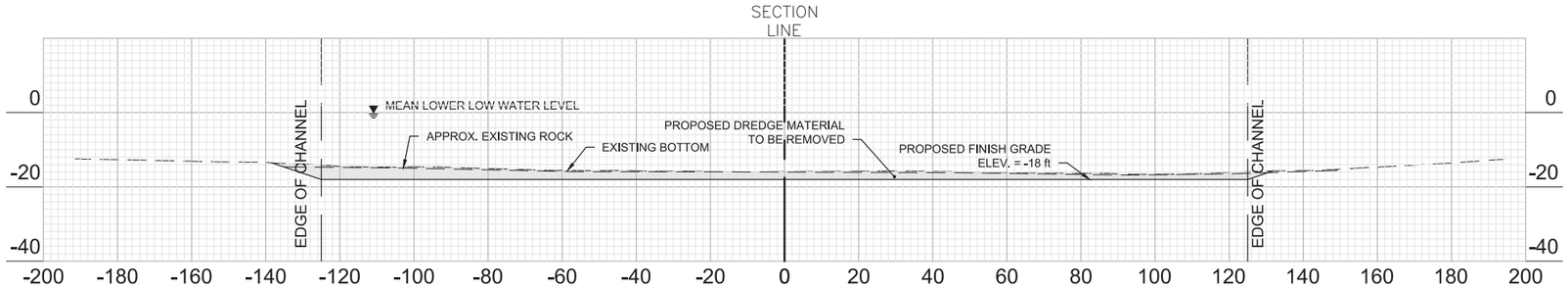
DRAWING NO.
C-01

SHEET 3 OF 7

DRAWING FILE: S:\PROJECTS\19379.07-VIPA_Schooner_Channel\ACAD\CIVIL\Production Drawings\DWG\19379-C-01 Schooner.dwg PLOTTED: Oct 31,2014-12:33pm BY: robin.dyer



SECTION A-A



SECTION B-B

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THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

SCALE IN FEET
0 20' 40'

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MARK	DATE	DESCRIPTION	BY	APP'D

PROJECT NO.:	19379.07
DESIGNED BY:	
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	

SCHOONER CHANNEL DREDGING PROJECT

DREDGE SITE SECTIONS

DRAWING NO.
C-02

SHEET 4 OF 7

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

SCALE IN FEET
0 80' 160'

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MARK	DATE	DESCRIPTION	BY	APP'D

PROJECT NO.:	19379.07
DESIGNED BY:	
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	

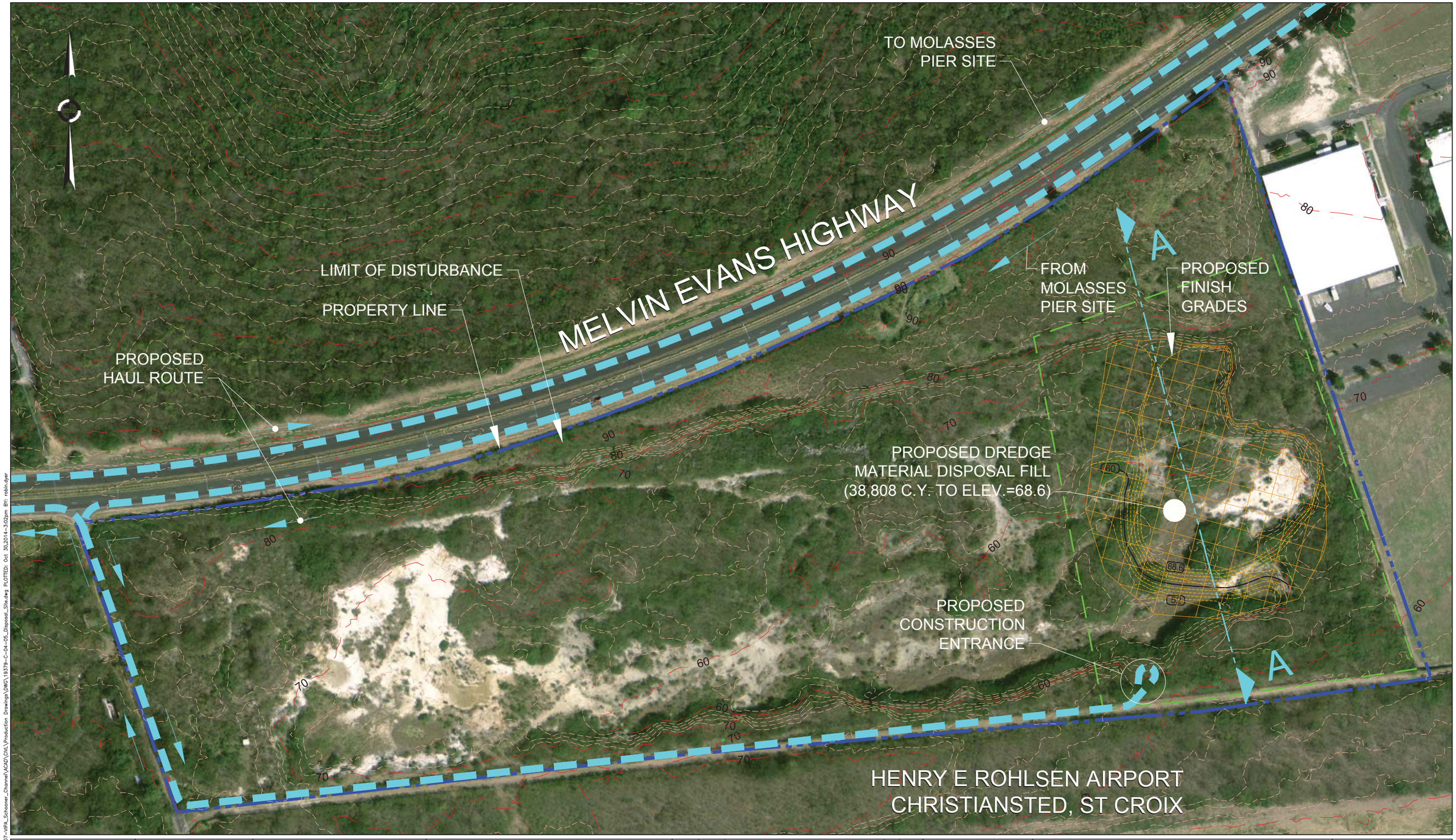
SCHOONER CHANNEL DREDGING PROJECT

ST. CROIX DREDGE MATERIAL DISPOSAL TRANSFER SITE - MOLASSES PIER

DRAWING NO.
C-03

SHEET 5 OF 7

DRAWING FILE: S:\PROJECTS\19379.07-VIPA_Schooner_Channel\ACAD\CIVIL\Production Drawings\DWG\19379-C-03_Molasses_Pier.dwg PLOTTED: Oct 29,2014-9:27am BY: kevin.chon



THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

SCALE IN FEET
0 80' 160'

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MARK	DATE	DESCRIPTION	BY	APP'D
1	10/30/14	Revise disposal volume and grading		

PROJECT NO.:	19379.07
DESIGNED BY:	
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	

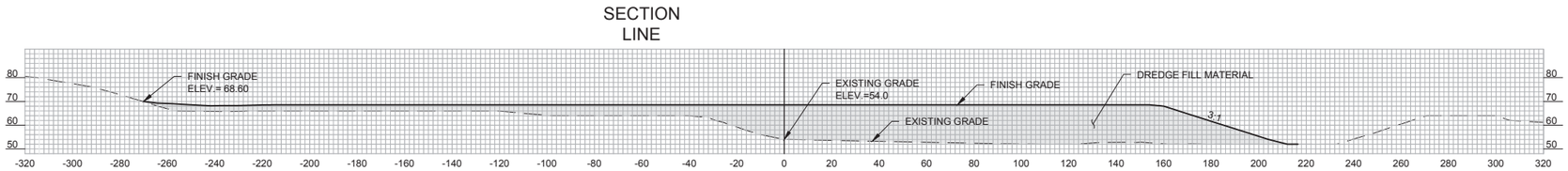
SCHOONER CHANNEL DREDGING PROJECT

DREDGE MATERIAL DISPOSAL SITE
SITE PLAN

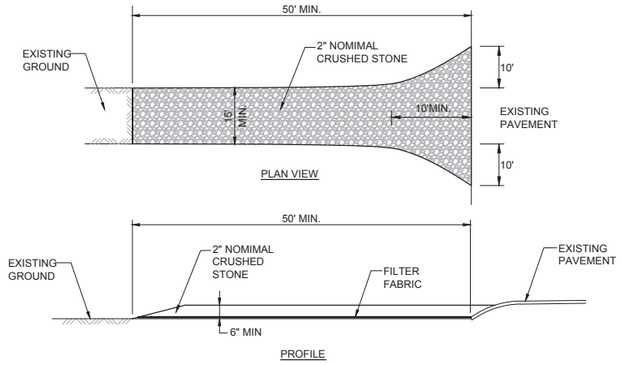
DRAWING NO.
C-04

SHEET 6 OF 7

DRAWING FILE: S:\PROJECTS\19379.07-VIPA_Schooner_Channel\ACAD\CIVIL\Production Drawings\DWG\19379-C-04-05_Disposal_Site.dwg PLOTTED: Oct 30,2014-3:02pm BY: robin.dyer

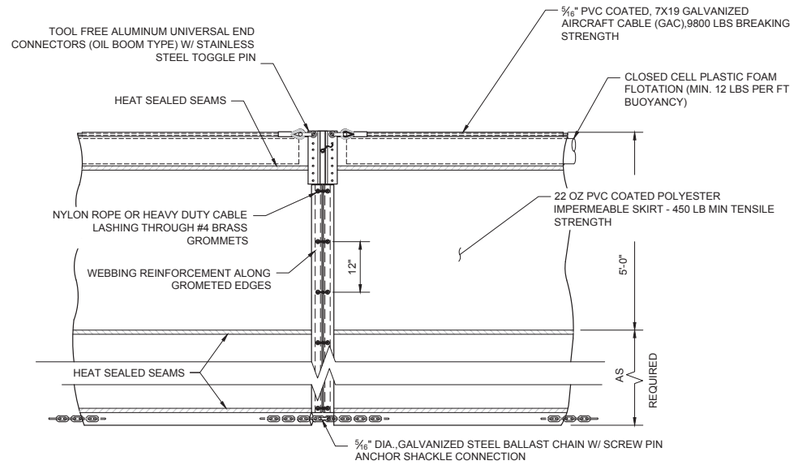


SECTION A-A



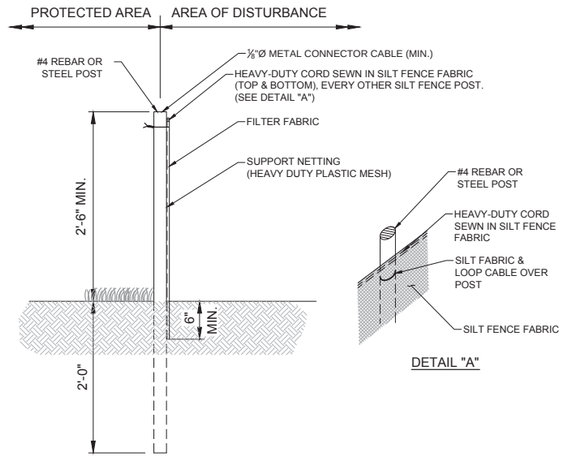
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



TURBITITY CURTAIN

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

THIS LINE IS ONE INCH
LONG WHEN PLOTTED AT
FULL SCALE ON A 22" X 34"
DRAWING

SCALE IN FEET
0 30' 60'

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MARK	DATE	DESCRIPTION	BY	APP'D
1	10/30/14	Revise disposal volume and grading		

PROJECT NO.:	19379.07
DESIGNED BY:	
DRAWN BY:	JTS
CHK'D BY:	JAJ
DATE:	11/01/2014
SCALE:	

SCHOONER CHANNEL DREDGING PROJECT

DREDGE MATERIAL DISPOSAL SITE
SECTIONS & DETAILS

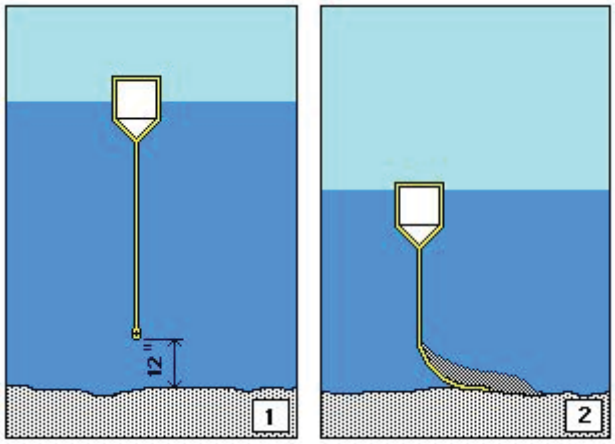
DRAWING NO.

C-05

SHEET 7 OF 7

DRAWING FILE: S:\PROJECTS\19379.07-VIPA_Schooner_Channel\ACAD\CIVIL\Production Drawings\DWG\19379-C-04-05_Disposal_Site.dwg PLOTTED: Oct 30,2014-2:31pm BY: robin.dyer

Appendix B



The standard practice in installing barriers is to keep the lower edge of the barrier about 12 inches above the bottom as shown in Figure 1. When the lower edge of the barrier is long enough to drape on the bottom, silt will build up as shown in Figure 2. If the build-up is allowed to collect over a long period of time, the barrier may be pulled beneath the surface of the water. The build-up also makes it difficult to remove the barrier without stirring up the silt and sending in back in to the water course.

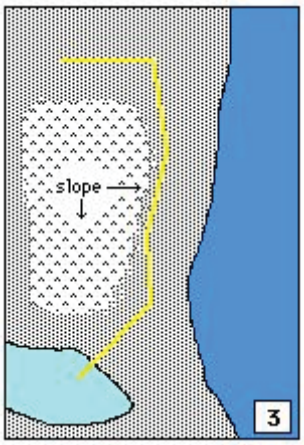


Figure 3 shows a typical staked barrier type site. The barrier is installed as shown in Staked. It is used primarily to direct the runoff into a settling pond or other collection area. Staked barriers function best in porous soils on sloping grades as shown.

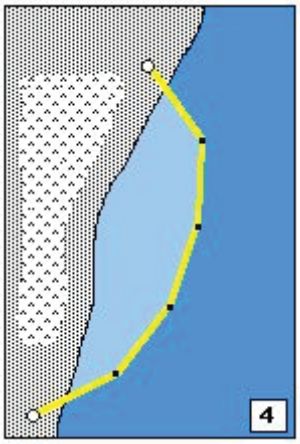
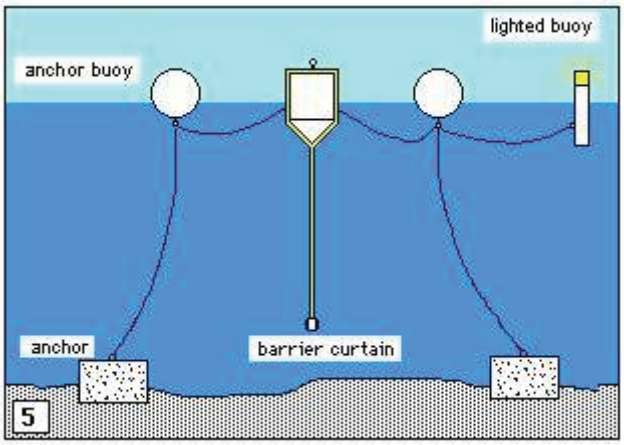


Figure 4 shows a common example of a site having low exposure to winds, water currents of less than 1 foot per second and water depths less than 15 feet. Type I barriers are designed for these applications which may include ponds, shallow lakes, bays and small streams.

Figure 5 shows a cross section of a barrier line as it would appear in a tidal zone. Anchors are placed on both sides of the curtain to hold it in place in both ebb and flow tides. Anchor buoys are attached to the anchor lines allowing the curtain to shift during tide changes without being pulled under by the anchor line. Any type of marine anchor may be used; however, concrete



dead men are shown because they are the easiest to fabricate and the least expensive. Lighted buoys may be required when the barrier is located in navigable waters. Anchor loads must be calculated using methods described in this text.

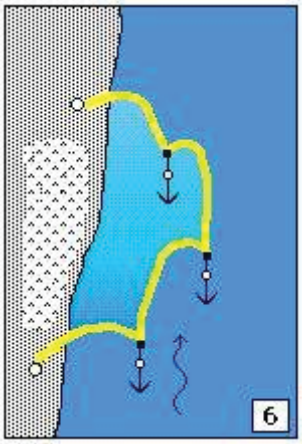
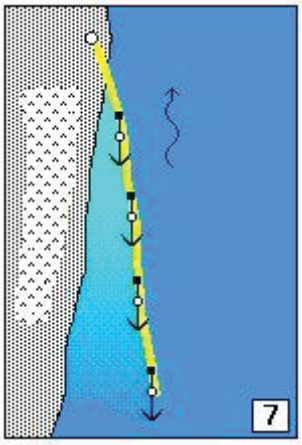
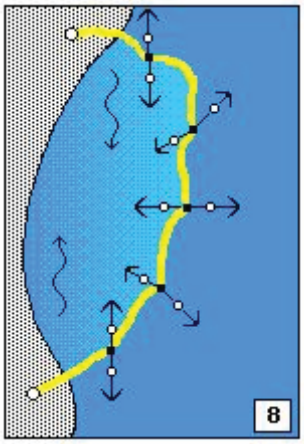
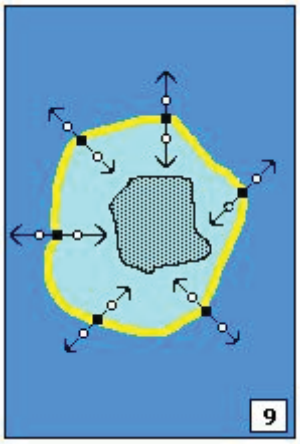
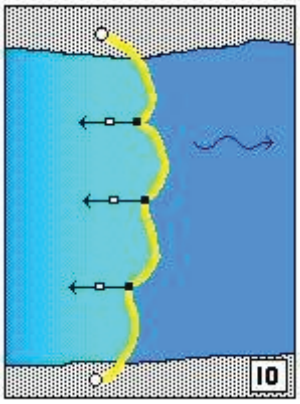


Figure 6 shows a site with a one directional current of 3 feet per second or less running parallel to the shore line. This site will require a Type II barrier. The anchors layout is similar to that shown in Figure 5 except that they only need to be on the upstream side of the barrier. The sag in the barrier is designed to reduce the anchor and cable loads

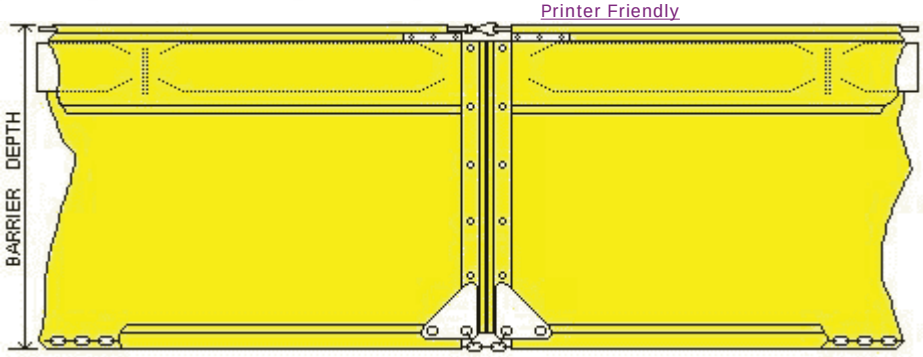


When the current is greated than 3 feet per second, the barrier should be installed similar to Figure 7. Type II barriers are required and careful analysis of anchor and cable loads must be made. The effectiveness of barriers in this configuration is less than that expected from other types of sites since the water current will carry much of the sediment under the curtain.

Figure 8 shows a typical barrier system in a tidal environment. The anchoring arragement is as shown in Figure 10. Type II barriers are required and lighted buoys may be necessary when boating activities are nearby.

	
	Figure 9 shows a barrier placed around a submerged construction site such as a bridge pier or caisson. Anchors may be necessary on both sides of the barriers to keep it in line. Some method for separating the curtain to allow ingress and egress will also be needed.
	The placement of trubidity barriers directly across streams having currents greater than 1 foot per second is never recommended. Cross currents as shown in Figure 10 place extreme loads on the barrier system.The bottom of the skirt must be kept above the stream bottom as shown in Figure 1 so that the barrier does not become an impediment to the stream flow. The determination of anchor and cable loads is critical in this application and must be carefully considered before any installation is attempted. However, short skirts can be placed across slow currents to collect loose debris, but cannot be effective for collecting sediment and silt.

Printer Friendly



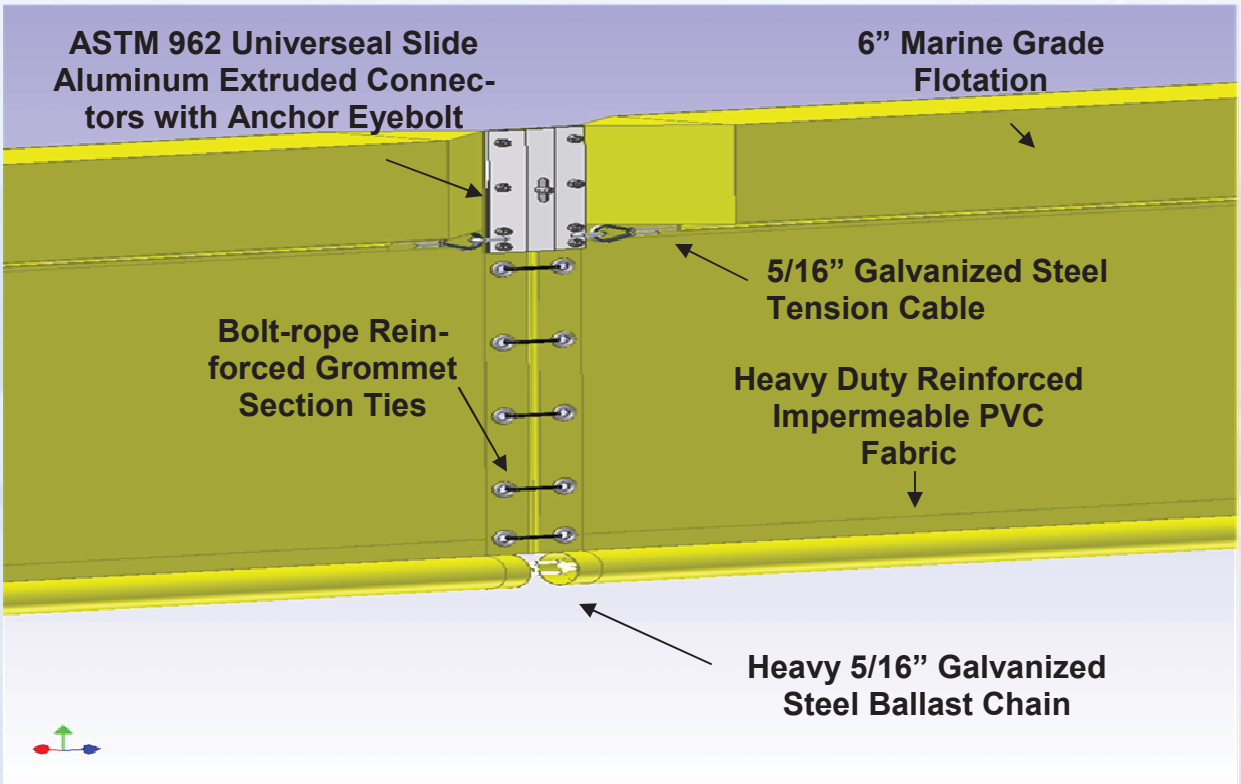
Type II is the work horse of the TOUGH GUY® line. It has a top load cable and special stress plates for reinforcing the corners and is designed to handle more severe conditions. It is recommended for lakes, streams, intercoastal and tidal areas where current velocities up to five feet per second are expected.

The ancorage and installation must be designed to meet the site conditions. Contact Aer-Flo Canvas Products, Inc. or a qualified engineer for assistance when extraordinary site conditions are encountered. Barrier sections are connected by rope lacing or nylon ties which must be furnished by others.

Product Solutions For A Cleaner World

Type 2 Silt Barrier
DOT Style

- Mild Current, Waves and Wind
- 1 Knot, 2 Foot Waves, 30 Mph Wind
- Rugged for USACE and DOT Projects
- Bays, Rivers and Inland Waters
- Meets and Exceeds most State DOT Requirements
- Rapid Deployment



IN-Stock sizes are: 100' and 50' Long sections x 5' wide

Other sizes and styles by request

www.Type2SiltBarrier.com or www.TurbidityBarriers.com

GRANITE environmental

+1 (772) 646-0597

PO BOX 780928 | Sebastian, FL 32978

Product Solutions for a Cleaner World

GRANITE ENVIRONMENTAL, INC.

Type 2 HEAVY DUTY Silt Barrier

www.Type2SiltBarrier.com OR www.SiltBarriers.com

- Rivers, Inland Waterways, Harbors
- 2 Foot Waves, 30 Mph wind, <2.5fps
- Durable for USACE and DOT projects
- An excellent barrier for when performance and quality matters
- Dredging, Remediation, Marine construction
- Meets and Exceeds most State DOT Federal Requirement
- Installation guidance, site review and custom designs available

DESCRIPTION: Granite Type 2 Heavy Duty Silt Barrier is manufactured with permeable silt filter panels or impermeable silt blocking skirts with marine grade floats seamed into heavy duty coated reinforced PVC membrane, 1 each steel load bearing cable, a heavy ballast chain to assist in keeping skirt vertical and lower tension member.

TYPICAL LENGTH: Normally 100 feet (30 m) or 50' (15m) but adjustable by special order to any length. (additional cost applies for varied length/s)

DRAFT: Any depths from 3 feet (1 m) to 100 feet (30 m).

FREEBOARD: 8- 12 inches. (dependant on skirt depth)

FLOTATION ELEMENT: 8" to 10' deep then 12" diameter octagonal marine quality floats placed end to end and dielectrically sealed into coated membrane sleeve along the top of the barrier. These have joints between floats to allow folding for shipment, storage and more importantly for conformance to wave action.

100' (30m) and 50' (15m) Long sections x 3' (1 m) wide to 100' (30m)

Post Office Box 780928
Sebastian
Florida 32978-0928

Phone: +1 772-646 -0597
Fax: +1 772-589-3343
E-mail: Granite@ErosionPollution.com
Web: www.GraniteEnvironmental.com

MEMBRANE: 22 ounce per square yard vinyl coated nylon or polyester or a combination with geotextile filter panel depending on application.

BASE: 22 oz PVC fabric International Safety Yellow
500 x 550 Lbs/square inch tensile strength
(specification sheet available on request)

FILTER PANEL:
(Optional Skirt design) W-70 @ 6% with vertical flow of 70gpm
(specification sheet available on request)

TENSION CABLE: 1 each 5/16 inch vinyl coated galvanized steel cable at the waterline. The cable is secured to each end connector of the curtain section and seamed into the PVC fabric for superior performance in current and waves.

LOWER TENSION & BALLAST: Ballast is provided by a 5/16 inch galvanized steel chain sheathed in 22 oz membrane along the bottom edge of the skirt. This acts as a lower tension member by terminating in stainless steel stress plates on each skirt corner and bolted with no fewer than 4 stainless steel bolts allowing minimum load transfer of 5000 lbs of tensile from membrane.

SECTION CONNECTION: Sections of Heavy Duty Type 2 Silt Barrier connect by sliding together the two halves of Universeal slide bulk connectors that extend from the top of the flotation down a minimum of 20". The skirts are joined by ties between reinforced steel grommets on the two opposing silt barriers. The ballast connect via galvanized steel snap hook and galvanized ring make the joint complete from top to bottom. This is a tool free connection.

ANCHOR POINTS: Anchor points are provided every 50' at the tension cable line on both side of the barrier.

Skirt Furling System: To furl/raise and lower the curtain skirt to varied operation depths (Optional at additional charge).

Accessories: *Oil Spill Equipment, Navigational Warning Lights, Marker Buoys, Anchor Systems, Geotextile Sludge Tubes, Repair Kits, Debris Boom.*

Installation Guide available < -- CLICK HERE or visit www.SILT-BARRIER.com

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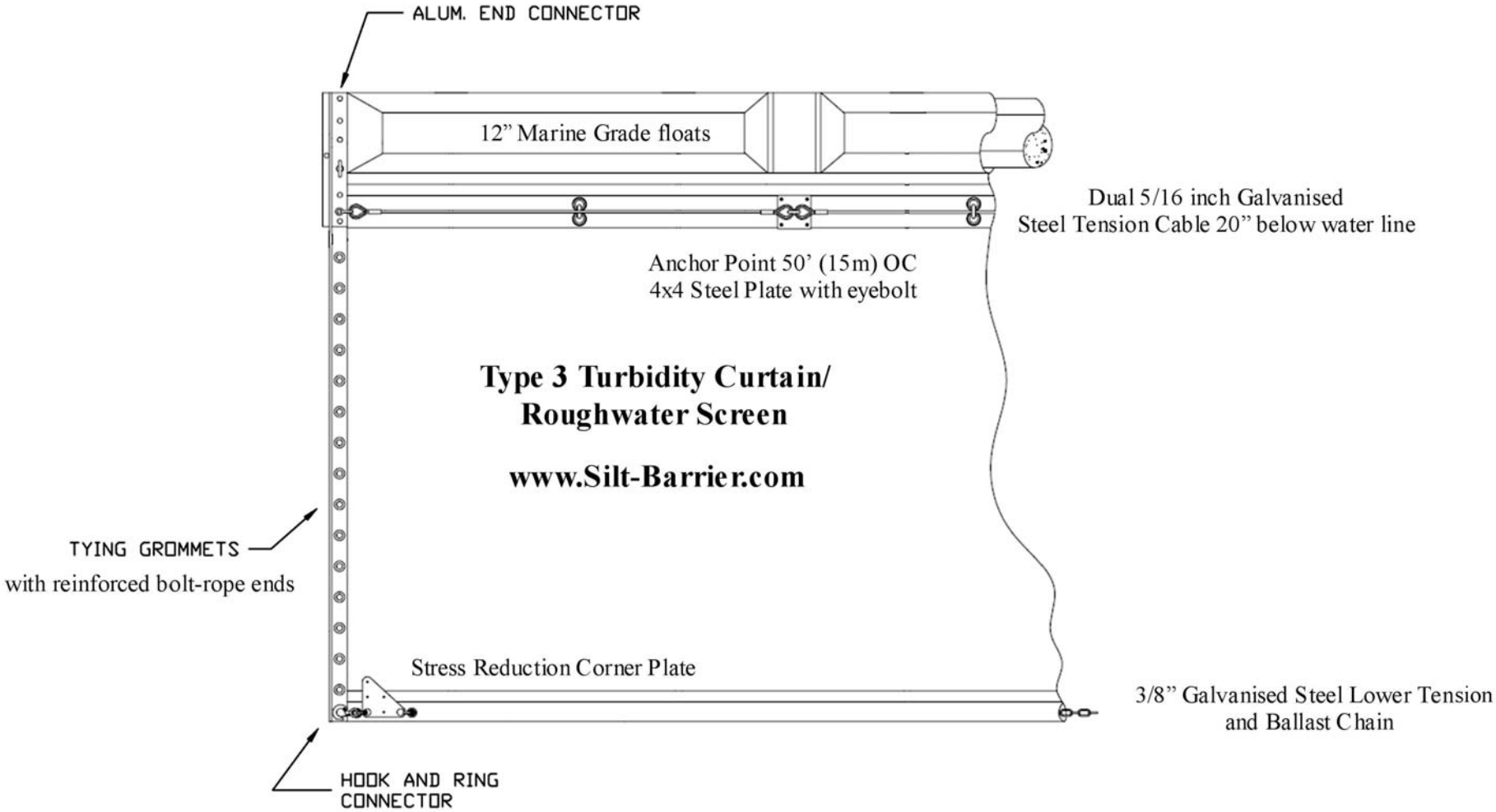
Sebastian
Florida 32978-0928

Phone: +1 772-646 -0597
Fax: +1 772-589-3343
E-mail: Granite@ErosionPollution.com
Web: www.GraniteEnvironmental.com


ALUM. END CONNECTOR
12" Marine Grade floats
Dual 5/16 inch Galvanised
Steel Tension Cable 20" below water line
Anchor Point 50' (15m) OC
4x4 Steel Plate with eyebolt
Type 3 Turbidity Curtain/
Roughwater Screen
www.Silt-Barrier.com
TYING GROMMETS
with reinforced bolt-rope ends
Stress Reduction Corner Plate
3/8" Galvanised Steel Lower Tension
and Ballast Chain
HOOK AND RING
CONNECTOR

Product Solutions for a Cleaner World

GRANITE ENVIRONMENTAL, INC.

Type 3 HEAVY DUTY Silt Barrier

www.Type3SiltBarrier.com OR www.TurbidityBarriers.com

- Current, Waves and Wind
- 1.5 Knot, 2 Foot Waves, 30 Mph wind
- Rugged for USACE and DOT projects for dredging and remediation work.
- Bays, Rivers and Inland Waters
- Meets and Exceeds most State DOT Federal Requirement
- Rapid deployment - durable

DESCRIPTION: Granite Type 3 Heavy Duty Silt Barrier is manufactured with permeable silt filter panels or impermeable silt blocking skirts with marine grade floats seamed into heavy duty coated reinforced PVC membrane, 2 each steel load bearing cables, a heavy ballast chain to assist in keeping skirt vertical and lower tension member.

TYPICAL LENGTH: Normally 100 feet (30 m) but adjustable by special order to any length. (additional cost applies for varied length/s)

DRAFT: Any depths from 3 feet (1 m) to 100 feet (30 m).

FREEBOARD: 12 inches.

FLOTATION ELEMENT: 12” diameter GRADE A octagonal marine quality floats placed end to end and dielectrically sealed into coated membrane sleeve along the top of the barrier. These have joints between floats to allow folding for shipment, storage and more importantly for conformance to wave action.

100’ (30m) and 50’ (15m) Long sections x 3’ (1 m) wide to 100’ (30m)

Post Office Box 780928
Sebastian
Florida 32978-0928

Phone: +1 772-646 -0597
Fax: +1 772-589-3343
E-mail: Granite@ErosionPollution.com
Web: www.GraniteEnvironmental.com

MEMBRANE: 22 ounce per square yard vinyl coated nylon or polyester or a combination with geotextile filter panel depending on application.

BASE: 22 oz PVC fabric International Safety Yellow
500 x 550 Lbs/square inch tensile strength
(specification sheet available on request)

FILTER PANEL:
(Optional Skirt design) W-70 @ 6% with vertical flow of 70gpm
(specification sheet available on request)

TENSION CABLES: 2 each 5/16 inch vinyl coated galvanized steel cable, one on each side of the skirt 20 inches below the flotation. These cables are secured to each end connector of the curtain section and clipped together with lap links and grommets every 30 inches for superior performance in current.

LOWER TENSION & BALLAST: Ballast is provided by a 3/8 inch galvanized steel chain sheathed in 22 oz membrane along the bottom edge of the skirt. This acts as a lower tension member by terminating ind stainless steel stress plates on each skirt corner and bolted with no fewer than 4 stainless steel bolts allowing minimum load transfer of 5000 lbs of tensile from membrane.

SECTION CONNECTION: Sections of Heavy Duty Type 3 Silt Barrier connect by sliding together the two halves of Universeal slide bulk connectors that extend from the top of the flotation down a minimum of 20". The skirts are joined by ties between reinforced steel grommets on the two opposing silt barriers. The ballast connect via galvanized steel snap hook and galvanized ring make the joint complete from top to bottom. This is a tool free connection.

ANCHOR POINTS: Anchor points are provided every 50' at the tension cable line on both side of the barrier.

Skirt Furling System: To furl/raise and lower the curtain skirt to varied operation depths (Optional at additional charge).

Accessories: *Oil Spill Equipment, Navigational Warning Lights, Marker Buoys, Anchor Systems, Geotextile Sludge Tubes, Repair Kits, Debris Boom.*

Installation Guide available < -- CLICK HERE or visit www.SILT-BARRIER.com

Post Office Box 780928
Sebastian
Florida 32978-0928

Phone: +1 772-646 -0597
Fax: +1 772-589-3343
E-mail: Granite@ErosionPollution.com
Web: www.GraniteEnvironmental.com

Appendix C

ANALYTICAL REPORT

Job Number: 180-35998-1

Job Description: Virgin Islands Port Authority

For:
Ocean Systems Laboratory, Inc.
4049 La Grande Princesse
Suite 2
Christiansted, St Croix, Virgin Islands, U.S. 00820

Attention: Amy Dempsey

Approved for release.
Debra Bowen
Project Manager I
9/9/2014 8:49 AM

Debra Bowen, Project Manager I
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09/09/2014

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Project: Virgin Islands Port Authority

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With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 08/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.8º C.

TOTAL METALS
Sample SAMPLE # 1 (180-35998-1) was analyzed at dilution due to matrix interference. The reporting limits have been adjusted accordingly.

Chromium was detected in method blank MB 180-117046/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

GENERAL CHEMISTRY
Sample SAMPLE # 1 (180-35998-3) was analyzed for oil and grease (HEM) in accordance with EPA Method 1664A. The samples were prepared and analyzed on 09/03/2014.

SGT-HEM failed the recovery criteria for the MS/MSD of sample SAMPLE # 1 (180-35998-1) in batch 180-116084.

ELUTRIATE GENERATION
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-35998-1	SAMPLE # 1	Sediment	08/19/2014 1600	08/21/2014 1550
180-35998-2	SAMPLE # 1	Sediment	08/19/2014 1600	08/21/2014 1550
180-35998-3	SAMPLE # 1	EET, Dissolved	08/29/2014 0900	08/21/2014 1550

EXECUTIVE SUMMARY - Detections

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-35998-1	**SAMPLE # 1**					
Aluminum		410		22	mg/Kg	6020
Arsenic		7.2		0.75	mg/Kg	6020
Cadmium		0.073	J	0.75	mg/Kg	6020
Barium		6.0	J	7.5	mg/Kg	6020
Chromium		6.1	B	1.5	mg/Kg	6020
Copper		2.3		1.5	mg/Kg	6020
Lead		5.8		0.75	mg/Kg	6020
Nickel		1.9		0.75	mg/Kg	6020
Zinc		3.5	J	3.7	mg/Kg	6020
Mercury		0.030		0.024	mg/Kg	7471A
Percent Moisture		31		0.10	%	2540G
SGT-HEM		62	J	240	mg/Kg	9071B
180-35998-2	**SAMPLE # 1**					
Dissolved						
Elutriate Generated		150			ug/L	823-B-98-004
180-35998-3	**SAMPLE # 1**					
Dissolved						
Arsenic		11		10	ug/L	6020
Barium		6.8	J	100	ug/L	6020
Copper		4.6	J	20	ug/L	6020
Nickel		3.6	J	10	ug/L	6020
Selenium		17	J	50	ug/L	6020
Zinc		11	J	50	ug/L	6020
TPH-Dissolved		1.9	J	5.3	mg/L	1664A

METHOD SUMMARY

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Description	Lab Location	Method	Preparation Method
Matrix: EET, Dissolved			
Metals (ICP/MS)	TAL PIT	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL PIT		SW846 3005A
Sample Filtration			Filtration
Mercury (CVAA)	TAL PIT	SW846 7470A	
Preparation, Mercury	TAL PIT		SW846 7470A
Sample Filtration			Filtration
HEM and SGT-HEM	TAL PIT	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL PIT		1664A 1664A
Sample Filtration			Filtration
Matrix: Sediment			
Metals (ICP/MS)	TAL PIT	SW846 6020	
Preparation, Metals	TAL PIT		SW846 3050B
Mercury (CVAA)	TAL PIT	SW846 7471A	
Preparation, Mercury	TAL PIT		SW846 7471A
SM 2540G	TAL PIT	SM22 2540G	
HEM and SGT-HEM	TAL PIT	SW846 9071B	
Preparation, HEM and SGT-HEM	TAL PIT		SW846 9071B
Evaluation of Effluent Elutriate, Dissolved	TAL PIT	EPA 823-B-98-004	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Method	Analyst	Analyst ID
SW846 6020	Ferguson, Caitlin N	CNS
SW846 6020	Reinheimer, Bill	WTR
SW846 7470A	McGrath, Lauren E	LEM
SW846 7471A	McGrath, Lauren E	LEM
1664A 1664A	Klingman, Neil A	NAK
SM22 2540G	Loheyde, Cheryl	CLL
SW846 9071B	Klingman, Neil A	NAK
EPA 823-B-98-004	Matko, Larry	LWM

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Client Sample ID: **SAMPLE # 1**

Lab Sample ID: 180-35998-1
Client Matrix: Sediment
% Moisture: 31.1

Date Sampled: 08/19/2014 1600
Date Received: 08/21/2014 1550

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	180-117270	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-117046	Lab File ID:	X40906A.xml
Dilution:	10			Initial Weight/Volume:	00001.94 g
Analysis Date:	09/06/2014 2246			Final Weight/Volume:	100 mL
Prep Date:	09/04/2014 1205				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		410		2.1	22
Arsenic		7.2		0.14	0.75
Cadmium		0.073	J	0.052	0.75
Barium		6.0	J	0.080	7.5
Chromium		6.1	B	0.046	1.5
Copper		2.3		0.25	1.5
Lead		5.8		0.028	0.75
Nickel		1.9		0.085	0.75
Selenium		ND		0.38	3.7
Zinc		3.5	J	0.48	3.7
Silver		ND		0.029	0.75

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	180-116423	Instrument ID:	K
Prep Method:	7471A	Prep Batch:	180-116357	Lab File ID:	R40828B.CSV
Dilution:	1.0			Initial Weight/Volume:	1.20 g
Analysis Date:	08/28/2014 1309			Final Weight/Volume:	100 mL
Prep Date:	08/28/2014 1027				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.030		0.0079	0.024

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Client Sample ID: **SAMPLE # 1**

Lab Sample ID: 180-35998-3
Client Matrix: EET, Dissolved

Date Sampled: 08/29/2014 0900
Date Received: 08/21/2014 1550

6020 Metals (ICP/MS)-Dissolved

Analysis Method:	6020	Analysis Batch:	180-117278	Instrument ID:	M
Prep Method:	3005A	Prep Batch:	180-116978	Lab File ID:	M40905A.xml
Dilution:	10			Initial Weight/Volume:	50 mL
Analysis Date:	09/05/2014 1242			Final Weight/Volume:	50 mL
Prep Date:	09/04/2014 0811				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aluminum	ND		26	300
Arsenic	11		2.9	10
Cadmium	ND		1.1	10
Barium	6.8	J	0.98	100
Chromium	ND		5.4	20
Copper	4.6	J	2.4	20
Lead	ND		0.19	10
Nickel	3.6	J	1.7	10
Selenium	17	J	4.2	50
Zinc	11	J	9.6	50
Silver	ND		0.36	10

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	180-116775	Instrument ID:	K
Prep Method:	7470A	Prep Batch:	180-116729	Lab File ID:	R40902A.CSV
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/02/2014 1433			Final Weight/Volume:	50 mL
Prep Date:	09/02/2014 1033				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.038	0.20

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

General Chemistry

Client Sample ID: **SAMPLE # 1**

Lab Sample ID: 180-35998-1 Date Sampled: 08/19/2014 1600
Client Matrix: Sediment Date Received: 08/21/2014 1550

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	31		%	0.10	0.10	1.0	2540G
Analysis Batch: 180-115675	Analysis Date: 08/22/2014 0715						DryWt Corrected: N
SGT-HEM	62	J	mg/Kg	58	240	1.0	9071B
Analysis Batch: 180-116084	Analysis Date: 08/26/2014 1052						DryWt Corrected: Y
Prep Batch: 180-116011	Prep Date: 08/26/2014 1052						

General Chemistry

Client Sample ID: **SAMPLE # 1**

Lab Sample ID: 180-35998-3 Date Sampled: 08/29/2014 0900
Client Matrix: EET, Dissolved Date Received: 08/21/2014 1550

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
TPH-Dissolved	1.9	J	mg/L	1.5	5.3	1.0	1664A

Analysis Batch: 180-116914 Analysis Date: 09/03/2014 0909
Prep Batch: 180-116846 Prep Date: 09/03/2014 0909

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Client Sample ID: **SAMPLE # 1**

Lab Sample ID: 180-35998-2 Date Sampled: 08/19/2014 1600
Client Matrix: Sediment Date Received: 08/21/2014 1550

823-B-98-004 Evaluation of Effluent Elutriate, Dissolved-Dissolved

Analysis Method:	823-B-98-004	Analysis Batch:	180-116339	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	816 g
Analysis Date:	08/28/2014 0750			Final Weight/Volume:	3.75 L
Prep Date:	N/A			Injection Volume:	

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Elutriate Generated		150			

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Method Blank - Batch: 180-116978

Method: 6020
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 180-116978/1-A	Analysis Batch:	180-117278	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-116978	Lab File ID:	M40905A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/05/2014 1138	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/04/2014 0811				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		2.6	30
Arsenic	ND		0.29	1.0
Cadmium	ND		0.11	1.0
Barium	ND		0.098	10
Chromium	ND		0.54	2.0
Copper	ND		0.24	2.0
Lead	ND		0.019	1.0
Nickel	ND		0.17	1.0
Selenium	ND		0.42	5.0
Zinc	ND		0.96	5.0
Silver	ND		0.036	1.0

Lab Control Sample - Batch: 180-116978

Method: 6020
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 180-116978/2-A	Analysis Batch:	180-117278	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-116978	Lab File ID:	M40905A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/05/2014 1142	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/04/2014 0811				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2000	1720	86	80 - 120	
Arsenic	40.0	35.2	88	80 - 120	
Cadmium	50.0	44.4	89	80 - 120	
Barium	2000	1700	85	80 - 120	
Chromium	200	178	89	80 - 120	
Copper	250	228	91	80 - 120	
Lead	20.0	19.5	97	80 - 120	
Nickel	500	451	90	80 - 120	
Selenium	10.0	8.43	84	80 - 120	
Zinc	500	439	88	80 - 120	
Silver	50.0	46.2	92	80 - 120	

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Method Blank - Batch: 180-117046 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	MB 180-117046/1-A	Analysis Batch:	180-117270	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-117046	Lab File ID:	X40906A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.02 g
Analysis Date:	09/06/2014 1921	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/04/2014 1205				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		0.14	1.5
Arsenic	ND		0.0090	0.050
Cadmium	ND		0.0035	0.050
Barium	ND		0.0053	0.50
Chromium	0.00921	J	0.0030	0.099
Copper	ND		0.016	0.099
Lead	ND		0.0019	0.050
Nickel	ND		0.0056	0.050
Selenium	ND		0.025	0.25
Zinc	ND		0.032	0.25
Silver	ND		0.0019	0.050

Lab Control Sample - Batch: 180-117046 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	LCS 180-117046/2-A	Analysis Batch:	180-117270	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-117046	Lab File ID:	X40906A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.00 g
Analysis Date:	09/06/2014 1926	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/04/2014 1205				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	100	89.5	89	80 - 120	
Arsenic	2.00	1.73	86	80 - 120	
Cadmium	2.50	2.71	108	80 - 120	
Barium	100	97.3	97	80 - 120	
Chromium	10.0	10.2	102	80 - 120	
Copper	12.5	12.2	98	80 - 120	
Lead	1.00	1.01	101	80 - 120	
Nickel	25.0	24.3	97	80 - 120	
Selenium	0.500	0.427	85	80 - 120	
Zinc	25.0	21.9	87	80 - 120	
Silver	2.50	2.75	110	80 - 120	

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Method Blank - Batch: 180-116729

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 180-116729/1-A	Analysis Batch:	180-116775	Instrument ID:	K
Client Matrix:	Water	Prep Batch:	180-116729	Lab File ID:	R40902A.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/02/2014 1408	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/02/2014 1033				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.038	0.20

Lab Control Sample - Batch: 180-116729

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 180-116729/2-A	Analysis Batch:	180-116775	Instrument ID:	K
Client Matrix:	Water	Prep Batch:	180-116729	Lab File ID:	R40902A.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/02/2014 1410	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/02/2014 1033				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	2.50	2.64	106	80 - 120	

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Method Blank - Batch: 180-116357

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 180-116357/1-A	Analysis Batch:	180-116423	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-116357	Lab File ID:	R40828B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.20 g
Analysis Date:	08/28/2014 1304	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/28/2014 1027				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0055	0.017

Lab Control Sample - Batch: 180-116357

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 180-116357/2-A	Analysis Batch:	180-116423	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-116357	Lab File ID:	R40828B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.20 g
Analysis Date:	08/28/2014 1306	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/28/2014 1027				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.208	0.187	90	80 - 120	

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Method Blank - Batch: 180-116846 **Method: 1664A**
Preparation: 1664A

Lab Sample ID:	MB 180-116846/1-A	Analysis Batch:	180-116914	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-116846	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/03/2014 0909	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	09/03/2014 0909				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
TPH-Dissolved	ND		1.5	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-116846 **Method: 1664A**
Preparation: 1664A

LCS Lab Sample ID:	LCS 180-116846/2-A	Analysis Batch:	180-116914	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-116846	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/03/2014 0909	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	09/03/2014 0909				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-116846/3-A	Analysis Batch:	180-116914	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-116846	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/03/2014 0909	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	09/03/2014 0909				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
TPH-Dissolved	67	69	64 - 132	2	34		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-116846 **Method: 1664A**
Preparation: 1664A

LCS Lab Sample ID:	LCS 180-116846/2-A	Units:	mg/L
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	09/03/2014 0909		
Prep Date:	09/03/2014 0909		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 180-116846/3-A
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	09/03/2014 0909
Prep Date:	09/03/2014 0909
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
TPH-Dissolved	20.0	20.0	13.4	13.7

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Duplicate - Batch: 180-115675

Method: 2540G
Preparation: N/A

Lab Sample ID:	180-35998-1	Analysis Batch:	180-115675	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/22/2014 0715	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	31	32	1	20	

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Method Blank - Batch: 180-116011

Method: 9071B
Preparation: 9071B

Lab Sample ID:	MB 180-116011/1-A	Analysis Batch:	180-116084	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-116011	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	08/26/2014 0800	Units:	mg/Kg	Final Weight/Volume:	30.0 g
Prep Date:	08/26/2014 0800				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
SGT-HEM	ND		40	170

Lab Control Sample - Batch: 180-116011

Method: 9071B
Preparation: 9071B

Lab Sample ID:	LCS 180-116011/2-A	Analysis Batch:	180-116084	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-116011	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	08/26/2014 0800	Units:	mg/Kg	Final Weight/Volume:	30.0 g
Prep Date:	08/26/2014 0800				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
SGT-HEM	667	480	72	64 - 132	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-116011

Method: 9071B
Preparation: 9071B

MS Lab Sample ID:	180-35998-1	Analysis Batch:	180-116084	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-116011	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	08/26/2014 0800			Final Weight/Volume:	30.0 g
Prep Date:	08/26/2014 0800				
Leach Date:	N/A				

MSD Lab Sample ID:	180-35998-1	Analysis Batch:	180-116084	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-116011	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	08/26/2014 0800			Final Weight/Volume:	30.0 g
Prep Date:	08/26/2014 0800				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
SGT-HEM	58	47	64 - 132	20	34	F1	F1

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-116011

Method: 9071B
Preparation: 9071B

MS Lab Sample ID:	180-35998-1	Units: mg/Kg	
Client Matrix:	Sediment		
Dilution:	1.0		
Analysis Date:	08/26/2014 0800		
Prep Date:	08/26/2014 0800		
Leach Date:	N/A		

MSD Lab Sample ID:	180-35998-1
Client Matrix:	Sediment
Dilution:	1.0
Analysis Date:	08/26/2014 0800
Prep Date:	08/26/2014 0800
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
SGT-HEM	62	J	968	958	624	F1	513	F1

DATA REPORTING QUALIFIERS

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 180-116357					
LCS 180-116357/2-A	Lab Control Sample	T	Sediment	7471A	
MB 180-116357/1-A	Method Blank	T	Sediment	7471A	
180-35998-1	SAMPLE # 1	T	Sediment	7471A	
Analysis Batch:180-116423					
LCS 180-116357/2-A	Lab Control Sample	T	Sediment	7471A	180-116357
MB 180-116357/1-A	Method Blank	T	Sediment	7471A	180-116357
180-35998-1	SAMPLE # 1	T	Sediment	7471A	180-116357
Prep Batch: 180-116729					
LCS 180-116729/2-A	Lab Control Sample	T	Water	7470A	
MB 180-116729/1-A	Method Blank	T	Water	7470A	
180-35998-3	SAMPLE # 1	D	Water	7470A	
Analysis Batch:180-116775					
LCS 180-116729/2-A	Lab Control Sample	T	Water	7470A	180-116729
MB 180-116729/1-A	Method Blank	T	Water	7470A	180-116729
180-35998-3	SAMPLE # 1	D	Water	7470A	180-116729
Prep Batch: 180-116978					
LCS 180-116978/2-A	Lab Control Sample	R	Water	3005A	
MB 180-116978/1-A	Method Blank	R	Water	3005A	
180-35998-3	SAMPLE # 1	D	Water	3005A	
Prep Batch: 180-117046					
LCS 180-117046/2-A	Lab Control Sample	T	Sediment	3050B	
MB 180-117046/1-A	Method Blank	T	Sediment	3050B	
180-35998-1	SAMPLE # 1	T	Sediment	3050B	
Analysis Batch:180-117270					
LCS 180-117046/2-A	Lab Control Sample	T	Sediment	6020	180-117046
MB 180-117046/1-A	Method Blank	T	Sediment	6020	180-117046
180-35998-1	SAMPLE # 1	T	Sediment	6020	180-117046
Analysis Batch:180-117278					
LCS 180-116978/2-A	Lab Control Sample	R	Water	6020	180-116978
MB 180-116978/1-A	Method Blank	R	Water	6020	180-116978
180-35998-3	SAMPLE # 1	D	Water	6020	180-116978

Report Basis

D = Dissolved

R = Total Recoverable

T = Total

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:180-115675					
180-35998-1	SAMPLE # 1	T	Sediment	2540G	
180-35998-1DU	Duplicate	T	Sediment	2540G	
Prep Batch: 180-116011					
LCS 180-116011/2-A	Lab Control Sample	T	Sediment	9071B	
MB 180-116011/1-A	Method Blank	T	Sediment	9071B	
180-35998-1	SAMPLE # 1	T	Sediment	9071B	
180-35998-1MS	Matrix Spike	T	Sediment	9071B	
180-35998-1MSD	Matrix Spike Duplicate	T	Sediment	9071B	
Analysis Batch:180-116084					
LCS 180-116011/2-A	Lab Control Sample	T	Sediment	9071B	180-116011
MB 180-116011/1-A	Method Blank	T	Sediment	9071B	180-116011
180-35998-1	SAMPLE # 1	T	Sediment	9071B	180-116011
180-35998-1MS	Matrix Spike	T	Sediment	9071B	180-116011
180-35998-1MSD	Matrix Spike Duplicate	T	Sediment	9071B	180-116011
Prep Batch: 180-116846					
LCS 180-116846/2-A	Lab Control Sample	T	Water	1664A	
LCSD 180-116846/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 180-116846/1-A	Method Blank	T	Water	1664A	
180-35998-3	SAMPLE # 1	D	Water	1664A	
Analysis Batch:180-116914					
LCS 180-116846/2-A	Lab Control Sample	T	Water	1664A	180-116846
LCSD 180-116846/3-A	Lab Control Sample Duplicate	T	Water	1664A	180-116846
MB 180-116846/1-A	Method Blank	T	Water	1664A	180-116846
180-35998-3	SAMPLE # 1	D	Water	1664A	180-116846

Report Basis
D = Dissolved
T = Total

Organic Prep				
Analysis Batch:180-116339				
180-35998-2	SAMPLE # 1	D	Sediment	823-B-98-004

Report Basis
D = Dissolved

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Laboratory Chronicle

Lab ID: 180-35998-1 **Client ID:** SAMPLE # 1

Sample Date/Time: 08/19/2014 16:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	180-35998-A-1-F ^10		180-117270	180-117046	09/04/2014 12:05	10	TAL PIT	RJR
A:6020	180-35998-A-1-F ^10		180-117270	180-117046	09/06/2014 22:46	10	TAL PIT	WTR
P:7471A	180-35998-A-1-E		180-116423	180-116357	08/28/2014 10:27	1	TAL PIT	LEM
A:7471A	180-35998-A-1-E		180-116423	180-116357	08/28/2014 13:09	1	TAL PIT	LEM
A:2540G	180-35998-A-1		180-115675		08/22/2014 07:15	1	TAL PIT	CLL
P:9071B	180-35998-A-1-D		180-116084	180-116011	08/26/2014 10:52	1	TAL PIT	JPM
A:9071B	180-35998-A-1-D		180-116084	180-116011	08/26/2014 10:52	1	TAL PIT	NAK

Lab ID: 180-35998-1 MS **Client ID:** SAMPLE # 1

Sample Date/Time: 08/19/2014 16:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9071B	180-35998-A-1-B MS		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	JPM
A:9071B	180-35998-A-1-B MS		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	NAK

Lab ID: 180-35998-1 MSD **Client ID:** SAMPLE # 1

Sample Date/Time: 08/19/2014 16:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9071B	180-35998-A-1-C MSD		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	JPM
A:9071B	180-35998-A-1-C MSD		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	NAK

Lab ID: 180-35998-1 DU **Client ID:** SAMPLE # 1

Sample Date/Time: 08/19/2014 16:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:2540G	180-35998-A-1 DU		180-115675		08/22/2014 07:15	1	TAL PIT	CLL

Lab ID: 180-35998-2 **Client ID:** SAMPLE # 1

Sample Date/Time: 08/19/2014 16:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:823-B-98-004	180-35998-B-2		180-116339		08/28/2014 07:50	1	TAL PIT	LWM

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Laboratory Chronicle

Lab ID: 180-35998-3 **Client ID:** SAMPLE # 1

Sample Date/Time: 08/29/2014 09:00 Received Date/Time: 08/21/2014 15:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-35998-A-3-B ^10		180-117278	180-116978	09/04/2014 08:11	10	TAL PIT	SLB
A:6020	180-35998-A-3-B ^10		180-117278	180-116978	09/05/2014 12:42	10	TAL PIT	CNS
P:7470A	180-35998-A-3-A		180-116775	180-116729	09/02/2014 10:33	1	TAL PIT	LEM
A:7470A	180-35998-A-3-A		180-116775	180-116729	09/02/2014 14:33	1	TAL PIT	LEM
P:1664A	180-35998-B-3-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
A:1664A	180-35998-B-3-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	MB 180-116978/1-A		180-117278	180-116978	09/04/2014 08:11	1	TAL PIT	SLB
A:6020	MB 180-116978/1-A		180-117278	180-116978	09/05/2014 11:38	1	TAL PIT	CNS
P:3050B	MB 180-117046/1-A		180-117270	180-117046	09/04/2014 12:05	1	TAL PIT	RJR
A:6020	MB 180-117046/1-A		180-117270	180-117046	09/06/2014 19:21	1	TAL PIT	WTR
P:7470A	MB 180-116729/1-A		180-116775	180-116729	09/02/2014 10:33	1	TAL PIT	LEM
A:7470A	MB 180-116729/1-A		180-116775	180-116729	09/02/2014 14:08	1	TAL PIT	LEM
P:7471A	MB 180-116357/1-A		180-116423	180-116357	08/28/2014 10:27	1	TAL PIT	LEM
A:7471A	MB 180-116357/1-A		180-116423	180-116357	08/28/2014 13:04	1	TAL PIT	LEM
P:1664A	MB 180-116846/1-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
A:1664A	MB 180-116846/1-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
P:9071B	MB 180-116011/1-A		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	JPM
A:9071B	MB 180-116011/1-A		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	NAK

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	LCS 180-116978/2-A		180-117278	180-116978	09/04/2014 08:11	1	TAL PIT	SLB
A:6020	LCS 180-116978/2-A		180-117278	180-116978	09/05/2014 11:42	1	TAL PIT	CNS
P:3050B	LCS 180-117046/2-A		180-117270	180-117046	09/04/2014 12:05	1	TAL PIT	RJR
A:6020	LCS 180-117046/2-A		180-117270	180-117046	09/06/2014 19:26	1	TAL PIT	WTR
P:7470A	LCS 180-116729/2-A		180-116775	180-116729	09/02/2014 10:33	1	TAL PIT	LEM
A:7470A	LCS 180-116729/2-A		180-116775	180-116729	09/02/2014 14:10	1	TAL PIT	LEM
P:7471A	LCS 180-116357/2-A		180-116423	180-116357	08/28/2014 10:27	1	TAL PIT	LEM
A:7471A	LCS 180-116357/2-A		180-116423	180-116357	08/28/2014 13:06	1	TAL PIT	LEM
P:1664A	LCS 180-116846/2-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
A:1664A	LCS 180-116846/2-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
P:9071B	LCS 180-116011/2-A		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	JPM
A:9071B	LCS 180-116011/2-A		180-116084	180-116011	08/26/2014 08:00	1	TAL PIT	NAK

Client: Ocean Systems Laboratory, Inc. Job Number: 180-35998-1

Laboratory Chronicle

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:1664A	LCSD 180-116846/3-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK
A:1664A	LCSD 180-116846/3-A		180-116914	180-116846	09/03/2014 09:09	1	TAL PIT	NAK

Lab References:
TAL PIT = TestAmerica Pittsburgh

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MCCV1X_00064	08/06/14	07/06/14	2% Nitric Acid, Lot 1191081	500 mL	MCALSPECAREV_00005	10 mL	Aluminum	0.5 ppm
							Arsenic	0.1 ppm
							Barium	0.1 ppm
							Cadmium	0.1 ppm
							Chromium	0.1 ppm
							Copper	0.1 ppm
							Lead	0.1 ppm
							Nickel	0.1 ppm
							Selenium	0.1 ppm
							Silver	0.1 ppm
							Zinc	0.1 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Aluminum	25 ppm
							Arsenic	5 ppm
							Barium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Zinc	5 ppm
MCCV1X_00066	10/02/14	09/02/14	2% Nitric Acid, Lot 1191081	500 mL	MCALSPECAREV_00005	10 mL	Aluminum	0.5 ppm
							Arsenic	0.1 ppm
							Barium	0.1 ppm
							Cadmium	0.1 ppm
							Chromium	0.1 ppm
							Copper	0.1 ppm
							Lead	0.1 ppm
							Nickel	0.1 ppm
							Selenium	0.1 ppm
							Silver	0.1 ppm
							Zinc	0.1 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Aluminum	25 ppm
							Arsenic	5 ppm
							Barium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Zinc	5 ppm
MCRIX_00054	09/07/14	08/07/14	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00003	1 mL	Aluminum	0.03 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Arsenic	0.001 ppm
							Barium	0.01 ppm
							Cadmium	0.001 ppm
							Chromium	0.002 ppm
							Copper	0.002 ppm
							Lead	0.001 ppm
							Nickel	0.001 ppm
							Selenium	0.005 ppm
							Silver	0.001 ppm
							Zinc	0.005 ppm
.MMSCRI-1B_00003	10/01/14	Inorganic Ventures, Lot G2-MEB496135			(Purchased Reagent)		Aluminum	7.5 ppm
							Arsenic	0.25 ppm
							Barium	2.5 ppm
							Cadmium	0.25 ppm
							Chromium	0.5 ppm
							Copper	0.5 ppm
							Lead	0.25 ppm
							Nickel	0.25 ppm
							Selenium	1.25 ppm
							Silver	0.25 ppm
							Zinc	1.25 ppm
MHgworkingCal_00872	08/28/14	08/28/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntcal_00051	1 mL	Mercury	100 ppb
.MHgIntcal_00051	08/28/14	07/28/14	2% Nitric Acid, Lot 0000072716	100 mL	MCGHG1-1_00008	1 mL	Mercury	10 ppm
..MCGHG1-1_00008	02/01/15	inorganic ventures, Lot F2-HG02105			(Purchased Reagent)		Mercury	1000 ppm
MHgworkingCal_00874	09/03/14	09/02/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntcal_00052	1 mL	Mercury	100 ppb
.MHgIntcal_00052	10/02/14	09/02/14	2% Nitric Acid, Lot 0000072716	100 mL	MCGHG1-1_00008	1 mL	Mercury	10 ppm
..MCGHG1-1_00008	02/01/15	inorganic ventures, Lot F2-HG02105			(Purchased Reagent)		Mercury	1000 ppm
MHgWorkingicv_00853	08/28/14	08/28/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntICV_00051	1 mL	Mercury	100 ppb
.MHgIntICV_00051	08/28/14	07/28/14	2% Nitric Acid, Lot 0000072716	100 mL	MHGICV-1_00005	1 mL	Mercury	10 ppm
..MHGICV-1_00005	07/31/15	ULTRA SCIENTIFIC, Lot T00602			(Purchased Reagent)		Mercury	1000 ppm
MHgWorkingicv_00854	09/03/14	09/02/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntICV_00052	1 mL	Mercury	100 ppb
.MHgIntICV_00052	10/02/14	09/02/14	2% Nitric Acid, Lot 0000072716	100 mL	MHGICV-1_00005	1 mL	Mercury	10 ppm
..MHGICV-1_00005	07/31/15	ULTRA SCIENTIFIC, Lot T00602			(Purchased Reagent)		Mercury	1000 ppm
MICSABX_00058	09/01/14	08/05/14	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00004	10 mL	Aluminum	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00005	1 mL	Arsenic	0.02 ppm
							Cadmium	0.02 ppm
							Chromium	0.02 ppm
							Co	0.02 ppm
							Copper	0.02 ppm
							Mn	0.0225 ppm
							Nickel	0.02 ppm
							Silver	0.02 ppm
							Zinc	0.025 ppm
					MMSICSAB-1_00007	0.2 mL	Barium	0.02 ppm
							Be	0.02 ppm
							Lead	0.02 ppm
							Sr	0.025 ppm
							Tl	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00006	0.2 mL	B	0.05 ppm
							Sb	0.02 ppm
							Selenium	0.05 ppm
							Si	0.5 ppm
							Sn	0.1 ppm
.M6020ICS-0A_00004	09/01/14	Inorganic Ventures, Lot G2-MEB476152			(Purchased Reagent)		Aluminum	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00005	09/01/14	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Arsenic	2 ppm
							Cadmium	2 ppm
							Chromium	2 ppm
							Co	2 ppm
							Copper	2 ppm
							Mn	2.25 ppm
							Nickel	2 ppm
							Silver	2 ppm
							Zinc	2.5 ppm
.MMSICSAB-1_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028			(Purchased Reagent)		Barium	10 ppm
							Be	10 ppm
							Lead	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSABX_00059	10/02/14	09/02/14	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Aluminum	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Arsenic	0.02 ppm
							Cadmium	0.02 ppm
							Chromium	0.02 ppm
							Co	0.02 ppm
							Copper	0.02 ppm
							Mn	0.0225 ppm
							Nickel	0.02 ppm
							Silver	0.02 ppm
							Zinc	0.025 ppm
					MMSICSAB-1_00007	0.2 mL	Barium	0.02 ppm
							Be	0.02 ppm
							Lead	0.02 ppm
							Sr	0.025 ppm
							Tl	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00006	0.2 mL	B	0.05 ppm
							Sb	0.02 ppm
							Selenium	0.05 ppm
							Si	0.5 ppm
							Sn	0.1 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Aluminum	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Arsenic	2 ppm
							Cadmium	2 ppm
							Chromium	2 ppm
							Co	2 ppm
							Copper	2 ppm
							Mn	2.25 ppm
							Nickel	2 ppm
							Silver	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	2.5 ppm
.MMSICSAB-1_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028			(Purchased Reagent)		Barium	10 ppm
							Be	10 ppm
							Lead	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Selenium	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00053	09/01/14	08/05/14	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00004	10 mL	Aluminum	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00004	09/01/14	Inorganic Ventures, Lot G2-MEB476152			(Purchased Reagent)		Aluminum	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
MICSAX_00055	10/02/14	09/02/14	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Aluminum	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Aluminum	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
MICVX_00021	08/07/14	08/07/14	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00017	10 mg/L	Aluminum	0.4 mg/L
							Arsenic	0.08 mg/L

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Barium	0.08 mg/L
							Cadmium	0.08 mg/L
							Chromium	0.08 mg/L
							Copper	0.08 mg/L
							Lead	0.08 mg/L
							Nickel	0.08 mg/L
							Selenium	0.08 mg/L
							Silver	0.08 mg/L
							Zinc	0.08 mg/L
.MICPMSICV_00017	11/30/14	SPEX CertiPrep, Lot 4-283NY			(Purchased Reagent)		Aluminum	10 ppm
							Arsenic	2 ppm
							Barium	2 ppm
							Cadmium	2 ppm
							Chromium	2 ppm
							Copper	2 ppm
							Lead	2 ppm
							Nickel	2 ppm
							Selenium	2 ppm
							Silver	2 ppm
							Zinc	2 ppm
MSTD2X_00035	09/12/14	08/12/14	DI Water, Lot 1191081	250 mL	MCALSPECAREV_00005	10 mg/L	Aluminum	1 ppm
							Arsenic	0.2 ppm
							Barium	0.2 ppm
							Cadmium	0.2 ppm
							Chromium	0.2 ppm
							Copper	0.2 ppm
							Lead	0.2 ppm
							Nickel	0.2 ppm
							Selenium	0.2 ppm
							Silver	0.2 ppm
							Zinc	0.2 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Aluminum	25 ppm
							Arsenic	5 ppm
							Barium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Zinc	5 ppm
MTAPITTICPMS_00018	04/01/15	INORGANIC VENTURES, Lot G2-MEB506053			(Purchased Reagent)		Aluminum	200 ug/mL
							Arsenic	4 ug/mL
							B	100 ug/mL
							Barium	200 ug/mL
							Be	5 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cadmium	5 ug/mL
							Chromium	20 ug/mL
							Co	50 ug/mL
							Copper	25 ug/mL
							Fe	100 ug/mL
							Lead	2 ug/mL
							Mn	50 ug/mL
							Nickel	50 ug/mL
							Selenium	1 ug/mL
							Silver	5 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zinc	50 ug/mL
MTAPITTMSA_00020	07/01/15	INORGANIC VENTURES, Lot G2-MEB494149			(Purchased Reagent)		Ca	5000 ug/mL
							K	5000 ug/mL
							Mg	5000 ug/mL
							Na	5000 ug/mL
MTAPITTMSA_00021	07/01/15	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Ca	5000 ug/mL
							K	5000 ug/mL
							Mg	5000 ug/mL
							Na	5000 ug/mL
MTAPITTMSC_00026	07/01/15	Inorganic Ventures, Lot G2-MEB494150			(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
MTAPITTMSC_00027	07/01/15	Inorganic Ventures, Lot H2-MEB532046			(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
WHemPSP_00166	06/03/21	J.T.Baker, Lot 0000076186			(Purchased Reagent)		Acetone	0.002 mg/L
							HEM	4000 mg/L
							HEM Polar (Oil and Grease - Polar)	4000 mg/L
							Hexadecane	2000 mg/L
							SGT HEM (Oil and Grease - Nonpolar)	2000 mg/L
							SGT-HEM	2000 mg/L
							Stearic Acid	2000 mg/L
WHemPSP_00167	10/06/20	J.T.Baker, Lot 0000058355			(Purchased Reagent)		Acetone	0.002 mg/L
							HEM	4000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							HEM Polar (Oil and Grease - Polar)	4000 mg/L
							Hexadecane	2000 mg/L
							SGT HEM (Oil and Grease - Nonpolar)	2000 mg/L
							SGT-HEM	2000 mg/L
							Stearic Acid	2000 mg/L

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CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Stock Solution**

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

1,000 µg/mL ea:
Al, Ca, Fe, K, Mg, Na, P, S,

20 µg/mL ea:
Mo, Ti

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	1,002 ± 6 µg/mL	Calcium, Ca	1,002 ± 6 µg/mL	Carbon, C	2,004 ± 13 µg/mL
Chloride, Chloride	10,020.0 ± 50.0 µg/mL	Iron, Fe	1,002 ± 7 µg/mL	Magnesium, Mg	1,002 ± 4 µg/mL
Molybdenum, Mo	20.04 ± 0.14 µg/mL	Phosphorus, P	1,002 ± 7 µg/mL	Potassium, K	1,002 ± 4 µg/mL
Sodium, Na	1,002 ± 7 µg/mL	Sulfur, S	1,002 ± 5 µg/mL	Titanium, Ti	20.04 ± 0.13 µg/mL

Certified Density: 1.034 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty (±) $= 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.
- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
C	Gravimetric		See Sec. 4.2
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Chloride	Acidimetric	84L	84L
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84k	84k
Ti	ICP Assay	3162a	060808

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL

Custom-Grade solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Al		M	Dy	< 0.000100	O	Li	0.002000	M	Pr	< 0.000100	M	Te	< 0.012007
M	Sb	< 0.000600	M	Er	< 0.000100	M	Lu	< 0.000100	M	Re	< 0.000100	M	Tb	< 0.000100
O	As	< 0.020000	M	Eu	< 0.000100	s	Mg		M	Rh	< 0.000100	M	Tl	< 0.000100
O	Ba	< 0.000200	M	Gd	< 0.000100	O	Mn	0.003000	M	Rb	< 0.020012	M	Th	< 0.000100
O	Be	< 0.000090	M	Ga	< 0.001001	O	Hg	< 0.005000	M	Ru	< 0.000100	M	Tm	< 0.000100
M	Bi	< 0.005003	O	Ge	< 0.015000	s	Mo		M	Sm	< 0.000100	M	Sn	< 0.003002
O	B	< 0.005000	M	Au	< 0.001001	M	Nd	< 0.000100	O	Sc	< 0.000700	s	Ti	
O	Cd	0.003400	M	Hf	< 0.002001	O	Ni	< 0.002000	M	Se	< 0.050029	O	W	< 0.007000
s	Ca		M	Ho	< 0.000100	M	Nb	< 0.002001	n	Si		M	U	< 0.000100
M	Ce	< 0.000500	M	In	< 0.001001	n	Os		M	Ag	< 0.001001	O	V	< 0.004000
M	Cs	< 0.001001	M	Ir	< 0.000100	M	Pd	< 0.003002	s	Na		M	Yb	< 0.000100
O	Cr	< 0.010000	s	Fe		s	P		O	Sr	0.005000	M	Y	< 0.000100
M	Co	< 0.001001	M	La	< 0.000200	M	Pt	< 0.000100	s	S		M	Zn	0.016610
O	Cu	< 0.020000	M	Pb	0.002001	s	K		M	Ta	< 0.001001	M	Zr	< 0.004002

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Zach Saunders Product Documentation Technician	Zachary Saunders
Certificate Approved By:	Allyson Guilliams Quality Control Supervisor	Allyson Guilliams
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	Paul R Gaines

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CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:

Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	2.000 ± 0.013 µg/mL	Cadmium, Cd	2.000 ± 0.013 µg/mL	Chromium+3, Cr3	2.000 ± 0.013 µg/mL
Cobalt, Co	2.000 ± 0.013 µg/mL	Copper, Cu	2.000 ± 0.013 µg/mL	Manganese, Mn	2.000 ± 0.013 µg/mL
Nickel, Ni	2.000 ± 0.013 µg/mL	Silver, Ag	2.000 ± 0.013 µg/mL	Zinc, Zn	2.000 ± 0.013 µg/mL

Certified Density: 1.012 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

4.2 **BALANCE CALIBRATION -** All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION -** All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION -** An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-CAL-SPECA-REV

Lot Number: **H2-MEB524026**

Matrix: 3% HNO3(v/v)

2,500 µg/mL ea:
Ca, K, Mg, Na,

1,250 µg/mL ea:
Fe,

25 µg/mL ea:
Al, Mn,

5 µg/mL ea:
Ag, As, Ba, Be, Cd, Co, Cr3, Cu, Ni,
Pb, Se, Sr, Tl, V, Zn

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	24.99 ± 0.18 µg/mL	Arsenic, As	4.998 ± 0.032 µg/mL	Barium, Ba	5.000 ± 0.032 µg/mL
Beryllium, Be	5.000 ± 0.028 µg/mL	Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2,500 ± 11 µg/mL
Chromium+3, Cr3	5.000 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	4.999 ± 0.032 µg/mL
Iron, Fe	1,250 ± 6 µg/mL	Lead, Pb	4.998 ± 0.025 µg/mL	Magnesium, Mg	2,500 ± 16 µg/mL
Manganese, Mn	24.99 ± 0.17 µg/mL	Nickel, Ni	5.003 ± 0.028 µg/mL	Potassium, K	2,500 ± 11 µg/mL
Selenium, Se	5.002 ± 0.028 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL	Sodium, Na	2,499 ± 11 µg/mL
Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	5.000 ± 0.032 µg/mL	Vanadium, V	5.000 ± 0.032 µg/mL
Zinc, Zn	5.004 ± 0.032 µg/mL				

Certified Density: 1.051 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

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· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

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300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Mercury in 5% (v/v) HNO3**

Catalog Number:	CGHG1-1, CGHG1-2, and CGHG1-5
Lot Number:	**F2-HG02105**
Starting Material:	Hg metal
Starting Material Purity (%):	99.9997
Starting Material Lot No:	1780
Matrix:	5% (v/v) HNO3

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration:	1,000 ± 6 µg/mL -weighted mean-
Certified Density:	1.018 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1	**Assay Method #1**	**999 ± 4 µg/mL** ICP Assay NIST SRM 3133 Lot Number: 061204
	Assay Method #2	**1,001 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an A2LA accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN µg/mL

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	0.000049	M	Dy	< 0.012339	O	Li	< 0.000020	M	Pr	< 0.000617	M	Te	< 0.061693
M	Sb	< 0.001028	M	Er	< 0.010282	M	Lu	< 0.000823	M	Re	< 0.002056	M	Tb	< 0.000617
M	As	< 0.020564	M	Eu	< 0.006169	O	Mg	0.000589	M	Rh	< 0.002056	O	Tl	< 0.006000
M	Ba	< 0.020564	M	Gd	< 0.002056	M	Mn	< 0.008226	M	Rb	< 0.002056	M	Th	< 0.002056
M	Be	< 0.001028	M	Ga	< 0.002056	s	Hg		M	Ru	< 0.004113	M	Tm	< 0.000823
M	Bi	< 0.000823	O	Ge	< 0.018000	M	Mo	< 0.004113	M	Sm	< 0.002056	M	Sn	< 0.010282
M	B	< 0.143950	M	Au	< 0.006169	M	Nd	< 0.004113	M	Sc	< 0.020564	M	Ti	< 0.102822
O	Cd	< 0.004600	M	Hf	< 0.004113	O	Ni	< 0.001000	M	Se	< 0.016451	M	W	< 0.020564
O	Ca	0.002160	M	Ho	< 0.001028	M	Nb	< 0.001028	O	Si	< 0.003400	M	U	< 0.004113
M	Ce	< 0.010282	M	In	< 0.020564	n	Os		M	Ag	< 0.004113	M	V	< 0.004113
M	Cs	< 0.000617	M	Ir	< 0.010282	O	Pd	< 0.003800	O	Na	0.000491	M	Yb	< 0.002056
M	Cr	< 0.010282	O	Fe	< 0.001100	O	P	< 0.002600	M	Sr	< 0.001028	M	Y	< 0.082257
M	Co	< 0.006169	M	La	< 0.001028	M	Pt	< 0.004113	O	S	< 0.025000	M	Zn	< 0.041129
M	Cu	< 0.012339	M	Pb	< 0.006169	O	K	< 0.002000	M	Ta	< 0.014395	M	Zr	< 0.010282

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Eletrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59; +2; 4 ; Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water. .

Stability - 2-100 ppb levels **not stable** in 1% HNO3 / LDPE container, ***stable*** in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Type	Interferences (underlined indicates severe)
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	atom	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	ion	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	atom	Ta, Co, Th ,Rh , Fe, U
ICP-MS 202 amu	9 ppt	n/a	M+	186W16O

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- QMI File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: January 03, 2013

Expiration Date: EXPIRES 01 FEB 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Zach Saunders, Product Documentation Technician	Zachary Saunders
Certificate Approved By:	Elizabeth Day, Quality Assurance Specialist	Elizabeth A. Day
Certifying Officer:	Paul Gaines, PhD., Senior Technical Director	Paul R Gaines

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product #: ICP-080 **Last Update: 4/7/2014**

Section I Product Identification

Name: Mercury Standard

Matrix : water with dilute nitric acid

Section II Composition / Information on Ingredients

Component	CAS#	% by Wt.	LD50	OSHA PEL	ACGIH TLV	RTECS #	Codes
water	007732-18-5	97.9	>90 mL/kg oral rat	N/A	N/A	ZC0110000	
nitric acid	007697-37-2	2	N/A	5 mg/m3	5.2 mg/m3	QU5775000	G
mercury, inorganic compounds as Hg	007439-97-6	0.1	26 mg/kg oral rat	0.1 mg/m3	.025 mg/m3	OV4550000	

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation:	If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.
Skin Contact:	In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.
Eye Contact:	In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.
Ingestion:	If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Matrix

Fire Hazard: non-combustible

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

Store at Room Temperature (18-25°C)

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Matrix

Melting Pt.: 0°C Boiling Pt.: 100°C Density: 1

Vapor Pressure: N/A
Vapor Density: N/A
Water Solubility: soluble
Appearance: colorless liquid
Odor: none
Flash Point: none
Auto-Ignition Temperature: N/A
LEL: N/A
UEL: N/A

Section X Stability and Reactivity

Reactivity Data for Matrix

Stability: stable

Incompatibilities:
organic materials
str. reducing agents
alkalies
antimony salts

Hazardous Decomposition Products: NO2, NO3

Hazardous Effects of Polymerization: none

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

Shipment Type: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

UN Number: UN3264
Shipping Class: 8
Packing Group: III

Section XV Regulatory Information

EU Directives Classification

R: 34

Risk Statements: Causes burns.

S: 23-26-36-45

Safety Statements: Do not breathe gas/fumes/vapour/spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

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1029834

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: ZCAL-60-250 **Lot No.** 4-283NY

Description: Custom Claritas Standard

Matrix: 5% HNO_3 / Tr. Tart. Acid / Tr. HF

This **CLARITAS PPT®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
Ca	1000 mg/L	±5 mg/L	3109a*	Co	2 mg/L	±0.01 mg/L	3113*
K	1000 mg/L	±5 mg/L	3141a*	Cr	2 mg/L	±0.01 mg/L	3112a*
Mg	1000 mg/L	±5 mg/L	3131a*	Cu	2 mg/L	±0.01 mg/L	3114*
Na	1000 mg/L	±5 mg/L	3152a*	Mo	2 mg/L	±0.01 mg/L	3134*
Fe	500 mg/L	±3 mg/L	3126a*	Ni	2 mg/L	±0.01 mg/L	3136*
Si	100 mg/L	±0.5 mg/L	3150*	Pb	2 mg/L	±0.01 mg/L	3128*
Al	10 mg/L	±0.05 mg/L	3101a*	Sb	2 mg/L	±0.01 mg/L	3102a*
Mn	10 mg/L	±0.05 mg/L	3132*	Se	2 mg/L	±0.01 mg/L	3149*
Ag	2 mg/L	±0.01 mg/L	3151*	Sn	2 mg/L	±0.01 mg/L	3161a*
As	2 mg/L	±0.01 mg/L	3103a*	Sr	2 mg/L	±0.01 mg/L	3153a*
B	2 mg/L	±0.01 mg/L	3107*	Ti	2 mg/L	±0.01 mg/L	3162a*
Ba	2 mg/L	±0.01 mg/L	3104a*	Tl	2 mg/L	±0.01 mg/L	3158*
Be	2 mg/L	±0.01 mg/L	3105a*	V	2 mg/L	±0.01 mg/L	3165*
Cd	2 mg/L	±0.01 mg/L	3108*	Zn	2 mg/L	±0.01 mg/L	3168a*

* - Indicates NIST SRM † - Indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# ALL8

Trace Metallic Impurities in the Actual Solution via ICP-MS Analysis:

Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L
Au	<0.9	Ga	2	Ir	<0.3	Pd	<4	Sc	<10	Tm	<0.01
Bi	<3	Gd	<0.2	La	2	Pr	0.04	Sm	<0.5	U	0.2
Ce	1	Ge	<5	Li	<2	Pt	<1	Ta	7	W	<0.7
Cs	<0.4	Hf	<0.7	Lu	<0.04	Rb	30	Tb	<0.07	Y	0.7
Dy	<0.2	Hg	<0.7	Nb	20	Re	<0.3	Te	<1	Yb	<0.01
Er	<0.2	Ho	<0.07	Nd	<0.4	Rh	<2	Th	0.3	Zr	20
Eu	<0.1	In	<0.7	P	<500	Ru	<1				

RJR
11/15/13

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2013 Certifying Officer:

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CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSCRI-1B

Lot Number: **G2-MEB496135**

Matrix: 3% HNO3(v/v)

REC'D 10/11/13 RJR

25 µg/mL ea:
Ca, K, Mg, Na,

12.5 µg/mL ea:
Fe,

7.5 µg/mL ea:
Al,

2.5 µg/mL ea:
Ba,

1.25 µg/mL ea:
Mn, Se, Sr, Zn,

0.5 µg/mL ea:
Cr3, Cu,

0.25 µg/mL ea:
Ag, As, Be, Cd, Ni, Pb, Tl, V,

0.125 µg/mL ea:
Co

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	7.50 ± 0.05 µg/mL	Arsenic, As	0.2501 ± 0.0018 µg/mL	Barium, Ba	2.501 ± 0.017 µg/mL
Beryllium, Be	0.2500 ± 0.0013 µg/mL	Cadmium, Cd	0.2500 ± 0.0017 µg/mL	Calcium, Ca	25.01 ± 0.21 µg/mL
Chromium+3, Cr3	0.5000 ± 0.0032 µg/mL	Cobalt, Co	0.1250 ± 0.0012 µg/mL	Copper, Cu	0.5000 ± 0.0040 µg/mL
Iron, Fe	12.50 ± 0.08 µg/mL	Lead, Pb	0.2500 ± 0.0021 µg/mL	Magnesium, Mg	25.01 ± 0.20 µg/mL
Manganese, Mn	1.251 ± 0.010 µg/mL	Nickel, Ni	0.2501 ± 0.0017 µg/mL	Potassium, K	25.01 ± 0.22 µg/mL
Selenium, Se	1.250 ± 0.011 µg/mL	Silver, Ag	0.2500 ± 0.0021 µg/mL	Sodium, Na	25.01 ± 0.20 µg/mL
Strontium, Sr	1.251 ± 0.010 µg/mL	Thallium, Tl	0.2501 ± 0.0020 µg/mL	Vanadium, V	0.2502 ± 0.0021 µg/mL
Zinc, Zn	1.250 ± 0.010 µg/mL				

Certified Density: 1.015 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	892707
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: October 07, 2013

Expiration Date: EXPIRES 01 N 2014

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

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CERTIFICATE OF ANALYSIS

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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-1

Lot Number: **H2-MEB524028**

Matrix: 3% HNO3(v/v)

10 µg/mL ea:

Ba, Be, Pb, Sr, Tl, V

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Barium, Ba	9.99 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL	Lead, Pb	10.01 ± 0.05 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.06 µg/mL	Vanadium, V	9.99 ± 0.06 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

– The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

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CERTIFICATE OF ANALYSIS

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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

Matrix: 3% HNO3(v/v), tr. HF

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.06 µg/mL	Boron, B	24.98 ± 0.17 µg/mL	Selenium, Se	25.01 ± 0.21 µg/mL
Silicon, Si	249.9 ± 1.6 µg/mL	Tin, Sn	50.04 ± 0.36 µg/mL		

Certified Density: 1.018 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

Donna Senn

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

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CERTIFICATE OF ANALYSIS

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1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MS-ICPMS

Lot Number: **G2-MEB506053**

Matrix: 0.7% HNO3(v/v)

200 µg/mL ea:
Al, Ba,

100 µg/mL ea:
B, Fe, Sr,

50 µg/mL ea:
Co, Mn, Ni, V, Zn,

25 µg/mL ea:
Cu,

20 µg/mL ea:
Cr3,

5 µg/mL ea:
Ag, Be, Cd, Tl,

4 µg/mL ea:
As,

2 µg/mL ea:
Pb,

1 µg/mL ea:
Se

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.3 µg/mL	Arsenic, As	4.002 ± 0.030 µg/mL	Barium, Ba	200.0 ± 1.3 µg/mL
Beryllium, Be	5.002 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.001 ± 0.035 µg/mL
Chromium+3, Cr3	20.01 ± 0.13 µg/mL	Cobalt, Co	50.03 ± 0.25 µg/mL	Copper, Cu	25.01 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.001 ± 0.010 µg/mL	Manganese, Mn	50.03 ± 0.32 µg/mL
Nickel, Ni	50.00 ± 0.33 µg/mL	Selenium, Se	1.000 ± 0.007 µg/mL	Silver, Ag	5.002 ± 0.033 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.001 ± 0.034 µg/mL	Vanadium, V	49.99 ± 0.34 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

Certified Density: 1.005 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep Tightly sealed when not in use. Store and use at 20 ± 4°C. Do Not pipette from the container. Do Not return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: December 04, 2013

Expiration Date: EXPIRES 01 APR 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Christy Shortridge Product Documentation Technician	Christy Shortridge
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	Brian Alexander
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	Paul R Gaines

MATERIAL SAFETY DATA SHEET
TAPITT-MS-ICPMS

Revision Number 4, Revision Date March 04, 2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code	TAPITTMS-ICPMS
Product name	Multi-element Solution Standard in Dilute Nitric Acid
Common Name	Contains: 200 µg/mL ea: Al, Ba; 100 µg/mL ea: B, Fe, Sr; 50 µg/mL ea: Co, Mn, Ni, V, Zn; 25 µg/mL Cu; 20 µg/mL Cr3; 5 µg/mL ea: Ag, Be, Cd, Tl; 4 µg/mL As; 2 µg/mL Pb; 1 µg/mL Se
Manufacturer, importer, supplier	Inorganic Ventures 300 Technology Drive Christiansburg, VA 24073 web: www.inorganicventures.com
Emergency telephone number	800-424-9300 CHEMTREC (24 hrs)

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% Weight	ACGIH*	OSHA*
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	2 ppm TWA	2 ppm TWA; 5 mg/m3 TWA

* ACGIH - Occupational Exposure Limits - TWAs
* OSHA - Final PELs - Time Weighted Averages (TWAs)

3. HAZARDS IDENTIFICATION

Emergency Overview
- Vapours may be irritating to eyes, nose, throat, and lungs
- Corrosive

Eye contact	• Contact with eyes may cause irritation
Skin contact	• Substance may cause slight skin irritation
Inhalation	• May cause irritation of respiratory tract
Ingestion	• Harmful if swallowed

4. FIRST AID MEASURES

General advice	• Show this safety data sheet to the doctor in attendance
Skin contact	• Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes • Consult a physician if necessary
Eye contact	• Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes • Keep eye wide open while rinsing • If eye irritation persists, consult a specialist
Inhalation	• Move to fresh air in case of accidental inhalation of vapours • If breathing is difficult, give oxygen • Consult a physician if necessary
Ingestion	• Call a physician or Poison Control Centre immediately • If swallowed, seek medical advice immediately and show this container or label • If conscious, drink plenty of water

5. FIRE-FIGHTING MEASURES

Flash point	NA
Suitable extinguishing media	• Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Specific hazards	• Thermal decomposition can lead to release of irritating gases and vapours
Specific methods	• Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations
Special protective equipment for firefighters	• As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
NFPA (National Fire Protection Association)	• Health - 2 • Fire Hazard - 0 • Reactivity - 0
Under conditions giving incomplete combustion, hazardous gases produced may consist of:	• nitrogen oxides (NOx).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	• Evacuate personnel to safe areas • Keep people away from and upwind of spill/leak • Wear personal protective equipment • Ensure adequate ventilation
Environmental precautions	• Prevent further leakage or spillage if safe to do so • Prevent product from entering drains
Methods for cleaning up	• Dam up • Neutralize with lime milk or soda and flush with plenty of water • Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container • After cleaning, flush away traces with water

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions	• Use only in area provided with appropriate exhaust ventilation
Safe handling advice	• Wear personal protective equipment

Storage

Technical measures/Precautions	• Keep in properly labelled containers • Store at room temperature in the original container • Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible products	• organic materials • reducing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment	
Hand protection	• impervious gloves
Eye protection	• tightly fitting safety goggles
Respiratory protection	• Ensure adequate ventilation
Skin and body protection	• Chemical resistant apron • Lab coat
Hygiene measures	• When using, do not eat, drink or smoke • Regular cleaning of equipment, work area and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form liquid.

Appearance	clear
Colour	yellow tint.
Odour	None.

Important Health Safety and Environmental Information

pH	0 to 2
Boiling point/range	100°C
Flash point	N/A
Vapour pressure	NA.
Water solubility	miscible.

10. STABILITY AND REACTIVITY

Stability	• Stable under normal conditions • Hazardous polymerization does not occur
Materials to avoid	• organic materials • reducing agents
Hazardous decomposition products	• nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

CAS	Chemical Name	% Weight	LD50/oral/rat =	LD50/dermal/rat =
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	Inhalation LC50 Rat: 130 mg/kg/4H	Inhalation LC50 Rat: 130 mg/kg/4H

Product Information

Local effects	
Skin irritation	May cause skin irritation and/or dermatitis.
Eye irritation	May cause eye irritation with susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic toxicity	Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Component Information

CAS	Chemical Name	% Weight	EFAD*	EFFSD*	EMD - Ecotoxicity*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	N/A	N/A

* EFAD - Ecotoxicity - Freshwater Algae Data
* EFFSD - Ecotoxicity - Freshwater Fish Species Data
* EMD - Ecotoxicity - Microtox Data

Product Information

Do not allow material to contaminate ground water or sewage system

Other information

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	• In accordance with local and national regulations
Contaminated packaging	• Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

IATA-DGR

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

15. REGULATORY INFORMATION

U.S. INVENTORIES:

CAS	Chemical Name	% Weight	CPCL*	NJRTK*	CERCLA/SARA*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	sn 1356	1000 lb final RQ; 454 kg final RQ

* CPCL - California - Proposition 65 - Carcinogens List
* NJRTK - New Jersey - Department of Health RTK List
* CERCLA/SARA - Hazardous Substances and their Reportable Quantities
:

INTERNATIONAL INVENTORIES:

CAS	Chemical Name	% Weight	WHMIS*	EINECCS - European Union*
7732-18-5	Water	~99.3	Uncontrolled product according to WHMIS classification criteria	231-791-2
7697-37-2	Nitric Acid	~0.7	C; E (including 60%, 61.3%, 63%, 67%, 67.18%, 70%, 90%); E (10%)	231-714-2

* WHMIS - Canada - WHMIS - Classifications of Substances
* EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)
:

16. OTHER INFORMATION

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Inorganic Ventures, Inc. assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

#1222820

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	G2-MEB494149
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5,000 µg/mL ea: Ca, K, Mg, Na

Rec'd 6/17/14 RJR

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Calcium, Ca	5,000 ± 22 µg/mL	Magnesium, Mg	5,000 ± 32 µg/mL	Potassium, K	5,000 ± 22 µg/mL
Sodium, Na	5,000 ± 22 µg/mL				

Certified Density: 1.072 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ — $(\bar{x})$ = mean; x_i = individual results; n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$ — 2 = the coverage factor. $[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirments for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 07, 2013

11.2 Expiration Date

EXPIRES
01 JAN 2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

#1222821
822

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TAPITT-MS-A

Lot Number: H2-MEB532044

Matrix: 3% (v/v) HNO3

Value / Analyte(s): 5,000 µg/mL ea:
Ca, K, Mg, Na

~~Rec'd~~ Rec'd 6/17/14 RJR

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Calcium, Ca	5,000 ± 22 µg/mL	Magnesium, Mg	5,000 ± 23 µg/mL	Potassium, K	5,000 ± 22 µg/mL
Sodium, Na	5,000 ± 22 µg/mL				

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirments for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Expiration Date

EXPIRES
01/2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

1222964

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 583.01 · ACCREDITED Reference Material Producer Certificate 583.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	G2-MEB494150
Matrix:	tr. HF 3% (v/v) HNO3
Value / Analyte(s):	1,000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

Rec'd 6/17/14 RJR

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	50.00 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL	Silicon, Si	1,000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.018 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirments for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 07, 2013

11.2 Expiration Date

EXPIRES
01/2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

#1222965
966

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 683.01
ACCREDITED Reference Material Producer Certificate 683.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	H2-MEB532046
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1,000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

Rec'd 6/17/14 KSR

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	49.98 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL	Silicon, Si	1,000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ — $(\bar{x})$ = mean; x_i = individual results; n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$ — 2 = the coverage factor. $[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirments for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Expiration Date

EXPIRES
01 JUL 2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

J.T.Baker | AVANTOR™ PERFORMANCE MATERIALS

ProductProfile

Speedisk® Oil & Grease Standards Kit

Description and Use

The *Speedisk*® Oil & Grease Standards Kit consists of four vials sealed with Teflon® lined stoppers which are covered with crimped aluminum tear-offs to hold the stoppers firmly in place and prevent loss by evaporation. Each vial contains 51ml of a mixture consisting of 2mg/ml Stearic Acid and 2mg/ml n-Hexadecane in ULTRA RESI-ANALYZED® Acetone. This packaging format is particularly convenient when conducting EPA Method 1664, Rev. A, for oil and grease in which 10ml of standards mixture is added to one liter of water which has been adjusted to pH 2 or below. (Water must be at or below pH 2 to maintain Stearic Acid in the acid form.) Store and use standards at room temperature to keep components in solution. Since Acetone is volatile, open vials just before use to ensure correct concentration of standards. Do not save remainders for later use.

Specifications

Stearic Acid Concentration 1.98-2.02 mg/ml Acetone

n-Hexadecane Concentration 1.98-2.02 mg/ml Acetone

Package Contents

Four amber vials each containing 51ml of standard solution

Safety Precautions

Observe appropriate safety precautions when using *Speedisk*® Oil & Grease Standards Kit and related chemicals and equipment. Use personal safety equipment for eye and skin protection. Use only approved glassware under vacuum. Observe fire safety regulations. Avoid breathing vapors. Operate with appropriate ventilation. Keep volatile chemicals in tightly sealed containers. For specific guidelines and additional health and safety information, consult the Material Safety Data Sheet (MSDS) for each chemical used.

Storage Conditions

Store at room temperature away from light.=

Reorder Information

To order *Speedisk*® products, contact any authorized J.T.Baker distributor, or in North America, call 1-800-JTBAKER (1-800-582-2537).
Speedisk® Oil & Grease Standards Kit is part number 8030-00.

Technical Support

For technical support or to discuss your application, please

Speedisk® Oil & Grease Standards Kit DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Aspiration hazard. SEE MATERIAL SAFETY DATA SHEET

Speeddisk® Oil & Grease Standards Kit DANGER! LIQUIDE ET VAPEURS EXTRÊMEMENT INFLAMMABLES. LES VAPEURS PEUVENT PROVOQUER UN INCENDIE PAR INFLAMMATION SPONTANÉE. INGESTION OU INHALATION DANGEREUSE. CAUSE L'IRRITATION DERMIQUE, OCULAIRE ET DE LA VOIE RESPIRATOIRE. AFFECTE LE SYSTÈME NERVEUX CENTRAL. Tenir à l'écart de la chaleur, des étincelles et des flammes. Maintenir le contenant fermé. Utiliser avec une ventilation adéquate. Bien se laver après la manipulation. Eviter de respirer les vapeurs. VOIR FICHE SIGNALETIQUE

Avantor Performance Materials, Inc., USA

Safety Data Sheet available at www.avantormaterials.com

PACKAGE INSERT

J.T.Baker®

AVANTOR™ PERFORMANCE MATERIALS

Avantor Performance Materials, Inc.
3477 Corporate Parkway, Suite 200
Center Valley, PA 18034
610-573-2600
www.avantormaterials.com

1EA 8030-00

Speedisk® Oil & Grease Standards Kit

Batch No: 0000058355

Manufactured Date: 2013/10/08 (yyyy/mm/dd)

Retest Date: 2020/10/06 (yyyy/mm/dd)

For Laboratory,Research,or Manufacturing Use

Stearic Acid (mg/mL)	1.98 - 2.02
n-Hexadecane (mg/mL)	1.98 - 2.02

Complete specifications at avantormaterials.com

FLASH POINT:-20°C (-4°F)(CLOSED CUP)
DOT Name: ACETONE, SOLUTION
UN1090

CAS NO:

Acetone	67-64-1
Stearic Acid	57-11-4
Hexadecane	544-76-3

COUNTRY OF ORIGIN: USA

1293060

ID: WHemPSP_00167
Exp:10/06/20 Prpd:MTW Opn:08/19/14
HEM Spike LCS 40/20 PPM

2 BR 09/09/2014

Certification Summary

Client: Ocean Systems Laboratory, Inc.
Project/Site: Virgin Islands Port Authority

TestAmerica Job ID: 180-35998-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	State Program	9	2891
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAP	4	E871008
TestAmerica Pittsburgh	Illinois	NELAP	5	002602
TestAmerica Pittsburgh	Kansas	NELAP	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAP	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAP	1	203011
TestAmerica Pittsburgh	New Jersey	NELAP	2	PA005
TestAmerica Pittsburgh	New York	NELAP	2	11182
TestAmerica Pittsburgh	North Carolina (WW/SW)	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAP	3	02-00416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014
TestAmerica Pittsburgh	Texas	NELAP	6	T104704528
TestAmerica Pittsburgh	US Fish & Wildlife	Federal		LE94312A-1
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAP	8	STLP
TestAmerica Pittsburgh	Virginia	NELAP	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG No.:

Project: Virgin Islands Port Authority

Client Sample ID	Lab Sample ID
SAMPLE # 1	180-35998-1
SAMPLE # 1	180-35998-3

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SAMPLE # 1
Lab Sample ID: 180-35998-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-35998-1
SDG ID.:
Matrix: Sediment
Date Sampled: 08/19/2014 16:00
Reporting Basis: DRY
Date Received: 08/21/2014 15:50
% Solids: 68.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	410	22	2.1	mg/Kg			10	6020
7440-38-2	Arsenic	7.2	0.75	0.14	mg/Kg			10	6020
7440-43-9	Cadmium	0.073	0.75	0.052	mg/Kg	J		10	6020
7440-39-3	Barium	6.0	7.5	0.080	mg/Kg	J		10	6020
7440-47-3	Chromium	6.1	1.5	0.046	mg/Kg		B	10	6020
7440-50-8	Copper	2.3	1.5	0.25	mg/Kg			10	6020
7439-92-1	Lead	5.8	0.75	0.028	mg/Kg			10	6020
7440-02-0	Nickel	1.9	0.75	0.085	mg/Kg			10	6020
7782-49-2	Selenium	ND	3.7	0.38	mg/Kg			10	6020
7440-66-6	Zinc	3.5	3.7	0.48	mg/Kg	J		10	6020
7440-22-4	Silver	ND	0.75	0.029	mg/Kg			10	6020
7439-97-6	Mercury	0.030	0.024	0.0079	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SAMPLE # 1
Lab Sample ID: 180-35998-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-35998-1
SDG ID.:
Matrix: EET, Dissolved
Date Sampled: 08/29/2014 09:00
Reporting Basis: WET
Date Received: 08/21/2014 15:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	300	26	ug/L			10	6020
7440-38-2	Arsenic	11	10	2.9	ug/L			10	6020
7440-43-9	Cadmium	ND	10	1.1	ug/L			10	6020
7440-39-3	Barium	6.8	100	0.98	ug/L	J		10	6020
7440-47-3	Chromium	ND	20	5.4	ug/L			10	6020
7440-50-8	Copper	4.6	20	2.4	ug/L	J		10	6020
7439-92-1	Lead	ND	10	0.19	ug/L			10	6020
7440-02-0	Nickel	3.6	10	1.7	ug/L	J		10	6020
7782-49-2	Selenium	17	50	4.2	ug/L	J		10	6020
7440-66-6	Zinc	11	50	9.6	ug/L	J		10	6020
7440-22-4	Silver	ND	10	0.36	ug/L			10	6020
7439-97-6	Mercury	ND	0.20	0.038	ug/L			1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MICVX_00021 Concentration Units: ug/L

CCV Source: MCCV1X_00066

Analyte	ICV 180-117278/5 09/05/2014 08:42				CCV 180-117278/10 09/05/2014 08:59				CCV 180-117278/46 09/05/2014 11:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	416		400	104	514		500	103	496		500	99
Arsenic	86.9		80.0	109	99.0		100	99	98.7		100	99
Barium	82.6		80.0	103	98.4		100	98	96.2		100	96
Cadmium	83.8		80.0	105	99.1		100	99	101		100	101
Chromium	85.7		80.0	107	97.7		100	98	99.3		100	99
Copper	87.2		80.0	109	100		100	100	103		100	103
Lead	80.6		80.0	101	107		100	107	106		100	106
Nickel	87.3		80.0	109	97.2		100	97	100		100	100
Selenium	85.6		80.0	107	97.7		100	98	98.4		100	98
Silver	84.0		80.0	105	96.3		100	96	102		100	102
Zinc	87.5		80.0	109	100		100	100	101		100	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MICVX_00021 Concentration Units: ug/L

CCV Source: MCCV1X_00066

Analyte	CCV 180-117278/58 09/05/2014 12:16				CCV 180-117278/70 09/05/2014 13:08							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	493		500	99	476		500	95				
Arsenic	98.6		100	99	97.1		100	97				
Barium	96.8		100	97	94.0		100	94				
Cadmium	100		100	100	97.2		100	97				
Chromium	99.1		100	99	97.8		100	98				
Copper	102		100	102	102		100	102				
Lead	105		100	105	95.9		100	96				
Nickel	101		100	101	102		100	102				
Selenium	96.3		100	96	95.5		100	96				
Silver	101		100	101	98.5		100	99				
Zinc	101		100	101	97.0		100	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MICVX_00021 Concentration Units: ug/L

CCV Source: MCCV1X_00064

Analyte	ICV 180-117270/5 09/06/2014 16:17				CCV 180-117270/10 09/06/2014 16:43				CCV 180-117270/34 09/06/2014 18:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	403		400	101	511		500	102	496		500	99
Arsenic	79.4		80.0	99	94.9		100	95	93.7		100	94
Barium	80.2		80.0	100	98.9		100	99	103		100	103
Cadmium	81.3		80.0	102	102		100	102	108		100	108
Chromium	80.1		80.0	100	98.7		100	99	103		100	103
Copper	82.7		80.0	103	99.4		100	99	104		100	104
Lead	80.1		80.0	100	98.6		100	99	102		100	102
Nickel	82.3		80.0	103	101		100	101	104		100	104
Selenium	79.7		80.0	100	95.8		100	96	93.6		100	94
Silver	81.7		80.0	102	101		100	101	108		100	108
Zinc	82.2		80.0	103	98.3		100	98	99.8		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MICVX_00021 Concentration Units: ug/L

CCV Source: MCCV1X_00064

Analyte	CCV 180-117270/46 09/06/2014 20:01				CCV 180-117270/65 09/06/2014 21:56				CCV 180-117270/76 09/06/2014 22:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	498		500	100	480		500	96	514		500	103
Arsenic	94.8		100	95	95.5		100	95	96.6		100	97
Barium	102		100	102	102		100	102	102		100	102
Cadmium	106		100	106	105		100	105	107		100	107
Chromium	97.0		100	97	94.9		100	95	101		100	101
Copper	101		100	101	101		100	101	103		100	103
Lead	103		100	103	101		100	101	105		100	105
Nickel	100		100	100	97.9		100	98	103		100	103
Selenium	93.8		100	94	92.9		100	93	94.4		100	94
Silver	108		100	108	107		100	107	107		100	107
Zinc	99.4		100	99	95.2		100	95	100		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MHgWorkingicv_00853 Concentration Units: ug/L

CCV Source: MHgworkingCal_00872

Analyte	ICV 180-116380/7-A 08/28/2014 12:55				CCV 180-116380/10-A 08/28/2014 13:00				CCV 180-116380/10-A 08/28/2014 13:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.56		2.50	102	5.06		5.00	101	5.23		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MHgWorkingicv_00854 Concentration Units: ug/L

CCV Source: MHgworkingCal_00874

Analyte	ICV 180-116733/7-A 09/02/2014 12:50				CCV 180-116733/10-A 09/02/2014 13:59				CCV 180-116733/10-A 09/02/2014 14:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.56		2.50	102	5.02		5.00	100	5.00		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICV Source: MHgWorkingicv_00854 Concentration Units: ug/L

CCV Source: MHgworkingCal_00874

Analyte	CCV 180-116733/10-A 09/02/2014 14:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.00		5.00	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Method: 6020 Instrument ID: X

Lab Sample ID: CRI 180-117270/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00054

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	30.0	30.8		103	50-150
Arsenic	1.00	0.996	J	100	50-150
Cadmium	1.00	1.06		106	50-150
Barium	10.0	9.65	J	97	50-150
Chromium	2.00	2.02		101	50-150
Copper	2.00	2.06		103	50-150
Lead	1.00	1.01		101	50-150
Nickel	1.00	1.12		112	50-150
Selenium	5.00	5.31		106	50-150
Zinc	5.00	5.18		104	50-150
Silver	1.00	1.01		101	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Method: 7470A Instrument ID: K

Lab Sample ID: CRA 180-116733/9-A Concentration Units: ug/L

CRQL Check Standard Source: MHgworkingCal_00874

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.224		112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Method: 7471A Instrument ID: K

Lab Sample ID: CRA 180-116380/9-A Concentration Units: ug/L

CRQL Check Standard Source: MHgworkingCal_00872

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.174	J	87	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-117278/6 09/05/2014 08:46		CCB1 180-117278/11 09/05/2014 09:06		CCB4 180-117278/47 09/05/2014 11:34		CCB5 180-117278/59 09/05/2014 12:23	
		Found	C	Found	C	Found	C	Found	C
Aluminum	30	ND		ND		ND		ND	
Arsenic	1.0	ND		ND		ND		ND	
Barium	10	ND		ND		ND		ND	
Cadmium	1.0	ND		ND		ND		ND	
Chromium	2.0	ND		ND		ND		ND	
Copper	2.0	ND		ND		ND		ND	
Lead	1.0	ND		ND		0.0740	J	0.0890	J
Nickel	1.0	ND		ND		ND		ND	
Selenium	5.0	ND		ND		ND		ND	
Silver	1.0	ND		ND		ND		ND	
Zinc	5.0	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB6 180-117278/71 09/05/2014 13:14							
		Found	C	Found	C	Found	C	Found	C
Aluminum	30	ND							
Arsenic	1.0	ND							
Barium	10	ND							
Cadmium	1.0	ND							
Chromium	2.0	ND							
Copper	2.0	ND							
Lead	1.0	0.0490	J						
Nickel	1.0	ND							
Selenium	5.0	ND							
Silver	1.0	ND							
Zinc	5.0	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-117270/6 09/06/2014 16:22		CCB1 180-117270/11 09/06/2014 16:48		CCB3 180-117270/35 09/06/2014 19:02		CCB4 180-117270/47 09/06/2014 20:10	
		Found	C	Found	C	Found	C	Found	C
Aluminum	30	ND		ND		ND		ND	
Arsenic	1.0	ND		ND		ND		ND	
Barium	10	ND		ND		ND		ND	
Cadmium	1.0	ND		ND		ND		ND	
Chromium	2.0	ND		ND		ND		ND	
Copper	2.0	ND		ND		ND		ND	
Lead	1.0	ND		ND		0.0210	J	0.0230	J
Nickel	1.0	ND		ND		ND		ND	
Selenium	5.0	ND		ND		ND		ND	
Silver	1.0	ND		ND		ND		ND	
Zinc	5.0	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB6 180-117270/66 09/06/2014 22:05		CCB7 180-117270/77 09/06/2014 23:05					
		Found	C	Found	C	Found	C	Found	C
Aluminum	30	4.19	J	3.82	J				
Arsenic	1.0	ND		ND					
Barium	10	ND		ND					
Cadmium	1.0	ND		ND					
Chromium	2.0	ND		ND					
Copper	2.0	ND		ND					
Lead	1.0	0.0400	J	0.0400	J				
Nickel	1.0	ND		ND					
Selenium	5.0	ND		ND					
Silver	1.0	ND		ND					
Zinc	5.0	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-116380/8-A 08/28/2014 12:57		CCB 180-116380/11-A 08/28/2014 13:02		CCB 180-116380/11-A 08/28/2014 13:23			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-116733/8-A 09/02/2014 12:52		CCB 180-116733/11-A 09/02/2014 14:01		CCB 180-116733/11-A 09/02/2014 14:22		CCB 180-116733/11-A 09/02/2014 14:44	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-117046/1-A

Instrument Code: X Batch No.: 117270

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-38-2	Arsenic	ND			6020
7440-43-9	Cadmium	ND			6020
7440-39-3	Barium	ND			6020
7440-47-3	Chromium	0.00921	J		6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-66-6	Zinc	ND			6020
7440-22-4	Silver	ND			6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-116978/1-A

Instrument Code: M Batch No.: 117278

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-38-2	Arsenic	ND			6020
7440-43-9	Cadmium	ND			6020
7440-39-3	Barium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-66-6	Zinc	ND			6020
7440-22-4	Silver	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-116729/1-A

Instrument Code: K Batch No.: 116775

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-116357/1-A

Instrument Code: K Batch No.: 116423

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Lab Sample ID: ICSA 180-117278/8 Instrument ID: M

Lab File ID: M40905A.xml ICS Source: MICSAX_00055

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**100000**	**105300**	**105**
Arsenic		**-1.39**	
Barium		**0.114**	
Cadmium		**0.588**	
Chromium		**0.143**	
Copper		**2.02**	
Lead		**0.710**	
Nickel		**-0.818**	
Selenium		**-5.58**	
Silver		**0.0360**	
Zinc		**3.07**	
Antimony		*0.0400*	
Beryllium		*0.0140*	
Boron		*0.560*	
Calcium	*100000*	*106800*	*107*
Cobalt		*0.0700*	
Iron	*100000*	*104400*	*104*
Magnesium	*100000*	*105100*	*105*
Manganese		*0.665*	
Molybdenum	*2000*	*2330*	*117*
Potassium	*100000*	*104700*	*105*
Silicon		*21.0*	
Sodium	*100000*	*106400*	*106*
Strontium		*0.773*	
Thallium		*0.0000*	
Tin		*0.0040*	
Titanium	*2000*	*2204*	*110*
Vanadium		*-0.434*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Lab Sample ID: ICSAB 180-117278/9 Instrument ID: M

Lab File ID: M40905A.xml ICS Source: MICSABX_00059

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**100000**	**106767**	**107**
Arsenic	**20.0**	**22.1**	**110**
Barium	**20.0**	**21.1**	**105**
Cadmium	**20.0**	**21.9**	**110**
Chromium	**20.0**	**20.7**	**104**
Copper	**20.0**	**21.5**	**108**
Lead	**20.0**	**21.4**	**107**
Nickel	**20.0**	**19.1**	**96**
Selenium	**50.0**	**52.2**	**104**
Silver	**20.0**	**21.0**	**105**
Zinc	**25.0**	**24.5**	**98**
Antimony	*20.0*	*20.8*	*104*
Beryllium	*20.0*	*21.1*	*106*
Boron	*50.0*	*48.0*	*96*
Calcium	*100000*	*107467*	*107*
Cobalt	*20.0*	*20.3*	*101*
Iron	*100000*	*103767*	*104*
Magnesium	*100000*	*106500*	*107*
Manganese	*22.5*	*21.5*	*95*
Molybdenum	*2000*	*2337*	*117*
Potassium	*100000*	*105867*	*106*
Silicon	*500*	*552*	*110*
Sodium	*100000*	*108667*	*109*
Strontium	*25.0*	*21.8*	*87*
Thallium	*20.0*	*21.3*	*107*
Tin	*100*	*102*	*102*
Titanium	*2000*	*2192*	*110*
Vanadium	*20.0*	*19.9*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Lab Sample ID: ICSA 180-117270/8 Instrument ID: X

Lab File ID: X40906A.xml ICS Source: MICSAX_00053

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**100000**	**90420**	**90**
Arsenic		**0.524**	
Barium		**0.107**	
Cadmium		**2.89**	
Chromium		**1.21**	
Copper		**3.99**	
Lead		**0.253**	
Nickel		**0.373**	
Selenium		**0.0550**	
Silver		**0.380**	
Zinc		**4.76**	
Antimony		*-0.0070*	
Beryllium		*0.0100*	
Boron		*0.331*	
Calcium	*100000*	*94970*	*95*
Cobalt		*0.205*	
Iron	*100000*	*88720*	*89*
Magnesium	*100000*	*87900*	*88*
Manganese		*0.497*	
Molybdenum	*2000*	*2025*	*101*
Potassium	*100000*	*92750*	*93*
Silicon		*18.7*	
Sodium	*100000*	*90640*	*91*
Strontium		*0.624*	
Thallium		*0.0060*	
Tin		*0.783*	
Titanium	*2000*	*2046*	*102*
Vanadium		*0.164*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Lab Sample ID: ICSAB 180-117270/9 Instrument ID: X

Lab File ID: X40906A.xml ICS Source: MICSABX_00058

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**100000**	**96753**	**97**
Arsenic	**20.0**	**20.5**	**102**
Barium	**20.0**	**18.9**	**95**
Cadmium	**20.0**	**22.6**	**113**
Chromium	**20.0**	**20.6**	**103**
Copper	**20.0**	**24.0**	**120**
Lead	**20.0**	**19.8**	**99**
Nickel	**20.0**	**19.7**	**99**
Selenium	**50.0**	**52.2**	**104**
Silver	**20.0**	**19.8**	**99**
Zinc	**25.0**	**24.9**	**100**
Antimony	*20.0*	*19.1*	*95*
Beryllium	*20.0*	*19.3*	*96*
Boron	*50.0*	*45.3*	*91*
Calcium	*100000*	*97663*	*98*
Cobalt	*20.0*	*18.7*	*93*
Iron	*100000*	*95993*	*96*
Magnesium	*100000*	*93563*	*94*
Manganese	*22.5*	*19.5*	*87*
Molybdenum	*2000*	*2137*	*107*
Potassium	*100000*	*94380*	*94*
Silicon	*500*	*468*	*94*
Sodium	*100000*	*96850*	*97*
Strontium	*25.0*	*20.3*	*81*
Thallium	*20.0*	*19.1*	*95*
Tin	*100*	*93.4*	*93*
Titanium	*2000*	*2100*	*105*
Vanadium	*20.0*	*18.8*	*94*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-117046/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

Sample Matrix: Sediment LCS Source: MTAPITTICPMS_00018

Analyte	Sediment(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	100	89.5		89	80	120		6020
Arsenic	2.00	1.73		86	80	120		6020
Cadmium	2.50	2.71		108	80	120		6020
Barium	100	97.3		97	80	120		6020
Chromium	10.0	10.2		102	80	120		6020
Copper	12.5	12.2		98	80	120		6020
Lead	1.00	1.01		101	80	120		6020
Nickel	25.0	24.3		97	80	120		6020
Selenium	0.500	0.427		85	80	120		6020
Zinc	25.0	21.9		87	80	120		6020
Silver	2.50	2.75		110	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-116978/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

Sample Matrix: Water LCS Source: MTAPITTICPMS_00018

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	2000	1720		86	80	120		6020
Arsenic	40.0	35.2		88	80	120		6020
Cadmium	50.0	44.4		89	80	120		6020
Barium	2000	1700		85	80	120		6020
Chromium	200	178		89	80	120		6020
Copper	250	228		91	80	120		6020
Lead	20.0	19.5		97	80	120		6020
Nickel	500	451		90	80	120		6020
Selenium	10.0	8.43		84	80	120		6020
Zinc	500	439		88	80	120		6020
Silver	50.0	46.2		92	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-116729/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

Sample Matrix: Water LCS Source: MHgworkingCal_00874

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	2.50	2.64		106	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-116357/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

Sample Matrix: Sediment LCS Source: MHgworkingCal_00872

Analyte	Sediment(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.208	0.187		90	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: X

Method: 6020 MDL Date: 01/26/2010 14:19

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum	27	1.5	0.14245
Arsenic	75	0.05	0.00905
Barium	137	0.5	0.00535
Cadmium	111	0.05	0.0035
Chromium	52	0.1	0.00305
Copper	65	0.1	0.0165
Lead	208	0.05	0.0019
Nickel	60	0.05	0.00565
Selenium	82	0.25	0.0251
Silver	107	0.05	0.00195
Zinc	66	0.25	0.0324

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: X

Method: 6020 XMDL Date: 01/26/2010 14:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum	27	30	2.5662
Arsenic	75	1	0.2908
Barium	137	10	0.098
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Zinc	66	5	0.9609

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020 MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Aluminum	27	30	2.5662
Arsenic	75	1	0.2908
Barium	137	10	0.098
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Zinc	66	5	0.9609

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020 XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum	27	30	2.5662
Arsenic	75	1	0.2908
Barium	137	10	0.098
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Zinc	66	5	0.9609

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: K

Method: 7470A MDL Date: 01/23/2010 12:29

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.0384

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: K

Method: 7470A XMDL Date: 01/23/2010 12:30

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.0384

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: K

Method: 7471A MDL Date: 01/23/2010 12:49

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury	253.7	0.0165	0.00545

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: K

Method: 7471A XMDL Date: 01/23/2010 12:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.0384

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-35998-1

SDG No.:

Instrument ID: M Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum		450000	6020
Arsenic		4500	6020
Cadmium		13500	6020
Barium		13500	6020
Chromium		13500	6020
Copper		20000	6020
Lead		20000	6020
Nickel		13500	6020
Selenium		4500	6020
Zinc		25000	6020
Silver		2500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-35998-1

SDG No.:

Instrument ID: X Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum		450000	6020
Arsenic		4500	6020
Cadmium		13500	6020
Barium		13500	6020
Chromium		13500	6020
Copper		20000	6020
Lead		20000	6020
Nickel		13500	6020
Selenium		4500	6020
Zinc		25000	6020
Silver		2500	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-116978/1-A	09/04/2014 08:11	116978		50	50
LCS 180-116978/2-A	09/04/2014 08:11	116978		50	50
180-35998-3	09/04/2014 08:11	116978		50	50

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-117046/1-A	09/04/2014 12:05	117046	00002.02		100
LCS 180-117046/2-A	09/04/2014 12:05	117046	00002.00		100
180-35998-1	09/04/2014 12:05	117046	00001.94		100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-116357/1-A	08/28/2014 10:27	116357	1.20		100
LCS 180-116357/2-A	08/28/2014 10:27	116357	1.20		100
180-35998-1	08/28/2014 10:27	116357	1.20		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-116729/1-A	09/02/2014 10:33	116729		50	50
LCS 180-116729/2-A	09/02/2014 10:33	116729		50	50
180-35998-3	09/02/2014 10:33	116729		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: M Method: 6020

Start Date: 09/05/2014 07:22 End Date: 09/05/2014 13:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Cd	Cr	Cu	Ni	Pb	Se	Zn									
ITUNE 180-117278/1			07:22																				
STD1 180-117278/2 IC	1		08:32	X	X	X	X	X	X	X	X	X	X	X									
STD2 180-117278/3 IC	1		08:36	X	X	X	X	X	X	X	X	X	X	X									
STD3 180-117278/4 IC	1		08:39	X	X	X	X	X	X	X	X	X	X	X									
ICV 180-117278/5	1		08:42	X	X	X	X	X	X	X	X	X	X	X									
ICB 180-117278/6	1		08:46	X	X	X	X	X	X	X	X	X	X	X									
CRI 180-117278/7			08:49																				
ICSA 180-117278/8	1		08:53	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 180-117278/9	1		08:56	X	X	X	X	X	X	X	X	X	X	X									
CCV 180-117278/10	1		08:59	X	X	X	X	X	X	X	X	X	X	X									
CCB1 180-117278/11	1		09:06	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			09:09																				
ZZZZZZ			09:13																				
ZZZZZZ			09:17																				
ZZZZZZ			09:23																				
ZZZZZZ			09:27																				
ZZZZZZ			09:33																				
ZZZZZZ			09:37																				
ZZZZZZ			09:41																				
ZZZZZZ			09:44																				
ZZZZZZ			09:48																				
CCV 180-117278/22			09:52																				
CCB2 180-117278/23			09:58																				
CRI 180-117278/24			10:02																				
ZZZZZZ			10:05																				
ZZZZZZ			10:09																				
ZZZZZZ			10:13																				
ZZZZZZ			10:17																				
ZZZZZZ			10:20																				
ZZZZZZ			10:24																				
ZZZZZZ			10:28																				
ZZZZZZ			10:34																				
ZZZZZZ			10:38																				
CCV 180-117278/34			10:41																				
CCB3 180-117278/35			10:48																				
ZZZZZZ			10:51																				
ZZZZZZ			10:55																				
ZZZZZZ			10:59																				
ZZZZZZ			11:02																				
ZZZZZZ			11:06																				
ZZZZZZ			11:10																				
ZZZZZZ			11:13																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: M Method: 6020

Start Date: 09/05/2014 07:22 End Date: 09/05/2014 13:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Cd	Cr	Cu	Ni	Pb	Se	Zn									
ZZZZZZ			11:17																				
ZZZZZZ			11:21																				
ZZZZZZ			11:25																				
CCV 180-117278/46	1		11:28	X	X	X	X	X	X	X	X	X	X	X									
CCB4 180-117278/47	1		11:34	X	X	X	X	X	X	X	X	X	X	X									
MB 180-116978/1-A	1	R	11:38	X	X	X	X	X	X	X	X	X	X	X									
LCS 180-116978/2-A	1	R	11:42	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			11:46																				
ZZZZZZ			11:49																				
ZZZZZZ			11:54																				
ZZZZZZ			11:58																				
ZZZZZZ			12:02																				
ZZZZZZ			12:05																				
ZZZZZZ			12:09																				
ZZZZZZ			12:13																				
CCV 180-117278/58	1		12:16	X	X	X	X	X	X	X	X	X	X	X									
CCB5 180-117278/59	1		12:23	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			12:26																				
ZZZZZZ			12:30																				
ZZZZZZ			12:34																				
180-35998-3	10	D	12:42	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			12:45																				
ZZZZZZ			12:49																				
ZZZZZZ			12:53																				
ZZZZZZ			12:56																				
ZZZZZZ			13:00																				
ZZZZZZ			13:04																				
CCV 180-117278/70	1		13:08	X	X	X	X	X	X	X	X	X	X	X									
CCB6 180-117278/71	1		13:14	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			13:17																				
ZZZZZZ			13:21																				
ZZZZZZ			13:25																				
ZZZZZZ			13:28																				
ZZZZZZ			13:32																				
CCV 180-117278/77			13:36																				
CCB7 180-117278/78			13:41																				

Prep Types

D = Dissolved

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: X Method: 6020

Start Date: 09/06/2014 14:46 End Date: 09/06/2014 23:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Cd	Cr	Cu	Ni	Pb	Se	Zn									
ITUNE 180-117270/1			14:46																				
STD1 180-117270/2 IC	1		16:02	X	X	X	X	X	X	X	X	X	X	X									
STD2 180-117270/3 IC	1		16:07	X	X	X	X	X	X	X	X	X	X	X									
STD3 180-117270/4 IC	1		16:12	X	X	X	X	X	X	X	X	X	X	X									
ICV 180-117270/5	1		16:17	X	X	X	X	X	X	X	X	X	X	X									
ICB 180-117270/6	1		16:22	X	X	X	X	X	X	X	X	X	X	X									
CRI 180-117270/7	1		16:28	X	X	X	X	X	X	X	X	X	X	X									
ICSA 180-117270/8	1		16:32	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 180-117270/9	1		16:37	X	X	X	X	X	X	X	X	X	X	X									
CCV 180-117270/10	1		16:43	X	X	X	X	X	X	X	X	X	X	X									
CCB1 180-117270/11	1		16:48	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			16:53																				
ZZZZZZ			16:58																				
ZZZZZZ			17:03																				
ZZZZZZ			17:12																				
ZZZZZZ			17:17																				
ZZZZZZ			17:22																				
ZZZZZZ			17:27																				
ZZZZZZ			17:32																				
ZZZZZZ			17:37																				
ZZZZZZ			17:42																				
CCV 180-117270/22			17:48																				
CCB2 180-117270/23			17:57																				
ZZZZZZ			18:02																				
ZZZZZZ			18:07																				
ZZZZZZ			18:12																				
ZZZZZZ			18:17																				
ZZZZZZ			18:22																				
ZZZZZZ			18:27																				
ZZZZZZ			18:32																				
ZZZZZZ			18:37																				
ZZZZZZ			18:42																				
ZZZZZZ			18:47																				
CCV 180-117270/34	1		18:53	X	X	X	X	X	X	X	X	X	X	X									
CCB3 180-117270/35	1		19:02	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			19:07																				
ZZZZZZ			19:12																				
MB 180-117046/1-A	1	T	19:21	X	X	X	X	X	X	X	X	X	X	X									
LCS 180-117046/2-A	1	T	19:26	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			19:31																				
ZZZZZZ			19:36																				
ZZZZZZ			19:41																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: X Method: 6020

Start Date: 09/06/2014 14:46 End Date: 09/06/2014 23:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Cd	Cr	Cu	Ni	Pb	Se	Zn									
ZZZZZZ			19:46																				
ZZZZZZ			19:51																				
ZZZZZZ			19:56																				
CCV 180-117270/46	1		20:01	X	X	X	X	X	X	X	X	X	X	X									
CCB4 180-117270/47	1		20:10	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			20:15																				
ZZZZZZ			20:21																				
ZZZZZZ			20:26																				
ZZZZZZ			20:32																				
ZZZZZZ			20:37																				
ZZZZZZ			20:42																				
ZZZZZZ			20:47																				
ZZZZZZ			20:52																				
ZZZZZZ			20:57																				
ZZZZZZ			21:03																				
CCV 180-117270/58			21:08																				
CCB5 180-117270/59			21:17																				
ZZZZZZ			21:22																				
ZZZZZZ			21:27																				
ZZZZZZ			21:32																				
ZZZZZZ			21:37																				
CRI 180-117270/64			21:47																				
CCV 180-117270/65	1		21:56	X	X	X	X	X	X	X	X	X	X	X									
CCB6 180-117270/66	1		22:05	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			22:10																				
ZZZZZZ			22:15																				
ZZZZZZ			22:20																				
ZZZZZZ			22:25																				
ZZZZZZ			22:31																				
ZZZZZZ			22:36																				
ZZZZZZ			22:41																				
180-35998-1	10	T	22:46	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			22:51																				
CCV 180-117270/76	1		22:56	X	X	X	X	X	X	X	X	X	X	X									
CCB7 180-117270/77	1		23:05	X	X	X	X	X	X	X	X	X	X	X									

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: K Method: 7470A

Start Date: 09/02/2014 12:39 End Date: 09/02/2014 15:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 180-116733/1-A			12:39	X																			
IC 180-116733/2-A			12:41	X																			
IC 180-116733/3-A			12:42	X																			
IC 180-116733/4-A			12:44	X																			
IC 180-116733/5-A			12:46	X																			
IC 180-116733/6-A			12:48	X																			
ICV 180-116733/7-A	1		12:50	X																			
ICB 180-116733/8-A	1		12:52	X																			
CRA 180-116733/9-A	1		12:54	X																			
CCV 180-116733/10-A			12:56																				
CCB 180-116733/11-A			12:58																				
ZZZZZZ			13:00																				
ZZZZZZ			13:01																				
ZZZZZZ			13:03																				
ZZZZZZ			13:05																				
ZZZZZZ			13:07																				
ZZZZZZ			13:09																				
ZZZZZZ			13:10																				
ZZZZZZ			13:12																				
ZZZZZZ			13:14																				
ZZZZZZ			13:15																				
CCV 180-116733/10-A			13:17																				
CCB 180-116733/11-A			13:19																				
ZZZZZZ			13:21																				
ZZZZZZ			13:23																				
ZZZZZZ			13:24																				
ZZZZZZ			13:26																				
ZZZZZZ			13:28																				
ZZZZZZ			13:29																				
ZZZZZZ			13:31																				
ZZZZZZ			13:33																				
ZZZZZZ			13:34																				
ZZZZZZ			13:36																				
CCV 180-116733/10-A			13:38																				
CCB 180-116733/11-A			13:40																				
ZZZZZZ			13:42																				
ZZZZZZ			13:43																				
ZZZZZZ			13:45																				
ZZZZZZ			13:47																				
ZZZZZZ			13:49																				
ZZZZZZ			13:50																				
ZZZZZZ			13:52																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: K Method: 7470A

Start Date: 09/02/2014 12:39 End Date: 09/02/2014 15:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:54																				
ZZZZZZ			13:56																				
ZZZZZZ			13:58																				
CCV 180-116733/10-A	1		13:59	X																			
CCB 180-116733/11-A	1		14:01	X																			
ZZZZZZ			14:03																				
ZZZZZZ			14:05																				
ZZZZZZ			14:06																				
MB 180-116729/1-A	1	T	14:08	X																			
LCS 180-116729/2-A	1	T	14:10	X																			
ZZZZZZ			14:12																				
ZZZZZZ			14:13																				
ZZZZZZ			14:15																				
ZZZZZZ			14:17																				
ZZZZZZ			14:19																				
CCV 180-116733/10-A	1		14:20	X																			
CCB 180-116733/11-A	1		14:22	X																			
ZZZZZZ			14:24																				
ZZZZZZ			14:26																				
ZZZZZZ			14:28																				
ZZZZZZ			14:29																				
ZZZZZZ			14:31																				
180-35998-3	1	D	14:33	X																			
ZZZZZZ			14:35																				
ZZZZZZ			14:36																				
ZZZZZZ			14:38																				
ZZZZZZ			14:40																				
CCV 180-116733/10-A	1		14:42	X																			
CCB 180-116733/11-A	1		14:44	X																			
ZZZZZZ			14:46																				
ZZZZZZ			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:54																				
ZZZZZZ			14:56																				
ZZZZZZ			14:58																				
ZZZZZZ			15:01																				
CCV 180-116733/10-A			15:03																				
CCB 180-116733/11-A			15:05																				
CCV 180-116733/10-A			15:07																				
CCB 180-116733/11-A			15:09																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: K Method: 7470A

Start Date: 09/02/2014 12:39 End Date: 09/02/2014 15:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			15:18																				
CCV 180-116733/10-A			15:20																				
CCV 180-116733/10-A			15:22																				
CCB 180-116733/11-A			15:24																				

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: K Method: 7471A

Start Date: 08/28/2014 12:44 End Date: 08/28/2014 14:58

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 180-116380/1-A			12:44	X																			
IC 180-116380/2-A			12:46	X																			
IC 180-116380/3-A			12:47	X																			
IC 180-116380/4-A			12:49	X																			
IC 180-116380/5-A			12:51	X																			
IC 180-116380/6-A			12:53	X																			
ICV 180-116380/7-A	1		12:55	X																			
ICB 180-116380/8-A	1		12:57	X																			
CRA 180-116380/9-A	1		12:59	X																			
CCV 180-116380/10-A	1		13:00	X																			
CCB 180-116380/11-A	1		13:02	X																			
MB 180-116357/1-A	1	T	13:04	X																			
LCS 180-116357/2-A	1	T	13:06	X																			
ZZZZZZ			13:07																				
180-35998-1	1	T	13:09	X																			
ZZZZZZ			13:11																				
ZZZZZZ			13:13																				
ZZZZZZ			13:14																				
ZZZZZZ			13:16																				
ZZZZZZ			13:18																				
ZZZZZZ			13:20																				
CCV 180-116380/10-A	1		13:21	X																			
CCB 180-116380/11-A	1		13:23	X																			
ZZZZZZ			13:25																				
ZZZZZZ			13:27																				
ZZZZZZ			13:29																				
ZZZZZZ			13:30																				
ZZZZZZ			13:32																				
ZZZZZZ			13:34																				
ZZZZZZ			13:36																				
ZZZZZZ			13:37																				
ZZZZZZ			13:39																				
ZZZZZZ			13:41																				
CCV 180-116380/10-A			13:42																				
CCB 180-116380/11-A			13:44																				
ZZZZZZ			13:46																				
ZZZZZZ			13:48																				
ZZZZZZ			13:50																				
ZZZZZZ			13:51																				
ZZZZZZ			13:53																				
ZZZZZZ			13:55																				
ZZZZZZ			13:56																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: K Method: 7471A

Start Date: 08/28/2014 12:44 End Date: 08/28/2014 14:58

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:58																				
ZZZZZZ			14:00																				
ZZZZZZ			14:02																				
CCV 180-116380/10-A			14:03																				
CCB 180-116380/11-A			14:05																				
ZZZZZZ			14:07																				
ZZZZZZ			14:09																				
ZZZZZZ			14:10																				
ZZZZZZ			14:12																				
ZZZZZZ			14:14																				
ZZZZZZ			14:16																				
ZZZZZZ			14:18																				
ZZZZZZ			14:19																				
ZZZZZZ			14:21																				
ZZZZZZ			14:23																				
CCV 180-116380/10-A			14:24																				
CCB 180-116380/11-A			14:26																				
ZZZZZZ			14:28																				
ZZZZZZ			14:30																				
ZZZZZZ			14:31																				
ZZZZZZ			14:33																				
ZZZZZZ			14:35																				
ZZZZZZ			14:37																				
ZZZZZZ			14:38																				
ZZZZZZ			14:40																				
ZZZZZZ			14:42																				
ZZZZZZ			14:43																				
CCV 180-116380/10-A			14:45																				
CCB 180-116380/11-A			14:47																				
ZZZZZZ			14:49																				
ZZZZZZ			14:51																				
ZZZZZZ			14:53																				
ZZZZZZ			14:54																				
CCV 180-116380/10-A			14:56																				
CCB 180-116380/11-A			14:58																				

Prep Types

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 09/05/2014 End Date: 09/05/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD1 180-117278/2 IC	08:32	100		100		100		100		100	
STD2 180-117278/3 IC	08:36	83		79		79		73		78	
STD3 180-117278/4 IC	08:39	85		80		83		82		85	
ICV 180-117278/5	08:42	87		81		82		78		82	
ICB 180-117278/6	08:46	97		92		91		92		93	
ICSA 180-117278/8	08:53	71		69		69		64		72	
ICSAB 180-117278/9	08:56	70		71		72		66		76	
CCV 180-117278/10	08:59	77		75		77		76		78	
CCB1 180-117278/11	09:06	81		77		80		79		82	
CCV 180-117278/46	11:28	65		55		57		53		58	
CCB4 180-117278/47	11:34	69		58		59		58		61	
MB 180-116978/1-A	11:38	56		50		51		51		54	
LCS 180-116978/2-A	11:42	53		47		44		45		49	
CCV 180-117278/58	12:16	69		60		61		57		61	
CCB5 180-117278/59	12:23	68		59		60		60		63	
180-35998-3	12:42	64		63		64		58		63	
CCV 180-117278/70	13:08	65		56		57		54		58	
CCB6 180-117278/71	13:14	67		56		56		56		58	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 09/05/2014 End Date: 09/05/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-117278/2 IC	08:32	100		100		100					
STD2 180-117278/3 IC	08:36	84		83		82					
STD3 180-117278/4 IC	08:39	88		89		93					
ICV 180-117278/5	08:42	87		87		89					
ICB 180-117278/6	08:46	94		94		96					
ICSA 180-117278/8	08:53	77		77		81					
ICSAB 180-117278/9	08:56	81		81		81					
CCV 180-117278/10	08:59	84		85		83					
CCB1 180-117278/11	09:06	87		88		90					
CCV 180-117278/46	11:28	65		65		65					
CCB4 180-117278/47	11:34	67		67		71					
MB 180-116978/1-A	11:38	61		62		64					
LCS 180-116978/2-A	11:42	58		59		54					
CCV 180-117278/58	12:16	68		69		68					
CCB5 180-117278/59	12:23	68		69		73					
180-35998-3	12:42	70		70		61					
CCV 180-117278/70	13:08	64		65		67					
CCB6 180-117278/71	13:14	63		64		70					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 09/06/2014 End Date: 09/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD1 180-117270/2 IC	16:02	100		100		100		100		100	
STD2 180-117270/3 IC	16:07	84		87		92		80		84	
STD3 180-117270/4 IC	16:12	87		90		94		91		93	
ICV 180-117270/5	16:17	90		92		99		85		91	
ICB 180-117270/6	16:22	94		97		104		100		101	
CRI 180-117270/7	16:28	102		103		105		100		100	
ICSA 180-117270/8	16:32	73		78		87		74		85	
ICSAB 180-117270/9	16:37	67		73		76		71		78	
CCV 180-117270/10	16:43	73		79		90		80		82	
CCB1 180-117270/11	16:48	85		88		97		91		92	
CCV 180-117270/34	18:53	78		70		83		69		73	
CCB3 180-117270/35	19:02	94		84		92		82		83	
MB 180-117046/1-A	19:21	84		72		81		72		74	
LCS 180-117046/2-A	19:26	82		64		79		63		67	
CCV 180-117270/46	20:01	82		78		81		72		73	
CCB4 180-117270/47	20:10	94		88		93		84		83	
CCV 180-117270/65	21:56	88		81		81		68		69	
CCB6 180-117270/66	22:05	90		83		86		85		84	
180-35998-1	22:46	77		68		73		57		60	
CCV 180-117270/76	22:56	76		69		78		64		66	
CCB7 180-117270/77	23:05	85		86		89		83		82	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 09/06/2014 End Date: 09/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-117270/2 IC	16:02	100		100		100					
STD2 180-117270/3 IC	16:07	88		89		82					
STD3 180-117270/4 IC	16:12	96		96		99					
ICV 180-117270/5	16:17	93		93		90					
ICB 180-117270/6	16:22	101		101		106					
CRI 180-117270/7	16:28	102		102		103					
ICSA 180-117270/8	16:32	88		89		88					
ICSAB 180-117270/9	16:37	86		87		84					
CCV 180-117270/10	16:43	91		91		93					
CCB1 180-117270/11	16:48	97		98		103					
CCV 180-117270/34	18:53	82		84		87					
CCB3 180-117270/35	19:02	89		90		101					
MB 180-117046/1-A	19:21	82		83		93					
LCS 180-117046/2-A	19:26	82		84		89					
CCV 180-117270/46	20:01	81		81		86					
CCB4 180-117270/47	20:10	86		87		97					
CCV 180-117270/65	21:56	72		72		75					
CCB6 180-117270/66	22:05	86		86		85					
180-35998-1	22:46	67		67		69					
CCV 180-117270/76	22:56	71		71		73					
CCB7 180-117270/77	23:05	85		84		90					

FORM XV - IN

Dilution Corrected Concentrations

STD1 1241003 NT STD 9/5/2014 8:32:33 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	99.815%	-0.017	-0.087	0.036	0.000	0.100	-0.109	0.040
2	08:33:11	98.780%	0.018	0.023	0.030	0.000	0.450	0.017	0.007
3	08:33:30	101.405%	-0.001	0.064	-0.066	0.000	-0.550	0.092	-0.047
x		100.000%	0.000	-0.000	-0.000	0.000	0.000	0.000	0.000
σ		1.322%	0.018	0.078	0.057	0.000	0.508	0.102	0.044
%RSD		1.322	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	0.002	-0.100	0.000	-0.051	-1.281	-0.781	99.638%	0.085
2	08:33:11	-0.024	0.188	0.000	0.227	0.738	1.431	99.743%	-0.120
3	08:33:30	0.022	-0.088	0.000	-0.176	0.543	-0.649	100.619%	0.035
x		-0.000	-0.000	0.000	-0.000	-0.000	0.000	100.000%	0.000
σ		0.023	0.163	0.000	0.206	1.114	1.241	0.539%	0.107
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.539	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	-0.005	-0.034	-0.000	0.485	0.036	-0.001	-0.012	-0.025
2	08:33:11	0.011	0.027	0.007	-0.021	1.226	0.003	0.017	0.009
3	08:33:30	-0.006	0.007	-0.007	-0.464	-1.262	-0.002	-0.005	0.016
x		0.000	0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.000
σ		0.010	0.031	0.007	0.475	1.244	0.003	0.016	0.022
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	0.047	0.025	0.037	0.384	0.122	1.563	0.000	0.002
2	08:33:11	-0.035	-0.007	0.036	-0.482	-0.080	-2.071	0.000	-0.002
3	08:33:30	-0.012	-0.018	-0.072	0.098	-0.042	0.508	0.000	-0.000
x		-0.000	0.000	0.000	-0.000	0.000	0.000	0.000	-0.000
σ		0.043	0.022	0.063	0.441	0.108	1.869	0.000	0.002
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	99.235%	-0.036	-0.047	99.152%	-0.002	-0.003	-0.014	-0.004
2	08:33:11	99.748%	-0.022	0.005	100.483%	-0.001	-0.000	0.017	0.009
3	08:33:30	101.016%	0.058	0.042	100.365%	0.004	0.003	-0.003	-0.005
x		100.000%	0.000	0.000	100.000%	0.000	0.000	0.000	0.000
σ		0.917%	0.051	0.045	0.737%	0.003	0.003	0.016	0.008
%RSD		0.917	0.000	0.000	0.737	0.000	0.000	0.000	0.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	99.806%	-0.012	-0.006	0.005	-0.012	-0.001	99.658%	99.501%
2	08:33:11	99.714%	-0.005	0.002	-0.011	-0.012	-0.001	100.671%	100.464%
3	08:33:30	100.479%	0.018	0.004	0.006	0.024	0.002	99.671%	100.035%
x		100.000%	0.000	-0.000	0.000	-0.000	0.000	100.000%	100.000%
σ		0.418%	0.016	0.006	0.010	0.021	0.002	0.581%	0.482%
%RSD		0.418	0.000	0.000	0.000	0.000	0.000	0.581	0.482

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:32:52	-0.002	0.003	0.008	-0.003	0.003	100.324%
2	08:33:11	0.002	-0.003	-0.013	0.007	-0.001	100.549%
3	08:33:30	0.000	0.000	0.005	-0.004	-0.002	99.127%
x		0.000	-0.000	-0.000	-0.000	0.000	100.000%
σ		0.002	0.003	0.011	0.006	0.003	0.764%
%RSD		0.000	0.000	0.000	0.000	0.000	0.764

STD2 1283585 9/5/2014 8:36:10 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	78.818%	198.800	-0.054	0.159	0.000	98770.000	98680.000	98740.000
2	08:36:30	82.838%	203.500	0.246	0.088	0.000	100500.000	100500.000	100600.000
3	08:36:49	86.108%	197.700	0.529	0.252	0.000	100800.000	100800.000	100700.000
x		82.588%	200.000	0.240	0.166	0.000	100000.000	100000.000	100000.000
σ		3.651%	3.094	0.291	0.082	0.000	1073.000	1154.000	1094.000
%RSD		4.421	1.547	121.200	49.550	0.000	1.073	1.154	1.094

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	989.400	6.649	0.000	98600.000	98600.000	98490.000	75.716%	0.161
2	08:36:30	1006.000	6.283	0.000	100300.000	100900.000	100200.000	79.797%	0.163
3	08:36:49	1004.000	6.515	0.000	101100.000	100500.000	101300.000	81.109%	-0.152
x		1000.000	6.482	0.000	100000.000	100000.000	100000.000	78.874%	0.058
σ		9.230	0.185	0.000	1276.000	1231.000	1429.000	2.812%	0.181
%RSD		0.923	2.859	0.000	1.276	1.231	1.429	3.566	314.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	198.600	198.900	988.000	49330.000	49300.000	197.600	198.300	196.800
2	08:36:30	200.400	200.300	1003.000	50160.000	50040.000	200.200	200.700	200.300
3	08:36:49	201.100	200.900	1009.000	50510.000	50660.000	202.300	201.000	202.900
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		1.287	1.025	10.730	603.600	680.900	2.364	1.456	3.102
%RSD		0.644	0.512	1.073	1.207	1.362	1.182	0.728	1.551

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	196.400	197.700	200.100	198.400	199.500	197.900	0.000	199.800
2	08:36:30	201.100	199.900	198.600	201.000	200.600	199.100	0.000	198.700
3	08:36:49	202.500	202.300	201.300	200.600	199.900	203.000	0.000	201.500
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		3.183	2.299	1.326	1.421	0.564	2.638	0.000	1.406
%RSD		1.592	1.150	0.663	0.711	0.282	1.319	0.000	0.703

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	75.722%	-0.327	-0.330	69.526%	201.000	199.700	200.800	200.400
2	08:36:30	80.818%	-0.230	-0.281	74.829%	199.300	199.600	201.000	202.000
3	08:36:49	81.434%	-0.211	-0.177	75.914%	199.700	200.700	198.200	197.500
x		79.325%	-0.256	-0.262	73.423%	200.000	200.000	200.000	200.000
σ		3.135%	0.062	0.078	3.418%	0.900	0.618	1.547	2.281
%RSD		3.953	24.310	29.790	4.655	0.450	0.309	0.773	1.140

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	74.544%	-0.025	0.155	0.167	202.200	199.000	80.107%	80.406%
2	08:36:30	78.683%	0.010	0.154	0.188	200.900	201.500	84.304%	84.200%
3	08:36:49	80.646%	-0.010	0.159	0.109	197.000	199.500	86.134%	85.258%
x		77.958%	-0.009	0.156	0.155	200.000	200.000	83.515%	83.288%
σ		3.115%	0.018	0.003	0.041	2.697	1.298	3.090%	2.551%
%RSD		3.996	207.100	1.673	26.600	1.349	0.649	3.700	3.063

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:36:10	192.900	192.000	192.800	192.800	192.300	82.719%
2	08:36:30	200.400	200.200	199.600	200.100	200.200	81.907%
3	08:36:49	206.700	207.800	207.700	207.100	207.500	80.329%
x		200.000	200.000	200.000	200.000	200.000	81.652%
σ		6.897	7.894	7.443	7.179	7.588	1.215%
%RSD		3.448	3.947	3.722	3.589	3.794	1.488

STD3 1283586 9/5/2014 8:39:33 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	85.669%	0.006	194.300	195.800	0.000	62.990	44.560	42.070
2	08:39:52	84.115%	0.048	197.700	201.600	0.000	61.410	43.140	45.180
3	08:40:11	84.091%	0.111	208.000	202.500	0.000	59.770	42.860	44.670
x		84.625%	0.055	200.000	200.000	0.000	61.390	43.520	43.970
σ		0.904%	0.053	7.150	3.632	0.000	1.607	0.914	1.666
%RSD		1.069	95.770	3.575	1.816	0.000	2.617	2.100	3.788

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	4.301	9979.000	0.000	50.110	63.980	131.700	79.576%	201.100
2	08:39:52	4.666	9999.000	0.000	48.970	65.380	135.300	80.775%	199.100
3	08:40:11	4.958	10020.000	0.000	50.420	60.450	125.200	80.708%	199.700
x		4.641	10000.000	0.000	49.830	63.270	130.700	80.353%	200.000
σ		0.329	22.220	0.000	0.765	2.542	5.130	0.673%	1.035
%RSD		7.091	0.222	0.000	1.535	4.018	3.925	0.838	0.517

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	0.094	0.040	0.551	57.550	66.040	0.115	0.307	0.367
2	08:39:52	0.073	0.047	0.536	44.770	49.300	0.149	0.265	0.257
3	08:40:11	0.051	-0.002	0.584	35.950	41.680	0.129	0.265	0.431
x		0.073	0.028	0.557	46.090	52.340	0.131	0.279	0.352
σ		0.021	0.027	0.024	10.860	12.470	0.017	0.024	0.088
%RSD		29.400	95.060	4.387	23.570	23.820	13.020	8.657	24.940

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	0.418	1.106	1.095	0.701	0.158	1.942	0.000	0.193
2	08:39:52	0.401	1.091	0.987	0.482	-0.046	1.054	0.000	0.185
3	08:40:11	0.416	1.137	0.897	-0.042	-0.040	-0.673	0.000	0.178
x		0.411	1.112	0.993	0.380	0.024	0.774	0.000	0.186
σ		0.009	0.023	0.099	0.382	0.116	1.330	0.000	0.008
%RSD		2.289	2.094	10.000	100.400	484.800	171.700	0.000	4.061

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	81.607%	194.700	196.900	81.381%	0.092	0.092	0.312	-0.221
2	08:39:52	83.097%	201.000	200.300	81.909%	0.110	0.089	0.259	-0.507
3	08:40:11	83.196%	204.400	202.800	82.859%	0.072	0.104	0.303	-0.325
x		82.634%	200.000	200.000	82.050%	0.091	0.095	0.291	-0.351
σ		0.890%	4.937	2.984	0.749%	0.019	0.008	0.028	0.145
%RSD		1.077	2.469	1.492	0.913	20.500	8.539	9.635	41.230

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	83.877%	199.300	198.700	198.900	0.087	0.299	87.446%	86.916%
2	08:39:52	85.599%	198.800	199.300	198.400	0.057	0.324	87.558%	88.803%
3	08:40:11	85.115%	201.900	202.000	202.700	0.162	0.343	88.208%	89.969%
x		84.864%	200.000	200.000	200.000	0.102	0.322	87.737%	88.563%
σ		0.888%	1.654	1.786	2.358	0.054	0.022	0.411%	1.540%
%RSD		1.046	0.827	0.893	1.179	53.360	6.826	0.469	1.739

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:39:33	0.101	0.092	0.121	0.106	0.106	92.413%
2	08:39:52	0.076	0.094	0.111	0.109	0.114	92.532%
3	08:40:11	0.094	0.080	0.108	0.105	0.116	92.816%
x		0.090	0.089	0.113	0.107	0.112	92.587%
σ		0.013	0.007	0.007	0.002	0.005	0.207%
%RSD		14.160	8.285	5.840	1.552	4.560	0.223

ICV 1278469 9/5/2014 8:42:55 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	85.846%	84.620	82.960	80.190	0.000	40790.000	39980.000	40240.000
2	08:43:14	86.409%	84.270	78.250	82.590	0.000	41040.000	40350.000	40590.000
3	08:43:33	89.429%	87.140	82.320	82.140	0.000	41250.000	40550.000	40780.000
x		87.228%	106.681%	101.469%	102.051%	0.000	102.571%	100.732%	101.343%
σ		1.927%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.209	1.829	3.150	1.564	0.000	0.570	0.714	0.673

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	412.500	4437.000	0.000	41830.000	40750.000	39850.000	79.387%	85.240
2	08:43:14	419.400	4552.000	0.000	41880.000	42030.000	40270.000	80.395%	84.630
3	08:43:33	416.800	4542.000	0.000	41740.000	40920.000	40080.000	82.484%	82.390
x		104.060%	112.765%	0.000	104.543%	103.079%	100.163%	80.755%	105.108%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.579%	n/a
%RSD		0.834	1.418	0.000	0.178	1.681	0.526	1.956	1.784

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	84.050	85.300	422.600	21100.000	21300.000	85.490	89.730	88.110
2	08:43:14	85.560	86.320	421.400	21130.000	21330.000	85.980	86.220	86.710
3	08:43:33	84.580	85.380	421.500	20990.000	21190.000	85.950	86.060	88.170
x		105.911%	107.082%	105.455%	105.366%	106.379%	107.260%	109.174%	109.580%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.910	0.665	0.151	0.337	0.339	0.319	2.376	0.940

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	88.120	87.030	87.770	87.060	86.660	84.880	0.000	82.520
2	08:43:14	86.520	87.850	86.310	86.410	87.700	85.150	0.000	83.230
3	08:43:33	86.950	87.620	87.770	87.330	85.980	86.810	0.000	82.220
x		108.995%	109.373%	109.104%	108.668%	108.477%	107.017%	0.000	103.320%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.945	0.483	0.961	0.548	0.993	1.225	0.000	0.625

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	80.879%	84.400	86.400	77.168%	83.200	84.270	83.530	84.580
2	08:43:14	81.778%	86.780	86.440	78.237%	84.020	83.170	82.860	85.090
3	08:43:33	83.901%	88.310	87.840	79.692%	84.750	85.060	85.050	83.880
x		82.186%	108.123%	108.615%	78.366%	104.991%	105.209%	104.770%	105.649%
σ		1.552%	n/a	n/a	1.267%	n/a	n/a	n/a	n/a
%RSD		1.888	2.278	0.949	1.617	0.923	1.125	1.338	0.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	80.631%	82.020	83.930	82.650	82.460	82.400	85.078%	85.453%
2	08:43:14	82.416%	84.250	83.270	83.420	82.140	82.700	87.041%	87.451%
3	08:43:33	82.541%	84.810	83.630	84.470	83.580	82.820	87.335%	88.410%
x		81.863%	104.618%	104.515%	104.392%	103.405%	103.295%	86.485%	87.105%
σ		1.068%	n/a	n/a	n/a	n/a	n/a	1.227%	1.508%
%RSD		1.305	1.762	0.394	1.097	0.913	0.262	1.419	1.732

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:42:55	80.140	82.390	79.670	74.920	77.120	91.543%
2	08:43:14	83.200	86.870	83.650	78.530	81.240	88.549%
3	08:43:33	85.540	88.640	85.640	80.720	83.510	85.976%
x		103.701%	107.458%	103.731%	97.570%	100.778%	88.689%
σ		n/a	n/a	n/a	n/a	n/a	2.786%
%RSD		3.264	3.749	3.662	3.752	4.014	3.141

ICB 9/5/2014 8:46:20 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	99.618%	-0.035	0.822	0.502	0.000	9.056	2.129	1.898
2	08:46:39	96.430%	-0.017	0.807	0.367	0.000	9.137	1.220	1.837
3	08:46:58	94.936%	0.002	0.603	0.370	0.000	8.947	1.508	1.649
x		96.995%	-0.017	0.744	0.413	0.000	9.047	1.619	1.795
σ		2.392%	0.018	0.122	0.077	0.000	0.095	0.465	0.130
%RSD		2.466	111.100	16.440	18.680	0.000	1.052	28.700	7.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	0.100	3.823	0.000	6.195	-6.509	5.212	92.753%	-0.176
2	08:46:39	0.211	3.913	0.000	4.924	9.026	1.969	91.769%	-0.248
3	08:46:58	0.241	3.498	0.000	5.222	7.164	3.544	90.630%	-0.247
x		0.184	3.745	0.000	5.447	3.227	3.575	91.718%	-0.224
σ		0.074	0.218	0.000	0.665	8.483	1.622	1.062%	0.041
%RSD		40.280	5.833	0.000	12.210	262.900	45.360	1.158	18.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	-0.001	-0.015	0.020	15.450	19.840	0.004	-0.018	0.053
2	08:46:39	0.015	-0.016	0.030	11.140	14.570	0.004	0.030	0.034
3	08:46:58	0.007	-0.046	0.034	6.794	11.440	0.017	0.039	0.083
x		0.007	-0.025	0.028	11.130	15.280	0.009	0.017	0.056
σ		0.008	0.018	0.007	4.329	4.243	0.008	0.031	0.025
%RSD		114.300	69.800	26.030	38.900	27.760	88.320	183.800	43.900

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	0.043	0.024	0.134	-0.335	-0.245	-1.451	0.000	0.020
2	08:46:39	0.031	0.026	0.159	-0.142	-0.216	-0.712	0.000	0.016
3	08:46:58	-0.016	0.037	0.139	-0.187	0.160	-0.829	0.000	0.019
x		0.019	0.029	0.144	-0.221	-0.100	-0.997	0.000	0.018
σ		0.031	0.007	0.013	0.101	0.226	0.397	0.000	0.002
%RSD		163.000	25.140	9.152	45.650	225.700	39.840	0.000	11.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	91.454%	-0.082	-0.183	92.300%	0.006	-0.007	0.087	0.078
2	08:46:39	91.487%	-0.184	-0.304	92.533%	0.002	-0.002	0.074	0.066
3	08:46:58	91.222%	-0.325	-0.301	92.126%	-0.003	0.004	0.037	0.050
x		91.387%	-0.197	-0.263	92.320%	0.002	-0.001	0.066	0.065
σ		0.145%	0.122	0.069	0.204%	0.005	0.006	0.026	0.014
%RSD		0.158	61.990	26.170	0.221	297.200	389.900	39.280	21.690

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	92.285%	-0.003	0.036	0.058	-0.022	0.018	92.805%	93.035%
2	08:46:39	93.661%	-0.051	0.037	0.069	-0.016	0.014	93.803%	94.116%
3	08:46:58	92.302%	0.014	0.064	0.039	-0.003	0.006	94.448%	94.622%
x		92.750%	-0.013	0.046	0.055	-0.014	0.013	93.685%	93.924%
σ		0.789%	0.034	0.016	0.016	0.010	0.006	0.828%	0.811%
%RSD		0.851	253.500	34.540	28.170	71.410	45.110	0.883	0.863

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:20	-0.005	-0.004	-0.005	-0.016	-0.018	95.565%
2	08:46:39	-0.005	0.003	0.002	-0.028	-0.014	96.176%
3	08:46:58	0.001	0.002	-0.020	-0.021	-0.021	94.989%
x		-0.003	0.000	-0.007	-0.022	-0.018	95.577%
σ		0.003	0.004	0.011	0.006	0.003	0.594%
%RSD		119.100	1919.000	146.300	25.990	17.990	0.621

CRI 1277812 9/5/2014 8:49:45 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	87.909%	1.172	4.994	5.227	0.000	110.400	104.200	104.900
2	08:50:04	89.587%	1.095	5.801	5.518	0.000	109.900	109.000	104.900
3	08:50:23	89.375%	1.176	4.693	5.546	0.000	109.100	114.700	104.100
x		88.957%	114.793%	103.257%	108.605%	0.000	109.791%	109.291%	104.653%
σ		0.914%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.027	3.981	11.100	3.260	0.000	0.554	4.819	0.443

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	34.100	535.800	0.000	100.300	92.720	105.800	88.253%	4.178
2	08:50:04	34.810	538.000	0.000	102.600	106.900	99.130	86.167%	4.466
3	08:50:23	34.850	537.700	0.000	102.400	84.010	104.200	85.719%	5.333
x		115.288%	107.426%	0.000	101.765%	94.542%	103.027%	86.713%	93.180%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.353%	n/a
%RSD		1.227	0.222	0.000	1.282	12.220	3.361	1.560	12.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	0.774	1.929	5.083	48.060	54.010	0.492	1.173	2.394
2	08:50:04	0.946	2.000	5.208	49.550	58.990	0.590	1.103	2.209
3	08:50:23	0.933	1.988	5.177	49.590	54.110	0.530	1.200	2.290
x		88.419%	98.619%	103.115%	98.134%	111.401%	107.487%	115.874%	114.877%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		10.850	1.936	1.265	1.779	5.111	9.163	4.297	4.029

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	2.381	5.346	5.524	1.322	6.305	5.180	0.000	5.182
2	08:50:04	2.457	5.697	5.930	0.775	5.615	3.419	0.000	5.078
3	08:50:23	2.407	6.101	5.899	1.276	5.584	4.920	0.000	5.186
x		120.763%	114.295%	115.688%	112.436%	116.689%	90.125%	0.000	102.971%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.599	6.616	3.907	26.980	6.986	21.090	0.000	1.184

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	81.993%	4.191	4.378	81.510%	1.154	1.112	1.155	1.082
2	08:50:04	82.091%	4.592	4.546	82.372%	1.144	1.117	1.064	1.063
3	08:50:23	82.948%	4.676	4.394	82.704%	1.090	1.105	1.134	1.143
x		82.344%	89.725%	88.783%	82.195%	112.924%	111.131%	111.761%	109.586%
σ		0.525%	n/a	n/a	0.616%	n/a	n/a	n/a	n/a
%RSD		0.638	5.785	2.084	0.750	3.070	0.584	4.261	3.806

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	83.956%	4.977	2.099	2.021	10.100	10.110	85.608%	86.354%
2	08:50:04	84.126%	5.189	2.031	2.129	10.350	10.050	86.248%	86.637%
3	08:50:23	83.825%	5.101	2.237	2.168	10.140	9.942	87.406%	87.426%
x		83.969%	101.778%	106.109%	105.302%	101.980%	100.311%	86.421%	86.806%
σ		0.151%	n/a	n/a	n/a	n/a	n/a	0.912%	0.555%
%RSD		0.180	2.099	4.959	3.621	1.299	0.823	1.055	0.640

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:49:45	0.981	1.019	0.957	1.057	0.973	96.353%
2	08:50:04	0.960	1.030	1.018	0.953	0.988	93.493%
3	08:50:23	1.028	1.072	1.043	1.049	1.050	91.926%
x		98.961%	104.071%	100.594%	101.928%	100.360%	93.924%
σ		n/a	n/a	n/a	n/a	n/a	2.245%
%RSD		3.550	2.692	4.437	5.688	4.089	2.390

ICSA 1308168 9/5/2014 8:53:09 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	71.870%	0.038	0.723	0.462	0.000	105500.000	104900.000	104000.000
2	08:53:29	71.133%	0.039	0.807	0.708	0.000	106800.000	106500.000	105200.000
3	08:53:48	71.261%	-0.035	0.284	0.510	0.000	106800.000	106700.000	106100.000
x		71.422%	0.014	0.605	0.560	0.000	106400.000	106100.000	105100.000
σ		0.394%	0.042	0.281	0.131	0.000	752.600	980.500	1075.000
%RSD		0.552	302.700	46.430	23.290	0.000	0.708	0.924	1.023

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	104300.000	21.410	0.000	103500.000	105400.000	105400.000	68.283%	2206.000
2	08:53:29	105200.000	20.710	0.000	104600.000	107200.000	107100.000	68.859%	2212.000
3	08:53:48	106300.000	20.960	0.000	105900.000	107200.000	108000.000	70.151%	2195.000
x		105300.000	21.030	0.000	104700.000	106600.000	106800.000	69.098%	2204.000
σ		1028.000	0.355	0.000	1199.000	1023.000	1317.000	0.957%	8.386
%RSD		0.977	1.690	0.000	1.145	0.960	1.233	1.385	0.381

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	-0.378	0.180	0.673	104100.000	103900.000	0.070	-0.754	1.336
2	08:53:29	-0.455	0.133	0.652	104200.000	104000.000	0.084	-0.844	1.354
3	08:53:48	-0.469	0.116	0.669	104900.000	105000.000	0.057	-0.855	1.450
x		-0.434	0.143	0.665	104400.000	104300.000	0.070	-0.818	1.380
σ		0.049	0.034	0.011	409.300	588.700	0.013	0.055	0.061
%RSD		11.360	23.500	1.718	0.392	0.564	19.120	6.738	4.423

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	2.088	2.980	1.907	-1.580	1.520	-6.009	0.000	0.828
2	08:53:29	2.145	3.174	1.890	-1.353	1.668	-5.311	0.000	0.728
3	08:53:48	1.833	3.047	2.266	-1.226	2.070	-5.431	0.000	0.764
x		2.022	3.067	2.021	-1.386	1.753	-5.584	0.000	0.773
σ		0.166	0.098	0.212	0.179	0.285	0.374	0.000	0.051
%RSD		8.222	3.211	10.500	12.930	16.240	6.689	0.000	6.552

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	67.252%	2306.000	2332.000	62.163%	0.020	0.047	0.799	0.434
2	08:53:29	69.485%	2297.000	2323.000	63.990%	0.045	0.041	0.654	0.387
3	08:53:48	71.586%	2313.000	2334.000	65.069%	0.044	0.036	0.309	0.260
x		69.441%	2306.000	2330.000	63.741%	0.036	0.041	0.588	0.360
σ		2.168%	8.038	6.385	1.469%	0.014	0.005	0.252	0.090
%RSD		3.122	0.349	0.274	2.304	39.510	13.090	42.860	24.960

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	70.378%	-0.033	0.036	0.043	0.078	0.157	74.151%	74.355%
2	08:53:29	72.149%	0.024	0.062	0.054	0.091	0.101	76.801%	77.068%
3	08:53:48	73.960%	0.020	0.023	0.077	0.135	0.085	79.354%	79.728%
x		72.162%	0.004	0.040	0.058	0.101	0.114	76.768%	77.050%
σ		1.791%	0.032	0.020	0.018	0.030	0.038	2.602%	2.686%
%RSD		2.482	893.800	49.000	30.240	29.400	32.910	3.389	3.486

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:53:09	0.002	0.001	0.794	0.647	0.712	86.030%
2	08:53:29	0.002	0.001	0.764	0.678	0.712	78.971%
3	08:53:48	0.004	-0.000	0.741	0.660	0.707	77.863%
x		0.003	0.000	0.766	0.662	0.710	80.955%
σ		0.001	0.001	0.027	0.016	0.003	4.430%
%RSD		52.210	151.400	3.479	2.415	0.386	5.473

ICSAB 1308169 9/5/2014 8:56:35 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	70.541%	21.510	52.270	47.500	0.000	107600.000	106700.000	105400.000
2	08:56:54	70.788%	21.270	52.940	48.330	0.000	108000.000	107800.000	106100.000
3	08:57:13	69.396%	20.620	51.210	48.250	0.000	110400.000	110200.000	108000.000
x		70.242%	105.671%	104.274%	96.050%	0.000	108.647%	108.215%	106.509%
σ		0.743%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.058	2.162	1.674	0.957	0.000	1.372	1.634	1.257

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	106000.000	551.700	0.000	105200.000	106800.000	106100.000	71.526%	2178.000
2	08:56:54	106100.000	549.600	0.000	105600.000	107200.000	107500.000	71.252%	2177.000
3	08:57:13	108200.000	553.200	0.000	106800.000	109300.000	108800.000	70.808%	2222.000
x		106.745%	110.300%	0.000	105.868%	107.776%	107.489%	71.195%	109.627%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.362%	n/a
%RSD		1.152	0.324	0.000	0.811	1.259	1.241	0.509	1.157

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	19.670	20.940	21.410	103100.000	103300.000	20.380	18.980	21.120
2	08:56:54	20.130	20.600	21.240	103600.000	103800.000	20.250	19.300	20.800
3	08:57:13	19.770	20.700	21.790	104600.000	104300.000	20.180	19.080	21.500
x		99.270%	103.738%	93.395%	103.740%	103.817%	101.359%	95.618%	105.701%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.215	0.855	1.310	0.724	0.466	0.510	0.858	1.663

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	21.410	23.950	24.070	21.600	60.420	51.170	0.000	21.920
2	08:56:54	21.550	24.790	22.450	23.190	58.870	54.780	0.000	21.880
3	08:57:13	21.580	24.790	23.600	21.480	60.390	50.750	0.000	21.530
x		107.574%	98.043%	93.501%	110.462%	119.790%	104.464%	0.000	108.887%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.442	1.976	3.567	4.320	1.481	4.236	0.000	0.992

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	71.696%	2305.000	2335.000	65.014%	21.250	20.900	22.300	21.340
2	08:56:54	72.236%	2310.000	2340.000	65.956%	21.140	20.620	21.340	20.980
3	08:57:13	73.301%	2289.000	2336.000	66.247%	20.660	20.870	22.060	21.320
x		72.411%	115.059%	116.855%	65.739%	105.078%	103.986%	109.511%	106.075%
σ		0.817%	n/a	n/a	0.645%	n/a	n/a	n/a	n/a
%RSD		1.128	0.479	0.109	0.981	1.469	0.749	2.286	0.943

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	74.313%	102.400	20.780	20.990	20.530	21.290	79.478%	79.367%
2	08:56:54	76.147%	102.400	21.170	20.330	20.800	20.920	80.001%	80.933%
3	08:57:13	77.256%	100.400	20.460	20.800	21.190	21.020	82.140%	83.186%
x		75.906%	101.714%	104.017%	103.536%	104.194%	105.389%	80.540%	81.162%
σ		1.486%	n/a	n/a	n/a	n/a	n/a	1.410%	1.920%
%RSD		1.958	1.134	1.693	1.631	1.597	0.891	1.751	2.365

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:56:35	19.430	20.040	20.440	20.180	20.250	84.534%
2	08:56:54	20.840	21.630	21.690	21.580	21.630	79.522%
3	08:57:13	21.310	22.260	22.330	22.430	22.240	79.247%
x		102.633%	106.553%	107.423%	106.984%	106.850%	81.101%
σ		n/a	n/a	n/a	n/a	n/a	2.976%
%RSD		4.778	5.349	4.480	5.314	4.769	3.670

CCV 1308170 9/5/2014 8:59:59 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	78.184%	96.950	92.260	95.820	0.000	49940.000	50080.000	49910.000
2	09:00:18	76.516%	100.100	97.810	96.260	0.000	50780.000	50910.000	50790.000
3	09:00:38	76.495%	100.100	94.490	98.000	0.000	50540.000	51330.000	50880.000
x		77.065%	99.071%	94.852%	96.694%	0.000	100.843%	101.548%	101.055%
σ		0.969%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.257	1.853	2.946	1.194	0.000	0.859	1.252	1.057

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	514.000	5087.000	0.000	49380.000	49940.000	49610.000	75.548%	97.590
2	09:00:18	511.700	4921.000	0.000	49920.000	51120.000	48630.000	74.885%	98.620
3	09:00:38	516.100	5132.000	0.000	49920.000	50390.000	48670.000	74.640%	98.880
x		102.783%	100.936%	0.000	99.477%	100.967%	97.938%	75.024%	98.360%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.469%	n/a
%RSD		0.429	2.199	0.000	0.629	1.179	1.126	0.626	0.691

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	97.550	97.770	497.600	24850.000	25130.000	99.390	97.260	100.500
2	09:00:18	97.220	97.820	500.200	25070.000	25250.000	98.580	96.580	101.000
3	09:00:38	96.320	97.600	501.200	25110.000	25380.000	99.850	97.780	101.400
x		97.032%	97.730%	99.936%	100.040%	101.016%	99.275%	97.206%	100.967%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.658	0.116	0.377	0.559	0.492	0.648	0.620	0.421

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	100.200	99.870	99.400	99.880	100.800	98.390	0.000	99.150
2	09:00:18	99.460	101.100	102.400	100.300	99.630	99.800	0.000	100.300
3	09:00:38	101.200	100.500	104.000	96.870	100.700	94.820	0.000	100.700
x		100.271%	100.489%	101.933%	99.023%	100.388%	97.672%	0.000	100.052%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.850	0.598	2.297	1.895	0.654	2.628	0.000	0.798

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	77.411%	110.500	108.500	76.218%	96.050	96.430	98.490	96.860
2	09:00:18	77.143%	110.800	109.900	76.313%	96.070	96.730	99.690	97.640
3	09:00:38	76.934%	110.300	107.500	75.579%	96.850	97.900	98.990	98.340
x		77.162%	110.509%	108.630%	76.037%	96.325%	97.020%	99.056%	97.613%
σ		0.239%	n/a	n/a	0.399%	n/a	n/a	n/a	n/a
%RSD		0.310	0.203	1.113	0.525	0.473	0.801	0.609	0.756

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	78.468%	98.570	94.580	93.930	98.810	98.050	84.415%	85.129%
2	09:00:18	78.567%	99.050	96.230	94.930	98.670	98.770	84.531%	85.749%
3	09:00:38	77.775%	98.670	96.580	96.600	97.990	98.280	84.253%	85.197%
x		78.270%	98.763%	95.798%	95.155%	98.492%	98.366%	84.399%	85.359%
σ		0.432%	n/a	n/a	n/a	n/a	n/a	0.140%	0.340%
%RSD		0.551	0.258	1.112	1.417	0.446	0.376	0.166	0.398

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:59:59	99.640	103.700	103.700	103.400	103.600	84.840%
2	09:00:18	102.200	105.700	107.800	106.400	106.700	83.352%
3	09:00:38	104.200	108.900	109.700	109.700	109.700	80.789%
x		102.012%	106.087%	107.042%	106.522%	106.675%	82.994%
σ		n/a	n/a	n/a	n/a	n/a	2.049%
%RSD		2.258	2.442	2.852	2.945	2.824	2.469

CCB1 9/5/2014 9:06:09 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	80.987%	-0.035	-0.195	0.037	0.000	16.310	1.994	1.598
2	09:06:47	80.213%	-0.035	0.400	0.107	0.000	15.560	1.053	1.448
3	09:07:06	80.153%	-0.013	0.335	0.161	0.000	14.940	1.264	1.408
x		80.451%	-0.028	0.180	0.102	0.000	15.600	1.437	1.485
σ		0.465%	0.013	0.326	0.062	0.000	0.689	0.493	0.100
%RSD		0.578	45.530	181.000	60.930	0.000	4.413	34.340	6.748

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	0.276	0.274	0.000	11.930	-3.784	5.832	76.779%	-0.200
2	09:06:47	0.437	0.702	0.000	10.730	6.484	2.372	77.548%	-0.201
3	09:07:06	0.409	0.852	0.000	11.700	22.170	3.748	77.413%	-0.172
x		0.374	0.609	0.000	11.450	8.289	3.984	77.246%	-0.191
σ		0.086	0.300	0.000	0.636	13.070	1.742	0.411%	0.017
%RSD		23.030	49.260	0.000	5.552	157.700	43.720	0.532	8.674

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	0.016	-0.037	0.009	-2.270	7.849	0.002	0.042	0.021
2	09:06:47	-0.004	-0.046	0.037	-2.946	6.170	0.006	0.013	0.170
3	09:07:06	-0.022	-0.011	0.015	-3.643	3.349	0.013	0.012	0.043
x		-0.004	-0.031	0.020	-2.953	5.790	0.007	0.022	0.078
σ		0.019	0.018	0.015	0.687	2.274	0.006	0.017	0.080
%RSD		534.200	58.320	74.860	23.250	39.280	79.760	75.640	103.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	0.072	0.153	0.228	-0.511	-0.192	-2.126	0.000	0.031
2	09:06:47	0.072	0.161	0.146	-0.144	-0.226	-0.860	0.000	0.023
3	09:07:06	0.086	0.073	0.263	-0.358	-0.295	-1.695	0.000	0.022
x		0.077	0.129	0.212	-0.338	-0.238	-1.560	0.000	0.025
σ		0.008	0.049	0.060	0.184	0.053	0.643	0.000	0.005
%RSD		10.840	38.050	28.230	54.520	22.190	41.240	0.000	18.790

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	79.530%	-0.160	-0.212	78.015%	-0.003	0.007	0.068	0.046
2	09:06:47	79.227%	-0.152	-0.197	78.976%	-0.000	-0.002	0.087	0.069
3	09:07:06	80.295%	-0.118	-0.219	78.623%	0.000	0.005	0.001	0.016
x		79.684%	-0.143	-0.209	78.538%	-0.001	0.003	0.052	0.044
σ		0.550%	0.022	0.011	0.486%	0.002	0.004	0.045	0.027
%RSD		0.691	15.480	5.199	0.619	172.100	130.500	87.230	61.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	81.736%	-0.084	0.126	0.113	-0.041	0.040	85.971%	86.678%
2	09:06:47	82.480%	-0.005	0.092	0.139	-0.005	0.012	86.631%	87.653%
3	09:07:06	82.856%	-0.059	0.146	0.100	-0.013	0.007	88.251%	88.222%
x		82.357%	-0.049	0.121	0.117	-0.020	0.020	86.951%	87.518%
σ		0.570%	0.040	0.027	0.020	0.019	0.018	1.173%	0.781%
%RSD		0.692	81.960	22.320	16.990	95.380	90.410	1.349	0.892

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:06:28	0.004	-0.000	0.012	-0.003	0.009	90.081%
2	09:06:47	0.004	0.003	0.026	-0.001	0.012	90.995%
3	09:07:06	0.000	0.000	0.029	0.008	0.009	90.152%
x		0.003	0.001	0.022	0.001	0.010	90.409%
σ		0.002	0.002	0.009	0.006	0.002	0.508%
%RSD		83.870	211.500	41.750	484.500	16.940	0.562

MB 180-116968/1-A 9/5/2014 9:09:52 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	72.650%	-0.011	0.125	0.141	0.000	10.510	0.044	0.120
2	09:10:30	71.217%	-0.010	0.138	0.291	0.000	10.020	-0.121	0.227
3	09:10:50	67.275%	0.069	0.015	0.132	0.000	10.870	-0.170	0.175
x		70.381%	0.016	0.093	0.188	0.000	10.470	-0.082	0.174
σ		2.783%	0.046	0.068	0.089	0.000	0.426	0.112	0.054
%RSD		3.955	289.000	73.000	47.500	0.000	4.069	135.900	30.920

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	0.416	2.486	0.000	36.690	11.580	2.538	71.395%	0.539
2	09:10:30	0.402	2.771	0.000	31.650	-1.819	2.964	68.305%	0.347
3	09:10:50	0.575	2.624	0.000	24.960	-13.360	3.407	65.385%	0.240
x		0.464	2.627	0.000	31.100	-1.202	2.970	68.362%	0.376
σ		0.096	0.142	0.000	5.887	12.480	0.435	3.005%	0.152
%RSD		20.630	5.420	0.000	18.930	1039.000	14.630	4.396	40.330

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	-0.131	0.115	0.015	-1.916	4.614	0.003	0.162	1.606
2	09:10:30	-0.122	0.089	0.013	-2.242	3.598	0.001	0.202	1.281
3	09:10:50	-0.171	0.131	0.011	-3.861	5.142	0.001	0.977	1.448
x		-0.141	0.111	0.013	-2.673	4.451	0.002	0.447	1.445
σ		0.026	0.021	0.002	1.041	0.785	0.001	0.460	0.163
%RSD		18.340	18.940	14.480	38.960	17.630	57.430	102.800	11.260

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	1.234	0.137	0.203	-0.118	-0.324	-1.312	0.000	0.007
2	09:10:30	1.130	0.274	0.267	-0.179	-0.486	-1.279	0.000	0.006
3	09:10:50	1.245	0.134	0.341	-0.138	-0.360	-0.787	0.000	0.000
x		1.203	0.181	0.270	-0.145	-0.390	-1.126	0.000	0.004
σ		0.063	0.080	0.069	0.031	0.085	0.294	0.000	0.004
%RSD		5.260	44.290	25.470	21.430	21.850	26.090	0.000	81.570

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	72.360%	-0.331	-0.095	71.880%	-0.006	0.008	-0.807	-0.528
2	09:10:30	70.505%	-0.279	-0.197	69.679%	0.012	0.018	0.063	0.042
3	09:10:50	67.478%	-0.279	-0.277	65.948%	0.003	0.004	0.040	0.026
x		70.114%	-0.296	-0.189	69.169%	0.003	0.010	-0.235	-0.153
σ		2.464%	0.030	0.091	2.999%	0.009	0.007	0.496	0.325
%RSD		3.515	10.220	48.140	4.335	314.200	71.050	211.400	212.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	75.573%	0.543	0.119	0.155	-0.025	0.017	80.768%	81.471%
2	09:10:30	73.560%	0.644	0.143	0.116	-0.041	0.009	79.378%	79.857%
3	09:10:50	70.391%	0.519	0.185	0.091	-0.032	0.014	76.005%	77.715%
x		73.175%	0.569	0.149	0.121	-0.033	0.013	78.717%	79.681%
σ		2.612%	0.066	0.033	0.032	0.008	0.004	2.449%	1.884%
%RSD		3.570	11.640	22.430	26.490	23.750	31.760	3.112	2.365

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:11	0.002	-0.005	0.070	0.052	0.065	82.130%
2	09:10:30	-0.002	-0.001	0.058	0.038	0.050	79.789%
3	09:10:50	0.003	-0.004	0.057	0.046	0.040	77.698%
x		0.001	-0.003	0.062	0.045	0.052	79.872%
σ		0.003	0.002	0.007	0.007	0.012	2.217%
%RSD		312.100	61.930	11.100	16.290	23.450	2.776

LCS 180-116968/2-A 9/5/2014 9:13:33 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	51.951%	49.000	979.400	977.100	0.000	49110.000	48150.000	46810.000
2	09:14:11	52.262%	51.350	970.300	956.400	0.000	49070.000	48260.000	46690.000
3	09:14:30	53.314%	49.610	956.600	954.600	0.000	48780.000	47770.000	46560.000
x		52.509%	49.990	968.800	962.700	0.000	48990.000	48060.000	46690.000
σ		0.714%	1.220	11.430	12.510	0.000	177.900	254.000	124.500
%RSD		1.360	2.441	1.180	1.299	0.000	0.363	0.529	0.267

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	1853.000	8909.000	0.000	45850.000	46340.000	44940.000	50.782%	901.400
2	09:14:11	1846.000	8894.000	0.000	46200.000	47100.000	45460.000	51.449%	913.300
3	09:14:30	1838.000	8863.000	0.000	45740.000	47770.000	45190.000	52.186%	913.200
x		1846.000	8889.000	0.000	45930.000	47070.000	45200.000	51.472%	909.300
σ		7.474	23.440	0.000	240.000	714.200	262.400	0.703%	6.857
%RSD		0.405	0.264	0.000	0.523	1.517	0.581	1.365	0.754

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	464.700	185.100	459.100	930.800	1060.000	476.300	470.300	243.800
2	09:14:11	469.600	185.900	462.400	926.500	1011.000	475.500	473.200	244.600
3	09:14:30	464.500	185.500	458.100	925.200	1027.000	480.900	475.600	243.500
x		466.300	185.500	459.900	927.500	1033.000	477.600	473.000	244.000
σ		2.914	0.411	2.299	2.924	25.120	2.900	2.642	0.550
%RSD		0.625	0.222	0.500	0.315	2.432	0.607	0.559	0.226

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	244.700	457.500	459.500	36.100	9.195	8.619	0.000	1028.000
2	09:14:11	246.500	452.200	457.500	35.160	8.977	6.534	0.000	1036.000
3	09:14:30	246.000	454.500	460.700	37.970	8.673	9.067	0.000	1036.000
x		245.700	454.700	459.200	36.410	8.948	8.073	0.000	1034.000
σ		0.944	2.638	1.594	1.430	0.263	1.352	0.000	4.518
%RSD		0.384	0.580	0.347	3.927	2.934	16.750	0.000	0.437

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	45.645%	1075.000	1056.000	48.833%	47.680	47.790	45.580	39.570
2	09:14:11	46.635%	1079.000	1058.000	49.728%	48.730	47.840	45.610	39.490
3	09:14:30	47.343%	1093.000	1062.000	50.304%	48.180	47.550	44.270	39.070
x		46.541%	1082.000	1059.000	49.621%	48.200	47.730	45.160	39.380
σ		0.853%	9.701	2.825	0.741%	0.526	0.155	0.766	0.268
%RSD		1.833	0.896	0.267	1.494	1.092	0.324	1.696	0.681

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	52.926%	1879.000	447.300	446.500	1784.000	1789.000	61.056%	63.150%
2	09:14:11	53.927%	1878.000	447.200	448.600	1783.000	1775.000	62.831%	63.921%
3	09:14:30	54.701%	1884.000	451.000	448.400	1779.000	1790.000	63.331%	64.745%
x		53.851%	1880.000	448.500	447.800	1782.000	1785.000	62.406%	63.938%
σ		0.890%	3.293	2.150	1.155	2.396	8.206	1.196%	0.798%
%RSD		1.653	0.175	0.479	0.258	0.134	0.460	1.916	1.248

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:52	49.970	51.730	20.490	20.300	20.630	57.442%
2	09:14:11	49.770	52.470	20.460	20.910	20.820	58.027%
3	09:14:30	49.740	52.490	20.850	20.870	20.920	58.829%
x		49.830	52.230	20.600	20.690	20.790	58.099%
σ		0.124	0.434	0.216	0.340	0.150	0.696%
%RSD		0.248	0.831	1.047	1.645	0.722	1.199

LCSD 180-116968/3-A 9/5/2014 9:17:14 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	55.356%	49.850	990.800	982.400	0.000	48280.000	47750.000	46470.000
2	09:17:52	55.079%	52.240	1007.000	1001.000	0.000	48130.000	47750.000	46250.000
3	09:18:11	56.155%	50.470	974.000	976.500	0.000	47660.000	46870.000	45830.000
x		55.530%	50.850	990.500	986.600	0.000	48030.000	47450.000	46180.000
σ		0.559%	1.238	16.290	12.830	0.000	323.500	509.600	325.300
%RSD		1.006	2.435	1.645	1.300	0.000	0.673	1.074	0.704

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	1864.000	9100.000	0.000	45860.000	46820.000	44780.000	53.048%	911.900
2	09:17:52	1850.000	9035.000	0.000	45540.000	46890.000	44810.000	53.436%	925.000
3	09:18:11	1837.000	8936.000	0.000	45270.000	45290.000	44690.000	53.422%	914.400
x		1850.000	9024.000	0.000	45560.000	46330.000	44760.000	53.302%	917.100
σ		13.540	82.620	0.000	292.300	906.100	61.780	0.220%	6.970
%RSD		0.732	0.916	0.000	0.642	1.956	0.138	0.413	0.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	470.600	188.900	461.400	935.300	1040.000	481.700	482.700	251.700
2	09:17:52	469.500	189.900	465.300	934.700	1067.000	487.800	482.200	247.000
3	09:18:11	472.700	188.700	461.700	932.700	1025.000	484.900	484.500	247.000
x		470.900	189.200	462.800	934.200	1044.000	484.800	483.100	248.600
σ		1.670	0.615	2.181	1.384	21.200	3.055	1.169	2.730
%RSD		0.355	0.325	0.471	0.148	2.031	0.630	0.242	1.098

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	248.500	462.600	462.900	41.800	9.422	9.336	0.000	1031.000
2	09:17:52	246.700	468.000	467.700	38.550	8.523	7.993	0.000	1030.000
3	09:18:11	246.400	459.600	466.600	37.110	9.382	7.288	0.000	1028.000
x		247.200	463.400	465.700	39.150	9.109	8.205	0.000	1030.000
σ		1.140	4.245	2.491	2.403	0.508	1.040	0.000	1.777
%RSD		0.461	0.916	0.535	6.139	5.581	12.680	0.000	0.172

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	48.428%	1077.000	1053.000	50.952%	48.270	48.750	47.550	41.090
2	09:17:52	48.599%	1084.000	1062.000	50.838%	49.210	49.690	46.810	41.870
3	09:18:11	49.117%	1078.000	1065.000	51.408%	48.900	48.700	47.910	40.850
x		48.714%	1080.000	1060.000	51.066%	48.790	49.050	47.430	41.270
σ		0.359%	3.988	6.362	0.301%	0.479	0.559	0.560	0.533
%RSD		0.736	0.369	0.600	0.590	0.981	1.139	1.182	1.290

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	54.518%	1894.000	453.300	454.200	1803.000	1805.000	63.178%	64.380%
2	09:17:52	54.548%	1908.000	459.900	456.600	1804.000	1802.000	63.371%	64.487%
3	09:18:11	55.200%	1899.000	457.500	452.600	1809.000	1821.000	63.353%	64.986%
x		54.755%	1900.000	456.900	454.500	1805.000	1809.000	63.301%	64.618%
σ		0.385%	6.766	3.306	2.023	3.005	9.872	0.106%	0.324%
%RSD		0.704	0.356	0.724	0.445	0.167	0.546	0.168	0.501

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:17:33	50.660	52.550	20.640	20.840	20.890	57.528%
2	09:17:52	50.500	52.370	20.990	21.200	20.990	58.222%
3	09:18:11	50.080	52.650	20.550	20.480	20.620	58.925%
x		50.420	52.520	20.730	20.840	20.830	58.225%
σ		0.299	0.142	0.234	0.360	0.192	0.698%
%RSD		0.593	0.271	1.128	1.727	0.919	1.199

180-36237-A-1-B 9/5/2014 9:23:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	55.196%	0.092	7.332	7.040	0.000	1934.000	1031.000	1007.000
2	09:24:18	54.608%	0.157	7.887	6.422	0.000	1926.000	1032.000	994.300
3	09:24:37	54.229%	0.094	5.891	6.584	0.000	1936.000	1023.000	1001.000
x		54.678%	0.114	7.037	6.682	0.000	1932.000	1029.000	1001.000
σ		0.487%	0.037	1.030	0.320	0.000	5.274	4.812	6.462
%RSD		0.891	32.410	14.640	4.793	0.000	0.273	0.468	0.646

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	1052.000	7940.000	0.000	6394.000	1023.000	1005.000	51.384%	23.860
2	09:24:18	1053.000	7923.000	0.000	6424.000	1100.000	1042.000	51.683%	21.670
3	09:24:37	1063.000	7832.000	0.000	6379.000	1080.000	1048.000	51.532%	24.910
x		1056.000	7898.000	0.000	6399.000	1068.000	1032.000	51.533%	23.480
σ		6.003	58.300	0.000	23.020	39.800	23.230	0.150%	1.656
%RSD		0.569	0.738	0.000	0.360	3.727	2.252	0.290	7.053

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	1.723	11.940	24.820	1361.000	1392.000	0.994	8.345	4.296
2	09:24:18	1.581	11.940	24.220	1348.000	1357.000	0.997	8.654	4.220
3	09:24:37	3.409	17.410	24.580	1370.000	1361.000	1.071	8.510	3.785
x		2.237	13.760	24.540	1360.000	1370.000	1.021	8.503	4.100
σ		1.017	3.159	0.299	11.310	19.110	0.044	0.155	0.276
%RSD		45.440	22.950	1.217	0.832	1.395	4.265	1.821	6.721

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	3.651	7.475	7.573	2.344	-0.945	-0.750	0.000	25.470
2	09:24:18	3.848	7.220	7.175	0.997	-0.901	-1.087	0.000	25.540
3	09:24:37	4.048	6.891	8.045	0.327	-0.759	-2.784	0.000	25.770
x		3.849	7.195	7.598	1.223	-0.869	-1.540	0.000	25.590
σ		0.199	0.292	0.436	1.027	0.097	1.090	0.000	0.159
%RSD		5.159	4.064	5.738	84.010	11.160	70.770	0.000	0.622

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	53.349%	1.747	2.111	51.802%	-0.009	-0.013	0.006	0.039
2	09:24:18	53.581%	1.676	1.882	52.075%	-0.002	-0.008	-0.026	-0.010
3	09:24:37	54.223%	1.797	1.602	52.090%	0.008	0.019	0.046	0.040
x		53.718%	1.740	1.865	51.989%	-0.001	-0.001	0.009	0.023
σ		0.453%	0.061	0.255	0.162%	0.008	0.017	0.036	0.029
%RSD		0.843	3.517	13.660	0.312	1191.000	2232.000	409.000	125.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	55.168%	4.254	0.201	0.211	238.200	239.400	61.814%	63.405%
2	09:24:18	55.787%	3.872	0.195	0.238	237.700	239.400	63.846%	64.899%
3	09:24:37	55.599%	3.654	0.213	0.186	241.900	243.200	64.054%	65.675%
x		55.518%	3.926	0.203	0.212	239.300	240.700	63.238%	64.660%
σ		0.317%	0.304	0.009	0.026	2.298	2.156	1.238%	1.154%
%RSD		0.572	7.734	4.455	12.230	0.961	0.896	1.958	1.785

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:23:58	0.190	0.194	0.743	0.556	0.639	61.490%
2	09:24:18	0.168	0.184	0.611	0.608	0.611	62.712%
3	09:24:37	0.163	0.188	0.599	0.614	0.618	63.324%
x		0.174	0.189	0.651	0.593	0.623	62.509%
σ		0.015	0.005	0.080	0.032	0.015	0.934%
%RSD		8.363	2.725	12.270	5.374	2.342	1.494

180-36237-A-1-B SD@5 9/5/2014 9:27:21 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	58.713%	0.024	1.520	2.116	0.000	375.500	201.800	203.700
2	09:27:59	60.248%	-0.006	2.533	1.922	0.000	371.900	212.100	204.900
3	09:28:19	59.590%	-0.006	1.673	2.389	0.000	375.200	207.600	204.000
x		59.517%	0.004	1.909	2.142	0.000	374.200	207.200	204.200
σ		0.770%	0.017	0.546	0.235	0.000	1.990	5.152	0.617
%RSD		1.294	401.100	28.600	10.950	0.000	0.532	2.487	0.302

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	208.400	1691.000	0.000	1264.000	234.700	191.200	57.997%	3.549
2	09:27:59	225.100	1653.000	0.000	1304.000	199.100	213.900	57.172%	4.708
3	09:28:19	226.000	1676.000	0.000	1281.000	159.700	219.500	57.419%	5.393
x		219.800	1673.000	0.000	1283.000	197.800	208.200	57.529%	4.550
σ		9.917	19.200	0.000	20.340	37.550	14.970	0.423%	0.932
%RSD		4.512	1.147	0.000	1.585	18.980	7.190	0.736	20.480

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	0.013	2.530	5.011	264.800	264.100	0.211	1.911	0.831
2	09:27:59	-0.092	2.233	5.024	270.100	277.000	0.243	1.632	0.987
3	09:28:19	0.440	2.523	5.097	275.400	278.200	0.244	1.842	0.832
x		0.121	2.429	5.044	270.100	273.100	0.233	1.795	0.883
σ		0.282	0.169	0.046	5.330	7.845	0.019	0.145	0.089
%RSD		233.700	6.971	0.910	1.973	2.872	8.171	8.084	10.130

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	0.961	1.449	1.830	0.151	-0.440	-0.462	0.000	5.258
2	09:27:59	0.827	1.550	1.642	-0.033	-0.642	-0.834	0.000	5.106
3	09:28:19	0.918	1.655	1.475	-0.894	-0.299	-2.673	0.000	5.128
x		0.902	1.551	1.649	-0.259	-0.460	-1.323	0.000	5.164
σ		0.069	0.103	0.177	0.558	0.172	1.184	0.000	0.083
%RSD		7.610	6.637	10.760	215.900	37.410	89.520	0.000	1.599

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	58.898%	-0.377	-0.426	58.009%	-0.015	-0.012	-0.053	-0.034
2	09:27:59	59.129%	-0.404	-0.314	58.464%	-0.017	-0.014	-0.023	-0.013
3	09:28:19	59.544%	-0.513	-0.373	58.956%	-0.013	0.001	-0.007	0.029
x		59.190%	-0.431	-0.371	58.476%	-0.015	-0.008	-0.028	-0.006
σ		0.327%	0.072	0.056	0.474%	0.002	0.008	0.023	0.032
%RSD		0.553	16.630	15.040	0.810	14.150	99.670	83.780	535.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	61.468%	0.092	0.012	0.012	47.410	49.160	67.898%	68.968%
2	09:27:59	61.437%	0.065	0.012	0.046	48.150	48.470	68.739%	69.226%
3	09:28:19	61.996%	0.158	0.004	0.042	47.100	49.270	69.234%	69.821%
x		61.634%	0.105	0.009	0.033	47.560	48.960	68.624%	69.338%
σ		0.314%	0.048	0.004	0.018	0.539	0.432	0.675%	0.438%
%RSD		0.510	45.840	45.290	55.470	1.134	0.882	0.984	0.631

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:40	0.038	0.041	0.138	0.080	0.100	69.032%
2	09:27:59	0.039	0.040	0.117	0.099	0.095	69.464%
3	09:28:19	0.044	0.049	0.090	0.097	0.094	70.140%
x		0.040	0.043	0.115	0.092	0.097	69.545%
σ		0.004	0.005	0.024	0.010	0.003	0.558%
%RSD		8.863	10.900	21.070	11.350	3.395	0.802

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	61.797%	-0.007	0.914	0.878	0.000	-3.693	0.256	0.685
2	09:34:25	62.784%	0.021	0.388	0.791	0.000	-3.951	0.184	0.623
3	09:34:44	62.223%	-0.007	0.479	1.261	0.000	-3.607	0.252	0.568
x		62.268%	0.002	0.594	0.977	0.000	-3.750	0.231	0.625
σ		0.495%	0.016	0.281	0.250	0.000	0.179	0.040	0.058
%RSD		0.795	642.900	47.330	25.590	0.000	4.765	17.540	9.312

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	1.061	3.338	0.000	-1.983	17.930	8.029	59.216%	-0.194
2	09:34:25	0.900	4.156	0.000	-1.161	24.750	8.433	59.161%	-0.308
3	09:34:44	0.899	3.082	0.000	-2.089	7.514	8.478	59.650%	-0.309
x		0.954	3.525	0.000	-1.744	16.730	8.313	59.342%	-0.270
σ		0.093	0.561	0.000	0.508	8.680	0.247	0.268%	0.066
%RSD		9.743	15.910	0.000	29.140	51.880	2.968	0.452	24.470

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	0.195	0.240	0.055	-6.271	-2.327	0.002	0.090	0.588
2	09:34:25	-0.097	0.183	0.045	-6.538	-2.700	0.004	0.064	0.332
3	09:34:44	-0.421	0.174	0.030	-7.518	-3.426	-0.001	0.039	0.478
x		-0.108	0.199	0.043	-6.775	-2.818	0.002	0.065	0.466
σ		0.308	0.035	0.013	0.657	0.559	0.002	0.025	0.128
%RSD		285.700	17.770	29.750	9.691	19.830	124.700	39.120	27.560

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	0.324	0.706	0.749	0.200	-0.456	-1.386	0.000	0.026
2	09:34:25	0.300	0.462	0.619	-0.001	-0.599	-0.233	0.000	0.023
3	09:34:44	0.204	0.596	0.633	-0.105	-0.474	-2.115	0.000	0.025
x		0.276	0.588	0.667	0.032	-0.509	-1.245	0.000	0.025
σ		0.064	0.123	0.071	0.155	0.078	0.949	0.000	0.001
%RSD		22.990	20.850	10.690	489.000	15.290	76.210	0.000	5.800

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	60.178%	-0.842	-0.848	59.714%	-0.004	-0.008	-0.026	-0.014
2	09:34:25	61.131%	-0.788	-0.799	60.589%	0.010	-0.004	-0.024	-0.005
3	09:34:44	61.031%	-0.867	-0.881	60.745%	-0.001	0.007	-0.027	-0.005
x		60.780%	-0.832	-0.843	60.349%	0.002	-0.001	-0.026	-0.008
σ		0.524%	0.041	0.041	0.556%	0.007	0.008	0.001	0.005
%RSD		0.862	4.886	4.879	0.921	466.700	514.800	4.982	58.430

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	62.279%	0.020	-0.022	-0.028	0.073	0.053	68.300%	69.336%
2	09:34:25	63.131%	0.010	0.016	-0.020	0.034	0.078	69.624%	70.781%
3	09:34:44	63.214%	0.020	-0.023	0.010	0.071	0.073	69.634%	70.552%
x		62.875%	0.016	-0.009	-0.013	0.060	0.068	69.186%	70.223%
σ		0.517%	0.006	0.022	0.020	0.022	0.013	0.767%	0.776%
%RSD		0.823	35.860	235.100	157.900	36.680	19.290	1.109	1.106

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:34:06	-0.000	0.002	0.055	0.033	0.049	69.848%
2	09:34:25	0.006	0.005	0.047	0.029	0.044	70.387%
3	09:34:44	0.012	0.009	0.062	0.013	0.037	70.296%
x		0.006	0.005	0.055	0.025	0.044	70.177%
σ		0.006	0.004	0.007	0.011	0.006	0.289%
%RSD		102.500	69.570	13.280	42.550	13.980	0.411

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	55.987%	44.650	899.900	923.500	0.000	44080.000	43740.000	43190.000
2	09:38:07	55.207%	45.560	934.000	920.800	0.000	44690.000	43990.000	43110.000
3	09:38:26	55.914%	44.980	921.700	913.400	0.000	44650.000	44070.000	43010.000
x		55.703%	45.060	918.500	919.300	0.000	44470.000	43930.000	43110.000
σ		0.431%	0.464	17.250	5.257	0.000	338.500	170.000	92.100
%RSD		0.773	1.030	1.878	0.572	0.000	0.761	0.387	0.214

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	1761.000	8401.000	0.000	42920.000	43940.000	42030.000	51.697%	876.800
2	09:38:07	1741.000	8344.000	0.000	42520.000	44160.000	41830.000	52.292%	852.100
3	09:38:26	1741.000	8337.000	0.000	42810.000	44170.000	42100.000	52.172%	858.700
x		1748.000	8361.000	0.000	42750.000	44090.000	41980.000	52.054%	862.600
σ		11.720	34.860	0.000	206.300	125.900	140.000	0.315%	12.800
%RSD		0.671	0.417	0.000	0.483	0.286	0.334	0.604	1.483

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	446.800	179.100	443.100	885.900	997.000	453.900	453.200	228.700
2	09:38:07	442.200	174.700	440.700	886.000	959.000	453.300	448.800	229.800
3	09:38:26	443.200	177.700	439.400	876.500	955.200	449.600	450.500	228.400
x		444.100	177.200	441.100	882.800	970.400	452.200	450.900	229.000
σ		2.380	2.247	1.914	5.459	23.110	2.342	2.221	0.771
%RSD		0.536	1.269	0.434	0.618	2.382	0.518	0.493	0.337

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	231.000	432.900	440.200	36.970	7.916	8.348	0.000	974.400
2	09:38:07	232.000	437.300	444.000	36.830	9.273	8.016	0.000	980.400
3	09:38:26	228.400	434.900	440.800	36.640	8.563	9.360	0.000	974.900
x		230.500	435.000	441.700	36.810	8.584	8.575	0.000	976.600
σ		1.869	2.195	2.025	0.161	0.679	0.700	0.000	3.330
%RSD		0.811	0.505	0.459	0.437	7.905	8.167	0.000	0.341

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	47.254%	1014.000	994.500	49.728%	45.570	46.520	44.190	40.030
2	09:38:07	47.058%	1026.000	1007.000	50.004%	45.920	45.480	43.590	38.070
3	09:38:26	47.706%	1025.000	998.500	50.149%	46.220	46.490	43.710	37.620
x		47.339%	1022.000	999.900	49.960%	45.910	46.170	43.830	38.570
σ		0.332%	6.483	6.222	0.214%	0.325	0.590	0.314	1.279
%RSD		0.702	0.634	0.622	0.428	0.708	1.278	0.717	3.315

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	53.191%	1797.000	430.000	425.900	1707.000	1706.000	62.057%	63.473%
2	09:38:07	54.835%	1753.000	418.900	417.700	1691.000	1697.000	63.102%	64.585%
3	09:38:26	54.319%	1795.000	425.900	424.400	1713.000	1705.000	62.695%	64.243%
x		54.115%	1782.000	425.000	422.700	1704.000	1703.000	62.618%	64.100%
σ		0.841%	25.060	5.619	4.367	11.240	4.528	0.527%	0.569%
%RSD		1.553	1.406	1.322	1.033	0.660	0.266	0.842	0.888

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:37:48	47.490	49.130	19.490	19.530	19.740	57.232%
2	09:38:07	47.480	49.420	19.700	19.740	19.760	57.865%
3	09:38:26	47.100	49.170	19.690	19.910	19.780	58.589%
x		47.360	49.240	19.630	19.730	19.760	57.895%
σ		0.222	0.157	0.117	0.190	0.016	0.679%
%RSD		0.469	0.318	0.595	0.962	0.083	1.173

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	60.220%	0.052	11.720	11.970	0.000	110900.000	28420.000	27810.000
2	09:41:50	59.673%	0.024	9.499	10.860	0.000	111200.000	28640.000	28090.000
3	09:42:09	59.010%	-0.005	10.320	11.370	0.000	112700.000	28930.000	28120.000
x		59.635%	0.024	10.510	11.400	0.000	111600.000	28660.000	28010.000
σ		0.606%	0.029	1.125	0.557	0.000	981.200	256.500	167.900
%RSD		1.016	121.900	10.700	4.889	0.000	0.879	0.895	0.599

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	6.562	3609.000	0.000	2431.000	43090.000	41570.000	55.380%	0.738
2	09:41:50	6.152	3614.000	0.000	2400.000	43570.000	41500.000	55.874%	0.410
3	09:42:09	6.350	3642.000	0.000	2447.000	43380.000	41630.000	55.912%	0.608
x		6.355	3621.000	0.000	2426.000	43350.000	41570.000	55.722%	0.585
σ		0.205	17.950	0.000	23.620	241.300	68.160	0.297%	0.165
%RSD		3.230	0.496	0.000	0.974	0.557	0.164	0.532	28.210

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	-0.392	1.020	253.600	-7.361	60.200	1.553	4.301	0.862
2	09:41:50	-0.167	1.050	252.700	-7.693	58.320	1.624	4.555	0.904
3	09:42:09	1.177	1.054	251.900	-7.617	61.140	1.489	4.600	0.979
x		0.206	1.041	252.700	-7.557	59.880	1.556	4.485	0.915
σ		0.848	0.018	0.858	0.174	1.434	0.068	0.162	0.059
%RSD		411.300	1.773	0.340	2.300	2.395	4.342	3.605	6.479

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	0.675	5.872	5.997	-0.759	-0.526	-5.367	0.000	177.600
2	09:41:50	0.595	6.053	5.903	-0.129	-0.300	-4.844	0.000	179.900
3	09:42:09	0.620	5.923	5.324	-0.348	-0.402	-4.785	0.000	178.900
x		0.630	5.949	5.741	-0.412	-0.409	-4.999	0.000	178.800
σ		0.041	0.094	0.365	0.320	0.113	0.320	0.000	1.153
%RSD		6.494	1.575	6.353	77.780	27.680	6.399	0.000	0.645

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	86.742%	1.077	1.177	52.363%	-0.007	-0.013	0.252	0.240
2	09:41:50	86.570%	0.643	0.824	52.316%	0.005	0.001	0.252	0.195
3	09:42:09	87.587%	0.216	0.460	53.061%	0.005	0.001	0.358	0.215
x		86.966%	0.645	0.820	52.580%	0.001	-0.004	0.287	0.217
σ		0.544%	0.430	0.358	0.417%	0.007	0.008	0.061	0.022
%RSD		0.626	66.680	43.680	0.794	569.100	224.800	21.340	10.330

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	57.340%	3.728	0.144	0.181	64.100	64.990	67.610%	68.691%
2	09:41:50	57.681%	3.132	0.143	0.143	65.050	63.110	68.527%	69.140%
3	09:42:09	57.709%	2.808	0.134	0.146	63.600	63.890	68.327%	69.809%
x		57.576%	3.223	0.140	0.157	64.250	63.990	68.155%	69.213%
σ		0.206%	0.466	0.006	0.021	0.738	0.945	0.482%	0.563%
%RSD		0.357	14.470	4.197	13.210	1.148	1.476	0.707	0.813

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:41:30	0.239	0.235	0.019	0.015	0.005	59.751%
2	09:41:50	0.206	0.196	0.010	-0.003	0.005	60.303%
3	09:42:09	0.168	0.176	0.004	-0.002	0.009	60.854%
x		0.204	0.203	0.011	0.003	0.006	60.302%
σ		0.036	0.030	0.007	0.010	0.002	0.551%
%RSD		17.480	14.740	65.850	326.800	35.990	0.915

180-36137-G-1-A 9/5/2014 9:44:54 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	61.400%	-0.035	8.828	9.137	0.000	110000.000	28300.000	27620.000
2	09:45:32	61.485%	-0.035	7.520	9.025	0.000	110700.000	28610.000	28060.000
3	09:45:52	60.955%	-0.035	9.149	9.283	0.000	110400.000	28810.000	27910.000
x		61.280%	-0.035	8.499	9.148	0.000	110400.000	28570.000	27860.000
σ		0.285%	0.000	0.863	0.129	0.000	366.000	259.300	223.400
%RSD		0.465	0.000	10.150	1.414	0.000	0.332	0.907	0.802

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	15.390	3612.000	0.000	2314.000	43880.000	41890.000	55.202%	0.338
2	09:45:32	17.030	3583.000	0.000	2328.000	43390.000	42010.000	55.003%	1.230
3	09:45:52	17.130	3598.000	0.000	2331.000	44260.000	41740.000	55.272%	1.343
x		16.520	3598.000	0.000	2324.000	43840.000	41880.000	55.159%	0.970
σ		0.975	14.420	0.000	9.192	438.200	131.700	0.140%	0.550
%RSD		5.901	0.401	0.000	0.396	1.000	0.315	0.253	56.710

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	-0.002	1.289	255.900	5.643	81.160	1.544	4.205	0.748
2	09:45:32	0.541	1.331	256.700	5.087	79.470	1.571	4.820	0.815
3	09:45:52	-0.533	1.202	256.400	5.555	78.240	1.428	4.420	0.797
x		0.002	1.274	256.300	5.428	79.620	1.514	4.482	0.787
σ		0.537	0.066	0.397	0.299	1.467	0.076	0.312	0.035
%RSD		25320.000	5.165	0.155	5.503	1.842	5.007	6.965	4.388

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	0.804	6.502	5.801	0.729	-0.464	-4.269	0.000	175.800
2	09:45:32	0.584	5.721	6.144	-0.424	-0.528	-4.583	0.000	176.000
3	09:45:52	0.781	5.886	6.236	0.757	-0.638	-4.612	0.000	175.600
x		0.723	6.036	6.060	0.354	-0.543	-4.488	0.000	175.800
σ		0.121	0.412	0.230	0.674	0.088	0.191	0.000	0.206
%RSD		16.730	6.819	3.787	190.200	16.230	4.247	0.000	0.117

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	85.993%	-0.497	-0.558	51.558%	0.001	0.011	0.274	0.205
2	09:45:32	86.645%	-0.502	-0.465	52.159%	0.015	-0.001	0.281	0.221
3	09:45:52	86.916%	-0.511	-0.493	52.393%	-0.002	-0.004	0.240	0.187
x		86.518%	-0.503	-0.505	52.037%	0.005	0.002	0.265	0.204
σ		0.475%	0.007	0.048	0.430%	0.009	0.008	0.022	0.017
%RSD		0.548	1.429	9.485	0.827	193.200	352.600	8.392	8.507

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	56.606%	1.781	0.071	0.120	64.840	64.350	66.798%	67.684%
2	09:45:32	56.573%	1.810	0.133	0.120	64.650	66.170	67.626%	68.916%
3	09:45:52	57.381%	1.801	0.071	0.103	64.540	63.880	67.959%	68.868%
x		56.853%	1.797	0.091	0.115	64.680	64.800	67.461%	68.489%
σ		0.457%	0.015	0.036	0.010	0.152	1.209	0.598%	0.698%
%RSD		0.805	0.829	39.080	8.754	0.235	1.866	0.886	1.019

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:45:13	0.102	0.081	0.073	0.065	0.065	58.550%
2	09:45:32	0.073	0.086	0.080	0.074	0.074	59.109%
3	09:45:52	0.079	0.079	0.084	0.047	0.061	59.559%
x		0.084	0.082	0.079	0.062	0.067	59.073%
σ		0.015	0.003	0.006	0.013	0.007	0.506%
%RSD		17.850	3.977	7.024	21.730	10.100	0.856

180-36137-H-2-A 9/5/2014 9:48:38 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	56.737%	0.521	5.265	5.916	0.000	13150.000	19700.000	19620.000
2	09:49:16	54.829%	0.476	6.714	6.067	0.000	13480.000	20070.000	19560.000
3	09:49:35	55.250%	0.759	7.442	5.102	0.000	13270.000	19790.000	19400.000
x		55.605%	0.586	6.474	5.695	0.000	13300.000	19860.000	19530.000
σ		1.003%	0.152	1.108	0.519	0.000	165.900	189.400	114.000
%RSD		1.803	25.910	17.120	9.118	0.000	1.248	0.954	0.584
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	2.257	5917.000	0.000	3928.000	140200.000	142300.000	51.527%	0.614
2	09:49:16	2.077	5955.000	0.000	3942.000	143600.000	143600.000	50.586%	0.720
3	09:49:35	2.167	5896.000	0.000	3950.000	143400.000	142400.000	50.162%	0.550
x		2.167	5923.000	0.000	3940.000	142400.000	142800.000	50.758%	0.628
σ		0.090	30.190	0.000	11.270	1940.000	715.600	0.699%	0.086
%RSD		4.151	0.510	0.000	0.286	1.362	0.501	1.377	13.710
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	0.108	0.637	766.200	8.162	246.400	2.390	32.880	0.972
2	09:49:16	-0.759	0.904	771.700	7.726	249.200	2.237	34.030	1.057
3	09:49:35	-0.038	0.681	771.800	6.901	253.200	2.450	33.320	1.066
x		-0.230	0.741	769.900	7.596	249.600	2.359	33.410	1.032
σ		0.464	0.143	3.244	0.641	3.425	0.110	0.581	0.052
%RSD		202.200	19.310	0.421	8.434	1.372	4.651	1.740	5.030
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	1.148	50.220	51.320	1.824	1.818	-0.885	0.000	212.100
2	09:49:16	1.107	51.050	52.410	5.581	2.115	-0.552	0.000	213.900
3	09:49:35	1.104	49.670	50.630	3.220	1.703	-1.160	0.000	213.100
x		1.120	50.310	51.450	3.542	1.878	-0.866	0.000	213.000
σ		0.025	0.691	0.898	1.899	0.213	0.304	0.000	0.897
%RSD		2.197	1.373	1.745	53.610	11.320	35.160	0.000	0.421
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	58.264%	-0.627	-0.728	48.763%	-0.000	-0.013	0.329	0.277
2	09:49:16	57.884%	-0.658	-0.533	48.467%	-0.003	-0.012	0.392	0.305
3	09:49:35	57.593%	-0.663	-0.606	48.094%	-0.005	0.000	0.395	0.376
x		57.914%	-0.649	-0.622	48.441%	-0.003	-0.008	0.372	0.320
σ		0.337%	0.019	0.098	0.335%	0.002	0.007	0.037	0.051
%RSD		0.581	2.965	15.820	0.692	90.450	91.460	9.947	15.990
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:57	54.558%	1.616	0.031	0.087	88.720	91.830	62.960%	64.388%
2	09:49:16	53.950%	1.541	0.057	0.092	90.700	92.230	62.659%	63.995%
3	09:49:35	54.092%	1.456	0.052	0.098	90.330	90.650	63.217%	64.251%
x		54.200%	1.538	0.047	0.092	89.920	91.570	62.945%	64.212%
σ		0.318%	0.080	0.014	0.005	1.056	0.825	0.279%	0.200%
%RSD		0.587	5.204	29.520	5.702	1.174	0.901	0.443	0.311
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:48:57	0.388	0.377	0.037	-0.004	0.025	57.563%		
2	09:49:16	0.370	0.359	0.028	-0.003	0.019	57.990%		
3	09:49:35	0.331	0.386	0.017	0.034	0.025	58.255%		
x		0.363	0.374	0.027	0.009	0.023	57.936%		
σ		0.029	0.014	0.010	0.022	0.004	0.349%		
%RSD		8.039	3.730	35.760	243.800	16.100	0.603		

CCV 1308170 9/5/2014 9:52:20 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	71.462%	94.360	88.040	91.430	0.000	47520.000	47810.000	48240.000
2	09:52:39	69.710%	99.540	93.790	95.650	0.000	48570.000	49420.000	49190.000
3	09:52:58	70.435%	98.850	95.400	97.300	0.000	48780.000	49220.000	49160.000
x		70.536%	97.585%	92.409%	94.794%	0.000	96.584%	97.635%	97.732%
σ		0.881%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.249	2.883	4.188	3.190	0.000	1.394	1.792	1.112

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	489.400	5042.000	0.000	48130.000	48940.000	47440.000	61.162%	99.290
2	09:52:39	499.400	5097.000	0.000	48890.000	49260.000	47900.000	61.427%	94.700
3	09:52:58	497.400	5082.000	0.000	48960.000	49210.000	47710.000	62.039%	100.600
x		99.076%	101.474%	0.000	97.324%	98.273%	95.367%	61.542%	98.199%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.450%	n/a
%RSD		1.070	0.559	0.000	0.953	0.351	0.489	0.731	3.161

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	98.010	99.920	497.000	25060.000	25150.000	99.320	102.700	102.200
2	09:52:39	98.050	99.440	498.600	25100.000	25320.000	100.400	103.100	102.600
3	09:52:58	98.790	99.100	497.000	24970.000	25120.000	99.460	99.340	101.200
x		98.286%	99.486%	99.504%	100.167%	100.788%	99.738%	101.708%	102.004%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.446	0.415	0.194	0.269	0.419	0.610	2.020	0.696

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	103.700	99.550	101.700	96.460	99.670	96.140	0.000	97.620
2	09:52:39	102.100	100.800	98.020	102.600	99.140	101.200	0.000	98.090
3	09:52:58	102.000	100.700	103.800	98.190	98.620	95.790	0.000	98.360
x		102.600%	100.334%	101.156%	99.080%	99.142%	97.720%	0.000	98.024%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.907	0.676	2.874	3.195	0.527	3.124	0.000	0.383

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	62.287%	98.250	99.760	58.154%	101.700	100.300	99.370	99.830
2	09:52:39	63.070%	102.200	101.900	58.791%	100.800	101.100	100.100	99.820
3	09:52:58	63.653%	104.000	103.900	59.175%	101.800	100.700	98.030	99.350
x		63.003%	101.513%	101.839%	58.707%	101.425%	100.687%	99.154%	99.668%
σ		0.686%	n/a	n/a	0.515%	n/a	n/a	n/a	n/a
%RSD		1.089	2.921	2.035	0.878	0.511	0.412	1.040	0.274

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	62.686%	97.060	93.720	93.820	97.370	96.480	68.924%	70.236%
2	09:52:39	63.471%	97.150	94.880	94.640	95.230	96.750	70.578%	70.612%
3	09:52:58	63.857%	100.100	96.000	96.420	95.310	98.300	70.844%	72.063%
x		63.338%	98.097%	94.867%	94.963%	95.971%	97.179%	70.116%	70.970%
σ		0.597%	n/a	n/a	n/a	n/a	n/a	1.040%	0.964%
%RSD		0.942	1.749	1.201	1.400	1.267	1.012	1.483	1.359

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	98.640	102.200	103.400	104.200	103.800	70.420%
2	09:52:39	101.700	106.200	107.000	106.000	106.600	69.199%
3	09:52:58	103.500	108.100	109.200	109.400	109.000	68.903%
x		101.289%	105.497%	106.548%	106.534%	106.470%	69.507%
σ		n/a	n/a	n/a	n/a	n/a	0.804%
%RSD		2.429	2.836	2.724	2.478	2.455	1.156

CCB2 9/5/2014 9:58:29 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	68.503%	-0.009	1.028	0.429	0.000	-0.899	1.324	1.800
2	09:59:07	67.324%	-0.035	0.495	0.458	0.000	-0.545	1.400	1.785
3	09:59:26	66.358%	-0.035	0.750	0.457	0.000	-0.034	1.427	1.763
x		67.395%	-0.026	0.758	0.448	0.000	-0.492	1.384	1.783
σ		1.074%	0.015	0.266	0.017	0.000	0.435	0.053	0.019
%RSD		1.594	56.430	35.160	3.700	0.000	88.320	3.863	1.041

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	0.418	0.853	0.000	0.669	4.123	3.433	59.394%	-0.271
2	09:59:07	0.438	1.314	0.000	-0.424	4.051	2.799	59.633%	-0.309
3	09:59:26	0.255	0.576	0.000	-0.413	-9.259	2.038	58.643%	-0.270
x		0.370	0.914	0.000	-0.056	-0.362	2.756	59.223%	-0.283
σ		0.101	0.373	0.000	0.628	7.706	0.699	0.517%	0.022
%RSD		27.130	40.800	0.000	1118.000	2130.000	25.340	0.873	7.887

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	-0.079	-0.086	0.057	-5.637	4.836	0.014	0.003	-0.017
2	09:59:07	-0.023	-0.073	0.069	-6.670	4.085	0.007	0.015	0.028
3	09:59:26	0.018	-0.057	0.029	-6.728	5.394	-0.000	0.028	-0.063
x		-0.028	-0.072	0.052	-6.345	4.772	0.007	0.015	-0.017
σ		0.048	0.015	0.021	0.614	0.657	0.007	0.013	0.046
%RSD		174.200	20.430	39.830	9.674	13.760	106.700	84.230	267.300

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	0.038	0.088	0.098	-0.084	-0.232	-0.436	0.000	0.020
2	09:59:07	0.069	0.099	0.131	-0.045	-0.420	-0.868	0.000	0.026
3	09:59:26	-0.056	-0.023	0.117	-0.549	-0.433	-2.638	0.000	0.022
x		0.017	0.055	0.115	-0.226	-0.362	-1.314	0.000	0.023
σ		0.065	0.067	0.016	0.280	0.112	1.167	0.000	0.003
%RSD		384.800	123.500	14.260	124.100	31.050	88.820	0.000	12.710

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	60.443%	-0.799	-0.853	59.813%	-0.009	0.009	0.118	0.087
2	09:59:07	60.798%	-0.772	-0.781	60.277%	-0.001	-0.002	0.033	0.008
3	09:59:26	60.798%	-0.830	-0.819	60.135%	-0.005	0.007	0.092	0.067
x		60.679%	-0.800	-0.818	60.075%	-0.005	0.005	0.081	0.054
σ		0.205%	0.029	0.036	0.238%	0.004	0.006	0.044	0.041
%RSD		0.338	3.621	4.400	0.396	87.800	116.800	53.680	76.340

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	64.020%	-0.159	0.084	0.126	0.016	0.011	68.846%	69.442%
2	09:59:07	63.783%	-0.132	0.082	0.129	-0.049	0.006	69.917%	69.410%
3	09:59:26	63.746%	-0.171	0.095	0.127	0.016	0.021	68.859%	69.760%
x		63.849%	-0.154	0.087	0.127	-0.006	0.013	69.207%	69.537%
σ		0.149%	0.020	0.007	0.001	0.037	0.008	0.615%	0.193%
%RSD		0.233	12.920	8.223	1.150	656.200	62.810	0.888	0.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:58:48	-0.002	0.002	0.226	0.238	0.217	73.257%
2	09:59:07	0.000	-0.002	0.239	0.224	0.247	72.705%
3	09:59:26	-0.002	0.001	0.274	0.200	0.227	72.774%
x		-0.001	0.000	0.246	0.221	0.230	72.912%
σ		0.001	0.002	0.024	0.019	0.015	0.301%
%RSD		91.390	1004.000	9.943	8.711	6.640	0.412

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	66.611%	1.340	5.326	5.759	0.000	103.100	99.940	110.500
2	10:02:53	67.408%	0.986	5.431	5.191	0.000	105.500	106.100	106.800
3	10:03:12	67.242%	1.040	6.159	5.939	0.000	103.900	106.500	108.000
x		67.087%	112.179%	112.776%	112.593%	0.000	104.183%	104.176%	108.428%
σ		0.421%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.627	16.990	8.045	6.939	0.000	1.205	3.524	1.717

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	36.420	550.000	0.000	102.500	119.500	116.200	57.769%	5.753
2	10:02:53	34.580	537.000	0.000	99.800	99.520	116.600	57.285%	5.052
3	10:03:12	35.260	538.500	0.000	102.000	120.200	116.900	57.433%	5.000
x		118.068%	108.366%	0.000	101.441%	113.063%	116.567%	57.496%	105.371%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.248%	n/a
%RSD		2.631	1.315	0.000	1.424	10.380	0.302	0.431	7.978

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	1.049	2.129	5.506	47.530	58.860	0.546	1.074	2.270
2	10:02:53	0.927	2.420	5.241	47.420	62.880	0.561	1.246	2.118
3	10:03:12	0.784	1.892	5.202	47.010	62.550	0.601	1.129	2.261
x		92.023%	107.353%	106.326%	94.646%	122.860%	113.857%	114.973%	110.823%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		14.430	12.320	3.115	0.581	3.633	4.999	7.614	3.833

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	2.606	5.773	6.448	0.805	5.650	4.914	0.000	5.188
2	10:02:53	2.570	5.890	6.455	0.992	5.377	3.964	0.000	5.105
3	10:03:12	2.179	6.007	6.523	0.519	5.058	2.922	0.000	5.177
x		122.578%	117.799%	129.511%	77.228%	107.234%	78.671%	0.000	103.130%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		9.640	1.993	0.642	30.820	5.532	25.320	0.000	0.877

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	59.015%	4.556	4.306	58.104%	1.083	1.115	1.252	1.253
2	10:02:53	59.285%	4.217	4.148	58.363%	1.055	1.117	0.993	1.132
3	10:03:12	59.086%	4.243	4.443	58.157%	1.053	1.200	1.291	1.219
x		59.129%	86.770%	85.978%	58.208%	106.379%	114.407%	117.865%	120.156%
σ		0.140%	n/a	n/a	0.136%	n/a	n/a	n/a	n/a
%RSD		0.236	4.356	3.433	0.234	1.553	4.244	13.750	5.192

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	61.448%	4.799	2.227	2.019	9.518	9.735	66.873%	67.389%
2	10:02:53	61.911%	4.960	2.177	2.283	9.396	9.860	67.436%	68.334%
3	10:03:12	61.240%	4.857	2.232	2.180	9.403	10.380	67.340%	68.235%
x		61.533%	97.442%	110.592%	108.028%	94.388%	99.907%	67.216%	67.986%
σ		0.344%	n/a	n/a	n/a	n/a	n/a	0.301%	0.519%
%RSD		0.558	1.675	1.387	6.165	0.727	3.406	0.448	0.763

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	1.073	1.013	1.299	1.164	1.219	74.384%
2	10:02:53	1.036	1.080	1.307	1.095	1.232	73.818%
3	10:03:12	1.015	1.047	1.272	1.314	1.291	72.762%
x		104.137%	104.654%	129.289%	119.093%	124.750%	73.655%
σ		n/a	n/a	n/a	n/a	n/a	0.823%
%RSD		2.795	3.224	1.426	9.421	3.043	1.118

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	53.253%	0.525	4.645	5.380	0.000	13200.000	19890.000	19370.000
2	10:06:37	54.408%	0.645	6.820	5.305	0.000	13040.000	19590.000	19250.000
3	10:06:56	52.422%	0.702	6.555	5.922	0.000	13260.000	19830.000	19520.000
x		53.361%	0.624	6.007	5.536	0.000	13170.000	19770.000	19380.000
σ		0.997%	0.090	1.186	0.337	0.000	115.200	155.400	135.700
%RSD		1.868	14.420	19.750	6.086	0.000	0.875	0.786	0.700

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	1.910	5908.000	0.000	3868.000	140400.000	141100.000	47.957%	0.731
2	10:06:37	1.764	5825.000	0.000	3846.000	140200.000	140600.000	47.207%	0.272
3	10:06:56	1.387	5835.000	0.000	3866.000	147800.000	141000.000	47.228%	0.653
x		1.687	5856.000	0.000	3860.000	142800.000	140900.000	47.464%	0.552
σ		0.270	45.510	0.000	12.040	4316.000	301.400	0.427%	0.246
%RSD		16.010	0.777	0.000	0.312	3.023	0.214	0.900	44.470

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	-0.335	0.561	764.300	6.149	272.700	2.373	33.310	1.251
2	10:06:37	-0.603	0.674	770.000	5.702	265.600	2.446	33.590	1.135
3	10:06:56	-0.186	0.555	767.200	4.438	250.900	2.462	34.550	1.026
x		-0.375	0.596	767.200	5.430	263.100	2.427	33.820	1.137
σ		0.211	0.067	2.822	0.887	11.120	0.047	0.648	0.112
%RSD		56.350	11.240	0.368	16.340	4.226	1.956	1.915	9.866

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	1.213	51.910	49.260	4.121	2.008	0.453	0.000	209.400
2	10:06:37	1.320	50.120	49.850	2.452	2.163	0.588	0.000	209.900
3	10:06:56	1.084	50.420	51.340	3.178	2.279	-0.054	0.000	210.800
x		1.206	50.820	50.150	3.250	2.150	0.329	0.000	210.000
σ		0.118	0.960	1.075	0.837	0.136	0.339	0.000	0.691
%RSD		9.788	1.888	2.143	25.740	6.326	103.000	0.000	0.329

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	55.001%	-0.800	-0.745	45.900%	-0.012	0.013	0.808	0.621
2	10:06:37	54.379%	-0.789	-0.709	45.449%	-0.006	0.016	0.578	0.718
3	10:06:56	54.043%	-0.778	-0.745	45.164%	-0.004	0.005	0.609	0.576
x		54.475%	-0.789	-0.733	45.505%	-0.007	0.011	0.665	0.638
σ		0.486%	0.011	0.021	0.371%	0.004	0.006	0.125	0.073
%RSD		0.892	1.411	2.821	0.816	58.260	49.860	18.760	11.390

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	50.034%	1.883	0.368	0.402	90.250	90.700	58.340%	59.589%
2	10:06:37	49.877%	1.692	0.252	0.310	92.350	91.040	58.720%	59.938%
3	10:06:56	49.616%	1.782	0.218	0.277	90.600	91.330	58.793%	59.923%
x		49.842%	1.786	0.279	0.330	91.070	91.020	58.618%	59.817%
σ		0.211%	0.095	0.079	0.065	1.124	0.317	0.243%	0.197%
%RSD		0.424	5.348	28.160	19.610	1.234	0.348	0.415	0.330

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:18	0.332	0.335	0.013	0.006	0.011	54.112%
2	10:06:37	0.300	0.334	0.026	-0.012	0.008	54.342%
3	10:06:56	0.340	0.344	0.033	0.001	0.008	54.978%
x		0.324	0.338	0.024	-0.002	0.009	54.477%
σ		0.021	0.006	0.010	0.009	0.002	0.448%
%RSD		6.431	1.741	42.280	518.800	19.630	0.823

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	52.002%	0.642	8.279	9.539	0.000	60390.000	13660.000	13250.000
2	10:10:19	53.964%	0.620	8.504	8.756	0.000	59410.000	13340.000	13100.000
3	10:10:38	51.699%	0.850	8.128	8.875	0.000	60860.000	13690.000	13300.000
x		52.555%	0.704	8.304	9.056	0.000	60220.000	13560.000	13220.000
σ		1.230%	0.127	0.190	0.422	0.000	740.200	195.700	101.300
%RSD		2.340	18.070	2.283	4.658	0.000	1.229	1.443	0.766

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	101.200	5266.000	0.000	2453.000	33240.000	31570.000	45.507%	1.079
2	10:10:19	99.540	5192.000	0.000	2434.000	32300.000	31260.000	45.139%	0.892
3	10:10:38	103.500	5284.000	0.000	2454.000	32910.000	31530.000	45.063%	0.398
x		101.400	5247.000	0.000	2447.000	32820.000	31450.000	45.236%	0.790
σ		1.971	48.310	0.000	11.070	476.500	169.400	0.237%	0.352
%RSD		1.944	0.921	0.000	0.453	1.452	0.538	0.524	44.560

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	-0.303	0.583	289.200	1629.000	1728.000	6.192	21.650	2.116
2	10:10:19	-0.409	0.542	288.300	1625.000	1670.000	6.119	21.640	1.897
3	10:10:38	0.492	0.704	292.600	1643.000	1703.000	6.130	21.530	2.201
x		-0.073	0.610	290.100	1633.000	1700.000	6.147	21.610	2.071
σ		0.492	0.085	2.260	9.289	29.070	0.039	0.068	0.156
%RSD		670.700	13.870	0.779	0.569	1.709	0.639	0.317	7.553

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	1.764	19.530	19.440	0.065	-0.415	-5.274	0.000	199.100
2	10:10:19	2.070	19.460	20.440	0.384	-0.094	-5.199	0.000	199.300
3	10:10:38	2.103	19.330	19.570	0.399	-0.351	-4.411	0.000	201.400
x		1.979	19.440	19.820	0.282	-0.287	-4.961	0.000	199.900
σ		0.187	0.102	0.541	0.189	0.170	0.478	0.000	1.238
%RSD		9.454	0.524	2.730	66.880	59.160	9.637	0.000	0.619

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	58.922%	-0.892	-0.732	45.219%	-0.004	-0.003	0.260	0.267
2	10:10:19	59.098%	-0.750	-0.691	45.263%	-0.012	-0.001	0.288	0.256
3	10:10:38	58.754%	-0.789	-0.745	44.638%	-0.001	-0.009	0.389	0.387
x		58.925%	-0.810	-0.723	45.040%	-0.005	-0.004	0.312	0.303
σ		0.172%	0.074	0.028	0.349%	0.006	0.004	0.068	0.073
%RSD		0.292	9.109	3.943	0.774	108.900	98.010	21.720	24.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	49.400%	1.098	0.222	0.185	152.700	151.000	59.281%	60.085%
2	10:10:19	49.976%	1.092	0.154	0.254	152.400	152.800	59.349%	60.942%
3	10:10:38	49.467%	1.331	0.156	0.198	154.600	155.000	59.423%	60.753%
x		49.615%	1.173	0.177	0.212	153.300	152.900	59.351%	60.593%
σ		0.315%	0.136	0.039	0.037	1.195	2.017	0.071%	0.450%
%RSD		0.635	11.600	21.890	17.320	0.780	1.319	0.120	0.743

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:00	0.029	0.010	0.048	0.014	0.040	54.487%
2	10:10:19	0.017	0.020	0.049	0.018	0.033	55.298%
3	10:10:38	0.018	0.019	0.057	0.044	0.050	55.308%
x		0.021	0.016	0.051	0.025	0.041	55.031%
σ		0.006	0.005	0.005	0.016	0.009	0.471%
%RSD		28.770	31.660	9.405	63.770	21.090	0.857

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	52.532%	0.266	7.974	9.663	0.000	61540.000	13860.000	13620.000
2	10:14:00	51.485%	0.681	10.420	9.608	0.000	62000.000	13900.000	13670.000
3	10:14:19	50.896%	0.654	9.899	9.918	0.000	61980.000	13970.000	13720.000
x		51.637%	0.534	9.430	9.730	0.000	61840.000	13910.000	13670.000
σ		0.828%	0.232	1.287	0.166	0.000	261.800	55.210	50.100
%RSD		1.604	43.510	13.650	1.705	0.000	0.423	0.397	0.366

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	109.000	5335.000	0.000	2457.000	33080.000	31640.000	46.623%	0.563
2	10:14:00	108.700	5326.000	0.000	2479.000	33820.000	31860.000	46.063%	0.428
3	10:14:19	109.600	5315.000	0.000	2491.000	33550.000	31960.000	46.069%	0.912
x		109.100	5325.000	0.000	2476.000	33480.000	31820.000	46.252%	0.634
σ		0.476	10.290	0.000	17.320	378.400	163.500	0.321%	0.250
%RSD		0.436	0.193	0.000	0.700	1.130	0.514	0.695	39.390

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	-0.239	1.294	286.300	1478.000	1542.000	6.160	21.840	10.770
2	10:14:00	0.623	1.542	287.300	1474.000	1547.000	5.966	21.420	10.440
3	10:14:19	0.085	1.225	285.900	1479.000	1548.000	6.364	20.980	10.500
x		0.156	1.353	286.500	1477.000	1545.000	6.163	21.410	10.570
σ		0.435	0.167	0.744	2.725	3.375	0.199	0.432	0.176
%RSD		278.600	12.310	0.260	0.185	0.218	3.226	2.017	1.665

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	10.430	20.470	18.430	0.104	-0.710	-4.277	0.000	188.500
2	10:14:00	10.050	19.070	19.700	1.376	-0.766	-4.709	0.000	191.000
3	10:14:19	9.701	17.440	19.790	-0.525	-0.407	-4.067	0.000	190.900
x		10.060	18.990	19.310	0.318	-0.628	-4.351	0.000	190.100
σ		0.367	1.517	0.762	0.969	0.193	0.327	0.000	1.435
%RSD		3.647	7.984	3.947	304.300	30.760	7.524	0.000	0.755

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	65.039%	-0.883	-0.728	44.599%	-0.012	-0.009	0.452	0.380
2	10:14:00	65.276%	-0.876	-0.759	44.581%	-0.003	-0.017	0.450	0.315
3	10:14:19	65.139%	-0.907	-0.805	44.429%	0.008	-0.009	0.388	0.311
x		65.151%	-0.889	-0.764	44.537%	-0.002	-0.012	0.430	0.335
σ		0.119%	0.017	0.039	0.094%	0.010	0.005	0.037	0.039
%RSD		0.182	1.871	5.089	0.210	399.700	42.140	8.495	11.570

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	49.080%	1.191	0.176	0.225	158.200	160.800	59.077%	60.679%
2	10:14:00	49.527%	1.284	0.226	0.208	157.900	159.700	60.051%	61.292%
3	10:14:19	49.749%	1.233	0.235	0.258	158.300	158.800	60.651%	61.237%
x		49.452%	1.236	0.213	0.230	158.100	159.800	59.926%	61.069%
σ		0.341%	0.047	0.032	0.025	0.243	1.014	0.795%	0.339%
%RSD		0.689	3.762	14.870	11.040	0.154	0.635	1.326	0.555

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	0.025	0.017	0.119	0.101	0.112	54.115%
2	10:14:00	0.018	0.013	0.172	0.102	0.132	55.209%
3	10:14:19	0.027	0.020	0.168	0.132	0.136	54.898%
x		0.023	0.016	0.153	0.112	0.126	54.741%
σ		0.004	0.004	0.030	0.018	0.013	0.563%
%RSD		18.990	21.440	19.530	15.880	10.240	1.029

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	52.296%	-0.035	479.300	493.200	0.000	5945.000	804.700	798.600
2	10:17:40	51.759%	-0.035	489.000	495.200	0.000	5951.000	806.200	788.700
3	10:17:59	51.568%	0.033	483.000	499.700	0.000	5961.000	818.500	794.100
x		51.874%	-0.012	483.700	496.000	0.000	5952.000	809.800	793.800
σ		0.377%	0.039	4.885	3.358	0.000	8.076	7.582	4.960
%RSD		0.727	322.000	1.010	0.677	0.000	0.136	0.936	0.625

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	6.592	3759.000	0.000	6475.000	12120.000	11760.000	46.974%	0.710
2	10:17:40	5.987	3782.000	0.000	6481.000	12310.000	11780.000	46.695%	0.668
3	10:17:59	6.585	3752.000	0.000	6460.000	12320.000	11780.000	46.912%	0.615
x		6.388	3764.000	0.000	6472.000	12250.000	11770.000	46.860%	0.664
σ		0.348	15.520	0.000	10.830	114.300	12.030	0.146%	0.048
%RSD		5.444	0.412	0.000	0.167	0.933	0.102	0.312	7.186

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	0.128	0.664	3.945	383.900	419.900	0.118	0.210	1.198
2	10:17:40	-0.419	0.674	3.954	384.900	419.200	0.136	0.224	1.458
3	10:17:59	0.097	0.663	3.676	381.900	415.300	0.127	0.051	1.310
x		-0.065	0.667	3.858	383.600	418.100	0.127	0.162	1.322
σ		0.307	0.006	0.158	1.562	2.462	0.009	0.096	0.130
%RSD		474.100	0.916	4.089	0.407	0.589	7.394	59.440	9.844

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	1.576	2.897	3.161	0.622	17.310	13.120	0.000	26.090
2	10:17:40	1.208	2.757	3.306	1.083	15.370	13.830	0.000	25.820
3	10:17:59	1.294	2.837	2.755	0.577	16.380	13.110	0.000	26.100
x		1.359	2.830	3.074	0.761	16.350	13.350	0.000	26.000
σ		0.193	0.070	0.286	0.280	0.969	0.410	0.000	0.162
%RSD		14.160	2.489	9.295	36.790	5.929	3.071	0.000	0.623

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	49.036%	-0.794	-0.736	46.604%	0.001	-0.004	0.019	-0.002
2	10:17:40	49.354%	-0.842	-0.749	46.903%	0.004	-0.015	0.001	0.029
3	10:17:59	49.533%	-0.823	-0.786	46.548%	0.006	-0.007	0.069	0.037
x		49.307%	-0.820	-0.757	46.685%	0.004	-0.008	0.030	0.021
σ		0.252%	0.024	0.026	0.191%	0.003	0.006	0.035	0.020
%RSD		0.510	2.912	3.447	0.409	70.870	66.920	117.600	96.480

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	50.903%	0.931	0.396	0.489	13.630	13.740	58.922%	60.498%
2	10:17:40	50.844%	0.938	0.398	0.414	13.700	14.090	59.604%	61.049%
3	10:17:59	51.525%	0.913	0.353	0.425	13.330	13.340	59.804%	61.287%
x		51.090%	0.927	0.382	0.443	13.550	13.730	59.443%	60.944%
σ		0.378%	0.013	0.025	0.040	0.197	0.374	0.462%	0.404%
%RSD		0.739	1.428	6.634	9.087	1.450	2.725	0.778	0.664

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:21	0.011	0.007	0.012	0.002	-0.001	58.898%
2	10:17:40	0.009	0.003	0.023	-0.011	0.004	59.227%
3	10:17:59	0.008	0.011	0.004	0.003	0.003	59.657%
x		0.009	0.007	0.013	-0.002	0.002	59.261%
σ		0.001	0.004	0.009	0.008	0.003	0.380%
%RSD		12.220	59.570	73.270	373.600	145.200	0.642

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	57.878%	-0.035	92.580	99.310	0.000	1133.000	161.200	160.800
2	10:21:21	56.562%	-0.035	97.000	99.200	0.000	1159.000	159.700	160.900
3	10:21:40	56.658%	0.027	94.330	97.480	0.000	1162.000	168.100	163.400
x		57.032%	-0.014	94.630	98.660	0.000	1151.000	163.000	161.700
σ		0.734%	0.036	2.227	1.027	0.000	15.770	4.485	1.488
%RSD		1.287	251.600	2.353	1.040	0.000	1.370	2.751	0.920

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	1.347	761.700	0.000	1276.000	2415.000	2361.000	50.921%	-0.214
2	10:21:21	0.995	764.600	0.000	1277.000	2512.000	2373.000	51.101%	-0.081
3	10:21:40	1.276	769.700	0.000	1281.000	2511.000	2368.000	51.044%	-0.126
x		1.206	765.300	0.000	1278.000	2479.000	2367.000	51.022%	-0.140
σ		0.186	4.046	0.000	2.773	55.460	5.858	0.092%	0.067
%RSD		15.410	0.529	0.000	0.217	2.237	0.248	0.180	48.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	-0.028	0.171	0.766	67.820	86.740	0.051	0.016	0.380
2	10:21:21	0.008	0.079	0.837	69.480	86.690	0.040	0.044	0.274
3	10:21:40	-0.084	0.131	0.828	68.740	85.920	0.031	-0.014	0.350
x		-0.035	0.127	0.810	68.680	86.450	0.041	0.015	0.335
σ		0.047	0.046	0.039	0.835	0.463	0.010	0.029	0.055
%RSD		134.500	36.170	4.763	1.215	0.536	24.370	186.200	16.310

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	0.410	0.579	0.498	0.065	3.503	3.142	0.000	5.392
2	10:21:21	0.363	0.626	0.703	0.610	3.336	2.981	0.000	5.354
3	10:21:40	0.409	0.636	0.631	-0.523	3.171	1.897	0.000	5.277
x		0.394	0.614	0.611	0.051	3.337	2.673	0.000	5.341
σ		0.027	0.030	0.104	0.567	0.166	0.677	0.000	0.059
%RSD		6.858	4.963	17.060	1119.000	4.975	25.340	0.000	1.097

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	53.023%	-1.011	-0.956	51.604%	-0.018	-0.001	0.080	0.057
2	10:21:21	52.421%	-0.908	-0.950	51.238%	0.006	-0.010	0.035	0.029
3	10:21:40	52.955%	-0.977	-0.905	51.552%	-0.011	-0.003	0.082	0.064
x		52.800%	-0.966	-0.937	51.465%	-0.008	-0.005	0.066	0.050
σ		0.330%	0.052	0.027	0.198%	0.012	0.005	0.027	0.019
%RSD		0.624	5.402	2.931	0.385	160.500	108.300	40.830	37.470

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	55.251%	-0.112	0.018	0.030	2.925	2.982	62.314%	62.783%
2	10:21:21	55.702%	-0.057	0.061	0.032	2.946	2.944	62.655%	63.361%
3	10:21:40	55.572%	-0.093	0.022	0.023	2.575	2.766	62.742%	64.221%
x		55.508%	-0.087	0.034	0.028	2.815	2.897	62.570%	63.455%
σ		0.232%	0.028	0.024	0.005	0.208	0.115	0.226%	0.723%
%RSD		0.418	31.980	70.610	16.810	7.406	3.985	0.361	1.140

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:01	-0.002	-0.010	-0.006	-0.022	-0.020	64.535%
2	10:21:21	-0.010	-0.010	-0.012	-0.033	-0.026	64.491%
3	10:21:40	-0.005	-0.010	-0.021	-0.028	-0.027	64.780%
x		-0.006	-0.010	-0.013	-0.028	-0.024	64.602%
σ		0.004	0.000	0.007	0.006	0.004	0.156%
%RSD		73.360	3.913	56.220	20.200	14.540	0.241

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	53.633%	45.270	1354.000	1376.000	0.000	49390.000	43740.000	42980.000
2	10:25:01	52.330%	46.730	1377.000	1389.000	0.000	50640.000	44740.000	43800.000
3	10:25:20	52.555%	44.500	1417.000	1407.000	0.000	51040.000	45110.000	43670.000
x		52.839%	45.500	1383.000	1391.000	0.000	50360.000	44530.000	43480.000
σ		0.696%	1.132	31.660	15.640	0.000	859.600	705.700	438.100
%RSD		1.318	2.487	2.290	1.125	0.000	1.707	1.585	1.008

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	1703.000	11580.000	0.000	48320.000	54800.000	53240.000	48.642%	840.800
2	10:25:01	1731.000	11710.000	0.000	49060.000	55530.000	53690.000	48.293%	849.900
3	10:25:20	1721.000	11640.000	0.000	48680.000	55720.000	53280.000	48.858%	852.900
x		1719.000	11650.000	0.000	48690.000	55350.000	53400.000	48.598%	847.900
σ		13.930	66.070	0.000	370.400	486.600	250.400	0.285%	6.255
%RSD		0.811	0.567	0.000	0.761	0.879	0.469	0.587	0.738

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	424.900	170.000	429.600	1217.000	1333.000	427.100	418.900	212.800
2	10:25:01	427.100	170.000	428.600	1216.000	1316.000	425.200	419.700	211.800
3	10:25:20	426.400	170.600	427.700	1208.000	1301.000	423.700	424.300	213.700
x		426.100	170.200	428.600	1214.000	1317.000	425.300	421.000	212.700
σ		1.105	0.356	0.967	5.141	15.990	1.737	2.907	0.951
%RSD		0.259	0.209	0.226	0.424	1.215	0.408	0.691	0.447

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	209.100	412.200	420.900	33.630	21.470	20.840	0.000	869.900
2	10:25:01	214.200	420.800	424.000	32.140	20.970	19.130	0.000	878.300
3	10:25:20	214.800	413.700	419.900	34.860	20.420	17.800	0.000	878.800
x		212.700	415.600	421.600	33.540	20.950	19.260	0.000	875.700
σ		3.138	4.616	2.151	1.361	0.528	1.528	0.000	4.984
%RSD		1.475	1.111	0.510	4.056	2.522	7.934	0.000	0.569

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	50.663%	930.100	940.600	45.869%	45.050	44.860	44.010	38.960
2	10:25:01	50.843%	935.500	944.100	46.481%	44.960	45.560	43.630	39.610
3	10:25:20	50.936%	945.600	950.400	46.393%	45.680	46.180	44.370	37.890
x		50.814%	937.100	945.000	46.248%	45.230	45.530	44.010	38.820
σ		0.139%	7.871	4.957	0.331%	0.392	0.662	0.371	0.870
%RSD		0.274	0.840	0.524	0.715	0.867	1.455	0.844	2.240

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	50.593%	1779.000	434.400	430.500	1698.000	1698.000	59.991%	61.555%
2	10:25:01	50.969%	1779.000	429.800	430.200	1705.000	1696.000	60.868%	61.589%
3	10:25:20	51.397%	1779.000	434.800	429.200	1710.000	1703.000	60.600%	61.756%
x		50.986%	1779.000	433.000	430.000	1704.000	1699.000	60.486%	61.633%
σ		0.403%	0.288	2.780	0.651	5.749	3.800	0.450%	0.108%
%RSD		0.789	0.016	0.642	0.151	0.337	0.224	0.743	0.175

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:42	46.450	48.780	19.830	19.660	19.740	55.197%
2	10:25:01	46.650	48.850	19.470	19.470	19.580	56.206%
3	10:25:20	46.890	48.830	19.330	19.470	19.440	57.015%
x		46.660	48.820	19.550	19.530	19.590	56.140%
σ		0.217	0.039	0.259	0.109	0.152	0.911%
%RSD		0.465	0.080	1.324	0.558	0.775	1.622

180-36137-H-4-C MSD 9/5/2014 10:28:05 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	53.223%	49.350	1459.000	1482.000	0.000	51350.000	45810.000	44270.000
2	10:28:43	52.453%	47.550	1468.000	1445.000	0.000	52740.000	46210.000	44480.000
3	10:29:02	54.488%	43.560	1411.000	1403.000	0.000	51420.000	45110.000	43200.000
x		53.388%	46.820	1446.000	1443.000	0.000	51840.000	45710.000	43980.000
σ		1.027%	2.961	30.580	39.370	0.000	782.600	557.100	687.700
%RSD		1.925	6.324	2.115	2.728	0.000	1.510	1.219	1.564

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	1728.000	11970.000	0.000	49990.000	56930.000	55090.000	47.839%	867.500
2	10:28:43	1735.000	12040.000	0.000	49980.000	58060.000	54690.000	47.710%	860.000
3	10:29:02	1683.000	11780.000	0.000	49940.000	58260.000	54760.000	48.115%	858.100
x		1715.000	11930.000	0.000	49970.000	57750.000	54850.000	47.888%	861.900
σ		27.880	132.500	0.000	30.500	719.800	215.300	0.207%	4.961
%RSD		1.625	1.110	0.000	0.061	1.246	0.393	0.433	0.576

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	433.700	173.800	435.000	1261.000	1368.000	434.400	421.600	217.900
2	10:28:43	432.400	175.100	435.400	1257.000	1363.000	436.800	427.400	216.600
3	10:29:02	440.800	174.600	431.900	1251.000	1393.000	434.100	427.000	216.900
x		435.600	174.500	434.100	1256.000	1375.000	435.100	425.300	217.100
σ		4.501	0.648	1.948	4.955	16.040	1.483	3.277	0.659
%RSD		1.033	0.372	0.449	0.394	1.167	0.341	0.770	0.304

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	219.500	414.500	419.100	36.310	25.580	25.040	0.000	887.100
2	10:28:43	217.100	415.800	416.600	34.480	25.930	26.760	0.000	885.900
3	10:29:02	212.400	410.100	416.600	37.020	26.750	25.710	0.000	891.800
x		216.300	413.500	417.400	35.940	26.080	25.840	0.000	888.300
σ		3.613	2.988	1.440	1.309	0.604	0.866	0.000	3.143
%RSD		1.670	0.723	0.345	3.642	2.314	3.351	0.000	0.354

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	50.037%	967.400	972.000	45.487%	46.520	46.060	45.250	38.840
2	10:28:43	49.994%	962.500	978.100	45.438%	45.780	45.770	44.880	37.540
3	10:29:02	50.004%	972.000	976.400	45.294%	47.040	46.570	45.150	38.370
x		50.012%	967.300	975.500	45.406%	46.450	46.130	45.090	38.250
σ		0.023%	4.743	3.141	0.101%	0.634	0.403	0.193	0.656
%RSD		0.045	0.490	0.322	0.222	1.366	0.873	0.428	1.716

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	49.924%	1800.000	429.200	424.600	1710.000	1718.000	59.433%	60.336%
2	10:28:43	50.196%	1803.000	430.400	431.300	1725.000	1729.000	58.912%	60.104%
3	10:29:02	49.577%	1828.000	442.100	438.000	1733.000	1734.000	59.070%	60.505%
x		49.899%	1811.000	433.900	431.300	1723.000	1727.000	59.138%	60.315%
σ		0.310%	15.430	7.130	6.705	11.760	8.283	0.267%	0.201%
%RSD		0.622	0.852	1.643	1.555	0.683	0.480	0.452	0.334

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	47.730	50.580	19.700	20.000	19.890	54.343%
2	10:28:43	48.640	50.780	19.940	20.100	20.270	54.451%
3	10:29:02	48.760	51.160	20.060	19.860	20.090	54.434%
x		48.380	50.840	19.900	19.990	20.080	54.410%
σ		0.564	0.295	0.184	0.119	0.186	0.058%
%RSD		1.165	0.581	0.924	0.598	0.927	0.107

180-36137-G-4-A 9/5/2014 10:34:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	54.277%	-0.003	497.000	506.300	0.000	6065.000	837.900	796.700
2	10:35:08	54.154%	-0.035	498.100	497.900	0.000	6056.000	841.400	818.100
3	10:35:28	53.132%	-0.035	512.600	518.400	0.000	6138.000	841.400	821.400
x		53.854%	-0.024	502.600	507.600	0.000	6086.000	840.200	812.100
σ		0.629%	0.019	8.704	10.330	0.000	45.300	1.984	13.450
%RSD		1.167	77.390	1.732	2.035	0.000	0.744	0.236	1.657

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	50.680	3920.000	0.000	6643.000	12300.000	11930.000	49.471%	1.706
2	10:35:08	49.930	3877.000	0.000	6651.000	12540.000	11970.000	49.020%	1.678
3	10:35:28	50.250	3938.000	0.000	6644.000	12630.000	11970.000	49.269%	1.896
x		50.290	3912.000	0.000	6646.000	12490.000	11960.000	49.253%	1.760
σ		0.374	31.260	0.000	4.500	173.400	21.880	0.226%	0.119
%RSD		0.745	0.799	0.000	0.068	1.389	0.183	0.459	6.746

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	-0.319	1.015	4.574	516.200	550.300	0.173	0.186	2.357
2	10:35:08	1.179	1.053	4.403	516.400	543.800	0.185	0.453	2.215
3	10:35:28	-0.585	0.915	4.482	513.200	555.500	0.178	0.330	2.122
x		0.092	0.994	4.486	515.200	549.800	0.179	0.323	2.231
σ		0.951	0.072	0.086	1.784	5.862	0.006	0.133	0.118
%RSD		1039.000	7.199	1.907	0.346	1.066	3.464	41.290	5.304

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	2.218	3.959	2.958	2.370	21.330	18.270	0.000	26.380
2	10:35:08	2.421	3.679	3.636	3.323	21.070	22.090	0.000	26.250
3	10:35:28	2.070	3.078	3.476	1.554	21.330	19.720	0.000	26.620
x		2.236	3.572	3.357	2.416	21.250	20.030	0.000	26.420
σ		0.176	0.450	0.355	0.885	0.148	1.925	0.000	0.184
%RSD		7.879	12.600	10.560	36.640	0.695	9.610	0.000	0.698

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	51.439%	0.248	0.115	49.204%	-0.005	-0.012	0.006	0.039
2	10:35:08	51.910%	0.095	-0.064	49.039%	-0.000	0.005	0.061	0.052
3	10:35:28	52.229%	0.143	0.012	49.051%	-0.003	0.000	0.057	0.029
x		51.859%	0.162	0.021	49.098%	-0.003	-0.002	0.042	0.040
σ		0.397%	0.078	0.090	0.092%	0.003	0.009	0.031	0.011
%RSD		0.766	48.100	428.900	0.188	91.390	412.400	73.360	27.730

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	52.902%	1.802	0.440	0.419	14.800	14.000	61.343%	61.908%
2	10:35:08	53.524%	1.504	0.419	0.482	14.550	13.960	61.586%	62.655%
3	10:35:28	53.826%	1.535	0.417	0.406	13.750	13.680	61.604%	63.314%
x		53.418%	1.614	0.425	0.436	14.370	13.880	61.511%	62.626%
σ		0.471%	0.164	0.013	0.041	0.548	0.174	0.146%	0.704%
%RSD		0.882	10.140	2.981	9.310	3.818	1.254	0.237	1.124

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:49	0.087	0.115	0.128	0.095	0.115	60.187%
2	10:35:08	0.082	0.093	0.145	0.117	0.131	60.422%
3	10:35:28	0.070	0.089	0.129	0.115	0.114	61.515%
x		0.080	0.099	0.134	0.109	0.120	60.708%
σ		0.009	0.014	0.009	0.012	0.009	0.709%
%RSD		11.290	14.160	6.991	11.150	7.860	1.167

180-36137-G-4-A SD@5 9/5/2014 10:38:12 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	59.429%	-0.035	100.600	101.300	0.000	1152.000	167.200	162.400
2	10:38:50	60.085%	-0.006	99.650	99.640	0.000	1157.000	162.800	161.900
3	10:39:09	58.491%	-0.035	102.900	102.400	0.000	1187.000	170.600	164.000
x		59.335%	-0.025	101.000	101.100	0.000	1165.000	166.900	162.800
σ		0.801%	0.017	1.651	1.405	0.000	19.080	3.901	1.109
%RSD		1.351	67.170	1.634	1.390	0.000	1.638	2.338	0.681

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	11.060	798.800	0.000	1303.000	2411.000	2436.000	53.817%	-0.221
2	10:38:50	9.170	788.700	0.000	1315.000	2395.000	2427.000	53.727%	0.031
3	10:39:09	9.494	801.400	0.000	1323.000	2430.000	2344.000	52.986%	0.633
x		9.907	796.300	0.000	1314.000	2412.000	2403.000	53.510%	0.148
σ		1.008	6.713	0.000	9.947	17.640	50.920	0.456%	0.439
%RSD		10.180	0.843	0.000	0.757	0.731	2.119	0.852	296.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	-0.335	0.193	0.924	97.420	111.200	0.027	0.067	0.468
2	10:38:50	-0.449	0.212	0.881	97.250	108.800	0.035	0.135	0.511
3	10:39:09	0.228	0.189	0.939	96.800	118.700	0.033	0.054	0.496
x		-0.185	0.198	0.914	97.160	112.900	0.032	0.085	0.491
σ		0.363	0.012	0.030	0.322	5.166	0.004	0.043	0.021
%RSD		195.500	6.245	3.294	0.331	4.575	13.020	50.880	4.364

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	0.511	0.591	0.775	-0.147	4.511	3.102	0.000	5.190
2	10:38:50	0.565	0.818	0.768	-0.036	4.477	2.371	0.000	5.468
3	10:39:09	0.363	0.679	0.961	-0.194	4.559	3.068	0.000	5.486
x		0.480	0.696	0.835	-0.126	4.516	2.847	0.000	5.381
σ		0.105	0.115	0.109	0.081	0.041	0.413	0.000	0.166
%RSD		21.780	16.510	13.080	64.260	0.917	14.500	0.000	3.081

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	55.043%	-0.643	-0.711	54.217%	-0.005	-0.016	-0.003	0.005
2	10:38:50	55.805%	-0.727	-0.657	54.413%	-0.005	-0.020	0.058	0.046
3	10:39:09	55.365%	-0.758	-0.700	54.634%	-0.010	-0.018	0.112	0.092
x		55.405%	-0.709	-0.689	54.421%	-0.006	-0.018	0.056	0.048
σ		0.383%	0.059	0.029	0.208%	0.003	0.002	0.057	0.044
%RSD		0.691	8.372	4.162	0.383	42.460	13.010	103.000	91.550

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	57.856%	-0.007	0.061	0.046	2.834	2.839	65.117%	65.981%
2	10:38:50	58.346%	0.062	0.067	0.013	2.870	2.616	65.624%	66.044%
3	10:39:09	58.575%	0.032	0.029	0.048	2.644	2.857	65.743%	66.819%
x		58.259%	0.029	0.053	0.036	2.782	2.771	65.495%	66.281%
σ		0.367%	0.034	0.020	0.020	0.121	0.134	0.332%	0.467%
%RSD		0.631	118.000	38.530	55.370	4.360	4.840	0.508	0.705

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:31	0.031	0.035	0.013	-0.001	-0.002	66.269%
2	10:38:50	0.023	0.031	0.000	0.000	-0.002	66.776%
3	10:39:09	0.025	0.029	0.019	-0.024	-0.002	66.836%
x		0.026	0.032	0.011	-0.008	-0.002	66.627%
σ		0.004	0.003	0.009	0.013	0.000	0.312%
%RSD		16.170	10.740	88.770	163.500	6.589	0.468

CCV 1308170 9/5/2014 10:41:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	65.491%	97.240	99.940	96.280	0.000	47850.000	48290.000	47940.000
2	10:42:12	65.124%	99.660	97.470	98.890	0.000	47920.000	48650.000	48660.000
3	10:42:31	64.554%	98.070	100.000	99.460	0.000	48730.000	49460.000	49020.000
x		65.056%	98.325%	99.135%	98.210%	0.000	96.327%	97.601%	97.081%
σ		0.473%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.726	1.248	1.458	1.725	0.000	1.017	1.232	1.141

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	492.300	5029.000	0.000	48110.000	49470.000	47210.000	56.121%	94.280
2	10:42:12	495.700	5035.000	0.000	48720.000	48840.000	47880.000	56.175%	103.800
3	10:42:31	493.500	5004.000	0.000	48910.000	50370.000	47870.000	56.432%	96.730
x		98.770%	100.455%	0.000	97.158%	99.118%	95.308%	56.243%	98.252%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.166%	n/a
%RSD		0.344	0.334	0.000	0.864	1.552	0.803	0.296	5.007

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	97.900	98.240	494.400	24910.000	25080.000	99.140	97.220	99.460
2	10:42:12	97.600	98.050	497.100	24990.000	25190.000	99.240	98.560	100.100
3	10:42:31	96.070	99.340	497.200	25100.000	25250.000	100.300	97.910	101.300
x		97.192%	98.546%	99.251%	99.984%	100.691%	99.555%	97.897%	100.289%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.010	0.705	0.322	0.379	0.346	0.632	0.688	0.961

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	101.200	102.000	101.300	99.200	99.140	97.510	0.000	98.700
2	10:42:12	100.800	99.330	98.680	98.250	99.780	95.510	0.000	98.540
3	10:42:31	102.100	100.500	99.900	98.050	98.040	94.020	0.000	98.340
x		101.393%	100.618%	99.973%	98.497%	98.985%	95.679%	0.000	98.530%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.669	1.328	1.336	0.622	0.887	1.833	0.000	0.182

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	56.825%	99.120	99.320	52.846%	101.500	101.300	101.500	101.100
2	10:42:12	57.554%	101.400	102.900	53.443%	100.900	101.400	100.700	98.420
3	10:42:31	58.126%	103.200	104.900	53.814%	100.600	101.700	99.730	98.970
x		57.502%	101.230%	102.380%	53.368%	101.007%	101.445%	100.634%	99.483%
σ		0.652%	n/a	n/a	0.488%	n/a	n/a	n/a	n/a
%RSD		1.134	2.022	2.772	0.915	0.457	0.189	0.863	1.402

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	57.411%	97.550	94.420	94.860	96.630	97.040	64.538%	66.008%
2	10:42:12	59.184%	96.740	94.990	94.560	96.270	95.920	65.956%	66.364%
3	10:42:31	59.752%	96.320	94.760	95.710	94.850	96.980	66.515%	67.906%
x		58.782%	96.869%	94.721%	95.043%	95.916%	96.643%	65.669%	66.760%
σ		1.221%	n/a	n/a	n/a	n/a	n/a	1.019%	1.009%
%RSD		2.077	0.649	0.304	0.627	0.983	0.653	1.552	1.511

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:53	98.290	102.500	103.600	103.200	103.200	67.054%
2	10:42:12	101.900	105.200	106.400	105.900	106.400	66.028%
3	10:42:31	102.700	106.500	108.000	108.900	108.500	65.415%
x		100.969%	104.737%	106.014%	106.013%	106.021%	66.166%
σ		n/a	n/a	n/a	n/a	n/a	0.828%
%RSD		2.331	1.956	2.149	2.692	2.517	1.252

CCB3 9/5/2014 10:48:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	68.302%	-0.035	1.820	1.383	0.000	-2.669	1.999	1.692
2	10:48:41	69.592%	-0.009	1.706	1.415	0.000	-2.241	1.590	1.439
3	10:49:00	67.258%	0.018	1.217	1.540	0.000	-2.207	1.835	1.830
x		68.384%	-0.009	1.581	1.446	0.000	-2.372	1.808	1.654
σ		1.170%	0.026	0.320	0.083	0.000	0.257	0.206	0.198
%RSD		1.710	293.900	20.240	5.756	0.000	10.840	11.380	11.980

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	0.336	1.325	0.000	0.529	1.144	4.917	58.197%	-0.269
2	10:48:41	0.265	1.112	0.000	0.049	1.149	2.534	58.133%	-0.308
3	10:49:00	0.342	1.258	0.000	1.009	8.447	2.115	57.349%	-0.268
x		0.314	1.231	0.000	0.529	3.580	3.189	57.893%	-0.281
σ		0.043	0.109	0.000	0.480	4.215	1.512	0.472%	0.023
%RSD		13.720	8.847	0.000	90.750	117.700	47.410	0.816	8.068

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	-0.024	-0.076	0.072	-6.452	6.562	0.007	0.041	0.012
2	10:48:41	0.019	-0.011	0.052	-7.007	4.846	-0.005	0.092	0.044
3	10:49:00	-0.011	-0.077	0.043	-7.488	5.117	0.005	0.055	-0.013
x		-0.006	-0.055	0.056	-6.982	5.508	0.002	0.063	0.015
σ		0.022	0.038	0.015	0.518	0.922	0.007	0.026	0.028
%RSD		398.500	69.110	26.980	7.424	16.740	306.700	41.860	194.900

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	-0.001	0.034	0.231	-0.545	-0.406	-2.330	0.000	0.037
2	10:48:41	-0.076	-0.004	0.053	-0.475	-0.335	-2.024	0.000	0.018
3	10:49:00	-0.010	-0.104	0.056	-0.272	-0.225	-1.619	0.000	0.028
x		-0.029	-0.025	0.114	-0.431	-0.322	-1.991	0.000	0.028
σ		0.041	0.071	0.102	0.141	0.091	0.357	0.000	0.009
%RSD		141.700	284.700	89.950	32.850	28.390	17.910	0.000	33.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	59.279%	-0.800	-0.821	58.350%	-0.013	0.004	-0.013	0.006
2	10:48:41	59.305%	-0.733	-0.772	58.217%	0.000	-0.007	0.026	0.037
3	10:49:00	59.115%	-0.808	-0.830	58.353%	-0.006	-0.010	0.084	0.070
x		59.233%	-0.780	-0.808	58.307%	-0.006	-0.005	0.032	0.038
σ		0.103%	0.041	0.031	0.078%	0.006	0.007	0.049	0.032
%RSD		0.174	5.279	3.874	0.134	103.800	156.200	150.600	84.910

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	61.626%	-0.153	0.138	0.133	-0.011	0.022	67.207%	67.778%
2	10:48:41	62.079%	-0.165	0.075	0.132	-0.020	0.006	66.897%	68.196%
3	10:49:00	61.978%	-0.132	0.104	0.098	0.036	0.022	67.916%	68.695%
x		61.894%	-0.150	0.106	0.121	0.002	0.017	67.340%	68.223%
σ		0.238%	0.016	0.032	0.020	0.030	0.009	0.522%	0.459%
%RSD		0.384	10.940	29.800	16.370	1709.000	55.060	0.775	0.673

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:22	0.009	0.011	0.193	0.143	0.160	72.107%
2	10:48:41	0.005	0.004	0.188	0.147	0.172	72.280%
3	10:49:00	0.000	0.004	0.200	0.174	0.196	71.935%
x		0.005	0.006	0.194	0.155	0.176	72.107%
σ		0.005	0.004	0.006	0.017	0.018	0.172%
%RSD		93.830	65.780	3.134	10.770	10.500	0.239

180-36137-G-4-B MS 9/5/2014 10:51:47 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	52.302%	47.520	1408.000	1432.000	0.000	50770.000	45050.000	43750.000
2	10:52:25	51.532%	46.570	1401.000	1415.000	0.000	50700.000	44940.000	44080.000
3	10:52:44	52.417%	44.850	1396.000	1394.000	0.000	50640.000	44850.000	43670.000
x		52.084%	46.310	1402.000	1413.000	0.000	50700.000	44950.000	43830.000
σ		0.481%	1.354	6.197	19.060	0.000	64.560	100.200	217.800
%RSD		0.924	2.923	0.442	1.349	0.000	0.127	0.223	0.497

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	1807.000	11990.000	0.000	48940.000	57000.000	53800.000	47.572%	857.700
2	10:52:25	1816.000	12010.000	0.000	49580.000	55740.000	54090.000	47.223%	855.600
3	10:52:44	1800.000	11920.000	0.000	49340.000	56890.000	54330.000	47.545%	854.100
x		1808.000	11970.000	0.000	49290.000	56540.000	54070.000	47.447%	855.800
σ		8.005	44.500	0.000	321.100	694.600	264.300	0.194%	1.824
%RSD		0.443	0.372	0.000	0.652	1.229	0.489	0.409	0.213

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	434.400	173.900	431.100	1382.000	1470.000	432.600	427.000	217.600
2	10:52:25	431.200	171.800	430.600	1380.000	1486.000	428.500	425.400	215.000
3	10:52:44	435.800	173.200	433.700	1386.000	1518.000	427.800	425.000	212.400
x		433.800	173.000	431.800	1383.000	1491.000	429.600	425.800	215.000
σ		2.356	1.066	1.662	3.198	24.490	2.583	1.044	2.600
%RSD		0.543	0.617	0.385	0.231	1.642	0.601	0.245	1.209

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	216.200	419.600	410.600	34.830	27.600	27.320	0.000	880.000
2	10:52:25	213.300	411.500	409.800	32.370	29.210	28.750	0.000	881.700
3	10:52:44	215.200	413.400	419.400	33.320	27.380	27.650	0.000	877.500
x		214.900	414.800	413.300	33.500	28.070	27.910	0.000	879.700
σ		1.507	4.247	5.294	1.241	0.997	0.749	0.000	2.094
%RSD		0.701	1.024	1.281	3.703	3.551	2.684	0.000	0.238

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	49.006%	946.600	952.300	45.013%	45.950	46.960	42.940	38.440
2	10:52:25	49.505%	948.000	957.100	44.905%	45.660	45.530	43.690	39.800
3	10:52:44	50.254%	944.900	959.700	45.405%	45.820	45.880	45.100	37.640
x		49.588%	946.500	956.400	45.108%	45.810	46.120	43.910	38.630
σ		0.628%	1.564	3.754	0.263%	0.148	0.750	1.096	1.096
%RSD		1.267	0.165	0.393	0.583	0.323	1.625	2.496	2.837

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	49.453%	1778.000	427.900	424.600	1691.000	1696.000	57.924%	58.882%
2	10:52:25	50.181%	1784.000	428.300	426.800	1698.000	1705.000	58.697%	59.673%
3	10:52:44	49.951%	1794.000	434.000	432.000	1729.000	1726.000	59.020%	60.440%
x		49.861%	1785.000	430.100	427.800	1706.000	1709.000	58.547%	59.665%
σ		0.372%	7.940	3.415	3.783	20.030	15.630	0.563%	0.779%
%RSD		0.746	0.445	0.794	0.884	1.174	0.915	0.961	1.306

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:06	47.610	49.160	19.700	19.780	19.870	53.403%
2	10:52:25	47.380	49.480	19.730	19.870	19.810	55.067%
3	10:52:44	46.870	49.630	19.660	19.530	19.620	55.786%
x		47.290	49.420	19.700	19.730	19.770	54.752%
σ		0.378	0.242	0.040	0.174	0.130	1.222%
%RSD		0.798	0.490	0.201	0.884	0.655	2.233

180-36137-G-4-C MSD 9/5/2014 10:55:29 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	51.919%	48.200	1432.000	1424.000	0.000	51320.000	45730.000	44590.000
2	10:56:07	52.493%	44.580	1400.000	1417.000	0.000	51280.000	45280.000	44380.000
3	10:56:27	53.454%	47.370	1412.000	1418.000	0.000	51070.000	45360.000	43900.000
x		52.622%	46.720	1415.000	1419.000	0.000	51220.000	45460.000	44290.000
σ		0.776%	1.896	15.950	3.809	0.000	129.800	236.800	354.700
%RSD		1.474	4.059	1.127	0.268	0.000	0.253	0.521	0.801

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	1840.000	12250.000	0.000	49940.000	55910.000	54760.000	47.680%	858.000
2	10:56:07	1819.000	12190.000	0.000	49490.000	55290.000	54530.000	48.486%	859.700
3	10:56:27	1795.000	12050.000	0.000	49910.000	56290.000	54660.000	48.361%	862.500
x		1818.000	12160.000	0.000	49780.000	55830.000	54650.000	48.176%	860.100
σ		22.430	103.100	0.000	251.400	507.400	116.800	0.434%	2.264
%RSD		1.234	0.848	0.000	0.505	0.909	0.214	0.901	0.263

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	439.400	174.900	434.100	1407.000	1558.000	437.000	435.300	220.900
2	10:56:07	439.300	173.700	431.600	1392.000	1511.000	429.700	425.000	215.300
3	10:56:27	435.300	172.500	433.600	1395.000	1522.000	434.900	429.400	216.200
x		438.000	173.700	433.100	1398.000	1530.000	433.900	429.900	217.500
σ		2.379	1.181	1.339	7.628	24.550	3.731	5.162	3.024
%RSD		0.543	0.680	0.309	0.546	1.604	0.860	1.201	1.391

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	216.900	420.700	429.900	35.680	29.610	28.570	0.000	890.400
2	10:56:07	213.300	416.200	421.400	32.790	28.980	30.310	0.000	878.900
3	10:56:27	221.800	418.600	425.900	33.740	29.340	28.480	0.000	880.900
x		217.300	418.500	425.700	34.070	29.310	29.120	0.000	883.400
σ		4.232	2.224	4.271	1.470	0.313	1.031	0.000	6.134
%RSD		1.947	0.531	1.003	4.315	1.068	3.541	0.000	0.694

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	49.908%	958.100	964.800	45.597%	46.260	46.150	46.390	39.560
2	10:56:07	50.513%	958.200	964.500	45.576%	45.450	45.440	44.240	38.820
3	10:56:27	50.519%	950.400	963.500	45.878%	45.860	46.070	44.360	39.510
x		50.313%	955.600	964.300	45.683%	45.860	45.890	45.000	39.300
σ		0.351%	4.497	0.652	0.169%	0.407	0.389	1.211	0.412
%RSD		0.698	0.471	0.068	0.369	0.888	0.847	2.692	1.048

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	50.109%	1802.000	434.400	432.400	1725.000	1717.000	59.115%	60.249%
2	10:56:07	50.823%	1790.000	432.700	429.300	1711.000	1701.000	59.500%	60.785%
3	10:56:27	50.557%	1798.000	437.400	432.400	1706.000	1708.000	60.008%	60.431%
x		50.497%	1797.000	434.800	431.300	1714.000	1709.000	59.541%	60.488%
σ		0.361%	6.419	2.368	1.781	9.819	7.885	0.448%	0.273%
%RSD		0.714	0.357	0.545	0.413	0.573	0.461	0.752	0.451

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:48	47.990	49.670	20.030	19.770	19.930	55.164%
2	10:56:07	47.850	49.690	19.730	19.710	19.820	55.564%
3	10:56:27	47.440	49.850	19.650	19.910	19.960	55.471%
x		47.760	49.740	19.800	19.800	19.900	55.400%
σ		0.284	0.097	0.197	0.100	0.075	0.209%
%RSD		0.595	0.195	0.994	0.506	0.378	0.378

180-36137-H-5-A 9/5/2014 10:59:12 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	52.276%	-0.035	17.960	16.280	0.000	114100.000	28860.000	28300.000
2	10:59:51	54.102%	-0.035	14.360	16.720	0.000	112300.000	28580.000	27830.000
3	11:00:10	52.940%	-0.035	13.920	15.520	0.000	113000.000	28860.000	28010.000
x		53.106%	-0.035	15.410	16.170	0.000	113100.000	28770.000	28050.000
σ		0.924%	0.000	2.217	0.606	0.000	877.100	161.000	236.800
%RSD		1.740	0.000	14.380	3.746	0.000	0.775	0.560	0.844

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	6.039	3596.000	0.000	2383.000	43110.000	41930.000	47.669%	0.448
2	10:59:51	6.039	3527.000	0.000	2376.000	43800.000	41770.000	47.461%	0.967
3	11:00:10	6.046	3518.000	0.000	2377.000	42920.000	42190.000	47.935%	0.490
x		6.041	3547.000	0.000	2379.000	43280.000	41970.000	47.688%	0.635
σ		0.004	42.510	0.000	3.525	460.200	211.500	0.237%	0.288
%RSD		0.065	1.198	0.000	0.148	1.063	0.504	0.498	45.410

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	1.583	0.805	259.100	-5.071	72.690	1.630	4.719	0.561
2	10:59:51	0.405	0.705	258.900	-6.030	72.680	1.573	4.732	0.665
3	11:00:10	0.185	0.655	257.600	-5.759	71.620	1.459	4.682	0.666
x		0.724	0.722	258.500	-5.620	72.330	1.554	4.711	0.631
σ		0.752	0.076	0.840	0.494	0.617	0.087	0.026	0.060
%RSD		103.800	10.580	0.325	8.795	0.853	5.586	0.545	9.584

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	0.424	5.036	4.458	-0.246	-0.243	-4.938	0.000	188.300
2	10:59:51	0.354	4.788	5.843	-0.698	-0.655	-4.673	0.000	188.900
3	11:00:10	0.442	5.544	5.030	-0.005	-0.413	-4.444	0.000	189.500
x		0.407	5.123	5.110	-0.316	-0.437	-4.685	0.000	188.900
σ		0.046	0.386	0.696	0.352	0.207	0.247	0.000	0.569
%RSD		11.330	7.528	13.610	111.200	47.460	5.272	0.000	0.301

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	70.749%	1.417	1.577	45.279%	-0.009	-0.006	0.211	0.173
2	10:59:51	72.056%	0.687	1.059	45.870%	0.012	0.002	0.200	0.179
3	11:00:10	71.673%	0.500	0.719	45.907%	-0.004	-0.006	0.243	0.201
x		71.493%	0.868	1.118	45.685%	-0.000	-0.004	0.218	0.184
σ		0.672%	0.485	0.432	0.352%	0.011	0.005	0.022	0.015
%RSD		0.940	55.820	38.660	0.771	3312.000	128.500	10.070	7.997

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	50.448%	2.556	0.111	0.206	62.470	63.240	61.589%	62.604%
2	10:59:51	50.822%	2.160	0.123	0.110	64.120	64.410	61.591%	62.806%
3	11:00:10	50.862%	1.930	0.125	0.140	63.680	63.570	61.960%	63.466%
x		50.711%	2.215	0.120	0.152	63.430	63.740	61.713%	62.959%
σ		0.228%	0.317	0.008	0.049	0.853	0.602	0.214%	0.451%
%RSD		0.450	14.300	6.520	32.120	1.344	0.945	0.346	0.716

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:31	0.251	0.263	0.009	0.002	0.007	54.590%
2	10:59:51	0.237	0.228	0.033	-0.005	0.012	54.769%
3	11:00:10	0.191	0.211	0.007	0.019	0.005	55.125%
x		0.226	0.234	0.016	0.005	0.008	54.828%
σ		0.031	0.026	0.014	0.012	0.003	0.272%
%RSD		13.800	11.180	85.250	229.300	39.440	0.496

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	53.988%	-0.002	12.000	10.920	0.000	113700.000	29040.000	28250.000
2	11:03:34	53.647%	-0.035	10.970	11.580	0.000	114800.000	29290.000	28240.000
3	11:03:53	54.075%	-0.002	10.110	12.700	0.000	115300.000	29490.000	28250.000
x		53.903%	-0.013	11.030	11.730	0.000	114600.000	29270.000	28250.000
σ		0.226%	0.019	0.944	0.902	0.000	808.700	226.800	7.209
%RSD		0.419	142.600	8.558	7.688	0.000	0.706	0.775	0.026

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	14.570	3550.000	0.000	2328.000	43850.000	42470.000	47.898%	0.584
2	11:03:34	12.450	3561.000	0.000	2327.000	44090.000	42530.000	47.963%	0.303
3	11:03:53	12.200	3589.000	0.000	2343.000	44190.000	42920.000	47.580%	0.402
x		13.070	3567.000	0.000	2333.000	44040.000	42640.000	47.814%	0.430
σ		1.301	20.040	0.000	9.371	174.900	246.100	0.205%	0.142
%RSD		9.954	0.562	0.000	0.402	0.397	0.577	0.429	33.070

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	-0.415	1.032	259.800	-1.375	77.890	1.540	4.947	0.625
2	11:03:34	0.444	0.792	261.000	-1.378	74.840	1.549	4.926	0.694
3	11:03:53	0.265	0.815	262.000	-0.730	77.950	1.706	4.665	0.781
x		0.098	0.880	260.900	-1.161	76.900	1.598	4.846	0.700
σ		0.453	0.133	1.126	0.374	1.780	0.093	0.157	0.078
%RSD		462.300	15.060	0.432	32.180	2.314	5.823	3.247	11.210

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	0.635	5.517	5.844	-0.050	-0.285	-5.030	0.000	188.000
2	11:03:34	0.609	5.517	6.104	-0.348	-0.149	-4.601	0.000	189.000
3	11:03:53	0.522	5.381	5.267	0.255	-0.125	-5.308	0.000	188.800
x		0.589	5.471	5.738	-0.048	-0.186	-4.980	0.000	188.600
σ		0.059	0.079	0.428	0.301	0.086	0.356	0.000	0.503
%RSD		9.998	1.435	7.468	630.800	46.440	7.149	0.000	0.267

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	70.956%	-0.420	-0.360	45.065%	0.010	0.013	0.196	0.178
2	11:03:34	71.645%	-0.372	-0.306	45.384%	0.010	0.002	0.247	0.177
3	11:03:53	71.857%	-0.458	-0.303	45.515%	-0.004	0.002	0.209	0.110
x		71.486%	-0.417	-0.323	45.321%	0.005	0.006	0.217	0.155
σ		0.471%	0.043	0.032	0.231%	0.008	0.006	0.027	0.039
%RSD		0.659	10.370	10.000	0.510	148.300	112.900	12.230	25.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	50.329%	1.449	0.063	0.149	62.870	63.600	61.308%	62.253%
2	11:03:34	50.258%	1.544	0.098	0.112	64.750	64.930	61.110%	62.467%
3	11:03:53	50.423%	1.453	0.081	0.078	65.140	64.230	61.213%	62.883%
x		50.337%	1.482	0.081	0.113	64.250	64.250	61.210%	62.534%
σ		0.083%	0.054	0.018	0.036	1.215	0.663	0.099%	0.320%
%RSD		0.164	3.635	21.780	31.490	1.891	1.032	0.162	0.512

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:03:15	0.106	0.121	0.033	0.019	0.029	54.040%
2	11:03:34	0.082	0.105	0.022	0.034	0.031	54.280%
3	11:03:53	0.107	0.111	0.060	0.034	0.031	54.808%
x		0.098	0.112	0.038	0.029	0.030	54.376%
σ		0.014	0.008	0.020	0.008	0.001	0.393%
%RSD		14.280	7.334	51.910	28.970	3.324	0.723

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	51.328%	-0.001	41.320	43.700	0.000	275300.000	8742.000	8545.000
2	11:07:15	51.607%	-0.035	47.120	44.800	0.000	274200.000	8693.000	8543.000
3	11:07:35	49.744%	0.036	43.960	46.180	0.000	282000.000	8921.000	8722.000
x		50.893%	0.000	44.130	44.890	0.000	277200.000	8785.000	8604.000
σ		1.005%	0.035	2.901	1.244	0.000	4209.000	119.900	102.500
%RSD		1.975	62740.000	6.574	2.770	0.000	1.518	1.365	1.192

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	3.555	3505.000	0.000	8948.000	46950.000	44720.000	45.658%	0.395
2	11:07:15	3.732	3486.000	0.000	8926.000	47320.000	44440.000	45.697%	0.049
3	11:07:35	3.935	3526.000	0.000	9037.000	47290.000	44960.000	45.017%	0.205
x		3.741	3506.000	0.000	8971.000	47180.000	44710.000	45.458%	0.216
σ		0.190	19.770	0.000	58.410	206.100	256.700	0.382%	0.173
%RSD		5.084	0.564	0.000	0.651	0.437	0.574	0.840	80.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	-1.312	0.431	725.900	364.200	467.400	9.474	13.020	0.938
2	11:07:15	0.476	0.346	727.700	365.900	465.300	9.714	13.320	0.955
3	11:07:35	0.155	0.395	725.900	366.000	444.600	9.590	12.890	1.271
x		-0.227	0.390	726.500	365.400	459.100	9.593	13.070	1.054
σ		0.953	0.043	1.059	1.022	12.610	0.120	0.218	0.187
%RSD		419.800	10.940	0.146	0.280	2.747	1.253	1.671	17.770

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	0.873	18.980	18.630	0.874	-0.666	-0.711	0.000	170.600
2	11:07:15	0.604	19.650	19.200	2.517	-0.319	-2.001	0.000	173.400
3	11:07:35	0.800	18.740	18.900	1.695	-0.234	-0.379	0.000	170.700
x		0.759	19.120	18.910	1.695	-0.406	-1.030	0.000	171.500
σ		0.140	0.472	0.281	0.821	0.229	0.857	0.000	1.596
%RSD		18.380	2.466	1.488	48.430	56.320	83.150	0.000	0.930

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	47.067%	4.029	4.142	42.849%	-0.008	-0.005	0.073	0.064
2	11:07:15	46.654%	3.718	3.967	42.709%	-0.008	0.001	0.088	0.099
3	11:07:35	47.010%	4.044	4.286	42.637%	-0.008	-0.011	0.133	0.072
x		46.910%	3.930	4.132	42.732%	-0.008	-0.005	0.098	0.078
σ		0.223%	0.184	0.160	0.108%	0.000	0.006	0.031	0.018
%RSD		0.476	4.683	3.860	0.252	0.081	110.200	32.030	23.520

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	47.587%	0.990	0.042	0.087	97.350	97.880	55.859%	57.615%
2	11:07:15	47.818%	0.935	0.073	0.122	96.080	97.460	55.859%	57.277%
3	11:07:35	48.079%	1.042	0.089	0.103	96.750	96.930	56.635%	57.542%
x		47.828%	0.989	0.068	0.104	96.730	97.420	56.118%	57.478%
σ		0.246%	0.053	0.024	0.018	0.638	0.481	0.448%	0.178%
%RSD		0.514	5.391	34.870	16.900	0.660	0.493	0.798	0.310

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:06:56	0.239	0.219	0.006	-0.005	-0.000	50.763%
2	11:07:15	0.231	0.216	0.014	-0.004	0.009	51.084%
3	11:07:35	0.240	0.216	-0.004	0.011	0.002	51.068%
x		0.237	0.217	0.006	0.001	0.003	50.972%
σ		0.005	0.002	0.009	0.009	0.005	0.181%
%RSD		2.097	0.803	163.300	1236.000	137.400	0.355

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	48.903%	0.144	42.880	41.950	0.000	251100.000	9328.000	9189.000
2	11:10:57	49.003%	0.144	41.790	43.400	0.000	251800.000	9418.000	9164.000
3	11:11:16	47.315%	0.187	44.920	43.770	0.000	254100.000	9457.000	9244.000
x		48.407%	0.159	43.200	43.040	0.000	252300.000	9401.000	9199.000
σ		0.947%	0.025	1.587	0.958	0.000	1566.000	66.330	40.920
%RSD		1.957	15.570	3.674	2.226	0.000	0.621	0.706	0.445

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	106.200	3705.000	0.000	8926.000	50240.000	48240.000	44.191%	4.655
2	11:10:57	104.000	3678.000	0.000	8995.000	50460.000	48550.000	43.494%	6.390
3	11:11:16	106.500	3717.000	0.000	9006.000	49840.000	48510.000	43.545%	5.398
x		105.600	3700.000	0.000	8976.000	50180.000	48430.000	43.743%	5.481
σ		1.357	19.820	0.000	42.980	315.900	170.200	0.389%	0.871
%RSD		1.286	0.536	0.000	0.479	0.630	0.351	0.889	15.890

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	0.109	1.350	780.800	969.200	1105.000	10.770	15.370	3.367
2	11:10:57	0.402	1.126	787.200	984.100	1089.000	11.230	16.120	3.218
3	11:11:16	0.688	1.394	781.200	982.300	1110.000	10.680	16.350	3.023
x		0.399	1.290	783.100	978.600	1101.000	10.900	15.950	3.202
σ		0.289	0.144	3.603	8.138	10.930	0.294	0.515	0.172
%RSD		72.470	11.150	0.460	0.832	0.993	2.700	3.229	5.386

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	2.662	34.140	35.940	1.808	-0.470	-1.964	0.000	176.600
2	11:10:57	2.578	34.780	35.880	1.926	-0.380	-2.899	0.000	177.900
3	11:11:16	2.905	35.590	37.180	1.648	-0.559	-1.693	0.000	177.000
x		2.715	34.840	36.330	1.794	-0.470	-2.185	0.000	177.200
σ		0.170	0.727	0.732	0.139	0.089	0.632	0.000	0.675
%RSD		6.259	2.087	2.015	7.766	19.050	28.940	0.000	0.381

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	46.790%	2.978	2.768	41.097%	-0.014	-0.005	0.158	0.077
2	11:10:57	46.680%	2.932	3.245	41.103%	-0.005	-0.014	0.139	0.106
3	11:11:16	46.957%	3.110	3.399	40.875%	-0.002	0.001	0.058	0.054
x		46.809%	3.007	3.138	41.025%	-0.007	-0.006	0.118	0.079
σ		0.140%	0.092	0.329	0.130%	0.006	0.008	0.053	0.026
%RSD		0.298	3.061	10.480	0.317	95.010	134.100	44.960	33.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	46.823%	0.992	0.058	0.093	102.400	103.600	55.682%	57.035%
2	11:10:57	46.787%	1.111	0.033	0.112	104.300	103.400	54.989%	57.108%
3	11:11:16	46.370%	0.922	0.054	0.068	103.100	103.800	56.051%	57.343%
x		46.660%	1.008	0.048	0.091	103.300	103.600	55.574%	57.162%
σ		0.252%	0.096	0.014	0.022	0.984	0.230	0.539%	0.161%
%RSD		0.540	9.512	28.490	23.860	0.953	0.222	0.970	0.281

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:10:37	0.197	0.211	1.580	1.429	1.486	50.689%
2	11:10:57	0.223	0.220	1.550	1.516	1.510	50.596%
3	11:11:16	0.195	0.231	1.658	1.439	1.515	51.548%
x		0.205	0.221	1.596	1.461	1.504	50.944%
σ		0.015	0.010	0.056	0.047	0.015	0.525%
%RSD		7.530	4.479	3.490	3.243	1.028	1.031

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	51.074%	-0.035	13.570	16.230	0.000	139400.000	2609.000	2541.000
2	11:14:37	51.004%	-0.000	13.590	15.870	0.000	138700.000	2614.000	2540.000
3	11:14:57	50.057%	-0.035	14.030	15.210	0.000	138900.000	2582.000	2517.000
x		50.712%	-0.023	13.730	15.770	0.000	139000.000	2602.000	2533.000
σ		0.569%	0.020	0.262	0.518	0.000	381.900	17.310	13.450
%RSD		1.121	85.230	1.907	3.283	0.000	0.275	0.665	0.531

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	15.170	2294.000	0.000	1470.000	16020.000	15830.000	44.624%	0.210
2	11:14:37	15.290	2297.000	0.000	1465.000	16660.000	16060.000	44.619%	0.615
3	11:14:57	16.200	2305.000	0.000	1450.000	16430.000	15890.000	44.720%	0.310
x		15.550	2299.000	0.000	1462.000	16370.000	15930.000	44.654%	0.378
σ		0.562	5.737	0.000	10.160	328.000	116.900	0.057%	0.211
%RSD		3.611	0.250	0.000	0.695	2.004	0.734	0.128	55.790

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	0.749	2.665	62.860	6.315	49.920	0.569	2.626	1.016
2	11:14:37	1.151	2.423	62.320	5.728	44.180	0.520	2.484	0.879
3	11:14:57	1.493	2.403	62.650	5.453	40.560	0.538	2.316	0.822
x		1.131	2.497	62.610	5.832	44.890	0.542	2.476	0.906
σ		0.373	0.146	0.276	0.441	4.722	0.025	0.155	0.100
%RSD		32.940	5.835	0.440	7.553	10.520	4.563	6.279	11.010

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	0.547	2.288	2.845	0.586	-0.516	-1.017	0.000	56.140
2	11:14:37	0.686	2.154	2.881	0.102	-0.610	-3.164	0.000	56.440
3	11:14:57	0.752	2.096	2.855	0.291	-0.680	-2.960	0.000	55.550
x		0.662	2.179	2.860	0.327	-0.602	-2.380	0.000	56.040
σ		0.105	0.098	0.018	0.244	0.082	1.185	0.000	0.456
%RSD		15.810	4.516	0.643	74.690	13.670	49.780	0.000	0.814

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	46.220%	0.300	0.741	42.752%	0.000	-0.005	-0.018	0.004
2	11:14:37	46.297%	0.588	0.394	42.555%	-0.014	0.004	0.098	0.075
3	11:14:57	46.500%	0.465	0.538	42.652%	-0.008	-0.014	-0.030	-0.015
x		46.339%	0.451	0.558	42.653%	-0.007	-0.005	0.017	0.021
σ		0.145%	0.144	0.174	0.098%	0.007	0.009	0.071	0.048
%RSD		0.312	32.010	31.270	0.231	98.570	165.400	423.400	225.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	48.254%	0.738	0.193	0.298	9.636	10.450	56.275%	57.971%
2	11:14:37	47.767%	0.918	0.226	0.248	9.839	10.180	56.557%	58.722%
3	11:14:57	48.287%	0.750	0.271	0.244	9.808	10.060	57.269%	58.851%
x		48.103%	0.802	0.230	0.263	9.761	10.230	56.701%	58.515%
σ		0.291%	0.101	0.039	0.030	0.109	0.196	0.512%	0.475%
%RSD		0.606	12.570	16.990	11.550	1.120	1.920	0.904	0.812

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:18	0.256	0.299	0.063	0.050	0.047	52.845%
2	11:14:37	0.271	0.311	0.056	0.029	0.035	53.075%
3	11:14:57	0.274	0.284	0.034	0.044	0.030	53.652%
x		0.267	0.298	0.051	0.041	0.037	53.191%
σ		0.010	0.013	0.016	0.011	0.009	0.416%
%RSD		3.561	4.404	30.570	27.200	23.080	0.782

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	50.982%	0.138	17.650	16.100	0.000	141200.000	2901.000	2817.000
2	11:18:18	51.224%	0.137	14.560	15.680	0.000	143000.000	2893.000	2830.000
3	11:18:37	49.602%	0.142	15.530	15.420	0.000	144600.000	2946.000	2887.000
x		50.603%	0.139	15.910	15.740	0.000	142900.000	2913.000	2845.000
σ		0.875%	0.003	1.583	0.343	0.000	1684.000	28.170	37.340
%RSD		1.729	1.995	9.950	2.180	0.000	1.178	0.967	1.312

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	407.000	2926.000	0.000	1559.000	18730.000	17820.000	45.202%	11.790
2	11:18:18	389.000	2906.000	0.000	1552.000	18480.000	17900.000	45.111%	11.960
3	11:18:37	391.200	2941.000	0.000	1569.000	18580.000	17880.000	45.163%	11.800
x		395.700	2925.000	0.000	1560.000	18600.000	17870.000	45.159%	11.850
σ		9.808	17.520	0.000	8.933	128.300	39.370	0.045%	0.099
%RSD		2.478	0.599	0.000	0.573	0.690	0.220	0.100	0.838

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	1.235	33.460	89.040	1121.000	1175.000	1.681	16.800	3.211
2	11:18:18	-0.629	33.360	89.830	1125.000	1145.000	1.511	16.030	3.322
3	11:18:37	-1.011	33.020	89.450	1120.000	1174.000	1.640	17.120	3.570
x		-0.135	33.280	89.440	1122.000	1165.000	1.610	16.650	3.368
σ		1.202	0.229	0.393	2.731	17.110	0.089	0.561	0.184
%RSD		891.300	0.689	0.439	0.243	1.470	5.500	3.367	5.456

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	3.237	14.700	16.240	0.803	-0.975	-2.920	0.000	56.430
2	11:18:18	3.171	16.500	15.990	0.028	-0.582	-2.304	0.000	57.980
3	11:18:37	3.192	15.030	15.220	0.478	-0.664	-1.124	0.000	57.450
x		3.200	15.410	15.810	0.436	-0.741	-2.116	0.000	57.290
σ		0.034	0.959	0.532	0.389	0.207	0.913	0.000	0.786
%RSD		1.047	6.224	3.364	89.210	27.960	43.130	0.000	1.372

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	47.026%	1.281	1.099	42.845%	0.049	0.033	0.006	0.006
2	11:18:18	46.613%	1.046	1.245	42.919%	0.035	0.030	-0.036	-0.000
3	11:18:37	46.768%	1.168	1.258	42.979%	0.058	0.026	0.107	0.058
x		46.802%	1.165	1.201	42.914%	0.047	0.030	0.026	0.021
σ		0.209%	0.118	0.088	0.067%	0.012	0.003	0.074	0.032
%RSD		0.446	10.100	7.342	0.157	24.350	10.560	285.400	150.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	47.339%	1.003	0.232	0.164	12.200	11.980	56.185%	57.838%
2	11:18:18	47.657%	0.889	0.176	0.212	11.920	11.900	56.334%	57.606%
3	11:18:37	48.010%	1.061	0.264	0.193	12.390	12.070	56.599%	58.622%
x		47.669%	0.984	0.224	0.190	12.170	11.980	56.373%	58.022%
σ		0.336%	0.087	0.045	0.025	0.235	0.086	0.210%	0.533%
%RSD		0.704	8.846	20.020	12.970	1.931	0.715	0.372	0.918

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:59	0.296	0.325	2.360	2.229	2.311	52.250%
2	11:18:18	0.320	0.291	2.461	2.300	2.365	52.713%
3	11:18:37	0.283	0.319	2.412	2.302	2.336	53.247%
x		0.300	0.312	2.411	2.277	2.337	52.737%
σ		0.019	0.018	0.051	0.042	0.027	0.499%
%RSD		6.370	5.669	2.112	1.834	1.164	0.946

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	55.022%	-0.035	11.290	10.480	0.000	91440.000	5761.000	5676.000
2	11:22:00	52.415%	-0.035	9.988	10.650	0.000	93390.000	5933.000	5801.000
3	11:22:19	54.593%	-0.035	10.390	11.790	0.000	92160.000	5747.000	5702.000
x		54.010%	-0.035	10.550	10.980	0.000	92330.000	5814.000	5727.000
σ		1.397%	0.000	0.666	0.711	0.000	989.800	103.900	65.670
%RSD		2.587	0.000	6.311	6.475	0.000	1.072	1.786	1.147

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	4.876	2490.000	0.000	1749.000	20450.000	20250.000	48.441%	0.679
2	11:22:00	4.936	2554.000	0.000	1765.000	21200.000	20450.000	48.172%	0.122
3	11:22:19	4.786	2511.000	0.000	1761.000	21110.000	20490.000	48.592%	0.303
x		4.866	2518.000	0.000	1759.000	20920.000	20400.000	48.402%	0.368
σ		0.075	32.780	0.000	8.340	410.200	127.700	0.213%	0.284
%RSD		1.546	1.302	0.000	0.474	1.961	0.626	0.439	77.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	0.047	0.370	237.000	17170.000	17290.000	0.530	0.607	0.554
2	11:22:00	-0.453	0.294	240.700	17290.000	17270.000	0.605	0.779	0.490
3	11:22:19	-0.541	0.328	240.600	17420.000	17310.000	0.702	0.411	0.399
x		-0.316	0.331	239.400	17290.000	17290.000	0.612	0.599	0.481
σ		0.317	0.038	2.129	124.700	20.310	0.086	0.184	0.078
%RSD		100.400	11.540	0.889	0.721	0.117	14.060	30.770	16.180

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	0.403	4.860	5.148	1.396	-0.284	-1.210	0.000	110.600
2	11:22:00	0.427	5.025	5.160	1.245	-0.418	-0.819	0.000	111.800
3	11:22:19	0.334	5.209	5.683	0.695	-0.454	-3.227	0.000	112.800
x		0.388	5.031	5.330	1.112	-0.385	-1.752	0.000	111.700
σ		0.048	0.174	0.306	0.369	0.090	1.292	0.000	1.114
%RSD		12.340	3.466	5.735	33.210	23.260	73.760	0.000	0.997

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	50.001%	-0.287	-0.155	46.318%	-0.004	-0.020	0.035	0.025
2	11:22:00	50.694%	-0.253	-0.158	47.052%	0.003	0.012	0.005	0.004
3	11:22:19	50.752%	0.013	-0.124	47.307%	-0.007	-0.012	0.100	0.062
x		50.482%	-0.176	-0.145	46.892%	-0.003	-0.007	0.047	0.030
σ		0.418%	0.164	0.019	0.514%	0.005	0.017	0.048	0.029
%RSD		0.828	93.390	13.030	1.095	207.900	246.000	103.900	96.030

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	50.798%	0.629	0.089	0.071	64.850	63.730	59.565%	60.700%
2	11:22:00	51.653%	0.658	0.094	0.105	64.890	64.850	60.682%	61.833%
3	11:22:19	52.243%	0.660	0.074	0.097	64.470	63.650	60.423%	62.489%
x		51.565%	0.649	0.086	0.091	64.740	64.080	60.223%	61.674%
σ		0.726%	0.018	0.010	0.018	0.233	0.674	0.585%	0.905%
%RSD		1.409	2.717	11.890	19.630	0.360	1.053	0.971	1.467

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:41	0.005	-0.001	-0.006	-0.019	-0.015	55.444%
2	11:22:00	0.019	0.008	-0.020	-0.024	-0.020	56.805%
3	11:22:19	0.005	0.011	-0.020	-0.021	-0.018	57.366%
x		0.009	0.006	-0.015	-0.021	-0.018	56.538%
σ		0.008	0.006	0.008	0.003	0.002	0.988%
%RSD		83.910	103.800	53.880	13.100	12.850	1.748

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	54.004%	0.812	20.410	20.100	0.000	106600.000	6746.000	6601.000
2	11:25:41	52.309%	0.702	21.300	19.870	0.000	105600.000	6720.000	6587.000
3	11:26:00	52.085%	0.975	19.870	21.290	0.000	107900.000	6821.000	6647.000
x		52.799%	0.830	20.520	20.420	0.000	106700.000	6762.000	6612.000
σ		1.049%	0.137	0.726	0.763	0.000	1147.000	52.670	31.510
%RSD		1.987	16.530	3.539	3.739	0.000	1.075	0.779	0.477

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	8262.000	16860.000	0.000	3126.000	22280.000	21850.000	47.648%	60.200
2	11:25:41	8330.000	16780.000	0.000	3120.000	22260.000	21920.000	47.759%	58.580
3	11:26:00	8378.000	16920.000	0.000	3141.000	23430.000	21870.000	47.546%	65.240
x		8323.000	16850.000	0.000	3129.000	22660.000	21880.000	47.651%	61.340
σ		57.990	70.390	0.000	10.760	666.200	36.410	0.106%	3.475
%RSD		0.697	0.418	0.000	0.344	2.941	0.166	0.223	5.665

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	11.850	15.070	293.600	33710.000	33270.000	3.228	9.442	8.471
2	11:25:41	10.230	15.140	290.800	33480.000	33260.000	3.237	8.529	8.275
3	11:26:00	10.790	14.960	293.400	33640.000	33470.000	3.132	8.741	8.835
x		10.960	15.060	292.600	33610.000	33330.000	3.199	8.904	8.527
σ		0.822	0.090	1.588	117.300	119.800	0.058	0.478	0.284
%RSD		7.503	0.599	0.543	0.349	0.359	1.811	5.368	3.336

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	8.408	32.490	32.550	1.731	-0.258	-5.201	0.000	90.800
2	11:25:41	8.676	33.330	32.180	2.068	-0.384	-5.042	0.000	91.670
3	11:26:00	8.991	31.890	30.560	1.689	-0.627	-3.794	0.000	92.220
x		8.691	32.570	31.770	1.829	-0.423	-4.679	0.000	91.560
σ		0.292	0.720	1.056	0.208	0.187	0.770	0.000	0.714
%RSD		3.358	2.210	3.325	11.350	44.300	16.460	0.000	0.780

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	72.788%	0.876	1.197	45.193%	0.040	0.036	0.304	0.293
2	11:25:41	72.471%	1.093	1.358	44.961%	0.029	0.049	0.245	0.278
3	11:26:00	72.757%	0.876	1.066	45.228%	0.029	0.074	0.394	0.290
x		72.672%	0.948	1.207	45.127%	0.033	0.053	0.314	0.287
σ		0.175%	0.125	0.147	0.145%	0.006	0.020	0.075	0.008
%RSD		0.240	13.190	12.150	0.321	19.340	36.840	23.780	2.755

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	49.492%	2.238	0.430	0.444	111.400	112.000	60.893%	61.944%
2	11:25:41	50.007%	1.939	0.384	0.340	113.600	112.800	62.094%	62.467%
3	11:26:00	49.834%	2.394	0.408	0.451	115.600	113.400	61.134%	62.590%
x		49.778%	2.191	0.407	0.412	113.500	112.700	61.373%	62.334%
σ		0.262%	0.231	0.023	0.062	2.136	0.721	0.635%	0.343%
%RSD		0.527	10.560	5.653	15.140	1.881	0.639	1.035	0.550

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:22	0.133	0.120	16.460	15.090	15.800	53.853%
2	11:25:41	0.122	0.115	16.360	15.280	15.700	54.719%
3	11:26:00	0.147	0.111	16.340	14.950	15.900	55.071%
x		0.134	0.115	16.390	15.110	15.800	54.547%
σ		0.013	0.004	0.061	0.166	0.101	0.627%
%RSD		9.545	3.835	0.374	1.101	0.637	1.149

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	64.405%	103.000	93.760	95.270	0.000	48310.000	48770.000	49140.000
2	11:29:03	64.091%	97.410	95.730	92.200	0.000	48140.000	48830.000	49120.000
3	11:29:23	65.148%	94.510	97.630	96.030	0.000	48070.000	48910.000	49010.000
x		64.548%	98.299%	95.704%	94.498%	0.000	96.347%	97.673%	98.178%
σ		0.543%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.841	4.379	2.024	2.148	0.000	0.263	0.140	0.148

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	499.700	5108.000	0.000	49200.000	48950.000	47570.000	54.637%	96.030
2	11:29:03	496.200	5125.000	0.000	49360.000	48800.000	47730.000	54.751%	99.350
3	11:29:23	492.700	5058.000	0.000	49130.000	49760.000	48140.000	55.622%	95.130
x		99.238%	101.942%	0.000	98.458%	98.346%	95.624%	55.003%	96.836%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.539%	n/a
%RSD		0.700	0.686	0.000	0.239	1.045	0.614	0.979	2.294

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	98.160	99.880	504.000	25530.000	25640.000	102.200	101.200	103.600
2	11:29:03	100.100	100.300	502.300	25560.000	25500.000	101.100	100.700	103.800
3	11:29:23	96.650	97.620	501.400	25480.000	25420.000	100.700	99.180	101.900
x		98.302%	99.283%	100.512%	102.088%	102.073%	101.352%	100.377%	103.089%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.750	1.465	0.259	0.143	0.441	0.785	1.065	1.021

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	102.600	99.950	102.300	98.380	99.470	96.590	0.000	97.270
2	11:29:03	105.600	101.300	99.670	96.770	97.800	100.700	0.000	98.020
3	11:29:23	101.900	102.500	104.900	100.900	98.540	97.850	0.000	98.910
x		103.367%	101.254%	102.286%	98.688%	98.603%	98.387%	0.000	98.063%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.874	1.250	2.532	2.112	0.845	2.147	0.000	0.838

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	55.698%	98.030	100.300	52.100%	101.800	101.100	102.500	99.900
2	11:29:03	56.764%	101.200	102.500	52.826%	101.400	100.700	100.400	99.770
3	11:29:23	57.922%	104.900	105.100	53.823%	101.400	101.600	101.400	99.500
x		56.794%	101.398%	102.627%	52.916%	101.528%	101.134%	101.444%	99.724%
σ		1.112%	n/a	n/a	0.865%	n/a	n/a	n/a	n/a
%RSD		1.959	3.400	2.355	1.634	0.217	0.463	1.008	0.201

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	56.598%	97.630	94.920	94.110	94.060	95.720	63.081%	63.894%
2	11:29:03	58.000%	97.080	94.710	95.330	96.050	96.220	65.080%	65.563%
3	11:29:23	58.939%	97.880	96.540	95.540	98.260	96.630	65.950%	66.173%
x		57.845%	97.529%	95.392%	94.993%	96.124%	96.189%	64.704%	65.210%
σ		1.178%	n/a	n/a	n/a	n/a	n/a	1.471%	1.180%
%RSD		2.037	0.422	1.051	0.814	2.185	0.476	2.273	1.809

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:44	99.590	103.800	104.200	102.700	103.400	65.378%
2	11:29:03	101.800	106.200	107.200	106.800	106.900	64.199%
3	11:29:23	103.200	108.000	109.000	108.900	108.700	64.097%
x		101.515%	106.006%	106.792%	106.131%	106.347%	64.558%
σ		n/a	n/a	n/a	n/a	n/a	0.712%
%RSD		1.774	2.020	2.266	3.000	2.548	1.102

CCB4 9/5/2014 11:34:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	69.998%	-0.010	1.311	0.693	0.000	-1.090	2.296	2.042
2	11:35:31	67.219%	-0.035	0.817	0.736	0.000	-1.283	1.225	2.431
3	11:35:51	68.665%	-0.009	0.954	0.797	0.000	-1.074	2.422	2.147
x		68.627%	-0.018	1.027	0.742	0.000	-1.149	1.981	2.207
σ		1.390%	0.015	0.255	0.052	0.000	0.116	0.658	0.202
%RSD		2.025	82.440	24.780	7.017	0.000	10.110	33.190	9.135

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	0.493	1.055	0.000	1.167	8.025	3.124	58.162%	-0.308
2	11:35:31	0.437	1.368	0.000	0.484	32.200	4.921	58.204%	-0.269
3	11:35:51	0.296	1.439	0.000	0.540	19.320	5.523	56.714%	-0.307
x		0.409	1.287	0.000	0.730	19.850	4.523	57.693%	-0.294
σ		0.102	0.204	0.000	0.380	12.100	1.248	0.848%	0.022
%RSD		24.930	15.840	0.000	51.980	60.940	27.600	1.470	7.511

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	-0.009	-0.073	0.050	-6.301	5.334	0.005	0.042	-0.013
2	11:35:31	0.028	-0.078	0.049	-7.416	2.862	-0.003	0.041	-0.030
3	11:35:51	0.007	-0.059	0.046	-7.441	4.605	0.010	0.004	-0.016
x		0.009	-0.070	0.048	-7.053	4.267	0.004	0.029	-0.020
σ		0.019	0.010	0.003	0.651	1.270	0.006	0.022	0.009
%RSD		219.100	13.750	5.197	9.226	29.760	164.500	74.790	44.260

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	-0.054	0.011	0.145	-0.015	-0.683	-0.624	0.000	0.031
2	11:35:31	0.021	0.099	0.089	-0.396	-0.328	-1.750	0.000	0.025
3	11:35:51	-0.041	0.134	0.060	-0.264	-0.630	-1.263	0.000	0.020
x		-0.025	0.081	0.098	-0.225	-0.547	-1.212	0.000	0.025
σ		0.040	0.063	0.043	0.193	0.192	0.565	0.000	0.006
%RSD		162.500	78.290	43.860	85.940	35.030	46.580	0.000	22.020

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	58.528%	-0.896	-0.828	57.840%	0.011	-0.005	0.068	0.055
2	11:35:31	59.043%	-0.897	-0.825	58.081%	-0.008	-0.012	-0.046	-0.018
3	11:35:51	58.430%	-0.888	-0.881	57.552%	-0.004	-0.009	0.101	0.088
x		58.667%	-0.893	-0.844	57.824%	-0.000	-0.009	0.041	0.041
σ		0.329%	0.005	0.032	0.265%	0.010	0.003	0.077	0.054
%RSD		0.561	0.567	3.750	0.458	5316.000	39.090	187.100	130.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	60.756%	-0.148	0.145	0.098	-0.029	0.001	66.948%	66.729%
2	11:35:31	61.315%	-0.174	0.086	0.083	-0.020	-0.005	66.227%	67.199%
3	11:35:51	60.740%	-0.150	0.058	0.095	-0.020	0.028	67.388%	67.222%
x		60.937%	-0.157	0.096	0.092	-0.023	0.008	66.855%	67.050%
σ		0.328%	0.014	0.045	0.008	0.006	0.017	0.586%	0.278%
%RSD		0.537	9.044	46.500	8.652	23.850	216.800	0.877	0.415

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:12	0.010	-0.004	0.071	0.065	0.071	71.142%
2	11:35:31	-0.005	-0.001	0.065	0.064	0.078	70.809%
3	11:35:51	-0.001	-0.002	0.075	0.081	0.074	70.334%
x		0.001	-0.002	0.071	0.070	0.074	70.761%
σ		0.007	0.001	0.005	0.010	0.004	0.406%
%RSD		566.600	61.770	7.129	13.780	4.838	0.574

MB 180-116978/1-A 9/5/2014 11:38:37 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	56.602%	-0.035	0.487	0.473	0.000	-3.267	0.031	-0.008
2	11:39:15	56.048%	-0.035	1.257	0.769	0.000	-4.324	0.033	0.153
3	11:39:35	56.208%	-0.035	0.304	0.825	0.000	-3.491	-0.043	0.250
x		56.286%	-0.035	0.683	0.689	0.000	-3.694	0.007	0.132
σ		0.285%	0.000	0.506	0.189	0.000	0.557	0.044	0.130
%RSD		0.506	0.000	74.050	27.470	0.000	15.080	614.900	98.850

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	0.369	2.953	0.000	3.268	-15.510	3.834	49.876%	-0.211
2	11:39:15	0.252	2.584	0.000	2.327	0.648	2.464	49.782%	-0.211
3	11:39:35	0.195	2.783	0.000	2.788	9.023	1.666	49.227%	-0.301
x		0.272	2.773	0.000	2.794	-1.947	2.655	49.628%	-0.241
σ		0.088	0.184	0.000	0.470	12.470	1.096	0.351%	0.052
%RSD		32.550	6.649	0.000	16.830	640.600	41.290	0.707	21.610

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	-0.065	0.077	0.033	-9.647	2.300	0.009	0.025	0.163
2	11:39:15	0.059	0.091	0.056	-10.360	1.173	-0.002	0.024	0.071
3	11:39:35	-0.487	0.043	0.026	-10.320	4.807	-0.005	0.040	0.111
x		-0.164	0.071	0.038	-10.110	2.760	0.000	0.030	0.115
σ		0.286	0.025	0.016	0.399	1.860	0.008	0.009	0.046
%RSD		173.900	35.120	41.950	3.950	67.400	1710.000	30.060	40.360

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	0.138	0.726	0.841	0.159	-0.880	-1.335	0.000	0.011
2	11:39:15	-0.012	0.588	0.650	-0.562	-0.648	-3.270	0.000	0.003
3	11:39:35	0.091	0.752	0.706	0.149	-0.515	-1.175	0.000	0.004
x		0.072	0.689	0.732	-0.085	-0.681	-1.927	0.000	0.006
σ		0.077	0.088	0.098	0.413	0.185	1.166	0.000	0.005
%RSD		106.600	12.790	13.430	488.700	27.130	60.510	0.000	76.450

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	51.031%	-0.931	-0.927	50.538%	-0.006	-0.005	-0.011	-0.004
2	11:39:15	51.577%	-0.958	-0.907	50.882%	0.004	-0.005	0.070	0.039
3	11:39:35	50.685%	-0.965	-0.932	50.584%	-0.006	-0.005	0.091	0.060
x		51.098%	-0.951	-0.922	50.668%	-0.003	-0.005	0.050	0.032
σ		0.450%	0.018	0.013	0.187%	0.006	0.000	0.054	0.033
%RSD		0.880	1.898	1.387	0.368	223.500	1.464	108.400	102.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	53.708%	0.003	0.120	0.100	-0.005	0.026	59.829%	61.389%
2	11:39:15	54.266%	-0.022	0.092	0.108	0.005	0.013	60.768%	61.911%
3	11:39:35	53.995%	-0.018	0.093	0.096	0.037	0.007	60.895%	61.998%
x		53.990%	-0.013	0.102	0.101	0.012	0.015	60.497%	61.766%
σ		0.279%	0.013	0.016	0.006	0.022	0.009	0.582%	0.329%
%RSD		0.516	105.200	15.240	6.059	183.700	60.240	0.962	0.533

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:38:56	-0.009	-0.011	-0.001	0.007	0.001	63.643%
2	11:39:15	-0.001	-0.009	-0.011	-0.023	-0.010	63.741%
3	11:39:35	-0.005	-0.010	-0.016	-0.020	-0.020	63.863%
x		-0.005	-0.010	-0.010	-0.012	-0.010	63.749%
σ		0.004	0.001	0.008	0.016	0.010	0.110%
%RSD		71.710	11.840	80.160	133.700	106.300	0.172

LCS 180-116978/2-A 9/5/2014 11:42:19 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	53.133%	45.830	903.500	904.300	0.000	43710.000	43730.000	42980.000
2	11:42:57	53.737%	46.500	924.300	920.100	0.000	44420.000	44010.000	43110.000
3	11:43:16	52.859%	46.010	918.200	917.300	0.000	44460.000	44320.000	43540.000
x		53.243%	46.120	915.300	913.900	0.000	44200.000	44020.000	43210.000
σ		0.449%	0.346	10.670	8.447	0.000	418.100	295.400	296.100
%RSD		0.844	0.750	1.166	0.924	0.000	0.946	0.671	0.685

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	1707.000	8404.000	0.000	43380.000	43990.000	42670.000	46.170%	869.800
2	11:42:57	1722.000	8465.000	0.000	43390.000	44720.000	42900.000	46.635%	878.300
3	11:43:16	1739.000	8542.000	0.000	43430.000	44870.000	42830.000	46.951%	874.000
x		1723.000	8470.000	0.000	43400.000	44530.000	42800.000	46.585%	874.100
σ		15.910	69.000	0.000	27.910	468.200	116.700	0.393%	4.225
%RSD		0.924	0.815	0.000	0.064	1.052	0.273	0.844	0.483

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	439.600	178.400	443.900	884.800	1002.000	452.300	454.800	228.500
2	11:42:57	442.200	178.600	441.400	881.700	995.700	449.900	449.900	226.900
3	11:43:16	441.800	177.400	445.200	884.100	988.900	449.000	447.500	225.600
x		441.200	178.100	443.500	883.500	995.700	450.400	450.700	227.000
σ		1.392	0.680	1.915	1.626	6.735	1.715	3.735	1.478
%RSD		0.316	0.382	0.432	0.184	0.676	0.381	0.829	0.651

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	228.300	436.600	443.900	36.120	9.104	8.796	0.000	958.800
2	11:42:57	226.300	438.000	436.300	35.350	7.922	8.807	0.000	950.500
3	11:43:16	228.900	441.300	441.500	34.150	8.359	7.694	0.000	951.200
x		227.900	438.600	440.500	35.200	8.462	8.432	0.000	953.500
σ		1.353	2.411	3.896	0.993	0.598	0.640	0.000	4.591
%RSD		0.594	0.550	0.884	2.820	7.067	7.588	0.000	0.481

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	42.737%	1011.000	1001.000	43.981%	46.250	45.500	43.840	37.420
2	11:42:57	43.647%	1008.000	997.200	44.487%	46.010	45.640	45.190	38.860
3	11:43:16	44.066%	1011.000	1000.000	45.017%	46.270	45.790	44.100	38.130
x		43.483%	1010.000	999.300	44.495%	46.180	45.640	44.380	38.140
σ		0.680%	1.967	1.847	0.518%	0.144	0.148	0.716	0.719
%RSD		1.563	0.195	0.185	1.164	0.311	0.325	1.613	1.884

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	48.204%	1791.000	432.100	428.200	1700.000	1692.000	56.781%	58.205%
2	11:42:57	48.654%	1793.000	429.700	430.800	1699.000	1701.000	57.572%	58.711%
3	11:43:16	49.294%	1802.000	433.900	428.100	1702.000	1701.000	58.146%	59.673%
x		48.717%	1795.000	431.900	429.000	1700.000	1698.000	57.499%	58.863%
σ		0.547%	5.853	2.079	1.502	1.300	5.024	0.685%	0.746%
%RSD		1.124	0.326	0.481	0.350	0.076	0.296	1.192	1.267

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:38	47.570	49.130	19.630	19.630	19.570	52.964%
2	11:42:57	46.860	48.940	19.390	19.710	19.460	53.654%
3	11:43:16	46.600	48.810	19.250	19.490	19.440	54.726%
x		47.010	48.960	19.420	19.610	19.490	53.781%
σ		0.501	0.159	0.195	0.107	0.068	0.887%
%RSD		1.066	0.324	1.004	0.547	0.350	1.650

180-36137-H-9-A 9/5/2014 11:46:01 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	55.640%	-0.003	15.730	13.380	0.000	4.133	1.600	1.715
2	11:46:41	54.399%	-0.003	14.290	14.780	0.000	4.919	1.775	1.891
3	11:47:00	56.603%	-0.004	12.950	13.570	0.000	4.658	1.435	1.993
x		55.547%	-0.003	14.330	13.910	0.000	4.570	1.603	1.867
σ		1.105%	0.001	1.391	0.760	0.000	0.401	0.170	0.141
%RSD		1.990	17.280	9.708	5.466	0.000	8.767	10.590	7.534

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	1.116	20.320	0.000	6.980	45.020	19.470	49.831%	0.106
2	11:46:41	1.470	19.000	0.000	6.210	40.780	18.890	50.068%	0.285
3	11:47:00	1.188	17.870	0.000	6.040	33.230	20.380	49.477%	0.292
x		1.258	19.060	0.000	6.410	39.680	19.580	49.792%	0.228
σ		0.187	1.225	0.000	0.501	5.971	0.752	0.297%	0.105
%RSD		14.860	6.429	0.000	7.820	15.050	3.840	0.597	46.220

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	-0.506	0.543	0.128	-7.359	3.236	0.032	0.038	0.197
2	11:46:41	-0.862	0.478	0.107	-7.625	2.232	0.032	0.068	0.271
3	11:47:00	0.364	0.475	0.098	-7.352	1.841	0.015	0.039	0.316
x		-0.335	0.499	0.111	-7.445	2.437	0.027	0.048	0.262
σ		0.631	0.038	0.016	0.156	0.720	0.010	0.017	0.060
%RSD		188.500	7.684	14.040	2.090	29.540	37.470	34.930	23.010

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	0.223	3.402	3.237	0.873	-0.758	-2.078	0.000	0.134
2	11:46:41	0.299	3.415	3.190	-0.250	-0.741	-1.244	0.000	0.116
3	11:47:00	0.163	3.344	3.405	-0.769	-0.685	-1.877	0.000	0.124
x		0.228	3.387	3.277	-0.049	-0.728	-1.733	0.000	0.125
σ		0.068	0.038	0.113	0.839	0.039	0.435	0.000	0.009
%RSD		29.700	1.115	3.449	1725.000	5.291	25.110	0.000	7.179

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	52.041%	1.625	1.419	50.370%	-0.006	-0.000	0.047	0.051
2	11:46:41	51.388%	0.939	0.755	50.180%	0.019	-0.008	0.022	-0.012
3	11:47:00	51.549%	0.403	0.351	49.914%	-0.011	0.005	-0.018	-0.017
x		51.659%	0.989	0.842	50.154%	0.001	-0.001	0.017	0.007
σ		0.340%	0.613	0.539	0.229%	0.016	0.006	0.033	0.038
%RSD		0.659	61.960	64.060	0.457	1608.000	735.300	197.000	522.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	53.856%	2.240	0.083	0.118	0.069	0.103	61.108%	62.602%
2	11:46:41	53.746%	2.016	0.089	0.090	0.016	0.097	61.014%	62.137%
3	11:47:00	54.245%	1.604	0.080	0.053	0.047	0.072	61.917%	63.088%
x		53.949%	1.953	0.084	0.087	0.044	0.091	61.346%	62.609%
σ		0.262%	0.323	0.005	0.033	0.027	0.016	0.496%	0.476%
%RSD		0.486	16.520	5.432	37.320	61.280	17.920	0.809	0.760

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:46:21	0.156	0.175	-0.018	-0.032	-0.022	61.571%
2	11:46:41	0.144	0.177	-0.031	-0.028	-0.028	61.633%
3	11:47:00	0.128	0.130	-0.034	-0.042	-0.034	62.313%
x		0.143	0.161	-0.028	-0.034	-0.028	61.839%
σ		0.014	0.027	0.008	0.008	0.006	0.411%
%RSD		10.040	16.580	30.200	22.420	21.800	0.665

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	56.471%	-0.004	9.844	11.520	0.000	469.100	1.116	1.413
2	11:50:23	56.611%	-0.035	13.310	11.100	0.000	472.200	0.572	1.064
3	11:50:42	56.713%	-0.035	12.160	10.880	0.000	473.800	1.115	1.539
x		56.599%	-0.024	11.770	11.160	0.000	471.700	0.934	1.339
σ		0.121%	0.018	1.765	0.328	0.000	2.406	0.314	0.246
%RSD		0.214	73.360	15.000	2.938	0.000	0.510	33.590	18.380

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	1.549	15.380	0.000	3.051	24.610	6.099	50.069%	0.195
2	11:50:23	1.719	15.260	0.000	3.356	24.590	6.322	50.095%	0.284
3	11:50:42	1.704	15.780	0.000	3.367	36.810	3.588	49.918%	0.060
x		1.657	15.480	0.000	3.258	28.670	5.336	50.027%	0.180
σ		0.094	0.272	0.000	0.179	7.047	1.518	0.096%	0.113
%RSD		5.668	1.758	0.000	5.493	24.580	28.440	0.191	62.690

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	0.334	0.405	1.787	-5.715	4.148	0.009	0.053	0.272
2	11:50:23	-0.108	0.468	1.835	-5.674	3.622	0.018	0.038	0.222
3	11:50:42	-0.404	0.336	1.812	-6.484	2.550	0.000	-0.006	0.332
x		-0.059	0.403	1.811	-5.958	3.440	0.009	0.029	0.275
σ		0.371	0.066	0.024	0.456	0.815	0.009	0.031	0.055
%RSD		623.900	16.430	1.336	7.652	23.680	95.220	107.200	20.030

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	0.212	81.290	80.030	0.317	-0.448	-2.710	0.000	0.034
2	11:50:23	0.124	80.130	83.000	0.616	-1.004	-1.637	0.000	0.042
3	11:50:42	0.075	81.010	80.830	0.748	-0.362	-0.138	0.000	0.043
x		0.137	80.810	81.290	0.560	-0.605	-1.495	0.000	0.039
σ		0.070	0.604	1.540	0.221	0.349	1.292	0.000	0.005
%RSD		50.850	0.747	1.895	39.450	57.720	86.430	0.000	13.070

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	51.240%	-0.644	-0.548	49.913%	-0.018	0.003	0.036	0.013
2	11:50:23	51.469%	-0.560	-0.592	50.223%	-0.013	-0.010	0.049	0.028
3	11:50:42	51.588%	-0.637	-0.539	50.053%	-0.011	-0.002	0.083	0.064
x		51.432%	-0.614	-0.560	50.063%	-0.014	-0.003	0.056	0.035
σ		0.177%	0.047	0.028	0.155%	0.004	0.006	0.024	0.027
%RSD		0.344	7.639	5.024	0.310	27.300	195.600	43.420	76.260

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	53.434%	0.695	0.028	0.052	0.037	0.085	61.146%	61.934%
2	11:50:23	53.967%	0.679	0.037	-0.000	0.015	0.085	61.360%	62.073%
3	11:50:42	53.571%	0.664	0.015	0.016	0.112	0.067	61.531%	62.523%
x		53.657%	0.679	0.027	0.023	0.055	0.079	61.346%	62.177%
σ		0.277%	0.015	0.011	0.027	0.050	0.010	0.193%	0.308%
%RSD		0.515	2.265	41.350	117.400	92.340	13.140	0.315	0.495

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:04	0.041	0.051	0.062	0.034	0.043	61.236%
2	11:50:23	0.047	0.042	0.061	0.048	0.052	61.434%
3	11:50:42	0.055	0.039	0.047	0.034	0.053	62.319%
x		0.048	0.044	0.057	0.039	0.049	61.663%
σ		0.007	0.006	0.008	0.008	0.006	0.576%
%RSD		13.960	14.830	14.330	21.280	11.420	0.935

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	56.434%	0.339	2001.000	1979.000	0.000	6670.000	22470.000	22220.000
2	11:55:22	55.946%	0.311	2039.000	1998.000	0.000	6648.000	22800.000	22190.000
3	11:55:41	54.678%	0.478	2051.000	2027.000	0.000	6750.000	23060.000	22470.000
x		55.686%	0.376	2030.000	2001.000	0.000	6689.000	22780.000	22290.000
σ		0.906%	0.090	26.120	23.940	0.000	53.910	295.100	157.400
%RSD		1.627	23.870	1.286	1.196	0.000	0.806	1.295	0.706

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	11.460	4015.000	0.000	857.700	49760.000	47080.000	50.135%	0.960
2	11:55:22	6.274	4024.000	0.000	848.400	49870.000	47640.000	49.800%	0.243
3	11:55:41	12.110	4059.000	0.000	861.500	49210.000	47140.000	49.915%	0.739
x		9.948	4033.000	0.000	855.900	49610.000	47280.000	49.950%	0.647
σ		3.199	23.040	0.000	6.725	350.800	307.600	0.170%	0.367
%RSD		32.160	0.571	0.000	0.786	0.707	0.651	0.341	56.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	4.219	1.002	830.300	2079.000	2171.000	1.800	2.733	0.599
2	11:55:22	3.542	1.066	842.100	2092.000	2163.000	1.747	2.170	0.588
3	11:55:41	4.653	1.040	834.700	2074.000	2149.000	1.873	2.275	0.653
x		4.138	1.036	835.700	2082.000	2161.000	1.807	2.392	0.613
σ		0.560	0.032	5.952	9.149	11.040	0.063	0.299	0.035
%RSD		13.530	3.102	0.712	0.440	0.511	3.483	12.510	5.642

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	0.970	2.509	2.190	3.438	11.070	9.294	0.000	97.980
2	11:55:22	0.822	2.410	2.559	2.251	10.830	8.666	0.000	98.130
3	11:55:41	0.683	2.534	2.142	2.228	10.550	10.040	0.000	99.120
x		0.825	2.484	2.297	2.639	10.820	9.332	0.000	98.410
σ		0.144	0.066	0.228	0.692	0.262	0.687	0.000	0.619
%RSD		17.410	2.639	9.936	26.220	2.426	7.358	0.000	0.629

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	51.413%	5.518	5.796	48.508%	0.010	-0.002	0.289	0.179
2	11:55:22	51.635%	5.648	5.744	48.562%	0.021	0.011	0.080	0.067
3	11:55:41	51.859%	5.491	5.762	48.876%	0.015	-0.005	0.200	0.120
x		51.636%	5.553	5.767	48.648%	0.015	0.001	0.190	0.122
σ		0.223%	0.084	0.026	0.199%	0.005	0.008	0.105	0.056
%RSD		0.433	1.514	0.457	0.408	33.130	571.600	55.320	46.110

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	52.505%	0.794	0.107	0.096	109.100	108.300	61.187%	62.143%
2	11:55:22	52.685%	0.803	0.060	0.154	110.900	110.900	61.285%	62.675%
3	11:55:41	53.152%	0.727	0.110	0.178	110.700	109.700	62.164%	62.941%
x		52.781%	0.775	0.093	0.143	110.200	109.600	61.546%	62.586%
σ		0.334%	0.041	0.028	0.042	0.979	1.311	0.538%	0.407%
%RSD		0.632	5.355	30.230	29.490	0.888	1.196	0.874	0.650

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:02	0.024	0.026	0.047	0.003	0.021	58.603%
2	11:55:22	0.035	0.016	0.063	0.025	0.032	58.800%
3	11:55:41	0.033	0.019	0.015	0.010	0.018	59.541%
x		0.031	0.020	0.042	0.013	0.024	58.981%
σ		0.006	0.005	0.025	0.011	0.007	0.495%
%RSD		20.220	23.880	59.440	87.100	30.390	0.839

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	53.858%	0.452	2184.000	2140.000	0.000	6909.000	23640.000	23090.000
2	11:59:05	54.721%	0.382	2126.000	2060.000	0.000	6866.000	23360.000	22840.000
3	11:59:24	54.300%	0.643	2118.000	2066.000	0.000	6830.000	22680.000	22590.000
x		54.293%	0.492	2142.000	2089.000	0.000	6868.000	23230.000	22840.000
σ		0.431%	0.135	36.080	44.930	0.000	39.770	492.500	248.500
%RSD		0.795	27.470	1.684	2.151	0.000	0.579	2.120	1.088

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	56.780	4175.000	0.000	868.100	50150.000	47980.000	50.301%	1.314
2	11:59:05	31.260	4119.000	0.000	863.200	50180.000	48180.000	49.622%	1.291
3	11:59:24	40.280	4097.000	0.000	868.700	50040.000	48340.000	49.339%	1.026
x		42.770	4130.000	0.000	866.600	50120.000	48170.000	49.754%	1.210
σ		12.940	39.950	0.000	3.034	68.870	178.400	0.495%	0.160
%RSD		30.260	0.967	0.000	0.350	0.137	0.370	0.994	13.240

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	3.764	3.983	847.100	2615.000	2691.000	2.070	5.590	3.955
2	11:59:05	3.613	4.057	850.000	2630.000	2696.000	1.905	6.048	3.812
3	11:59:24	5.079	4.235	843.900	2606.000	2703.000	2.046	5.653	3.873
x		4.152	4.092	847.000	2617.000	2697.000	2.007	5.764	3.880
σ		0.806	0.130	3.066	11.920	6.150	0.089	0.248	0.072
%RSD		19.410	3.165	0.362	0.456	0.228	4.447	4.310	1.855

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	3.979	9.652	9.140	1.733	11.220	8.989	0.000	99.380
2	11:59:05	3.674	10.220	9.382	2.549	11.950	10.770	0.000	99.800
3	11:59:24	3.829	10.480	9.397	2.873	11.900	10.520	0.000	99.890
x		3.827	10.120	9.306	2.385	11.690	10.090	0.000	99.690
σ		0.152	0.422	0.144	0.587	0.407	0.965	0.000	0.275
%RSD		3.982	4.171	1.553	24.620	3.482	9.556	0.000	0.276

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	51.905%	6.427	6.402	48.897%	0.025	0.013	0.182	0.132
2	11:59:05	51.522%	5.538	6.000	48.633%	0.015	0.011	0.197	0.126
3	11:59:24	51.372%	6.372	6.744	48.285%	0.018	0.024	0.195	0.101
x		51.599%	6.112	6.382	48.605%	0.020	0.016	0.191	0.120
σ		0.275%	0.498	0.373	0.307%	0.005	0.007	0.008	0.017
%RSD		0.532	8.146	5.838	0.632	26.170	44.370	4.109	13.930

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	53.383%	0.549	0.179	0.239	111.200	112.300	61.095%	62.487%
2	11:59:05	53.281%	0.679	0.281	0.278	110.700	108.400	61.417%	62.586%
3	11:59:24	52.495%	0.673	0.205	0.213	112.300	111.900	61.919%	61.975%
x		53.053%	0.634	0.222	0.243	111.400	110.900	61.477%	62.350%
σ		0.486%	0.073	0.053	0.033	0.822	2.147	0.415%	0.328%
%RSD		0.916	11.540	23.960	13.370	0.737	1.937	0.676	0.526

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:46	0.021	0.018	0.578	0.507	0.513	59.160%
2	11:59:05	0.018	0.018	0.539	0.502	0.555	59.774%
3	11:59:24	0.010	0.020	0.558	0.574	0.549	59.503%
x		0.017	0.019	0.558	0.528	0.539	59.479%
σ		0.006	0.001	0.019	0.040	0.023	0.308%
%RSD		34.130	7.955	3.467	7.617	4.313	0.518

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	55.196%	-0.003	18.700	18.410	0.000	3298.000	17600.000	17220.000
2	12:02:47	52.419%	-0.035	18.470	17.680	0.000	3402.000	18010.000	17630.000
3	12:03:06	52.684%	-0.035	16.740	15.910	0.000	3385.000	17990.000	17490.000
x		53.433%	-0.024	17.970	17.330	0.000	3362.000	17870.000	17450.000
σ		1.533%	0.018	1.068	1.287	0.000	55.610	228.100	209.900
%RSD		2.869	76.260	5.945	7.423	0.000	1.654	1.277	1.203

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	16.240	2681.000	0.000	4904.000	67400.000	65320.000	46.639%	0.428
2	12:02:47	17.130	2705.000	0.000	4947.000	67390.000	65380.000	46.731%	0.330
3	12:03:06	17.030	2671.000	0.000	4909.000	67440.000	65210.000	47.208%	0.706
x		16.800	2685.000	0.000	4920.000	67410.000	65300.000	46.859%	0.488
σ		0.488	17.810	0.000	23.580	22.080	86.210	0.305%	0.195
%RSD		2.907	0.663	0.000	0.479	0.033	0.132	0.651	39.980

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	-0.320	0.445	618.300	-8.689	144.400	1.007	-0.156	1.106
2	12:02:47	-0.940	0.550	616.600	-9.095	122.900	0.918	-0.124	1.126
3	12:03:06	0.140	0.555	615.600	-8.973	124.300	1.004	-0.133	1.033
x		-0.373	0.517	616.800	-8.919	130.500	0.976	-0.138	1.088
σ		0.542	0.062	1.324	0.208	12.050	0.050	0.017	0.049
%RSD		145.200	11.960	0.215	2.332	9.232	5.125	12.130	4.500

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	1.549	4.282	3.239	2.312	-0.454	-1.130	0.000	181.600
2	12:02:47	1.207	3.814	3.903	1.466	-0.077	-1.712	0.000	183.800
3	12:03:06	1.687	4.101	3.928	-0.195	-0.482	-3.672	0.000	185.300
x		1.481	4.066	3.690	1.194	-0.338	-2.171	0.000	183.500
σ		0.247	0.236	0.390	1.275	0.226	1.332	0.000	1.880
%RSD		16.670	5.807	10.580	106.800	67.070	61.350	0.000	1.024

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	47.866%	-0.748	-0.793	44.832%	-0.006	0.002	0.124	0.063
2	12:02:47	48.323%	-0.882	-0.766	45.022%	0.016	0.013	0.078	0.052
3	12:03:06	48.439%	-0.780	-0.774	45.603%	-0.004	0.002	0.029	0.058
x		48.209%	-0.803	-0.778	45.152%	0.002	0.006	0.077	0.058
σ		0.303%	0.070	0.014	0.402%	0.012	0.006	0.048	0.005
%RSD		0.628	8.690	1.752	0.890	649.200	109.000	61.920	9.206

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	49.337%	1.028	0.116	0.120	14.040	14.240	57.572%	58.466%
2	12:02:47	50.210%	0.851	0.058	0.096	14.090	14.130	59.757%	60.304%
3	12:03:06	50.369%	0.947	0.128	0.109	14.450	14.520	59.242%	60.643%
x		49.972%	0.942	0.101	0.109	14.190	14.290	58.857%	59.804%
σ		0.556%	0.089	0.037	0.012	0.224	0.205	1.142%	1.171%
%RSD		1.112	9.418	37.060	11.160	1.576	1.433	1.941	1.959

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:02:28	0.053	0.046	-0.008	-0.014	-0.019	54.884%
2	12:02:47	0.065	0.058	-0.027	-0.033	-0.027	56.542%
3	12:03:06	0.052	0.050	-0.020	-0.019	-0.020	57.158%
x		0.057	0.051	-0.018	-0.022	-0.022	56.195%
σ		0.007	0.006	0.010	0.010	0.005	1.176%
%RSD		12.980	12.340	53.790	44.340	20.370	2.093

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	56.373%	-0.035	9.501	11.570	0.000	3367.000	18000.000	17300.000
2	12:06:27	55.913%	-0.035	10.820	10.810	0.000	3434.000	18200.000	17480.000
3	12:06:46	54.333%	-0.035	9.843	10.930	0.000	3464.000	18320.000	17670.000
x		55.540%	-0.035	10.050	11.100	0.000	3422.000	18170.000	17480.000
σ		1.070%	0.000	0.685	0.406	0.000	49.800	164.600	183.400
%RSD		1.926	0.000	6.810	3.660	0.000	1.455	0.906	1.049

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	22.320	2736.000	0.000	4949.000	67310.000	65130.000	49.215%	0.571
2	12:06:27	23.560	2749.000	0.000	4955.000	67500.000	65380.000	49.012%	0.344
3	12:06:46	23.980	2771.000	0.000	4981.000	69500.000	66460.000	48.710%	0.117
x		23.290	2752.000	0.000	4961.000	68110.000	65660.000	48.979%	0.344
σ		0.865	17.890	0.000	17.340	1213.000	708.600	0.254%	0.227
%RSD		3.713	0.650	0.000	0.349	1.781	1.079	0.519	66.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	-0.134	0.471	715.500	422.000	557.500	0.886	-0.348	1.802
2	12:06:27	0.708	0.401	717.500	423.000	554.600	0.905	-0.153	1.729
3	12:06:46	-0.348	0.463	720.500	421.900	562.900	0.984	-0.115	1.782
x		0.075	0.445	717.800	422.300	558.300	0.925	-0.205	1.771
σ		0.558	0.039	2.488	0.618	4.186	0.052	0.125	0.037
%RSD		741.600	8.656	0.347	0.146	0.750	5.612	60.880	2.105

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	2.249	13.680	14.270	2.680	-0.758	-2.803	0.000	182.500
2	12:06:27	1.435	12.790	13.980	2.038	-0.624	-1.920	0.000	182.900
3	12:06:46	2.235	15.040	13.920	0.951	-0.672	-1.499	0.000	182.000
x		1.973	13.830	14.060	1.890	-0.685	-2.074	0.000	182.400
σ		0.466	1.135	0.185	0.874	0.068	0.665	0.000	0.435
%RSD		23.610	8.205	1.315	46.260	9.967	32.080	0.000	0.238

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	50.895%	-0.837	-0.786	47.301%	0.001	0.001	0.212	0.114
2	12:06:27	50.671%	-0.783	-0.877	47.402%	0.001	0.001	0.088	0.026
3	12:06:46	50.980%	-0.864	-0.716	47.293%	-0.007	-0.007	0.147	0.130
x		50.849%	-0.828	-0.793	47.332%	-0.002	-0.002	0.149	0.090
σ		0.160%	0.041	0.081	0.061%	0.005	0.005	0.062	0.056
%RSD		0.315	4.979	10.190	0.128	233.500	305.100	41.550	62.230

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	51.194%	0.861	0.019	0.033	14.560	14.870	60.288%	61.702%
2	12:06:27	52.274%	1.009	0.009	0.031	14.360	14.130	60.789%	61.468%
3	12:06:46	51.961%	0.966	0.002	0.035	14.500	14.950	60.912%	62.129%
x		51.810%	0.945	0.010	0.033	14.470	14.650	60.663%	61.766%
σ		0.556%	0.076	0.008	0.002	0.104	0.456	0.330%	0.335%
%RSD		1.072	8.052	84.450	5.668	0.721	3.112	0.545	0.543

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:08	0.042	0.056	-0.025	-0.029	-0.012	57.762%
2	12:06:27	0.053	0.054	-0.005	-0.017	-0.013	57.593%
3	12:06:46	0.059	0.050	-0.000	-0.017	-0.010	57.740%
x		0.051	0.053	-0.010	-0.021	-0.012	57.698%
σ		0.008	0.003	0.013	0.007	0.001	0.092%
%RSD		15.970	5.412	127.900	34.960	11.470	0.159

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	55.844%	3.606	26.870	29.480	0.000	15950.000	70990.000	68620.000
2	12:10:08	55.575%	3.055	28.150	29.420	0.000	15960.000	71660.000	69080.000
3	12:10:27	55.436%	3.823	27.750	29.060	0.000	16050.000	71890.000	69390.000
x		55.618%	3.495	27.590	29.320	0.000	15980.000	71510.000	69030.000
σ		0.208%	0.396	0.654	0.227	0.000	54.310	470.700	387.700
%RSD		0.373	11.320	2.372	0.773	0.000	0.340	0.658	0.562

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	7866.000	13330.000	0.000	12240.000	129100.000	130800.000	51.124%	0.673
2	12:10:08	7957.000	13330.000	0.000	12280.000	130200.000	132300.000	50.908%	0.944
3	12:10:27	7981.000	13470.000	0.000	12430.000	131900.000	134200.000	50.593%	0.594
x		7935.000	13380.000	0.000	12320.000	130400.000	132400.000	50.875%	0.737
σ		60.600	81.710	0.000	95.840	1407.000	1710.000	0.267%	0.184
%RSD		0.764	0.611	0.000	0.778	1.079	1.291	0.524	24.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	-1.301	0.848	22290.000	166900.000	167000.000	606.700	68.260	590.400
2	12:10:08	-0.145	0.775	22350.000	167300.000	168000.000	607.000	68.350	593.800
3	12:10:27	0.440	0.696	22440.000	168000.000	168500.000	608.100	69.870	592.600
x		-0.335	0.773	22360.000	167400.000	167800.000	607.200	68.830	592.300
σ		0.886	0.076	75.950	568.700	736.100	0.763	0.905	1.752
%RSD		264.200	9.810	0.340	0.340	0.439	0.126	1.314	0.296

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	584.700	23080.000	23130.000	2.716	1.500	4.155	0.000	591.600
2	12:10:08	590.600	23160.000	23200.000	3.129	0.765	3.991	0.000	586.800
3	12:10:27	594.200	23130.000	23150.000	2.717	1.689	3.245	0.000	593.100
x		589.800	23120.000	23160.000	2.854	1.318	3.797	0.000	590.500
σ		4.775	38.860	36.050	0.238	0.488	0.485	0.000	3.267
%RSD		0.810	0.168	0.156	8.345	37.030	12.770	0.000	0.553

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	0.000	-0.914	-0.799	47.641%	0.024	0.004	9.580	8.417
2	12:10:08	0.000	-0.824	-0.800	47.929%	0.041	0.006	8.888	8.462
3	12:10:27	0.000	-0.723	-0.919	47.932%	0.042	0.011	9.075	8.407
x		0.000	-0.820	-0.840	47.834%	0.036	0.007	9.181	8.429
σ		0.000	0.095	0.069	0.167%	0.010	0.004	0.358	0.029
%RSD		0.000	11.640	8.242	0.350	28.750	58.320	3.898	0.349

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	52.627%	0.820	0.049	0.127	16.050	15.830	80.337%	86.740%
2	12:10:08	53.557%	0.782	0.040	0.078	15.230	15.260	80.443%	86.673%
3	12:10:27	52.533%	0.853	0.034	0.102	16.240	14.980	80.608%	86.912%
x		52.905%	0.818	0.041	0.102	15.840	15.360	80.463%	86.775%
σ		0.566%	0.035	0.008	0.025	0.535	0.430	0.136%	0.124%
%RSD		1.070	4.303	18.220	24.000	3.379	2.799	0.170	0.142

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:49	0.264	0.278	16.240	14.900	15.690	55.353%
2	12:10:08	0.288	0.272	16.300	15.050	15.780	55.935%
3	12:10:27	0.278	0.302	16.390	14.910	15.760	56.187%
x		0.277	0.284	16.310	14.950	15.740	55.825%
σ		0.012	0.016	0.075	0.084	0.049	0.428%
%RSD		4.450	5.718	0.461	0.561	0.311	0.766

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	60.621%	0.630	6.473	7.473	0.000	3133.000	14180.000	13730.000
2	12:13:49	60.317%	0.604	8.087	7.947	0.000	3152.000	14120.000	13680.000
3	12:14:08	61.017%	0.511	7.914	7.883	0.000	3114.000	13960.000	13620.000
x		60.652%	0.582	7.491	7.768	0.000	3133.000	14090.000	13680.000
σ		0.351%	0.063	0.886	0.257	0.000	18.690	109.500	54.710
%RSD		0.579	10.750	11.830	3.308	0.000	0.597	0.777	0.400

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	1598.000	2825.000	0.000	2465.000	25820.000	25060.000	55.471%	-0.143
2	12:13:49	1569.000	2801.000	0.000	2448.000	26000.000	25000.000	55.664%	-0.022
3	12:14:08	1554.000	2775.000	0.000	2453.000	26150.000	25140.000	55.545%	0.020
x		1574.000	2800.000	0.000	2455.000	25990.000	25070.000	55.560%	-0.048
σ		22.200	24.960	0.000	9.054	164.100	71.600	0.097%	0.084
%RSD		1.411	0.891	0.000	0.369	0.631	0.286	0.175	175.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	0.073	0.115	4559.000	34340.000	34290.000	124.300	15.330	126.900
2	12:13:49	0.015	0.144	4524.000	34280.000	33930.000	123.100	15.340	125.300
3	12:14:08	0.158	0.143	4530.000	34200.000	34260.000	124.800	14.050	127.500
x		0.082	0.134	4538.000	34270.000	34160.000	124.100	14.900	126.500
σ		0.072	0.016	18.630	68.530	203.600	0.891	0.744	1.129
%RSD		87.680	12.060	0.411	0.200	0.596	0.718	4.989	0.892

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	126.200	5243.000	5315.000	0.383	0.167	0.158	0.000	114.000
2	12:13:49	127.900	5258.000	5355.000	0.574	0.006	1.040	0.000	113.500
3	12:14:08	127.700	5250.000	5308.000	-0.113	0.235	-0.143	0.000	114.400
x		127.300	5250.000	5326.000	0.281	0.136	0.352	0.000	114.000
σ		0.917	7.543	25.140	0.355	0.118	0.615	0.000	0.439
%RSD		0.721	0.144	0.472	126.200	86.560	174.800	0.000	0.386

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	0.000	-0.998	-0.995	55.030%	-0.003	0.005	1.568	1.912
2	12:13:49	0.000	-0.966	-0.976	55.182%	-0.012	-0.007	1.893	2.045
3	12:14:08	0.000	-0.998	-0.985	55.236%	0.015	-0.004	1.895	1.658
x		0.000	-0.987	-0.985	55.149%	0.000	-0.002	1.785	1.871
σ		0.000	0.018	0.009	0.107%	0.014	0.006	0.188	0.197
%RSD		0.000	1.859	0.949	0.194	11400.000	310.600	10.530	10.510

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	58.372%	-0.127	-0.022	-0.046	3.464	3.344	70.554%	71.937%
2	12:13:49	59.221%	-0.150	-0.034	-0.015	3.421	3.479	70.699%	72.842%
3	12:14:08	59.483%	-0.167	-0.041	-0.041	3.686	3.426	70.325%	73.005%
x		59.025%	-0.148	-0.032	-0.034	3.524	3.417	70.526%	72.595%
σ		0.581%	0.020	0.010	0.017	0.142	0.068	0.189%	0.576%
%RSD		0.984	13.460	29.670	49.390	4.035	1.995	0.267	0.793

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:30	0.057	0.047	3.255	2.885	3.019	65.231%
2	12:13:49	0.049	0.048	3.220	2.952	3.072	65.683%
3	12:14:08	0.058	0.043	3.211	2.746	2.979	66.254%
x		0.055	0.046	3.229	2.861	3.023	65.722%
σ		0.005	0.003	0.023	0.105	0.047	0.513%
%RSD		8.950	5.504	0.713	3.671	1.542	0.780

CCV 1308170 9/5/2014 12:16:52 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	67.908%	100.700	97.280	96.780	0.000	49000.000	49600.000	48850.000
2	12:17:11	68.840%	97.280	99.560	94.090	0.000	48970.000	49810.000	48730.000
3	12:17:30	68.977%	106.200	96.080	100.400	0.000	49780.000	50120.000	49510.000
x		68.575%	101.414%	97.639%	97.091%	0.000	98.495%	99.683%	98.065%
σ		0.582%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.849	4.439	1.808	3.261	0.000	0.929	0.530	0.857

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	495.200	5041.000	0.000	48620.000	48520.000	46990.000	59.610%	94.660
2	12:17:11	488.900	5004.000	0.000	48570.000	48330.000	47340.000	59.847%	94.960
3	12:17:30	494.000	5061.000	0.000	49150.000	49500.000	47650.000	61.329%	94.420
x		98.539%	100.709%	0.000	97.561%	97.565%	94.653%	60.262%	94.681%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.932%	n/a
%RSD		0.678	0.573	0.000	0.657	1.295	0.698	1.546	0.286

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	97.440	99.750	490.900	25030.000	24860.000	99.430	101.800	102.600
2	12:17:11	97.800	98.790	494.200	25180.000	25060.000	101.100	101.700	103.000
3	12:17:30	98.740	98.670	490.000	24920.000	24900.000	99.770	98.390	101.800
x		97.994%	99.071%	98.336%	100.161%	99.764%	100.089%	100.625%	102.448%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.689	0.599	0.454	0.515	0.409	0.859	1.923	0.594

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	104.400	102.000	101.200	97.560	98.930	97.000	0.000	98.450
2	12:17:11	102.700	99.860	100.900	100.200	96.350	95.390	0.000	98.490
3	12:17:30	99.800	99.740	101.800	98.180	96.280	96.370	0.000	98.330
x		102.296%	100.540%	101.282%	98.659%	97.189%	96.253%	0.000	98.421%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.275	1.270	0.447	1.422	1.551	0.847	0.000	0.083

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	59.225%	100.100	97.500	55.722%	100.800	101.100	99.110	98.380
2	12:17:11	60.616%	103.000	103.000	57.016%	100.600	102.600	101.800	100.700
3	12:17:30	62.218%	103.000	102.900	58.124%	101.500	101.600	100.100	98.560
x		60.686%	102.047%	101.137%	56.954%	100.966%	101.781%	100.363%	99.221%
σ		1.498%	n/a	n/a	1.202%	n/a	n/a	n/a	n/a
%RSD		2.469	1.626	3.116	2.111	0.486	0.759	1.369	1.307

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	60.356%	97.040	94.100	92.580	96.250	96.370	66.436%	67.243%
2	12:17:11	60.887%	98.030	95.150	94.880	99.620	96.000	68.137%	68.736%
3	12:17:30	62.645%	97.490	94.560	95.360	98.140	97.920	68.896%	69.911%
x		61.296%	97.519%	94.603%	94.276%	98.003%	96.763%	67.823%	68.630%
σ		1.198%	n/a	n/a	n/a	n/a	n/a	1.259%	1.337%
%RSD		1.954	0.507	0.561	1.576	1.724	1.053	1.857	1.948

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:16:52	97.730	101.000	101.900	101.700	102.000	69.122%
2	12:17:11	101.300	104.700	105.200	105.100	105.300	68.355%
3	12:17:30	102.000	106.900	107.400	107.200	107.600	67.716%
x		100.347%	104.210%	104.858%	104.648%	104.955%	68.398%
σ		n/a	n/a	n/a	n/a	n/a	0.704%
%RSD		2.293	2.903	2.638	2.654	2.699	1.029

CCB5 9/5/2014 12:23:01 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	67.313%	-0.035	0.972	1.402	0.000	-4.843	2.256	2.299
2	12:23:39	67.776%	-0.035	1.280	1.440	0.000	-4.060	2.125	2.939
3	12:23:58	68.179%	-0.009	1.347	1.774	0.000	-4.703	2.557	2.252
x		67.756%	-0.026	1.200	1.539	0.000	-4.535	2.313	2.497
σ		0.433%	0.015	0.200	0.205	0.000	0.417	0.222	0.384
%RSD		0.639	56.750	16.680	13.320	0.000	9.206	9.588	15.370

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	0.493	0.981	0.000	1.166	14.410	4.273	59.183%	-0.308
2	12:23:39	0.523	0.839	0.000	0.024	11.180	6.535	58.813%	-0.308
3	12:23:58	0.405	0.714	0.000	-0.167	14.240	4.983	59.454%	-0.271
x		0.474	0.845	0.000	0.341	13.280	5.264	59.150%	-0.296
σ		0.061	0.133	0.000	0.721	1.813	1.157	0.321%	0.022
%RSD		12.890	15.770	0.000	211.400	13.660	21.980	0.543	7.363

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	0.027	-0.054	0.082	-4.656	4.656	0.017	0.040	0.010
2	12:23:39	-0.002	-0.059	0.067	-5.323	4.106	0.007	0.040	0.067
3	12:23:58	0.005	-0.098	0.103	-6.694	4.826	0.004	0.015	-0.032
x		0.010	-0.070	0.084	-5.558	4.529	0.009	0.032	0.015
σ		0.015	0.024	0.018	1.039	0.376	0.007	0.015	0.050
%RSD		157.000	34.030	21.210	18.700	8.309	69.510	46.120	339.700

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	-0.024	0.091	-0.023	-0.873	-0.404	-3.882	0.000	0.035
2	12:23:39	-0.035	0.040	0.100	-0.586	-0.342	-2.708	0.000	0.025
3	12:23:58	0.038	0.201	0.133	-0.072	-0.523	-0.528	0.000	0.030
x		-0.007	0.111	0.070	-0.510	-0.423	-2.373	0.000	0.030
σ		0.039	0.082	0.082	0.406	0.092	1.702	0.000	0.005
%RSD		562.900	74.220	117.300	79.560	21.710	71.750	0.000	16.420

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	60.036%	-0.885	-0.816	59.441%	0.006	0.005	0.010	0.004
2	12:23:39	60.433%	-0.828	-0.883	59.692%	-0.004	0.001	0.049	0.035
3	12:23:58	60.407%	-0.820	-0.830	59.616%	0.002	-0.006	0.069	0.053
x		60.292%	-0.845	-0.843	59.583%	0.001	0.000	0.042	0.031
σ		0.222%	0.036	0.035	0.129%	0.005	0.005	0.030	0.025
%RSD		0.369	4.216	4.160	0.216	452.800	2984.000	71.120	80.620

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	62.902%	-0.177	0.093	0.102	-0.030	0.027	67.692%	68.252%
2	12:23:39	62.233%	-0.171	0.055	0.070	-0.021	0.022	68.374%	68.756%
3	12:23:58	62.861%	-0.204	0.071	0.066	-0.039	0.016	68.574%	69.203%
x		62.666%	-0.184	0.073	0.079	-0.030	0.022	68.214%	68.737%
σ		0.375%	0.018	0.019	0.020	0.009	0.005	0.463%	0.476%
%RSD		0.598	9.579	26.280	25.080	31.430	24.530	0.678	0.692

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:20	-0.005	-0.009	0.083	0.097	0.078	72.480%
2	12:23:39	-0.002	-0.006	0.106	0.072	0.088	72.658%
3	12:23:58	0.005	-0.003	0.109	0.059	0.100	72.371%
x		-0.001	-0.006	0.099	0.076	0.089	72.503%
σ		0.005	0.003	0.014	0.019	0.011	0.145%
%RSD		688.000	51.000	14.500	25.400	12.890	0.200

180-36156-B-1-B MS 9/5/2014 12:26:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	53.670%	46.930	900.100	871.200	0.000	59980.000	114300.000	110900.000
2	12:27:23	51.132%	47.950	883.300	897.400	0.000	61610.000	116600.000	112800.000
3	12:27:42	52.114%	48.740	870.400	870.600	0.000	61080.000	116100.000	111700.000
x		52.305%	47.870	884.600	879.800	0.000	60890.000	115700.000	111800.000
σ		1.280%	0.908	14.920	15.280	0.000	832.200	1178.000	974.000
%RSD		2.447	1.897	1.687	1.737	0.000	1.367	1.018	0.871

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	9738.000	21360.000	0.000	54040.000	173200.000	174800.000	49.170%	823.100
2	12:27:23	9811.000	21570.000	0.000	54850.000	175500.000	177200.000	48.635%	837.400
3	12:27:42	9738.000	21550.000	0.000	54950.000	175400.000	178700.000	48.479%	831.300
x		9762.000	21490.000	0.000	54610.000	174700.000	176900.000	48.761%	830.600
σ		42.220	114.600	0.000	495.100	1306.000	1981.000	0.362%	7.151
%RSD		0.433	0.533	0.000	0.906	0.748	1.120	0.743	0.861

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	421.400	166.600	22920.000	169100.000	169100.000	1036.000	483.600	790.700
2	12:27:23	420.900	167.400	23020.000	169500.000	169400.000	1036.000	485.100	792.900
3	12:27:42	422.300	166.400	22950.000	168700.000	169900.000	1037.000	488.200	799.400
x		421.500	166.800	22960.000	169100.000	169500.000	1036.000	485.700	794.400
σ		0.679	0.537	51.180	434.400	410.800	0.807	2.334	4.506
%RSD		0.161	0.322	0.223	0.257	0.242	0.078	0.481	0.567

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	790.600	22560.000	22700.000	34.090	9.933	11.720	0.000	1545.000
2	12:27:23	797.800	22790.000	22960.000	35.640	9.542	14.950	0.000	1554.000
3	12:27:42	791.600	23030.000	23080.000	34.940	10.650	10.570	0.000	1574.000
x		793.300	22790.000	22910.000	34.890	10.040	12.410	0.000	1558.000
σ		3.854	237.500	197.500	0.778	0.561	2.270	0.000	14.770
%RSD		0.486	1.042	0.862	2.231	5.584	18.290	0.000	0.948

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	0.000	986.400	976.000	44.812%	42.950	43.020	49.840	44.240
2	12:27:23	0.000	981.800	971.800	45.159%	43.980	42.990	50.870	44.260
3	12:27:42	0.000	990.600	990.600	44.961%	43.210	43.060	48.730	42.270
x		0.000	986.300	979.500	44.978%	43.380	43.030	49.810	43.590
σ		0.000	4.427	9.853	0.174%	0.531	0.032	1.070	1.144
%RSD		0.000	0.449	1.006	0.387	1.223	0.073	2.148	2.626

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	50.121%	1673.000	395.000	388.400	1508.000	1485.000	76.463%	83.052%
2	12:27:23	49.947%	1695.000	403.400	393.300	1503.000	1487.000	77.214%	83.190%
3	12:27:42	50.719%	1681.000	401.800	390.900	1508.000	1477.000	78.062%	84.445%
x		50.262%	1683.000	400.100	390.900	1506.000	1483.000	77.246%	83.563%
σ		0.405%	11.080	4.421	2.451	2.877	5.277	0.800%	0.768%
%RSD		0.806	0.659	1.105	0.627	0.191	0.356	1.035	0.919

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:04	44.790	47.570	35.420	34.490	35.260	52.074%
2	12:27:23	45.160	47.790	35.810	33.870	35.330	52.270%
3	12:27:42	44.510	48.000	35.160	33.650	34.960	53.006%
x		44.820	47.790	35.470	34.000	35.180	52.450%
σ		0.327	0.213	0.328	0.433	0.199	0.491%
%RSD		0.729	0.446	0.924	1.274	0.565	0.937

180-36156-B-1-C MSD 9/5/2014 12:30:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	50.101%	47.350	908.000	909.800	0.000	62360.000	117500.000	114300.000
2	12:31:04	49.480%	50.340	905.800	895.500	0.000	62890.000	118600.000	113700.000
3	12:31:23	50.606%	47.170	921.200	903.800	0.000	63430.000	119400.000	113800.000
x		50.062%	48.290	911.700	903.000	0.000	62890.000	118500.000	114000.000
σ		0.564%	1.780	8.318	7.141	0.000	537.500	940.300	276.900
%RSD		1.127	3.686	0.912	0.791	0.000	0.855	0.794	0.243

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	9943.000	22110.000	0.000	56350.000	175900.000	179300.000	48.719%	855.800
2	12:31:04	10020.000	22120.000	0.000	57040.000	178800.000	180100.000	48.587%	863.700
3	12:31:23	9967.000	22120.000	0.000	56830.000	179300.000	179900.000	48.527%	853.400
x		9977.000	22120.000	0.000	56740.000	178000.000	179800.000	48.611%	857.600
σ		40.090	2.907	0.000	353.800	1801.000	443.900	0.098%	5.407
%RSD		0.402	0.013	0.000	0.624	1.012	0.247	0.202	0.630

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	432.000	171.800	23130.000	170900.000	170900.000	1050.000	499.400	796.500
2	12:31:04	435.600	172.300	23340.000	171000.000	171700.000	1054.000	502.200	806.000
3	12:31:23	434.300	174.000	23220.000	171300.000	171900.000	1059.000	504.600	811.400
x		434.000	172.700	23230.000	171100.000	171500.000	1054.000	502.100	804.600
σ		1.847	1.158	104.500	237.900	552.300	4.204	2.633	7.535
%RSD		0.426	0.671	0.450	0.139	0.322	0.399	0.524	0.937

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	816.000	22860.000	23070.000	34.740	10.120	12.910	0.000	1597.000
2	12:31:04	805.300	23070.000	23250.000	35.970	9.879	12.080	0.000	1601.000
3	12:31:23	819.100	23280.000	23340.000	34.190	9.711	13.640	0.000	1608.000
x		813.500	23070.000	23220.000	34.970	9.902	12.880	0.000	1602.000
σ		7.215	207.000	135.100	0.913	0.204	0.782	0.000	5.508
%RSD		0.887	0.897	0.582	2.610	2.062	6.070	0.000	0.344

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	0.000	1007.000	1003.000	45.350%	45.170	44.240	52.240	46.320
2	12:31:04	0.000	1016.000	1013.000	45.427%	44.620	44.050	52.740	46.550
3	12:31:23	0.000	1020.000	1018.000	45.672%	44.120	43.940	51.320	45.620
x		0.000	1014.000	1011.000	45.483%	44.640	44.070	52.100	46.160
σ		0.000	6.754	7.509	0.168%	0.522	0.150	0.721	0.482
%RSD		0.000	0.666	0.742	0.370	1.169	0.340	1.384	1.044

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	50.476%	1738.000	411.400	407.000	1559.000	1547.000	78.800%	85.700%
2	12:31:04	51.391%	1724.000	407.300	400.300	1545.000	1535.000	79.860%	85.885%
3	12:31:23	50.693%	1759.000	416.300	408.600	1550.000	1535.000	79.814%	86.210%
x		50.853%	1740.000	411.700	405.300	1551.000	1539.000	79.491%	85.932%
σ		0.478%	17.360	4.508	4.405	7.313	6.858	0.599%	0.258%
%RSD		0.940	0.997	1.095	1.087	0.471	0.446	0.753	0.300

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:45	46.260	48.580	35.750	34.700	35.530	53.926%
2	12:31:04	46.030	48.820	36.030	34.600	35.840	54.409%
3	12:31:23	46.960	49.790	36.740	35.130	36.410	53.418%
x		46.420	49.060	36.170	34.810	35.930	53.918%
σ		0.486	0.643	0.506	0.284	0.444	0.496%
%RSD		1.047	1.311	1.400	0.816	1.235	0.920

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	50.684%	-0.035	27.350	29.740	0.000	17230.000	62070.000	59710.000
2	12:34:45	49.490%	0.000	29.940	30.830	0.000	17520.000	62480.000	60550.000
3	12:35:04	48.688%	-0.035	30.210	28.690	0.000	17610.000	63220.000	60740.000
x		49.621%	-0.023	29.170	29.750	0.000	17450.000	62590.000	60330.000
σ		1.004%	0.020	1.581	1.074	0.000	198.800	586.400	550.400
%RSD		2.024	88.290	5.419	3.610	0.000	1.139	0.937	0.912

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	36.090	1040.000	0.000	14330.000	351800.000	354200.000	46.351%	0.384
2	12:34:45	35.140	1050.000	0.000	14280.000	351700.000	353900.000	46.894%	0.183
3	12:35:04	35.720	1066.000	0.000	14550.000	359800.000	358400.000	46.357%	0.140
x		35.650	1052.000	0.000	14390.000	354400.000	355500.000	46.534%	0.235
σ		0.480	13.300	0.000	147.100	4658.000	2548.000	0.312%	0.130
%RSD		1.346	1.264	0.000	1.023	1.314	0.717	0.671	55.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	-0.304	0.368	6194.000	5.238	625.500	9.711	-1.412	0.742
2	12:34:45	-0.167	0.271	6148.000	1.793	611.300	9.940	-2.290	0.706
3	12:35:04	0.393	0.369	6280.000	1.772	628.300	9.846	-2.152	0.598
x		-0.026	0.336	6207.000	2.935	621.700	9.832	-1.951	0.682
σ		0.370	0.056	67.090	1.995	9.130	0.115	0.472	0.075
%RSD		1421.000	16.770	1.081	67.980	1.469	1.168	24.220	10.990

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	2.151	15.920	15.430	4.731	0.024	-1.826	0.000	681.600
2	12:34:45	2.483	16.820	14.330	7.187	0.066	-2.135	0.000	680.200
3	12:35:04	2.235	17.450	14.000	3.896	0.080	-1.927	0.000	677.300
x		2.290	16.730	14.590	5.271	0.057	-1.963	0.000	679.700
σ		0.172	0.766	0.753	1.711	0.029	0.157	0.000	2.229
%RSD		7.531	4.576	5.160	32.460	52.040	8.021	0.000	0.328

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	48.178%	2.195	2.120	44.217%	-0.012	-0.009	0.115	0.139
2	12:34:45	48.671%	1.442	1.261	44.157%	-0.006	-0.003	0.094	0.122
3	12:35:04	49.211%	0.885	0.917	44.511%	-0.003	-0.000	0.232	0.158
x		48.687%	1.507	1.433	44.295%	-0.007	-0.004	0.147	0.140
σ		0.517%	0.657	0.620	0.189%	0.004	0.004	0.074	0.018
%RSD		1.062	43.620	43.270	0.427	59.120	102.700	50.710	12.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	48.543%	6.711	0.155	0.239	13.370	13.440	56.925%	58.011%
2	12:34:45	49.544%	6.159	0.159	0.272	13.650	14.080	57.613%	58.683%
3	12:35:04	50.060%	5.753	0.121	0.302	13.840	13.780	58.742%	59.734%
x		49.382%	6.207	0.145	0.271	13.620	13.770	57.760%	58.809%
σ		0.771%	0.481	0.021	0.031	0.238	0.318	0.917%	0.869%
%RSD		1.562	7.742	14.330	11.550	1.750	2.306	1.588	1.477

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	0.422	0.445	-0.031	-0.031	-0.032	51.685%
2	12:34:45	0.386	0.419	-0.015	-0.030	-0.031	52.159%
3	12:35:04	0.325	0.387	-0.019	-0.038	-0.030	52.890%
x		0.377	0.417	-0.022	-0.033	-0.031	52.245%
σ		0.049	0.029	0.008	0.004	0.001	0.607%
%RSD		13.030	6.975	38.460	13.450	4.226	1.162

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	64.296%	-0.035	359.400	375.200	0.000	1023000.000	121600.000	121800.000
2	12:42:44	64.667%	-0.035	368.300	375.800	0.000	1023000.000	121900.000	122800.000
3	12:43:04	63.847%	-0.008	359.400	379.500	0.000	1030000.000	123800.000	123700.000
x		64.270%	-0.026	362.400	376.800	0.000	1025000.000	122400.000	122800.000
σ		0.411%	0.016	5.162	2.345	0.000	4195.000	1234.000	956.100
%RSD		0.639	61.110	1.425	0.622	0.000	0.409	1.008	0.779

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	0.821	22.350	0.000	38280.000	36880.000	35700.000	63.062%	0.119
2	12:42:44	0.544	21.670	0.000	38660.000	37820.000	35950.000	63.340%	0.081
3	12:43:04	0.745	22.780	0.000	38680.000	37810.000	36260.000	63.242%	0.261
x		0.703	22.270	0.000	38540.000	37500.000	35970.000	63.214%	0.154
σ		0.143	0.562	0.000	225.800	537.500	280.500	0.141%	0.094
%RSD		20.390	2.526	0.000	0.586	1.433	0.780	0.223	61.430

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	0.311	0.058	0.461	-0.652	87.610	0.048	0.457	1.832
2	12:42:44	0.567	0.123	0.490	-0.398	83.900	0.031	0.356	2.033
3	12:43:04	0.429	0.068	0.472	-0.359	78.780	0.064	0.276	2.081
x		0.436	0.083	0.474	-0.470	83.430	0.048	0.363	1.982
σ		0.128	0.035	0.015	0.159	4.431	0.016	0.091	0.132
%RSD		29.390	41.950	3.113	33.830	5.311	33.810	25.040	6.653

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	0.375	1.330	0.356	0.447	0.102	0.967	0.000	654.500
2	12:42:44	0.528	0.786	0.491	1.598	0.592	3.822	0.000	655.100
3	12:43:04	0.479	1.197	0.453	1.141	0.314	0.344	0.000	655.700
x		0.461	1.104	0.433	1.062	0.336	1.711	0.000	655.100
σ		0.078	0.283	0.070	0.580	0.245	1.855	0.000	0.598
%RSD		16.960	25.640	16.130	54.570	73.030	108.400	0.000	0.091

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	63.753%	0.163	0.418	57.071%	-0.006	-0.003	0.041	0.040
2	12:42:44	64.652%	0.218	0.268	57.835%	-0.004	-0.005	-0.064	-0.028
3	12:43:04	64.811%	0.400	0.338	58.015%	-0.008	-0.008	0.107	0.058
x		64.405%	0.260	0.341	57.640%	-0.006	-0.005	0.028	0.023
σ		0.570%	0.124	0.075	0.501%	0.002	0.002	0.086	0.046
%RSD		0.885	47.590	22.040	0.869	34.890	43.920	304.900	197.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	62.421%	-0.053	0.046	0.028	0.624	0.655	68.617%	68.842%
2	12:42:44	63.815%	-0.080	0.005	0.023	0.646	0.651	70.080%	70.209%
3	12:43:04	63.611%	-0.006	0.035	0.056	0.590	0.732	70.536%	70.364%
x		63.282%	-0.047	0.028	0.035	0.620	0.679	69.744%	69.805%
σ		0.753%	0.037	0.021	0.018	0.028	0.046	1.002%	0.838%
%RSD		1.190	80.370	74.640	50.070	4.502	6.719	1.437	1.200

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:25	0.021	0.015	0.010	-0.009	0.008	60.428%
2	12:42:44	0.023	0.010	0.030	-0.016	0.007	61.596%
3	12:43:04	0.017	0.010	0.025	-0.016	0.006	61.457%
x		0.020	0.012	0.022	-0.014	0.007	61.161%
σ		0.003	0.003	0.011	0.004	0.001	0.638%
%RSD		16.390	26.020	49.550	32.250	15.810	1.043

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	48.188%	0.182	124.200	125.000	0.000	25910.000	17310.000	17260.000
2	12:46:26	48.460%	0.145	126.000	122.000	0.000	25660.000	17200.000	17050.000
3	12:46:46	48.015%	0.147	126.300	125.000	0.000	25960.000	17420.000	17170.000
x		48.221%	0.158	125.500	124.000	0.000	25840.000	17310.000	17160.000
σ		0.224%	0.021	1.138	1.731	0.000	164.400	109.400	107.200
%RSD		0.465	13.370	0.906	1.396	0.000	0.636	0.632	0.625

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	7.068	7019.000	0.000	4208.000	92610.000	97840.000	46.436%	0.825
2	12:46:26	6.993	6934.000	0.000	4174.000	92190.000	96680.000	47.056%	0.810
3	12:46:46	6.660	7029.000	0.000	4222.000	92280.000	97520.000	47.062%	0.761
x		6.907	6994.000	0.000	4202.000	92360.000	97350.000	46.851%	0.799
σ		0.217	52.280	0.000	24.830	220.000	595.300	0.360%	0.033
%RSD		3.145	0.748	0.000	0.591	0.238	0.612	0.767	4.143

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	-0.811	0.772	2888.000	2541.000	2616.000	1.928	2.502	0.754
2	12:46:26	0.220	0.648	2845.000	2519.000	2572.000	1.732	2.548	0.679
3	12:46:46	-0.312	0.585	2881.000	2542.000	2590.000	1.911	2.367	0.705
x		-0.301	0.668	2871.000	2534.000	2592.000	1.857	2.472	0.712
σ		0.515	0.095	23.260	12.770	22.140	0.109	0.094	0.038
%RSD		171.400	14.220	0.810	0.504	0.854	5.852	3.805	5.340

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	0.770	2.691	2.057	14.160	4.177	4.271	0.000	184.100
2	12:46:26	0.652	2.585	2.186	13.050	3.957	2.949	0.000	183.400
3	12:46:46	0.651	2.482	2.213	12.160	3.740	2.415	0.000	185.300
x		0.691	2.586	2.152	13.120	3.958	3.212	0.000	184.300
σ		0.068	0.104	0.083	1.003	0.219	0.956	0.000	0.961
%RSD		9.884	4.030	3.865	7.645	5.522	29.750	0.000	0.521

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	44.084%	-0.382	-0.296	41.471%	0.002	-0.001	-0.024	-0.015
2	12:46:26	44.166%	-0.558	-0.396	41.602%	-0.002	-0.011	0.079	0.055
3	12:46:46	44.289%	-0.175	-0.480	42.014%	0.001	-0.008	-0.054	-0.034
x		44.180%	-0.372	-0.391	41.696%	0.000	-0.007	0.000	0.002
σ		0.103%	0.192	0.092	0.283%	0.002	0.005	0.070	0.047
%RSD		0.234	51.650	23.660	0.679	473.900	71.560	96150.000	2222.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	44.770%	3.140	0.058	0.157	28.290	28.220	53.447%	54.559%
2	12:46:26	44.928%	3.369	0.112	0.141	28.120	28.640	53.442%	54.245%
3	12:46:46	45.384%	3.206	0.071	0.117	28.520	29.030	53.508%	55.262%
x		45.028%	3.238	0.080	0.139	28.310	28.630	53.466%	54.689%
σ		0.319%	0.118	0.028	0.020	0.197	0.405	0.037%	0.521%
%RSD		0.708	3.640	34.870	14.630	0.697	1.416	0.069	0.952

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:07	0.034	0.040	0.000	-0.025	-0.009	52.431%
2	12:46:26	0.037	0.041	0.004	-0.013	0.001	52.625%
3	12:46:46	0.031	0.030	0.008	-0.026	-0.006	53.663%
x		0.034	0.037	0.004	-0.021	-0.005	52.906%
σ		0.003	0.006	0.004	0.007	0.005	0.662%
%RSD		9.559	16.460	91.530	34.100	102.300	1.252

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	55.830%	0.942	125.100	120.000	0.000	25940.000	17770.000	18650.000
2	12:50:09	54.570%	0.833	120.900	127.800	0.000	26620.000	18170.000	18020.000
3	12:50:28	53.420%	0.850	127.000	127.300	0.000	27060.000	18470.000	18100.000
x		54.607%	0.875	124.300	125.000	0.000	26540.000	18140.000	18260.000
σ		1.205%	0.059	3.115	4.342	0.000	562.100	348.700	340.100
%RSD		2.207	6.697	2.505	3.473	0.000	2.118	1.922	1.863

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	25.790	7934.000	0.000	4499.000	99890.000	105500.000	48.642%	1.694
2	12:50:09	25.630	8119.000	0.000	4552.000	99840.000	106400.000	49.177%	1.443
3	12:50:28	26.880	8183.000	0.000	4509.000	101000.000	106500.000	49.260%	1.714
x		26.100	8079.000	0.000	4520.000	100200.000	106200.000	49.027%	1.617
σ		0.679	129.000	0.000	28.280	641.400	542.900	0.336%	0.151
%RSD		2.602	1.597	0.000	0.626	0.640	0.511	0.684	9.361

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	0.623	5.122	3096.000	10250.000	9870.000	2.731	10.120	4.476
2	12:50:09	1.596	5.153	3085.000	10230.000	9857.000	2.460	10.160	4.493
3	12:50:28	0.391	4.980	3089.000	10300.000	9866.000	2.475	9.779	4.230
x		0.870	5.085	3090.000	10260.000	9864.000	2.555	10.020	4.400
σ		0.639	0.092	5.908	32.380	6.541	0.152	0.211	0.147
%RSD		73.510	1.814	0.191	0.316	0.066	5.957	2.104	3.352

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	4.221	4.005	3.885	45.650	8.250	6.683	0.000	181.700
2	12:50:09	4.411	3.284	3.333	47.830	8.210	8.129	0.000	181.300
3	12:50:28	4.324	3.751	4.098	46.140	8.407	6.821	0.000	181.200
x		4.319	3.680	3.772	46.540	8.289	7.211	0.000	181.400
σ		0.095	0.365	0.395	1.140	0.104	0.798	0.000	0.256
%RSD		2.209	9.929	10.470	2.450	1.256	11.070	0.000	0.141

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	50.896%	-0.030	0.064	46.967%	-0.004	0.012	0.088	0.029
2	12:50:09	51.467%	-0.388	0.045	47.566%	0.006	0.012	0.071	0.072
3	12:50:28	51.668%	-0.230	-0.309	47.566%	-0.004	-0.001	0.127	0.101
x		51.343%	-0.216	-0.067	47.366%	-0.001	0.008	0.096	0.068
σ		0.400%	0.179	0.210	0.345%	0.006	0.008	0.028	0.036
%RSD		0.780	82.930	314.800	0.729	655.600	101.800	29.810	53.210

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	50.134%	2.597	0.146	0.138	34.480	35.110	57.626%	58.369%
2	12:50:09	50.831%	2.730	0.094	0.152	33.990	35.720	58.731%	59.774%
3	12:50:28	50.696%	2.963	0.143	0.159	34.620	34.020	58.993%	60.074%
x		50.554%	2.763	0.128	0.150	34.360	34.950	58.450%	59.406%
σ		0.370%	0.185	0.029	0.011	0.331	0.862	0.725%	0.910%
%RSD		0.731	6.701	22.560	7.140	0.964	2.467	1.241	1.533

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:50	0.029	0.032	0.094	0.067	0.080	55.908%
2	12:50:09	0.027	0.030	0.064	0.093	0.083	57.012%
3	12:50:28	0.018	0.027	0.136	0.075	0.094	56.669%
x		0.025	0.030	0.098	0.078	0.086	56.530%
σ		0.006	0.003	0.037	0.013	0.007	0.565%
%RSD		24.060	8.781	37.330	16.680	8.512	1.000

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	53.620%	-0.035	13.940	13.180	0.000	40.820	0.693	1.218
2	12:53:52	54.319%	-0.003	13.380	12.490	0.000	37.370	0.846	0.980
3	12:54:11	53.348%	-0.035	15.440	13.690	0.000	36.130	1.035	1.838
x		53.763%	-0.024	14.250	13.120	0.000	38.110	0.858	1.345
σ		0.501%	0.019	1.065	0.598	0.000	2.428	0.171	0.443
%RSD		0.932	77.480	7.470	4.557	0.000	6.371	19.940	32.950

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	3.440	27.060	0.000	4.029	17.760	9.996	48.533%	-0.021
2	12:53:52	3.735	25.910	0.000	3.687	30.100	13.780	48.604%	-0.114
3	12:54:11	3.543	25.460	0.000	4.023	27.000	11.420	47.508%	-0.014
x		3.573	26.140	0.000	3.913	24.960	11.730	48.215%	-0.050
σ		0.150	0.828	0.000	0.196	6.417	1.914	0.613%	0.056
%RSD		4.199	3.169	0.000	5.009	25.710	16.310	1.272	113.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	0.837	0.489	0.379	-6.640	2.725	0.016	0.330	0.406
2	12:53:52	-0.430	0.417	0.370	-7.657	1.632	0.007	0.283	0.334
3	12:54:11	-1.065	0.475	0.319	-7.901	0.563	0.013	0.259	0.473
x		-0.219	0.460	0.356	-7.399	1.640	0.012	0.291	0.404
σ		0.968	0.038	0.032	0.669	1.081	0.005	0.036	0.069
%RSD		441.800	8.338	9.088	9.041	65.930	39.700	12.490	17.160

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	0.341	2.986	2.556	0.867	-0.958	-1.596	0.000	0.044
2	12:53:52	0.428	3.651	3.274	0.729	-0.395	-0.662	0.000	0.055
3	12:54:11	0.336	3.285	3.024	0.800	-0.591	-1.587	0.000	0.043
x		0.368	3.307	2.951	0.799	-0.648	-1.282	0.000	0.047
σ		0.052	0.333	0.365	0.069	0.286	0.537	0.000	0.007
%RSD		14.050	10.080	12.360	8.632	44.140	41.890	0.000	14.130

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	49.321%	-0.926	-0.921	48.482%	0.005	-0.002	-0.006	0.028
2	12:53:52	49.887%	-0.918	-0.838	48.931%	-0.005	-0.015	0.031	0.016
3	12:54:11	48.948%	-0.934	-0.829	48.339%	-0.018	-0.012	0.048	0.037
x		49.385%	-0.926	-0.863	48.584%	-0.006	-0.010	0.024	0.027
σ		0.473%	0.008	0.051	0.309%	0.012	0.007	0.028	0.010
%RSD		0.957	0.845	5.890	0.636	201.200	72.480	114.400	38.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	51.513%	1.750	-0.008	0.009	0.018	0.095	59.236%	59.648%
2	12:53:52	51.715%	1.817	-0.000	0.023	-0.015	0.014	59.110%	60.201%
3	12:54:11	51.478%	1.756	0.008	0.003	0.007	0.033	58.563%	60.289%
x		51.569%	1.774	-0.000	0.012	0.003	0.047	58.970%	60.046%
σ		0.128%	0.037	0.008	0.010	0.017	0.042	0.357%	0.348%
%RSD		0.248	2.079	83160.000	85.770	520.200	89.400	0.606	0.579

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:33	0.016	0.010	-0.014	-0.024	-0.022	61.320%
2	12:53:52	0.014	0.006	-0.010	-0.014	-0.010	61.498%
3	12:54:11	0.011	0.011	-0.008	-0.015	-0.012	61.838%
x		0.014	0.009	-0.010	-0.018	-0.015	61.552%
σ		0.002	0.003	0.003	0.005	0.006	0.263%
%RSD		15.400	32.670	32.250	29.220	43.370	0.428

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	56.615%	-0.035	12.300	12.080	0.000	16.920	0.347	0.886
2	12:57:35	56.113%	-0.035	9.743	11.480	0.000	16.490	0.274	0.831
3	12:57:54	55.477%	-0.035	12.810	12.080	0.000	15.790	0.668	0.959
x		56.068%	-0.035	11.620	11.880	0.000	16.400	0.429	0.892
σ		0.570%	0.000	1.645	0.347	0.000	0.568	0.210	0.064
%RSD		1.017	0.000	14.160	2.921	0.000	3.463	48.830	7.194

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	1.952	24.620	0.000	2.010	21.300	8.765	49.161%	0.067
2	12:57:35	2.087	24.170	0.000	2.003	25.750	4.161	48.772%	0.255
3	12:57:54	2.198	23.680	0.000	1.224	9.009	8.256	49.282%	-0.163
x		2.079	24.160	0.000	1.746	18.690	7.061	49.072%	0.053
σ		0.123	0.469	0.000	0.452	8.670	2.524	0.266%	0.210
%RSD		5.935	1.942	0.000	25.890	46.400	35.750	0.543	395.100

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	-0.587	0.301	0.226	-8.003	-1.143	0.015	0.281	0.337
2	12:57:35	0.437	0.387	0.235	-8.332	0.046	0.001	0.252	0.308
3	12:57:54	-0.964	0.247	0.195	-8.382	1.996	0.001	0.280	0.348
x		-0.371	0.312	0.219	-8.239	0.300	0.005	0.271	0.331
σ		0.725	0.071	0.021	0.206	1.585	0.009	0.016	0.021
%RSD		195.100	22.640	9.583	2.504	528.500	155.600	6.086	6.331

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	0.182	2.111	1.985	0.544	-0.698	-1.758	0.000	0.025
2	12:57:35	0.286	2.317	1.821	0.792	-1.008	-1.152	0.000	0.026
3	12:57:54	0.105	1.894	1.895	0.819	-0.801	-2.238	0.000	0.029
x		0.191	2.107	1.901	0.719	-0.836	-1.716	0.000	0.026
σ		0.091	0.212	0.082	0.151	0.158	0.544	0.000	0.002
%RSD		47.450	10.040	4.312	21.070	18.880	31.710	0.000	8.202

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	49.877%	-0.972	-0.939	49.175%	-0.002	-0.002	0.085	0.077
2	12:57:35	49.991%	-0.954	-0.976	49.090%	-0.020	-0.015	-0.024	-0.001
3	12:57:54	49.990%	-0.946	-0.966	49.325%	-0.020	-0.018	-0.026	-0.009
x		49.953%	-0.957	-0.960	49.197%	-0.014	-0.011	0.012	0.022
σ		0.066%	0.013	0.019	0.119%	0.010	0.008	0.064	0.047
%RSD		0.132	1.402	1.986	0.242	71.620	73.480	540.300	212.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	51.411%	1.671	0.006	0.020	-0.049	0.033	58.548%	59.594%
2	12:57:35	51.287%	1.850	0.000	0.003	0.052	0.058	59.012%	60.246%
3	12:57:54	51.640%	1.688	-0.019	0.006	-0.004	0.014	59.125%	60.164%
x		51.446%	1.736	-0.004	0.010	-0.000	0.035	58.895%	60.001%
σ		0.179%	0.099	0.013	0.009	0.050	0.022	0.306%	0.355%
%RSD		0.348	5.692	298.100	92.850	13140.000	62.790	0.519	0.592

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:16	0.009	0.010	-0.030	-0.032	-0.033	60.536%
2	12:57:35	0.003	0.002	-0.035	-0.047	-0.037	60.756%
3	12:57:54	0.011	0.004	-0.025	-0.039	-0.030	61.260%
x		0.008	0.005	-0.030	-0.040	-0.033	60.851%
σ		0.004	0.004	0.005	0.007	0.003	0.371%
%RSD		52.300	73.880	17.300	18.670	9.220	0.610

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	57.000%	-0.035	244.700	243.400	0.000	25030.000	28920.000	28570.000
2	13:01:18	54.719%	-0.035	262.700	254.200	0.000	25850.000	29810.000	29190.000
3	13:01:37	54.166%	-0.035	263.300	257.400	0.000	25920.000	30300.000	29420.000
x		55.295%	-0.035	256.900	251.600	0.000	25600.000	29680.000	29060.000
σ		1.502%	0.000	10.570	7.364	0.000	497.300	697.200	440.700
%RSD		2.717	0.000	4.115	2.926	0.000	1.943	2.349	1.517

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	2.425	1946.000	0.000	2079.000	42720.000	41750.000	49.327%	0.295
2	13:01:18	2.237	1973.000	0.000	2097.000	43330.000	42340.000	48.868%	0.208
3	13:01:37	2.150	1993.000	0.000	2145.000	44640.000	43410.000	48.637%	0.257
x		2.271	1971.000	0.000	2107.000	43560.000	42500.000	48.944%	0.253
σ		0.141	23.340	0.000	33.770	978.100	839.900	0.351%	0.044
%RSD		6.205	1.184	0.000	1.603	2.245	1.976	0.717	17.250

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	-0.170	0.484	197.600	2441.000	2408.000	1.512	1.035	0.895
2	13:01:18	-0.441	0.448	198.000	2437.000	2387.000	1.475	1.034	0.719
3	13:01:37	-0.460	0.455	198.600	2467.000	2448.000	1.385	0.931	0.759
x		-0.357	0.463	198.100	2449.000	2414.000	1.457	1.000	0.791
σ		0.163	0.019	0.511	16.420	30.710	0.065	0.060	0.092
%RSD		45.530	4.186	0.258	0.671	1.272	4.492	5.995	11.670

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	0.670	3.234	3.930	4.122	3.847	2.997	0.000	160.600
2	13:01:18	1.037	4.194	3.621	5.032	4.312	3.393	0.000	159.200
3	13:01:37	0.760	3.324	3.853	5.254	3.932	4.118	0.000	161.000
x		0.822	3.584	3.801	4.803	4.030	3.503	0.000	160.300
σ		0.192	0.530	0.161	0.600	0.248	0.568	0.000	0.939
%RSD		23.320	14.780	4.224	12.480	6.142	16.220	0.000	0.586

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	49.238%	6.947	6.807	46.822%	0.001	0.002	0.045	0.038
2	13:01:18	50.097%	6.906	6.592	46.822%	-0.004	-0.001	-0.034	-0.033
3	13:01:37	50.037%	7.125	7.206	47.335%	0.001	-0.004	0.052	0.034
x		49.791%	6.993	6.868	46.993%	-0.001	-0.001	0.021	0.013
σ		0.480%	0.117	0.312	0.296%	0.003	0.003	0.048	0.040
%RSD		0.964	1.668	4.536	0.630	390.300	243.800	230.500	310.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	50.120%	1.582	0.086	0.101	25.070	24.360	57.852%	58.903%
2	13:01:18	50.441%	1.682	0.063	0.130	25.120	25.750	58.240%	59.733%
3	13:01:37	51.125%	1.762	0.048	0.080	24.540	24.260	59.118%	60.031%
x		50.562%	1.675	0.066	0.104	24.910	24.790	58.403%	59.556%
σ		0.513%	0.090	0.019	0.025	0.318	0.834	0.649%	0.584%
%RSD		1.015	5.394	28.720	24.090	1.278	3.363	1.111	0.981

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:58	0.003	0.006	-0.003	0.003	-0.005	56.873%
2	13:01:18	0.012	0.002	-0.000	-0.014	-0.007	57.512%
3	13:01:37	0.006	0.008	-0.002	-0.006	-0.003	57.869%
x		0.007	0.005	-0.002	-0.006	-0.005	57.418%
σ		0.005	0.003	0.002	0.008	0.002	0.504%
%RSD		63.990	55.270	96.040	146.300	49.710	0.879

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	57.595%	0.057	254.700	262.900	0.000	26740.000	30780.000	30430.000
2	13:04:58	56.137%	0.028	273.900	267.300	0.000	26540.000	30890.000	30210.000
3	13:05:17	55.077%	0.029	269.400	265.400	0.000	26590.000	30970.000	30570.000
x		56.270%	0.038	266.000	265.200	0.000	26620.000	30880.000	30410.000
σ		1.264%	0.017	10.030	2.205	0.000	105.800	97.760	183.000
%RSD		2.247	43.670	3.770	0.832	0.000	0.397	0.317	0.602

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	8.056	2112.000	0.000	2221.000	46550.000	45180.000	49.498%	0.520
2	13:04:58	7.130	2076.000	0.000	2195.000	46770.000	45090.000	49.921%	0.966
3	13:05:17	6.775	2091.000	0.000	2219.000	46650.000	44990.000	49.380%	0.750
x		7.320	2093.000	0.000	2212.000	46660.000	45090.000	49.600%	0.745
σ		0.661	17.840	0.000	14.950	113.100	93.100	0.284%	0.223
%RSD		9.036	0.852	0.000	0.676	0.242	0.206	0.573	29.860

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	-0.719	1.059	223.000	4281.000	4148.000	1.643	2.112	4.371
2	13:04:58	-0.823	1.059	222.100	4228.000	4108.000	1.658	1.775	3.763
3	13:05:17	0.654	1.003	222.200	4235.000	4054.000	1.687	2.031	4.379
x		-0.296	1.040	222.400	4248.000	4104.000	1.662	1.972	4.171
σ		0.825	0.033	0.510	28.760	47.160	0.023	0.176	0.353
%RSD		278.300	3.144	0.230	0.677	1.149	1.358	8.912	8.471

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	4.228	2.326	1.755	4.613	5.560	3.591	0.000	168.600
2	13:04:58	4.240	2.109	1.917	4.612	5.113	3.597	0.000	170.200
3	13:05:17	3.952	2.220	1.906	4.728	5.025	3.212	0.000	169.400
x		4.140	2.218	1.859	4.651	5.232	3.467	0.000	169.400
σ		0.163	0.108	0.091	0.067	0.287	0.221	0.000	0.814
%RSD		3.936	4.888	4.886	1.434	5.478	6.368	0.000	0.481

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	50.600%	7.533	7.353	47.877%	0.021	0.009	0.111	0.069
2	13:04:58	51.055%	7.264	7.242	47.929%	0.003	-0.002	0.075	0.063
3	13:05:17	51.408%	7.050	7.894	48.001%	-0.002	0.004	0.016	0.010
x		51.021%	7.282	7.496	47.936%	0.007	0.004	0.067	0.047
σ		0.405%	0.242	0.349	0.062%	0.012	0.005	0.048	0.032
%RSD		0.795	3.320	4.653	0.129	167.300	147.300	70.780	68.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	51.055%	1.661	0.136	0.128	25.830	25.760	58.901%	60.074%
2	13:04:58	51.962%	1.962	0.154	0.167	26.090	26.080	60.050%	60.952%
3	13:05:17	51.931%	1.823	0.170	0.174	25.010	25.640	59.846%	60.831%
x		51.650%	1.815	0.153	0.156	25.640	25.830	59.599%	60.619%
σ		0.515%	0.151	0.017	0.025	0.563	0.226	0.613%	0.475%
%RSD		0.997	8.307	10.860	16.010	2.194	0.875	1.028	0.784

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:39	0.011	0.004	0.037	0.023	0.027	57.158%
2	13:04:58	0.005	0.005	0.032	0.011	0.023	57.731%
3	13:05:17	0.008	0.012	0.053	0.027	0.027	59.315%
x		0.008	0.007	0.041	0.020	0.026	58.068%
σ		0.003	0.005	0.011	0.008	0.002	1.118%
%RSD		38.620	62.730	26.830	40.010	9.015	1.925

CCV 1308170 9/5/2014 1:08:01 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	65.661%	95.490	90.850	92.450	0.000	48250.000	48480.000	48380.000
2	13:08:20	64.710%	96.690	92.740	91.140	0.000	48770.000	48900.000	49380.000
3	13:08:39	65.809%	96.320	89.770	90.680	0.000	48920.000	49250.000	49780.000
x		65.393%	96.167%	91.120%	91.424%	0.000	97.294%	97.756%	98.360%
σ		0.597%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.913	0.642	1.649	1.001	0.000	0.730	0.792	1.462

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	469.800	4934.000	0.000	49690.000	47080.000	45190.000	55.905%	92.750
2	13:08:20	475.800	5064.000	0.000	50500.000	47090.000	46410.000	55.687%	102.400
3	13:08:39	481.200	5068.000	0.000	50820.000	48850.000	46530.000	56.346%	97.110
x		95.115%	100.441%	0.000	100.677%	95.345%	92.089%	55.979%	97.432%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.336%	n/a
%RSD		1.195	1.524	0.000	1.152	2.131	1.621	0.600	4.975

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	95.950	95.350	477.200	25650.000	24360.000	97.720	100.400	100.900
2	13:08:20	97.510	99.220	487.400	26160.000	24750.000	98.740	103.700	101.200
3	13:08:39	96.250	98.790	491.900	26210.000	25030.000	99.700	101.700	102.400
x		96.573%	97.789%	97.103%	104.023%	98.857%	98.722%	101.963%	101.493%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.858	2.167	1.550	1.206	1.372	1.000	1.650	0.773

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	101.600	96.140	97.250	95.330	95.620	95.350	0.000	94.770
2	13:08:20	102.400	97.410	98.540	100.200	94.500	96.250	0.000	95.620
3	13:08:39	101.100	97.480	97.370	95.840	94.910	95.040	0.000	93.670
x		101.695%	97.006%	97.719%	97.113%	95.009%	95.545%	0.000	94.687%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.615	0.777	0.727	2.741	0.596	0.660	0.000	1.033

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	55.908%	94.780	97.370	53.185%	98.180	99.260	97.880	97.190
2	13:08:20	57.078%	97.420	98.510	53.583%	98.200	97.820	97.230	96.370
3	13:08:39	58.072%	99.550	100.000	54.710%	99.200	99.000	96.570	97.070
x		57.019%	97.249%	98.640%	53.826%	98.525%	98.694%	97.224%	96.879%
σ		1.083%	n/a	n/a	0.791%	n/a	n/a	n/a	n/a
%RSD		1.900	2.461	1.361	1.470	0.596	0.776	0.675	0.456

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	56.635%	93.910	91.140	90.590	93.980	94.580	62.284%	63.548%
2	13:08:20	57.518%	94.290	92.560	91.120	94.740	94.040	64.207%	64.970%
3	13:08:39	58.846%	94.430	92.080	92.340	92.940	93.410	65.364%	65.834%
x		57.667%	94.210%	91.926%	91.353%	93.887%	94.008%	63.952%	64.784%
σ		1.113%	n/a	n/a	n/a	n/a	n/a	1.556%	1.154%
%RSD		1.930	0.286	0.785	0.984	0.959	0.625	2.433	1.782

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:01	91.980	94.780	94.140	93.220	93.470	67.673%
2	13:08:20	94.570	97.850	96.610	95.680	95.920	67.108%
3	13:08:39	94.660	98.880	98.870	98.480	98.430	66.567%
x		93.737%	97.169%	96.542%	95.795%	95.941%	67.116%
σ		n/a	n/a	n/a	n/a	n/a	0.553%
%RSD		1.619	2.198	2.449	2.746	2.585	0.824

CCB6 9/5/2014 1:14:11 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	68.504%	0.017	1.353	1.596	0.000	-2.083	2.180	3.314
2	13:14:50	66.184%	-0.035	1.328	1.839	0.000	-1.351	2.293	3.540
3	13:15:09	64.695%	-0.035	1.531	1.703	0.000	-1.417	1.913	3.136
x		66.461%	-0.018	1.404	1.712	0.000	-1.617	2.129	3.330
σ		1.920%	0.030	0.110	0.122	0.000	0.405	0.195	0.203
%RSD		2.888	169.200	7.859	7.124	0.000	25.050	9.172	6.087

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	0.475	0.909	0.000	1.047	1.952	4.926	55.905%	-0.266
2	13:14:50	0.378	1.049	0.000	0.195	2.044	5.399	55.742%	-0.266
3	13:15:09	0.496	1.338	0.000	0.217	5.731	4.615	55.592%	-0.306
x		0.450	1.099	0.000	0.486	3.242	4.980	55.747%	-0.279
σ		0.063	0.219	0.000	0.486	2.156	0.395	0.157%	0.023
%RSD		13.980	19.910	0.000	99.810	66.500	7.929	0.281	8.347

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	-0.051	-0.096	0.122	-4.187	5.618	-0.003	0.018	-0.029
2	13:14:50	0.004	-0.052	0.143	-5.301	5.874	0.008	0.071	-0.084
3	13:15:09	-0.026	-0.099	0.097	-5.488	3.537	0.005	0.032	0.020
x		-0.025	-0.082	0.120	-4.992	5.010	0.003	0.040	-0.031
σ		0.028	0.026	0.023	0.704	1.282	0.005	0.028	0.052
%RSD		111.500	32.050	19.000	14.100	25.590	162.700	68.130	168.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	-0.027	0.162	0.335	-0.376	-0.195	-1.508	0.000	0.030
2	13:14:50	-0.050	0.187	0.238	-0.278	-0.389	-1.596	0.000	0.040
3	13:15:09	0.029	0.012	0.163	-0.411	-0.483	-1.623	0.000	0.025
x		-0.016	0.120	0.245	-0.355	-0.356	-1.576	0.000	0.032
σ		0.040	0.094	0.086	0.069	0.147	0.060	0.000	0.008
%RSD		258.000	78.430	35.020	19.350	41.250	3.817	0.000	24.770

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	55.886%	-0.896	-0.875	56.017%	-0.014	0.012	0.060	0.054
2	13:14:50	56.498%	-0.773	-0.853	56.392%	0.006	0.007	0.074	0.057
3	13:15:09	56.770%	-0.790	-0.822	56.656%	-0.005	0.002	0.030	0.032
x		56.385%	-0.820	-0.850	56.355%	-0.005	0.007	0.055	0.047
σ		0.453%	0.067	0.027	0.321%	0.010	0.005	0.022	0.013
%RSD		0.803	8.145	3.124	0.569	216.800	66.020	41.030	28.480

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	58.532%	-0.166	0.117	0.093	-0.039	0.029	63.053%	63.607%
2	13:14:50	58.493%	-0.184	0.072	0.072	-0.029	0.001	63.529%	63.679%
3	13:15:09	58.227%	-0.220	0.103	0.085	-0.029	0.018	63.509%	63.717%
x		58.417%	-0.190	0.097	0.084	-0.032	0.016	63.364%	63.668%
σ		0.166%	0.027	0.023	0.011	0.006	0.014	0.270%	0.056%
%RSD		0.284	14.450	23.470	12.560	18.130	88.190	0.425	0.087

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:30	-0.000	-0.007	0.043	0.031	0.045	70.334%
2	13:14:50	-0.001	-0.001	0.039	0.030	0.038	70.192%
3	13:15:09	0.002	-0.005	0.076	0.062	0.065	70.386%
x		0.000	-0.004	0.053	0.041	0.049	70.304%
σ		0.001	0.003	0.020	0.018	0.014	0.100%
%RSD		970.200	72.400	38.470	44.750	27.830	0.143

180-36275-A-1-G @10 9/5/2014 1:17:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	63.051%	-0.007	15.370	15.210	0.000	1019.000	124.400	127.700
2	13:18:34	62.629%	-0.007	13.670	16.300	0.000	1013.000	131.700	130.800
3	13:18:53	62.718%	-0.007	14.170	15.910	0.000	1006.000	126.600	131.300
x		62.799%	-0.007	14.400	15.800	0.000	1012.000	127.600	130.000
σ		0.223%	0.000	0.874	0.555	0.000	6.458	3.719	1.960
%RSD		0.354	1.392	6.068	3.511	0.000	0.638	2.915	1.509

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	23.190	262.100	0.000	319.400	239.500	274.900	53.422%	0.838
2	13:18:34	22.480	257.600	0.000	316.500	285.300	276.400	53.311%	0.798
3	13:18:53	23.800	255.700	0.000	314.500	266.900	266.800	53.224%	0.885
x		23.160	258.500	0.000	316.800	263.900	272.700	53.319%	0.840
σ		0.663	3.318	0.000	2.435	23.020	5.158	0.099%	0.043
%RSD		2.864	1.284	0.000	0.769	8.724	1.891	0.186	5.172

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	-1.304	73.170	1.076	24.580	33.100	0.055	1.515	24.300
2	13:18:34	-2.426	72.470	1.045	23.160	35.990	0.060	1.728	24.690
3	13:18:53	-1.659	74.900	1.030	24.200	36.830	0.047	1.578	25.100
x		-1.796	73.510	1.050	23.980	35.310	0.054	1.607	24.700
σ		0.573	1.254	0.024	0.737	1.960	0.007	0.110	0.396
%RSD		31.920	1.706	2.260	3.074	5.551	12.670	6.829	1.605

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	24.640	37.410	36.020	-0.040	-0.456	-1.694	0.000	15.210
2	13:18:34	24.880	37.680	37.000	0.138	-0.613	-0.785	0.000	15.730
3	13:18:53	24.440	36.140	37.290	-0.150	-0.649	-0.959	0.000	15.450
x		24.650	37.080	36.770	-0.017	-0.573	-1.146	0.000	15.460
σ		0.222	0.822	0.665	0.145	0.103	0.483	0.000	0.258
%RSD		0.899	2.218	1.809	846.900	17.910	42.130	0.000	1.666

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	53.884%	4.015	3.822	53.822%	0.005	-0.004	2.715	2.486
2	13:18:34	53.523%	3.456	3.994	53.497%	-0.004	-0.008	2.671	2.585
3	13:18:53	53.430%	4.117	3.866	53.745%	-0.002	-0.011	2.592	2.476
x		53.612%	3.863	3.894	53.688%	-0.001	-0.008	2.659	2.516
σ		0.240%	0.356	0.090	0.170%	0.005	0.004	0.062	0.060
%RSD		0.448	9.221	2.301	0.316	955.400	48.300	2.344	2.390

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	55.856%	0.190	0.130	0.100	0.461	0.560	62.028%	61.587%
2	13:18:34	56.036%	0.186	0.151	0.152	0.451	0.486	61.458%	61.928%
3	13:18:53	56.003%	0.183	0.146	0.125	0.295	0.504	61.358%	62.028%
x		55.965%	0.186	0.142	0.126	0.402	0.517	61.614%	61.848%
σ		0.096%	0.003	0.011	0.026	0.093	0.039	0.362%	0.231%
%RSD		0.171	1.862	7.988	20.830	23.060	7.508	0.587	0.374

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:15	-0.007	-0.007	0.080	0.072	0.069	68.637%
2	13:18:34	-0.012	-0.009	0.040	0.077	0.065	67.232%
3	13:18:53	-0.010	-0.009	0.064	0.065	0.073	66.632%
x		-0.010	-0.008	0.061	0.071	0.069	67.501%
σ		0.003	0.001	0.020	0.006	0.004	1.029%
%RSD		27.410	15.670	32.460	8.495	5.687	1.525

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	57.628%	-0.004	15.440	16.700	0.000	63780.000	611.600	599.100
2	13:22:15	56.609%	-0.035	15.040	16.390	0.000	64350.000	600.900	606.500
3	13:22:34	55.490%	-0.035	15.630	17.490	0.000	63990.000	604.800	595.400
x		56.575%	-0.025	15.370	16.860	0.000	64040.000	605.800	600.400
σ		1.070%	0.018	0.301	0.568	0.000	287.700	5.395	5.658
%RSD		1.891	71.560	1.959	3.366	0.000	0.449	0.891	0.942

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	22.390	3750.000	0.000	585.600	2838.000	2722.000	49.532%	0.657
2	13:22:15	24.740	3732.000	0.000	579.200	2806.000	2696.000	49.257%	0.388
3	13:22:34	22.800	3686.000	0.000	578.400	2759.000	2688.000	48.582%	0.304
x		23.310	3723.000	0.000	581.000	2801.000	2702.000	49.124%	0.450
σ		1.254	33.390	0.000	3.980	39.370	17.690	0.489%	0.185
%RSD		5.382	0.897	0.000	0.685	1.405	0.655	0.995	41.020

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	0.094	0.583	88.080	202.800	208.900	0.609	2.635	0.721
2	13:22:15	-0.399	0.682	86.680	198.300	217.900	0.653	2.375	1.004
3	13:22:34	0.182	0.682	87.800	198.800	220.300	0.601	2.405	0.923
x		-0.041	0.649	87.520	200.000	215.700	0.621	2.472	0.882
σ		0.313	0.057	0.739	2.475	6.003	0.028	0.142	0.146
%RSD		764.200	8.806	0.845	1.238	2.783	4.528	5.746	16.550

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	0.753	2.998	2.854	1.460	-0.230	-0.935	0.000	30.050
2	13:22:15	0.591	3.587	3.344	0.361	-0.706	-2.602	0.000	29.610
3	13:22:34	0.702	2.984	2.625	1.176	-0.672	-0.620	0.000	29.860
x		0.682	3.190	2.941	0.999	-0.536	-1.385	0.000	29.840
σ		0.083	0.344	0.367	0.570	0.266	1.065	0.000	0.225
%RSD		12.190	10.780	12.490	57.070	49.520	76.880	0.000	0.752

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	49.698%	0.106	0.131	47.434%	0.001	-0.007	0.358	0.296
2	13:22:15	49.647%	0.094	0.227	46.900%	0.012	0.002	0.061	0.117
3	13:22:34	49.299%	0.190	0.050	46.917%	0.004	-0.004	0.219	0.149
x		49.548%	0.130	0.136	47.083%	0.005	-0.003	0.213	0.188
σ		0.217%	0.052	0.089	0.304%	0.006	0.004	0.149	0.095
%RSD		0.438	40.240	65.430	0.645	103.200	144.600	69.830	50.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	50.209%	1.330	0.465	0.460	5.570	5.442	57.644%	58.141%
2	13:22:15	49.960%	1.597	0.309	0.376	4.961	5.753	57.867%	58.807%
3	13:22:34	50.256%	1.564	0.337	0.367	5.539	5.478	57.485%	58.351%
x		50.142%	1.497	0.371	0.401	5.357	5.558	57.665%	58.433%
σ		0.159%	0.146	0.083	0.051	0.343	0.170	0.192%	0.340%
%RSD		0.317	9.722	22.380	12.760	6.406	3.062	0.333	0.582

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:56	0.012	0.012	0.045	0.028	0.027	56.243%
2	13:22:15	0.019	0.015	0.040	0.032	0.045	57.022%
3	13:22:34	0.017	0.012	0.030	0.012	0.028	56.990%
x		0.016	0.013	0.038	0.024	0.033	56.751%
σ		0.004	0.002	0.008	0.010	0.010	0.441%
%RSD		22.290	13.790	20.330	43.010	29.870	0.777

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	53.829%	-0.002	14.700	18.380	0.000	68660.000	723.500	722.800
2	13:25:56	55.024%	0.029	17.050	18.200	0.000	68720.000	736.000	719.500
3	13:26:15	54.252%	0.095	17.280	18.310	0.000	68030.000	720.400	730.700
x		54.368%	0.041	16.340	18.300	0.000	68470.000	726.600	724.300
σ		0.606%	0.050	1.427	0.089	0.000	380.700	8.265	5.746
%RSD		1.114	122.100	8.731	0.487	0.000	0.556	1.138	0.793

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	772.900	5302.000	0.000	661.700	2895.000	2875.000	48.025%	9.201
2	13:25:56	766.400	5278.000	0.000	670.200	3038.000	2857.000	47.691%	10.350
3	13:26:15	779.800	5238.000	0.000	664.200	2814.000	2926.000	47.353%	9.900
x		773.000	5273.000	0.000	665.400	2915.000	2886.000	47.690%	9.816
σ		6.680	32.350	0.000	4.327	113.100	35.860	0.336%	0.578
%RSD		0.864	0.613	0.000	0.650	3.880	1.242	0.705	5.888

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	0.133	25.900	86.920	830.000	849.200	0.700	13.800	1.802
2	13:25:56	0.493	26.380	87.770	901.300	861.800	0.595	14.420	1.743
3	13:26:15	1.649	26.600	87.660	893.600	849.400	0.715	14.890	1.687
x		0.758	26.290	87.450	875.000	853.500	0.670	14.370	1.744
σ		0.792	0.361	0.461	39.120	7.196	0.066	0.545	0.058
%RSD		104.400	1.374	0.527	4.471	0.843	9.807	3.789	3.297

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	1.658	4.527	3.907	1.505	-0.459	-0.180	0.000	32.480
2	13:25:56	1.823	4.191	3.964	0.292	-0.720	-0.902	0.000	32.210
3	13:26:15	1.695	4.647	4.359	1.014	-0.659	-1.661	0.000	32.380
x		1.725	4.455	4.077	0.937	-0.612	-0.914	0.000	32.360
σ		0.087	0.236	0.246	0.610	0.137	0.740	0.000	0.134
%RSD		5.023	5.301	6.040	65.120	22.320	80.980	0.000	0.413

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	49.097%	0.200	0.558	46.291%	-0.012	-0.006	0.310	0.268
2	13:25:56	49.748%	0.461	0.507	46.549%	-0.017	0.015	0.363	0.303
3	13:26:15	49.326%	0.710	0.495	46.311%	0.001	0.005	0.453	0.233
x		49.390%	0.457	0.520	46.384%	-0.009	0.005	0.375	0.268
σ		0.330%	0.255	0.034	0.144%	0.010	0.011	0.072	0.035
%RSD		0.669	55.830	6.507	0.310	103.500	239.400	19.230	13.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	50.020%	1.465	0.290	0.300	7.682	7.797	57.887%	58.548%
2	13:25:56	49.908%	1.500	0.242	0.229	7.997	7.737	57.560%	58.492%
3	13:26:15	49.843%	1.508	0.277	0.280	7.915	7.455	58.085%	59.279%
x		49.924%	1.491	0.270	0.269	7.865	7.663	57.844%	58.773%
σ		0.090%	0.022	0.025	0.037	0.163	0.183	0.266%	0.440%
%RSD		0.179	1.508	9.243	13.650	2.077	2.385	0.459	0.748

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:25:37	0.020	0.013	0.908	0.731	0.850	56.595%
2	13:25:56	0.016	0.005	0.936	0.818	0.838	56.900%
3	13:26:15	0.009	0.019	0.923	0.768	0.841	57.471%
x		0.015	0.012	0.922	0.772	0.843	56.989%
σ		0.005	0.007	0.014	0.043	0.006	0.445%
%RSD		36.170	57.380	1.527	5.620	0.733	0.781

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	53.643%	0.096	9.819	9.147	0.000	34000.000	59100.000	58270.000
2	13:29:37	51.918%	0.100	8.777	10.110	0.000	34650.000	59740.000	59020.000
3	13:29:57	51.552%	-0.001	7.596	9.864	0.000	35110.000	60680.000	59670.000
x		52.371%	0.065	8.731	9.708	0.000	34590.000	59840.000	58990.000
σ		1.117%	0.057	1.112	0.501	0.000	561.000	795.000	704.300
%RSD		2.132	87.770	12.740	5.164	0.000	1.622	1.329	1.194

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	9.778	4197.000	0.000	36830.000	937800.000	982400.000	46.416%	1.659
2	13:29:37	10.710	4237.000	0.000	37010.000	937700.000	981700.000	46.778%	1.060
3	13:29:57	9.925	4232.000	0.000	37090.000	934700.000	987700.000	46.808%	1.786
x		10.140	4222.000	0.000	36980.000	936700.000	984000.000	46.668%	1.501
σ		0.499	22.040	0.000	132.600	1721.000	3273.000	0.218%	0.387
%RSD		4.922	0.522	0.000	0.359	0.184	0.333	0.467	25.810

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	-0.902	-0.212	8520.000	28.540	1931.000	1.678	-8.151	0.361
2	13:29:37	-0.953	-0.367	8481.000	28.910	1836.000	1.596	-8.552	0.471
3	13:29:57	-0.165	-0.197	8512.000	26.900	1778.000	1.623	-8.859	0.360
x		-0.673	-0.259	8504.000	28.120	1848.000	1.632	-8.521	0.398
σ		0.441	0.094	20.240	1.069	76.780	0.042	0.355	0.064
%RSD		65.530	36.510	0.238	3.802	4.154	2.572	4.167	15.980

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	2.099	2.220	5.228	20.560	6.938	23.920	0.000	7186.000
2	13:29:37	1.695	2.438	3.621	23.690	6.904	26.530	0.000	7210.000
3	13:29:57	1.577	2.311	2.178	21.450	7.179	24.300	0.000	7173.000
x		1.790	2.323	3.676	21.900	7.007	24.920	0.000	7190.000
σ		0.274	0.109	1.526	1.610	0.150	1.413	0.000	18.870
%RSD		15.310	4.708	41.520	7.352	2.138	5.672	0.000	0.263

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	0.000	-0.809	-0.842	41.548%	-0.002	-0.014	0.422	0.275
2	13:29:37	0.000	-0.752	-0.748	42.378%	0.003	0.001	0.525	0.280
3	13:29:57	0.000	-0.683	-0.793	42.779%	-0.014	-0.011	0.562	0.353
x		0.000	-0.748	-0.794	42.235%	-0.004	-0.008	0.503	0.302
σ		0.000	0.063	0.047	0.628%	0.009	0.008	0.073	0.043
%RSD		0.000	8.393	5.892	1.487	211.700	93.680	14.430	14.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	47.600%	1.753	0.406	1.567	1728.000	1718.000	56.443%	58.172%
2	13:29:37	48.226%	1.929	0.426	1.440	1744.000	1747.000	56.956%	59.659%
3	13:29:57	48.665%	1.878	0.497	1.444	1746.000	1745.000	57.438%	59.462%
x		48.164%	1.853	0.443	1.484	1739.000	1736.000	56.945%	59.097%
σ		0.535%	0.091	0.047	0.072	9.699	15.840	0.498%	0.807%
%RSD		1.112	4.909	10.720	4.847	0.558	0.912	0.874	1.366

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:18	0.001	-0.006	-0.021	-0.034	-0.033	47.708%
2	13:29:37	-0.003	0.003	-0.034	-0.037	-0.033	48.754%
3	13:29:57	-0.000	-0.004	-0.025	-0.040	-0.032	49.457%
x		-0.001	-0.003	-0.027	-0.037	-0.033	48.640%
σ		0.002	0.005	0.006	0.003	0.001	0.880%
%RSD		227.800	187.600	23.980	8.229	2.971	1.810

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	53.442%	-0.002	9.915	8.853	0.000	34580.000	59320.000	58490.000
2	13:33:19	50.812%	0.034	11.250	9.171	0.000	34800.000	60540.000	59490.000
3	13:33:38	51.728%	0.033	8.391	9.331	0.000	34510.000	59680.000	58740.000
x		51.994%	0.022	9.853	9.118	0.000	34630.000	59850.000	58910.000
σ		1.335%	0.021	1.431	0.243	0.000	149.600	624.500	518.300
%RSD		2.567	94.680	14.530	2.666	0.000	0.432	1.044	0.880

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	28.110	4366.000	0.000	36760.000	927000.000	970600.000	47.898%	1.691
2	13:33:19	31.080	4391.000	0.000	37380.000	938300.000	982700.000	46.947%	1.924
3	13:33:38	33.550	4285.000	0.000	37170.000	936600.000	990300.000	47.012%	1.921
x		30.910	4347.000	0.000	37100.000	934000.000	981200.000	47.286%	1.845
σ		2.723	55.150	0.000	315.600	6122.000	9936.000	0.531%	0.134
%RSD		8.808	1.269	0.000	0.851	0.655	1.013	1.123	7.250

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	0.136	1.940	8432.000	455.400	2330.000	11.570	-6.197	0.717
2	13:33:19	0.156	2.030	8479.000	458.400	2293.000	10.970	-6.751	0.603
3	13:33:38	0.569	1.949	8540.000	455.700	2257.000	10.910	-6.509	0.788
x		0.287	1.973	8484.000	456.500	2293.000	11.150	-6.486	0.703
σ		0.244	0.050	54.330	1.657	36.730	0.362	0.278	0.094
%RSD		85.230	2.536	0.640	0.363	1.602	3.243	4.285	13.360

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	2.053	7.923	8.217	20.700	6.902	29.500	0.000	7085.000
2	13:33:19	1.837	7.553	8.186	29.590	7.435	34.170	0.000	7183.000
3	13:33:38	1.830	7.359	9.751	20.320	7.260	30.520	0.000	7156.000
x		1.907	7.612	8.718	23.530	7.199	31.400	0.000	7141.000
σ		0.127	0.286	0.895	5.245	0.272	2.457	0.000	50.450
%RSD		6.636	3.761	10.260	22.290	3.771	7.824	0.000	0.707

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	0.000	-0.274	-0.591	43.094%	0.009	0.009	0.586	0.319
2	13:33:19	0.000	-0.490	-0.624	42.778%	0.003	0.020	0.642	0.418
3	13:33:38	0.000	-0.575	-0.567	43.088%	0.012	-0.005	0.667	0.413
x		0.000	-0.446	-0.594	42.987%	0.008	0.008	0.632	0.383
σ		0.000	0.155	0.029	0.181%	0.004	0.013	0.042	0.056
%RSD		0.000	34.790	4.827	0.420	55.400	162.900	6.611	14.540

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	48.375%	1.490	0.559	1.477	1714.000	1716.000	59.008%	61.258%
2	13:33:19	48.796%	1.716	0.501	1.492	1718.000	1715.000	59.463%	61.667%
3	13:33:38	48.385%	1.661	0.526	1.519	1739.000	1738.000	59.004%	61.465%
x		48.519%	1.622	0.529	1.496	1723.000	1723.000	59.158%	61.463%
σ		0.240%	0.118	0.029	0.021	13.410	12.750	0.264%	0.204%
%RSD		0.495	7.260	5.500	1.422	0.778	0.740	0.446	0.332

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:00	0.023	0.004	0.090	0.060	0.092	48.495%
2	13:33:19	0.012	0.009	0.120	0.063	0.104	49.477%
3	13:33:38	0.002	0.011	0.106	0.107	0.108	49.358%
x		0.012	0.008	0.105	0.077	0.101	49.110%
σ		0.010	0.003	0.015	0.026	0.008	0.536%
%RSD		83.940	39.680	14.370	34.040	8.030	1.091

CCV 1308170 9/5/2014 1:36:22 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	66.655%	97.500	87.920	89.170	0.000	47970.000	47920.000	48350.000
2	13:36:41	66.915%	97.240	95.960	92.410	0.000	48760.000	49130.000	49440.000
3	13:37:01	68.082%	96.960	88.800	88.660	0.000	48600.000	49010.000	48890.000
x		67.217%	97.235%	90.893%	90.080%	0.000	96.881%	97.368%	97.784%
σ		0.760%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.130	0.277	4.850	2.257	0.000	0.866	1.370	1.109

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	472.900	5060.000	0.000	50180.000	47610.000	46080.000	56.092%	92.350
2	13:36:41	481.000	5144.000	0.000	50610.000	48050.000	46280.000	56.945%	93.850
3	13:37:01	477.200	5144.000	0.000	50080.000	47940.000	46060.000	58.338%	95.710
x		95.405%	102.324%	0.000	100.580%	95.732%	92.275%	57.125%	93.973%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.133%	n/a
%RSD		0.855	0.948	0.000	0.553	0.478	0.270	1.984	1.794

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	95.880	97.870	487.000	25830.000	24750.000	98.710	102.200	103.700
2	13:36:41	98.690	99.440	488.900	26030.000	24860.000	98.780	101.600	102.500
3	13:37:01	96.830	97.850	487.600	25930.000	24890.000	98.560	103.600	102.300
x		97.132%	98.387%	97.564%	103.718%	99.336%	98.685%	102.460%	102.859%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.474	0.927	0.193	0.397	0.283	0.116	1.032	0.718

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	104.500	97.950	98.580	96.800	94.390	97.590	0.000	94.780
2	13:36:41	105.600	97.140	95.760	98.860	96.470	100.600	0.000	94.970
3	13:37:01	102.800	97.320	99.110	99.790	97.920	95.500	0.000	94.700
x		104.284%	97.468%	97.818%	98.483%	96.264%	97.890%	0.000	94.820%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.365	0.439	1.841	1.552	1.843	2.607	0.000	0.145

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	56.786%	95.320	96.610	53.680%	98.290	99.210	97.800	97.780
2	13:36:41	58.289%	98.120	100.000	55.142%	98.120	97.700	95.120	96.330
3	13:37:01	59.693%	99.720	101.200	56.310%	98.720	98.970	95.720	97.350
x		58.256%	97.721%	99.259%	55.044%	98.379%	98.627%	96.217%	97.155%
σ		1.454%	n/a	n/a	1.318%	n/a	n/a	n/a	n/a
%RSD		2.496	2.276	2.390	2.394	0.316	0.821	1.461	0.765

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	57.093%	93.860	90.270	91.610	94.940	94.140	62.921%	63.785%
2	13:36:41	59.079%	92.430	91.700	90.910	94.490	94.960	64.300%	65.445%
3	13:37:01	60.323%	93.380	91.690	91.230	93.460	93.770	66.692%	66.516%
x		58.832%	93.223%	91.218%	91.251%	94.297%	94.291%	64.638%	65.249%
σ		1.629%	n/a	n/a	n/a	n/a	n/a	1.908%	1.376%
%RSD		2.769	0.778	0.903	0.386	0.806	0.648	2.952	2.109

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	92.120	95.110	94.640	94.390	94.430	66.930%
2	13:36:41	94.760	99.240	98.090	97.860	97.650	66.215%
3	13:37:01	96.260	100.200	99.710	98.310	99.300	66.548%
x		94.378%	98.182%	97.477%	96.853%	97.128%	66.564%
σ		n/a	n/a	n/a	n/a	n/a	0.358%
%RSD		2.221	2.758	2.656	2.213	2.553	0.538

CCB7 9/5/2014 1:41:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	69.744%	-0.010	1.233	0.676	0.000	-3.936	4.176	3.233
2	13:41:57	69.569%	-0.035	1.239	0.386	0.000	-4.102	3.499	3.361
3	13:42:16	65.303%	0.019	1.095	0.734	0.000	-2.706	2.648	3.524
x		68.205%	-0.009	1.189	0.599	0.000	-3.581	3.441	3.372
σ		2.515%	0.027	0.082	0.187	0.000	0.763	0.766	0.146
%RSD		3.687	316.100	6.865	31.150	0.000	21.290	22.250	4.323

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	0.663	1.328	0.000	1.327	13.990	9.915	59.850%	-0.271
2	13:41:57	0.456	2.048	0.000	1.902	10.940	6.402	59.242%	-0.347
3	13:42:16	0.359	1.862	0.000	1.694	11.470	4.297	58.343%	-0.269
x		0.493	1.746	0.000	1.641	12.130	6.872	59.145%	-0.296
σ		0.155	0.374	0.000	0.291	1.630	2.838	0.758%	0.044
%RSD		31.460	21.410	0.000	17.750	13.440	41.300	1.282	14.940

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	0.011	-0.102	0.202	-3.535	4.496	0.014	0.027	0.003
2	13:41:57	0.027	-0.054	0.209	-4.143	5.620	-0.000	0.015	0.019
3	13:42:16	0.026	-0.093	0.245	-4.296	4.664	0.015	0.053	-0.046
x		0.021	-0.083	0.219	-3.991	4.927	0.009	0.032	-0.008
σ		0.009	0.026	0.023	0.402	0.607	0.009	0.020	0.034
%RSD		42.310	30.750	10.390	10.080	12.310	90.930	61.950	425.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	-0.015	0.112	0.289	0.104	-0.048	0.002	0.000	0.038
2	13:41:57	-0.046	0.176	0.238	-0.302	-0.119	-1.338	0.000	0.021
3	13:42:16	-0.087	-0.020	0.227	0.069	-0.523	-0.234	0.000	0.031
x		-0.049	0.089	0.251	-0.043	-0.230	-0.523	0.000	0.030
σ		0.036	0.100	0.033	0.225	0.256	0.716	0.000	0.008
%RSD		73.330	111.800	13.040	525.400	111.400	136.700	0.000	27.930

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	60.352%	-0.618	-0.616	60.406%	-0.000	0.007	-0.031	-0.012
2	13:41:57	60.579%	-0.632	-0.767	60.135%	-0.000	0.001	0.074	0.050
3	13:42:16	59.977%	-0.702	-0.712	59.672%	0.006	0.001	0.013	0.017
x		60.303%	-0.650	-0.698	60.071%	0.002	0.003	0.019	0.018
σ		0.304%	0.045	0.076	0.372%	0.004	0.004	0.053	0.031
%RSD		0.504	6.921	10.930	0.618	213.600	119.900	281.300	170.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	62.666%	-0.134	0.131	0.161	-0.030	0.022	66.220%	66.201%
2	13:41:57	62.449%	-0.123	0.149	0.078	-0.011	0.027	66.328%	66.503%
3	13:42:16	61.903%	-0.205	0.109	0.174	-0.030	0.017	66.781%	66.893%
x		62.339%	-0.154	0.130	0.138	-0.023	0.022	66.443%	66.532%
σ		0.393%	0.044	0.020	0.052	0.011	0.005	0.297%	0.347%
%RSD		0.631	28.940	15.650	37.800	46.850	24.080	0.447	0.522

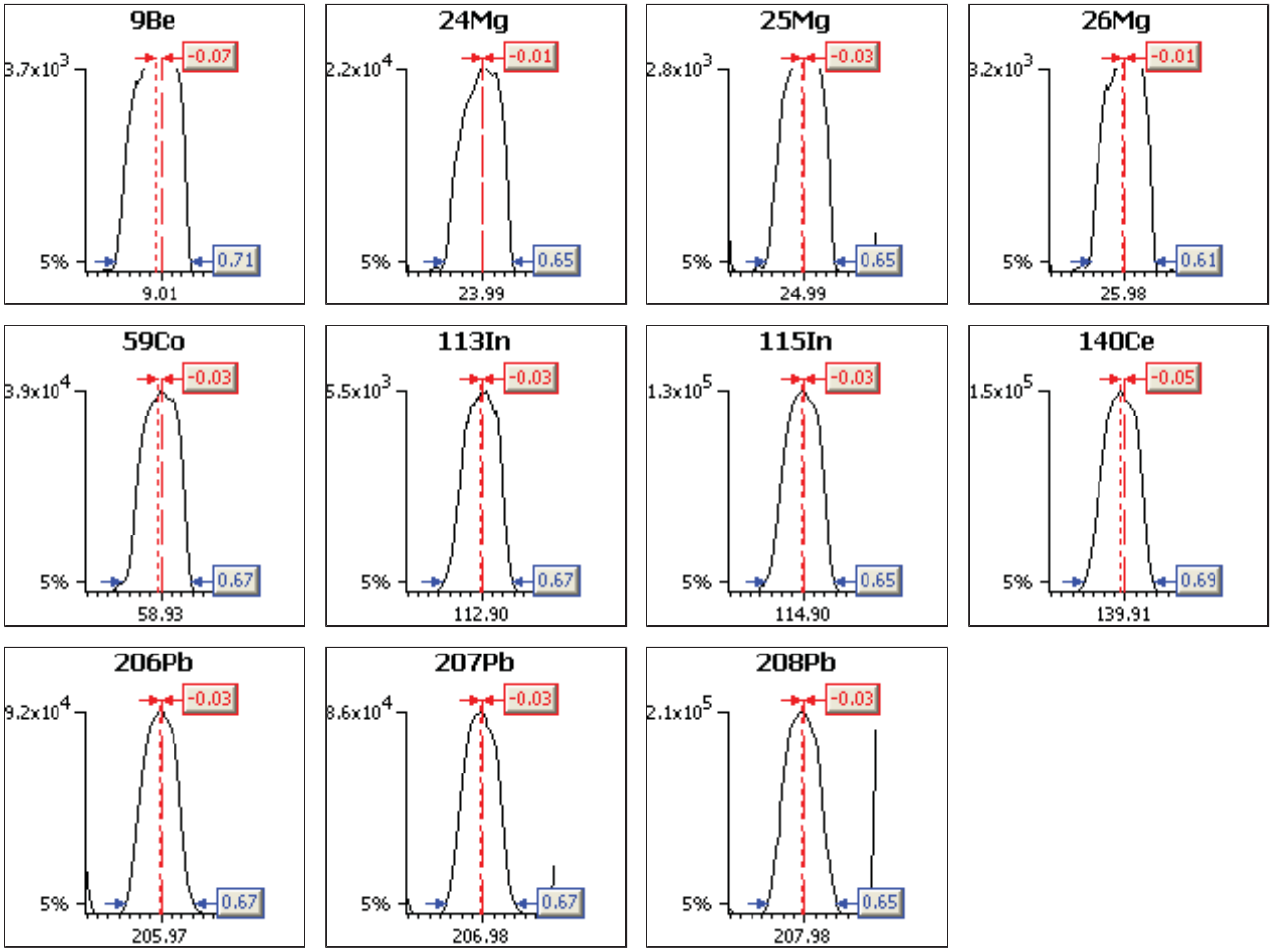
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:37	0.001	-0.006	0.038	0.012	0.020	68.634%
2	13:41:57	-0.001	-0.005	0.009	0.049	0.018	69.455%
3	13:42:16	-0.001	-0.008	0.030	0.014	0.021	69.509%
x		-0.000	-0.007	0.026	0.025	0.020	69.199%
σ		0.001	0.002	0.015	0.021	0.001	0.490%
%RSD		349.400	24.800	56.630	84.080	6.332	0.709

Performance Report

Sample details
Sample name : ITUNE
Acquired at : 9/5/2014 7:22:59 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Mass Calibration verification

Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.71	-0.07
24Mg	0.90	0.45	0.10	0.65	-0.01
25Mg	0.90	0.45	0.10	0.65	-0.03
26Mg	0.90	0.45	0.10	0.61	-0.01
59Co	0.90	0.45	0.10	0.67	-0.03
113In	0.90	0.45	0.10	0.67	-0.03
115In	0.90	0.45	0.10	0.65	-0.03
140Ce	0.90	0.45	0.10	0.69	-0.05
206Pb	0.90	0.45	0.10	0.67	-0.03
207Pb	0.90	0.45	0.10	0.67	-0.03
208Pb	0.90	0.45	0.10	0.65	-0.03

Sample details
Sample name : ITUNE
Acquired at : 9/5/2014 7:22:59 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-102
Lens 1	0.3
Focus	18.2
D1	-50.2
Pole Bias	-1.0
Hexapole Bias	-3.0
Nebuliser	0.84
Sampling Depth	200

Minor	
Lens 2	-20.4
Lens 3	-167.1
Forward power	1404
Horizontal	95
Vertical	324
D2	-198
DA	-80.0
Cool	13.0
Auxiliary	1.00

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	7:23:46 AM	0	3657	19165	2958	3617	56496	39174	0
2	7:25:12 AM	0	3637	19306	3031	3557	53150	38772	0
3	7:26:37 AM	0	3587	19242	2992	3632	51598	38526	1
4	7:28:02 AM	0	3593	19101	2974	3611	50796	38351	0
5	7:29:27 AM	0	3593	18946	3056	3617	51035	38641	1
x		0	3613	19152	3002	3607	52615	38693	1
σ		0.06	31.57	138.57	40.46	29.04	2355.19	310.19	0.73
%RSD		63.888	0.874	0.724	1.348	0.805	4.476	0.802	136.931

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:23:46 AM	15	0	5529	130984	1139	151636	2345	95016
2	7:25:12 AM	11	0	5619	130831	1050	152592	2271	95601
3	7:26:37 AM	13	0	5613	131384	970	151560	2289	96047
4	7:28:02 AM	12	0	5777	130560	974	152249	2270	95823
5	7:29:27 AM	14	0	5689	130863	1013	151322	2284	95564
x		13	0	5645	130924	1029	151872	2292	95610
σ		1.42	0.07	92.89	300.19	69.36	528.39	30.77	384.52
%RSD		10.776	91.287	1.645	0.229	6.740	0.348	1.343	0.402

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:23:46 AM	84542	204630	0
2	7:25:12 AM	84999	204254	0
3	7:26:37 AM	85965	205622	0
4	7:28:02 AM	85040	205809	0
5	7:29:27 AM	84838	205047	0
x		85077	205073	0
σ		533.61	654.06	0.05
%RSD		0.627	0.319	70.711

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:23:46 AM	0
2	7:25:12 AM	0

3	7:26:37 AM	0
4	7:28:02 AM	0
5	7:29:27 AM	0
x		0.0151
σ		0.00
%RSD		1.5370

Result : The performance report passed.

Dilution Corrected Concentrations

STD1 1265816 9/6/2014 4:02:42 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	99.154%	-0.001	0.045	-0.018	0.000	-0.171	-0.174	0.091
2	16:01:57	99.960%	0.019	-0.059	0.065	0.000	-0.183	0.417	-0.080
3	16:02:04	100.886%	-0.018	0.013	-0.047	0.000	0.355	-0.243	-0.011
x		100.000%	0.000	-0.000	-0.000	0.000	0.000	-0.000	0.000
σ		0.867%	0.019	0.053	0.058	0.000	0.307	0.363	0.086
%RSD		0.867	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	-0.126	0.374	0.000	1.726	0.051	0.579	99.445%	-0.029
2	16:01:57	0.007	0.103	0.000	-0.831	2.026	-0.031	99.883%	0.037
3	16:02:04	0.119	-0.477	0.000	-0.896	-2.077	-0.547	100.672%	-0.007
x		-0.000	-0.000	0.000	0.000	0.000	0.000	100.000%	0.000
σ		0.123	0.435	0.000	1.495	2.052	0.564	0.622%	0.034
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.622	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	-0.000	-0.003	0.003	-0.078	-0.293	0.000	-0.037	0.013
2	16:01:57	-0.016	0.000	-0.013	0.074	0.799	-0.003	-0.013	0.000
3	16:02:04	0.017	0.003	0.010	0.004	-0.506	0.003	0.050	-0.013
x		0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	0.000
σ		0.016	0.003	0.012	0.076	0.700	0.003	0.045	0.013
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	0.002	-0.048	-0.000	0.006	-0.005	1.253	0.000	0.002
2	16:01:57	0.022	0.070	0.029	-0.004	0.064	1.448	0.000	0.001
3	16:02:04	-0.024	-0.022	-0.029	-0.002	-0.059	-2.701	0.000	-0.003
x		0.000	-0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000
σ		0.023	0.062	0.029	0.005	0.062	2.341	0.000	0.003
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	97.280%	-0.026	0.092	99.026%	-0.023	-0.015	0.000	0.004
2	16:01:57	99.917%	0.026	-0.012	99.861%	0.002	0.001	-0.000	0.021
3	16:02:04	102.804%	0.000	-0.080	101.113%	0.021	0.014	-0.000	-0.026
x		100.000%	-0.000	-0.000	100.000%	0.000	-0.000	-0.000	-0.000
σ		2.763%	0.026	0.087	1.050%	0.022	0.015	0.000	0.024
%RSD		2.763	0.000	0.000	1.050	0.000	0.000	0.000	0.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	99.460%	0.104	0.041	0.078	-0.006	0.004	98.721%	98.999%
2	16:01:57	100.327%	0.040	0.002	-0.085	0.013	-0.018	100.019%	100.062%
3	16:02:04	100.213%	-0.143	-0.042	0.007	-0.006	0.014	101.260%	100.939%
x		100.000%	-0.000	0.000	-0.000	-0.000	-0.000	100.000%	100.000%
σ		0.471%	0.128	0.042	0.082	0.011	0.016	1.270%	0.972%
%RSD		0.471	0.000	0.000	0.000	0.000	0.000	1.270	0.972

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:49	0.003	0.001	-0.003	0.001	-0.004	98.342%
2	16:01:57	-0.002	-0.002	0.005	-0.003	0.004	100.423%
3	16:02:04	-0.002	0.001	-0.002	0.003	-0.000	101.235%
x		-0.000	-0.000	-0.000	-0.000	0.000	100.000%
σ		0.003	0.002	0.004	0.003	0.004	1.492%
%RSD		0.000	0.000	0.000	0.000	0.000	1.492

STD2 1283585 9/6/2014 4:07:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	84.071%	197.900	0.329	0.068	0.000	100200.000	99890.000	100700.000
2	16:06:59	83.829%	202.400	0.120	0.011	0.000	99560.000	100200.000	100300.000
3	16:07:07	83.693%	199.700	0.211	0.115	0.000	100300.000	99930.000	99020.000
x		83.864%	200.000	0.220	0.065	0.000	100000.000	100000.000	100000.000
σ		0.192%	2.268	0.105	0.052	0.000	384.700	156.700	872.900
%RSD		0.229	1.134	47.590	80.270	0.000	0.385	0.157	0.873

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	1001.000	4.588	0.000	99250.000	99170.000	99200.000	87.062%	0.148
2	16:06:59	1001.000	4.892	0.000	101400.000	100200.000	100100.000	85.767%	0.073
3	16:07:07	998.100	6.871	0.000	99310.000	100600.000	100700.000	86.754%	0.276
x		1000.000	5.451	0.000	100000.000	100000.000	100000.000	86.528%	0.166
σ		1.646	1.240	0.000	1253.000	747.000	745.500	0.677%	0.102
%RSD		0.165	22.750	0.000	1.253	0.747	0.746	0.782	61.720

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	198.900	200.300	990.200	50290.000	50220.000	200.800	198.700	200.700
2	16:06:59	200.800	200.300	1008.000	50160.000	50150.000	200.900	204.300	201.900
3	16:07:07	200.300	199.400	1002.000	49550.000	49630.000	198.300	196.900	197.400
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		1.015	0.483	9.106	398.600	322.800	1.456	3.866	2.368
%RSD		0.508	0.242	0.911	0.797	0.646	0.728	1.933	1.184

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	201.200	201.200	196.700	202.500	203.100	204.700	0.000	203.200
2	16:06:59	199.500	200.200	203.400	201.300	200.900	198.300	0.000	200.200
3	16:07:07	199.300	198.600	199.900	196.100	195.900	197.000	0.000	196.600
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		1.057	1.292	3.361	3.393	3.674	4.102	0.000	3.284
%RSD		0.529	0.646	1.681	1.697	1.837	2.051	0.000	1.642

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	91.098%	0.032	0.043	80.087%	201.800	198.300	200.700	200.200
2	16:06:59	92.085%	0.062	0.067	80.457%	200.100	201.400	198.400	201.600
3	16:07:07	94.113%	-0.052	-0.022	80.093%	198.100	200.300	200.900	198.200
x		92.432%	0.014	0.029	80.212%	200.000	200.000	200.000	200.000
σ		1.538%	0.059	0.046	0.212%	1.817	1.589	1.428	1.711
%RSD		1.663	424.300	155.700	0.264	0.909	0.794	0.714	0.856

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	84.001%	0.114	0.179	0.045	202.500	200.300	88.193%	88.322%
2	16:06:59	84.084%	0.052	0.127	-0.114	199.500	201.000	88.743%	88.850%
3	16:07:07	84.031%	0.135	0.101	-0.127	198.000	198.700	88.138%	88.609%
x		84.039%	0.100	0.136	-0.065	200.000	200.000	88.358%	88.594%
σ		0.042%	0.043	0.040	0.096	2.285	1.188	0.335%	0.264%
%RSD		0.050	43.190	29.440	147.300	1.142	0.594	0.379	0.298

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:06:51	201.000	200.200	199.200	198.500	199.300	82.395%
2	16:06:59	199.500	201.000	200.800	199.800	200.600	82.283%
3	16:07:07	199.500	198.800	200.100	201.700	200.100	81.961%
x		200.000	200.000	200.000	200.000	200.000	82.213%
σ		0.906	1.090	0.782	1.633	0.625	0.225%
%RSD		0.453	0.545	0.391	0.817	0.313	0.274

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	85.691%	0.038	196.800	200.600	0.000	45.460	27.270	28.650
2	16:12:02	87.496%	0.048	198.600	195.700	0.000	43.520	28.450	27.050
3	16:12:10	86.810%	0.134	204.600	203.700	0.000	43.110	26.540	26.020
x		86.666%	0.074	200.000	200.000	0.000	44.030	27.420	27.240
σ		0.911%	0.052	4.058	4.045	0.000	1.257	0.964	1.322
%RSD		1.051	71.290	2.029	2.023	0.000	2.856	3.514	4.852

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	6.070	9903.000	0.000	40.190	28.210	158.800	89.556%	195.600
2	16:12:02	5.645	10040.000	0.000	38.010	27.830	161.900	90.449%	198.600
3	16:12:10	5.594	10060.000	0.000	37.180	32.290	159.600	90.462%	205.800
x		5.770	10000.000	0.000	38.460	29.440	160.100	90.156%	200.000
σ		0.262	84.550	0.000	1.555	2.470	1.644	0.519%	5.242
%RSD		4.533	0.846	0.000	4.044	8.391	1.027	0.576	2.621

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	0.061	0.084	0.434	22.240	19.630	0.078	0.158	0.556
2	16:12:02	0.069	0.055	0.406	20.160	22.640	0.048	0.074	0.568
3	16:12:10	0.065	0.080	0.465	18.340	19.780	0.069	0.134	0.478
x		0.065	0.073	0.435	20.250	20.680	0.065	0.122	0.534
σ		0.004	0.015	0.030	1.950	1.693	0.015	0.043	0.049
%RSD		5.751	21.090	6.864	9.630	8.184	23.610	35.600	9.153

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	1.032	1.671	0.705	0.139	0.327	0.238	0.000	0.122
2	16:12:02	0.962	1.019	0.382	0.096	0.278	-1.940	0.000	0.107
3	16:12:10	0.790	1.338	0.575	0.127	0.311	0.317	0.000	0.101
x		0.928	1.343	0.554	0.121	0.305	-0.462	0.000	0.110
σ		0.125	0.326	0.162	0.022	0.025	1.281	0.000	0.011
%RSD		13.410	24.260	29.290	18.550	8.061	277.300	0.000	9.832

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	91.703%	202.800	202.000	89.754%	0.176	0.129	0.457	5.279
2	16:12:02	94.815%	201.000	199.500	91.156%	0.158	0.148	0.513	5.422
3	16:12:10	96.295%	196.200	198.500	92.388%	0.207	0.151	0.455	5.085
x		94.271%	200.000	200.000	91.099%	0.180	0.143	0.475	5.262
σ		2.344%	3.455	1.802	1.318%	0.025	0.012	0.033	0.169
%RSD		2.486	1.727	0.901	1.446	13.840	8.157	6.874	3.213

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	91.363%	201.900	200.500	201.100	0.159	0.250	94.951%	94.587%
2	16:12:02	93.826%	199.500	199.900	200.000	0.156	0.314	95.825%	95.520%
3	16:12:10	94.160%	198.600	199.700	198.900	0.115	0.435	97.159%	97.659%
x		93.116%	200.000	200.000	200.000	0.143	0.333	95.978%	95.922%
σ		1.527%	1.705	0.409	1.128	0.025	0.094	1.112%	1.575%
%RSD		1.640	0.853	0.204	0.564	17.430	28.340	1.158	1.642

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:55	0.025	0.040	0.775	0.741	0.759	97.277%
2	16:12:02	0.054	0.048	0.735	0.719	0.744	99.330%
3	16:12:10	0.050	0.067	0.805	0.705	0.721	101.598%
x		0.043	0.052	0.772	0.721	0.741	99.402%
σ		0.015	0.014	0.035	0.018	0.019	2.162%
%RSD		35.730	27.040	4.550	2.528	2.561	2.175

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	89.670%	75.460	77.750	77.230	0.000	40220.000	42060.000	42700.000
2	16:17:08	91.192%	75.360	80.020	78.540	0.000	40020.000	41920.000	42800.000
3	16:17:16	89.123%	79.390	82.570	83.530	0.000	40540.000	41780.000	39170.000
x		89.995%	95.918%	100.140%	99.710%	0.000	100.646%	104.803%	103.894%
σ		1.072%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.191	2.993	3.009	4.167	0.000	0.662	0.346	4.975

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	406.700	4293.000	0.000	38630.000	36960.000	37080.000	92.074%	79.830
2	16:17:08	399.200	4372.000	0.000	38960.000	38190.000	38050.000	92.535%	81.480
3	16:17:16	404.500	4493.000	0.000	39550.000	38640.000	38350.000	92.376%	79.400
x		100.869%	109.656%	0.000	97.619%	94.821%	94.572%	92.328%	100.297%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.234%	n/a
%RSD		0.956	2.295	0.000	1.195	2.297	1.753	0.253	1.370

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	77.740	79.590	385.800	19650.000	19080.000	80.850	82.290	81.180
2	16:17:08	78.010	80.420	395.500	19820.000	19040.000	80.860	81.970	79.400
3	16:17:16	78.030	80.210	402.000	19490.000	18580.000	80.380	82.770	80.100
x		97.407%	100.091%	98.603%	98.251%	94.515%	100.870%	102.928%	100.282%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.209	0.540	2.065	0.851	1.462	0.344	0.490	1.118

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	83.690	82.320	82.460	80.780	80.010	85.280	0.000	78.870
2	16:17:08	82.130	82.490	85.550	78.940	80.080	82.970	0.000	77.640
3	16:17:16	82.210	81.900	81.260	78.580	79.040	84.830	0.000	76.470
x		103.345%	102.792%	103.858%	99.291%	99.638%	105.449%	0.000	97.077%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.062	0.371	2.664	1.485	0.732	1.453	0.000	1.548

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	96.807%	81.640	83.260	84.875%	80.940	82.150	81.980	83.240
2	16:17:08	99.499%	82.070	84.000	86.151%	81.480	81.220	81.480	82.760
3	16:17:16	100.794%	81.250	82.910	85.165%	82.720	82.460	80.290	83.050
x		99.033%	102.068%	104.242%	85.397%	102.144%	102.430%	101.561%	103.773%
σ		2.034%	n/a	n/a	0.669%	n/a	n/a	n/a	n/a
%RSD		2.054	0.504	0.667	0.784	1.116	0.788	1.067	0.291

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	90.685%	80.350	81.500	81.340	79.390	78.870	92.243%	92.806%
2	16:17:08	91.352%	80.750	80.530	80.040	80.540	82.180	93.196%	93.528%
3	16:17:16	91.596%	79.430	80.690	80.530	79.140	79.420	93.703%	93.812%
x		91.211%	100.224%	101.136%	100.796%	99.614%	100.196%	93.048%	93.382%
σ		0.472%	n/a	n/a	n/a	n/a	n/a	0.741%	0.518%
%RSD		0.517	0.848	0.643	0.817	0.937	2.211	0.797	0.555

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:00	82.230	81.120	81.710	78.540	79.810	90.818%
2	16:17:08	83.790	82.340	84.170	78.920	80.890	90.165%
3	16:17:16	82.850	81.100	81.150	76.920	79.700	90.269%
x		103.697%	101.902%	102.927%	97.659%	100.166%	90.417%
σ		n/a	n/a	n/a	n/a	n/a	0.351%
%RSD		0.947	0.874	1.953	1.355	0.817	0.388

ICB 9/6/2014 4:22:58 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	93.160%	0.053	0.533	0.715	0.000	7.559	1.204	1.993
2	16:22:15	94.399%	0.029	0.816	0.735	0.000	6.984	0.975	1.926
3	16:22:22	95.574%	0.039	0.643	0.624	0.000	6.839	0.742	1.389
x		94.377%	0.041	0.664	0.691	0.000	7.127	0.974	1.769
σ		1.207%	0.012	0.143	0.059	0.000	0.381	0.231	0.331
%RSD		1.279	29.320	21.480	8.522	0.000	5.339	23.710	18.700

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	-0.194	7.120	0.000	11.970	-2.784	0.357	96.612%	0.153
2	16:22:15	-0.113	6.969	0.000	13.560	-1.752	2.294	96.748%	0.016
3	16:22:22	-0.144	5.770	0.000	9.920	0.246	-0.135	97.567%	0.016
x		-0.150	6.620	0.000	11.820	-1.430	0.838	96.975%	0.062
σ		0.041	0.740	0.000	1.826	1.541	1.284	0.517%	0.079
%RSD		27.280	11.180	0.000	15.450	107.700	153.200	0.533	128.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	-0.005	0.004	0.012	3.196	2.186	0.005	-0.053	-0.024
2	16:22:15	0.001	-0.003	0.003	2.498	1.563	0.000	0.029	-0.015
3	16:22:22	-0.000	-0.006	-0.010	1.893	0.794	0.003	-0.006	-0.021
x		-0.001	-0.002	0.002	2.529	1.515	0.003	-0.010	-0.020
σ		0.003	0.005	0.011	0.652	0.697	0.003	0.041	0.005
%RSD		250.200	268.200	688.300	25.780	46.030	90.930	409.500	24.490

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	0.009	-0.123	0.121	0.033	0.082	3.913	0.000	0.001
2	16:22:15	-0.058	0.020	-0.025	0.022	0.078	0.347	0.000	-0.009
3	16:22:22	-0.052	-0.095	0.054	0.018	-0.009	-0.770	0.000	-0.007
x		-0.034	-0.066	0.050	0.024	0.050	1.163	0.000	-0.005
σ		0.037	0.076	0.073	0.008	0.051	2.446	0.000	0.005
%RSD		110.800	114.900	145.300	31.140	102.800	210.300	0.000	109.900

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	100.756%	0.286	0.286	98.407%	-0.022	-0.017	0.000	-0.008
2	16:22:15	104.094%	0.299	0.278	100.508%	0.005	-0.014	0.020	-0.009
3	16:22:22	107.101%	0.221	0.230	102.299%	-0.012	-0.015	0.010	-0.005
x		103.983%	0.269	0.265	100.405%	-0.010	-0.016	0.010	-0.007
σ		3.174%	0.042	0.030	1.948%	0.014	0.002	0.010	0.002
%RSD		3.052	15.620	11.470	1.940	144.000	10.290	100.000	29.430

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	99.189%	-0.306	0.035	-0.200	0.013	-0.018	99.676%	98.345%
2	16:22:15	101.039%	-0.326	0.007	-0.313	-0.006	-0.018	102.183%	101.954%
3	16:22:22	102.242%	-0.261	-0.007	-0.441	0.031	0.003	101.956%	101.702%
x		100.823%	-0.298	0.012	-0.318	0.013	-0.011	101.272%	100.667%
σ		1.538%	0.033	0.021	0.121	0.019	0.012	1.387%	2.015%
%RSD		1.525	11.180	181.300	38.020	149.400	111.700	1.369	2.002

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:07	0.005	0.002	-0.009	-0.017	-0.003	104.145%
2	16:22:15	0.007	0.004	-0.026	-0.012	-0.012	105.765%
3	16:22:22	0.003	0.001	-0.034	-0.024	-0.020	107.286%
x		0.005	0.002	-0.023	-0.018	-0.012	105.732%
σ		0.002	0.002	0.013	0.006	0.008	1.571%
%RSD		45.340	85.040	57.090	35.790	68.300	1.486

CRI 1277812 9/6/2014 4:28:06 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	101.129%	0.915	5.460	5.245	0.000	104.600	98.000	101.700
2	16:27:23	103.338%	0.986	5.067	4.956	0.000	105.800	102.900	104.400
3	16:27:30	102.749%	1.027	5.590	5.092	0.000	105.600	98.140	101.700
x		102.405%	97.607%	107.445%	101.957%	0.000	131.652%	99.692%	102.566%
σ		1.144%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.117	5.810	5.070	2.831	0.000	0.610	2.826	1.538

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	30.810	489.800	0.000	102.000	107.900	100.700	103.504%	4.868
2	16:27:23	30.810	505.900	0.000	105.600	108.100	101.500	102.408%	5.028
3	16:27:30	30.790	507.100	0.000	105.700	99.700	104.300	102.921%	5.238
x		102.667%	100.189%	0.000	104.468%	105.225%	102.137%	102.944%	100.894%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.549%	n/a
%RSD		0.036	1.926	0.000	2.009	4.552	1.855	0.533	3.682

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	0.945	1.943	4.847	49.550	49.040	0.496	0.992	2.150
2	16:27:23	1.058	2.126	4.990	50.960	51.840	0.473	1.263	2.236
3	16:27:30	0.963	1.986	5.009	50.220	49.370	0.519	1.091	2.085
x		98.835%	100.913%	98.972%	100.485%	100.166%	99.218%	111.551%	107.860%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.133	4.748	1.791	1.401	3.056	4.626	12.270	3.502

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	2.163	5.339	5.383	1.055	5.321	6.523	0.000	4.878
2	16:27:23	1.920	5.002	5.056	0.946	5.406	3.445	0.000	5.106
3	16:27:30	2.102	5.192	5.377	0.988	5.189	5.503	0.000	5.065
x		103.102%	103.555%	105.441%	99.650%	106.107%	103.141%	0.000	100.335%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.134	3.264	3.550	5.545	2.059	30.410	0.000	2.423

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	102.839%	5.119	4.716	100.129%	1.054	0.991	1.107	1.088
2	16:27:23	106.207%	4.765	5.008	100.531%	0.956	1.014	0.917	1.153
3	16:27:30	106.949%	5.124	4.916	100.137%	1.033	1.205	1.145	1.233
x		105.332%	100.053%	97.606%	100.266%	101.437%	106.989%	105.651%	115.783%
σ		2.191%	n/a	n/a	0.230%	n/a	n/a	n/a	n/a
%RSD		2.080	4.120	3.062	0.229	5.061	11.020	11.580	6.275

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	98.219%	4.829	2.027	1.977	10.580	10.150	101.275%	100.525%
2	16:27:23	100.580%	4.713	2.038	1.628	9.398	9.954	102.120%	102.037%
3	16:27:30	99.884%	4.784	2.038	1.533	9.449	8.847	102.204%	102.925%
x		99.561%	95.504%	101.720%	85.635%	98.097%	96.500%	101.866%	101.829%
σ		1.213%	n/a	n/a	n/a	n/a	n/a	0.513%	1.214%
%RSD		1.218	1.232	0.296	13.650	6.820	7.275	0.504	1.192

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:15	0.961	0.998	1.034	1.092	1.017	102.253%
2	16:27:23	1.059	0.869	0.969	1.041	0.983	103.752%
3	16:27:30	0.955	0.935	0.954	1.110	1.038	103.750%
x		99.169%	93.407%	98.554%	108.137%	101.250%	103.252%
σ		n/a	n/a	n/a	n/a	n/a	0.865%
%RSD		5.889	6.930	4.332	3.306	2.760	0.838

ICSA 1274830 9/6/2014 4:32:48 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	72.874%	-0.002	0.470	0.322	0.000	91060.000	87520.000	88140.000
2	16:32:02	74.366%	-0.003	0.657	0.285	0.000	90160.000	87440.000	87300.000
3	16:32:10	72.438%	0.035	0.440	0.386	0.000	90680.000	87560.000	88250.000
x		73.226%	0.010	0.522	0.331	0.000	90640.000	87510.000	87900.000
σ		1.011%	0.021	0.118	0.051	0.000	452.000	58.580	521.400
%RSD		1.381	217.000	22.520	15.440	0.000	0.499	0.067	0.593

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	90640.000	19.160	0.000	91650.000	93630.000	93200.000	78.452%	1971.000
2	16:32:02	89810.000	18.300	0.000	93710.000	96080.000	95850.000	77.502%	2057.000
3	16:32:10	90800.000	18.760	0.000	92870.000	95740.000	95850.000	76.877%	2109.000
x		90420.000	18.740	0.000	92750.000	95150.000	94970.000	77.611%	2046.000
σ		529.300	0.427	0.000	1034.000	1329.000	1526.000	0.793%	69.660
%RSD		0.585	2.280	0.000	1.115	1.396	1.607	1.022	3.405

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	0.065	1.232	0.459	88360.000	86810.000	0.221	0.388	1.884
2	16:32:02	0.227	1.160	0.483	88560.000	86570.000	0.193	0.330	1.472
3	16:32:10	0.199	1.241	0.550	89250.000	87090.000	0.202	0.402	1.712
x		0.164	1.211	0.497	88720.000	86820.000	0.205	0.373	1.689
σ		0.087	0.044	0.047	469.600	260.000	0.015	0.038	0.207
%RSD		52.870	3.649	9.438	0.529	0.299	7.194	10.220	12.260

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	4.109	5.360	1.561	0.583	0.007	0.863	0.000	0.623
2	16:32:02	3.939	4.227	1.650	0.539	0.089	0.139	0.000	0.668
3	16:32:10	3.924	4.679	1.678	0.450	0.068	2.799	0.000	0.579
x		3.991	4.756	1.630	0.524	0.055	1.267	0.000	0.624
σ		0.103	0.570	0.061	0.067	0.043	1.376	0.000	0.045
%RSD		2.569	11.990	3.761	12.860	78.360	108.600	0.000	7.144

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	86.436%	1933.000	2021.000	74.497%	0.424	0.348	2.787	1.995
2	16:32:02	87.033%	1927.000	2033.000	74.279%	0.371	0.477	3.160	2.101
3	16:32:10	87.822%	1921.000	2020.000	74.204%	0.346	0.481	2.721	1.994
x		87.097%	1927.000	2025.000	74.327%	0.380	0.435	2.889	2.030
σ		0.695%	5.941	7.153	0.152%	0.040	0.076	0.237	0.062
%RSD		0.798	0.308	0.353	0.205	10.450	17.410	8.190	3.045

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	84.763%	1.005	-0.004	-0.446	0.061	0.171	87.783%	89.300%
2	16:32:02	85.015%	0.761	-0.008	-0.542	0.150	0.070	87.868%	89.522%
3	16:32:10	85.768%	0.583	-0.009	-0.512	0.104	0.082	88.291%	89.486%
x		85.182%	0.783	-0.007	-0.500	0.105	0.107	87.981%	89.436%
σ		0.523%	0.212	0.003	0.049	0.045	0.055	0.272%	0.119%
%RSD		0.614	27.120	36.280	9.822	42.460	51.310	0.309	0.133

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:54	0.015	0.017	0.244	0.223	0.256	87.348%
2	16:32:02	0.004	0.003	0.259	0.267	0.264	88.733%
3	16:32:10	0.012	-0.001	0.229	0.262	0.237	88.912%
x		0.010	0.006	0.244	0.251	0.253	88.331%
σ		0.006	0.009	0.015	0.024	0.014	0.856%
%RSD		54.740	147.700	6.073	9.650	5.541	0.969

ICSAB 1274831 9/6/2014 4:37:56 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	66.718%	18.850	47.250	45.490	0.000	97940.000	94680.000	93720.000
2	16:37:11	67.032%	19.940	46.620	45.480	0.000	96810.000	92420.000	93890.000
3	16:37:19	68.326%	19.050	44.800	44.910	0.000	95800.000	92130.000	93080.000
x		67.359%	96.394%	92.448%	90.584%	0.000	96.850%	93.075%	93.560%
σ		0.853%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.266	2.996	2.753	0.739	0.000	1.108	1.498	0.454

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	97030.000	459.200	0.000	93080.000	94320.000	95080.000	72.482%	2052.000
2	16:37:11	96800.000	467.900	0.000	94650.000	98190.000	98280.000	72.896%	2111.000
3	16:37:19	96430.000	476.300	0.000	95410.000	99820.000	99630.000	72.558%	2136.000
x		96.754%	93.557%	0.000	94.379%	97.444%	97.663%	72.645%	104.993%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.221%	n/a
%RSD		0.313	1.832	0.000	1.258	2.896	2.393	0.304	2.053

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	18.820	20.550	18.920	96440.000	103100.000	19.800	19.800	21.080
2	16:37:11	18.590	20.770	19.490	95330.000	93310.000	16.820	19.640	21.090
3	16:37:19	18.850	20.430	20.010	96210.000	94880.000	19.460	19.760	20.770
x		93.757%	102.904%	97.363%	95.993%	97.087%	93.477%	98.671%	104.887%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.766	0.834	2.793	0.611	5.393	8.730	0.442	0.858

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	23.430	26.320	22.210	21.010	53.330	52.230	0.000	20.580
2	16:37:11	23.980	23.980	20.540	20.120	50.650	55.290	0.000	19.900
3	16:37:19	24.580	24.350	22.070	20.340	52.590	53.800	0.000	20.400
x		119.983%	99.549%	86.417%	102.448%	104.380%	107.549%	0.000	101.482%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.399	5.056	4.296	2.254	2.659	2.843	0.000	1.748

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	75.116%	2102.000	2151.000	71.156%	19.490	20.010	22.850	23.880
2	16:37:11	77.478%	2070.000	2123.000	71.421%	19.830	19.690	22.890	23.760
3	16:37:19	76.607%	2090.000	2138.000	71.672%	20.020	19.790	22.080	24.270
x		76.400%	104.368%	106.872%	71.416%	98.891%	99.153%	113.037%	119.850%
σ		1.195%	n/a	n/a	0.258%	n/a	n/a	n/a	n/a
%RSD		1.564	0.788	0.643	0.361	1.362	0.818	2.010	1.101

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	77.760%	92.530	18.940	18.550	19.390	18.760	85.595%	86.880%
2	16:37:11	77.877%	93.560	19.400	18.940	18.420	19.000	86.490%	86.729%
3	16:37:19	77.520%	94.100	18.850	18.840	19.490	19.080	87.187%	88.100%
x		77.719%	93.395%	95.316%	93.886%	95.497%	94.723%	86.424%	87.236%
σ		0.182%	n/a	n/a	n/a	n/a	n/a	0.798%	0.752%
%RSD		0.235	0.856	1.569	1.088	3.102	0.870	0.923	0.862

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:04	19.240	19.200	19.790	19.970	19.720	82.896%
2	16:37:11	18.800	18.900	19.230	19.560	19.600	84.094%
3	16:37:19	19.610	19.050	19.820	20.680	19.980	83.814%
x		96.080%	95.235%	98.064%	100.339%	98.850%	83.602%
σ		n/a	n/a	n/a	n/a	n/a	0.627%
%RSD		2.101	0.784	1.700	2.824	0.990	0.750

CCV 1241000 9/6/2014 4:43:01 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	72.928%	95.410	95.020	91.970	0.000	51280.000	53230.000	49300.000
2	16:42:16	72.768%	97.750	103.400	98.710	0.000	51400.000	54550.000	50090.000
3	16:42:24	74.060%	98.120	97.490	96.570	0.000	51010.000	53940.000	49820.000
x		73.252%	97.096%	98.623%	95.748%	0.000	102.462%	107.817%	99.470%
σ		0.704%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.961	1.512	4.344	3.598	0.000	0.383	1.228	0.807

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	506.300	5065.000	0.000	46950.000	47100.000	47380.000	78.869%	103.700
2	16:42:16	513.600	5230.000	0.000	48640.000	49500.000	49390.000	78.187%	107.400
3	16:42:24	512.300	5313.000	0.000	48740.000	49000.000	50160.000	78.765%	112.700
x		102.147%	104.050%	0.000	96.219%	97.072%	97.951%	78.607%	107.918%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.367%	n/a
%RSD		0.759	2.425	0.000	2.096	2.604	2.933	0.467	4.176

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	97.180	98.180	484.600	24520.000	24140.000	98.170	101.300	96.670
2	16:42:16	97.200	98.270	507.900	24590.000	24160.000	100.300	99.660	97.820
3	16:42:24	97.470	99.710	510.700	24570.000	24100.000	98.710	101.500	97.970
x		97.285%	98.720%	100.220%	98.239%	96.524%	99.058%	100.820%	97.485%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.167	0.869	2.865	0.147	0.122	1.114	1.001	0.729

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	99.150	99.920	100.300	94.290	96.900	98.190	0.000	95.520
2	16:42:16	99.030	97.250	100.100	94.930	95.940	96.320	0.000	95.390
3	16:42:24	100.100	97.810	95.410	95.470	94.580	97.340	0.000	94.110
x		99.434%	98.328%	98.586%	94.896%	95.805%	97.280%	0.000	95.010%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.608	1.432	2.790	0.623	1.216	0.964	0.000	0.820

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	88.249%	108.800	109.100	79.862%	100.800	102.000	102.800	104.700
2	16:42:16	89.347%	109.000	108.900	79.206%	101.600	102.600	101.700	105.900
3	16:42:24	91.372%	103.700	107.100	81.572%	100.700	100.900	100.700	104.500
x		89.656%	107.180%	108.391%	80.213%	101.042%	101.847%	101.716%	105.023%
σ		1.584%	n/a	n/a	1.221%	n/a	n/a	n/a	n/a
%RSD		1.767	2.789	1.021	1.522	0.510	0.837	1.012	0.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	81.212%	99.090	100.500	99.110	99.030	97.610	90.080%	90.127%
2	16:42:16	82.830%	100.500	101.300	100.400	98.680	99.930	91.435%	91.730%
3	16:42:24	83.074%	100.700	101.400	100.600	99.850	99.120	90.964%	91.715%
x		82.372%	100.105%	101.077%	100.033%	99.185%	98.884%	90.826%	91.190%
σ		1.012%	n/a	n/a	n/a	n/a	n/a	0.688%	0.921%
%RSD		1.228	0.882	0.486	0.809	0.604	1.189	0.758	1.010

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:08	99.280	98.420	98.860	99.910	99.230	91.902%
2	16:42:16	99.720	97.690	97.870	97.900	98.490	92.749%
3	16:42:24	99.710	97.670	98.280	98.940	98.200	94.035%
x		99.569%	97.928%	98.336%	98.916%	98.641%	92.895%
σ		n/a	n/a	n/a	n/a	n/a	1.074%
%RSD		0.254	0.436	0.508	1.015	0.541	1.156

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	83.602%	0.022	0.605	0.445	0.000	20.510	2.654	3.111
2	16:47:24	84.647%	-0.035	0.474	0.511	0.000	21.650	4.711	5.374
3	16:47:32	86.314%	-0.005	0.750	0.512	0.000	22.860	5.392	5.678
x		84.854%	-0.006	0.610	0.489	0.000	21.680	4.252	4.721
σ		1.368%	0.028	0.138	0.038	0.000	1.174	1.425	1.403
%RSD		1.612	488.200	22.700	7.801	0.000	5.417	33.520	29.720

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	0.746	0.124	0.000	23.500	7.095	2.467	88.039%	1.272
2	16:47:24	1.143	-0.363	0.000	24.860	-0.927	1.817	88.042%	1.272
3	16:47:32	1.565	-0.193	0.000	18.650	-2.075	2.788	88.063%	1.497
x		1.151	-0.144	0.000	22.340	1.364	2.357	88.048%	1.347
σ		0.410	0.247	0.000	3.265	4.996	0.495	0.013%	0.130
%RSD		35.590	171.700	0.000	14.620	366.200	20.980	0.015	9.637

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	-0.003	-0.005	0.020	22.040	19.700	0.003	0.023	-0.031
2	16:47:24	0.019	0.013	0.039	22.370	25.310	0.001	0.004	-0.024
3	16:47:32	0.019	0.007	0.017	22.540	22.840	0.010	-0.006	-0.049
x		0.012	0.005	0.025	22.320	22.620	0.004	0.007	-0.035
σ		0.012	0.009	0.012	0.254	2.812	0.005	0.014	0.013
%RSD		106.900	169.200	46.080	1.136	12.430	114.800	209.400	37.910

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	-0.035	-0.103	-0.071	0.048	0.149	1.069	0.000	0.002
2	16:47:24	-0.044	-0.026	0.114	0.053	0.053	4.372	0.000	-0.007
3	16:47:32	-0.006	-0.043	-0.076	0.045	-0.022	0.392	0.000	0.003
x		-0.028	-0.057	-0.011	0.048	0.060	1.944	0.000	-0.000
σ		0.020	0.040	0.108	0.004	0.085	2.129	0.000	0.005
%RSD		70.730	70.590	977.400	7.985	142.600	109.500	0.000	1297.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	95.170%	2.347	2.322	89.472%	-0.011	-0.034	0.011	-0.006
2	16:47:24	97.372%	2.067	2.124	90.283%	-0.021	-0.042	0.011	0.017
3	16:47:32	99.399%	1.783	1.806	91.844%	-0.046	-0.028	0.032	0.015
x		97.314%	2.066	2.084	90.533%	-0.026	-0.034	0.018	0.009
σ		2.115%	0.282	0.261	1.206%	0.018	0.007	0.012	0.013
%RSD		2.173	13.630	12.510	1.332	70.140	20.370	67.880	151.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	91.379%	-0.122	0.474	0.042	-0.006	-0.006	95.460%	96.661%
2	16:47:24	91.080%	0.000	0.354	-0.012	0.014	0.016	98.215%	99.141%
3	16:47:32	94.383%	-0.113	0.310	-0.114	0.034	0.027	98.290%	98.383%
x		92.281%	-0.078	0.379	-0.028	0.014	0.012	97.322%	98.062%
σ		1.827%	0.068	0.085	0.080	0.020	0.017	1.613%	1.271%
%RSD		1.979	86.970	22.420	283.400	145.600	138.900	1.657	1.296

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:47:16	0.012	0.040	-0.013	-0.004	-0.003	101.503%
2	16:47:24	0.035	0.027	-0.016	-0.017	-0.011	102.690%
3	16:47:32	0.012	0.015	-0.036	-0.017	-0.018	104.876%
x		0.020	0.027	-0.022	-0.013	-0.011	103.023%
σ		0.013	0.012	0.013	0.008	0.008	1.711%
%RSD		67.130	45.580	57.840	61.080	70.260	1.660

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	89.463%	-0.042	0.061	0.068	0.000	13.070	0.914	0.877
2	16:52:29	92.864%	-0.020	0.345	0.039	0.000	13.130	0.383	0.915
3	16:52:36	93.260%	-0.020	0.071	-0.091	0.000	12.750	1.174	1.036
x		91.862%	-0.027	0.159	0.005	0.000	12.980	0.823	0.943
σ		2.087%	0.013	0.161	0.085	0.000	0.203	0.403	0.083
%RSD		2.272	46.190	101.100	1596.000	0.000	1.564	48.960	8.851

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	0.637	-2.160	0.000	10.030	-3.668	-0.886	94.198%	1.351
2	16:52:29	0.623	-2.746	0.000	9.185	-0.503	1.132	94.664%	1.577
3	16:52:36	0.864	-2.506	0.000	8.520	4.802	-0.209	94.818%	1.876
x		0.708	-2.471	0.000	9.246	0.210	0.012	94.560%	1.601
σ		0.135	0.294	0.000	0.757	4.280	1.027	0.323%	0.264
%RSD		19.120	11.910	0.000	8.192	2035.000	8333.000	0.342	16.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	-0.015	0.005	-0.027	18.340	18.250	-0.002	0.007	0.055
2	16:52:29	-0.019	0.006	-0.012	19.770	21.080	-0.003	0.031	0.003
3	16:52:36	0.014	-0.002	-0.044	20.750	20.580	0.004	0.072	0.056
x		-0.007	0.003	-0.028	19.620	19.970	-0.000	0.037	0.038
σ		0.018	0.004	0.016	1.209	1.510	0.004	0.033	0.031
%RSD		279.300	135.000	56.610	6.161	7.563	867.800	90.310	80.110

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	0.086	0.057	0.038	0.012	-0.023	0.533	0.000	-0.005
2	16:52:29	0.009	-0.086	0.068	-0.007	-0.007	-1.831	0.000	-0.005
3	16:52:36	0.038	-0.012	0.084	0.002	0.079	-0.636	0.000	-0.007
x		0.045	-0.014	0.063	0.002	0.016	-0.645	0.000	-0.006
σ		0.039	0.071	0.023	0.010	0.055	1.182	0.000	0.001
%RSD		86.820	522.900	36.720	458.700	337.200	183.300	0.000	21.390

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	100.727%	0.927	0.991	95.082%	-0.051	-0.052	0.010	-0.003
2	16:52:29	103.251%	0.951	0.910	95.605%	-0.075	-0.065	0.010	0.027
3	16:52:36	103.747%	0.992	0.977	96.397%	-0.059	-0.045	-0.000	0.005
x		102.575%	0.957	0.959	95.695%	-0.061	-0.054	0.007	0.010
σ		1.619%	0.033	0.043	0.662%	0.012	0.010	0.006	0.016
%RSD		1.579	3.445	4.496	0.692	20.290	18.080	91.130	163.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	96.025%	-0.216	0.042	-0.307	0.053	0.015	99.805%	99.748%
2	16:52:29	97.153%	-0.210	0.063	-0.363	0.013	-0.018	100.632%	100.088%
3	16:52:36	98.533%	-0.055	0.105	-0.399	0.032	-0.018	102.210%	100.848%
x		97.237%	-0.160	0.070	-0.357	0.033	-0.007	100.883%	100.228%
σ		1.256%	0.092	0.032	0.046	0.020	0.019	1.222%	0.563%
%RSD		1.292	57.150	45.870	12.990	60.740	274.900	1.211	0.562

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:21	0.011	0.012	-0.019	-0.001	-0.009	110.274%
2	16:52:29	0.011	0.012	-0.012	0.017	-0.007	111.233%
3	16:52:36	0.011	0.010	-0.014	0.023	0.002	111.005%
x		0.011	0.011	-0.015	0.013	-0.004	110.838%
σ		0.000	0.001	0.004	0.012	0.006	0.501%
%RSD		0.594	9.164	25.020	94.920	130.200	0.452

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	76.507%	46.520	927.600	894.200	0.000	48100.000	48620.000	49710.000
2	16:57:31	76.252%	49.260	940.200	901.900	0.000	48190.000	48850.000	49780.000
3	16:57:39	76.188%	48.490	968.800	907.100	0.000	48700.000	49910.000	50690.000
x		76.316%	48.090	945.500	901.000	0.000	48330.000	49130.000	50060.000
σ		0.169%	1.412	21.140	6.494	0.000	323.700	686.700	547.900
%RSD		0.221	2.936	2.236	0.721	0.000	0.670	1.398	1.095

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	1906.000	9528.000	0.000	48120.000	48860.000	48590.000	72.931%	994.500
2	16:57:31	1923.000	9613.000	0.000	48400.000	50160.000	49880.000	73.104%	1006.000
3	16:57:39	1955.000	9705.000	0.000	49060.000	50910.000	50640.000	72.500%	1034.000
x		1928.000	9615.000	0.000	48530.000	49980.000	49700.000	72.845%	1011.000
σ		24.980	88.670	0.000	481.700	1038.000	1039.000	0.311%	20.060
%RSD		1.296	0.922	0.000	0.993	2.077	2.091	0.427	1.984

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	490.100	198.900	495.300	995.500	1232.000	507.400	506.700	245.200
2	16:57:31	491.900	199.700	498.100	1009.000	1249.000	508.100	506.700	242.900
3	16:57:39	496.600	202.200	508.600	1007.000	1265.000	511.100	501.100	244.400
x		492.800	200.300	500.700	1004.000	1249.000	508.900	504.800	244.100
σ		3.352	1.726	7.004	7.364	16.210	1.960	3.242	1.159
%RSD		0.680	0.862	1.399	0.734	1.298	0.385	0.642	0.475

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	253.600	495.400	496.000	37.760	10.220	8.120	0.000	980.800
2	16:57:31	256.400	497.900	499.400	37.920	10.480	11.150	0.000	968.300
3	16:57:39	257.800	497.300	496.500	37.270	10.170	10.300	0.000	952.500
x		256.000	496.900	497.300	37.650	10.290	9.856	0.000	967.200
σ		2.122	1.298	1.886	0.338	0.167	1.562	0.000	14.200
%RSD		0.829	0.261	0.379	0.897	1.626	15.850	0.000	1.468

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	80.740%	1045.000	1081.000	69.458%	53.120	53.390	56.050	107.100
2	16:57:31	81.886%	1049.000	1080.000	70.246%	53.500	53.460	54.690	106.600
3	16:57:39	83.889%	1039.000	1077.000	70.790%	53.210	53.390	55.430	106.100
x		82.172%	1044.000	1079.000	70.165%	53.280	53.410	55.390	106.600
σ		1.594%	5.026	2.188	0.670%	0.203	0.043	0.679	0.522
%RSD		1.940	0.481	0.203	0.954	0.381	0.081	1.225	0.489

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	73.412%	2100.000	530.900	527.300	1993.000	1999.000	84.403%	85.457%
2	16:57:31	73.758%	2141.000	542.300	539.700	2018.000	2018.000	86.212%	87.300%
3	16:57:39	75.066%	2107.000	530.200	526.500	2007.000	2010.000	86.023%	86.780%
x		74.079%	2116.000	534.500	531.200	2006.000	2009.000	85.546%	86.512%
σ		0.873%	21.910	6.766	7.403	12.340	9.597	0.994%	0.950%
%RSD		1.178	1.035	1.266	1.394	0.615	0.478	1.162	1.098

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:24	49.300	48.680	19.650	20.330	20.090	85.927%
2	16:57:31	50.520	49.310	19.960	20.170	20.160	86.869%
3	16:57:39	49.150	48.880	19.940	20.440	20.270	88.130%
x		49.660	48.960	19.850	20.310	20.180	86.975%
σ		0.751	0.325	0.174	0.137	0.089	1.105%
%RSD		1.513	0.664	0.874	0.674	0.443	1.271

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	75.338%	45.930	914.100	884.700	0.000	46280.000	46170.000	47370.000
2	17:02:34	77.476%	45.230	902.400	874.000	0.000	45700.000	45630.000	46160.000
3	17:02:42	76.475%	47.920	926.900	886.800	0.000	45450.000	45910.000	46780.000
x		76.430%	46.360	914.500	881.800	0.000	45810.000	45900.000	46770.000
σ		1.070%	1.397	12.240	6.876	0.000	427.000	270.400	605.500
%RSD		1.400	3.014	1.338	0.780	0.000	0.932	0.589	1.295

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	1831.000	9207.000	0.000	46360.000	47460.000	47190.000	70.688%	955.500
2	17:02:34	1801.000	9353.000	0.000	47040.000	48330.000	48560.000	71.411%	978.800
3	17:02:42	1811.000	9434.000	0.000	47500.000	49860.000	49190.000	70.865%	991.800
x		1814.000	9331.000	0.000	46970.000	48550.000	48310.000	70.988%	975.300
σ		15.510	115.100	0.000	573.600	1213.000	1023.000	0.377%	18.380
%RSD		0.855	1.233	0.000	1.221	2.499	2.118	0.531	1.885

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	467.200	189.100	464.200	923.300	1163.000	480.600	479.100	228.600
2	17:02:34	465.300	188.900	480.000	924.500	1179.000	478.100	472.700	228.400
3	17:02:42	462.600	189.000	492.300	921.900	1149.000	476.500	475.600	226.100
x		465.100	189.000	478.800	923.200	1164.000	478.400	475.800	227.700
σ		2.308	0.114	14.110	1.275	15.450	2.068	3.195	1.381
%RSD		0.496	0.060	2.947	0.138	1.327	0.432	0.672	0.606

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	240.300	470.000	466.700	34.970	9.054	9.980	0.000	897.200
2	17:02:34	239.000	458.900	466.400	34.990	9.311	9.918	0.000	890.200
3	17:02:42	239.300	462.600	463.800	35.000	9.367	12.860	0.000	883.900
x		239.500	463.800	465.700	34.990	9.244	10.920	0.000	890.400
σ		0.691	5.640	1.577	0.015	0.167	1.682	0.000	6.673
%RSD		0.288	1.216	0.339	0.043	1.808	15.410	0.000	0.749

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	81.790%	970.900	1016.000	70.385%	49.350	50.500	52.480	100.700
2	17:02:34	82.114%	973.900	1012.000	70.420%	48.830	49.220	51.820	100.700
3	17:02:42	83.290%	966.800	1003.000	70.466%	48.860	49.950	52.200	98.960
x		82.398%	970.500	1010.000	70.424%	49.010	49.890	52.170	100.100
σ		0.789%	3.565	6.589	0.041%	0.291	0.641	0.333	1.014
%RSD		0.958	0.367	0.652	0.058	0.594	1.285	0.638	1.013

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	72.700%	2008.000	511.500	503.300	1897.000	1888.000	84.777%	85.929%
2	17:02:34	74.590%	1961.000	492.300	485.900	1851.000	1861.000	85.729%	86.485%
3	17:02:42	73.228%	1984.000	498.100	496.600	1876.000	1867.000	86.176%	87.170%
x		73.506%	1984.000	500.600	495.300	1875.000	1872.000	85.561%	86.528%
σ		0.975%	23.560	9.837	8.742	23.410	14.100	0.715%	0.622%
%RSD		1.326	1.187	1.965	1.765	1.249	0.753	0.835	0.718

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:26	45.980	44.960	18.700	18.440	18.820	88.343%
2	17:02:34	46.260	45.310	18.900	18.550	18.700	88.885%
3	17:02:42	46.520	45.400	18.410	19.490	18.930	88.393%
x		46.250	45.220	18.670	18.830	18.820	88.540%
σ		0.270	0.229	0.246	0.574	0.113	0.299%
%RSD		0.585	0.506	1.316	3.046	0.598	0.338

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	74.671%	0.025	966.400	896.200	0.000	165200.000	32410.000	32670.000
2	17:11:41	77.184%	-0.012	955.600	889.600	0.000	164000.000	32240.000	33000.000
3	17:11:48	76.255%	0.009	962.600	907.000	0.000	163400.000	32350.000	32330.000
x		76.037%	0.007	961.500	897.600	0.000	164200.000	32330.000	32670.000
σ		1.271%	0.018	5.494	8.772	0.000	886.500	87.290	334.800
%RSD		1.671	249.600	0.571	0.977	0.000	0.540	0.270	1.025

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	6.456	4116.000	0.000	11400.000	195900.000	192200.000	68.345%	2.873
2	17:11:41	6.479	4212.000	0.000	11810.000	206300.000	200400.000	67.747%	2.866
3	17:11:48	6.355	4227.000	0.000	11780.000	207800.000	203100.000	68.406%	3.321
x		6.430	4185.000	0.000	11660.000	203300.000	198600.000	68.166%	3.020
σ		0.066	60.510	0.000	230.100	6508.000	5650.000	0.365%	0.261
%RSD		1.031	1.446	0.000	1.973	3.201	2.845	0.535	8.640

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	1.944	1.864	4.115	1267.000	2329.000	0.439	3.092	2.122
2	17:11:41	3.135	1.904	4.487	1294.000	2309.000	0.362	3.082	2.087
3	17:11:48	3.117	2.056	4.415	1277.000	2273.000	0.435	2.635	2.007
x		2.732	1.941	4.339	1279.000	2304.000	0.412	2.937	2.072
σ		0.682	0.102	0.197	13.530	28.090	0.043	0.261	0.059
%RSD		24.980	5.234	4.543	1.058	1.220	10.500	8.892	2.862

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	3.610	7.308	8.399	2.834	0.250	14.060	0.000	825.700
2	17:11:41	3.800	8.102	7.661	2.814	0.063	14.540	0.000	826.300
3	17:11:48	3.880	8.172	8.938	2.944	0.062	13.500	0.000	822.900
x		3.763	7.860	8.333	2.864	0.125	14.030	0.000	825.000
σ		0.139	0.480	0.641	0.070	0.108	0.521	0.000	1.799
%RSD		3.679	6.107	7.690	2.458	86.270	3.708	0.000	0.218

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	77.495%	2.455	2.485	64.471%	-0.054	-0.057	0.045	0.063
2	17:11:41	78.013%	2.057	2.379	64.882%	-0.058	-0.058	0.015	0.080
3	17:11:48	78.419%	2.252	2.259	64.537%	-0.030	-0.047	0.089	0.092
x		77.975%	2.255	2.374	64.630%	-0.048	-0.054	0.049	0.078
σ		0.463%	0.199	0.113	0.221%	0.015	0.006	0.037	0.014
%RSD		0.594	8.809	4.765	0.341	31.620	11.020	75.260	18.280

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	69.111%	1.188	0.090	-0.399	22.690	24.090	80.716%	82.155%
2	17:11:41	70.204%	1.291	0.117	-0.407	24.060	23.570	82.105%	84.082%
3	17:11:48	70.699%	1.125	0.090	-0.471	23.760	23.950	82.102%	84.089%
x		70.005%	1.201	0.099	-0.426	23.500	23.870	81.641%	83.442%
σ		0.812%	0.084	0.016	0.039	0.723	0.269	0.801%	1.115%
%RSD		1.161	6.964	16.140	9.264	3.076	1.128	0.981	1.336

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:33	0.121	0.082	0.001	0.004	0.019	83.560%
2	17:11:41	0.072	0.093	0.014	0.016	0.009	84.324%
3	17:11:48	0.107	0.079	-0.008	0.003	0.000	85.845%
x		0.100	0.085	0.002	0.008	0.009	84.576%
σ		0.025	0.007	0.011	0.007	0.009	1.163%
%RSD		25.300	8.427	479.700	87.690	99.170	1.375

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	65.518%	0.989	1042.000	974.100	0.000	179900.000	38040.000	38730.000
2	17:16:43	66.496%	0.839	1083.000	995.100	0.000	177400.000	37820.000	38300.000
3	17:16:51	68.218%	0.924	1064.000	1002.000	0.000	176500.000	37610.000	38090.000
x		66.744%	0.918	1063.000	990.300	0.000	177900.000	37820.000	38370.000
σ		1.367%	0.075	20.500	14.430	0.000	1741.000	211.300	325.100
%RSD		2.048	8.170	1.928	1.457	0.000	0.979	0.559	0.847

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	10240.000	16350.000	0.000	13250.000	216400.000	212400.000	62.288%	128.500
2	17:16:43	10140.000	16690.000	0.000	13500.000	224300.000	220400.000	62.609%	133.600
3	17:16:51	10060.000	16990.000	0.000	13540.000	227200.000	223000.000	62.870%	139.700
x		10150.000	16680.000	0.000	13430.000	222700.000	218600.000	62.589%	133.900
σ		90.790	322.400	0.000	159.800	5582.000	5509.000	0.292%	5.627
%RSD		0.895	1.933	0.000	1.190	2.507	2.520	0.466	4.202

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	21.930	20.990	11970.000	23630.000	24200.000	20.990	55.400	35.190
2	17:16:43	22.060	20.860	12340.000	23470.000	24310.000	20.830	56.680	34.730
3	17:16:51	22.340	21.230	12530.000	23470.000	24130.000	20.740	54.360	34.560
x		22.110	21.030	12280.000	23520.000	24210.000	20.850	55.480	34.830
σ		0.209	0.187	281.000	89.620	87.830	0.127	1.164	0.327
%RSD		0.946	0.887	2.288	0.381	0.363	0.608	2.097	0.938

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	40.310	281.900	281.700	9.815	0.982	19.180	0.000	829.200
2	17:16:43	37.760	269.800	274.600	9.180	1.504	16.300	0.000	820.200
3	17:16:51	37.520	274.600	273.900	9.110	1.011	20.310	0.000	810.800
x		38.530	275.500	276.700	9.369	1.166	18.600	0.000	820.100
σ		1.548	6.109	4.296	0.388	0.293	2.066	0.000	9.202
%RSD		4.017	2.218	1.552	4.145	25.150	11.110	0.000	1.122

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	82.011%	3.023	3.341	59.677%	0.210	0.232	1.718	1.615
2	17:16:43	84.095%	2.855	2.928	60.112%	0.259	0.239	1.704	1.534
3	17:16:51	86.006%	2.436	3.042	60.977%	0.243	0.269	1.629	1.561
x		84.037%	2.771	3.103	60.255%	0.237	0.247	1.684	1.570
σ		1.998%	0.302	0.213	0.662%	0.025	0.020	0.047	0.041
%RSD		2.378	10.910	6.877	1.098	10.340	8.045	2.819	2.616

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	65.006%	1.742	0.545	-0.119	206.300	204.900	79.052%	80.856%
2	17:16:43	66.527%	2.097	0.406	-0.230	204.900	203.700	80.034%	81.946%
3	17:16:51	66.707%	1.839	0.487	-0.145	209.900	208.100	81.410%	82.678%
x		66.080%	1.893	0.480	-0.164	207.000	205.500	80.165%	81.827%
σ		0.934%	0.183	0.070	0.058	2.574	2.244	1.184%	0.917%
%RSD		1.414	9.670	14.560	35.240	1.243	1.092	1.477	1.121

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:35	0.215	0.272	33.530	31.860	32.760	79.963%
2	17:16:43	0.330	0.219	33.580	31.420	32.730	81.549%
3	17:16:51	0.257	0.239	32.800	31.590	32.480	82.595%
x		0.267	0.243	33.300	31.620	32.650	81.369%
σ		0.058	0.027	0.437	0.223	0.152	1.325%
%RSD		21.760	11.190	1.312	0.706	0.465	1.629

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	75.454%	-0.011	588.400	562.400	0.000	91370.000	19020.000	19170.000
2	17:21:48	76.078%	-0.018	625.900	581.400	0.000	92760.000	19040.000	19310.000
3	17:21:56	76.361%	-0.018	622.300	597.000	0.000	91880.000	18860.000	18820.000
x		75.964%	-0.016	612.200	580.300	0.000	92000.000	18970.000	19100.000
σ		0.464%	0.004	20.660	17.300	0.000	700.400	98.340	253.800
%RSD		0.611	27.020	3.375	2.982	0.000	0.761	0.518	1.329

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	12.030	4141.000	0.000	7257.000	105900.000	104400.000	68.035%	1.331
2	17:21:48	11.580	4308.000	0.000	7558.000	111500.000	109100.000	67.836%	1.530
3	17:21:56	11.140	4445.000	0.000	7684.000	114100.000	111800.000	67.296%	1.215
x		11.580	4298.000	0.000	7500.000	110500.000	108400.000	67.722%	1.359
σ		0.445	152.100	0.000	219.500	4221.000	3750.000	0.382%	0.159
%RSD		3.846	3.538	0.000	2.927	3.820	3.459	0.565	11.720

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	3.455	1.608	3.110	21.580	596.400	0.239	2.050	2.289
2	17:21:48	3.429	1.850	3.056	21.890	589.700	0.242	2.142	2.214
3	17:21:56	3.370	1.967	3.204	20.210	542.800	0.259	2.479	2.257
x		3.418	1.808	3.123	21.230	576.300	0.247	2.224	2.253
σ		0.044	0.183	0.075	0.897	29.180	0.011	0.226	0.037
%RSD		1.284	10.140	2.406	4.223	5.063	4.506	10.160	1.654

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	3.493	5.790	6.419	2.142	0.345	7.495	0.000	453.700
2	17:21:48	3.389	5.344	5.527	1.944	0.110	9.454	0.000	449.600
3	17:21:56	3.438	5.745	5.491	1.954	0.387	8.108	0.000	441.600
x		3.440	5.626	5.812	2.013	0.281	8.352	0.000	448.300
σ		0.052	0.246	0.526	0.111	0.149	1.002	0.000	6.179
%RSD		1.501	4.363	9.046	5.534	53.100	12.000	0.000	1.378

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	77.313%	0.929	0.974	65.421%	-0.052	-0.051	0.044	0.062
2	17:21:48	77.743%	0.866	0.990	65.511%	-0.055	-0.037	0.014	0.111
3	17:21:56	78.723%	1.001	0.945	64.714%	-0.048	-0.047	0.044	0.044
x		77.927%	0.932	0.970	65.215%	-0.052	-0.045	0.034	0.072
σ		0.723%	0.068	0.023	0.437%	0.004	0.007	0.017	0.035
%RSD		0.927	7.251	2.351	0.670	7.282	16.060	50.080	48.120

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	69.997%	0.304	0.228	-0.315	23.170	22.640	81.333%	82.675%
2	17:21:48	70.126%	0.320	0.096	-0.344	23.370	22.630	81.795%	83.716%
3	17:21:56	70.128%	0.124	0.144	-0.424	24.240	22.410	82.645%	84.037%
x		70.084%	0.249	0.156	-0.361	23.590	22.560	81.924%	83.476%
σ		0.075%	0.109	0.067	0.056	0.570	0.131	0.665%	0.712%
%RSD		0.107	43.590	43.160	15.650	2.417	0.581	0.812	0.853

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:40	0.046	0.045	0.006	0.033	0.029	86.272%
2	17:21:48	0.045	0.050	0.011	0.036	0.028	87.691%
3	17:21:56	0.048	0.035	-0.012	0.033	0.024	87.031%
x		0.046	0.043	0.002	0.034	0.027	86.998%
σ		0.002	0.008	0.012	0.002	0.003	0.710%
%RSD		3.400	17.290	720.900	4.963	11.000	0.816

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	70.755%	0.467	585.400	554.000	0.000	88360.000	19830.000	19890.000
2	17:26:52	69.942%	0.488	611.200	586.600	0.000	90260.000	19860.000	20330.000
3	17:27:00	71.013%	0.561	607.200	574.300	0.000	90800.000	20200.000	20160.000
x		70.570%	0.505	601.300	571.600	0.000	89810.000	19960.000	20130.000
σ		0.559%	0.049	13.920	16.470	0.000	1280.000	204.200	225.000
%RSD		0.792	9.774	2.315	2.882	0.000	1.426	1.023	1.118

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	6464.000	11150.000	0.000	7798.000	104800.000	104100.000	63.473%	81.680
2	17:26:52	6548.000	11620.000	0.000	8067.000	110900.000	108700.000	62.974%	82.880
3	17:27:00	6609.000	11830.000	0.000	8147.000	112800.000	111800.000	62.483%	84.280
x		6541.000	11530.000	0.000	8004.000	109500.000	108200.000	62.977%	82.940
σ		72.850	349.800	0.000	182.600	4177.000	3873.000	0.495%	1.301
%RSD		1.114	3.033	0.000	2.282	3.815	3.579	0.786	1.569

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	14.120	13.070	3739.000	13150.000	13440.000	8.676	23.940	20.970
2	17:26:52	14.180	12.930	3914.000	13260.000	13570.000	8.733	23.270	21.380
3	17:27:00	14.830	13.300	3993.000	13540.000	13770.000	8.943	23.920	21.020
x		14.380	13.100	3882.000	13320.000	13590.000	8.784	23.710	21.120
σ		0.391	0.189	129.800	200.700	166.300	0.141	0.380	0.222
%RSD		2.717	1.443	3.342	1.507	1.224	1.601	1.602	1.052

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	24.590	168.100	170.800	6.028	0.773	5.663	0.000	427.600
2	17:26:52	23.420	170.200	172.200	5.828	0.783	10.220	0.000	426.000
3	17:27:00	22.470	171.100	170.800	5.955	0.615	10.910	0.000	422.600
x		23.490	169.800	171.200	5.937	0.724	8.931	0.000	425.400
σ		1.064	1.542	0.802	0.101	0.094	2.851	0.000	2.536
%RSD		4.531	0.908	0.469	1.700	13.000	31.920	0.000	0.596

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	78.456%	1.346	1.749	61.216%	0.141	0.169	0.629	0.833
2	17:26:52	80.597%	1.560	1.600	62.010%	0.106	0.093	0.873	0.692
3	17:27:00	81.696%	1.546	1.373	62.850%	0.108	0.135	0.759	0.657
x		80.250%	1.484	1.574	62.025%	0.118	0.133	0.754	0.727
σ		1.648%	0.120	0.189	0.817%	0.019	0.038	0.122	0.094
%RSD		2.053	8.060	12.030	1.318	16.370	28.620	16.140	12.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	66.100%	1.086	0.433	-0.131	105.000	102.900	80.095%	81.648%
2	17:26:52	68.516%	0.929	0.415	-0.201	102.500	100.800	81.347%	83.348%
3	17:27:00	68.856%	0.773	0.345	-0.186	106.400	102.400	81.170%	82.996%
x		67.824%	0.930	0.398	-0.173	104.600	102.000	80.871%	82.664%
σ		1.503%	0.157	0.046	0.037	1.968	1.101	0.677%	0.898%
%RSD		2.216	16.840	11.590	21.350	1.881	1.079	0.838	1.086

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:45	0.168	0.148	18.090	17.130	17.540	84.490%
2	17:26:52	0.129	0.141	17.640	16.740	17.130	88.050%
3	17:27:00	0.126	0.149	17.410	16.520	17.170	88.414%
x		0.141	0.146	17.710	16.800	17.280	86.985%
σ		0.023	0.004	0.345	0.308	0.226	2.168%
%RSD		16.660	3.007	1.949	1.834	1.310	2.492

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	76.935%	-0.005	500.400	470.400	0.000	70560.000	15070.000	15170.000
2	17:31:59	79.225%	-0.040	505.200	461.200	0.000	69230.000	15010.000	15060.000
3	17:32:07	78.518%	0.001	517.000	481.800	0.000	68820.000	14840.000	14880.000
x		78.226%	-0.015	507.500	471.100	0.000	69540.000	14970.000	15040.000
σ		1.173%	0.022	8.518	10.340	0.000	913.800	121.100	148.400
%RSD		1.499	148.800	1.678	2.195	0.000	1.314	0.809	0.987

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	15.750	4507.000	0.000	6112.000	84560.000	86170.000	67.743%	1.597
2	17:31:59	15.860	4594.000	0.000	6139.000	86380.000	89340.000	67.452%	1.081
3	17:32:07	15.750	4690.000	0.000	6278.000	88740.000	86530.000	67.169%	1.349
x		15.790	4597.000	0.000	6176.000	86560.000	87350.000	67.455%	1.342
σ		0.065	91.450	0.000	89.270	2093.000	1733.000	0.287%	0.258
%RSD		0.411	1.989	0.000	1.445	2.418	1.984	0.425	19.210

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	3.040	1.719	3.665	30.940	484.800	0.209	3.102	2.577
2	17:31:59	3.453	1.835	3.601	30.400	439.400	0.206	2.764	2.739
3	17:32:07	3.614	1.943	3.724	31.110	453.300	0.204	2.774	2.451
x		3.369	1.832	3.663	30.820	459.100	0.206	2.880	2.589
σ		0.296	0.112	0.061	0.369	23.280	0.003	0.192	0.144
%RSD		8.781	6.101	1.672	1.198	5.071	1.257	6.673	5.567

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	3.465	4.698	6.048	1.545	0.328	6.249	0.000	351.500
2	17:31:59	3.396	4.519	4.665	1.551	0.252	6.194	0.000	343.400
3	17:32:07	3.468	4.774	4.383	1.493	0.276	7.938	0.000	344.700
x		3.443	4.664	5.032	1.529	0.285	6.794	0.000	346.500
σ		0.041	0.131	0.891	0.032	0.039	0.992	0.000	4.341
%RSD		1.181	2.803	17.710	2.069	13.770	14.600	0.000	1.253

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	75.608%	0.839	0.592	64.671%	-0.082	-0.075	0.015	0.038
2	17:31:59	77.470%	0.667	0.633	64.937%	-0.072	-0.076	0.059	0.044
3	17:32:07	77.336%	0.631	0.643	64.606%	-0.086	-0.061	0.030	0.082
x		76.804%	0.713	0.623	64.738%	-0.080	-0.071	0.034	0.055
σ		1.039%	0.111	0.027	0.176%	0.007	0.008	0.022	0.024
%RSD		1.352	15.600	4.404	0.271	8.826	11.720	65.270	43.270

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	69.012%	0.565	0.126	-0.348	18.590	18.220	80.989%	82.701%
2	17:31:59	70.095%	0.481	0.056	-0.525	18.330	17.550	83.101%	83.810%
3	17:32:07	69.182%	0.296	0.080	-0.481	17.050	18.420	81.915%	83.875%
x		69.430%	0.447	0.087	-0.451	17.990	18.060	82.002%	83.462%
σ		0.582%	0.138	0.035	0.092	0.822	0.452	1.059%	0.660%
%RSD		0.839	30.790	40.700	20.490	4.567	2.505	1.291	0.790

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:51	0.032	0.023	0.019	0.091	0.029	85.983%
2	17:31:59	0.024	0.025	0.025	0.052	0.053	86.354%
3	17:32:07	0.032	0.029	0.028	0.067	0.050	87.002%
x		0.029	0.025	0.024	0.070	0.044	86.447%
σ		0.005	0.003	0.005	0.019	0.013	0.516%
%RSD		16.400	12.460	19.020	27.850	30.380	0.597

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	73.832%	0.203	519.900	486.800	0.000	72200.000	16050.000	16310.000
2	17:37:07	73.112%	0.328	536.700	503.700	0.000	73730.000	16420.000	16420.000
3	17:37:14	73.015%	0.213	553.100	512.000	0.000	74070.000	16640.000	16760.000
x		73.320%	0.248	536.600	500.800	0.000	73330.000	16370.000	16500.000
σ		0.446%	0.069	16.630	12.840	0.000	999.900	296.800	234.000
%RSD		0.609	27.860	3.100	2.563	0.000	1.363	1.813	1.418

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	2866.000	7777.000	0.000	6527.000	86850.000	85490.000	65.785%	42.930
2	17:37:07	2944.000	8324.000	0.000	6830.000	91970.000	95860.000	63.723%	47.330
3	17:37:14	2973.000	8519.000	0.000	6970.000	93980.000	92910.000	63.586%	45.070
x		2928.000	8207.000	0.000	6776.000	90930.000	91420.000	64.364%	45.110
σ		55.460	384.900	0.000	226.700	3678.000	5344.000	1.232%	2.201
%RSD		1.894	4.690	0.000	3.346	4.045	5.845	1.914	4.879

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	7.088	6.650	1760.000	6079.000	6372.000	4.149	12.360	11.290
2	17:37:07	7.706	6.888	1866.000	6239.000	6564.000	4.187	12.670	10.540
3	17:37:14	8.044	6.673	1918.000	6236.000	6526.000	4.528	12.430	11.380
x		7.613	6.737	1848.000	6185.000	6487.000	4.288	12.490	11.070
σ		0.485	0.131	80.860	91.800	102.100	0.209	0.164	0.462
%RSD		6.368	1.947	4.376	1.484	1.573	4.863	1.311	4.172

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	12.940	81.730	85.560	3.501	0.378	6.277	0.000	366.400
2	17:37:07	13.090	86.690	87.460	3.484	0.401	5.901	0.000	360.600
3	17:37:14	12.830	85.840	87.590	3.606	0.707	7.533	0.000	359.900
x		12.950	84.750	86.870	3.530	0.495	6.570	0.000	362.300
σ		0.135	2.654	1.136	0.066	0.184	0.855	0.000	3.556
%RSD		1.041	3.132	1.308	1.869	37.060	13.010	0.000	0.982

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	75.958%	1.003	0.900	61.589%	0.044	0.015	0.390	0.362
2	17:37:07	77.198%	0.727	0.892	62.306%	-0.002	0.020	0.444	0.266
3	17:37:14	77.838%	1.085	1.005	62.835%	0.033	0.038	0.320	0.209
x		76.998%	0.938	0.933	62.243%	0.025	0.024	0.385	0.279
σ		0.956%	0.188	0.063	0.626%	0.024	0.012	0.062	0.077
%RSD		1.241	20.020	6.757	1.005	95.740	49.820	16.170	27.710

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	66.845%	0.156	0.234	-0.344	59.940	57.950	79.664%	80.054%
2	17:37:07	68.203%	0.039	0.169	-0.371	60.050	59.340	80.962%	80.960%
3	17:37:14	68.341%	0.083	0.249	-0.441	59.880	59.020	81.031%	82.884%
x		67.796%	0.093	0.217	-0.385	59.960	58.770	80.553%	81.299%
σ		0.826%	0.059	0.043	0.050	0.087	0.733	0.770%	1.445%
%RSD		1.219	63.610	19.710	13.070	0.145	1.246	0.956	1.777

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:36:59	0.046	0.075	8.335	7.661	8.125	86.471%
2	17:37:07	0.110	0.071	8.588	7.996	8.142	87.907%
3	17:37:14	0.069	0.069	8.493	7.675	8.046	88.869%
x		0.075	0.072	8.472	7.777	8.104	87.749%
σ		0.033	0.003	0.128	0.190	0.051	1.207%
%RSD		43.700	4.622	1.513	2.437	0.627	1.375

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	77.575%	0.001	109.100	103.600	0.000	14590.000	3251.000	3240.000
2	17:42:12	79.642%	0.066	108.900	102.100	0.000	14470.000	3254.000	3219.000
3	17:42:20	77.951%	0.008	114.600	103.200	0.000	14770.000	3265.000	3287.000
x		78.389%	0.025	110.900	103.000	0.000	14610.000	3257.000	3249.000
σ		1.101%	0.035	3.230	0.764	0.000	152.200	7.670	34.850
%RSD		1.404	142.000	2.912	0.742	0.000	1.041	0.236	1.073

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	571.000	1643.000	0.000	1372.000	17890.000	16830.000	69.145%	9.373
2	17:42:12	565.200	1643.000	0.000	1381.000	18110.000	17060.000	69.892%	9.336
3	17:42:20	569.700	1674.000	0.000	1407.000	18620.000	17440.000	68.285%	10.100
x		568.700	1653.000	0.000	1386.000	18210.000	17110.000	69.107%	9.605
σ		3.057	18.040	0.000	18.260	372.800	309.100	0.804%	0.434
%RSD		0.538	1.091	0.000	1.317	2.048	1.807	1.163	4.515

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	1.380	1.356	370.700	1207.000	1338.000	0.868	2.638	2.347
2	17:42:12	1.429	1.382	372.900	1209.000	1283.000	0.807	2.454	2.413
3	17:42:20	1.687	1.311	386.500	1235.000	1285.000	0.809	2.819	2.527
x		1.499	1.350	376.700	1217.000	1302.000	0.828	2.637	2.429
σ		0.165	0.036	8.535	15.450	31.050	0.034	0.182	0.091
%RSD		11.020	2.637	2.266	1.270	2.384	4.129	6.911	3.733

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	3.208	18.610	19.290	0.447	0.133	5.291	0.000	73.630
2	17:42:12	2.763	17.740	17.740	0.566	0.038	2.904	0.000	73.390
3	17:42:20	2.466	18.900	18.350	0.593	0.130	2.180	0.000	74.600
x		2.812	18.420	18.460	0.535	0.100	3.458	0.000	73.870
σ		0.374	0.599	0.777	0.078	0.054	1.628	0.000	0.642
%RSD		13.290	3.252	4.207	14.490	53.830	47.070	0.000	0.868

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	77.339%	0.133	0.150	68.039%	-0.037	-0.056	0.058	0.097
2	17:42:12	79.069%	0.289	0.280	68.213%	-0.064	-0.053	0.100	0.060
3	17:42:20	79.608%	0.174	0.206	68.311%	-0.068	-0.056	0.042	0.077
x		78.672%	0.198	0.212	68.187%	-0.056	-0.055	0.067	0.078
σ		1.186%	0.081	0.065	0.138%	0.017	0.002	0.030	0.019
%RSD		1.507	40.800	30.770	0.202	29.820	3.494	44.700	24.060

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	70.776%	0.041	-0.011	-0.500	11.170	11.420	82.331%	83.096%
2	17:42:12	71.801%	-0.149	-0.017	-0.581	12.730	11.660	81.691%	82.871%
3	17:42:20	72.089%	-0.117	-0.013	-0.594	10.850	12.410	82.711%	83.255%
x		71.555%	-0.075	-0.013	-0.558	11.580	11.830	82.244%	83.074%
σ		0.690%	0.102	0.003	0.051	1.007	0.517	0.515%	0.193%
%RSD		0.964	135.400	20.960	9.139	8.693	4.369	0.627	0.233

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:05	0.012	0.025	1.651	1.545	1.627	90.512%
2	17:42:12	0.030	0.023	1.599	1.580	1.620	90.573%
3	17:42:20	0.025	0.023	1.556	1.518	1.553	91.235%
x		0.022	0.024	1.602	1.548	1.600	90.773%
σ		0.010	0.001	0.048	0.031	0.041	0.401%
%RSD		42.420	4.521	2.972	2.007	2.542	0.442

CCV 1241000 9/6/2014 5:48:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	76.646%	97.110	96.560	92.110	0.000	48810.000	51190.000	51820.000
2	17:47:19	79.285%	93.160	92.790	91.060	0.000	48640.000	50690.000	52290.000
3	17:47:26	79.587%	97.180	97.550	92.540	0.000	49880.000	51100.000	47490.000
x		78.506%	95.816%	95.637%	91.900%	0.000	98.218%	101.987%	101.066%
σ		1.618%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.061	2.401	2.626	0.830	0.000	1.369	0.531	5.239

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	490.600	5141.000	0.000	48900.000	50040.000	48860.000	71.351%	99.960
2	17:47:19	497.200	5314.000	0.000	49750.000	51400.000	50630.000	71.236%	99.880
3	17:47:26	498.200	5428.000	0.000	50420.000	52390.000	51750.000	71.665%	103.500
x		99.066%	105.886%	0.000	99.377%	102.547%	100.831%	71.417%	101.121%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.222%	n/a
%RSD		0.826	2.729	0.000	1.540	2.302	2.892	0.311	2.061

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	99.210	101.200	493.300	24730.000	24140.000	100.800	101.600	98.110
2	17:47:19	101.400	101.700	510.900	24970.000	24510.000	103.100	104.200	96.540
3	17:47:26	99.940	102.900	521.100	24850.000	24800.000	100.100	102.300	95.730
x		100.185%	101.912%	101.684%	99.395%	97.941%	101.318%	102.727%	96.791%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.115	0.852	2.766	0.491	1.341	1.575	1.311	1.247

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	103.000	96.800	99.600	92.160	90.020	96.780	0.000	93.390
2	17:47:19	100.500	101.300	100.700	93.160	91.260	98.340	0.000	93.040
3	17:47:26	101.900	101.200	100.200	91.810	94.170	102.900	0.000	92.430
x		101.815%	99.778%	100.149%	92.376%	91.814%	99.350%	0.000	92.955%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.236	2.589	0.533	0.759	2.320	3.220	0.000	0.521

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	82.974%	102.100	103.700	70.894%	107.000	107.500	107.700	109.500
2	17:47:19	84.652%	102.800	106.000	71.548%	107.700	107.900	106.600	108.500
3	17:47:26	86.751%	100.400	103.800	72.365%	107.600	106.700	106.500	109.400
x		84.792%	101.777%	104.527%	71.602%	107.454%	107.391%	106.930%	109.150%
σ		1.893%	n/a	n/a	0.737%	n/a	n/a	n/a	n/a
%RSD		2.232	1.188	1.258	1.029	0.328	0.560	0.639	0.506

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	74.272%	101.900	102.900	102.600	102.000	101.200	83.921%	83.562%
2	17:47:19	77.065%	100.200	102.300	101.500	101.500	100.200	84.918%	84.939%
3	17:47:26	76.564%	102.600	103.200	102.100	101.200	101.200	86.407%	86.542%
x		75.967%	101.576%	102.782%	102.097%	101.568%	100.833%	85.082%	85.014%
σ		1.489%	n/a	n/a	n/a	n/a	n/a	1.251%	1.491%
%RSD		1.960	1.239	0.438	0.536	0.410	0.559	1.470	1.754

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:47:11	98.640	98.390	97.550	99.620	99.480	90.930%
2	17:47:19	100.900	100.300	99.720	101.800	100.800	91.806%
3	17:47:26	100.200	99.060	99.670	100.500	100.100	93.418%
x		99.913%	99.246%	98.978%	100.637%	100.134%	92.051%
σ		n/a	n/a	n/a	n/a	n/a	1.262%
%RSD		1.165	0.977	1.249	1.092	0.676	1.371

CCB2 9/6/2014 5:57:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	92.633%	0.008	1.466	1.363	0.000	18.620	8.147	8.727
2	17:56:27	94.217%	0.002	2.025	1.568	0.000	19.880	9.947	9.464
3	17:56:35	94.421%	-0.004	1.645	1.415	0.000	18.540	10.320	9.560
x		93.757%	0.002	1.712	1.449	0.000	19.010	9.470	9.250
σ		0.979%	0.006	0.286	0.107	0.000	0.754	1.161	0.456
%RSD		1.044	298.100	16.680	7.354	0.000	3.964	12.260	4.929

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	1.854	0.277	0.000	7.984	10.120	8.115	84.835%	0.049
2	17:56:27	2.026	0.666	0.000	8.070	3.194	10.010	83.515%	0.050
3	17:56:35	2.150	0.007	0.000	7.691	7.662	9.852	85.228%	0.152
x		2.010	0.317	0.000	7.915	6.993	9.326	84.526%	0.083
σ		0.149	0.332	0.000	0.199	3.512	1.052	0.897%	0.059
%RSD		7.402	104.700	0.000	2.511	50.230	11.280	1.061	70.980

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	0.025	0.026	0.112	5.862	5.656	0.023	0.055	-0.001
2	17:56:27	-0.017	0.014	0.118	5.922	6.380	0.017	0.009	-0.005
3	17:56:35	0.005	0.014	0.097	5.451	1.386	0.015	-0.002	0.005
x		0.004	0.018	0.109	5.745	4.474	0.018	0.020	0.000
σ		0.021	0.007	0.011	0.257	2.699	0.004	0.030	0.005
%RSD		475.500	38.470	10.120	4.465	60.310	23.480	148.600	49790.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	0.010	-0.051	-0.002	-0.004	0.002	3.090	0.000	0.020
2	17:56:27	0.026	-0.065	0.175	0.010	0.117	1.626	0.000	-0.002
3	17:56:35	0.048	0.080	-0.066	-0.008	-0.000	2.255	0.000	0.023
x		0.028	-0.012	0.036	-0.000	0.039	2.324	0.000	0.014
σ		0.019	0.080	0.125	0.009	0.067	0.735	0.000	0.014
%RSD		68.540	652.700	348.800	1847.000	170.800	31.610	0.000	100.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	91.852%	0.080	0.013	84.540%	-0.042	-0.035	0.012	0.005
2	17:56:27	93.271%	0.045	0.162	85.853%	-0.040	-0.022	0.023	-0.000
3	17:56:35	94.927%	0.058	0.112	85.391%	-0.059	-0.056	0.046	0.009
x		93.350%	0.061	0.095	85.262%	-0.047	-0.038	0.027	0.005
σ		1.539%	0.018	0.076	0.666%	0.010	0.017	0.018	0.005
%RSD		1.649	29.410	79.300	0.781	22.240	44.670	65.330	101.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	85.530%	-0.514	0.148	-0.461	0.015	0.019	90.859%	92.344%
2	17:56:27	86.567%	-0.301	0.134	-0.493	0.081	0.006	90.517%	91.095%
3	17:56:35	87.896%	-0.464	0.127	-0.499	0.015	-0.006	92.488%	93.069%
x		86.664%	-0.426	0.136	-0.484	0.037	0.006	91.288%	92.169%
σ		1.186%	0.111	0.011	0.020	0.038	0.012	1.054%	0.999%
%RSD		1.368	26.120	7.761	4.200	102.000	193.700	1.154	1.083

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:19	0.019	0.014	0.032	0.023	0.022	105.319%
2	17:56:27	0.026	0.028	-0.003	0.030	0.022	104.920%
3	17:56:35	0.010	0.027	0.010	0.016	0.019	106.253%
x		0.018	0.023	0.013	0.023	0.021	105.497%
σ		0.008	0.008	0.018	0.007	0.001	0.684%
%RSD		44.990	32.860	138.800	28.920	6.802	0.649

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	75.157%	-0.004	551.400	510.500	0.000	76120.000	16360.000	16540.000
2	18:01:36	75.269%	-0.025	542.500	522.600	0.000	78890.000	16930.000	16890.000
3	18:01:44	77.923%	-0.006	548.900	510.000	0.000	77780.000	16660.000	16710.000
x		76.116%	-0.011	547.600	514.400	0.000	77600.000	16650.000	16710.000
σ		1.566%	0.012	4.582	7.147	0.000	1393.000	284.900	174.000
%RSD		2.057	102.300	0.837	1.390	0.000	1.796	1.711	1.041

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	74.420	5029.000	0.000	6357.000	92960.000	91270.000	64.973%	1.293
2	18:01:36	76.790	5203.000	0.000	6593.000	96370.000	95550.000	63.949%	1.728
3	18:01:44	76.060	5240.000	0.000	6657.000	97760.000	97810.000	64.256%	1.377
x		75.760	5157.000	0.000	6536.000	95690.000	94880.000	64.393%	1.466
σ		1.215	112.900	0.000	158.400	2471.000	3323.000	0.525%	0.231
%RSD		1.603	2.190	0.000	2.423	2.583	3.502	0.816	15.740

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	2.868	1.878	4.202	27.500	478.500	0.272	3.192	2.577
2	18:01:36	3.911	2.127	4.159	27.220	466.100	0.251	3.352	2.581
3	18:01:44	3.510	2.171	4.429	27.610	472.800	0.217	3.254	2.533
x		3.430	2.059	4.263	27.440	472.500	0.246	3.266	2.564
σ		0.526	0.158	0.145	0.203	6.223	0.028	0.080	0.027
%RSD		15.340	7.673	3.404	0.740	1.317	11.220	2.463	1.040

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	3.655	6.889	6.666	2.059	0.244	6.043	0.000	384.600
2	18:01:36	3.873	6.460	7.078	1.948	0.187	7.191	0.000	374.000
3	18:01:44	3.225	6.700	7.293	2.244	0.237	5.932	0.000	378.900
x		3.584	6.683	7.013	2.083	0.223	6.389	0.000	379.200
σ		0.330	0.215	0.319	0.150	0.031	0.697	0.000	5.327
%RSD		9.198	3.218	4.544	7.194	13.850	10.910	0.000	1.405

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	73.229%	0.459	0.621	61.529%	-0.058	-0.044	0.047	0.055
2	18:01:36	76.535%	0.581	0.506	62.164%	-0.070	-0.034	0.030	0.078
3	18:01:44	75.811%	0.443	0.617	62.420%	-0.092	-0.049	0.107	0.097
x		75.192%	0.494	0.582	62.038%	-0.073	-0.043	0.062	0.077
σ		1.738%	0.076	0.065	0.459%	0.017	0.008	0.040	0.021
%RSD		2.311	15.310	11.220	0.740	23.220	17.920	65.610	27.430

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	65.802%	0.035	0.188	-0.318	18.000	17.610	79.136%	80.299%
2	18:01:36	67.458%	0.022	0.158	-0.429	18.190	17.800	79.161%	80.983%
3	18:01:44	67.796%	-0.093	0.148	-0.409	18.140	18.960	80.319%	81.394%
x		67.019%	-0.012	0.165	-0.385	18.110	18.130	79.538%	80.892%
σ		1.067%	0.070	0.021	0.059	0.097	0.733	0.676%	0.553%
%RSD		1.592	586.900	12.610	15.340	0.535	4.043	0.850	0.684

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:01:28	0.013	0.016	0.041	0.078	0.057	84.243%
2	18:01:36	0.010	0.010	0.037	0.077	0.045	85.141%
3	18:01:44	-0.001	0.013	0.071	0.048	0.068	87.000%
x		0.007	0.013	0.050	0.068	0.057	85.461%
σ		0.008	0.003	0.019	0.017	0.012	1.406%
%RSD		103.200	26.810	37.610	25.180	20.900	1.645

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	72.045%	0.108	551.000	509.700	0.000	77050.000	16840.000	16870.000
2	18:06:41	73.656%	0.076	544.600	508.900	0.000	76100.000	16640.000	16830.000
3	18:06:49	75.680%	0.072	546.200	509.100	0.000	75960.000	16720.000	17110.000
x		73.794%	0.085	547.200	509.200	0.000	76370.000	16730.000	16940.000
σ		1.821%	0.020	3.327	0.403	0.000	592.900	101.300	153.500
%RSD		2.468	23.080	0.608	0.079	0.000	0.776	0.605	0.907

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	1228.000	6174.000	0.000	6536.000	92620.000	91930.000	63.526%	21.030
2	18:06:41	1214.000	6145.000	0.000	6419.000	92900.000	91140.000	65.757%	23.470
3	18:06:49	1245.000	6546.000	0.000	6864.000	99390.000	97500.000	62.259%	21.950
x		1229.000	6288.000	0.000	6606.000	94970.000	93520.000	63.847%	22.150
σ		15.530	223.500	0.000	230.500	3835.000	3469.000	1.771%	1.230
%RSD		1.264	3.554	0.000	3.489	4.038	3.709	2.774	5.553

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	4.518	3.875	922.100	2741.000	3047.000	2.171	8.096	6.178
2	18:06:41	4.703	3.803	914.300	2661.000	2919.000	1.943	7.462	5.810
3	18:06:49	5.010	3.872	986.900	2808.000	3046.000	2.020	7.297	6.009
x		4.744	3.850	941.100	2737.000	3004.000	2.045	7.618	5.999
σ		0.248	0.041	39.860	73.800	73.680	0.116	0.421	0.184
%RSD		5.237	1.058	4.235	2.696	2.453	5.692	5.531	3.065

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	7.786	78.200	76.760	2.432	0.514	6.183	0.000	380.400
2	18:06:41	7.251	72.880	76.260	2.179	0.377	5.621	0.000	374.800
3	18:06:49	7.655	79.210	77.790	2.700	0.335	8.056	0.000	371.400
x		7.564	76.770	76.940	2.437	0.408	6.620	0.000	375.500
σ		0.279	3.398	0.783	0.261	0.094	1.275	0.000	4.532
%RSD		3.689	4.426	1.017	10.700	22.990	19.260	0.000	1.207

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	74.007%	0.581	0.462	61.167%	-0.033	0.011	0.454	0.279
2	18:06:41	76.294%	0.492	0.597	62.275%	-0.041	-0.031	0.246	0.332
3	18:06:49	76.479%	0.493	0.712	61.819%	-0.023	-0.008	0.450	0.367
x		75.593%	0.522	0.590	61.754%	-0.032	-0.009	0.383	0.326
σ		1.377%	0.051	0.125	0.557%	0.009	0.021	0.119	0.044
%RSD		1.821	9.817	21.170	0.902	29.300	232.300	31.010	13.590

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	66.747%	-0.153	0.134	-0.388	34.860	34.140	77.669%	79.702%
2	18:06:41	67.695%	-0.151	0.144	-0.565	35.690	34.520	79.832%	80.621%
3	18:06:49	67.064%	-0.092	0.178	-0.433	35.070	34.010	79.224%	80.321%
x		67.169%	-0.132	0.152	-0.462	35.210	34.230	78.908%	80.214%
σ		0.482%	0.035	0.023	0.092	0.432	0.265	1.115%	0.469%
%RSD		0.718	26.190	15.340	19.900	1.228	0.774	1.413	0.584

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:33	0.029	0.044	3.934	3.540	3.731	86.213%
2	18:06:41	0.037	0.033	3.876	3.746	3.837	86.969%
3	18:06:49	0.032	0.034	3.598	3.658	3.690	87.403%
x		0.033	0.037	3.802	3.648	3.753	86.862%
σ		0.004	0.006	0.180	0.103	0.076	0.602%
%RSD		12.480	15.290	4.730	2.831	2.023	0.694

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	74.739%	-0.024	675.600	624.300	0.000	94990.000	20230.000	20480.000
2	18:11:44	76.361%	-0.032	663.500	621.000	0.000	94240.000	19860.000	20050.000
3	18:11:51	76.360%	-0.032	660.800	621.900	0.000	95120.000	20250.000	20430.000
x		75.820%	-0.029	666.600	622.400	0.000	94780.000	20110.000	20320.000
σ		0.936%	0.004	7.854	1.703	0.000	474.700	217.500	235.600
%RSD		1.234	14.910	1.178	0.274	0.000	0.501	1.081	1.160

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	15.850	5592.000	0.000	7477.000	114700.000	112200.000	64.363%	1.409
2	18:11:44	15.620	5703.000	0.000	7627.000	117600.000	117300.000	65.238%	1.862
3	18:11:51	15.460	5904.000	0.000	7854.000	121400.000	119400.000	63.578%	1.392
x		15.640	5733.000	0.000	7653.000	117900.000	116300.000	64.393%	1.554
σ		0.197	158.000	0.000	189.700	3357.000	3705.000	0.830%	0.267
%RSD		1.259	2.757	0.000	2.479	2.847	3.187	1.289	17.170

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	3.366	1.932	6.423	20.150	580.600	0.293	3.378	2.251
2	18:11:44	3.545	1.881	6.490	19.940	551.100	0.258	3.286	2.232
3	18:11:51	3.401	1.974	6.845	19.880	517.900	0.234	3.183	2.364
x		3.437	1.929	6.586	19.990	549.800	0.262	3.283	2.283
σ		0.095	0.047	0.227	0.140	31.360	0.030	0.097	0.072
%RSD		2.754	2.425	3.440	0.698	5.703	11.310	2.969	3.133

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	3.789	13.560	11.280	1.920	0.168	11.350	0.000	465.500
2	18:11:44	3.346	11.690	11.570	1.995	0.163	7.681	0.000	462.300
3	18:11:51	3.174	11.230	12.010	2.046	0.190	7.469	0.000	460.300
x		3.436	12.160	11.620	1.987	0.174	8.834	0.000	462.700
σ		0.317	1.233	0.365	0.064	0.014	2.184	0.000	2.601
%RSD		9.233	10.140	3.141	3.203	8.232	24.720	0.000	0.562

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	74.384%	0.463	0.398	61.681%	-0.070	-0.089	0.046	0.047
2	18:11:44	76.109%	0.471	0.517	62.606%	-0.056	-0.064	0.061	0.015
3	18:11:51	75.712%	0.472	0.479	62.591%	-0.092	-0.064	0.061	0.072
x		75.402%	0.469	0.465	62.293%	-0.072	-0.072	0.056	0.045
σ		0.904%	0.005	0.061	0.530%	0.018	0.015	0.009	0.029
%RSD		1.199	1.040	13.110	0.850	25.080	20.450	15.210	64.310

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	66.767%	-0.351	0.101	-0.459	18.820	19.140	77.759%	79.659%
2	18:11:44	67.327%	-0.198	0.113	-0.469	20.960	19.100	79.159%	79.433%
3	18:11:51	67.344%	-0.233	0.090	-0.470	20.450	18.510	79.422%	81.046%
x		67.146%	-0.261	0.102	-0.466	20.070	18.920	78.780%	80.046%
σ		0.328%	0.080	0.012	0.006	1.118	0.355	0.894%	0.874%
%RSD		0.489	30.810	11.340	1.249	5.571	1.876	1.135	1.091

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:36	0.010	0.010	0.011	0.044	0.023	83.403%
2	18:11:44	0.004	0.009	0.026	0.030	0.036	85.985%
3	18:11:51	0.010	0.018	0.015	0.018	0.017	87.031%
x		0.008	0.012	0.017	0.031	0.025	85.473%
σ		0.003	0.005	0.008	0.013	0.010	1.867%
%RSD		40.200	38.840	44.020	42.730	39.200	2.184

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	74.319%	0.068	624.400	602.400	0.000	92390.000	20110.000	20280.000
2	18:16:48	73.769%	0.004	651.700	615.000	0.000	93260.000	19990.000	20160.000
3	18:16:56	75.630%	0.038	645.500	603.200	0.000	92430.000	20030.000	20220.000
x		74.573%	0.037	640.500	606.800	0.000	92690.000	20040.000	20220.000
σ		0.956%	0.032	14.340	7.038	0.000	491.800	61.000	59.220
%RSD		1.282	86.300	2.239	1.160	0.000	0.531	0.304	0.293

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	652.700	6413.000	0.000	7445.000	114000.000	111800.000	63.422%	12.310
2	18:16:48	643.100	6517.000	0.000	7595.000	116500.000	114500.000	63.891%	13.530
3	18:16:56	658.100	6761.000	0.000	7717.000	120100.000	118200.000	63.009%	14.520
x		651.300	6564.000	0.000	7586.000	116800.000	114800.000	63.441%	13.450
σ		7.600	178.700	0.000	136.000	3068.000	3245.000	0.441%	1.109
%RSD		1.167	2.723	0.000	1.793	2.626	2.826	0.695	8.246

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	4.605	3.017	553.500	1428.000	1966.000	1.366	5.022	4.271
2	18:16:48	4.345	3.084	568.800	1406.000	1914.000	1.275	4.440	3.970
3	18:16:56	3.927	3.342	585.000	1432.000	1943.000	1.325	4.675	3.762
x		4.292	3.148	569.100	1422.000	1941.000	1.322	4.713	4.001
σ		0.342	0.172	15.770	14.100	26.000	0.046	0.293	0.256
%RSD		7.961	5.449	2.770	0.991	1.340	3.461	6.210	6.391

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	6.281	31.230	33.080	2.331	0.267	5.854	0.000	454.800
2	18:16:48	5.302	32.250	31.640	2.555	0.263	6.519	0.000	448.100
3	18:16:56	5.459	30.440	32.010	2.477	0.237	8.317	0.000	446.100
x		5.681	31.300	32.240	2.454	0.256	6.897	0.000	449.700
σ		0.526	0.907	0.749	0.114	0.016	1.274	0.000	4.531
%RSD		9.256	2.898	2.322	4.643	6.349	18.470	0.000	1.008

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	74.365%	0.455	0.560	61.292%	-0.062	-0.055	0.189	0.218
2	18:16:48	75.571%	0.726	0.571	61.041%	-0.054	-0.041	0.157	0.196
3	18:16:56	76.431%	0.335	0.588	61.078%	-0.032	-0.037	0.172	0.216
x		75.456%	0.506	0.573	61.137%	-0.050	-0.044	0.173	0.210
σ		1.038%	0.200	0.014	0.135%	0.015	0.010	0.016	0.012
%RSD		1.376	39.610	2.478	0.221	30.900	22.220	9.407	5.653

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	65.771%	-0.088	0.104	-0.371	28.770	28.940	78.527%	79.776%
2	18:16:48	66.403%	-0.107	0.181	-0.334	27.630	28.860	78.997%	80.526%
3	18:16:56	66.351%	-0.277	0.130	-0.476	29.040	27.840	78.463%	79.996%
x		66.175%	-0.158	0.138	-0.394	28.480	28.550	78.662%	80.100%
σ		0.351%	0.104	0.039	0.073	0.750	0.610	0.291%	0.386%
%RSD		0.531	65.970	28.260	18.670	2.635	2.136	0.371	0.481

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:16:40	0.022	0.031	2.111	1.961	2.064	84.183%
2	18:16:48	0.021	0.020	2.098	2.141	2.056	85.357%
3	18:16:56	0.030	0.019	2.142	2.115	2.107	84.856%
x		0.024	0.023	2.117	2.072	2.076	84.798%
σ		0.005	0.007	0.022	0.097	0.028	0.589%
%RSD		20.130	30.250	1.057	4.701	1.330	0.695

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	73.241%	-0.024	811.000	767.800	0.000	129200.000	26960.000	26940.000
2	18:21:51	73.753%	-0.017	824.400	772.800	0.000	128600.000	26250.000	26780.000
3	18:21:59	74.009%	-0.024	850.400	784.000	0.000	127600.000	26730.000	27250.000
x		73.668%	-0.022	828.600	774.900	0.000	128500.000	26650.000	26990.000
σ		0.391%	0.004	20.060	8.289	0.000	824.500	363.400	241.900
%RSD		0.530	18.930	2.422	1.070	0.000	0.642	1.364	0.896

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	9.300	5654.000	0.000	9216.000	155500.000	152900.000	62.949%	1.126
2	18:21:51	9.848	5734.000	0.000	9307.000	158800.000	156100.000	63.953%	0.763
3	18:21:59	9.597	5866.000	0.000	9366.000	160800.000	157300.000	63.707%	0.939
x		9.582	5751.000	0.000	9297.000	158400.000	155400.000	63.536%	0.943
σ		0.274	107.100	0.000	75.340	2695.000	2310.000	0.524%	0.181
%RSD		2.861	1.863	0.000	0.810	1.702	1.486	0.824	19.240

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	3.347	1.962	10.730	9.144	758.600	0.321	2.897	1.584
2	18:21:51	3.525	1.946	11.070	8.681	731.400	0.327	3.012	1.709
3	18:21:59	3.923	2.079	10.990	8.558	703.700	0.324	2.980	1.716
x		3.598	1.996	10.930	8.794	731.200	0.324	2.963	1.670
σ		0.295	0.073	0.177	0.309	27.450	0.003	0.059	0.074
%RSD		8.198	3.644	1.616	3.509	3.754	0.938	2.008	4.450

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	3.263	9.713	10.950	2.437	0.048	7.999	0.000	624.000
2	18:21:51	3.213	9.448	9.548	2.536	-0.028	7.959	0.000	612.900
3	18:21:59	2.876	9.520	10.390	2.621	0.116	9.681	0.000	614.400
x		3.117	9.560	10.300	2.531	0.046	8.547	0.000	617.100
σ		0.210	0.137	0.706	0.092	0.072	0.983	0.000	6.025
%RSD		6.748	1.430	6.852	3.621	158.500	11.500	0.000	0.976

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	73.119%	0.567	0.326	60.913%	-0.076	-0.063	-0.000	0.061
2	18:21:51	75.814%	0.355	0.447	61.678%	-0.081	-0.078	0.062	0.073
3	18:21:59	76.191%	0.292	0.307	61.919%	-0.063	-0.082	-0.000	0.039
x		75.042%	0.405	0.360	61.504%	-0.073	-0.074	0.020	0.058
σ		1.676%	0.144	0.076	0.525%	0.009	0.010	0.036	0.017
%RSD		2.233	35.540	21.090	0.854	12.580	13.560	176.600	29.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	66.213%	-0.542	0.014	-0.522	21.070	20.760	77.337%	79.203%
2	18:21:51	66.558%	-0.362	0.042	-0.619	20.910	21.440	77.741%	79.869%
3	18:21:59	68.352%	-0.382	0.056	-0.625	20.620	20.650	79.113%	80.601%
x		67.041%	-0.429	0.037	-0.588	20.870	20.950	78.064%	79.891%
σ		1.148%	0.099	0.021	0.058	0.228	0.426	0.931%	0.699%
%RSD		1.713	23.090	56.330	9.823	1.092	2.034	1.193	0.875

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:43	0.007	0.011	0.024	0.027	0.034	84.494%
2	18:21:51	0.007	0.015	0.013	0.080	0.047	85.358%
3	18:21:59	0.002	0.008	0.013	0.046	0.023	85.361%
x		0.005	0.011	0.017	0.051	0.035	85.071%
σ		0.003	0.003	0.006	0.027	0.012	0.500%
%RSD		60.600	29.550	37.960	52.630	34.190	0.587

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	73.218%	0.012	764.900	731.600	0.000	121000.000	25420.000	25600.000
2	18:26:54	73.686%	-0.003	778.800	738.300	0.000	122500.000	25430.000	25690.000
3	18:27:02	74.497%	-0.031	808.100	754.900	0.000	122000.000	25410.000	25700.000
x		73.801%	-0.007	783.900	741.600	0.000	121800.000	25420.000	25660.000
σ		0.647%	0.022	22.040	12.020	0.000	767.700	13.910	56.700
%RSD		0.877	305.100	2.811	1.621	0.000	0.630	0.055	0.221

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	240.400	5669.000	0.000	8738.000	146500.000	144900.000	62.915%	5.295
2	18:26:54	237.700	5812.000	0.000	9054.000	152300.000	150100.000	62.756%	5.624
3	18:27:02	236.900	6041.000	0.000	9084.000	155700.000	152600.000	62.659%	5.704
x		238.300	5841.000	0.000	8958.000	151500.000	149200.000	62.776%	5.541
σ		1.835	187.900	0.000	192.000	4615.000	3953.000	0.129%	0.217
%RSD		0.770	3.216	0.000	2.143	3.046	2.649	0.206	3.911

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	4.442	2.457	283.400	526.000	1268.000	0.750	2.700	2.246
2	18:26:54	4.660	2.550	293.400	532.200	1226.000	0.770	2.977	2.265
3	18:27:02	4.338	2.778	302.500	528.800	1216.000	0.748	2.411	2.043
x		4.480	2.595	293.100	529.000	1237.000	0.756	2.696	2.184
σ		0.164	0.166	9.580	3.100	27.150	0.012	0.283	0.123
%RSD		3.668	6.378	3.268	0.586	2.196	1.583	10.490	5.640

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	3.447	18.700	20.450	2.786	0.376	10.020	0.000	597.200
2	18:26:54	3.293	19.260	21.280	2.774	0.146	9.693	0.000	589.300
3	18:27:02	3.514	20.690	20.800	2.812	0.167	11.460	0.000	577.000
x		3.418	19.550	20.840	2.791	0.230	10.390	0.000	587.800
σ		0.113	1.023	0.413	0.019	0.127	0.938	0.000	10.200
%RSD		3.311	5.234	1.980	0.694	55.470	9.032	0.000	1.735

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	72.107%	0.371	0.366	59.327%	-0.037	-0.058	0.032	0.044
2	18:26:54	74.112%	0.426	0.594	59.126%	-0.048	-0.062	0.081	0.125
3	18:27:02	75.627%	0.529	0.387	59.914%	-0.034	-0.039	0.031	0.089
x		73.949%	0.442	0.449	59.456%	-0.040	-0.053	0.048	0.086
σ		1.765%	0.080	0.126	0.409%	0.007	0.012	0.028	0.041
%RSD		2.387	18.140	28.060	0.688	18.440	22.550	59.010	47.290

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	64.204%	-0.142	0.080	-0.426	24.330	24.840	76.507%	77.302%
2	18:26:54	63.904%	-0.045	0.067	-0.511	25.260	25.240	77.359%	78.773%
3	18:27:02	65.028%	-0.151	0.111	-0.553	25.040	23.180	78.302%	79.323%
x		64.378%	-0.113	0.086	-0.497	24.880	24.420	77.389%	78.466%
σ		0.582%	0.059	0.023	0.065	0.485	1.090	0.898%	1.045%
%RSD		0.904	52.440	26.370	13.050	1.950	4.462	1.160	1.332

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:46	0.011	0.016	0.929	0.871	0.854	81.359%
2	18:26:54	0.007	0.013	0.825	0.828	0.858	83.179%
3	18:27:02	0.010	0.015	0.915	0.858	0.876	82.537%
x		0.010	0.015	0.890	0.852	0.863	82.358%
σ		0.002	0.001	0.057	0.022	0.012	0.923%
%RSD		18.580	9.253	6.355	2.611	1.349	1.121

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	57.727%	-0.014	322.400	319.000	0.000	866600.000	36470.000	36770.000
2	18:31:57	57.840%	0.031	342.400	325.300	0.000	859500.000	36550.000	37240.000
3	18:32:05	56.179%	-0.013	330.900	332.200	0.000	879700.000	36970.000	37520.000
x		57.249%	0.001	331.900	325.500	0.000	868600.000	36660.000	37180.000
σ		0.928%	0.026	10.040	6.606	0.000	10230.000	269.700	379.400
%RSD		1.621	1795.000	3.025	2.030	0.000	1.178	0.736	1.020

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	257.300	4900.000	0.000	12320.000	238800.000	234500.000	60.776%	1.639
2	18:31:57	258.800	5100.000	0.000	12760.000	250500.000	242200.000	60.217%	1.544
3	18:32:05	266.200	5233.000	0.000	12880.000	255800.000	248600.000	60.326%	1.213
x		260.800	5078.000	0.000	12660.000	248400.000	241700.000	60.440%	1.465
σ		4.729	167.700	0.000	294.700	8711.000	7065.000	0.296%	0.224
%RSD		1.814	3.303	0.000	2.329	3.507	2.923	0.490	15.270

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	2.528	1.310	456.300	26.490	1083.000	0.430	3.506	0.447
2	18:31:57	2.107	1.355	473.500	26.470	1058.000	0.428	3.120	0.504
3	18:32:05	2.413	1.313	482.700	25.880	1041.000	0.395	3.276	0.434
x		2.349	1.326	470.900	26.280	1061.000	0.417	3.301	0.462
σ		0.217	0.025	13.400	0.347	21.430	0.020	0.194	0.037
%RSD		9.252	1.916	2.846	1.320	2.021	4.748	5.877	7.979

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	1.621	9.384	7.076	158.800	3.923	137.800	0.000	8193.000
2	18:31:57	1.407	9.326	8.090	160.300	3.653	144.900	0.000	8231.000
3	18:32:05	1.427	9.199	9.016	158.700	3.220	138.900	0.000	8158.000
x		1.485	9.303	8.061	159.300	3.599	140.500	0.000	8194.000
σ		0.119	0.095	0.971	0.908	0.354	3.847	0.000	36.660
%RSD		7.976	1.020	12.040	0.570	9.849	2.737	0.000	0.447

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	71.094%	13.340	14.320	54.973%	-0.064	-0.043	0.034	-0.009
2	18:31:57	71.022%	13.050	14.020	55.453%	-0.081	-0.060	0.016	0.068
3	18:32:05	72.394%	13.590	14.250	55.513%	-0.061	-0.032	0.067	-0.002
x		71.503%	13.330	14.200	55.313%	-0.068	-0.045	0.039	0.019
σ		0.772%	0.271	0.161	0.296%	0.011	0.014	0.026	0.042
%RSD		1.080	2.036	1.134	0.535	15.520	31.240	65.740	225.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	61.581%	-0.273	0.630	0.087	585.500	565.900	72.530%	73.695%
2	18:31:57	61.811%	-0.242	0.526	-0.041	573.200	571.800	74.407%	76.203%
3	18:32:05	62.599%	-0.488	0.459	-0.025	575.000	574.100	74.873%	76.489%
x		61.997%	-0.334	0.538	0.007	577.900	570.600	73.937%	75.462%
σ		0.534%	0.134	0.086	0.070	6.650	4.241	1.240%	1.537%
%RSD		0.861	40.150	15.990	963.000	1.151	0.743	1.677	2.037

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:31:49	0.113	0.095	0.046	0.049	0.071	75.340%
2	18:31:57	0.099	0.093	0.018	0.074	0.063	75.786%
3	18:32:05	0.107	0.113	-0.001	0.064	0.055	76.558%
x		0.106	0.101	0.021	0.062	0.063	75.895%
σ		0.007	0.011	0.024	0.013	0.008	0.616%
%RSD		6.452	10.940	112.600	20.420	12.740	0.812

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	71.074%	-0.008	52.910	49.280	0.000	74150.000	7575.000	7652.000
2	18:37:00	71.473%	-0.001	52.640	50.980	0.000	74520.000	7756.000	7722.000
3	18:37:08	73.088%	-0.016	52.750	50.510	0.000	74030.000	7714.000	7746.000
x		71.878%	-0.008	52.770	50.250	0.000	74230.000	7682.000	7707.000
σ		1.066%	0.008	0.132	0.880	0.000	255.500	94.630	48.850
%RSD		1.484	93.820	0.249	1.752	0.000	0.344	1.232	0.634

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	50.800	2030.000	0.000	12300.000	46540.000	45060.000	63.031%	1.369
2	18:37:00	52.760	2081.000	0.000	12700.000	47720.000	46630.000	63.200%	1.156
3	18:37:08	51.730	2107.000	0.000	12860.000	49410.000	47960.000	63.133%	1.227
x		51.770	2073.000	0.000	12620.000	47890.000	46550.000	63.121%	1.251
σ		0.981	39.430	0.000	290.600	1445.000	1453.000	0.085%	0.108
%RSD		1.895	1.902	0.000	2.303	3.016	3.121	0.134	8.667

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	3.037	1.773	215.500	207.800	449.100	1.036	2.424	12.090
2	18:37:00	2.518	1.774	223.200	207.600	431.500	0.933	2.526	12.330
3	18:37:08	2.219	1.879	230.400	209.600	433.300	0.957	1.970	12.810
x		2.591	1.809	223.000	208.400	438.000	0.975	2.307	12.410
σ		0.414	0.061	7.457	1.098	9.692	0.054	0.296	0.362
%RSD		15.980	3.381	3.344	0.527	2.213	5.504	12.840	2.919

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	14.400	39.070	38.480	4.118	1.404	5.248	0.000	212.400
2	18:37:00	13.020	37.340	36.590	4.287	1.604	7.962	0.000	212.900
3	18:37:08	13.360	36.940	37.200	4.000	1.763	8.222	0.000	212.600
x		13.590	37.780	37.420	4.135	1.590	7.144	0.000	212.600
σ		0.716	1.131	0.964	0.144	0.180	1.647	0.000	0.256
%RSD		5.271	2.992	2.575	3.493	11.340	23.060	0.000	0.120

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	72.247%	11.110	11.640	60.855%	-0.046	-0.036	0.112	0.050
2	18:37:00	73.665%	11.640	11.830	61.673%	-0.044	-0.026	0.031	0.068
3	18:37:08	74.472%	10.920	11.620	61.646%	-0.059	-0.015	0.139	0.073
x		73.461%	11.220	11.700	61.392%	-0.050	-0.026	0.094	0.063
σ		1.126%	0.372	0.118	0.465%	0.008	0.010	0.057	0.012
%RSD		1.533	3.318	1.012	0.757	16.230	40.140	59.970	18.470

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	64.146%	-0.206	1.115	0.529	52.780	52.020	77.625%	78.306%
2	18:37:00	65.996%	-0.257	1.193	0.526	52.990	51.670	77.458%	79.334%
3	18:37:08	67.064%	-0.356	1.218	0.451	51.210	50.250	78.498%	79.188%
x		65.735%	-0.273	1.175	0.502	52.330	51.310	77.860%	78.943%
σ		1.476%	0.077	0.054	0.044	0.973	0.938	0.559%	0.556%
%RSD		2.246	28.080	4.564	8.759	1.858	1.828	0.718	0.705

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:36:52	0.037	0.029	0.159	0.185	0.168	82.206%
2	18:37:00	0.042	0.022	0.163	0.111	0.144	83.498%
3	18:37:08	0.007	0.025	0.228	0.171	0.199	84.579%
x		0.029	0.025	0.184	0.155	0.170	83.428%
σ		0.019	0.003	0.039	0.039	0.027	1.188%
%RSD		64.990	12.140	21.180	25.360	16.090	1.424

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	74.124%	-0.031	102.700	94.490	0.000	44690.000	12400.000	12510.000
2	18:42:02	74.492%	-0.024	104.200	98.390	0.000	44850.000	12450.000	12400.000
3	18:42:10	75.532%	-0.039	98.660	94.950	0.000	45930.000	12460.000	12580.000
x		74.716%	-0.031	101.800	95.940	0.000	45160.000	12440.000	12500.000
σ		0.730%	0.007	2.849	2.130	0.000	671.500	29.170	90.570
%RSD		0.977	22.910	2.797	2.221	0.000	1.487	0.235	0.725

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	29.390	3546.000	0.000	2585.000	182600.000	180400.000	64.447%	12.420
2	18:42:02	30.780	3689.000	0.000	2734.000	195900.000	191800.000	63.643%	12.820
3	18:42:10	29.680	3810.000	0.000	2744.000	199500.000	195400.000	63.257%	13.700
x		29.950	3682.000	0.000	2688.000	192700.000	189200.000	63.782%	12.980
σ		0.734	132.600	0.000	89.300	8876.000	7821.000	0.607%	0.655
%RSD		2.451	3.600	0.000	3.323	4.606	4.133	0.951	5.043

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	3.153	1.603	14.890	119.400	994.800	0.379	4.184	0.495
2	18:42:02	3.796	1.662	16.320	122.400	1003.000	0.451	4.610	0.428
3	18:42:10	3.897	1.774	16.140	123.000	947.600	0.456	4.574	0.444
x		3.615	1.680	15.780	121.600	981.900	0.429	4.456	0.456
σ		0.404	0.087	0.781	1.926	29.960	0.043	0.236	0.035
%RSD		11.170	5.174	4.948	1.584	3.052	10.100	5.302	7.624

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	1.090	6.658	6.858	5.677	0.721	5.909	0.000	250.600
2	18:42:02	1.207	6.072	5.825	5.870	0.590	4.023	0.000	247.300
3	18:42:10	1.194	5.893	5.600	6.349	0.560	6.518	0.000	248.000
x		1.164	6.208	6.094	5.965	0.624	5.483	0.000	248.600
σ		0.064	0.400	0.671	0.346	0.086	1.300	0.000	1.766
%RSD		5.494	6.443	11.010	5.804	13.760	23.720	0.000	0.710

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	72.292%	2.958	3.242	60.312%	-0.091	-0.074	0.145	0.144
2	18:42:02	73.657%	3.217	3.163	59.578%	-0.076	-0.070	0.079	0.082
3	18:42:10	74.699%	3.128	3.168	60.800%	-0.076	-0.070	0.126	0.095
x		73.549%	3.101	3.191	60.230%	-0.081	-0.071	0.117	0.107
σ		1.207%	0.132	0.044	0.615%	0.009	0.002	0.034	0.033
%RSD		1.642	4.251	1.393	1.021	10.580	2.929	28.820	30.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	64.211%	-0.134	0.119	-0.394	13.210	12.860	75.438%	76.395%
2	18:42:02	65.478%	-0.261	0.115	-0.487	12.940	12.930	75.584%	77.034%
3	18:42:10	65.402%	-0.247	0.181	-0.512	13.350	13.430	76.805%	78.228%
x		65.030%	-0.214	0.139	-0.464	13.170	13.070	75.943%	77.219%
σ		0.711%	0.070	0.037	0.062	0.211	0.309	0.751%	0.931%
%RSD		1.093	32.610	26.650	13.320	1.604	2.360	0.988	1.205

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:55	0.014	0.002	0.240	0.163	0.205	81.242%
2	18:42:02	-0.001	-0.000	0.135	0.204	0.183	82.392%
3	18:42:10	0.002	0.008	0.188	0.241	0.218	83.162%
x		0.005	0.003	0.188	0.203	0.202	82.265%
σ		0.008	0.004	0.053	0.039	0.017	0.966%
%RSD		163.300	130.600	28.110	19.230	8.567	1.174

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	77.425%	-0.012	63.070	59.470	0.000	26550.000	7683.000	7655.000
2	18:47:09	77.844%	-0.053	63.670	61.460	0.000	26410.000	7563.000	7558.000
3	18:47:16	79.363%	-0.026	63.780	60.410	0.000	26440.000	7611.000	7590.000
x		78.210%	-0.030	63.500	60.450	0.000	26470.000	7619.000	7601.000
σ		1.020%	0.021	0.383	0.992	0.000	77.290	60.600	49.620
%RSD		1.304	67.800	0.603	1.642	0.000	0.292	0.795	0.653

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	55.400	2331.000	0.000	2651.000	32270.000	30990.000	65.339%	1.151
2	18:47:09	57.600	2436.000	0.000	2744.000	33480.000	32310.000	65.203%	1.390
3	18:47:16	61.820	2486.000	0.000	2765.000	34580.000	33380.000	64.299%	1.547
x		58.270	2418.000	0.000	2720.000	33450.000	32230.000	64.947%	1.363
σ		3.261	78.900	0.000	61.010	1154.000	1200.000	0.565%	0.200
%RSD		5.596	3.263	0.000	2.243	3.452	3.723	0.870	14.640

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	3.216	1.606	22.810	98.260	270.200	0.350	1.556	3.618
2	18:47:09	3.354	1.686	23.860	97.110	250.200	0.368	1.640	3.576
3	18:47:16	3.464	1.762	24.640	97.430	251.800	0.470	1.803	3.677
x		3.345	1.685	23.770	97.600	257.400	0.396	1.666	3.624
σ		0.125	0.078	0.920	0.593	11.090	0.065	0.125	0.050
%RSD		3.726	4.626	3.870	0.607	4.307	16.380	7.523	1.386

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	4.640	8.947	9.888	1.473	0.364	3.669	0.000	145.800
2	18:47:09	4.063	9.521	10.490	1.273	0.404	2.980	0.000	145.100
3	18:47:16	4.222	8.764	9.163	1.485	0.471	1.493	0.000	144.700
x		4.309	9.077	9.846	1.411	0.413	2.714	0.000	145.200
σ		0.298	0.395	0.664	0.119	0.054	1.112	0.000	0.575
%RSD		6.918	4.346	6.740	8.467	13.110	40.960	0.000	0.396

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	73.866%	12.310	12.940	62.850%	-0.059	-0.071	0.108	0.034
2	18:47:09	75.759%	12.250	13.430	63.994%	-0.046	-0.082	0.030	0.097
3	18:47:16	77.176%	13.240	12.640	64.311%	-0.086	-0.075	0.030	0.051
x		75.601%	12.600	13.000	63.718%	-0.064	-0.076	0.056	0.061
σ		1.661%	0.555	0.400	0.769%	0.020	0.006	0.045	0.033
%RSD		2.196	4.409	3.073	1.206	31.460	7.458	81.060	53.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	66.603%	0.042	0.093	-0.559	41.230	40.410	76.832%	78.187%
2	18:47:09	67.307%	-0.049	0.086	-0.610	42.000	41.130	79.380%	79.533%
3	18:47:16	68.846%	-0.105	0.028	-0.524	39.960	39.270	80.183%	80.617%
x		67.585%	-0.037	0.069	-0.564	41.060	40.270	78.798%	79.446%
σ		1.147%	0.074	0.036	0.043	1.027	0.938	1.749%	1.218%
%RSD		1.698	197.200	52.010	7.708	2.500	2.328	2.220	1.533

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:47:01	0.010	0.012	0.190	0.186	0.217	84.857%
2	18:47:09	0.013	0.008	0.251	0.199	0.229	86.966%
3	18:47:16	0.001	0.017	0.237	0.229	0.241	88.176%
x		0.008	0.012	0.226	0.205	0.229	86.666%
σ		0.006	0.004	0.032	0.022	0.012	1.680%
%RSD		72.420	34.540	13.990	10.910	5.130	1.938

CCV 1241000 9/6/2014 6:53:00 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	77.016%	96.250	94.450	91.330	0.000	49390.000	50730.000	52170.000
2	18:52:15	78.227%	96.830	92.150	89.070	0.000	49610.000	51340.000	47210.000
3	18:52:22	79.640%	97.370	98.660	91.640	0.000	50980.000	52600.000	48200.000
x		78.294%	96.819%	95.089%	90.681%	0.000	99.981%	103.109%	98.387%
σ		1.313%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.677	0.577	3.476	1.548	0.000	1.720	1.851	5.337

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	489.200	5174.000	0.000	48740.000	49720.000	49240.000	70.323%	97.850
2	18:52:15	494.500	5395.000	0.000	50140.000	51240.000	50810.000	70.213%	98.690
3	18:52:22	504.400	5490.000	0.000	50800.000	52540.000	51850.000	70.264%	102.700
x		99.211%	107.062%	0.000	99.780%	102.331%	101.269%	70.266%	99.746%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.055%	n/a
%RSD		1.557	3.027	0.000	2.107	2.750	2.593	0.078	2.602

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	99.240	100.700	496.600	24920.000	24050.000	100.200	104.000	100.000
2	18:52:15	102.200	102.800	509.600	25270.000	24630.000	104.500	103.400	99.010
3	18:52:22	103.100	104.000	521.800	25280.000	24900.000	102.200	104.600	96.730
x		101.507%	102.507%	101.866%	100.625%	98.109%	102.304%	103.988%	98.585%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.982	1.616	2.466	0.808	1.781	2.121	0.584	1.711

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	102.400	99.420	98.760	93.650	95.900	95.810	0.000	93.560
2	18:52:15	102.900	100.600	101.000	93.210	92.470	98.220	0.000	92.280
3	18:52:22	105.400	99.490	98.140	94.230	92.310	105.200	0.000	91.100
x		103.561%	99.833%	99.315%	93.699%	93.559%	99.762%	0.000	92.312%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.574	0.657	1.539	0.547	2.164	4.914	0.000	1.333

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	80.913%	102.900	106.600	68.209%	108.200	109.400	106.500	111.500
2	18:52:15	83.945%	101.800	106.800	69.675%	107.800	108.000	108.300	110.100
3	18:52:22	84.875%	101.100	106.200	69.789%	108.000	108.200	107.900	111.100
x		83.244%	101.929%	106.520%	69.224%	107.990%	108.525%	107.569%	110.882%
σ		2.072%	n/a	n/a	0.881%	n/a	n/a	n/a	n/a
%RSD		2.489	0.866	0.290	1.273	0.186	0.675	0.907	0.665

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	71.957%	103.600	103.600	104.300	98.930	102.600	80.290%	81.962%
2	18:52:15	73.138%	102.500	105.100	104.600	101.200	103.700	82.390%	83.214%
3	18:52:22	73.217%	104.000	104.000	105.000	101.300	101.500	83.714%	86.452%
x		72.771%	103.336%	104.248%	104.635%	100.458%	102.622%	82.131%	83.876%
σ		0.706%	n/a	n/a	n/a	n/a	n/a	1.726%	2.317%
%RSD		0.970	0.754	0.761	0.314	1.321	1.090	2.102	2.762

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:07	103.500	100.900	100.100	102.300	102.600	86.082%
2	18:52:15	103.200	101.000	100.200	102.200	102.000	87.851%
3	18:52:22	103.100	101.400	101.300	103.500	102.600	88.403%
x		103.282%	101.108%	100.523%	102.681%	102.409%	87.445%
σ		n/a	n/a	n/a	n/a	n/a	1.213%
%RSD		0.201	0.273	0.649	0.721	0.323	1.387

CCB3 9/6/2014 7:02:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	94.193%	-0.026	1.569	1.093	0.000	18.420	9.814	10.680
2	19:01:24	94.495%	-0.026	1.216	0.951	0.000	17.440	9.353	9.828
3	19:01:31	93.794%	0.002	1.551	1.151	0.000	18.700	9.190	8.900
x		94.161%	-0.017	1.445	1.065	0.000	18.180	9.453	9.801
σ		0.352%	0.016	0.199	0.103	0.000	0.659	0.324	0.888
%RSD		0.373	97.030	13.780	9.676	0.000	3.623	3.425	9.058

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	2.052	0.255	0.000	5.633	16.390	9.060	83.819%	-0.003
2	19:01:24	2.224	0.080	0.000	8.649	5.411	9.852	84.586%	0.049
3	19:01:31	1.872	0.512	0.000	10.240	4.424	6.887	83.388%	0.050
x		2.049	0.282	0.000	8.176	8.740	8.600	83.931%	0.032
σ		0.176	0.217	0.000	2.342	6.639	1.535	0.607%	0.030
%RSD		8.591	76.880	0.000	28.640	75.960	17.850	0.723	94.950

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	0.034	0.022	0.111	5.729	5.115	0.023	0.019	0.001
2	19:01:24	0.022	0.028	0.089	5.860	5.503	0.015	-0.029	-0.061
3	19:01:31	0.042	0.020	0.084	5.948	7.214	0.015	-0.010	-0.013
x		0.033	0.024	0.095	5.846	5.944	0.018	-0.007	-0.024
σ		0.010	0.004	0.014	0.111	1.117	0.005	0.024	0.033
%RSD		30.510	18.390	14.960	1.891	18.790	27.070	364.000	134.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	0.045	0.023	-0.117	0.028	0.081	0.062	0.000	0.025
2	19:01:24	0.018	-0.052	-0.061	-0.014	-0.018	1.809	0.000	0.024
3	19:01:31	0.077	-0.009	0.117	-0.014	-0.018	0.615	0.000	0.013
x		0.046	-0.012	-0.020	0.000	0.015	0.829	0.000	0.021
σ		0.029	0.038	0.122	0.024	0.057	0.893	0.000	0.007
%RSD		63.330	304.500	600.500	34830.000	382.300	107.700	0.000	31.970

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	90.546%	-0.019	0.013	82.494%	-0.056	-0.045	0.012	0.001
2	19:01:24	92.299%	0.108	0.069	81.787%	-0.062	-0.042	0.024	-0.014
3	19:01:31	93.089%	0.074	0.047	81.975%	-0.073	-0.039	0.024	0.021
x		91.978%	0.054	0.043	82.085%	-0.064	-0.042	0.020	0.003
σ		1.301%	0.066	0.028	0.366%	0.009	0.003	0.007	0.018
%RSD		1.415	120.700	65.850	0.446	13.410	6.735	35.490	687.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	82.809%	-0.414	0.156	-0.438	0.061	0.007	88.388%	88.730%
2	19:01:24	83.058%	-0.483	0.122	-0.507	0.039	-0.005	88.733%	89.653%
3	19:01:31	83.656%	-0.495	0.097	-0.553	0.016	0.007	89.738%	90.615%
x		83.174%	-0.464	0.125	-0.499	0.039	0.003	88.953%	89.666%
σ		0.436%	0.044	0.030	0.058	0.023	0.007	0.701%	0.942%
%RSD		0.524	9.446	23.630	11.590	58.840	245.500	0.788	1.051

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:01:16	0.020	0.017	0.027	0.048	0.029	101.375%
2	19:01:24	0.010	0.015	0.016	0.019	0.014	101.407%
3	19:01:31	0.018	0.019	0.002	0.006	0.020	100.663%
x		0.016	0.017	0.015	0.025	0.021	101.148%
σ		0.005	0.002	0.013	0.021	0.008	0.420%
%RSD		31.360	11.460	84.330	87.200	35.450	0.415

180-36332-H-2-A 9/6/2014 7:07:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	65.563%	0.117	165.700	155.500	0.000	851600.000	5142.000	5177.000
2	19:06:30	64.502%	0.071	164.700	160.200	0.000	892400.000	5335.000	5365.000
3	19:06:37	65.056%	0.061	176.100	164.400	0.000	877600.000	5288.000	5293.000
x		65.040%	0.083	168.800	160.000	0.000	873800.000	5255.000	5278.000
σ		0.531%	0.029	6.314	4.437	0.000	20670.000	100.300	94.960
%RSD		0.816	35.610	3.740	2.772	0.000	2.366	1.909	1.799

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	1696.000	2821.000	0.000	3451.000	35610.000	33490.000	59.815%	6.529
2	19:06:30	1750.000	2976.000	0.000	3602.000	37120.000	35570.000	58.647%	8.275
3	19:06:37	1753.000	3036.000	0.000	3659.000	37720.000	36500.000	58.566%	7.760
x		1733.000	2944.000	0.000	3571.000	36820.000	35190.000	59.010%	7.521
σ		32.120	110.500	0.000	107.800	1085.000	1541.000	0.699%	0.897
%RSD		1.853	3.754	0.000	3.018	2.948	4.379	1.184	11.930

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	2.057	9.386	114.800	9959.000	9728.000	2.416	22.850	6.264
2	19:06:30	2.019	9.658	121.700	10150.000	9876.000	2.314	22.850	6.869
3	19:06:37	2.087	9.450	124.400	10160.000	9950.000	2.419	22.780	6.557
x		2.054	9.498	120.300	10090.000	9851.000	2.383	22.830	6.563
σ		0.034	0.142	4.952	114.000	113.100	0.060	0.040	0.302
%RSD		1.644	1.499	4.115	1.130	1.148	2.506	0.176	4.608

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	7.105	66.000	67.050	16.740	232.900	380.600	0.000	121.300
2	19:06:30	6.843	67.460	67.210	16.370	230.200	380.400	0.000	120.200
3	19:06:37	7.426	67.180	69.750	17.130	235.500	380.200	0.000	121.300
x		7.125	66.880	68.000	16.750	232.900	380.400	0.000	120.900
σ		0.292	0.774	1.518	0.382	2.660	0.192	0.000	0.613
%RSD		4.094	1.157	2.232	2.279	1.142	0.050	0.000	0.507

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	67.910%	15.320	16.940	53.586%	-0.096	-0.050	0.195	0.196
2	19:06:30	70.862%	15.890	16.860	54.796%	-0.068	-0.059	0.434	0.170
3	19:06:37	70.740%	15.360	16.470	55.089%	-0.064	-0.051	0.311	0.247
x		69.837%	15.520	16.760	54.490%	-0.076	-0.054	0.313	0.204
σ		1.670%	0.317	0.255	0.797%	0.017	0.005	0.120	0.039
%RSD		2.392	2.041	1.522	1.462	23.000	9.335	38.280	19.070

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	59.132%	1.108	2.284	1.676	21.360	19.020	71.845%	72.864%
2	19:06:30	60.156%	0.673	1.998	1.352	20.880	19.400	73.029%	74.268%
3	19:06:37	60.645%	0.836	2.036	1.320	21.620	21.730	73.904%	75.055%
x		59.978%	0.872	2.106	1.449	21.290	20.050	72.926%	74.063%
σ		0.772%	0.220	0.155	0.197	0.371	1.467	1.034%	1.110%
%RSD		1.287	25.200	7.371	13.590	1.745	7.319	1.417	1.499

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:22	0.343	0.325	16.350	15.490	16.000	73.066%
2	19:06:30	0.307	0.268	16.470	15.790	16.190	74.670%
3	19:06:37	0.334	0.345	16.350	15.600	16.120	76.405%
x		0.328	0.313	16.390	15.630	16.100	74.714%
σ		0.019	0.040	0.068	0.151	0.096	1.670%
%RSD		5.727	12.750	0.418	0.968	0.599	2.235

180-36332-F-3-A 9/6/2014 7:12:20 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	72.719%	-0.045	51.880	51.700	0.000	21280.000	7182.000	7245.000
2	19:11:36	71.640%	-0.001	57.430	54.440	0.000	22070.000	7353.000	7401.000
3	19:11:44	75.814%	-0.011	59.750	51.430	0.000	21690.000	7179.000	7217.000
x		73.391%	-0.019	56.350	52.520	0.000	21680.000	7238.000	7288.000
σ		2.167%	0.023	4.044	1.668	0.000	393.700	99.490	98.860
%RSD		2.952	121.600	7.176	3.176	0.000	1.816	1.375	1.357

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	126.500	2071.000	0.000	2347.000	29990.000	28010.000	65.029%	2.038
2	19:11:36	126.600	2129.000	0.000	2445.000	30990.000	29460.000	64.056%	1.553
3	19:11:44	126.100	2177.000	0.000	2445.000	31160.000	29970.000	65.283%	1.962
x		126.400	2126.000	0.000	2412.000	30710.000	29150.000	64.789%	1.851
σ		0.291	53.020	0.000	56.750	630.100	1020.000	0.648%	0.261
%RSD		0.230	2.494	0.000	2.353	2.052	3.499	1.000	14.090

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	2.176	1.190	51.020	313.200	451.500	0.321	1.978	2.686
2	19:11:36	2.447	1.328	52.950	315.700	475.100	0.383	2.116	2.676
3	19:11:44	2.951	1.360	53.190	311.000	447.200	0.356	2.343	2.487
x		2.525	1.293	52.390	313.300	457.900	0.353	2.146	2.616
σ		0.393	0.090	1.190	2.324	15.030	0.031	0.184	0.112
%RSD		15.580	6.972	2.271	0.742	3.282	8.838	8.589	4.294

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	2.909	3.498	3.921	1.214	0.731	6.605	0.000	141.600
2	19:11:36	2.899	3.980	4.439	1.171	0.565	7.172	0.000	141.000
3	19:11:44	2.880	3.791	2.868	1.257	0.692	4.480	0.000	141.400
x		2.896	3.756	3.742	1.214	0.662	6.086	0.000	141.300
σ		0.015	0.243	0.801	0.043	0.086	1.419	0.000	0.326
%RSD		0.503	6.463	21.390	3.549	13.060	23.320	0.000	0.231

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	77.088%	1.806	1.675	64.944%	-0.082	-0.079	0.090	0.039
2	19:11:36	77.438%	1.764	1.560	66.222%	-0.076	-0.069	0.029	0.056
3	19:11:44	79.104%	1.744	1.589	66.045%	-0.069	-0.062	0.014	0.019
x		77.877%	1.771	1.608	65.737%	-0.076	-0.070	0.044	0.038
σ		1.077%	0.032	0.060	0.692%	0.007	0.009	0.040	0.018
%RSD		1.383	1.795	3.711	1.053	8.582	12.370	90.640	48.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	68.454%	0.103	0.083	-0.556	38.310	39.880	79.275%	81.316%
2	19:11:36	69.928%	-0.006	0.185	-0.545	39.290	38.320	80.582%	82.113%
3	19:11:44	69.975%	-0.210	0.140	-0.506	37.980	39.590	81.230%	81.913%
x		69.453%	-0.038	0.136	-0.536	38.530	39.260	80.362%	81.781%
σ		0.865%	0.159	0.051	0.026	0.680	0.832	0.996%	0.415%
%RSD		1.245	419.600	37.670	4.864	1.764	2.118	1.239	0.507

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:28	0.010	0.016	0.435	0.443	0.501	87.769%
2	19:11:36	0.020	0.011	0.461	0.502	0.528	88.438%
3	19:11:44	0.012	0.015	0.515	0.568	0.569	89.228%
x		0.014	0.014	0.470	0.504	0.533	88.478%
σ		0.006	0.002	0.041	0.062	0.035	0.731%
%RSD		39.890	17.600	8.641	12.360	6.483	0.826

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	83.905%	-0.059	0.632	0.507	0.000	19.960	-0.654	-0.679
2	19:20:39	84.662%	-0.016	0.563	0.600	0.000	22.210	-0.589	-0.005
3	19:20:47	83.426%	-0.041	0.849	0.467	0.000	28.440	-0.315	-0.244
x		83.998%	-0.039	0.681	0.525	0.000	23.540	-0.519	-0.309
σ		0.623%	0.022	0.149	0.069	0.000	4.390	0.180	0.342
%RSD		0.742	56.110	21.940	13.080	0.000	18.650	34.630	110.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	0.071	-1.776	0.000	-5.441	-3.217	0.352	73.353%	-0.029
2	19:20:39	0.044	-1.656	0.000	-4.897	3.796	3.739	72.632%	0.122
3	19:20:47	0.054	-0.429	0.000	-2.694	-0.189	3.718	71.298%	0.002
x		0.056	-1.287	0.000	-4.344	0.130	2.603	72.427%	0.032
σ		0.013	0.746	0.000	1.454	3.518	1.949	1.043%	0.080
%RSD		23.880	57.930	0.000	33.480	2710.000	74.890	1.440	254.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	0.314	0.155	-0.060	-0.756	-0.799	0.002	-0.051	-0.028
2	19:20:39	0.477	0.202	-0.024	-0.685	-1.727	0.006	0.013	-0.023
3	19:20:47	0.294	0.201	-0.030	-0.643	-1.711	-0.003	-0.029	-0.032
x		0.361	0.186	-0.038	-0.694	-1.412	0.002	-0.022	-0.028
σ		0.101	0.027	0.019	0.057	0.531	0.005	0.033	0.005
%RSD		27.830	14.580	49.830	8.226	37.610	265.200	147.400	16.830

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	0.022	-0.019	0.208	0.002	0.058	1.657	0.000	0.009
2	19:20:39	0.098	-0.035	0.207	-0.010	-0.032	3.050	0.000	-0.003
3	19:20:47	-0.035	0.095	0.185	-0.014	0.078	3.171	0.000	0.004
x		0.028	0.014	0.200	-0.008	0.035	2.626	0.000	0.003
σ		0.067	0.071	0.013	0.008	0.058	0.842	0.000	0.006
%RSD		238.500	518.500	6.469	107.000	168.600	32.050	0.000	191.200

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	80.040%	-0.129	-0.129	70.991%	-0.089	-0.047	-0.000	-0.012
2	19:20:39	81.112%	-0.139	-0.119	72.468%	-0.061	-0.077	-0.001	0.051
3	19:20:47	82.458%	-0.122	-0.119	72.220%	-0.070	-0.071	-0.001	0.028
x		81.203%	-0.130	-0.122	71.893%	-0.073	-0.065	-0.001	0.022
σ		1.212%	0.009	0.006	0.791%	0.014	0.016	0.000	0.032
%RSD		1.492	6.750	4.632	1.100	19.520	24.130	18.810	145.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	73.642%	-0.203	-0.040	-0.668	-0.006	-0.004	81.376%	82.720%
2	19:20:39	73.907%	-0.281	-0.044	-0.734	0.043	-0.004	82.041%	83.051%
3	19:20:47	74.023%	-0.111	-0.044	-0.729	-0.006	-0.018	83.364%	83.475%
x		73.857%	-0.199	-0.043	-0.710	0.010	-0.009	82.260%	83.082%
σ		0.195%	0.085	0.003	0.037	0.029	0.008	1.012%	0.379%
%RSD		0.264	42.840	6.240	5.146	282.200	92.420	1.231	0.456

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:31	-0.004	-0.003	-0.033	-0.021	-0.021	92.324%
2	19:20:39	-0.004	0.000	-0.027	0.004	-0.009	92.720%
3	19:20:47	0.006	0.000	-0.042	-0.014	-0.019	92.367%
x		-0.001	-0.001	-0.034	-0.011	-0.016	92.471%
σ		0.006	0.002	0.008	0.013	0.007	0.217%
%RSD		1191.000	259.100	22.950	120.800	40.620	0.235

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	81.187%	43.550	884.400	862.500	0.000	45250.000	43470.000	44550.000
2	19:25:42	82.496%	43.710	908.600	868.700	0.000	44910.000	43730.000	44810.000
3	19:25:49	81.290%	45.050	926.100	912.400	0.000	45980.000	44360.000	45350.000
x		81.658%	44.100	906.400	881.200	0.000	45380.000	43850.000	44900.000
σ		0.728%	0.820	20.900	27.200	0.000	544.200	457.800	409.500
%RSD		0.891	1.860	2.306	3.087	0.000	1.199	1.044	0.912

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	1780.000	8951.000	0.000	47420.000	49380.000	47880.000	63.541%	946.600
2	19:25:42	1790.000	9103.000	0.000	48420.000	50650.000	49510.000	64.305%	976.400
3	19:25:49	1798.000	9304.000	0.000	49860.000	52180.000	50390.000	63.458%	987.900
x		1789.000	9119.000	0.000	48570.000	50730.000	49260.000	63.768%	970.300
σ		9.070	176.800	0.000	1227.000	1402.000	1273.000	0.467%	21.300
%RSD		0.507	1.939	0.000	2.527	2.764	2.583	0.732	2.195

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	497.900	202.600	483.100	906.700	1130.000	501.200	493.200	227.300
2	19:25:42	496.700	202.900	492.700	896.800	1115.000	496.700	476.900	220.800
3	19:25:49	499.400	205.400	510.500	904.500	1102.000	501.400	488.900	224.700
x		498.000	203.600	495.400	902.700	1116.000	499.700	486.300	224.200
σ		1.319	1.544	13.880	5.173	14.000	2.666	8.404	3.265
%RSD		0.265	0.758	2.801	0.573	1.255	0.534	1.728	1.456

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	246.500	441.000	439.400	35.090	7.719	10.560	0.000	898.100
2	19:25:42	244.300	433.600	430.400	33.750	9.609	12.060	0.000	879.300
3	19:25:49	243.300	437.300	444.200	34.670	8.295	10.980	0.000	882.100
x		244.700	437.300	438.000	34.500	8.541	11.200	0.000	886.500
σ		1.624	3.722	6.991	0.683	0.969	0.774	0.000	10.140
%RSD		0.664	0.851	1.596	1.981	11.340	6.913	0.000	1.144

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	76.308%	1042.000	1094.000	62.317%	55.310	55.540	55.340	107.500
2	19:25:42	79.530%	1036.000	1090.000	63.577%	55.110	54.880	54.930	105.800
3	19:25:49	80.110%	1027.000	1086.000	64.073%	54.490	54.610	52.290	105.100
x		78.649%	1035.000	1090.000	63.322%	54.970	55.010	54.190	106.100
σ		2.048%	7.444	4.172	0.905%	0.427	0.479	1.653	1.240
%RSD		2.604	0.719	0.383	1.429	0.776	0.872	3.051	1.168

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	66.327%	2079.000	524.200	514.900	1966.000	1942.000	81.318%	82.703%
2	19:25:42	66.894%	2064.000	504.400	505.200	1950.000	1947.000	82.777%	84.941%
3	19:25:49	68.152%	2049.000	510.800	506.900	1958.000	1948.000	82.847%	85.080%
x		67.125%	2064.000	513.200	509.000	1958.000	1946.000	82.314%	84.241%
σ		0.934%	15.090	10.110	5.169	8.472	3.237	0.863%	1.334%
%RSD		1.392	0.731	1.970	1.015	0.433	0.166	1.049	1.584

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:34	50.140	48.710	19.610	20.160	20.140	87.072%
2	19:25:42	48.660	47.160	19.200	19.720	19.710	90.310%
3	19:25:49	50.870	49.290	19.980	21.000	20.710	89.003%
x		49.890	48.390	19.600	20.290	20.190	88.795%
σ		1.121	1.105	0.391	0.650	0.500	1.629%
%RSD		2.248	2.284	1.997	3.201	2.475	1.835

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	79.455%	2.890	37.110	35.110	0.000	608.900	14530.000	14480.000
2	19:30:43	80.781%	2.387	36.560	34.890	0.000	626.400	14710.000	14880.000
3	19:30:51	81.300%	2.597	33.740	34.380	0.000	630.700	14620.000	14780.000
x		80.512%	2.625	35.800	34.790	0.000	622.000	14620.000	14720.000
σ		0.952%	0.253	1.807	0.375	0.000	11.510	88.340	208.800
%RSD		1.182	9.619	5.046	1.079	0.000	1.851	0.604	1.419

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	42100.000	7270.000	0.000	6210.000	9812.000	8972.000	67.411%	1488.000
2	19:30:43	42050.000	7518.000	0.000	6401.000	10180.000	9320.000	67.160%	1548.000
3	19:30:51	42430.000	7549.000	0.000	6451.000	10220.000	9575.000	68.174%	1570.000
x		42200.000	7446.000	0.000	6354.000	10070.000	9289.000	67.581%	1536.000
σ		206.500	153.100	0.000	126.900	222.900	302.600	0.528%	42.610
%RSD		0.489	2.056	0.000	1.997	2.214	3.257	0.781	2.775

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	101.300	125.100	2302.000	116800.000	120300.000	55.200	107.800	68.890
2	19:30:43	101.800	126.300	2387.000	118000.000	121100.000	57.390	107.500	70.470
3	19:30:51	104.500	126.100	2416.000	115500.000	119700.000	55.630	108.600	69.280
x		102.500	125.800	2369.000	116800.000	120400.000	56.070	108.000	69.540
σ		1.757	0.641	59.210	1238.000	731.100	1.164	0.529	0.824
%RSD		1.714	0.509	2.500	1.060	0.607	2.075	0.490	1.185

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	79.100	705.300	714.000	22.930	1.860	4.014	0.000	62.260
2	19:30:43	77.790	702.900	732.900	23.480	1.801	1.303	0.000	63.630
3	19:30:51	78.450	708.300	726.000	23.590	1.188	0.398	0.000	62.460
x		78.450	705.500	724.300	23.330	1.616	1.905	0.000	62.780
σ		0.652	2.692	9.546	0.354	0.372	1.882	0.000	0.742
%RSD		0.831	0.382	1.318	1.518	23.030	98.760	0.000	1.181

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	0.000	3.747	3.706	64.822%	0.475	0.305	5.731	5.440
2	19:30:43	0.000	3.251	3.339	65.372%	0.422	0.407	5.352	5.602
3	19:30:51	0.000	2.996	2.861	67.481%	0.468	0.429	5.110	5.347
x		0.000	3.331	3.302	65.891%	0.455	0.380	5.398	5.463
σ		0.000	0.382	0.424	1.404%	0.029	0.066	0.313	0.129
%RSD		0.000	11.470	12.840	2.130	6.394	17.460	5.792	2.368

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	69.296%	8.787	1.046	0.479	224.300	222.300	89.682%	91.264%
2	19:30:43	69.966%	9.564	1.197	0.649	229.100	224.300	90.518%	90.480%
3	19:30:51	71.034%	10.070	1.301	0.730	229.600	224.700	92.002%	92.715%
x		70.099%	9.473	1.182	0.619	227.700	223.800	90.734%	91.487%
σ		0.877%	0.646	0.128	0.128	2.900	1.318	1.175%	1.134%
%RSD		1.251	6.814	10.850	20.720	1.274	0.589	1.295	1.239

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:30:35	0.688	0.628	90.590	86.290	89.060	90.569%
2	19:30:43	0.577	0.651	90.170	84.720	88.390	91.809%
3	19:30:51	0.595	0.544	89.400	84.520	88.020	93.734%
x		0.620	0.607	90.050	85.180	88.490	92.038%
σ		0.059	0.056	0.603	0.969	0.525	1.595%
%RSD		9.565	9.235	0.669	1.137	0.594	1.733

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	93.649%	0.433	7.598	6.921	0.000	131.300	2847.000	2813.000
2	19:35:46	94.173%	0.497	7.152	7.155	0.000	133.300	2857.000	2842.000
3	19:35:54	92.728%	0.427	7.214	7.069	0.000	134.800	2834.000	2841.000
x		93.517%	0.452	7.321	7.048	0.000	133.100	2846.000	2832.000
σ		0.732%	0.039	0.242	0.119	0.000	1.747	11.310	16.380
%RSD		0.782	8.614	3.304	1.683	0.000	1.312	0.397	0.578

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	8114.000	1450.000	0.000	1291.000	2042.000	1823.000	79.936%	301.400
2	19:35:46	8241.000	1497.000	0.000	1328.000	2150.000	1857.000	79.227%	302.900
3	19:35:54	8272.000	1557.000	0.000	1359.000	2073.000	1922.000	79.220%	312.300
x		8209.000	1502.000	0.000	1326.000	2088.000	1867.000	79.461%	305.500
σ		83.670	53.530	0.000	33.820	56.030	50.510	0.411%	5.890
%RSD		1.019	3.565	0.000	2.551	2.683	2.705	0.517	1.928

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	18.040	24.310	471.400	22630.000	22400.000	10.820	20.750	14.710
2	19:35:46	19.830	24.610	482.100	22990.000	22890.000	10.990	21.060	14.850
3	19:35:54	19.830	24.630	491.300	23120.000	23000.000	10.920	22.010	14.510
x		19.230	24.520	481.600	22920.000	22760.000	10.910	21.270	14.690
σ		1.034	0.180	9.920	254.900	320.100	0.090	0.656	0.169
%RSD		5.377	0.735	2.060	1.112	1.406	0.823	3.085	1.150

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	15.750	143.400	145.900	4.602	0.236	3.271	0.000	12.300
2	19:35:46	15.670	149.200	148.900	4.588	0.410	1.124	0.000	11.990
3	19:35:54	16.450	145.200	147.900	4.594	0.277	1.814	0.000	12.310
x		15.950	145.900	147.600	4.595	0.308	2.070	0.000	12.200
σ		0.429	2.981	1.539	0.007	0.091	1.096	0.000	0.179
%RSD		2.687	2.042	1.043	0.153	29.610	52.950	0.000	1.471

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	0.000	0.464	0.612	77.239%	-0.032	-0.014	1.022	1.097
2	19:35:46	0.000	0.532	0.509	78.952%	0.018	0.016	1.109	1.024
3	19:35:54	0.000	0.414	0.506	79.268%	-0.019	-0.001	0.962	1.133
x		0.000	0.470	0.542	78.487%	-0.011	0.000	1.031	1.085
σ		0.000	0.059	0.061	1.092%	0.026	0.015	0.074	0.056
%RSD		0.000	12.520	11.190	1.391	241.200	6721.000	7.168	5.128

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	78.806%	1.749	0.234	-0.401	47.140	46.780	89.893%	89.564%
2	19:35:46	81.081%	1.314	0.260	-0.428	47.860	46.100	91.367%	90.793%
3	19:35:54	80.363%	1.545	0.223	-0.484	48.500	44.910	92.332%	92.893%
x		80.083%	1.536	0.239	-0.438	47.830	45.930	91.197%	91.083%
σ		1.163%	0.217	0.019	0.043	0.680	0.947	1.228%	1.683%
%RSD		1.452	14.150	7.738	9.752	1.422	2.061	1.347	1.848

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:35:38	0.153	0.125	17.840	16.940	17.300	99.796%
2	19:35:46	0.127	0.127	18.150	17.290	17.620	100.542%
3	19:35:54	0.106	0.115	17.100	16.860	17.290	102.371%
x		0.129	0.123	17.700	17.030	17.400	100.903%
σ		0.023	0.006	0.538	0.231	0.186	1.325%
%RSD		18.040	5.142	3.042	1.356	1.070	1.313

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	82.527%	46.330	931.700	912.800	0.000	41030.000	57570.000	52960.000
2	19:40:49	82.605%	48.060	951.900	932.300	0.000	41550.000	57450.000	52690.000
3	19:40:57	81.025%	47.710	994.500	963.000	0.000	41610.000	57880.000	53480.000
x		82.052%	47.370	959.300	936.100	0.000	41400.000	57640.000	53040.000
σ		0.890%	0.917	32.050	25.280	0.000	322.600	222.600	401.100
%RSD		1.085	1.935	3.341	2.700	0.000	0.779	0.386	0.756

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	54330.000	13070.000	0.000	55080.000	57740.000	56930.000	71.980%	2914.000
2	19:40:49	55150.000	13330.000	0.000	56570.000	58410.000	58090.000	71.062%	3005.000
3	19:40:57	55650.000	13310.000	0.000	57470.000	59190.000	59750.000	70.925%	3077.000
x		55040.000	13240.000	0.000	56370.000	58450.000	58260.000	71.322%	2999.000
σ		665.500	143.900	0.000	1207.000	726.100	1418.000	0.573%	81.390
%RSD		1.209	1.087	0.000	2.141	1.242	2.434	0.804	2.714

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	556.500	320.800	2827.000	119600.000	123800.000	527.700	572.000	285.500
2	19:40:49	557.500	320.200	2923.000	119800.000	122300.000	523.700	575.000	288.100
3	19:40:57	562.600	320.500	2985.000	119800.000	123900.000	529.300	576.100	286.700
x		558.900	320.500	2911.000	119700.000	123300.000	526.900	574.400	286.800
σ		3.258	0.289	79.610	130.500	853.300	2.858	2.109	1.288
%RSD		0.583	0.090	2.734	0.109	0.692	0.542	0.367	0.449

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	314.300	1139.000	1156.000	60.640	10.900	12.230	0.000	1111.000
2	19:40:49	316.800	1143.000	1144.000	59.440	10.160	15.870	0.000	1108.000
3	19:40:57	319.400	1147.000	1168.000	60.410	9.200	14.030	0.000	1116.000
x		316.800	1143.000	1156.000	60.160	10.090	14.040	0.000	1112.000
σ		2.511	4.115	12.420	0.636	0.855	1.816	0.000	4.143
%RSD		0.792	0.360	1.074	1.057	8.470	12.930	0.000	0.373

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	0.000	1107.000	1116.000	61.950%	53.220	53.690	58.570	107.700
2	19:40:49	0.000	1108.000	1120.000	62.509%	53.840	54.000	58.080	108.600
3	19:40:57	0.000	1100.000	1124.000	62.337%	53.460	54.060	58.630	107.600
x		0.000	1105.000	1120.000	62.265%	53.500	53.920	58.430	108.000
σ		0.000	4.323	3.826	0.287%	0.313	0.196	0.302	0.551
%RSD		0.000	0.391	0.342	0.460	0.585	0.364	0.516	0.510

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	65.514%	1961.000	412.300	405.800	2120.000	2101.000	88.064%	88.287%
2	19:40:49	66.261%	1966.000	411.500	404.600	2094.000	2097.000	89.231%	90.167%
3	19:40:57	66.677%	1961.000	413.600	404.500	2083.000	2101.000	89.763%	90.014%
x		66.151%	1962.000	412.500	405.000	2099.000	2100.000	89.019%	89.489%
σ		0.589%	2.728	1.099	0.747	18.940	2.580	0.870%	1.044%
%RSD		0.890	0.139	0.266	0.185	0.903	0.123	0.977	1.166

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:41	48.560	47.060	117.100	114.500	116.900	85.018%
2	19:40:49	47.960	47.230	117.000	114.100	116.000	87.355%
3	19:40:57	49.100	47.660	118.400	114.000	117.300	86.683%
x		48.540	47.320	117.500	114.200	116.800	86.352%
σ		0.568	0.312	0.796	0.268	0.651	1.203%
%RSD		1.170	0.659	0.678	0.235	0.557	1.394

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	77.610%	47.540	964.700	946.200	0.000	43140.000	60350.000	55560.000
2	19:45:50	79.572%	47.870	954.700	942.100	0.000	42770.000	59780.000	54800.000
3	19:45:58	78.610%	49.420	967.000	954.500	0.000	43050.000	60340.000	55820.000
x		78.597%	48.280	962.100	947.600	0.000	42990.000	60160.000	55390.000
σ		0.981%	1.001	6.538	6.354	0.000	192.400	321.900	532.800
%RSD		1.248	2.074	0.679	0.670	0.000	0.447	0.535	0.962

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	58560.000	12390.000	0.000	55500.000	57890.000	57280.000	69.648%	3057.000
2	19:45:50	57570.000	12530.000	0.000	56660.000	60640.000	59020.000	69.484%	3116.000
3	19:45:58	58840.000	12710.000	0.000	57290.000	60280.000	59690.000	69.915%	3369.000
x		58320.000	12550.000	0.000	56480.000	59600.000	58660.000	69.683%	3181.000
σ		669.700	160.900	0.000	906.100	1494.000	1244.000	0.218%	165.500
%RSD		1.148	1.283	0.000	1.604	2.507	2.121	0.312	5.204

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	572.900	333.100	2918.000	125900.000	129100.000	538.200	592.400	294.600
2	19:45:50	575.100	333.600	2974.000	125600.000	129300.000	537.300	601.900	293.800
3	19:45:58	573.000	332.400	3015.000	125800.000	128800.000	535.000	590.100	294.900
x		573.700	333.000	2969.000	125800.000	129100.000	536.800	594.800	294.500
σ		1.284	0.583	48.840	149.600	232.000	1.651	6.280	0.565
%RSD		0.224	0.175	1.645	0.119	0.180	0.308	1.056	0.192

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	330.800	1169.000	1183.000	61.200	10.000	14.440	0.000	1120.000
2	19:45:50	328.900	1193.000	1210.000	61.230	9.972	9.211	0.000	1133.000
3	19:45:58	321.400	1164.000	1173.000	60.550	10.420	11.310	0.000	1113.000
x		327.100	1175.000	1189.000	60.990	10.130	11.660	0.000	1122.000
σ		5.002	15.290	19.500	0.384	0.251	2.631	0.000	9.999
%RSD		1.530	1.301	1.641	0.629	2.473	22.570	0.000	0.891

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	0.000	1102.000	1108.000	62.789%	52.300	52.460	59.950	106.800
2	19:45:50	0.000	1105.000	1114.000	62.075%	53.190	53.470	58.200	107.300
3	19:45:58	0.000	1093.000	1107.000	62.972%	53.080	51.800	57.900	107.300
x		0.000	1100.000	1110.000	62.612%	52.860	52.580	58.680	107.100
σ		0.000	6.487	3.856	0.474%	0.483	0.837	1.107	0.297
%RSD		0.000	0.590	0.347	0.757	0.913	1.592	1.887	0.277

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	66.698%	1924.000	399.400	396.600	2094.000	2083.000	88.364%	89.034%
2	19:45:50	66.218%	1946.000	407.500	401.200	2112.000	2092.000	89.403%	89.894%
3	19:45:58	65.643%	1953.000	407.100	402.700	2090.000	2092.000	90.840%	91.281%
x		66.186%	1941.000	404.700	400.200	2099.000	2089.000	89.536%	90.070%
σ		0.528%	14.990	4.583	3.215	11.660	5.014	1.243%	1.134%
%RSD		0.798	0.772	1.132	0.803	0.555	0.240	1.388	1.259

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:42	48.830	47.630	113.500	109.800	113.400	85.833%
2	19:45:50	48.600	47.740	114.300	110.100	112.900	86.138%
3	19:45:58	48.630	47.800	112.500	107.900	111.600	87.004%
x		48.680	47.730	113.500	109.300	112.600	86.325%
σ		0.126	0.087	0.894	1.159	0.936	0.608%
%RSD		0.259	0.181	0.788	1.060	0.831	0.704

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	77.057%	52.010	1062.000	1044.000	0.000	50770.000	65800.000	60350.000
2	19:50:55	77.625%	53.800	1089.000	1057.000	0.000	50630.000	65700.000	59640.000
3	19:51:03	78.154%	54.060	1088.000	1061.000	0.000	50890.000	59800.000	60440.000
x		77.612%	53.290	1080.000	1054.000	0.000	50760.000	63770.000	60140.000
σ		0.548%	1.112	15.000	8.711	0.000	127.400	3436.000	441.100
%RSD		0.707	2.087	1.389	0.827	0.000	0.251	5.389	0.733

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	40890.000	18190.000	0.000	60720.000	65860.000	65730.000	68.562%	2575.000
2	19:50:55	40150.000	18270.000	0.000	61430.000	67520.000	67260.000	68.826%	2672.000
3	19:51:03	40630.000	18420.000	0.000	62400.000	68390.000	68560.000	68.477%	2655.000
x		40560.000	18300.000	0.000	61520.000	67250.000	67180.000	68.622%	2634.000
σ		373.600	116.900	0.000	840.700	1285.000	1413.000	0.182%	51.590
%RSD		0.921	0.639	0.000	1.367	1.911	2.104	0.265	1.959

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	603.500	324.400	2734.000	107400.000	109600.000	601.600	630.100	312.400
2	19:50:55	596.000	321.400	2786.000	105900.000	109200.000	594.500	627.100	311.000
3	19:51:03	603.600	324.900	2845.000	106400.000	110200.000	599.300	631.800	309.300
x		601.000	323.500	2788.000	106600.000	109700.000	598.500	629.700	310.900
σ		4.370	1.907	55.420	779.200	475.100	3.617	2.394	1.533
%RSD		0.727	0.589	1.988	0.731	0.433	0.604	0.380	0.493

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	346.300	1146.000	1161.000	63.360	10.570	10.310	0.000	1185.000
2	19:50:55	342.500	1147.000	1155.000	61.470	10.540	10.910	0.000	1186.000
3	19:51:03	341.700	1146.000	1152.000	62.500	11.400	15.310	0.000	1181.000
x		343.500	1146.000	1156.000	62.440	10.840	12.180	0.000	1184.000
σ		2.471	0.575	4.747	0.945	0.486	2.730	0.000	2.701
%RSD		0.720	0.050	0.411	1.513	4.485	22.420	0.000	0.228

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	0.000	1302.000	1321.000	65.533%	46.930	46.460	60.110	118.200
2	19:50:55	0.000	1303.000	1321.000	65.983%	47.390	46.770	60.720	115.400
3	19:51:03	0.000	1299.000	1319.000	66.495%	46.510	47.100	59.840	116.400
x		0.000	1301.000	1320.000	66.004%	46.940	46.780	60.230	116.700
σ		0.000	1.817	1.126	0.481%	0.441	0.325	0.451	1.402
%RSD		0.000	0.140	0.085	0.729	0.939	0.694	0.749	1.202

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	70.054%	2328.000	579.100	575.200	2220.000	2227.000	85.841%	86.556%
2	19:50:55	70.784%	2311.000	583.500	569.400	2232.000	2216.000	86.983%	86.251%
3	19:51:03	70.807%	2334.000	579.400	575.400	2243.000	2194.000	86.900%	87.018%
x		70.548%	2324.000	580.700	573.300	2232.000	2212.000	86.575%	86.608%
σ		0.428%	12.000	2.491	3.425	11.620	16.810	0.636%	0.386%
%RSD		0.607	0.516	0.429	0.597	0.520	0.760	0.735	0.446

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:50:47	55.960	54.590	111.900	107.400	110.800	83.537%
2	19:50:55	55.190	54.540	110.200	107.000	110.200	85.595%
3	19:51:03	56.060	54.650	111.700	107.600	110.600	85.913%
x		55.740	54.590	111.200	107.300	110.500	85.015%
σ		0.476	0.058	0.952	0.336	0.304	1.290%
%RSD		0.854	0.107	0.856	0.313	0.275	1.517

180-35803-B-5-I 9/6/2014 7:56:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	80.785%	4.211	223.300	217.700	0.000	72920.000	48330.000	49420.000
2	19:56:01	84.549%	3.990	221.000	217.200	0.000	70660.000	47040.000	47740.000
3	19:56:09	84.894%	4.115	221.100	215.800	0.000	70050.000	46900.000	47760.000
x		83.409%	4.105	221.800	216.900	0.000	71210.000	47420.000	48310.000
σ		2.279%	0.111	1.311	0.989	0.000	1511.000	787.500	966.100
%RSD		2.732	2.701	0.591	0.456	0.000	2.122	1.661	2.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	85060.000	8029.000	0.000	23720.000	33840.000	32430.000	77.658%	5750.000
2	19:56:01	82440.000	8126.000	0.000	24170.000	34380.000	33120.000	79.164%	5878.000
3	19:56:09	82500.000	8227.000	0.000	24690.000	34850.000	34030.000	78.848%	5965.000
x		83330.000	8127.000	0.000	24190.000	34360.000	33200.000	78.557%	5864.000
σ		1496.000	98.750	0.000	484.100	509.300	800.300	0.794%	108.000
%RSD		1.795	1.215	0.000	2.001	1.482	2.411	1.011	1.842

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	302.900	321.600	1383.000	154600.000	158700.000	53.180	147.900	181.200
2	19:56:01	297.800	315.200	1426.000	151800.000	156000.000	51.920	147.700	180.600
3	19:56:09	302.100	317.500	1458.000	154100.000	156200.000	52.360	148.800	179.900
x		300.900	318.100	1422.000	153500.000	157000.000	52.490	148.100	180.500
σ		2.734	3.227	37.460	1472.000	1500.000	0.641	0.635	0.618
%RSD		0.909	1.014	2.634	0.959	0.955	1.221	0.429	0.342

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	201.700	640.400	647.000	66.440	3.938	15.150	0.000	241.100
2	19:56:01	200.400	635.300	644.600	66.710	4.477	10.080	0.000	242.700
3	19:56:09	199.800	645.500	646.700	66.440	4.349	14.330	0.000	245.900
x		200.700	640.400	646.100	66.530	4.255	13.190	0.000	243.300
σ		0.973	5.067	1.284	0.158	0.282	2.723	0.000	2.424
%RSD		0.485	0.791	0.199	0.238	6.624	20.650	0.000	0.996

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	0.000	35.730	35.350	66.652%	2.810	2.550	3.266	3.770
2	19:56:01	0.000	35.340	35.280	67.066%	2.828	2.632	3.230	3.724
3	19:56:09	0.000	35.230	35.020	66.776%	2.897	2.952	3.471	3.788
x		0.000	35.430	35.220	66.832%	2.845	2.712	3.322	3.761
σ		0.000	0.264	0.171	0.212%	0.046	0.213	0.130	0.033
%RSD		0.000	0.746	0.485	0.318	1.609	7.836	3.921	0.872

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	69.585%	21.490	1.445	1.052	246.400	241.100	92.601%	93.317%
2	19:56:01	69.596%	20.880	1.466	0.750	245.600	241.300	93.031%	94.176%
3	19:56:09	70.932%	21.140	1.392	0.714	239.900	238.200	92.886%	93.712%
x		70.038%	21.170	1.434	0.839	243.900	240.200	92.839%	93.735%
σ		0.775%	0.308	0.038	0.186	3.522	1.721	0.219%	0.430%
%RSD		1.106	1.454	2.644	22.160	1.444	0.716	0.236	0.459

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:53	1.813	1.741	208.000	196.400	203.900	86.685%
2	19:56:01	1.724	1.678	207.200	197.000	203.900	88.907%
3	19:56:09	1.687	1.738	208.200	194.500	203.500	88.128%
x		1.741	1.719	207.800	196.000	203.800	87.907%
σ		0.065	0.035	0.525	1.329	0.220	1.127%
%RSD		3.709	2.043	0.253	0.678	0.108	1.282

CCV 1241000 9/6/2014 8:01:49 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	82.608%	94.890	94.560	91.710	0.000	47400.000	49120.000	45630.000
2	20:01:07	80.870%	100.000	97.780	95.790	0.000	47560.000	48630.000	45490.000
3	20:01:14	82.638%	98.500	100.800	94.970	0.000	47270.000	48810.000	45020.000
x		82.039%	97.806%	97.700%	94.155%	0.000	94.817%	97.708%	90.763%
σ		1.012%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.234	2.701	3.177	2.295	0.000	0.307	0.508	0.713

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	492.900	5406.000	0.000	50080.000	50460.000	50030.000	77.828%	103.000
2	20:01:07	501.700	5509.000	0.000	50910.000	51990.000	51880.000	78.011%	109.300
3	20:01:14	499.500	5532.000	0.000	50970.000	52470.000	52310.000	78.519%	103.900
x		99.608%	109.650%	0.000	101.313%	103.286%	102.815%	78.119%	105.408%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.358%	n/a
%RSD		0.919	1.219	0.000	0.987	2.032	2.355	0.459	3.206

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	94.540	97.290	489.500	23830.000	23190.000	98.690	100.600	97.670
2	20:01:07	94.470	97.070	505.800	24060.000	23690.000	97.910	100.100	99.080
3	20:01:14	94.390	96.530	512.300	23630.000	23390.000	98.830	99.420	97.470
x		94.465%	96.963%	100.504%	95.365%	93.696%	98.477%	100.049%	98.075%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.080	0.404	2.330	0.908	1.064	0.502	0.588	0.896

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	101.900	101.400	100.000	96.490	94.270	101.000	0.000	96.540
2	20:01:07	100.500	98.850	101.500	93.680	93.640	92.680	0.000	97.090
3	20:01:14	99.450	97.990	97.550	94.320	93.550	98.580	0.000	94.780
x		100.622%	99.410%	99.687%	94.829%	93.824%	97.416%	0.000	96.136%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.227	1.777	1.997	1.552	0.419	4.390	0.000	1.257

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	79.700%	103.900	108.300	71.468%	109.700	107.700	105.400	110.500
2	20:01:07	81.166%	104.100	107.800	71.776%	107.500	110.300	108.000	110.700
3	20:01:14	82.797%	103.300	107.500	71.980%	106.900	107.400	105.300	108.600
x		81.221%	103.788%	107.838%	71.741%	108.025%	108.474%	106.228%	109.932%
σ		1.549%	n/a	n/a	0.257%	n/a	n/a	n/a	n/a
%RSD		1.907	0.413	0.393	0.359	1.388	1.432	1.405	1.072

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	72.704%	104.700	103.900	103.100	103.700	102.200	80.368%	80.904%
2	20:01:07	73.038%	103.000	104.900	103.400	102.500	103.300	80.577%	80.854%
3	20:01:14	74.578%	102.200	103.100	102.900	100.900	101.600	80.470%	81.417%
x		73.440%	103.310%	103.941%	103.104%	102.369%	102.393%	80.472%	81.059%
σ		1.000%	n/a	n/a	n/a	n/a	n/a	0.104%	0.312%
%RSD		1.361	1.226	0.873	0.237	1.367	0.853	0.130	0.385

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:59	101.600	101.800	102.400	103.500	103.300	84.919%
2	20:01:07	103.800	101.700	100.700	102.600	102.500	86.273%
3	20:01:14	102.600	101.800	100.800	102.700	102.500	86.646%
x		102.666%	101.791%	101.296%	102.930%	102.771%	85.946%
σ		n/a	n/a	n/a	n/a	n/a	0.909%
%RSD		1.034	0.047	0.947	0.494	0.474	1.057

CCB4 9/6/2014 8:10:54 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	93.206%	0.002	2.403	1.914	0.000	1.398	10.100	10.260
2	20:10:10	93.673%	0.008	2.120	2.087	0.000	2.028	11.150	11.540
3	20:10:17	96.159%	-0.032	2.082	1.882	0.000	2.561	9.709	11.670
x		94.346%	-0.007	2.202	1.961	0.000	1.996	10.320	11.160
σ		1.587%	0.022	0.176	0.110	0.000	0.583	0.745	0.777
%RSD		1.682	294.000	7.980	5.629	0.000	29.190	7.218	6.965

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	2.321	2.322	0.000	7.713	9.603	9.999	87.073%	0.072
2	20:10:10	2.564	1.581	0.000	6.246	5.922	8.411	88.185%	0.096
3	20:10:17	2.820	1.577	0.000	7.097	4.841	9.066	87.814%	0.171
x		2.568	1.826	0.000	7.018	6.789	9.159	87.691%	0.113
σ		0.250	0.429	0.000	0.737	2.496	0.798	0.566%	0.052
%RSD		9.726	23.480	0.000	10.490	36.770	8.711	0.645	46.020

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	0.081	0.028	0.106	6.693	8.397	0.019	0.007	-0.045
2	20:10:10	0.057	0.052	0.124	6.645	5.994	0.028	-0.031	-0.030
3	20:10:17	0.024	0.039	0.097	6.901	5.828	0.020	-0.022	-0.051
x		0.054	0.040	0.109	6.746	6.740	0.022	-0.015	-0.042
σ		0.029	0.012	0.014	0.136	1.438	0.005	0.020	0.011
%RSD		53.320	31.320	12.430	2.022	21.330	22.560	129.100	25.880

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	-0.065	0.002	0.016	0.017	0.022	-1.583	0.000	0.014
2	20:10:10	-0.043	-0.074	0.066	0.009	-0.000	-3.374	0.000	0.031
3	20:10:17	-0.051	-0.008	-0.013	0.012	0.018	2.732	0.000	0.028
x		-0.053	-0.027	0.023	0.013	0.013	-0.742	0.000	0.024
σ		0.012	0.041	0.040	0.004	0.012	3.139	0.000	0.009
%RSD		21.740	154.600	170.600	32.270	88.210	423.200	0.000	37.130

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	90.294%	0.189	0.132	83.615%	-0.082	-0.037	0.048	0.032
2	20:10:10	93.181%	0.078	0.131	84.608%	-0.033	-0.063	0.011	0.032
3	20:10:17	94.697%	0.152	0.123	85.097%	-0.074	-0.057	0.011	0.026
x		92.724%	0.139	0.129	84.440%	-0.063	-0.052	0.024	0.030
σ		2.237%	0.056	0.005	0.755%	0.026	0.014	0.021	0.003
%RSD		2.412	40.480	3.996	0.894	41.860	26.380	90.630	11.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	82.670%	-0.571	0.199	-0.479	0.016	0.008	85.874%	86.578%
2	20:10:10	83.200%	-0.538	0.084	-0.574	0.085	-0.018	86.385%	86.845%
3	20:10:17	84.024%	-0.535	0.165	-0.495	0.016	0.109	86.779%	87.464%
x		83.298%	-0.548	0.149	-0.516	0.039	0.033	86.346%	86.962%
σ		0.683%	0.020	0.059	0.051	0.039	0.067	0.454%	0.454%
%RSD		0.819	3.689	39.440	9.825	100.800	204.300	0.526	0.523

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:02	0.033	0.053	0.031	0.008	0.019	96.916%
2	20:10:10	0.038	0.043	0.025	0.042	0.031	97.536%
3	20:10:17	0.053	0.039	0.010	0.032	0.020	97.558%
x		0.041	0.045	0.022	0.027	0.023	97.337%
σ		0.010	0.007	0.011	0.017	0.007	0.364%
%RSD		24.560	16.050	49.750	62.810	28.250	0.374

180-35937-B-1-E 9/6/2014 8:15:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	86.965%	10.850	52.330	51.520	0.000	1450.000	45960.000	46440.000
2	20:15:15	88.935%	11.250	52.470	50.500	0.000	1421.000	45260.000	42220.000
3	20:15:22	89.402%	11.160	55.840	51.740	0.000	1438.000	45510.000	46290.000
x		88.434%	11.090	53.550	51.250	0.000	1436.000	45580.000	44990.000
σ		1.294%	0.213	1.988	0.664	0.000	14.590	350.500	2397.000
%RSD		1.463	1.921	3.713	1.296	0.000	1.016	0.769	5.329

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	109500.000	8780.000	0.000	13170.000	55630.000	56130.000	83.669%	3666.000
2	20:15:15	109800.000	9171.000	0.000	13420.000	57620.000	57880.000	84.122%	3823.000
3	20:15:22	110000.000	9059.000	0.000	13650.000	58540.000	59340.000	84.529%	3846.000
x		109700.000	9004.000	0.000	13410.000	57260.000	57780.000	84.107%	3778.000
σ		270.800	201.300	0.000	240.000	1487.000	1610.000	0.430%	97.990
%RSD		0.247	2.236	0.000	1.789	2.597	2.786	0.512	2.594

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	283.200	367.100	9647.000	228800.000	233300.000	223.700	360.600	570.700
2	20:15:15	282.300	367.300	9955.000	228100.000	231400.000	221.600	358.300	569.800
3	20:15:22	283.700	367.100	10100.000	228200.000	231900.000	221.000	359.400	565.300
x		283.100	367.200	9899.000	228400.000	232200.000	222.100	359.400	568.600
σ		0.690	0.126	229.400	384.900	958.900	1.429	1.148	2.893
%RSD		0.244	0.034	2.317	0.169	0.413	0.644	0.319	0.509

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	622.900	2819.000	2882.000	71.600	9.915	16.580	0.000	245.300
2	20:15:15	619.600	2854.000	2863.000	71.530	9.853	10.470	0.000	242.800
3	20:15:22	614.600	2779.000	2858.000	72.060	10.160	12.370	0.000	241.500
x		619.000	2817.000	2868.000	71.730	9.975	13.140	0.000	243.200
σ		4.150	37.410	12.820	0.286	0.160	3.124	0.000	1.901
%RSD		0.670	1.328	0.447	0.398	1.604	23.770	0.000	0.782

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	0.000	13.210	13.280	67.805%	4.179	4.286	11.290	12.690
2	20:15:15	0.000	12.970	12.940	68.514%	4.130	4.435	11.460	13.210
3	20:15:22	0.000	13.500	13.210	69.611%	4.061	4.240	11.180	12.610
x		0.000	13.230	13.140	68.643%	4.123	4.321	11.310	12.840
σ		0.000	0.268	0.180	0.910%	0.059	0.102	0.143	0.326
%RSD		0.000	2.024	1.368	1.326	1.433	2.361	1.266	2.536

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	71.246%	59.340	6.173	5.758	1363.000	1346.000	95.569%	95.510%
2	20:15:15	72.063%	59.800	6.098	5.135	1334.000	1331.000	97.302%	96.949%
3	20:15:22	72.417%	60.070	6.090	5.572	1358.000	1346.000	98.161%	98.282%
x		71.909%	59.730	6.120	5.488	1352.000	1341.000	97.011%	96.913%
σ		0.600%	0.371	0.046	0.320	15.270	8.528	1.320%	1.386%
%RSD		0.835	0.622	0.751	5.829	1.130	0.636	1.361	1.430

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	1.847	1.791	792.300	749.400	790.200	84.742%
2	20:15:15	1.817	1.787	798.300	759.600	799.900	86.116%
3	20:15:22	1.823	1.802	806.200	764.800	801.000	85.817%
x		1.829	1.793	798.900	758.000	797.000	85.558%
σ		0.016	0.008	6.985	7.840	5.943	0.723%
%RSD		0.854	0.426	0.874	1.034	0.746	0.845

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	66.799%	8.543	73.500	70.420	0.000	5108.000	59650.000	60660.000
2	20:20:20	67.699%	8.770	75.170	73.250	0.000	5046.000	59260.000	59910.000
3	20:20:28	68.245%	8.830	72.970	71.980	0.000	5009.000	58300.000	59610.000
x		67.581%	8.714	73.880	71.890	0.000	5054.000	59070.000	60060.000
σ		0.730%	0.151	1.147	1.417	0.000	49.900	693.900	542.100
%RSD		1.080	1.734	1.553	1.971	0.000	0.987	1.175	0.903

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	94620.000	14460.000	0.000	10440.000	811600.000	754800.000	67.797%	6846.000
2	20:20:20	92790.000	14650.000	0.000	10700.000	834000.000	774000.000	68.181%	7004.000
3	20:20:28	91580.000	14790.000	0.000	10900.000	851200.000	785600.000	68.456%	7130.000
x		93000.000	14630.000	0.000	10680.000	832300.000	771500.000	68.145%	6993.000
σ		1530.000	166.500	0.000	229.400	19880.000	15540.000	0.331%	142.400
%RSD		1.645	1.138	0.000	2.147	2.389	2.015	0.486	2.037

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	336.000	2057.000	4565.000	262600.000	269900.000	193.100	346.800	796.800
2	20:20:20	325.000	2022.000	4720.000	257900.000	264500.000	191.700	342.500	783.900
3	20:20:28	326.400	2008.000	4753.000	256000.000	265600.000	190.400	342.600	782.600
x		329.100	2029.000	4679.000	258800.000	266700.000	191.700	344.000	787.800
σ		5.969	24.990	100.400	3402.000	2845.000	1.322	2.428	7.829
%RSD		1.813	1.232	2.145	1.314	1.067	0.689	0.706	0.994

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	867.900	2813.000	2836.000	91.940	15.880	11.890	0.000	630.300
2	20:20:20	870.400	2757.000	2768.000	89.720	13.800	14.430	0.000	624.400
3	20:20:28	858.300	2721.000	2788.000	89.430	14.340	15.820	0.000	624.600
x		865.600	2764.000	2797.000	90.360	14.670	14.050	0.000	626.400
σ		6.364	46.470	34.680	1.376	1.079	1.990	0.000	3.324
%RSD		0.735	1.682	1.240	1.522	7.356	14.170	0.000	0.531

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	0.000	15.290	15.430	55.414%	9.047	9.624	14.400	17.310
2	20:20:20	0.000	14.730	14.900	55.890%	9.095	9.589	14.540	17.800
3	20:20:28	0.000	14.410	15.590	55.083%	9.164	9.473	14.750	17.710
x		0.000	14.810	15.310	55.462%	9.102	9.562	14.560	17.610
σ		0.000	0.442	0.364	0.406%	0.059	0.079	0.178	0.258
%RSD		0.000	2.986	2.376	0.732	0.646	0.823	1.223	1.465

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	60.183%	124.600	7.119	6.378	1081.000	1064.000	78.356%	79.543%
2	20:20:20	59.342%	126.900	7.086	6.261	1073.000	1076.000	79.002%	80.207%
3	20:20:28	59.892%	127.100	7.313	6.038	1070.000	1058.000	77.891%	79.760%
x		59.806%	126.200	7.173	6.226	1074.000	1066.000	78.416%	79.836%
σ		0.427%	1.426	0.123	0.173	5.638	9.109	0.558%	0.339%
%RSD		0.714	1.130	1.709	2.776	0.525	0.855	0.711	0.424

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:13	1.619	1.734	1078.000	1018.000	1073.000	73.109%
2	20:20:20	1.708	1.702	1070.000	1013.000	1065.000	73.811%
3	20:20:28	1.707	1.658	1075.000	1007.000	1065.000	73.634%
x		1.678	1.698	1075.000	1013.000	1067.000	73.518%
σ		0.051	0.039	3.937	5.338	4.545	0.365%
%RSD		3.052	2.268	0.366	0.527	0.426	0.497

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	50.743%	0.302	289.600	294.000	0.000	67540.000	128400.000	127700.000
2	20:25:25	50.261%	0.347	302.500	303.000	0.000	66660.000	128200.000	128300.000
3	20:25:33	50.457%	0.221	300.300	302.500	0.000	66540.000	127000.000	126300.000
x		50.487%	0.290	297.500	299.800	0.000	66910.000	127800.000	127400.000
σ		0.242%	0.064	6.901	5.028	0.000	547.100	704.400	989.000
%RSD		0.479	22.050	2.320	1.677	0.000	0.818	0.551	0.776

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	4927.000	5028.000	0.000	3974.000	5172000.000	4668000.000	49.568%	427.500
2	20:25:25	4878.000	5225.000	0.000	4023.000	5264000.000	4743000.000	49.340%	427.100
3	20:25:33	4847.000	5175.000	0.000	4036.000	5282000.000	4762000.000	48.623%	428.400
x		4884.000	5142.000	0.000	4011.000	5239000.000	4724000.000	49.177%	427.700
σ		40.460	102.500	0.000	32.790	58820.000	49780.000	0.493%	0.637
%RSD		0.828	1.993	0.000	0.818	1.123	1.054	1.003	0.149

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	73.980	71.460	225.300	14730.000	29800.000	6.185	20.680	20.660
2	20:25:25	75.290	69.920	232.800	14510.000	28440.000	5.883	20.090	19.560
3	20:25:33	73.690	69.950	233.500	14450.000	28030.000	5.556	20.890	20.480
x		74.320	70.440	230.500	14560.000	28760.000	5.875	20.550	20.230
σ		0.848	0.881	4.562	149.000	929.900	0.315	0.416	0.587
%RSD		1.141	1.251	1.979	1.023	3.234	5.361	2.024	2.900

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	27.660	44.520	46.480	289.800	4.963	-8.136	0.000	79350.000
2	20:25:25	25.760	47.080	44.000	294.800	4.984	-8.438	0.000	79450.000
3	20:25:33	27.630	41.340	43.500	295.000	3.865	-10.310	0.000	79240.000
x		27.020	44.310	44.660	293.200	4.604	-8.962	0.000	79350.000
σ		1.092	2.874	1.598	2.954	0.640	1.179	0.000	103.400
%RSD		4.042	6.486	3.578	1.008	13.900	13.160	0.000	0.130

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	0.000	2.306	2.702	34.291%	0.092	-0.025	0.217	0.357
2	20:25:25	0.000	2.499	2.738	33.255%	0.059	0.038	0.448	0.461
3	20:25:33	0.000	2.313	2.356	32.788%	0.021	-0.008	0.453	0.315
x		0.000	2.373	2.599	33.445%	0.058	0.002	0.373	0.378
σ		0.000	0.109	0.211	0.770%	0.036	0.033	0.135	0.075
%RSD		0.000	4.595	8.126	2.301	62.150	2117.000	36.180	19.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	39.023%	2.857	2.269	5.699	81.900	78.470	49.744%	50.361%
2	20:25:25	37.749%	3.371	2.267	6.185	81.860	80.150	48.323%	49.338%
3	20:25:33	37.499%	2.953	2.126	5.836	83.600	83.230	48.555%	49.013%
x		38.090%	3.060	2.221	5.907	82.460	80.620	48.874%	49.571%
σ		0.817%	0.273	0.082	0.251	0.994	2.415	0.762%	0.703%
%RSD		2.145	8.932	3.707	4.241	1.205	2.996	1.559	1.419

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:25:17	1.929	1.907	85.330	81.100	83.770	42.545%
2	20:25:25	1.829	1.880	86.470	81.300	84.970	41.995%
3	20:25:33	1.846	1.732	86.190	81.810	84.250	42.018%
x		1.868	1.840	85.990	81.400	84.330	42.186%
σ		0.053	0.095	0.593	0.370	0.604	0.311%
%RSD		2.861	5.144	0.689	0.454	0.717	0.738

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	58.511%	10.980	38.340	34.500	0.000	1346.000	25140.000	25130.000
2	20:31:55	61.035%	10.500	37.110	35.760	0.000	1345.000	24790.000	24660.000
3	20:32:02	59.129%	10.780	38.750	35.930	0.000	1354.000	25510.000	25310.000
x		59.558%	10.750	38.070	35.400	0.000	1349.000	25150.000	25030.000
σ		1.316%	0.242	0.851	0.781	0.000	4.937	363.700	333.600
%RSD		2.209	2.252	2.236	2.206	0.000	0.366	1.446	1.332

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	73800.000	8222.000	0.000	6674.000	34070.000	31720.000	55.886%	2194.000
2	20:31:55	74050.000	8253.000	0.000	6771.000	34580.000	32700.000	55.833%	2240.000
3	20:32:02	74400.000	8332.000	0.000	6837.000	35020.000	32590.000	56.457%	2276.000
x		74080.000	8269.000	0.000	6760.000	34560.000	32340.000	56.059%	2237.000
σ		299.300	56.360	0.000	81.850	476.300	533.200	0.346%	41.400
%RSD		0.404	0.682	0.000	1.211	1.378	1.649	0.617	1.851

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	227.400	250.800	1242.000	167700.000	167900.000	211.000	342.800	454.100
2	20:31:55	225.100	250.800	1226.000	167400.000	170000.000	215.400	341.500	452.300
3	20:32:02	226.000	251.100	1223.000	165400.000	169600.000	214.300	340.700	448.800
x		226.200	250.900	1230.000	166800.000	169200.000	213.600	341.700	451.700
σ		1.120	0.155	10.140	1231.000	1118.000	2.322	1.018	2.673
%RSD		0.495	0.062	0.824	0.738	0.661	1.087	0.298	0.592

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	481.100	1653.000	1683.000	44.370	26.940	30.210	0.000	164.000
2	20:31:55	491.900	1667.000	1674.000	44.770	28.200	27.310	0.000	163.500
3	20:32:02	493.000	1668.000	1691.000	44.950	27.430	29.600	0.000	165.900
x		488.600	1663.000	1683.000	44.700	27.520	29.040	0.000	164.500
σ		6.584	8.327	8.692	0.296	0.634	1.532	0.000	1.250
%RSD		1.347	0.501	0.517	0.661	2.303	5.275	0.000	0.760

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	0.000	11.670	13.020	48.935%	2.207	2.499	7.330	8.693
2	20:31:55	0.000	12.390	12.540	48.944%	2.261	2.230	7.658	8.414
3	20:32:02	0.000	12.460	12.380	49.335%	2.236	2.303	7.922	8.583
x		0.000	12.170	12.650	49.071%	2.235	2.344	7.637	8.564
σ		0.000	0.437	0.334	0.228%	0.027	0.139	0.296	0.141
%RSD		0.000	3.591	2.639	0.465	1.202	5.928	3.878	1.643

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	51.272%	34.300	5.018	4.355	865.000	850.500	73.310%	73.629%
2	20:31:55	52.019%	33.520	4.712	4.229	841.700	843.600	73.468%	74.303%
3	20:32:02	52.552%	32.330	5.170	4.251	850.700	849.900	74.175%	75.347%
x		51.948%	33.380	4.967	4.278	852.500	848.000	73.651%	74.426%
σ		0.643%	0.989	0.233	0.067	11.790	3.820	0.461%	0.865%
%RSD		1.238	2.963	4.694	1.569	1.383	0.450	0.626	1.163

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:31:47	1.356	1.177	564.900	538.400	562.200	69.026%
2	20:31:55	1.173	1.210	567.600	541.500	561.600	70.229%
3	20:32:02	1.018	1.160	569.400	542.100	562.500	70.187%
x		1.182	1.183	567.300	540.700	562.100	69.814%
σ		0.169	0.026	2.283	2.002	0.475	0.683%
%RSD		14.290	2.159	0.402	0.370	0.084	0.978

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	68.870%	10.190	36.410	33.190	0.000	1238.000	22960.000	23070.000
2	20:36:59	69.361%	9.896	34.690	34.010	0.000	1226.000	22820.000	22790.000
3	20:37:07	68.972%	10.320	36.610	34.810	0.000	1247.000	22840.000	22820.000
x		69.067%	10.130	35.900	34.000	0.000	1237.000	22880.000	22890.000
σ		0.259%	0.216	1.055	0.810	0.000	10.350	77.450	154.000
%RSD		0.375	2.128	2.938	2.381	0.000	0.837	0.339	0.673

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	65770.000	8697.000	0.000	6586.000	34230.000	32230.000	61.354%	2087.000
2	20:36:59	64930.000	8681.000	0.000	6694.000	35940.000	33200.000	61.037%	2146.000
3	20:37:07	65280.000	8862.000	0.000	6860.000	35940.000	33660.000	60.887%	2173.000
x		65330.000	8747.000	0.000	6713.000	35370.000	33030.000	61.093%	2135.000
σ		422.800	99.910	0.000	138.000	990.400	727.200	0.239%	44.380
%RSD		0.647	1.142	0.000	2.056	2.800	2.202	0.391	2.078

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	207.300	226.100	1191.000	143600.000	147000.000	185.400	311.000	411.800
2	20:36:59	205.400	229.700	1232.000	145200.000	148000.000	189.300	315.600	421.500
3	20:37:07	205.700	228.300	1181.000	144900.000	148800.000	193.400	314.600	425.800
x		206.100	228.000	1201.000	144600.000	147900.000	189.400	313.700	419.700
σ		1.033	1.793	27.030	810.900	906.700	3.984	2.416	7.128
%RSD		0.501	0.786	2.251	0.561	0.613	2.104	0.770	1.698

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	449.800	1467.000	1509.000	41.760	24.000	29.050	0.000	146.700
2	20:36:59	457.400	1488.000	1520.000	42.260	23.750	29.830	0.000	146.200
3	20:37:07	461.500	1501.000	1526.000	41.910	24.000	30.510	0.000	147.400
x		456.300	1485.000	1518.000	41.980	23.910	29.800	0.000	146.800
σ		5.937	16.880	8.542	0.257	0.145	0.728	0.000	0.614
%RSD		1.301	1.137	0.563	0.612	0.606	2.442	0.000	0.418

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	0.000	12.350	12.840	53.301%	1.377	1.548	11.490	12.470
2	20:36:59	0.000	12.020	13.100	53.615%	1.516	1.616	11.760	11.960
3	20:37:07	0.000	12.860	12.650	53.234%	1.479	1.609	11.440	12.290
x		0.000	12.410	12.860	53.383%	1.457	1.591	11.560	12.240
σ		0.000	0.425	0.226	0.203%	0.072	0.037	0.173	0.260
%RSD		0.000	3.422	1.755	0.381	4.925	2.356	1.492	2.122

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	55.301%	31.360	4.225	3.820	802.100	787.900	75.904%	75.732%
2	20:36:59	56.250%	30.450	4.269	3.924	803.300	784.300	77.466%	78.088%
3	20:37:07	55.982%	31.350	4.454	3.817	805.000	796.600	76.904%	77.891%
x		55.845%	31.050	4.316	3.854	803.500	789.600	76.758%	77.237%
σ		0.489%	0.520	0.121	0.061	1.450	6.320	0.791%	1.307%
%RSD		0.876	1.676	2.809	1.574	0.181	0.800	1.031	1.692

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:51	1.037	1.074	560.500	537.000	558.000	74.405%
2	20:36:59	1.098	1.022	558.100	534.800	559.700	75.465%
3	20:37:07	1.049	1.035	553.500	532.900	552.300	76.954%
x		1.061	1.044	557.400	534.900	556.700	75.608%
σ		0.032	0.027	3.550	2.051	3.899	1.281%
%RSD		3.048	2.577	0.637	0.384	0.700	1.694

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	67.212%	8.615	44.380	39.940	0.000	1142.000	60150.000	55880.000
2	20:42:05	68.286%	8.817	44.790	40.490	0.000	1149.000	60640.000	55990.000
3	20:42:13	68.164%	9.640	42.650	40.760	0.000	1146.000	61240.000	61630.000
x		67.887%	9.024	43.940	40.400	0.000	1146.000	60680.000	57830.000
σ		0.588%	0.543	1.139	0.417	0.000	3.333	545.800	3291.000
%RSD		0.866	6.019	2.591	1.031	0.000	0.291	0.900	5.690

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	65610.000	7393.000	0.000	8334.000	93290.000	91910.000	63.892%	2234.000
2	20:42:05	66180.000	7867.000	0.000	8835.000	99940.000	97520.000	61.082%	2403.000
3	20:42:13	66880.000	7858.000	0.000	8920.000	101200.000	98250.000	61.073%	2406.000
x		66220.000	7706.000	0.000	8696.000	98150.000	95890.000	62.015%	2348.000
σ		636.000	271.200	0.000	316.500	4260.000	3467.000	1.625%	98.460
%RSD		0.960	3.519	0.000	3.639	4.340	3.616	2.620	4.194

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	190.500	241.700	3559.000	178700.000	183200.000	235.100	373.600	371.400
2	20:42:05	198.400	248.300	3852.000	184500.000	188300.000	240.000	382.500	382.700
3	20:42:13	196.800	247.800	3902.000	182600.000	186100.000	236.200	380.300	379.500
x		195.200	245.900	3771.000	181900.000	185900.000	237.100	378.800	377.900
σ		4.173	3.645	185.600	2990.000	2545.000	2.572	4.654	5.805
%RSD		2.137	1.482	4.921	1.644	1.369	1.085	1.229	1.536

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	406.900	1662.000	1716.000	36.990	7.309	3.914	0.000	196.200
2	20:42:05	416.900	1696.000	1764.000	37.440	5.931	3.666	0.000	198.300
3	20:42:13	412.800	1688.000	1729.000	38.250	6.549	4.098	0.000	198.700
x		412.200	1682.000	1736.000	37.560	6.596	3.892	0.000	197.700
σ		5.028	17.870	24.430	0.640	0.690	0.217	0.000	1.376
%RSD		1.220	1.062	1.407	1.704	10.460	5.563	0.000	0.696

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	0.000	13.200	13.250	49.636%	1.514	1.449	6.650	6.780
2	20:42:05	0.000	13.630	14.200	49.824%	1.483	1.319	6.858	7.351
3	20:42:13	0.000	13.460	13.740	50.177%	1.471	1.434	7.390	7.746
x		0.000	13.430	13.730	49.879%	1.489	1.401	6.966	7.292
σ		0.000	0.219	0.474	0.274%	0.023	0.072	0.382	0.486
%RSD		0.000	1.629	3.448	0.550	1.518	5.105	5.481	6.658

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	52.039%	33.230	4.091	3.537	835.000	827.900	73.024%	74.247%
2	20:42:05	52.506%	34.310	4.105	3.445	827.800	816.600	73.840%	74.092%
3	20:42:13	52.504%	33.490	3.995	3.574	826.400	821.700	75.105%	76.044%
x		52.350%	33.680	4.064	3.519	829.800	822.100	73.990%	74.794%
σ		0.269%	0.566	0.060	0.066	4.586	5.647	1.048%	1.085%
%RSD		0.514	1.680	1.483	1.887	0.553	0.687	1.417	1.451

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:57	1.479	1.347	489.100	465.000	484.800	68.537%
2	20:42:05	1.556	1.431	493.700	472.300	489.200	68.801%
3	20:42:13	1.382	1.446	485.100	462.500	480.500	70.505%
x		1.472	1.408	489.300	466.600	484.800	69.281%
σ		0.087	0.053	4.275	5.075	4.365	1.068%
%RSD		5.932	3.782	0.874	1.088	0.900	1.542

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	73.156%	10.910	55.430	52.110	0.000	1729.000	29790.000	29640.000
2	20:47:08	73.676%	11.250	55.790	53.190	0.000	1705.000	29680.000	29600.000
3	20:47:15	75.223%	11.690	55.750	53.320	0.000	1682.000	29260.000	29390.000
x		74.018%	11.280	55.660	52.870	0.000	1706.000	29570.000	29540.000
σ		1.075%	0.394	0.197	0.664	0.000	23.360	281.200	131.500
%RSD		1.453	3.494	0.353	1.256	0.000	1.370	0.951	0.445

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	83180.000	9365.000	0.000	8222.000	32430.000	30820.000	67.301%	2913.000
2	20:47:08	83220.000	9505.000	0.000	8413.000	33320.000	31780.000	68.162%	3006.000
3	20:47:15	82930.000	9412.000	0.000	8508.000	33890.000	32060.000	68.504%	3035.000
x		83110.000	9427.000	0.000	8381.000	33210.000	31550.000	67.989%	2985.000
σ		155.900	71.290	0.000	145.200	733.200	650.200	0.620%	63.690
%RSD		0.188	0.756	0.000	1.733	2.207	2.061	0.912	2.134

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	287.600	286.500	4753.000	221800.000	225700.000	260.100	427.400	358.500
2	20:47:08	290.900	286.700	4870.000	219800.000	223200.000	259.500	427.400	360.000
3	20:47:15	284.700	283.100	4894.000	218600.000	221700.000	259.600	423.000	351.500
x		287.700	285.400	4839.000	220100.000	223500.000	259.700	426.000	356.600
σ		3.136	2.016	75.520	1600.000	2065.000	0.361	2.526	4.554
%RSD		1.090	0.706	1.561	0.727	0.924	0.139	0.593	1.277

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	386.900	1937.000	1990.000	46.750	7.572	6.473	0.000	194.900
2	20:47:08	390.500	1916.000	1950.000	44.630	7.281	11.750	0.000	195.400
3	20:47:15	384.900	1936.000	1960.000	44.870	6.865	8.844	0.000	195.900
x		387.400	1930.000	1967.000	45.420	7.239	9.024	0.000	195.400
σ		2.823	11.500	20.930	1.158	0.355	2.645	0.000	0.504
%RSD		0.729	0.596	1.064	2.549	4.904	29.310	0.000	0.258

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	0.000	9.955	9.572	55.962%	10.400	10.520	5.942	6.544
2	20:47:08	0.000	10.440	9.576	55.887%	10.480	10.730	6.089	6.473
3	20:47:15	0.000	9.510	9.797	55.867%	10.520	10.630	6.300	6.789
x		0.000	9.968	9.648	55.906%	10.470	10.630	6.110	6.602
σ		0.000	0.465	0.129	0.050%	0.063	0.106	0.180	0.166
%RSD		0.000	4.666	1.335	0.089	0.602	0.993	2.952	2.514

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	58.019%	35.280	4.017	3.809	1141.000	1135.000	77.747%	78.751%
2	20:47:08	57.717%	36.920	4.398	3.672	1161.000	1150.000	78.937%	80.545%
3	20:47:15	57.258%	35.820	4.540	3.803	1154.000	1147.000	79.142%	80.730%
x		57.665%	36.010	4.318	3.761	1152.000	1144.000	78.609%	80.009%
σ		0.383%	0.836	0.270	0.077	10.090	7.865	0.753%	1.093%
%RSD		0.664	2.323	6.262	2.049	0.876	0.688	0.958	1.366

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:47:00	1.249	1.267	544.300	513.200	534.700	73.543%
2	20:47:08	1.214	1.215	537.500	512.200	534.500	74.837%
3	20:47:15	1.285	1.217	540.300	512.400	535.500	75.073%
x		1.250	1.233	540.700	512.600	534.900	74.484%
σ		0.036	0.029	3.436	0.527	0.487	0.824%
%RSD		2.850	2.377	0.636	0.103	0.091	1.106

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	70.757%	9.744	32.500	34.750	0.000	1388.000	64150.000	59960.000
2	20:52:11	73.766%	9.572	36.400	34.500	0.000	1341.000	62040.000	57420.000
3	20:52:18	71.588%	9.865	37.380	35.180	0.000	1365.000	62750.000	58520.000
x		72.037%	9.727	35.430	34.810	0.000	1365.000	62980.000	58630.000
σ		1.554%	0.147	2.582	0.347	0.000	23.560	1073.000	1274.000
%RSD		2.157	1.514	7.288	0.996	0.000	1.727	1.703	2.173

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	103400.000	7644.000	0.000	25960.000	66350.000	66230.000	68.801%	7556.000
2	20:52:11	100400.000	7807.000	0.000	26390.000	69140.000	68150.000	69.271%	7762.000
3	20:52:18	101400.000	7808.000	0.000	26430.000	68430.000	68600.000	69.162%	7820.000
x		101700.000	7753.000	0.000	26260.000	67970.000	67660.000	69.078%	7713.000
σ		1522.000	94.420	0.000	264.000	1447.000	1261.000	0.246%	138.800
%RSD		1.496	1.218	0.000	1.005	2.128	1.864	0.356	1.799

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	295.200	320.900	3933.000	229300.000	235300.000	193.500	369.900	404.200
2	20:52:11	291.400	317.600	3981.000	228100.000	232200.000	193.000	366.000	401.700
3	20:52:18	290.800	317.800	4037.000	226900.000	231400.000	189.000	366.100	400.600
x		292.500	318.800	3984.000	228100.000	233000.000	191.800	367.300	402.200
σ		2.394	1.869	52.150	1192.000	2069.000	2.440	2.224	1.860
%RSD		0.818	0.586	1.309	0.523	0.888	1.272	0.605	0.462

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	442.500	1707.000	1742.000	36.080	7.146	5.710	0.000	200.300
2	20:52:11	443.100	1715.000	1760.000	36.040	5.900	7.094	0.000	201.400
3	20:52:18	436.900	1697.000	1749.000	37.190	5.240	6.927	0.000	198.100
x		440.800	1706.000	1750.000	36.430	6.095	6.577	0.000	200.000
σ		3.402	8.994	9.294	0.651	0.968	0.755	0.000	1.702
%RSD		0.772	0.527	0.531	1.788	15.880	11.480	0.000	0.851

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	0.000	10.060	10.700	52.645%	1.361	1.602	4.289	6.480
2	20:52:11	0.000	10.620	11.070	52.338%	1.250	1.352	4.881	5.980
3	20:52:18	0.000	11.170	10.430	52.424%	1.133	1.509	5.511	6.129
x		0.000	10.620	10.730	52.469%	1.248	1.488	4.894	6.196
σ		0.000	0.558	0.321	0.158%	0.114	0.127	0.611	0.257
%RSD		0.000	5.256	2.992	0.302	9.149	8.504	12.490	4.146

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	54.150%	60.740	3.737	2.725	1178.000	1181.000	77.292%	77.558%
2	20:52:11	54.524%	60.960	3.419	3.224	1186.000	1183.000	77.405%	77.158%
3	20:52:18	54.358%	60.910	3.450	2.916	1212.000	1188.000	77.498%	77.825%
x		54.344%	60.870	3.535	2.955	1192.000	1184.000	77.398%	77.514%
σ		0.187%	0.116	0.175	0.252	17.920	3.552	0.104%	0.336%
%RSD		0.345	0.191	4.958	8.518	1.504	0.300	0.134	0.433

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:52:03	2.208	2.088	560.500	539.000	560.000	68.426%
2	20:52:11	2.163	2.220	559.400	536.200	557.800	69.609%
3	20:52:18	2.250	2.108	556.900	534.200	555.500	70.824%
x		2.207	2.139	558.900	536.500	557.800	69.619%
σ		0.044	0.071	1.835	2.376	2.235	1.199%
%RSD		1.977	3.334	0.328	0.443	0.401	1.722

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	74.204%	14.480	46.200	45.050	0.000	1401.000	29070.000	29790.000
2	20:57:14	74.318%	15.390	47.380	47.510	0.000	1429.000	29190.000	29390.000
3	20:57:21	72.572%	16.030	49.750	48.100	0.000	1441.000	29380.000	29630.000
x		73.698%	15.300	47.780	46.890	0.000	1424.000	29210.000	29600.000
σ		0.977%	0.781	1.810	1.616	0.000	20.610	153.400	199.000
%RSD		1.326	5.108	3.788	3.447	0.000	1.448	0.525	0.672

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	120000.000	8440.000	0.000	8071.000	40320.000	38640.000	71.176%	2292.000
2	20:57:14	118300.000	8564.000	0.000	8256.000	41120.000	39220.000	71.828%	2371.000
3	20:57:21	120100.000	8706.000	0.000	8282.000	41880.000	40060.000	72.061%	2387.000
x		119500.000	8570.000	0.000	8203.000	41110.000	39310.000	71.688%	2350.000
σ		1048.000	133.300	0.000	114.800	779.100	713.300	0.459%	51.090
%RSD		0.877	1.556	0.000	1.400	1.895	1.815	0.640	2.174

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	249.000	356.600	8741.000	208800.000	210300.000	367.400	507.100	699.200
2	20:57:14	248.600	354.600	8940.000	205300.000	210300.000	369.000	507.400	698.800
3	20:57:21	246.400	354.000	9085.000	206700.000	210200.000	366.400	502.200	695.400
x		248.000	355.100	8922.000	206900.000	210300.000	367.600	505.600	697.800
σ		1.373	1.338	173.200	1779.000	65.130	1.338	2.881	2.087
%RSD		0.554	0.377	1.941	0.860	0.031	0.364	0.570	0.299

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	752.800	2364.000	2383.000	72.170	13.880	16.320	0.000	256.600
2	20:57:14	749.700	2332.000	2401.000	72.990	14.190	15.100	0.000	254.900
3	20:57:21	753.500	2346.000	2434.000	71.530	14.400	13.640	0.000	258.600
x		752.000	2347.000	2406.000	72.230	14.160	15.020	0.000	256.700
σ		2.048	16.080	25.960	0.736	0.259	1.341	0.000	1.824
%RSD		0.272	0.685	1.079	1.018	1.829	8.928	0.000	0.711

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	0.000	17.600	17.180	56.833%	5.737	5.490	15.460	17.470
2	20:57:14	0.000	16.710	16.790	56.874%	5.560	5.782	16.200	17.100
3	20:57:21	0.000	17.970	17.020	56.535%	5.534	6.115	16.380	17.490
x		0.000	17.430	17.000	56.748%	5.610	5.796	16.010	17.350
σ		0.000	0.648	0.196	0.185%	0.111	0.313	0.487	0.218
%RSD		0.000	3.717	1.155	0.327	1.971	5.398	3.039	1.254

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	58.342%	42.360	6.496	5.932	1317.000	1314.000	79.863%	80.467%
2	20:57:14	58.504%	43.080	6.906	5.718	1332.000	1319.000	80.931%	81.205%
3	20:57:21	58.649%	42.460	6.032	5.947	1334.000	1319.000	81.002%	81.174%
x		58.498%	42.640	6.478	5.866	1328.000	1317.000	80.599%	80.949%
σ		0.154%	0.391	0.437	0.128	9.343	3.050	0.638%	0.418%
%RSD		0.263	0.918	6.751	2.177	0.704	0.232	0.792	0.516

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:57:06	1.660	1.506	853.500	808.800	849.600	73.992%
2	20:57:14	1.588	1.569	857.100	811.800	851.700	73.683%
3	20:57:21	1.508	1.485	868.000	824.600	864.300	73.571%
x		1.585	1.520	859.500	815.100	855.200	73.749%
σ		0.076	0.044	7.540	8.367	7.973	0.218%
%RSD		4.807	2.887	0.877	1.027	0.932	0.296

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	73.526%	6.936	162.300	158.900	0.000	37140.000	43890.000	44480.000
2	21:02:16	74.773%	7.002	155.900	155.600	0.000	36780.000	43780.000	44160.000
3	21:02:24	73.662%	6.880	166.900	161.200	0.000	36990.000	43650.000	43310.000
x		73.987%	6.939	161.700	158.600	0.000	36970.000	43770.000	43980.000
σ		0.684%	0.061	5.512	2.792	0.000	181.500	122.700	609.300
%RSD		0.924	0.875	3.409	1.761	0.000	0.491	0.280	1.385

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	100500.000	7949.000	0.000	21550.000	22430.000	20990.000	73.977%	5032.000
2	21:02:16	100000.000	7828.000	0.000	21740.000	22980.000	21470.000	74.152%	5157.000
3	21:02:24	99760.000	8037.000	0.000	22300.000	23710.000	21920.000	73.932%	5152.000
x		100100.000	7938.000	0.000	21860.000	23040.000	21460.000	74.020%	5114.000
σ		354.500	104.900	0.000	390.700	641.700	463.600	0.116%	71.000
%RSD		0.354	1.321	0.000	1.787	2.785	2.160	0.157	1.389

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	283.700	307.700	3762.000	189100.000	191100.000	88.310	177.900	161.200
2	21:02:16	284.900	304.600	3845.000	189500.000	191000.000	87.870	180.200	162.000
3	21:02:24	283.700	305.400	3946.000	188600.000	189300.000	87.370	176.400	161.200
x		284.100	305.900	3851.000	189100.000	190400.000	87.850	178.200	161.500
σ		0.705	1.607	91.880	479.800	959.100	0.469	1.931	0.442
%RSD		0.248	0.525	2.386	0.254	0.504	0.534	1.084	0.274

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	180.600	1078.000	1101.000	75.600	5.982	11.840	0.000	236.200
2	21:02:16	179.600	1083.000	1113.000	74.630	6.089	10.980	0.000	240.200
3	21:02:24	178.100	1068.000	1101.000	74.270	6.283	11.640	0.000	239.300
x		179.400	1076.000	1105.000	74.830	6.118	11.490	0.000	238.500
σ		1.257	7.791	7.007	0.690	0.153	0.451	0.000	2.050
%RSD		0.701	0.724	0.634	0.921	2.492	3.923	0.000	0.860

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	0.000	5.934	5.260	56.089%	2.102	2.121	4.221	3.792
2	21:02:16	0.000	6.145	5.968	56.484%	2.088	1.830	3.511	3.817
3	21:02:24	0.000	5.937	5.727	55.809%	2.229	1.968	3.863	3.920
x		0.000	6.006	5.652	56.127%	2.140	1.973	3.865	3.843
σ		0.000	0.121	0.360	0.339%	0.078	0.146	0.355	0.068
%RSD		0.000	2.016	6.373	0.604	3.636	7.395	9.194	1.769

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	57.694%	18.040	1.367	0.854	338.300	336.800	78.054%	79.520%
2	21:02:16	57.959%	18.030	1.495	0.797	336.300	337.400	79.398%	79.914%
3	21:02:24	57.916%	18.150	1.615	0.877	340.400	336.200	79.793%	80.434%
x		57.856%	18.070	1.493	0.843	338.300	336.800	79.082%	79.956%
σ		0.143%	0.066	0.124	0.041	2.059	0.589	0.912%	0.458%
%RSD		0.246	0.366	8.308	4.887	0.609	0.175	1.153	0.573

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:02:09	1.331	1.290	287.600	265.700	278.900	70.908%
2	21:02:16	1.321	1.310	285.200	264.100	277.200	72.857%
3	21:02:24	1.299	1.300	279.000	263.600	276.000	73.189%
x		1.317	1.300	283.900	264.500	277.400	72.318%
σ		0.016	0.010	4.436	1.125	1.415	1.233%
%RSD		1.245	0.737	1.562	0.425	0.510	1.704

CCV 1241000 9/6/2014 9:08:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	76.320%	94.750	90.620	89.640	0.000	47070.000	47500.000	48280.000
2	21:07:19	75.546%	99.290	96.900	93.100	0.000	46590.000	47250.000	48470.000
3	21:07:27	75.645%	99.710	98.050	95.820	0.000	46590.000	47280.000	47270.000
x		75.837%	97.917%	95.188%	92.853%	0.000	93.498%	94.690%	96.015%
σ		0.421%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.555	2.808	4.202	3.334	0.000	0.591	0.294	1.343

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	543.400	5704.000	0.000	52660.000	52610.000	51300.000	68.208%	110.700
2	21:07:19	544.700	5854.000	0.000	53250.000	53870.000	52760.000	67.816%	112.900
3	21:07:27	507.600	5942.000	0.000	53480.000	53410.000	53300.000	67.833%	113.700
x		106.386%	116.669%	0.000	106.261%	106.595%	104.909%	67.952%	112.426%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.222%	n/a
%RSD		3.960	2.061	0.000	0.794	1.201	1.966	0.326	1.389

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	91.440	95.960	505.100	23890.000	22930.000	98.210	98.560	99.460
2	21:07:19	91.830	95.230	522.700	24190.000	23250.000	98.290	100.300	98.920
3	21:07:27	91.070	93.500	533.100	23700.000	22530.000	96.960	101.200	99.360
x		91.447%	94.900%	104.062%	95.710%	91.596%	97.823%	100.039%	99.246%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.412	1.331	2.719	1.022	1.573	0.762	1.349	0.288

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	100.700	98.650	99.370	94.620	92.320	93.780	0.000	92.360
2	21:07:19	102.500	97.160	97.520	95.780	95.210	96.120	0.000	92.000
3	21:07:27	99.310	94.910	96.410	92.570	93.230	93.190	0.000	89.890
x		100.838%	96.906%	97.769%	94.326%	93.585%	94.363%	0.000	91.416%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.579	1.946	1.531	1.723	1.575	1.644	0.000	1.463

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	70.075%	102.300	105.100	58.494%	106.100	107.200	107.800	106.300
2	21:07:19	69.724%	102.200	104.900	57.893%	107.800	109.000	106.500	107.100
3	21:07:27	70.845%	101.700	103.600	58.065%	106.700	107.500	104.300	110.000
x		70.215%	102.099%	104.524%	58.151%	106.879%	107.909%	106.176%	107.790%
σ		0.574%	n/a	n/a	0.309%	n/a	n/a	n/a	n/a
%RSD		0.817	0.313	0.804	0.532	0.790	0.926	1.636	1.789

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	60.345%	99.190	101.600	101.600	100.700	103.500	66.749%	67.558%
2	21:07:19	59.448%	103.200	103.400	103.500	104.600	104.300	66.540%	67.093%
3	21:07:27	59.738%	101.400	101.700	103.200	100.000	99.480	66.832%	67.594%
x		59.844%	101.270%	102.240%	102.762%	101.769%	102.406%	66.707%	67.415%
σ		0.458%	n/a	n/a	n/a	n/a	n/a	0.151%	0.280%
%RSD		0.765	1.970	0.948	1.014	2.425	2.506	0.226	0.415

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:07:12	104.600	104.400	103.700	105.800	104.300	69.005%
2	21:07:19	103.600	103.500	102.600	104.100	104.100	69.040%
3	21:07:27	105.100	102.900	103.000	102.400	103.800	68.661%
x		104.430%	103.581%	103.103%	104.100%	104.062%	68.902%
σ		n/a	n/a	n/a	n/a	n/a	0.209%
%RSD		0.746	0.716	0.503	1.618	0.238	0.304

CCB5 9/6/2014 9:17:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	84.219%	-0.003	0.688	0.349	0.000	5.295	21.760	24.210
2	21:16:28	86.369%	0.026	0.662	0.349	0.000	3.587	25.650	24.610
3	21:16:35	87.036%	0.031	0.422	0.287	0.000	2.860	25.840	21.560
x		85.875%	0.018	0.591	0.328	0.000	3.914	24.420	23.460
σ		1.472%	0.018	0.147	0.036	0.000	1.250	2.304	1.655
%RSD		1.714	104.600	24.860	10.920	0.000	31.930	9.436	7.056

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	22.610	1.981	0.000	8.295	21.060	19.980	84.202%	0.677
2	21:16:28	25.870	4.378	0.000	9.331	17.180	20.090	85.086%	1.058
3	21:16:35	26.720	2.384	0.000	10.590	18.610	18.570	84.356%	0.754
x		25.070	2.914	0.000	9.405	18.950	19.550	84.548%	0.830
σ		2.169	1.283	0.000	1.149	1.963	0.846	0.472%	0.202
%RSD		8.652	44.040	0.000	12.210	10.360	4.329	0.558	24.280

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	0.070	0.100	1.025	44.140	45.160	0.071	0.059	0.075
2	21:16:28	0.120	0.129	1.155	47.640	51.800	0.078	0.123	0.103
3	21:16:35	0.128	0.109	1.165	49.780	50.380	0.095	0.029	0.046
x		0.106	0.113	1.115	47.190	49.110	0.081	0.070	0.074
σ		0.032	0.015	0.079	2.848	3.493	0.012	0.048	0.028
%RSD		29.830	13.240	7.042	6.036	7.112	15.030	68.430	37.990

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	0.126	0.262	0.276	0.044	-0.015	3.108	0.000	0.095
2	21:16:28	0.055	0.211	0.510	0.040	0.004	2.132	0.000	0.105
3	21:16:35	0.182	0.269	0.349	0.039	0.024	2.704	0.000	0.125
x		0.121	0.248	0.378	0.041	0.005	2.648	0.000	0.109
σ		0.064	0.031	0.120	0.003	0.020	0.491	0.000	0.015
%RSD		52.730	12.690	31.610	6.704	427.900	18.520	0.000	13.960

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	85.963%	0.024	-0.009	79.460%	-0.069	-0.055	0.025	-0.003
2	21:16:28	87.360%	0.062	-0.002	80.432%	-0.043	-0.064	0.024	0.023
3	21:16:35	88.076%	0.052	0.023	80.955%	-0.067	-0.020	0.049	0.012
x		87.133%	0.046	0.004	80.282%	-0.059	-0.047	0.032	0.011
σ		1.074%	0.020	0.017	0.759%	0.014	0.023	0.014	0.013
%RSD		1.233	43.090	414.400	0.945	23.590	49.510	43.640	123.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	79.938%	-0.679	0.113	-0.600	0.235	0.172	79.662%	79.722%
2	21:16:28	80.776%	-0.567	0.115	-0.638	0.232	0.170	80.971%	81.125%
3	21:16:35	81.390%	-0.568	0.090	-0.600	0.159	0.208	81.642%	81.272%
x		80.701%	-0.605	0.106	-0.612	0.208	0.183	80.758%	80.706%
σ		0.729%	0.064	0.014	0.022	0.043	0.021	1.007%	0.855%
%RSD		0.903	10.660	13.230	3.597	20.590	11.730	1.247	1.060

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:20	0.023	0.027	0.165	0.155	0.174	88.037%
2	21:16:28	0.026	0.030	0.156	0.167	0.151	89.241%
3	21:16:35	0.023	0.027	0.172	0.107	0.139	87.872%
x		0.024	0.028	0.164	0.143	0.155	88.384%
σ		0.001	0.002	0.008	0.032	0.017	0.747%
%RSD		5.574	7.998	4.967	22.340	11.210	0.846

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	79.665%	6.042	85.430	83.560	0.000	6888.000	34980.000	35690.000
2	21:21:35	78.850%	6.397	91.190	86.240	0.000	7010.000	35500.000	35890.000
3	21:21:43	80.291%	6.582	90.590	85.780	0.000	6913.000	35010.000	35030.000
x		79.602%	6.340	89.070	85.200	0.000	6937.000	35160.000	35530.000
σ		0.723%	0.275	3.166	1.434	0.000	64.490	289.900	449.500
%RSD		0.908	4.331	3.554	1.683	0.000	0.930	0.825	1.265

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	88600.000	7724.000	0.000	15720.000	23940.000	22360.000	72.809%	4472.000
2	21:21:35	88930.000	7709.000	0.000	15930.000	24780.000	23340.000	72.959%	4636.000
3	21:21:43	88960.000	7850.000	0.000	16030.000	24500.000	23370.000	74.140%	4679.000
x		88830.000	7761.000	0.000	15900.000	24410.000	23030.000	73.303%	4596.000
σ		199.500	77.460	0.000	157.800	424.300	576.100	0.729%	108.800
%RSD		0.225	0.998	0.000	0.993	1.738	2.502	0.994	2.369

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	253.100	285.500	6155.000	182600.000	185100.000	85.240	170.000	164.400
2	21:21:35	252.700	283.600	6344.000	184600.000	184400.000	85.630	169.500	165.500
3	21:21:43	249.200	280.000	6437.000	181800.000	181700.000	84.670	167.400	160.600
x		251.700	283.000	6312.000	183000.000	183700.000	85.180	169.000	163.500
σ		2.135	2.805	143.800	1484.000	1790.000	0.484	1.406	2.555
%RSD		0.848	0.991	2.278	0.811	0.974	0.568	0.832	1.563

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	179.300	1023.000	1055.000	66.660	5.257	7.374	0.000	189.300
2	21:21:35	178.700	1034.000	1058.000	66.450	4.757	2.716	0.000	189.200
3	21:21:43	174.300	1023.000	1039.000	65.740	4.458	6.258	0.000	188.900
x		177.400	1027.000	1051.000	66.280	4.824	5.449	0.000	189.100
σ		2.722	6.251	10.310	0.481	0.404	2.432	0.000	0.186
%RSD		1.534	0.609	0.982	0.725	8.369	44.640	0.000	0.098

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	0.000	3.285	3.480	58.989%	1.817	1.746	4.279	4.210
2	21:21:35	0.000	3.566	3.544	59.124%	1.879	1.743	3.750	4.186
3	21:21:43	0.000	3.402	3.836	59.679%	1.739	1.828	3.771	4.167
x		0.000	3.418	3.620	59.264%	1.812	1.772	3.933	4.188
σ		0.000	0.141	0.190	0.366%	0.070	0.049	0.299	0.021
%RSD		0.000	4.117	5.241	0.617	3.871	2.740	7.614	0.513

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	59.343%	18.170	1.981	1.282	558.200	542.000	80.253%	79.546%
2	21:21:35	60.471%	18.370	1.899	1.213	555.600	549.300	80.977%	81.192%
3	21:21:43	61.275%	17.850	1.727	1.120	540.700	543.900	80.935%	82.335%
x		60.363%	18.130	1.869	1.205	551.500	545.100	80.721%	81.024%
σ		0.970%	0.265	0.130	0.081	9.449	3.804	0.406%	1.402%
%RSD		1.608	1.462	6.954	6.756	1.713	0.698	0.503	1.731

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:27	1.291	1.195	255.200	240.300	251.300	73.817%
2	21:21:35	1.215	1.181	258.600	242.000	252.800	74.907%
3	21:21:43	1.207	1.207	256.800	241.500	252.500	75.343%
x		1.238	1.194	256.900	241.300	252.200	74.689%
σ		0.046	0.013	1.706	0.903	0.763	0.786%
%RSD		3.757	1.087	0.664	0.374	0.303	1.052

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	78.016%	7.703	104.000	100.600	0.000	7756.000	42360.000	42420.000
2	21:26:41	79.480%	7.270	108.900	99.440	0.000	7878.000	42300.000	42410.000
3	21:26:49	78.088%	7.723	104.100	103.900	0.000	7796.000	41880.000	42130.000
x		78.528%	7.565	105.700	101.300	0.000	7810.000	42180.000	42320.000
σ		0.825%	0.256	2.811	2.289	0.000	62.290	261.800	164.400
%RSD		1.051	3.384	2.660	2.260	0.000	0.797	0.621	0.389

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	103900.000	7670.000	0.000	18180.000	28220.000	26460.000	76.594%	4985.000
2	21:26:41	103600.000	7844.000	0.000	18570.000	28970.000	27520.000	76.118%	5178.000
3	21:26:49	104700.000	7942.000	0.000	18740.000	29660.000	28040.000	76.294%	5235.000
x		104100.000	7819.000	0.000	18500.000	28950.000	27340.000	76.335%	5133.000
σ		583.000	137.900	0.000	289.900	723.000	805.500	0.241%	131.400
%RSD		0.560	1.764	0.000	1.567	2.498	2.946	0.316	2.561

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	287.600	323.600	7140.000	211000.000	214600.000	102.000	196.700	189.300
2	21:26:41	289.400	325.100	7379.000	215500.000	217700.000	101.300	201.200	194.300
3	21:26:49	287.900	322.600	7533.000	212500.000	214700.000	99.740	197.300	189.400
x		288.300	323.800	7351.000	213000.000	215700.000	101.000	198.400	191.000
σ		0.942	1.268	198.400	2305.000	1741.000	1.140	2.450	2.889
%RSD		0.327	0.392	2.699	1.082	0.808	1.129	1.235	1.513

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	209.100	1211.000	1228.000	79.050	5.712	9.397	0.000	224.300
2	21:26:41	210.100	1214.000	1254.000	79.560	6.282	7.020	0.000	225.600
3	21:26:49	209.900	1200.000	1233.000	77.960	5.725	6.067	0.000	226.200
x		209.700	1208.000	1238.000	78.860	5.906	7.495	0.000	225.400
σ		0.496	7.331	14.030	0.817	0.325	1.715	0.000	0.934
%RSD		0.236	0.607	1.133	1.035	5.507	22.880	0.000	0.414

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	0.000	4.066	4.229	57.798%	2.242	1.972	4.507	4.981
2	21:26:41	0.000	4.388	4.172	57.588%	2.095	2.011	4.470	5.236
3	21:26:49	0.000	4.143	4.383	57.718%	2.135	1.968	4.844	4.777
x		0.000	4.199	4.261	57.701%	2.157	1.984	4.607	4.998
σ		0.000	0.168	0.109	0.106%	0.076	0.024	0.206	0.230
%RSD		0.000	4.001	2.561	0.183	3.525	1.205	4.474	4.596

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	59.155%	21.030	2.173	1.243	651.100	647.800	81.708%	81.598%
2	21:26:41	58.971%	21.650	2.127	1.424	658.500	658.200	82.053%	81.989%
3	21:26:49	59.667%	19.570	1.954	1.120	663.800	646.900	82.823%	82.289%
x		59.264%	20.750	2.085	1.262	657.800	650.900	82.194%	81.959%
σ		0.361%	1.065	0.115	0.153	6.385	6.291	0.571%	0.346%
%RSD		0.608	5.133	5.531	12.100	0.971	0.966	0.694	0.423

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:33	1.300	1.350	307.300	289.000	302.000	72.145%
2	21:26:41	1.491	1.293	312.800	291.600	304.500	72.256%
3	21:26:49	1.407	1.467	308.300	287.800	301.100	72.592%
x		1.400	1.370	309.500	289.500	302.500	72.331%
σ		0.096	0.088	2.944	1.951	1.764	0.233%
%RSD		6.834	6.441	0.951	0.674	0.583	0.322

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	77.979%	6.799	68.160	62.420	0.000	1898.000	31920.000	32650.000
2	21:31:47	77.828%	7.540	70.500	66.210	0.000	1918.000	32280.000	32380.000
3	21:31:55	80.635%	7.444	64.870	65.080	0.000	1839.000	31140.000	31210.000
x		78.814%	7.261	67.840	64.570	0.000	1885.000	31780.000	32080.000
σ		1.579%	0.403	2.830	1.947	0.000	41.190	580.900	766.600
%RSD		2.003	5.551	4.171	3.015	0.000	2.185	1.828	2.390

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	92770.000	6655.000	0.000	13970.000	23540.000	21880.000	75.309%	3948.000
2	21:31:47	92180.000	6794.000	0.000	14370.000	24280.000	22450.000	76.512%	4041.000
3	21:31:55	91090.000	6758.000	0.000	14360.000	24120.000	22610.000	77.078%	4115.000
x		92010.000	6735.000	0.000	14230.000	23980.000	22320.000	76.300%	4035.000
σ		855.500	72.110	0.000	230.500	390.900	384.100	0.903%	83.650
%RSD		0.930	1.071	0.000	1.620	1.630	1.721	1.184	2.073

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	264.900	320.400	7043.000	191200.000	193900.000	101.300	195.500	235.700
2	21:31:47	262.900	318.700	7174.000	189400.000	190500.000	100.400	192.300	229.700
3	21:31:55	258.000	313.500	7212.000	188000.000	189900.000	97.750	188.900	230.400
x		262.000	317.600	7143.000	189600.000	191400.000	99.800	192.200	231.900
σ		3.550	3.577	88.910	1601.000	2197.000	1.829	3.284	3.238
%RSD		1.355	1.126	1.245	0.845	1.148	1.833	1.708	1.396

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	251.900	1487.000	1508.000	76.290	6.230	10.810	0.000	157.300
2	21:31:47	248.800	1471.000	1492.000	76.260	6.528	8.011	0.000	156.400
3	21:31:55	247.200	1463.000	1501.000	76.550	6.606	10.630	0.000	156.200
x		249.300	1474.000	1500.000	76.370	6.455	9.814	0.000	156.600
σ		2.379	12.690	8.234	0.161	0.198	1.564	0.000	0.625
%RSD		0.954	0.861	0.549	0.211	3.073	15.940	0.000	0.399

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	0.000	4.624	5.419	61.126%	3.107	2.842	5.826	7.176
2	21:31:47	0.000	5.800	5.347	61.569%	2.934	2.891	6.480	7.117
3	21:31:55	0.000	5.171	5.239	60.920%	2.995	2.866	6.822	7.044
x		0.000	5.198	5.335	61.205%	3.012	2.866	6.376	7.112
σ		0.000	0.589	0.091	0.332%	0.088	0.024	0.506	0.066
%RSD		0.000	11.320	1.703	0.542	2.911	0.845	7.935	0.927

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	62.343%	24.660	2.383	1.825	769.000	754.200	82.560%	82.133%
2	21:31:47	62.604%	25.480	2.383	2.025	773.000	757.600	82.587%	81.958%
3	21:31:55	62.706%	24.730	2.293	1.911	763.500	752.800	82.426%	82.501%
x		62.551%	24.960	2.353	1.920	768.500	754.900	82.524%	82.197%
σ		0.188%	0.457	0.052	0.101	4.797	2.457	0.086%	0.277%
%RSD		0.300	1.829	2.218	5.248	0.624	0.326	0.105	0.337

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:39	1.177	1.316	371.800	352.300	368.100	75.533%
2	21:31:47	1.281	1.293	369.900	349.700	365.500	76.638%
3	21:31:55	1.168	1.258	366.900	349.100	362.400	77.000%
x		1.209	1.289	369.500	350.400	365.300	76.391%
σ		0.063	0.029	2.466	1.702	2.888	0.764%
%RSD		5.211	2.251	0.667	0.486	0.791	1.001

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	93.432%	-0.026	1.774	1.776	0.000	-7.078	18.060	18.700
2	21:36:53	94.152%	-0.048	1.463	1.661	0.000	-5.960	23.280	25.340
3	21:37:01	95.667%	-0.021	1.672	1.617	0.000	-6.593	26.770	26.920
x		94.417%	-0.032	1.636	1.684	0.000	-6.544	22.700	23.660
σ		1.141%	0.015	0.159	0.082	0.000	0.560	4.383	4.360
%RSD		1.208	45.840	9.703	4.861	0.000	8.563	19.310	18.430

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	47.280	19.030	0.000	3.254	21.620	28.870	79.541%	1.855
2	21:36:53	66.110	19.470	0.000	3.912	22.970	34.080	79.335%	1.582
3	21:37:01	69.190	18.350	0.000	8.378	33.130	32.490	79.352%	1.498
x		60.860	18.950	0.000	5.181	25.910	31.820	79.409%	1.645
σ		11.860	0.564	0.000	2.788	6.296	2.670	0.114%	0.187
%RSD		19.490	2.975	0.000	53.810	24.300	8.392	0.144	11.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	3.200	1.864	1.190	94.970	97.400	0.065	0.181	0.207
2	21:36:53	2.578	2.021	1.372	135.300	141.200	0.112	0.199	0.250
3	21:37:01	3.102	2.076	1.511	138.100	139.400	0.096	0.208	0.174
x		2.960	1.987	1.358	122.800	126.000	0.091	0.196	0.210
σ		0.335	0.110	0.161	24.110	24.800	0.024	0.014	0.038
%RSD		11.300	5.536	11.880	19.640	19.680	26.400	6.958	18.150

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	0.252	2.531	2.618	0.122	0.055	4.863	0.000	0.123
2	21:36:53	0.283	3.432	3.954	0.182	0.031	0.329	0.000	0.156
3	21:37:01	0.370	3.517	2.898	0.129	0.009	2.428	0.000	0.157
x		0.301	3.160	3.157	0.144	0.032	2.540	0.000	0.145
σ		0.061	0.546	0.704	0.033	0.023	2.269	0.000	0.019
%RSD		20.390	17.290	22.310	22.800	73.710	89.340	0.000	13.150

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	80.007%	-0.128	-0.145	69.570%	-0.081	-0.055	0.044	0.026
2	21:36:53	82.564%	-0.167	-0.170	70.624%	-0.085	-0.090	-0.001	0.013
3	21:37:01	83.475%	-0.185	-0.164	70.828%	-0.108	-0.063	0.028	-0.012
x		82.015%	-0.160	-0.160	70.341%	-0.091	-0.069	0.024	0.009
σ		1.798%	0.029	0.013	0.675%	0.015	0.018	0.023	0.019
%RSD		2.192	18.080	8.128	0.960	16.050	26.280	95.580	206.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	68.139%	-0.485	-0.043	-0.752	0.366	0.399	78.264%	78.823%
2	21:36:53	69.323%	-0.460	-0.049	-0.725	0.756	0.674	78.481%	79.505%
3	21:37:01	69.765%	-0.473	-0.067	-0.749	0.851	0.608	79.846%	79.425%
x		69.075%	-0.473	-0.053	-0.742	0.658	0.560	78.864%	79.251%
σ		0.841%	0.012	0.012	0.015	0.257	0.144	0.857%	0.373%
%RSD		1.217	2.639	23.420	1.985	39.130	25.670	1.087	0.471

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:36:46	0.019	0.009	0.239	0.225	0.238	84.535%
2	21:36:53	0.010	0.015	0.264	0.315	0.325	85.214%
3	21:37:01	0.016	0.008	0.339	0.339	0.326	85.858%
x		0.015	0.011	0.280	0.293	0.296	85.202%
σ		0.004	0.004	0.052	0.060	0.051	0.661%
%RSD		29.510	35.990	18.520	20.550	17.070	0.776

CRI 1277812 9/6/2014 9:47:54 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	98.701%	0.838	5.322	4.503	0.000	74.390	88.760	90.690
2	21:47:07	97.680%	1.014	5.485	4.677	0.000	77.110	91.520	92.890
3	21:47:15	98.931%	0.857	5.130	4.596	0.000	75.760	92.260	95.410
x		98.437%	90.319%	106.242%	91.836%	0.000	94.693%	90.848%	92.996%
σ		0.666%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.676	10.680	3.345	1.887	0.000	1.790	2.029	2.542

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	31.060	475.700	0.000	88.320	101.300	94.430	90.589%	5.177
2	21:47:07	36.800	495.400	0.000	88.780	110.200	100.300	91.402%	5.950
3	21:47:15	40.750	504.200	0.000	93.460	92.170	101.200	90.760%	4.803
x		120.693%	98.355%	0.000	90.185%	101.224%	98.642%	90.917%	106.199%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.429%	n/a
%RSD		13.460	2.965	0.000	3.155	8.914	3.725	0.472	11.020

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	1.006	1.845	4.615	56.160	59.500	0.528	1.076	2.045
2	21:47:07	0.936	1.883	4.756	63.270	61.810	0.577	1.277	1.967
3	21:47:15	1.059	1.853	4.920	71.380	73.360	0.550	1.083	2.088
x		100.022%	93.024%	95.271%	127.205%	129.777%	110.280%	114.535%	101.658%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.178	1.062	3.208	11.970	11.450	4.448	9.939	3.021

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	2.178	5.358	4.850	0.877	5.005	1.447	0.000	4.569
2	21:47:07	2.167	5.243	5.148	0.843	5.205	4.226	0.000	4.426
3	21:47:15	2.085	4.973	4.969	0.967	5.387	5.022	0.000	4.486
x		107.170%	103.826%	99.782%	89.554%	103.981%	71.298%	0.000	89.876%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.355	3.813	3.013	7.183	3.673	52.660	0.000	1.607

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	85.916%	4.697	4.963	76.220%	0.982	1.097	0.968	1.152
2	21:47:07	87.860%	4.766	4.868	77.621%	0.991	1.037	0.698	1.095
3	21:47:15	87.948%	4.547	4.745	77.834%	1.080	1.219	0.941	1.150
x		87.241%	93.403%	97.169%	77.225%	101.794%	111.774%	86.897%	113.229%
σ		1.149%	n/a	n/a	0.876%	n/a	n/a	n/a	n/a
%RSD		1.317	2.396	2.254	1.135	5.315	8.266	17.100	2.876

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	74.915%	4.701	1.779	1.350	9.753	10.040	76.228%	75.998%
2	21:47:07	76.467%	4.653	2.105	1.361	10.420	10.150	77.139%	76.380%
3	21:47:15	75.667%	4.465	1.906	1.231	9.037	9.708	78.224%	77.408%
x		75.683%	92.129%	96.507%	65.717%	97.363%	99.652%	77.197%	76.595%
σ		0.776%	n/a	n/a	n/a	n/a	n/a	0.999%	0.729%
%RSD		1.025	2.716	8.508	5.487	7.103	2.299	1.294	0.952

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:47:00	1.060	0.974	1.033	1.072	1.043	83.638%
2	21:47:07	1.086	0.948	1.181	1.123	1.104	85.409%
3	21:47:15	0.938	0.932	1.086	1.115	1.075	85.933%
x		102.786%	95.137%	110.011%	110.311%	107.378%	84.994%
σ		n/a	n/a	n/a	n/a	n/a	1.203%
%RSD		7.675	2.231	6.817	2.487	2.859	1.415

CCV 1241000 9/6/2014 9:56:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	86.102%	95.240	97.870	92.540	0.000	48190.000	50550.000	46990.000
2	21:55:38	88.268%	98.810	97.090	92.920	0.000	48000.000	49740.000	45360.000
3	21:55:46	88.291%	100.200	97.150	93.510	0.000	46490.000	48710.000	45590.000
x		87.554%	98.098%	97.371%	92.993%	0.000	95.126%	99.328%	91.956%
σ		1.257%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.436	2.628	0.444	0.525	0.000	1.957	1.859	1.914

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	487.100	5479.000	0.000	51190.000	49100.000	49320.000	79.907%	104.100
2	21:55:38	480.500	5564.000	0.000	52210.000	50270.000	50850.000	80.593%	105.000
3	21:55:46	470.900	5619.000	0.000	52430.000	51170.000	51360.000	81.269%	107.600
x		95.900%	111.085%	0.000	103.883%	100.362%	101.020%	80.590%	105.562%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.681%	n/a
%RSD		1.693	1.268	0.000	1.273	2.070	2.102	0.845	1.729

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	93.710	96.490	483.900	24540.000	23180.000	97.840	99.840	99.820
2	21:55:38	93.720	94.580	499.200	23840.000	22480.000	95.990	97.470	97.050
3	21:55:46	92.350	93.620	499.700	23880.000	22400.000	95.880	96.490	97.600
x		93.261%	94.899%	98.852%	96.342%	90.747%	96.572%	97.937%	98.158%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.848	1.539	1.823	1.631	1.878	1.143	1.760	1.497

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	101.100	96.460	100.300	96.200	93.140	95.840	0.000	93.570
2	21:55:38	101.400	92.970	95.630	95.660	92.830	96.600	0.000	92.870
3	21:55:46	99.820	96.220	94.230	94.600	92.790	100.900	0.000	94.730
x		100.752%	95.218%	96.714%	95.484%	92.921%	97.770%	0.000	93.726%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.816	2.045	3.278	0.849	0.204	2.777	0.000	1.001

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	80.611%	100.700	104.400	68.144%	107.100	106.800	104.600	106.900
2	21:55:38	81.790%	100.200	103.500	67.780%	105.000	106.400	103.300	106.300
3	21:55:46	80.208%	102.600	106.000	67.516%	107.400	106.700	105.600	109.800
x		80.869%	101.182%	104.606%	67.814%	106.521%	106.635%	104.510%	107.664%
σ		0.822%	n/a	n/a	0.315%	n/a	n/a	n/a	n/a
%RSD		1.016	1.268	1.229	0.465	1.241	0.228	1.113	1.712

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	68.979%	101.700	102.400	99.680	103.400	103.800	70.977%	71.413%
2	21:55:38	70.374%	102.200	102.200	101.100	105.100	101.500	71.727%	72.586%
3	21:55:46	68.450%	102.700	103.900	101.400	104.300	102.000	72.657%	72.741%
x		69.268%	102.214%	102.822%	100.707%	104.303%	102.460%	71.787%	72.247%
σ		0.994%	n/a	n/a	n/a	n/a	n/a	0.842%	0.726%
%RSD		1.435	0.487	0.896	0.892	0.813	1.188	1.172	1.005

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	21:55:31	100.500	99.410	99.630	100.600	100.900	74.773%
2	21:55:38	102.800	100.800	100.300	101.200	101.000	74.695%
3	21:55:46	101.000	101.600	101.700	103.400	102.200	75.712%
x		101.443%	100.588%	100.564%	101.735%	101.375%	75.060%
σ		n/a	n/a	n/a	n/a	n/a	0.566%
%RSD		1.199	1.096	1.071	1.446	0.725	0.754

CCB6 9/6/2014 10:05:33 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	89.701%	-0.013	0.258	0.031	0.000	-1.219	13.290	11.510
2	22:04:48	89.432%	0.005	0.288	0.014	0.000	-0.224	13.180	13.580
3	22:04:56	90.241%	-0.001	0.114	0.064	0.000	-0.098	11.300	13.410
x		89.791%	-0.003	0.220	0.036	0.000	-0.514	12.590	12.830
σ		0.412%	0.009	0.093	0.025	0.000	0.614	1.119	1.151
%RSD		0.459	297.000	42.300	69.960	0.000	119.600	8.886	8.969

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	3.925	1.498	0.000	8.658	10.630	11.970	82.769%	0.051
2	22:04:48	4.291	2.187	0.000	9.977	9.369	8.278	82.934%	0.183
3	22:04:56	4.367	1.985	0.000	10.510	7.016	10.850	82.548%	0.104
x		4.194	1.890	0.000	9.714	9.004	10.360	82.750%	0.113
σ		0.237	0.354	0.000	0.953	1.833	1.892	0.194%	0.067
%RSD		5.639	18.750	0.000	9.806	20.360	18.260	0.234	59.280

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	0.056	0.034	0.189	10.020	8.908	0.014	0.013	-0.002
2	22:04:48	0.053	0.036	0.165	10.100	10.000	0.032	-0.046	0.041
3	22:04:56	0.092	0.027	0.188	10.880	9.447	0.028	0.060	-0.067
x		0.067	0.032	0.181	10.330	9.452	0.025	0.009	-0.009
σ		0.022	0.005	0.014	0.475	0.547	0.010	0.053	0.054
%RSD		32.260	14.600	7.565	4.601	5.791	39.550	596.400	576.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	-0.035	-0.004	0.233	-0.001	0.028	-3.461	0.000	0.042
2	22:04:48	-0.036	-0.081	-0.068	0.016	0.068	-0.043	0.000	0.046
3	22:04:56	0.040	0.074	0.172	-0.013	-0.056	0.950	0.000	0.042
x		-0.010	-0.004	0.112	0.001	0.013	-0.851	0.000	0.043
σ		0.044	0.078	0.159	0.015	0.063	2.314	0.000	0.002
%RSD		419.300	2152.000	142.000	2133.000	476.700	271.800	0.000	5.071

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	84.174%	-0.004	-0.030	83.864%	-0.074	-0.051	-0.001	0.001
2	22:04:48	85.764%	0.017	-0.064	85.076%	-0.053	-0.057	-0.001	0.001
3	22:04:56	88.240%	-0.044	-0.027	86.429%	-0.083	-0.061	-0.001	0.005
x		86.059%	-0.010	-0.040	85.123%	-0.070	-0.056	-0.001	0.002
σ		2.049%	0.031	0.020	1.283%	0.016	0.005	0.000	0.003
%RSD		2.381	302.200	50.280	1.507	22.390	8.619	9.956	113.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	82.791%	-0.699	0.162	-0.581	-0.006	0.034	84.479%	84.560%
2	22:04:48	83.952%	-0.665	0.060	-0.590	-0.006	0.020	86.488%	85.291%
3	22:04:56	84.743%	-0.753	0.078	-0.607	0.061	0.033	86.672%	87.204%
x		83.829%	-0.706	0.100	-0.593	0.016	0.029	85.880%	85.685%
σ		0.982%	0.044	0.054	0.013	0.039	0.008	1.216%	1.365%
%RSD		1.172	6.260	54.260	2.217	242.200	26.240	1.416	1.593

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:40	0.033	0.031	0.007	0.035	0.035	84.232%
2	22:04:48	0.016	0.025	0.017	0.062	0.039	84.324%
3	22:04:56	0.029	0.029	0.016	0.056	0.045	85.938%
x		0.026	0.028	0.013	0.051	0.040	84.831%
σ		0.009	0.003	0.005	0.014	0.005	0.960%
%RSD		34.630	10.140	41.450	27.780	11.750	1.131

IDL-1 6020 9/6/2014 10:10:39 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	95.680%	-0.021	0.060	-0.088	0.000	-12.250	0.321	0.539
2	22:09:53	94.677%	-0.037	0.065	-0.016	0.000	-12.400	0.056	0.371
3	22:10:01	93.421%	-0.048	0.098	-0.057	0.000	-12.340	0.074	0.707
x		94.593%	-0.036	0.074	-0.054	0.000	-12.330	0.150	0.539
σ		1.132%	0.014	0.020	0.036	0.000	0.073	0.148	0.168
%RSD		1.196	38.390	27.420	67.360	0.000	0.594	98.520	31.150

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	0.255	-0.585	0.000	-2.588	3.778	11.010	87.270%	-0.004
2	22:09:53	0.503	-0.952	0.000	-1.590	7.249	12.780	87.255%	-0.029
3	22:10:01	0.390	-0.600	0.000	-3.041	10.920	11.320	86.434%	0.022
x		0.383	-0.713	0.000	-2.406	7.314	11.700	86.986%	-0.004
σ		0.124	0.208	0.000	0.742	3.569	0.945	0.478%	0.026
%RSD		32.480	29.130	0.000	30.840	48.800	8.075	0.550	646.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	0.021	0.005	0.037	-0.359	-0.204	-0.003	-0.011	-0.052
2	22:09:53	0.029	0.010	0.051	-0.322	-1.653	0.003	0.008	0.008
3	22:10:01	0.004	0.012	0.049	-0.085	0.447	0.003	0.008	-0.035
x		0.018	0.009	0.046	-0.255	-0.470	0.001	0.002	-0.027
σ		0.013	0.003	0.007	0.149	1.075	0.003	0.011	0.031
%RSD		71.870	36.040	16.250	58.320	228.700	450.300	672.000	115.800

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	-0.015	0.917	0.876	-0.020	-0.016	1.445	0.000	0.012
2	22:09:53	0.002	0.913	1.326	-0.013	0.023	-0.144	0.000	0.019
3	22:10:01	-0.048	0.787	1.008	-0.013	-0.037	0.125	0.000	-0.002
x		-0.020	0.872	1.070	-0.016	-0.010	0.475	0.000	0.010
σ		0.025	0.074	0.231	0.004	0.030	0.851	0.000	0.011
%RSD		124.300	8.482	21.630	24.950	305.000	179.000	0.000	107.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	87.622%	-0.069	-0.147	78.251%	-0.109	-0.081	-0.001	0.004
2	22:09:53	88.312%	-0.145	-0.062	78.093%	-0.082	-0.069	-0.001	-0.013
3	22:10:01	89.272%	-0.112	-0.062	77.732%	-0.094	-0.084	0.012	0.009
x		88.402%	-0.109	-0.090	78.025%	-0.095	-0.078	0.004	-0.000
σ		0.829%	0.038	0.049	0.266%	0.013	0.008	0.007	0.012
%RSD		0.937	34.900	54.360	0.341	14.080	10.340	212.400	6938.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	75.438%	-0.670	-0.012	-0.665	0.019	-0.018	78.427%	77.662%
2	22:09:53	76.978%	-0.570	0.019	-0.669	0.018	0.024	78.329%	79.059%
3	22:10:01	77.135%	-0.566	0.007	-0.696	-0.006	-0.004	79.441%	79.308%
x		76.517%	-0.602	0.005	-0.677	0.010	0.001	78.732%	78.676%
σ		0.938%	0.059	0.016	0.017	0.014	0.021	0.616%	0.887%
%RSD		1.226	9.781	333.700	2.462	140.900	4080.000	0.782	1.127

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:09:45	0.004	0.001	-0.045	-0.005	-0.017	86.742%
2	22:09:53	0.004	-0.002	-0.041	-0.012	-0.019	86.821%
3	22:10:01	0.010	0.005	-0.025	-0.012	-0.015	86.781%
x		0.006	0.001	-0.037	-0.010	-0.017	86.782%
σ		0.003	0.003	0.011	0.004	0.002	0.040%
%RSD		51.570	249.500	29.050	45.430	12.340	0.046

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	96.540%	-0.038	0.161	-0.052	0.000	-14.080	-0.187	-0.317
2	22:14:59	95.609%	-0.043	-0.019	-0.071	0.000	-13.910	0.305	-0.138
3	22:15:07	96.418%	-0.043	0.057	0.016	0.000	-13.560	0.085	0.210
x		96.189%	-0.041	0.067	-0.036	0.000	-13.850	0.068	-0.082
σ		0.506%	0.003	0.090	0.046	0.000	0.267	0.246	0.268
%RSD		0.526	7.467	135.800	127.600	0.000	1.930	363.400	328.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	0.538	0.439	0.000	-1.765	8.112	7.227	88.663%	-0.029
2	22:14:59	0.644	-1.180	0.000	-1.439	13.720	7.370	88.952%	0.070
3	22:15:07	0.797	0.137	0.000	-3.222	9.274	6.794	88.552%	0.045
x		0.660	-0.201	0.000	-2.142	10.370	7.131	88.722%	0.029
σ		0.130	0.861	0.000	0.949	2.962	0.300	0.206%	0.052
%RSD		19.720	427.600	0.000	44.320	28.570	4.206	0.232	180.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	-0.026	0.009	0.009	-0.397	-1.997	0.007	0.006	-0.071
2	22:14:59	0.042	0.019	0.021	-0.469	0.493	0.010	-0.004	0.003
3	22:15:07	-0.009	0.007	0.023	-0.267	0.812	0.008	-0.049	-0.022
x		0.002	0.012	0.018	-0.378	-0.231	0.008	-0.016	-0.030
σ		0.036	0.007	0.008	0.102	1.538	0.002	0.029	0.038
%RSD		1577.000	55.210	42.670	27.080	667.000	22.370	186.500	127.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	-0.025	0.013	0.248	-0.021	-0.037	-0.147	0.000	0.019
2	22:14:59	-0.042	0.076	0.105	-0.007	-0.057	0.671	0.000	0.005
3	22:15:07	-0.002	0.116	-0.010	-0.011	0.019	-1.405	0.000	0.004
x		-0.023	0.068	0.115	-0.013	-0.025	-0.294	0.000	0.009
σ		0.020	0.052	0.129	0.007	0.040	1.046	0.000	0.008
%RSD		86.820	75.850	113.000	52.230	158.800	356.200	0.000	87.770

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	89.700%	-0.130	-0.149	80.817%	-0.106	-0.085	0.012	-0.014
2	22:14:59	91.968%	-0.156	-0.116	82.911%	-0.104	-0.073	-0.001	-0.014
3	22:15:07	92.556%	-0.164	-0.166	82.674%	-0.093	-0.070	-0.001	-0.003
x		91.408%	-0.150	-0.144	82.134%	-0.101	-0.076	0.003	-0.010
σ		1.508%	0.018	0.026	1.146%	0.007	0.008	0.007	0.006
%RSD		1.650	11.810	17.920	1.396	7.263	9.972	213.100	57.490

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	79.115%	-0.707	-0.044	-0.715	0.067	0.023	78.417%	78.967%
2	22:14:59	79.554%	-0.636	-0.044	-0.757	0.018	-0.005	80.434%	80.285%
3	22:15:07	80.644%	-0.640	-0.033	-0.748	-0.006	-0.018	80.850%	80.465%
x		79.771%	-0.661	-0.040	-0.740	0.026	0.000	79.900%	79.905%
σ		0.788%	0.040	0.006	0.022	0.037	0.021	1.301%	0.818%
%RSD		0.987	5.988	15.160	3.010	143.400	9328.000	1.629	1.024

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:14:52	-0.001	0.005	-0.028	-0.024	-0.022	88.078%
2	22:14:59	0.001	-0.001	-0.035	-0.024	-0.025	89.675%
3	22:15:07	0.007	0.005	-0.045	-0.017	-0.030	90.709%
x		0.002	0.003	-0.036	-0.022	-0.026	89.487%
σ		0.004	0.003	0.008	0.004	0.004	1.325%
%RSD		177.200	103.800	23.340	18.320	15.610	1.481

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	98.142%	-0.043	-0.105	-0.124	0.000	-13.700	-0.635	0.347
2	22:20:04	102.111%	-0.044	-0.189	-0.205	0.000	-14.000	-0.394	-0.572
3	22:20:11	97.525%	-0.049	-0.181	-0.089	0.000	-13.970	-0.368	-0.294
x		99.260%	-0.045	-0.158	-0.139	0.000	-13.890	-0.465	-0.173
σ		2.489%	0.003	0.046	0.059	0.000	0.169	0.148	0.471
%RSD		2.507	6.347	29.360	42.590	0.000	1.217	31.690	272.400

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	0.281	-0.721	0.000	-1.445	-2.310	5.496	90.724%	-0.005
2	22:20:04	0.540	-0.550	0.000	-3.428	0.994	5.708	90.990%	-0.005
3	22:20:11	0.401	-0.315	0.000	0.072	1.015	5.986	90.811%	0.019
x		0.408	-0.529	0.000	-1.600	-0.101	5.730	90.842%	0.003
σ		0.129	0.204	0.000	1.755	1.914	0.246	0.136%	0.014
%RSD		31.750	38.560	0.000	109.700	1905.000	4.293	0.149	469.100

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	-0.016	0.001	0.023	-0.622	-1.868	0.002	-0.032	-0.093
2	22:20:04	-0.014	0.004	0.014	-0.390	-0.797	0.006	0.013	-0.060
3	22:20:11	-0.053	0.008	0.000	-0.284	-1.876	-0.001	0.004	-0.073
x		-0.028	0.004	0.013	-0.432	-1.514	0.002	-0.005	-0.075
σ		0.022	0.004	0.012	0.173	0.620	0.004	0.023	0.016
%RSD		79.620	82.450	92.540	39.980	40.990	155.900	457.800	21.920

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	-0.043	0.048	0.067	-0.027	-0.018	2.503	0.000	0.014
2	22:20:04	-0.051	0.112	0.178	-0.028	-0.038	-0.679	0.000	0.007
3	22:20:11	0.068	-0.036	0.025	-0.008	-0.038	0.388	0.000	0.011
x		-0.009	0.042	0.090	-0.021	-0.031	0.737	0.000	0.011
σ		0.067	0.074	0.079	0.011	0.011	1.619	0.000	0.004
%RSD		776.600	179.100	87.520	54.940	36.480	219.700	0.000	32.930

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	90.213%	-0.146	-0.154	79.533%	-0.094	-0.082	-0.001	-0.008
2	22:20:04	91.332%	-0.180	-0.160	80.545%	-0.092	-0.076	-0.001	-0.003
3	22:20:11	91.776%	-0.164	-0.155	81.293%	-0.086	-0.067	-0.001	-0.014
x		91.107%	-0.163	-0.156	80.457%	-0.091	-0.075	-0.001	-0.008
σ		0.805%	0.017	0.003	0.883%	0.004	0.007	0.000	0.005
%RSD		0.884	10.170	2.004	1.097	4.492	9.727	11.400	66.820

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	77.218%	-0.704	-0.030	-0.665	0.018	0.009	80.368%	78.541%
2	22:20:04	78.889%	-0.747	-0.040	-0.720	0.042	-0.004	80.999%	80.172%
3	22:20:11	79.348%	-0.745	-0.052	-0.772	-0.006	0.009	81.861%	80.921%
x		78.485%	-0.732	-0.041	-0.719	0.018	0.005	81.076%	79.878%
σ		1.121%	0.024	0.011	0.053	0.024	0.008	0.749%	1.217%
%RSD		1.428	3.304	26.890	7.437	135.200	171.100	0.924	1.523

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:19:56	-0.001	-0.000	-0.038	-0.012	-0.027	86.152%
2	22:20:04	0.004	0.002	-0.031	-0.020	-0.026	87.355%
3	22:20:11	-0.004	-0.001	-0.028	-0.001	-0.022	87.628%
x		-0.000	0.000	-0.032	-0.011	-0.025	87.045%
σ		0.004	0.001	0.005	0.009	0.003	0.785%
%RSD		1396.000	551.700	14.820	84.400	11.150	0.902

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	100.013%	-0.012	-0.110	-0.087	0.000	-13.920	-0.497	-0.236
2	22:25:10	102.494%	-0.003	-0.042	-0.137	0.000	-14.240	-0.201	-0.125
3	22:25:18	103.587%	-0.044	-0.167	-0.166	0.000	-14.190	-0.207	-0.131
x		102.032%	-0.020	-0.106	-0.130	0.000	-14.120	-0.302	-0.164
σ		1.831%	0.022	0.063	0.040	0.000	0.173	0.169	0.063
%RSD		1.795	108.300	59.100	30.980	0.000	1.224	56.030	38.160

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	0.325	-1.208	0.000	-2.448	1.866	5.381	92.788%	0.066
2	22:25:10	0.273	-0.220	0.000	-2.154	-2.476	4.716	92.695%	0.018
3	22:25:18	0.307	-0.922	0.000	-3.691	2.970	6.631	92.667%	0.018
x		0.302	-0.783	0.000	-2.765	0.787	5.576	92.716%	0.034
σ		0.027	0.508	0.000	0.816	2.879	0.973	0.063%	0.027
%RSD		8.802	64.880	0.000	29.510	365.900	17.440	0.068	80.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	-0.005	0.004	0.005	-0.691	-1.298	-0.001	0.002	-0.045
2	22:25:10	-0.018	0.003	-0.003	-0.520	-0.405	0.006	0.010	-0.026
3	22:25:18	-0.022	0.004	0.021	-0.543	-1.313	-0.001	0.010	-0.043
x		-0.015	0.004	0.007	-0.585	-1.005	0.001	0.007	-0.038
σ		0.009	0.001	0.012	0.092	0.520	0.004	0.005	0.010
%RSD		59.670	16.870	163.300	15.820	51.710	423.100	62.900	27.380

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	0.026	-0.015	0.208	-0.031	0.018	-0.820	0.000	0.011
2	22:25:10	-0.092	-0.018	-0.002	-0.008	0.054	1.316	0.000	0.026
3	22:25:18	-0.023	0.020	0.126	-0.021	-0.002	0.762	0.000	0.002
x		-0.030	-0.004	0.110	-0.020	0.023	0.419	0.000	0.013
σ		0.059	0.021	0.106	0.011	0.028	1.109	0.000	0.012
%RSD		200.100	475.400	95.900	55.770	122.500	264.400	0.000	93.010

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	92.575%	-0.188	-0.152	84.717%	-0.096	-0.077	-0.001	0.001
2	22:25:10	94.607%	-0.165	-0.152	84.457%	-0.096	-0.074	0.011	0.012
3	22:25:18	95.419%	-0.197	-0.162	84.559%	-0.088	-0.083	-0.001	-0.004
x		94.200%	-0.183	-0.156	84.578%	-0.093	-0.078	0.003	0.003
σ		1.465%	0.016	0.006	0.131%	0.005	0.004	0.007	0.008
%RSD		1.555	8.818	3.806	0.155	4.985	5.778	218.200	272.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	81.563%	-0.738	-0.073	-0.739	-0.006	-0.018	81.101%	80.038%
2	22:25:10	81.233%	-0.748	-0.080	-0.794	0.064	-0.005	81.681%	81.633%
3	22:25:18	83.313%	-0.669	-0.070	-0.757	0.040	0.008	82.434%	82.095%
x		82.036%	-0.718	-0.074	-0.763	0.033	-0.005	81.739%	81.255%
σ		1.118%	0.043	0.005	0.028	0.036	0.013	0.669%	1.079%
%RSD		1.363	5.995	7.389	3.655	110.100	267.100	0.818	1.328

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:25:02	-0.001	0.003	-0.016	-0.024	-0.021	90.197%
2	22:25:10	0.001	0.002	-0.049	-0.014	-0.021	91.718%
3	22:25:18	0.004	-0.001	-0.033	-0.024	-0.023	90.907%
x		0.001	0.001	-0.032	-0.021	-0.022	90.941%
σ		0.003	0.002	0.016	0.006	0.001	0.761%
%RSD		200.500	124.100	49.730	29.170	5.329	0.837

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	101.207%	-0.049	-0.038	-0.181	0.000	-14.010	-0.243	-0.366
2	22:30:17	102.989%	-0.034	-0.117	-0.123	0.000	-14.380	-0.511	-0.170
3	22:30:25	104.463%	-0.039	-0.290	-0.127	0.000	-13.180	-0.418	-0.099
x		102.886%	-0.041	-0.148	-0.144	0.000	-13.860	-0.391	-0.212
σ		1.631%	0.008	0.129	0.033	0.000	0.615	0.136	0.139
%RSD		1.585	18.730	87.010	22.780	0.000	4.438	34.800	65.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	0.452	0.048	0.000	-2.277	0.813	4.990	92.499%	-0.006
2	22:30:17	0.711	-0.081	0.000	-3.477	5.125	5.439	92.807%	0.018
3	22:30:25	0.412	-0.330	0.000	-2.066	6.156	7.726	93.125%	0.065
x		0.525	-0.121	0.000	-2.607	4.031	6.052	92.810%	0.026
σ		0.162	0.192	0.000	0.761	2.835	1.467	0.313%	0.036
%RSD		30.910	158.900	0.000	29.180	70.320	24.240	0.337	138.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	-0.012	0.002	0.040	-0.746	-2.200	0.000	0.011	-0.032
2	22:30:17	-0.029	0.008	0.019	-0.694	-0.860	0.002	0.010	-0.018
3	22:30:25	0.005	0.002	0.021	-0.572	-1.166	0.000	0.053	-0.055
x		-0.012	0.004	0.027	-0.670	-1.408	0.001	0.025	-0.035
σ		0.017	0.003	0.011	0.089	0.702	0.001	0.025	0.018
%RSD		141.500	82.790	42.780	13.340	49.860	103.100	98.820	52.190

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	-0.060	0.148	0.061	-0.024	-0.019	-0.143	0.000	0.018
2	22:30:17	-0.061	-0.071	0.164	-0.012	-0.058	1.078	0.000	0.011
3	22:30:25	0.009	0.059	0.127	-0.031	-0.021	-3.151	0.000	0.006
x		-0.037	0.045	0.117	-0.022	-0.032	-0.738	0.000	0.012
σ		0.040	0.110	0.052	0.010	0.022	2.177	0.000	0.006
%RSD		106.300	241.800	44.770	44.010	67.530	294.800	0.000	50.730

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	91.505%	-0.132	-0.186	82.445%	-0.087	-0.076	-0.001	-0.003
2	22:30:17	94.672%	-0.188	-0.186	82.904%	-0.095	-0.062	0.012	-0.009
3	22:30:25	94.553%	-0.196	-0.182	84.361%	-0.085	-0.085	-0.001	-0.030
x		93.577%	-0.172	-0.185	83.237%	-0.089	-0.074	0.003	-0.014
σ		1.795%	0.035	0.003	1.000%	0.006	0.012	0.007	0.014
%RSD		1.918	20.400	1.375	1.202	6.391	15.820	217.000	100.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	79.944%	-0.669	-0.084	-0.778	-0.006	-0.005	80.790%	79.990%
2	22:30:17	81.175%	-0.679	-0.065	-0.759	0.041	0.022	81.645%	80.165%
3	22:30:25	81.915%	-0.669	-0.058	-0.819	0.017	-0.018	82.667%	82.360%
x		81.011%	-0.672	-0.069	-0.785	0.017	-0.000	81.701%	80.838%
σ		0.996%	0.006	0.014	0.031	0.024	0.020	0.939%	1.321%
%RSD		1.229	0.898	19.680	3.942	137.800	8379.000	1.150	1.634

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:30:10	0.004	0.001	-0.042	-0.013	-0.024	88.611%
2	22:30:17	0.001	0.003	-0.042	-0.028	-0.028	90.064%
3	22:30:25	-0.001	0.000	-0.048	-0.032	-0.032	90.579%
x		0.001	0.001	-0.044	-0.024	-0.028	89.751%
σ		0.003	0.001	0.004	0.010	0.004	1.021%
%RSD		195.200	103.400	8.755	41.240	15.090	1.137

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	104.911%	-0.029	-0.073	-0.211	0.000	-14.720	-0.628	-0.111
2	22:35:25	107.148%	-0.045	-0.032	-0.175	0.000	-14.360	-0.346	-0.212
3	22:35:33	106.458%	-0.030	-0.149	-0.158	0.000	-14.280	-0.089	-0.607
x		106.172%	-0.035	-0.085	-0.181	0.000	-14.450	-0.354	-0.310
σ		1.145%	0.009	0.059	0.027	0.000	0.236	0.270	0.262
%RSD		1.079	25.090	69.810	14.850	0.000	1.634	76.180	84.470

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	0.294	-0.035	0.000	-3.232	1.667	5.340	94.360%	-0.006
2	22:35:25	0.291	-0.009	0.000	-1.916	3.643	4.885	95.475%	-0.029
3	22:35:33	0.355	-0.799	0.000	-3.359	-6.897	5.778	94.674%	-0.006
x		0.313	-0.281	0.000	-2.835	-0.529	5.334	94.837%	-0.014
σ		0.036	0.449	0.000	0.799	5.603	0.447	0.575%	0.013
%RSD		11.610	159.800	0.000	28.160	1058.000	8.375	0.606	97.430

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	0.005	0.001	0.009	-0.855	-1.034	0.002	0.018	-0.059
2	22:35:25	-0.011	0.004	0.021	-0.781	-0.629	-0.002	0.025	-0.037
3	22:35:33	0.006	0.003	0.004	-0.668	-0.763	0.004	-0.026	-0.060
x		-0.000	0.003	0.011	-0.768	-0.809	0.002	0.005	-0.052
σ		0.010	0.002	0.009	0.095	0.207	0.003	0.028	0.013
%RSD		8094.000	64.740	79.430	12.310	25.540	185.400	517.300	25.300

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	-0.015	-0.072	0.107	-0.028	-0.002	-3.422	0.000	-0.000
2	22:35:25	-0.010	0.076	-0.046	-0.015	0.070	0.047	0.000	0.004
3	22:35:33	-0.032	-0.013	0.081	-0.009	-0.003	-2.284	0.000	-0.002
x		-0.019	-0.003	0.047	-0.017	0.021	-1.886	0.000	0.000
σ		0.012	0.075	0.082	0.010	0.042	1.768	0.000	0.003
%RSD		61.990	2552.000	172.400	54.930	194.600	93.750	0.000	693.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	93.933%	-0.189	-0.197	86.079%	-0.093	-0.083	0.011	-0.004
2	22:35:25	96.078%	-0.158	-0.192	85.798%	-0.091	-0.063	-0.001	0.001
3	22:35:33	96.649%	-0.151	-0.173	85.695%	-0.094	-0.086	0.011	0.000
x		95.553%	-0.166	-0.187	85.857%	-0.093	-0.077	0.007	-0.001
σ		1.432%	0.020	0.013	0.199%	0.002	0.012	0.007	0.003
%RSD		1.499	12.070	6.836	0.231	1.717	15.970	96.460	289.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	82.235%	-0.581	-0.073	-0.755	0.017	0.022	81.554%	82.450%
2	22:35:25	83.173%	-0.674	-0.081	-0.767	0.017	-0.005	83.395%	82.711%
3	22:35:33	84.383%	-0.683	-0.096	-0.782	-0.006	0.047	82.887%	83.023%
x		83.264%	-0.646	-0.084	-0.768	0.009	0.021	82.612%	82.728%
σ		1.077%	0.056	0.012	0.014	0.013	0.026	0.951%	0.287%
%RSD		1.294	8.708	14.210	1.761	147.300	122.600	1.151	0.347

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:35:18	-0.001	0.001	-0.042	-0.028	-0.031	90.997%
2	22:35:25	-0.001	0.001	-0.033	-0.035	-0.030	91.014%
3	22:35:33	0.004	0.001	-0.030	-0.032	-0.022	91.799%
x		0.000	0.001	-0.035	-0.032	-0.028	91.270%
σ		0.003	0.000	0.006	0.004	0.005	0.458%
%RSD		745.900	1.748	18.660	11.390	18.650	0.502

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	106.224%	-0.035	-0.053	-0.213	0.000	-13.690	0.013	-0.322
2	22:40:33	105.562%	-0.035	-0.147	-0.202	0.000	-13.840	0.020	-0.277
3	22:40:41	107.190%	-0.035	-0.268	-0.150	0.000	-14.060	-0.442	0.032
x		106.325%	-0.035	-0.156	-0.188	0.000	-13.860	-0.136	-0.189
σ		0.819%	0.000	0.108	0.034	0.000	0.185	0.265	0.193
%RSD		0.770	0.544	69.110	18.000	0.000	1.335	194.200	102.200

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	0.280	0.207	0.000	-1.921	0.578	6.040	94.536%	-0.006
2	22:40:33	0.418	-0.584	0.000	-2.058	5.946	6.008	94.343%	-0.006
3	22:40:41	0.476	-0.425	0.000	-3.035	0.535	7.008	94.914%	-0.029
x		0.391	-0.267	0.000	-2.338	2.353	6.352	94.598%	-0.014
σ		0.101	0.419	0.000	0.608	3.112	0.568	0.290%	0.013
%RSD		25.670	156.700	0.000	25.990	132.300	8.944	0.307	97.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	0.004	0.004	0.026	-0.853	-1.490	0.000	-0.026	-0.060
2	22:40:33	-0.006	0.007	-0.017	-0.677	-1.348	0.004	0.025	-0.032
3	22:40:41	-0.015	0.014	0.012	-0.560	-2.096	0.000	-0.044	-0.053
x		-0.005	0.009	0.007	-0.697	-1.645	0.002	-0.015	-0.048
σ		0.009	0.005	0.022	0.147	0.398	0.002	0.036	0.014
%RSD		172.100	59.500	311.800	21.150	24.170	141.300	242.400	29.310

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	-0.039	0.120	0.104	-0.022	-0.039	1.295	0.000	0.013
2	22:40:33	-0.001	0.001	-0.009	-0.012	0.033	-1.927	0.000	0.025
3	22:40:41	-0.040	-0.053	-0.029	-0.031	0.014	1.404	0.000	0.018
x		-0.027	0.022	0.022	-0.022	0.003	0.257	0.000	0.019
σ		0.022	0.088	0.072	0.010	0.037	1.892	0.000	0.006
%RSD		81.920	395.300	329.000	44.010	1488.000	735.800	0.000	32.930

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	95.067%	-0.197	-0.192	85.725%	-0.099	-0.085	-0.001	-0.004
2	22:40:33	96.699%	-0.159	-0.197	86.972%	-0.073	-0.072	0.011	0.000
3	22:40:41	97.662%	-0.136	-0.183	86.446%	-0.105	-0.080	0.011	-0.015
x		96.476%	-0.164	-0.191	86.381%	-0.092	-0.079	0.007	-0.006
σ		1.312%	0.030	0.007	0.626%	0.017	0.007	0.007	0.008
%RSD		1.360	18.550	3.841	0.725	18.550	8.663	96.400	121.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	83.151%	-0.640	-0.070	-0.766	0.017	-0.005	83.140%	82.264%
2	22:40:33	85.192%	-0.727	-0.067	-0.773	-0.006	0.033	83.670%	83.171%
3	22:40:41	84.825%	-0.785	-0.089	-0.816	0.016	0.008	83.989%	83.461%
x		84.389%	-0.717	-0.075	-0.785	0.009	0.012	83.600%	82.965%
σ		1.088%	0.073	0.012	0.027	0.013	0.020	0.429%	0.624%
%RSD		1.289	10.130	16.030	3.435	148.900	163.100	0.513	0.752

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:40:25	0.001	0.002	-0.033	-0.014	-0.029	91.598%
2	22:40:33	-0.001	0.002	-0.042	-0.007	-0.026	91.967%
3	22:40:41	0.001	0.000	-0.027	-0.032	-0.032	92.791%
x		0.000	0.002	-0.034	-0.017	-0.029	92.119%
σ		0.002	0.001	0.008	0.013	0.003	0.611%
%RSD		400.100	70.210	22.880	74.060	9.638	0.663

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	76.394%	0.009	28.980	27.400	0.000	7842.000	15500.000	15490.000
2	22:45:43	77.458%	-0.012	29.750	29.640	0.000	7873.000	15370.000	15450.000
3	22:45:51	76.952%	-0.025	28.740	28.050	0.000	7884.000	15280.000	15290.000
x		76.935%	-0.009	29.160	28.360	0.000	7866.000	15380.000	15410.000
σ		0.532%	0.017	0.531	1.153	0.000	21.920	108.800	107.800
%RSD		0.692	184.600	1.820	4.066	0.000	0.279	0.707	0.700

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	544.400	552.200	0.000	355.100	452400.000	447100.000	68.284%	38.970
2	22:45:43	549.000	578.700	0.000	371.000	481400.000	469900.000	67.292%	42.290
3	22:45:51	545.300	549.000	0.000	373.800	486600.000	480100.000	67.143%	42.620
x		546.200	560.000	0.000	366.600	473400.000	465700.000	67.573%	41.290
σ		2.444	16.300	0.000	10.080	18420.000	16880.000	0.620%	2.021
%RSD		0.447	2.912	0.000	2.749	3.891	3.624	0.917	4.894

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	8.380	8.144	21.690	1492.000	3401.000	0.762	2.490	2.357
2	22:45:43	8.604	8.079	22.190	1519.000	3446.000	0.780	2.560	2.260
3	22:45:51	8.829	8.036	22.360	1503.000	3361.000	0.756	2.669	2.055
x		8.604	8.086	22.080	1505.000	3403.000	0.766	2.573	2.224
σ		0.225	0.054	0.350	13.790	42.290	0.013	0.090	0.154
%RSD		2.612	0.670	1.586	0.916	1.243	1.660	3.503	6.941

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	3.139	4.527	5.434	9.554	0.070	-0.483	0.000	5974.000
2	22:45:43	2.774	5.083	4.371	9.593	0.318	-0.824	0.000	6084.000
3	22:45:51	3.267	4.557	4.224	9.816	0.490	3.596	0.000	6062.000
x		3.060	4.722	4.676	9.654	0.292	0.763	0.000	6040.000
σ		0.256	0.313	0.660	0.141	0.211	2.459	0.000	58.480
%RSD		8.357	6.622	14.120	1.465	72.190	322.200	0.000	0.968

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	73.152%	-0.062	0.070	57.349%	-0.081	-0.060	0.136	0.063
2	22:45:43	72.372%	-0.028	0.046	56.347%	-0.081	-0.076	0.068	0.006
3	22:45:51	72.501%	0.049	0.047	55.996%	-0.056	-0.051	0.086	0.057
x		72.675%	-0.014	0.054	56.564%	-0.073	-0.063	0.097	0.042
σ		0.418%	0.057	0.014	0.702%	0.014	0.013	0.035	0.031
%RSD		0.575	413.600	24.910	1.241	19.840	20.300	36.550	75.060

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	60.058%	-0.104	0.106	-0.516	8.082	7.324	67.033%	67.106%
2	22:45:43	60.248%	-0.229	0.141	-0.484	8.083	8.509	66.724%	67.561%
3	22:45:51	59.162%	-0.018	0.045	-0.586	8.448	8.268	67.829%	67.156%
x		59.822%	-0.117	0.097	-0.528	8.204	8.034	67.196%	67.274%
σ		0.580%	0.106	0.048	0.052	0.211	0.627	0.570%	0.250%
%RSD		0.970	90.860	49.670	9.889	2.575	7.799	0.848	0.371

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:45:35	0.175	0.154	7.915	7.758	7.797	68.907%
2	22:45:43	0.217	0.158	8.008	7.764	7.834	68.828%
3	22:45:51	0.156	0.181	7.863	7.742	7.768	69.709%
x		0.183	0.165	7.929	7.755	7.800	69.148%
σ		0.031	0.014	0.073	0.011	0.033	0.487%
%RSD		16.860	8.791	0.927	0.143	0.425	0.705

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	79.069%	-0.013	2419.000	2376.000	0.000	17760.000	17.550	15.030
2	22:50:50	77.780%	-0.033	2604.000	2541.000	0.000	17630.000	18.980	17.130
3	22:50:58	77.992%	-0.039	2598.000	2501.000	0.000	17470.000	16.290	18.070
x		78.281%	-0.028	2540.000	2473.000	0.000	17620.000	17.600	16.740
σ		0.691%	0.014	105.400	85.980	0.000	144.500	1.344	1.556
%RSD		0.883	48.160	4.149	3.477	0.000	0.820	7.637	9.293

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	2.680	863.000	0.000	31220.000	80.170	307.400	69.298%	21.090
2	22:50:50	3.245	885.400	0.000	31970.000	72.770	313.200	69.402%	21.980
3	22:50:58	3.954	903.700	0.000	32690.000	67.990	317.900	68.479%	23.850
x		3.293	884.100	0.000	31960.000	73.640	312.800	69.060%	22.310
σ		0.638	20.370	0.000	733.800	6.137	5.284	0.506%	1.411
%RSD		19.370	2.304	0.000	2.296	8.333	1.689	0.733	6.324

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	0.636	0.336	4.201	4.802	6.007	0.007	0.184	26.220
2	22:50:50	0.485	0.389	4.411	4.861	4.748	0.019	0.135	24.290
3	22:50:58	0.526	0.405	4.428	4.790	6.056	0.010	0.220	25.020
x		0.549	0.377	4.346	4.818	5.603	0.012	0.180	25.170
σ		0.078	0.037	0.127	0.038	0.742	0.006	0.042	0.976
%RSD		14.220	9.696	2.913	0.795	13.230	53.170	23.520	3.878

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	25.940	4.403	5.121	2.468	0.733	3.638	0.000	0.409
2	22:50:50	26.220	5.021	4.716	2.591	0.647	2.895	0.000	0.425
3	22:50:58	26.620	4.456	4.558	2.732	0.362	1.062	0.000	0.454
x		26.260	4.627	4.798	2.597	0.581	2.532	0.000	0.429
σ		0.341	0.343	0.290	0.132	0.194	1.326	0.000	0.023
%RSD		1.297	7.405	6.046	5.071	33.430	52.380	0.000	5.274

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	71.984%	98.550	100.300	62.811%	-0.088	-0.078	0.095	0.145
2	22:50:50	73.568%	94.790	98.870	62.732%	-0.084	-0.063	0.142	0.103
3	22:50:58	72.966%	98.960	99.970	62.934%	-0.106	-0.071	0.204	0.221
x		72.840%	97.430	99.700	62.826%	-0.093	-0.070	0.147	0.156
σ		0.800%	2.299	0.730	0.102%	0.012	0.007	0.055	0.060
%RSD		1.098	2.360	0.732	0.162	12.740	10.600	37.100	38.120

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	63.542%	0.497	1.080	0.775	0.140	0.228	69.006%	70.240%
2	22:50:50	64.125%	0.558	1.145	0.503	0.224	0.225	70.145%	70.875%
3	22:50:58	64.780%	0.604	1.183	0.610	0.166	0.160	69.707%	70.741%
x		64.149%	0.553	1.136	0.629	0.177	0.204	69.619%	70.619%
σ		0.619%	0.053	0.052	0.137	0.043	0.039	0.575%	0.334%
%RSD		0.965	9.658	4.620	21.810	24.530	18.890	0.826	0.473

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:50:42	-0.001	0.008	0.973	1.023	0.989	77.975%
2	22:50:50	-0.001	0.001	1.069	0.901	1.046	79.344%
3	22:50:58	0.011	0.002	0.986	1.015	0.979	79.537%
x		0.003	0.004	1.009	0.980	1.005	78.952%
σ		0.007	0.004	0.052	0.068	0.036	0.851%
%RSD		224.100	102.100	5.140	6.936	3.591	1.078

CCV 1241000 9/6/2014 10:56:41 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	75.048%	96.380	108.600	108.000	0.000	51230.000	52670.000	53420.000
2	22:55:55	76.744%	97.510	107.800	105.800	0.000	50740.000	51690.000	52330.000
3	22:56:03	76.171%	100.300	106.900	107.500	0.000	51570.000	53100.000	50630.000
x		75.988%	98.078%	107.731%	107.079%	0.000	102.357%	104.974%	104.254%
σ		0.863%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.135	2.082	0.792	1.055	0.000	0.816	1.381	2.707

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	516.500	5994.000	0.000	53310.000	50700.000	50230.000	68.242%	106.700
2	22:55:55	502.400	6027.000	0.000	52550.000	50990.000	51110.000	70.003%	109.200
3	22:56:03	522.800	6097.000	0.000	52930.000	51820.000	51550.000	69.018%	108.500
x		102.782%	120.793%	0.000	105.865%	102.337%	101.925%	69.087%	108.147%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.882%	n/a
%RSD		2.035	0.874	0.000	0.713	1.134	1.323	1.277	1.196

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	99.080	101.100	507.200	26230.000	24380.000	103.400	103.500	104.300
2	22:55:55	98.330	100.100	510.000	25480.000	23690.000	101.400	102.900	101.100
3	22:56:03	101.300	102.800	518.700	26210.000	24310.000	103.000	101.900	102.800
x		99.571%	101.334%	102.392%	103.895%	96.502%	102.603%	102.758%	102.706%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.550	1.367	1.169	1.639	1.569	1.016	0.804	1.560

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	103.300	99.380	99.670	97.700	95.060	101.400	0.000	93.430
2	22:55:55	101.800	99.730	98.840	95.490	95.290	94.900	0.000	93.080
3	22:56:03	103.100	100.900	98.980	96.630	92.920	99.850	0.000	93.140
x		102.748%	100.017%	99.161%	96.609%	94.423%	98.718%	0.000	93.216%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.760	0.816	0.447	1.142	1.386	3.441	0.000	0.204

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	76.288%	102.200	106.200	63.548%	106.200	107.600	108.800	109.600
2	22:55:55	77.916%	100.500	105.700	63.844%	106.700	107.700	106.700	109.400
3	22:56:03	79.000%	102.400	104.400	65.128%	107.900	105.700	105.100	108.900
x		77.735%	101.724%	105.435%	64.173%	106.930%	107.014%	106.888%	109.314%
σ		1.365%	n/a	n/a	0.840%	n/a	n/a	n/a	n/a
%RSD		1.756	1.008	0.897	1.309	0.834	1.026	1.760	0.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	65.078%	103.000	104.600	103.500	105.000	103.100	69.173%	70.003%
2	22:55:55	66.186%	105.100	102.800	101.700	104.100	101.100	71.613%	71.195%
3	22:56:03	66.847%	104.000	102.900	101.500	104.000	102.600	71.759%	71.664%
x		66.037%	104.035%	103.430%	102.228%	104.377%	102.284%	70.848%	70.954%
σ		0.894%	n/a	n/a	n/a	n/a	n/a	1.453%	0.857%
%RSD		1.354	1.018	1.016	1.074	0.514	1.008	2.050	1.207

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	22:55:48	104.600	103.800	104.400	106.100	104.800	72.211%
2	22:55:55	104.400	104.700	102.500	104.400	103.900	73.234%
3	22:56:03	105.400	104.100	103.200	104.000	104.900	73.824%
x		104.809%	104.209%	103.355%	104.854%	104.556%	73.090%
σ		n/a	n/a	n/a	n/a	n/a	0.816%
%RSD		0.514	0.450	0.923	1.082	0.536	1.116

CCB7 9/6/2014 11:05:51 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	84.644%	0.021	1.757	2.145	0.000	1.321	11.200	13.140
2	23:05:06	85.019%	-0.004	2.372	2.000	0.000	1.746	11.290	12.130
3	23:05:14	85.354%	0.014	2.006	1.990	0.000	0.330	11.820	10.200
x		85.006%	0.010	2.045	2.045	0.000	1.132	11.440	11.820
σ		0.355%	0.013	0.309	0.086	0.000	0.727	0.339	1.495
%RSD		0.418	123.900	15.120	4.227	0.000	64.170	2.964	12.650

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	3.842	1.844	0.000	5.247	8.966	9.155	84.691%	0.231
2	23:05:06	3.748	0.657	0.000	3.518	0.435	9.047	86.234%	0.175
3	23:05:14	3.865	1.435	0.000	3.084	15.560	10.710	86.525%	0.124
x		3.818	1.312	0.000	3.950	8.320	9.636	85.817%	0.177
σ		0.062	0.603	0.000	1.144	7.582	0.929	0.986%	0.054
%RSD		1.628	45.950	0.000	28.970	91.140	9.639	1.149	30.440

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	0.033	0.022	0.161	9.036	8.892	0.038	-0.009	0.002
2	23:05:06	0.011	0.037	0.180	9.041	6.917	0.015	0.064	-0.018
3	23:05:14	0.035	0.021	0.177	9.009	10.330	0.023	0.053	-0.019
x		0.026	0.027	0.172	9.029	8.712	0.025	0.036	-0.012
σ		0.013	0.009	0.010	0.017	1.713	0.012	0.040	0.012
%RSD		51.600	31.800	6.026	0.188	19.660	46.300	109.600	101.200

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	-0.004	0.027	0.066	0.004	-0.056	1.374	0.000	0.035
2	23:05:06	-0.056	0.007	-0.058	0.007	0.023	2.131	0.000	0.051
3	23:05:14	0.049	0.001	-0.005	0.003	0.040	0.440	0.000	0.029
x		-0.004	0.011	0.001	0.005	0.002	1.315	0.000	0.038
σ		0.053	0.013	0.063	0.002	0.051	0.847	0.000	0.011
%RSD		1399.000	119.500	5371.000	44.350	2242.000	64.410	0.000	29.110

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	87.871%	0.058	0.005	82.264%	-0.090	-0.076	0.011	0.007
2	23:05:06	88.880%	0.016	-0.006	82.326%	-0.037	-0.056	0.061	0.012
3	23:05:14	91.533%	-0.022	-0.036	83.961%	-0.074	-0.046	0.023	0.046
x		89.428%	0.018	-0.012	82.850%	-0.067	-0.059	0.032	0.022
σ		1.891%	0.040	0.021	0.962%	0.027	0.016	0.026	0.021
%RSD		2.115	227.600	173.100	1.161	40.940	26.170	80.840	99.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	81.026%	-0.600	0.094	-0.595	0.064	0.021	83.982%	83.786%
2	23:05:06	82.150%	-0.711	0.072	-0.609	0.086	0.034	85.206%	84.762%
3	23:05:14	84.050%	-0.704	0.049	-0.629	-0.006	-0.005	86.109%	84.396%
x		82.409%	-0.672	0.071	-0.611	0.048	0.017	85.099%	84.315%
σ		1.529%	0.062	0.022	0.017	0.048	0.020	1.067%	0.493%
%RSD		1.855	9.264	31.070	2.757	100.900	120.200	1.254	0.585

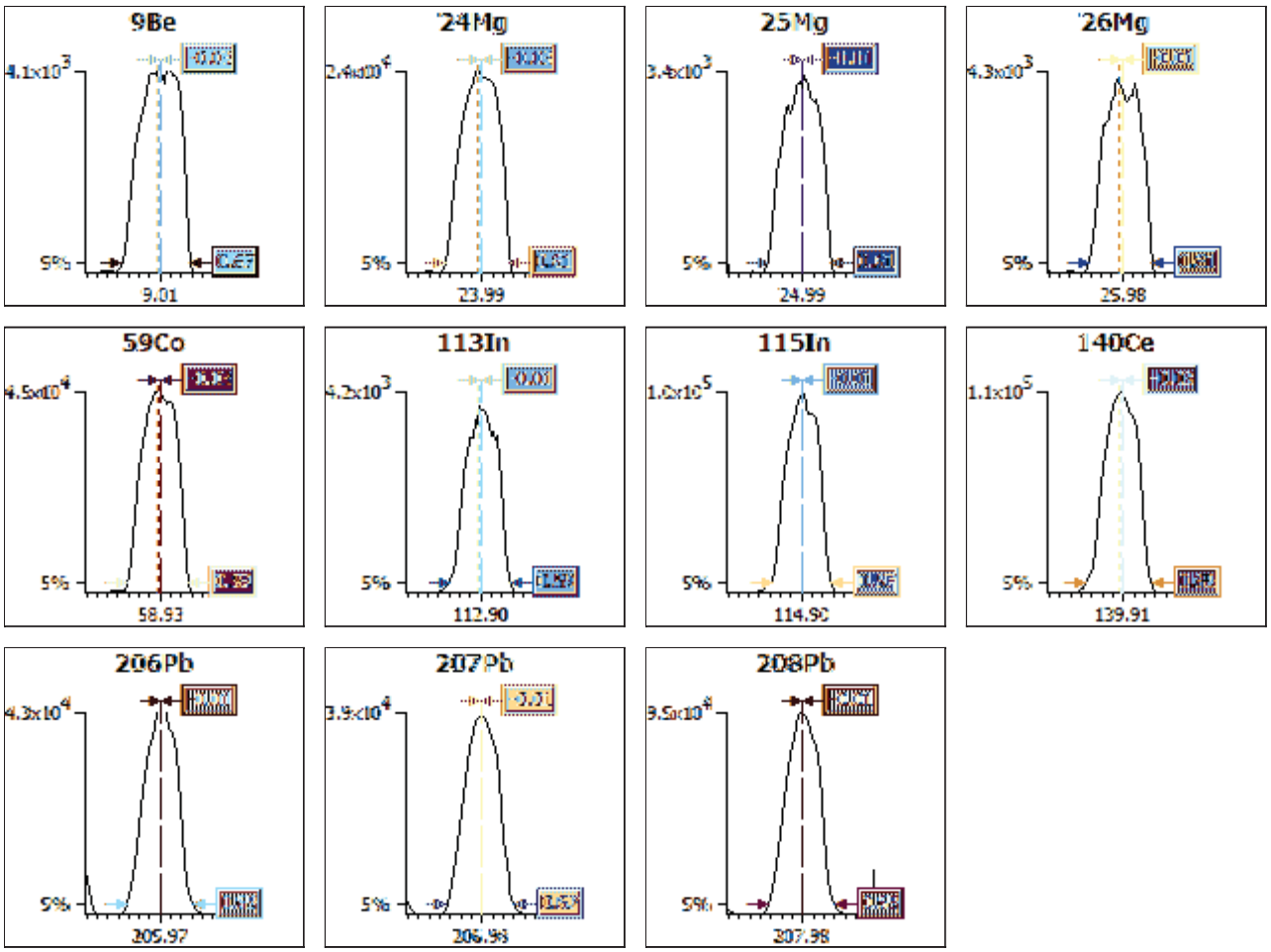
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	23:04:59	0.023	0.018	0.014	0.061	0.035	88.634%
2	23:05:06	0.023	0.023	0.032	0.031	0.044	89.650%
3	23:05:14	0.025	0.014	0.025	0.059	0.040	90.119%
x		0.024	0.018	0.024	0.050	0.040	89.468%
σ		0.001	0.004	0.009	0.017	0.004	0.759%
%RSD		5.899	23.670	39.540	33.970	10.910	0.849

Performance Report

Sample details
Sample name : ITUNE
Acquired at : 9/6/2014 2:46:57 PM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Mass Calibration verification

Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.67	-0.03
24Mg	0.90	0.40	0.10	0.61	-0.03
25Mg	0.90	0.40	0.10	0.61	-0.01
26Mg	0.90	0.40	0.10	0.61	-0.01
59Co	0.90	0.40	0.10	0.59	-0.03
113In	0.90	0.40	0.10	0.59	-0.01
115In	0.90	0.40	0.10	0.57	-0.01
140Ce	0.90	0.40	0.10	0.65	-0.03
206Pb	0.90	0.40	0.10	0.65	-0.01
207Pb	0.90	0.40	0.10	0.67	-0.01
208Pb	0.90	0.40	0.10	0.65	-0.01

Sample details
Sample name : ITUNE
Acquired at : 9/6/2014 2:46:57 PM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-106
Lens 1	2.0
Focus	19.4
D1	-30.6
Pole Bias	-0.0
Hexapole Bias	-3.4
Nebuliser	0.98
Sampling Depth	200

Minor	
Lens 2	-46.3
Lens 3	-200.0
Forward power	1404
Horizontal	90
Vertical	385
D2	-121
DA	-80.0
Cool	14.0
Auxiliary	0.80

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT1	0.00
CCT2	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	2:47:45 PM	0	3991	23202	3319	3982	46146	4355	101994
2	2:48:57 PM	0	4005	23454	3325	3886	46530	4315	102692
3	2:50:09 PM	0	3979	23217	3286	3829	46353	4450	102693
4	2:51:21 PM	0	4020	23334	3261	4041	46510	4521	103223
5	2:52:33 PM	0	3981	23150	3217	4064	46759	4474	103188
x		0	3995	23271	3282	3960	46460	4423	102758
σ		0.12	17.30	122.18	44.41	100.66	227.50	85.54	498.65
%RSD		86.402	0.433	0.525	1.353	2.542	0.490	1.934	0.485

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	2:47:45 PM	112570	2596	44748	38803	93653	0
2	2:48:57 PM	112958	2596	45099	39144	93802	0
3	2:50:09 PM	112995	2560	45040	39584	95029	0
4	2:51:21 PM	113561	2532	46048	39617	95504	0
5	2:52:33 PM	113829	2565	45762	39746	95540	0
x		113183	2570	45339	39379	94706	0
σ		505.38	27.08	542.54	393.95	916.50	0.13
%RSD		0.447	1.054	1.197	1.000	0.968	92.628

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	2:47:45 PM	0
2	2:48:57 PM	0
3	2:50:09 PM	0
4	2:51:21 PM	0
5	2:52:33 PM	0
x		0.0227
σ		0.00
%RSD		1.3954

Result : The performance report passed.

TestAmerica Pittsburgh Atomic Absorption Data for Mercury

Instrument: HG HYDRA AA

HYDRA II

Analyst Name: Lauren E McGrath

Analysis Date: 9/2/2014

File ID: R40902A#116775

Matrix: Water

Analytical Method(s): 245.1 / 7470A / 7470AD.O.D. / 7471A / 7471A D.O.D. / 7471B

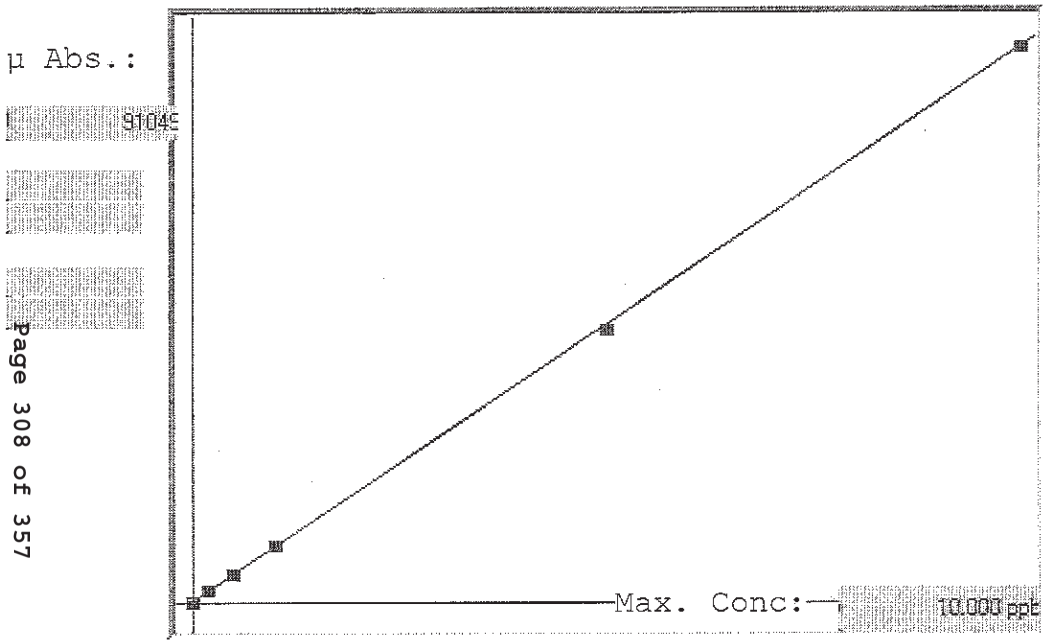
Job Number/SDG

36175		
36177		
36196		
36205		
35998		
36002		
36059		
36142		
36178		
36233		
36237		
36259		
36261		
36278		

Lauren E McGrath
9/2/2014
R40902A

METHG

Linear



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B= 1.1037e-004

C= -2.2905e-002

Rho= 0.9999557

Accept= Accepted

Accepted Date=

09/02/14 12:50

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
blank	0.000	-0.032	-0.032	-80	0.000	-80				
.2ppb	0.200	0.221	0.021	2211	0.0 %	2211				
.5ppb	0.500	0.522	0.022	4933	0.0 %	4933				
1.0ppb	1.000	1.025	0.025	9492	0.0 %	9492				
5.0ppb	5.000	4.938	-0.062	44947	0.0 %	44947				
10.0ppb	10.000	10.026	0.026	91049	0.0 %	91049				

09/09/2014

R40902A

Method: METHG Operator: Admin Date of Analysis: 02 Sep 2014 12:23:48

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs.	Method	Chapter
6756	Std	blank - 1		02 Sep 2014 12:39:33	-	ppb	0.0000	-80	METHG	R40902A
6757	Std	.2ppb - 1		02 Sep 2014 12:41:17	-	ppb	0.2000	2211	METHG	R40902A
6758	Std	.5ppb - 1		02 Sep 2014 12:42:59	-	ppb	0.5000	4933	METHG	R40902A
6759	Std	1.0ppb - 1		02 Sep 2014 12:44:44	-	ppb	1.0000	9492	METHG	R40902A
6760	Std	5.0ppb - 1		02 Sep 2014 12:46:29	-	ppb	5.0000	44947	METHG	R40902A
6761	Std	10.0ppb - 1		02 Sep 2014 12:48:15	-	ppb	10.0000	91049	METHG	R40902A
6762	CK STND	ICV - 1		02 Sep 2014 12:50:22	102.3% 2.5579	ppb	-	23383	METHG	R40902A
6763	CK STND	ICB - 1		02 Sep 2014 12:52:40	-0.0779	ppb	-	-498	METHG	R40902A
6764	CK STND	CRA - 1		02 Sep 2014 12:54:37	112.1% 0.2241	ppb	-	2238	METHG	R40902A
6765	CK STND	CCV - 1		02 Sep 2014 12:56:18	100.3% 5.0142	ppb	-	45638	METHG	R40902A
6766	CK STND	CCB - 1		02 Sep 2014 12:58:02	-0.0822	ppb	-	-537	METHG	R40902A
6767	SMPL	MB 180-116725/1-A - 1		02 Sep 2014 13:00:09	-0.0314	ppb	-	-77	METHG	R40902A
6768	SMPL	LCS 180-116725/2-A - 1		02 Sep 2014 13:01:51	2.6209	ppb	-	23954	METHG	R40902A
6769	SMPL	LCSD 180-116725/3-A - 1		02 Sep 2014 13:03:33	2.5389	ppb	-	23211	METHG	R40902A
6770	SMPL	180-36177-B-1-A - 1		02 Sep 2014 13:05:26	0.0120	ppb	-	316	METHG	R40902A
6771	SMPL	180-36177-C-1-A - 1		02 Sep 2014 13:07:24	-0.0216	ppb	-	12	METHG	R40902A
6772	SMPL	180-36177-B-2-A - 1		02 Sep 2014 13:09:06	0.0296	ppb	-	476	METHG	R40902A
6773	SMPL	180-36177-C-2-A - 1		02 Sep 2014 13:10:47	0.0037	ppb	-	241	METHG	R40902A
6774	SMPL	180-36177-B-3-A - 1		02 Sep 2014 13:12:29	0.0054	ppb	-	256	METHG	R40902A
6775	SMPL	180-36177-C-3-A - 1		02 Sep 2014 13:14:11	-0.0175	ppb	-	49	METHG	R40902A
6776	SMPL	180-36177-B-4-A - 1		02 Sep 2014 13:15:53	-0.0012	ppb	-	197	METHG	R40902A
6777	CK STND	CCV - 1		02 Sep 2014 13:17:36	100.6% 5.0322	ppb	-	45801	METHG	R40902A
6778	CK STND	CCB - 1		02 Sep 2014 13:19:18	-0.0759	ppb	-	-480	METHG	R40902A
6779	SMPL	180-36177-C-4-A - 1		02 Sep 2014 13:21:23	-0.0177	ppb	-	47	METHG	R40902A
6780	SMPL	180-36177-B-5-A - 1		02 Sep 2014 13:23:06	-0.0101	ppb	-	116	METHG	R40902A
6781	SMPL	180-36177-C-5-A - 1		02 Sep 2014 13:24:49	-0.0145	ppb	-	76	METHG	R40902A
6782	SMPL	180-36177-B-6-A - 1		02 Sep 2014 13:26:31	-0.0142	ppb	-	79	METHG	R40902A
6783	SMPL	180-36177-C-6-A - 1		02 Sep 2014 13:28:12	-0.0161	ppb	-	62	METHG	R40902A
6784	SMPL	180-36175-H-6-A - 1		02 Sep 2014 13:29:54	0.0326	ppb	-	503	METHG	R40902A
6785	SMPL	180-36175-I-6-A - 1		02 Sep 2014 13:31:36	-0.0097	ppb	-	120	METHG	R40902A
6786	SMPL	180-36175-H-7-A - 1		02 Sep 2014 13:33:17	0.0366	ppb	-	539	METHG	R40902A
6787	SMPL	180-36175-I-7-A - 1		02 Sep 2014 13:34:58	-0.0044	ppb	-	168	METHG	R40902A
6788	SMPL	180-36175-H-8-A - 1		02 Sep 2014 13:36:41	-0.0132	ppb	-	88	METHG	R40902A
6789	CK STND	CCV - 1		02 Sep 2014 13:38:23	101.6% 5.0780	ppb	-	46216	METHG	R40902A
6790	CK STND	CCB - 1		02 Sep 2014 13:40:05	-0.0744	ppb	-	-467	METHG	R40902A
6791	SMPL	180-36175-H-8-B - 1		02 Sep 2014 13:42:10	-0.0195	ppb	-	31	METHG	R40902A
6792	SMPL	180-36175-H-9-A - 1		02 Sep 2014 13:43:52	-0.0161	ppb	-	62	METHG	R40902A
6793	SMPL	180-36175-I-9-A - 1		02 Sep 2014 13:45:35	-0.0157	ppb	-	65	METHG	R40902A
6794	SMPL	MB 180-116726/1-A - 1		02 Sep 2014 13:47:17	-0.0190	ppb	-	35	METHG	R40902A
6795	SMPL	LCS 180-116726/2-A - 1		02 Sep 2014 13:49:00	2.6458	ppb	-	24179	METHG	R40902A
6796	SMPL	LCSD 180-116726/3-A - 1		02 Sep 2014 13:50:42	2.6164	ppb	-	23913	METHG	R40902A
6797	SMPL	180-36175-H-10-A - 1		02 Sep 2014 13:52:40	-0.0580	ppb	-	-318	METHG	R40902A
6798	SMPL	180-36175-I-10-A - 1		02 Sep 2014 13:54:37	-0.0174	ppb	-	50	METHG	R40902A
6799	SMPL	180-36175-H-11-A - 1		02 Sep 2014 13:56:18	-0.0151	ppb	-	71	METHG	R40902A
6800	SMPL	180-36175-I-11-A - 1		02 Sep 2014 13:58:00	-0.0141	ppb	-	80	METHG	R40902A
6801	CK STND	CCV - 1		02 Sep 2014 13:59:41	100.4% 5.0216	ppb	-	45705	METHG	R40902A
6802	CK STND	CCB - 1		02 Sep 2014 14:01:24	-0.0756	ppb	-	-477	METHG	R40902A
6803	SMPL	180-36196-C-3-A - 1		02 Sep 2014 14:03:29	-0.0172	ppb	-	52	METHG	R40902A
6804	SMPL	180-36196-C-4-A - 1		02 Sep 2014 14:05:11	0.0159	ppb	-	352	METHG	R40902A
6805	SMPL	180-36205-A-1-A - 1		02 Sep 2014 14:06:53	-0.0146	ppb	-	75	METHG	R40902A
6806	SMPL	MB 180-116729/1-A - 1		02 Sep 2014 14:08:35	-0.0215	ppb	-	13	METHG	R40902A
6807	SMPL	LCS 180-116729/2-A - 1		02 Sep 2014 14:10:17	2.6433	ppb	-	24157	METHG	R40902A
6808	SMPL	180-36259-K-2-A - 1		02 Sep 2014 14:12:00	-0.0572	ppb	-	-311	METHG	R40902A
6809	SMPL	180-36261-P-2-A - 1		02 Sep 2014 14:13:58	-0.0177	ppb	-	47	METHG	R40902A
6810	SMPL	180-36233-A-5-B - 1		02 Sep 2014 14:15:40	-0.0167	ppb	-	56	METHG	R40902A

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R40902A

Method: METHG Operator: Admin Date of Analysis: 02 Sep 2014 12:23:48

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs.	Method	Chapter
6811	SMPL	180-36237-A-1-A - 1		02 Sep 2014 14:17:22	-0.0097	ppb	-	120	METHG	R40902A
6812	SMPL	180-36059-G-5-D - 1		02 Sep 2014 14:19:04	-0.0107	ppb	-	111	METHG	R40902A
6813	CK STND	CCV - 1		02 Sep 2014 14:20:46	99.9% 4.9961	ppb	-	45474	METHG	R40902A
6814	CK STND	CCB - 1		02 Sep 2014 14:22:28	-0.0720	ppb	-	-445	METHG	R40902A
6815	SMPL	180-36059-G-5-E MS - 1		02 Sep 2014 14:24:34	0.9311	ppb	-	8644	METHG	R40902A
6816	SMPL	180-36059-G-5-F MSD - 1		02 Sep 2014 14:26:16	0.8745	ppb	-	8131	METHG	R40902A
6817	SMPL	180-36059-G-6-B - 1		02 Sep 2014 14:28:07	-0.0524	ppb	-	-267	METHG	R40902A
6818	SMPL	180-36059-G-7-B - 1		02 Sep 2014 14:29:58	-0.0156	ppb	-	66	METHG	R40902A
6819	SMPL	180-36059-G-8-B - 1		02 Sep 2014 14:31:40	-0.0119	ppb	-	100	METHG	R40902A
6820	SMPL	180-35998-A-3-A - 1		02 Sep 2014 14:33:22	-0.0104	ppb	-	113	METHG	R40902A
6821	SMPL	MB 180-116700/1-A - 1		02 Sep 2014 14:35:04	-0.0207	ppb	-	20	METHG	R40902A
6822	SMPL	LCS 180-116700/2-A - 1		02 Sep 2014 14:36:47	2.6128	ppb	-	23880	METHG	R40902A
6823	SMPL	LCSD 180-116700/3-A - 1		02 Sep 2014 14:38:30	2.5506	ppb	-	23317	METHG	R40902A
6824	SMPL	LB 180-116611/1-D - 1		02 Sep 2014 14:40:26	-0.0416	ppb	-	-169	METHG	R40902A
6825	CK STND	CCV - 1		02 Sep 2014 14:42:24	100.0% 4.9979	ppb	-	45490	METHG	R40902A
6826	CK STND	CCB - 1		02 Sep 2014 14:44:06	-0.0754	ppb	-	-476	METHG	R40902A
6827	SMPL	180-36278-A-1-E - 1		02 Sep 2014 14:46:13	-0.0214	ppb	-	14	METHG	R40902A
6828	SMPL	MB 180-116701/1-A - 1		02 Sep 2014 14:47:55	-0.0203	ppb	-	24	METHG	R40902A
6829	SMPL	LCS 180-116701/2-A - 1		02 Sep 2014 14:49:37	2.5211	ppb	-	23049	METHG	R40902A
6830	SMPL	LB 180-116424/14-D - 1		02 Sep 2014 14:51:19	-0.0413	ppb	-	-167	METHG	R40902A
6831	SMPL	180-36142-B-1-P - 1		02 Sep 2014 14:53:15	0.1363	ppb	-	1442	METHG	R40902A
6832	SMPL	180-36142-B-1-Q MS - 1		02 Sep 2014 14:54:57	4.7965	ppb	-	43665	METHG	R40902A
6833	SMPL	180-36142-B-1-R MSD - 1		02 Sep 2014 14:56:41	4.6680	ppb	-	42501	METHG	R40902A
6834	SMPL	180-36002-A-1-D - 1		02 Sep 2014 14:58:51	29.1427	ppb	-	264249	METHG	R40902A
6835	SMPL	180-36178-A-1-D - 1		02 Sep 2014 15:01:00	-0.1099	ppb	-	-788	METHG	R40902A
6836	CK STND	CCV - 1		02 Sep 2014 15:03:46	98.6% 4.9315	ppb	-	44888	METHG	R40902A
6837	CK STND	CCB - 1		02 Sep 2014 15:05:28	-0.0839	ppb	-	-553	METHG	R40902A
6838	CK STND	CCV - 1		02 Sep 2014 15:07:34	98.3% 4.9157	ppb	-	44745	METHG	R40902A
6839	CK STND	CCB - 1		02 Sep 2014 15:09:16	-0.0774	ppb	-	-494	METHG	R40902A
6840	SMPL	180-36002-A-1-D @10 - 1		02 Sep 2014 15:18:36	5.2818	ppb	-	48062	METHG	R40902A
6841	CK STND	CCV - 1		02 Sep 2014 15:20:20	97.6% 4.8784	ppb	-	44407	METHG	R40902A
6842	CK STND	CCV - 1		02 Sep 2014 15:22:33	98.8% 4.9413	ppb	-	44977	METHG	R40902A
6843	CK STND	CCB - 1		02 Sep 2014 15:24:40	-0.0737	ppb	-	-460	METHG	R40902A

Sample not reported, Dilution @ end of Run

End of Run
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Rack	Cup	Sample ID	Extended ID
1	1	MB 180-116725/1-A	
1	2	LCS 180-116725/2-A	
1	3	LCSD 180-116725/3-A	
1	4	180-36177-B-1-A	
1	5	180-36177-C-1-A	
1	6	180-36177-B-2-A	
1	7	180-36177-C-2-A	
1	8	180-36177-B-3-A	
1	9	180-36177-C-3-A	
1	10	180-36177-B-4-A	
1	11	180-36177-C-4-A	
1	12	180-36177-B-5-A	
1	13	180-36177-C-5-A	
1	14	180-36177-B-6-A	
1	15	180-36177-C-6-A	
1	16	180-36175-H-6-A	
1	17	180-36175-I-6-A	
1	18	180-36175-H-7-A	
1	19	180-36175-I-7-A	
1	20	180-36175-H-8-A	
1	21	180-36175-H-8-B	
1	22	180-36175-H-9-A	
1	23	180-36175-I-9-A	
1	24	MB 180-116726/1-A	
1	25	LCS 180-116726/2-A	
1	26	LCSD 180-116726/3-A	
1	27	180-36175-H-10-A	
1	28	180-36175-I-10-A	
1	29	180-36175-H-11-A	
1	30	180-36175-I-11-A	
1	31	180-36196-C-3-A	
1	32	180-36196-C-4-A	
1	33	180-36205-A-1-A	
1	34	MB 180-116729/1-A	
1	35	LCS 180-116729/2-A	
1	36	180-36259-K-2-A	
1	37	180-36261-P-2-A	
1	38	180-36233-A-5-B	
1	39	180-36237-A-1-A	

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Rack	Cup	Sample ID	Extended ID
1	40	180-36059-G-5-D	
1	41	180-36059-G-5-E MS	
1	42	180-36059-G-5-F MSD	
1	43	180-36059-G-6-B	
1	44	180-36059-G-7-B	
1	45	180-36059-G-8-B	
1	46	180-35998-A-3-A	
1	47	MB 180-116700/1-A	
1	48	LCS 180-116700/2-A	
1	49	LCSD 180-116700/3-A	
1	50	LB 180-116611/1-D	
1	51	180-36278-A-1-E	
1	52	MB 180-116701/1-A	
1	53	LCS 180-116701/2-A	
1	54	LB 180-116424/14-D	
1	55	180-36142-B-1-P	
1	56	180-36142-B-1-Q MS	
1	57	180-36142-B-1-R MSD	
1	58	180-36002-A-1-D	
1	59	180-36178-A-1-D	
1	60	180-36002-A-1-D@10	
2	1		
2	2		
2	3		
2	4		
2	5		
2	6		
2	7		
2	8		
2	9		
2	10		
2	11		
2	12		
2	13		
2	14		
2	15		
2	16		
2	17		
2	18		

TestAmerica Pittsburgh Atomic Absorption Data for Mercury

Instrument: HG HYDRA AA

HYDRA II

Analyst Name: Lauren E. McGrath

Analysis Date: 8/28/2017

File ID: R408218 #116423

Matrix: Soils

Analytical Method(s): 245.1 / 7470A / 7470AD.O.D. / 7471A / 7471A D.O.D / 7471B

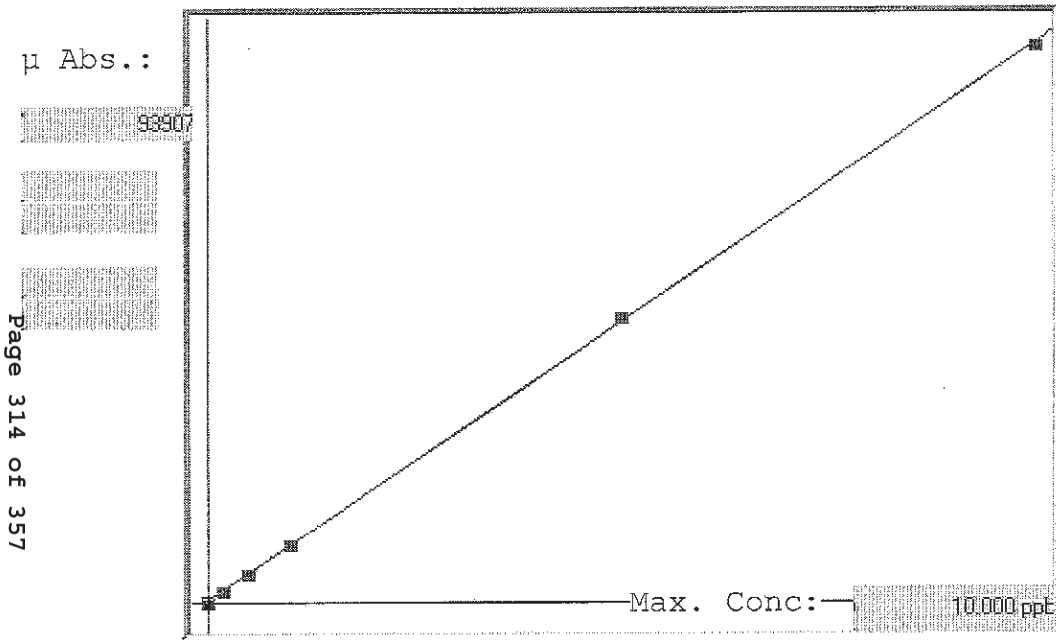
Job Number/SDG

35848
35858
35918
35998
36032
36064
36071
36083
36123

Lauren E McGrath
8/28/2014
R408 28B

METHG

Linear



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B= 1.0641e-004

C= -3.8436e-002

Rho= 0.9999294

Accept= Accepted

Accepted Date=

08/28/14 12:54

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
blank	0.000	-0.031	-0.031	74	0.000	74				
.2ppb	0.200	0.179	-0.021	2040	0.0 %	2040				
.5ppb	0.500	0.499	-0.001	5055	0.0 %	5055				
1.0ppb	1.000	1.010	0.010	9855	0.0 %	9855				
5.0ppb	5.000	5.088	0.088	48173	0.0 %	48173				
10.0ppb	10.000	9.954	-0.046	93907	0.0 %	93907				

R40828B

Method: METHG Operator: Admin Date of Analysis: 28 Aug 2014 12:34:15

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs	Method	Chapter
6430	Std	blank - 1		28 Aug 2014 12:44:24	-	ppb	0.0000	74	METHG	R40828B
6431	Std	.2ppb - 1		28 Aug 2014 12:46:07	-	ppb	0.2000	2040	METHG	R40828B
6432	Std	.5ppb - 1		28 Aug 2014 12:47:50	-	ppb	0.5000	5055	METHG	R40828B
6433	Std	1.0ppb - 1		28 Aug 2014 12:49:34	-	ppb	1.0000	9855	METHG	R40828B
6434	Std	5.0ppb - 1		28 Aug 2014 12:51:18	-	ppb	5.0000	48173	METHG	R40828B
6435	Std	10.0ppb - 1		28 Aug 2014 12:53:03	-	ppb	10.0000	93907	METHG	R40828B
6436	CK STND	ICV - 1		28 Aug 2014 12:55:02	102.4% 2.5604	ppb	-	24422	METHG	R40828B
6437	CK STND	ICB - 1		28 Aug 2014 12:57:12	-0.0804	ppb	-	-394	METHG	R40828B
6438	CK STND	CRA - 1		28 Aug 2014 12:59:03	87.0% 0.1741	ppb	-	1997	METHG	R40828B
6439	CK STND	CCV - 1		28 Aug 2014 13:00:44	101.2% 5.0585	ppb	-	47898	METHG	R40828B
6440	CK STND	CCB - 1		28 Aug 2014 13:02:27	-0.0775	ppb	-	-367	METHG	R40828B
6441	SMPL	MB 180-116357/1-A - 1		28 Aug 2014 13:04:28	-0.0416	ppb	-	-30	METHG	R40828B
6442	SMPL	LCS 180-116357/2-A - 1		28 Aug 2014 13:06:10	2.2416	ppb	-	21426	METHG	R40828B
6443	SMPL	180-35848-A-4-H - 1		28 Aug 2014 13:07:51	1.4373	ppb	-	13868	METHG	R40828B
6444	SMPL	180-35998-A-1-E - 1		28 Aug 2014 13:09:43	0.2520	ppb	-	2729	METHG	R40828B
6445	SMPL	180-36123-E-1-L - 1		28 Aug 2014 13:11:31	0.4603	ppb	-	4687	METHG	R40828B
6446	SMPL	180-36123-E-1-M MS - 1		28 Aug 2014 13:13:13	1.5430	ppb	-	14861	METHG	R40828B
6447	SMPL	180-36123-E-1-N MSD - 1		28 Aug 2014 13:14:57	1.4939	ppb	-	14400	METHG	R40828B
6448	SMPL	180-36123-E-2-C - 1		28 Aug 2014 13:16:42	0.4795	ppb	-	4867	METHG	R40828B
6449	SMPL	180-36123-E-3-C - 1		28 Aug 2014 13:18:28	0.4056	ppb	-	4173	METHG	R40828B
6450	SMPL	180-36123-E-4-C - 1		28 Aug 2014 13:20:12	0.5254	ppb	-	5299	METHG	R40828B
6451	CK STND	CCV - 1		28 Aug 2014 13:21:57	104.7% 5.2330	ppb	-	49538	METHG	R40828B
6452	CK STND	CCB - 1		28 Aug 2014 13:23:41	-0.0794	ppb	-	-385	METHG	R40828B
6453	SMPL	180-36123-E-5-C - 1		28 Aug 2014 13:25:40	0.3807	ppb	-	3939	METHG	R40828B
6454	SMPL	180-36123-E-6-C - 1		28 Aug 2014 13:27:23	0.3901	ppb	-	4027	METHG	R40828B
6455	SMPL	180-36123-E-7-C - 1		28 Aug 2014 13:29:07	0.4939	ppb	-	5003	METHG	R40828B
6456	SMPL	MB 180-116358/1-A - 1		28 Aug 2014 13:30:51	-0.0492	ppb	-	-101	METHG	R40828B
6457	SMPL	LCS 180-116358/2-A - 1		28 Aug 2014 13:32:35	2.2931	ppb	-	21910	METHG	R40828B
6458	SMPL	180-35918-A-6-D - 1		28 Aug 2014 13:34:17	0.0641	ppb	-	964	METHG	R40828B
6459	SMPL	180-36083-A-1-C - 1		28 Aug 2014 13:36:08	-0.0328	ppb	-	53	METHG	R40828B
6460	SMPL	180-36083-A-3-C - 1		28 Aug 2014 13:37:51	-0.0079	ppb	-	287	METHG	R40828B
6461	SMPL	180-35858-B-1-B - 1		28 Aug 2014 13:39:32	0.1782	ppb	-	2036	METHG	R40828B
6462	SMPL	180-35858-B-2-B - 1		28 Aug 2014 13:41:14	0.4843	ppb	-	4912	METHG	R40828B
6463	CK STND	CCV - 1		28 Aug 2014 13:42:57	105.2% 5.2579	ppb	-	49772	METHG	R40828B
6464	CK STND	CCB - 1		28 Aug 2014 13:44:42	-0.0839	ppb	-	-427	METHG	R40828B
6465	SMPL	180-35858-A-3-D - 1		28 Aug 2014 13:46:41	0.0171	ppb	-	522	METHG	R40828B
6466	SMPL	180-35858-B-4-D - 1		28 Aug 2014 13:48:23	0.0169	ppb	-	520	METHG	R40828B
6467	SMPL	180-35858-B-4-E MS - 1		28 Aug 2014 13:50:05	1.0434	ppb	-	10166	METHG	R40828B
6468	SMPL	180-35858-B-4-F MSD - 1		28 Aug 2014 13:51:48	1.0277	ppb	-	10019	METHG	R40828B
6469	SMPL	180-35858-A-5-C - 1		28 Aug 2014 13:53:33	-0.0229	ppb	-	146	METHG	R40828B
6470	SMPL	180-35858-A-8-C - 1		28 Aug 2014 13:55:18	1.0520	ppb	-	10247	METHG	R40828B
6471	SMPL	180-35858-A-9-C - 1		28 Aug 2014 13:56:59	-0.0119	ppb	-	249	METHG	R40828B
6472	SMPL	180-35858-A-10-C - 1		28 Aug 2014 13:58:44	0.1995	ppb	-	2236	METHG	R40828B
6473	SMPL	180-35858-A-11-C - 1		28 Aug 2014 14:00:26	0.1470	ppb	-	1743	METHG	R40828B
6474	SMPL	180-35858-A-13-C - 1		28 Aug 2014 14:02:09	0.1117	ppb	-	1411	METHG	R40828B
6475	CK STND	CCV - 1		28 Aug 2014 14:03:51	103.1% 5.1574	ppb	-	48827	METHG	R40828B
6476	CK STND	CCB - 1		28 Aug 2014 14:05:33	-0.0811	ppb	-	-401	METHG	R40828B
6477	SMPL	180-35858-A-14-C - 1		28 Aug 2014 14:07:32	0.2327	ppb	-	2548	METHG	R40828B
6478	SMPL	MB 180-116360/1-A - 1		28 Aug 2014 14:09:14	-0.0427	ppb	-	-40	METHG	R40828B
6479	SMPL	LCS 180-116360/2-A - 1		28 Aug 2014 14:10:57	2.2661	ppb	-	21657	METHG	R40828B
6480	SMPL	180-35858-B-15-C - 1		28 Aug 2014 14:12:40	0.2575	ppb	-	2781	METHG	R40828B
6481	SMPL	180-35858-B-15-D MS - 1		28 Aug 2014 14:14:32	1.2450	ppb	-	12061	METHG	R40828B
6482	SMPL	180-35858-B-15-E MSD - 1		28 Aug 2014 14:16:16	1.1836	ppb	-	11484	METHG	R40828B
6483	SMPL	180-35858-B-16-B - 1		28 Aug 2014 14:18:02	0.0170	ppb	-	521	METHG	R40828B
6484	SMPL	180-35858-B-17-B - 1		28 Aug 2014 14:19:47	-0.0016	ppb	-	346	METHG	R40828B

R40828B

Method: METHG Operator: Admin Date of Analysis: 28 Aug 2014 12:34:15

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs.	Method	Chapter
6485	SMPL	180-35858-A-19-D - 1		28 Aug 2014 14:21:29	0.2092	ppb	-	2327	METHG	R40828B
6486	SMPL	180-35858-B-20-C - 1		28 Aug 2014 14:23:11	0.0472	ppb	-	805	METHG	R40828B
6487	CK STND	CCV - 1		28 Aug 2014 14:24:54	102.9% 5.1459	ppb	-	48719	METHG	R40828B
6488	CK STND	CCB - 1		28 Aug 2014 14:26:36	-0.0843	ppb	-	-431	METHG	R40828B
6489	SMPL	180-35858-A-21-C - 1		28 Aug 2014 14:28:34	-0.0014	ppb	-	348	METHG	R40828B
6490	SMPL	180-35858-B-22-B - 1		28 Aug 2014 14:30:16	0.1590	ppb	-	1855	METHG	R40828B
6491	SMPL	180-35858-B-23-B - 1		28 Aug 2014 14:31:58	0.3527	ppb	-	3676	METHG	R40828B
6492	SMPL	180-35858-B-24-B - 1		28 Aug 2014 14:33:41	0.3081	ppb	-	3257	METHG	R40828B
6493	SMPL	180-35858-B-25-B - 1		28 Aug 2014 14:35:25	0.0487	ppb	-	819	METHG	R40828B
6494	SMPL	180-35858-B-26-D - 1		28 Aug 2014 14:37:09	0.0088	ppb	-	444	METHG	R40828B
6495	SMPL	180-35858-B-27-B - 1		28 Aug 2014 14:38:51	-0.0072	ppb	-	294	METHG	R40828B
6496	SMPL	180-35858-B-28-B - 1		28 Aug 2014 14:40:33	0.1234	ppb	-	1521	METHG	R40828B
6497	SMPL	MB 180-116345/1-A - 1		28 Aug 2014 14:42:16	-0.0399	ppb	-	-14	METHG	R40828B
6498	SMPL	LCS 180-116345/2-A - 1		28 Aug 2014 14:43:59	2.2766	ppb	-	21755	METHG	R40828B
6499	CK STND	CCV - 1		28 Aug 2014 14:45:41	101.6% 5.0822	ppb	-	48121	METHG	R40828B
6500	CK STND	CCB - 1		28 Aug 2014 14:47:33	-0.0848	ppb	-	-436	METHG	R40828B
6501	SMPL	LCSD 180-116345/3-A - 1		28 Aug 2014 14:49:31	2.2416	ppb	-	21426	METHG	R40828B
6502	SMPL	180-36032-A-1-C - 1		28 Aug 2014 14:51:14	-0.0773	ppb	-	-365	METHG	R40828B
6503	SMPL	180-36064-A-1-C - 1		28 Aug 2014 14:53:06	-0.0266	ppb	-	111	METHG	R40828B
6504	SMPL	180-36071-A-1-C - 1		28 Aug 2014 14:54:48	-0.0327	ppb	-	54	METHG	R40828B
6505	CK STND	CCV - 1		28 Aug 2014 14:56:30	101.4% 5.0695	ppb	-	48001	METHG	R40828B
6506	CK STND	CCB - 1		28 Aug 2014 14:58:12	-0.0883	ppb	-	-469	METHG	R40828B

End of Run
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Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	1	MB 180-116357/1-A		1.0000	1.0000
1	2	LCS 180-116357/2-A		1.0000	1.0000
1	3	180-35848-A-4-H		1.0000	1.0000
1	4	180-35998-A-1-E		1.0000	1.0000
1	5	180-36123-E-1-L		1.0000	1.0000
1	6	180-36123-E-1-M MS		1.0000	1.0000
1	7	180-36123-E-1-N MSD		1.0000	1.0000
1	8	180-36123-E-2-C		1.0000	1.0000
1	9	180-36123-E-3-C		1.0000	1.0000
1	10	180-36123-E-4-C		1.0000	1.0000
1	11	180-36123-E-5-C		1.0000	1.0000
1	12	180-36123-E-6-C		1.0000	1.0000
1	13	180-36123-E-7-C		1.0000	1.0000
1	14	MB 180-116358/1-A		1.0000	1.0000
1	15	LCS 180-116358/2-A		1.0000	1.0000
1	16	180-35918-A-6-D		1.0000	1.0000
1	17	180-36083-A-1-C		1.0000	1.0000
1	18	180-36083-A-3-C		1.0000	1.0000
1	19	180-35858-B-1-B		1.0000	1.0000
1	20	180-35858-B-2-B		1.0000	1.0000
1	21	180-35858-A-3-D		1.0000	1.0000
1	22	180-35858-B-4-D		1.0000	1.0000
1	23	180-35858-B-4-E MS		1.0000	1.0000
1	24	180-35858-B-4-F MSD		1.0000	1.0000
1	25	180-35858-A-5-C		1.0000	1.0000
1	26	180-35858-A-8-C		1.0000	1.0000
1	27	180-35858-A-9-C		1.0000	1.0000
1	28	180-35858-A-10-C		1.0000	1.0000
1	29	180-35858-A-11-C		1.0000	1.0000
1	30	180-35858-A-13-C		1.0000	1.0000
1	31	180-35858-A-14-C		1.0000	1.0000
1	32	MB 180-116360/1-A		1.0000	1.0000
1	33	LCS 180-116360/2-A		1.0000	1.0000
1	34	180-35858-B-15-C		1.0000	1.0000
1	35	180-35858-B-15-D MS		1.0000	1.0000
1	36	180-35858-B-15-E MSD		1.0000	1.0000
1	37	180-35858-B-16-B		1.0000	1.0000
1	38	180-35858-B-17-B		1.0000	1.0000
1	39	180-35858-A-19-D		1.0000	1.0000

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Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	40	180-35858-B-20-C		1.0000	1.0000
1	41	180-35858-A-21-C		1.0000	1.0000
1	42	180-35858-B-22-B		1.0000	1.0000
1	43	180-35858-B-23-B		1.0000	1.0000
1	44	180-35858-B-24-B		1.0000	1.0000
1	45	180-35858-B-25-B		1.0000	1.0000
1	46	180-35858-B-26-D		1.0000	1.0000
1	47	180-35858-B-27-B		1.0000	1.0000
1	48	180-35858-B-28-B		1.0000	1.0000
1	49	MB 180-116345/1-A		1.0000	1.0000
1	50	LCS 180-116345/2-A		1.0000	1.0000
1	51	LCSD 180-116345/3-A		1.0000	1.0000
1	52	180-36032-A-1-C		1.0000	1.0000
1	53	180-36064-A-1-C		1.0000	1.0000
1	54	180-36071-A-1-C		1.0000	1.0000
1	55			1.0000	1.0000
1	56			1.0000	1.0000
1	57			1.0000	1.0000
1	58			1.0000	1.0000
1	59			1.0000	1.0000
1	60			1.0000	1.0000
2	1			1.0000	1.0000
2	2			1.0000	1.0000
2	3			1.0000	1.0000
2	4			1.0000	1.0000
2	5			1.0000	1.0000
2	6			1.0000	1.0000
2	7			1.0000	1.0000
2	8			1.0000	1.0000
2	9			1.0000	1.0000
2	10			1.0000	1.0000
2	11			1.0000	1.0000
2	12			1.0000	1.0000
2	13			1.0000	1.0000
2	14			1.0000	1.0000
2	15			1.0000	1.0000
2	16			1.0000	1.0000
2	17			1.0000	1.0000
2	18			1.0000	1.0000

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116978 Batch Start Date: 09/04/14 09:00 Batch Analyst: Becker, Sandy L

Batch Method: 3005A Batch End Date: 09/04/14 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00021	MTAPITTMSC 00027	
MB 180-116978/1		3005A, 6020		50 mL	50 mL				
LCS 180-116978/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-35998-A-3	SAMPLE # 1	3005A, 6020	D	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals C2
First End time	1300
Lot # of hydrochloric acid	2.5mL 1282188
Lot # of Nitric Acid	1mL 1253315
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	F1204715U
Person who witnessed spiking	SLB
First Start time	0900
ID number of the thermometer	IP2 CF=0.0 D6
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	95 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 117046 Batch Start Date: 09/05/14 09:35 Batch Analyst: Rosenbaum, Ron

Batch Method: 3050B Batch End Date: 09/05/14 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00020	MTAPITTMSC 00026
MB 180-117046/1		3050B, 6020		CALC NOT SET TO RUN	00002.02 g	100 mL			
LCS 180-117046/2		3050B, 6020		CALC NOT SET TO RUN	00002.00 g	100 mL	1 mL	1 mL	1 mL
180-35998-A-1	SAMPLE # 1	3050B, 6020	T	CALC NOT SET TO RUN	00001.94 g	100 mL			

Batch Notes	
Analyst	RJR
Balance ID	P1856710
Batch Comment	B6 Metals
Blank Soil Lot Number	1159128
Filter Paper Lot Number	WHATMAN 9579735B
Hydrogen peroxide lot number	10ml 1205375
Lot # of hydrochloric acid	10ml 1282188
Logbook ID for diluted Nitric	10ml 1274048
Lot # of Nitric Acid	5ml 1241747
Hot Block ID number	HB10
Pipette ID	L1201611U
Person's name who witnessed reagent drop	RJR
Perform Calculation (0=No, 1=Yes)	0
Temperature	95 Degrees C
ID number of the thermometer	IP9 (0.0) A4
Digestion Tube/Cup Lot #	ENV.EXPRESS 1404094

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116729 Batch Start Date: 09/02/14 10:20 Batch Analyst: McGrath, Lauren E

Batch Method: 7470A Batch End Date: 09/02/14 12:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00874			
MB 180-116729/1		7470A, 7470A		50 mL	50 mL				
LCS 180-116729/2		7470A, 7470A		50 mL	50 mL	1.25 mL			
180-35998-A-3	SAMPLE # 1	7470A, 7470A	D	50 mL	50 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	3ML 1278471 hg disp c6
Digestion End Time	1220
Digestion Start Time	1020
Sulfuric Acid Lot Number	2.5ML 1176972 hg disp 7n8924
Lot # of hydrochloric acid	1280241
Lot # of Nitric Acid	1.25ML 1258679 hg disp n1
Hot Block ID number	#2
Potassium Persulfate Lot Number	4ML 1273056 hg disp ks4
Potassium Permanganate Lot Number	7.5ML 1277322 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	95 Celsius
Pipette ID	J00922
Repittetor Volume Check	YES
Stannous Chloride Lot Number	1282485
Temperature	95
ID number of the thermometer	IP 29 (0.0) c5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	95 Celsius
Visual ck - digestate F.V. consistency	YES

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116733 Batch Start Date: 09/02/14 10:20 Batch Analyst: McGrath, Lauren E

Batch Method: 7470A Batch End Date: 09/02/14 12:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00874	MHgWorkingicv 00854		
ICV 180-116733/7		7470A, 7470A		50 mL	50 mL		1.25 mL		
ICB 180-116733/8		7470A, 7470A		50 mL	50 mL				
CRA 180-116733/9		7470A, 7470A		50 mL	50 mL	0.1 mL			
CCV 180-116733/10		7470A, 7470A		50 mL	50 mL	2.5 mL			
CCB 180-116733/11		7470A, 7470A		50 mL	50 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	3ML 1278471 hg disp c6
Digestion End Time	1220
Digestion Start Time	1020
Sulfuric Acid Lot Number	2.5ML 1176972 hg disp 7n8924
Lot # of hydrochloric acid	1280241
Lot # of Nitric Acid	1.25ML 1258679 hg disp n1
Hot Block ID number	#1
Potassium Persulfate Lot Number	4ML 1273056 hg disp ks4
Potassium Permanganate Lot Number	7.5ML 1277322 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	95 Celsius
Pipette ID	J00922
Repittetor Volume Check	YES
Stannous Chloride Lot Number	1282485
Temperature	95
ID number of the thermometer	IP 29 (0.0) c5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	95 Celsius
Visual ck - digestate F.V. consistency	YES

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116733 Batch Start Date: 09/02/14 10:20 Batch Analyst: McGrath, Lauren E

Batch Method: 7470A Batch End Date: 09/02/14 12:20

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116357 Batch Start Date: 08/28/14 11:40 Batch Analyst: McGrath, Lauren E

Batch Method: 7471A Batch End Date: 08/28/14 12:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00872			
MB 180-116357/1		7471A, 7471A		1.20 g	100 mL				
LCS 180-116357/2		7471A, 7471A		1.20 g	100 mL	2.5 mL			
180-35998-A-1	SAMPLE # 1	7471A, 7471A	T	1.20 g	100 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	6ML 1285996 hg disp c6
Aqua Regia Lot Number	1304270
Balance ID	P1856709
Digestion End Time	1210
Digestion Start Time	1140
Filter Lot #	WATMAN 40
Hot Block ID number	#1
Potassium Persulfate Lot Number	8ML 1273056 hg disp ks4
Potassium Permanganate Lot Number	15ML 1285997 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	95 Celsius
Pipette ID	J00922
Repittetor Volume Check	YES
Stannous Chloride Lot Number	1286965
ID number of the thermometer	IP 29 (0.0) b5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116380 Batch Start Date: 08/28/14 11:40 Batch Analyst: McGrath, Lauren E

Batch Method: 7471B Batch End Date: 08/28/14 12:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00872	MHgWorkingicv 00853		
ICV 180-116380/7		7471B, 7471A		100 mL	100 mL		2.5 mL		
ICB 180-116380/8		7471B, 7471A		100 mL	100 mL				
CRA 180-116380/9		7471B, 7471A		100 mL	100 mL	0.2 mL			
CCV 180-116380/10		7471B, 7471A		100 mL	100 mL	5 mL			
CCB 180-116380/11		7471B, 7471A		100 mL	100 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	6ML 1285996 hg disp c6
Aqua Regia Lot Number	1304270
Balance ID	P1856709
Digestion End Time	1210
Digestion Start Time	1140
Filter Lot #	WATMAN 40
Hot Block ID number	#1
Potassium Persulfate Lot Number	8ML 1273056 hg disp ks4
Potassium Permanganate Lot Number	15ML 1285997 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	95 Celsius
Pipette ID	J00922
Repittetor Volume Check	YES
Stannous Chloride Lot Number	1286965
ID number of the thermometer	IP 29 (0.0) b5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	95 Celsius

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG No.:

Project: Virgin Islands Port Authority

Client Sample ID	Lab Sample ID
SAMPLE # 1	180-35998-1
SAMPLE # 1	180-35998-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SAMPLE # 1
Lab Sample ID: 180-35998-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-35998-1
SDG ID.:
Matrix: Sediment
Date Sampled: 08/19/2014 16:00
Reporting Basis: DRY
Date Received: 08/21/2014 15:50
% Solids: 68.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SGT-HEM	62	240	58	mg/Kg	J		1	9071B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: SAMPLE # 1
Lab Sample ID: 180-35998-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-35998-1
SDG ID.:
Matrix: EET, Dissolved
Date Sampled: 08/29/2014 09:00
Reporting Basis: WET
Date Received: 08/21/2014 15:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TPH	1.9	5.3	1.5	mg/L	J		1	1664A

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 116914	Date: 09/03/2014 09:09	Prep Batch: 116846	Date: 09/03/2014 09:09				
1664A	MB 180-116846/1-A	TPH	ND		mg/L	5.0	1
Batch ID: 116084	Date: 08/26/2014 08:00	Prep Batch: 116011	Date: 08/26/2014 08:00				
9071B	MB 180-116011/1-A	SGT-HEM	ND		mg/Kg	170	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 116084	Date: 08/26/2014 08:00		Prep Batch: 116011			Date: 08/26/2014 08:00					
9071B	180-35998-1	SGT-HEM	62	J	mg/Kg						
9071B	180-35998-1 MS	SGT-HEM	624		mg/Kg	968	58	64-132			F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 116084	Date: 08/26/2014 08:00		Prep Batch: 116011			Date: 08/26/2014 08:00					
9071B	180-35998-1 MSD	SGT-HEM	513		mg/Kg	958	47	64-132	20	34	F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 116084		Date: 08/26/2014 08:00	Prep Batch: 116011			Date: 08/26/2014 08:00					
						LCS Source: WHemPSP_00166					
9071B	LCS 180-116011/2-A	SGT-HEM	480		mg/Kg	667	72	64-132			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 116914	Date: 09/03/2014 09:09		Prep Batch: 116846			Date: 09/03/2014 09:09					
						LCS Source: WHemPSP_00167					
1664A	LCS 180-116846/2-A	TPH	13.4		mg/L	20.0	67	64-132	2	34	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 116914		Date: 09/03/2014 09:09	Prep Batch: 116846			Date: 09/03/2014 09:09					
						LCSD Source: WHemPSP_00167					
1664A	LCSD 180-116846/3-A	TPH	13.7		mg/L	20.0	69	64-132	2	34	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 1664A MDL Date: 01/27/2011 15:53

Prep Method: 1664A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
TPH		5	1.4704

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 1664A XMDL Date: 01/27/2011 15:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
TPH		5	1.4704

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/31/2010 13:27

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: NOEQUIP

Method: 2540G XRL Date: 01/31/2010 13:31

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: NOEQUIP

Method: 9071B MDL Date: 01/27/2011 15:52

Prep Method: 9071B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
SGT-HEM		166.7	40.31

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-35998-1

SDG Number:

Matrix: Sediment Instrument ID: NOEQUIP

Method: 9071B XMDL Date: 01/27/2011 15:52

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
SGT-HEM		5	1.4704

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 9071B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (g)
MB 180-116011/1-A	08/26/2014 08:00	116011	30.0		30.0
LCS 180-116011/2-A	08/26/2014 08:00	116011	30.0		30.0
180-35998-1 MS	08/26/2014 08:00	116011	30.0		30.0
180-35998-1 MSD	08/26/2014 08:00	116011	30.3		30.0
180-35998-1	08/26/2014 10:52	116011	30.2		30.0

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Prep Method: 1664A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-116846/1-A	09/03/2014 09:09	116846		1000	1000
LCS 180-116846/2-A	09/03/2014 09:09	116846		1000	1000
LCSD 180-116846/3-A	09/03/2014 09:09	116846		1000	1000
180-35998-3	09/03/2014 09:09	116846		950	1000

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: NOEQUIP Method: 1664A

Start Date: 09/03/2014 09:09 End Date: 09/03/2014 09:09

Lab Sample ID	D/F	Type	Time	Analytes																			
				SGTHEM																			
MB 180-116846/1-A	1	T	09:09	X																			
LCS 180-116846/2-A	1	T	09:09	X																			
LCSD 180-116846/3-A	1	T	09:09	X																			
180-35998-3	1	D	09:09	X																			
ZZZZZZ			09:09																				
ZZZZZZ			09:09																				
ZZZZZZ			09:09																				

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: NOEQUIP Method: 2540G

Start Date: 08/22/2014 07:15 End Date: 08/22/2014 08:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Moist																			
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
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ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
180-35998-1	1	T	07:15	X																			
180-35998-1 DU	1	T	07:15	X																			
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			07:15																				
ZZZZZZ			08:07																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Instrument ID: NOEQUIP Method: 9071B

Start Date: 08/26/2014 08:00 End Date: 08/26/2014 10:52

Lab Sample ID	D/F	Type	Time	Analytes																			
				SGTHEM																			
MB 180-116011/1-A	1	T	08:00	X																			
LCS 180-116011/2-A	1	T	08:00	X																			
180-35998-1 MS	1	T	08:00	X																			
180-35998-1 MSD	1	T	08:00	X																			
180-35998-1	1	T	10:52	X																			

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116846 Batch Start Date: 09/03/14 09:09 Batch Analyst: Klingman, Neil A

Batch Method: 1664A Batch End Date: 09/03/14 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	Final pH	GrossWeight	TareWeight	InitialAmount	FinalAmount
MB 180-116846/1		1664A, 1664A		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
LCS 180-116846/2		1664A, 1664A		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
LCSD 180-116846/3		1664A, 1664A		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
180-35998-B-3	SAMPLE # 1	1664A, 1664A	D	2.00 SU	2.00 SU	950 g	0 g	950 mL	1000 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceiverTube	SGTRecTube	WHemPSP 00167			
MB 180-116846/1		1664A, 1664A		2.3307 g	2.3307 g				
LCS 180-116846/2		1664A, 1664A		2.3401 g	2.3401 g	10 mL			
LCSD 180-116846/3		1664A, 1664A		2.3719 g	2.3719 g	10 mL			
180-35998-B-3	SAMPLE # 1	1664A, 1664A	D	2.3661 g	2.3661 g				

Batch Notes	
Batch Comment	pH strip lot HC419379
Person's name who did the concentration	NAK
Disk Lot Number	UCT 108567-GI
Evaporator Temperature	48 Degrees C
Extraction Analyst	NAK
Glass Wool ID	26013999
Hexane Lot#	1139639
Manifold ID	UCT
Methanol Lot Number	1214941
Nominal Amount Used	1000 mL
Sufficient volume for MS/MSD?	No

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116914 Batch Start Date: 09/03/14 14:59 Batch Analyst: Klingman, Neil A

Batch Method: 1664A Batch End Date: 09/04/14 10:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	ReceiverTube	HEMWgt1	HEMWgt2	Residue	Residue2
MB 180-116846/1-A		1664A		1000 mL	2.3307 g	2.3320 g	2.3317 g	0.0013 g	0.001 g
LCS 180-116846/2-A		1664A		1000 mL	2.3401 g	2.3750 g	2.3750 g	0.0349 g	0.0349 g
LCSD 180-116846/3-A		1664A		1000 mL	2.3719 g	2.4085 g	2.4085 g	0.0366 g	0.0366 g
180-35998-B-3-A	SAMPLE # 1	1664A	D	1000 mL	2.3661 g	2.4235 g	2.4232 g	0.0574 g	0.0571 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight2OK	SGTRecTube	SGTWgt1	SGTWgt2	SGTResidue1	SGTResidue2
MB 180-116846/1-A		1664A		Pass 0.0005g	2.3307 g	2.3310 g	2.3309 g	0.0003 g	0.0002 g
LCS 180-116846/2-A		1664A		Pass 0.0005g	2.3401 g	2.3535 g	2.3535 g	0.0134 g	0.0134 g
LCSD 180-116846/3-A		1664A		Pass 0.0005g	2.3719 g	2.3856 g	2.3856 g	0.0137 g	0.0137 g
180-35998-B-3-A	SAMPLE # 1	1664A	D	Pass 0.0005g	2.3661 g	2.3679 g	2.3679 g	0.0018 g	0.0018 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	SGTWeightOne%Diff	CalcMsg	AnalysisComment			
MB 180-116846/1-A		1664A		Pass 0.0005g %	OK	3.0 g Silica Gel for SGT			
LCS 180-116846/2-A		1664A		Pass 0.0005g %	OK	3.0 g Silica Gel for SGT			
LCSD 180-116846/3-A		1664A		Pass 0.0005g %	OK	3.0 g Silica Gel for SGT			
180-35998-B-3-A	SAMPLE # 1	1664A	D	Pass 0.0005g %	OK	3.0 g Silica Gel for SGT			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116914 Batch Start Date: 09/03/14 14:59 Batch Analyst: Klingman, Neil A

Batch Method: 1664A Batch End Date: 09/04/14 10:30

Batch Notes	
Balance ID	1126020829
Cal check after 1st Weighing - 1g	1.0001 g
Cal check after 1st Weighing - 2 mg	0.0200 g
Cal check after 2nd Weighing - 1g	1.0001 g
Cal check after 2nd Weighing - 2 mg	0.0200 g
Calibration Check After 1st Weighing	5.0002 g
Calibration Check After 2nd Weighing	5.0002 g
Calibration Check Before 1st Weighing	5.0002 g
Calibration Check Before 2nd Weighing	5.0002 g
Cal check before 1st Weighing - 1g	1.0001 g
Cal check before 1st Weighing - 2 mg	0.0200 g
Cal check before 2nd Weighing - 1g	1.0001 g
Cal check before 2nd Weighing - 2 mg	0.0200 g
Batch Comment	pH strip lot HC419379
Prep Solvent Volume Used	40 ml
Perform Calculation (0=No, 1=Yes)	1
Silica Gel Lot Number	1175955
Solvent	Hexane 1139639

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 115675 Batch Start Date: 08/22/14 07:15 Batch Analyst: Loheyde, Cheryl

Batch Method: 2540G Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
180-35998-A-1	SAMPLE # 1	2540G	T	P4841 0.1227	2.63 g	9.25 g	7.19 g		
180-35998-A-1 DU	SAMPLE # 1	2540G	T	P4856 0.1194	2.64 g	9.74 g	7.50 g		

Batch Notes	
Balance ID	1126472457 No Unit
Date and Time Samples in Desiccator	08/23/14 @ 08:20
Date and Time Samples out of Desiccator	8/25/14 05:00
Date samples were placed in the oven	8/22/14
Oven Temp when samples are put in oven	105 Degrees C
Time samples were place in the oven	08:15
Date samples were removed from oven	8/23/14
Oven Temp when samples removed from oven	105 Degrees C
Time Samples were removed from oven	08:20
Oven ID	5005
ID number of the thermometer	WET 34
Uncorrected In Temperature	104.5 Celsius
Uncorrected Out Temperature	104.5 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116011 Batch Start Date: 08/26/14 08:00 Batch Analyst: Merriman, Jeremy

Batch Method: 9071B Batch End Date: 08/26/14 13:19

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WHemPSP 00166			
MB 180-116011/1		9071B, 9071B		30.0 g	30.0 g				
LCS 180-116011/2		9071B, 9071B		30.0 g	30.0 g	10 mL			
180-35998-A-1 MS	SAMPLE # 1	9071B, 9071B	T	30.0 g	30.0 g	10 mL			
180-35998-A-1 MSD	SAMPLE # 1	9071B, 9071B	T	30.3 g	30.0 g	10 mL			
180-35998-A-1	SAMPLE # 1	9071B, 9071B	T	30.2 g	30.0 g				

Batch Notes	
Balance ID	1120122641
Batch Comment	sox 8
Hexane Lot#	1273286
Na2SO4 Lot Number	1299399

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116084 Batch Start Date: 08/26/14 13:30 Batch Analyst: Klingman, Neil A

Batch Method: 9071B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	ReceiverTube	HEMWgt1	HEMWgt2	Weight2OK	Residue
MB 180-116011/1-A		9071B		30.0 g	2.3379 g	2.3394 g	2.3394 g	Pass 0.0005g	0.0015 g
LCS 180-116011/2-A		9071B		30.0 g	2.3171 g	2.3545 g	2.3543 g	Pass 0.0005g	0.0374 g
180-35998-A-1-B MS	SAMPLE # 1	9071B	T	30.0 g	2.3775 g	2.4037 g	2.4037 g	Pass 0.0005g	0.0262 g
180-35998-A-1-C MSD	SAMPLE # 1	9071B	T	30.0 g	2.3128 g	2.3353 g	2.3351 g	Pass 0.0005g	0.0225 g
180-35998-A-1-D	SAMPLE # 1	9071B	T	30.0 g	2.2936 g	2.2957 g	2.2953 g	Pass 0.0005g	0.0021 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue2	SGTRecTube	SGTWgt1	SGTWgt2	SGTWeightOne%Diff	SGTResidue1
MB 180-116011/1-A		9071B		0.0015 g	2.3379 g	2.3384 g	2.3383 g	Pass 0.0005g	0.0005 g
LCS 180-116011/2-A		9071B		0.0372 g	2.3171 g	2.3315 g	2.3315 g	Pass 0.0005g	0.0144 g
180-35998-A-1-B MS	SAMPLE # 1	9071B	T	0.0262 g	2.3775 g	2.3905 g	2.3904 g	Pass 0.0005g	0.013 g
180-35998-A-1-C MSD	SAMPLE # 1	9071B	T	0.0223 g	2.3128 g	2.3237 g	2.3235 g	Pass 0.0005g	0.0109 g
180-35998-A-1-D	SAMPLE # 1	9071B	T	0.0017 g	2.2936 g	2.2949 g	2.2949 g	Pass 0.0005g	0.0013 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	SGTResidue2	CalcMsg				
MB 180-116011/1-A		9071B		0.0004 g	OK				
LCS 180-116011/2-A		9071B		0.0144 g	OK				
180-35998-A-1-B MS	SAMPLE # 1	9071B	T	0.0129 g	OK				
180-35998-A-1-C MSD	SAMPLE # 1	9071B	T	0.0107 g	OK				
180-35998-A-1-D	SAMPLE # 1	9071B	T	0.0013 g	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-35998-1

SDG No.:

Batch Number: 116084 Batch Start Date: 08/26/14 13:30 Batch Analyst: Klingman, Neil A

Batch Method: 9071B Batch End Date:

Batch Notes	
Balance ID	1126020829
Cal check after 1st Weighing - 1g	1.0001 g
Cal check after 1st Weighing - 2 mg	0.0200 g
Cal check after 2nd Weighing - 1g	1.0001 g
Cal check after 2nd Weighing - 2 mg	0.0200 g
Calibration Check After 1st Weighing	5.0002
Calibration Check After 2nd Weighing	5.0002
Calibration Check Before 1st Weighing	5.0002
Calibration Check Before 2nd Weighing	5.0002
Cal check before 1st Weighing - 1g	1.0001 g
Cal check before 1st Weighing - 2 mg	0.0200 g
Cal check before 2nd Weighing - 1g	1.0001 g
Cal check before 2nd Weighing - 2 mg	0.0200 g
Batch Comment	sox 8
Evaporator Temperature	48
Filter Paper Lot Number	9561420
Silica Gel Lot Number	1175955

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive

Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

Chain of Custody Record

053358

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other:

Client Contact	Project Manager: James Jackson	Site Contact:	Date: 8/19/14	COC No: 1
Company Name: CDR MAGUIRE	Tel/Fax: 401 272-6000 ext 295	Lab Contact:	Carrier:	1 of 1 COCs
Address: 225 Chapman St 4th Floor	Analysis Turnaround Time			Sampler:
City/State/Zip: Providence, RI 02905	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 401 272 6000 ext 295	TAT if different from Below _____			Walk-in Client:
Fax: James.jackson@cdrmaguire.com	☐ 2 weeks			Lab Sampling:
Project Name: Schooner Channel	☐ 1 week			
Site: St. Croix, U.S.V.I.	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	METALS, TPH	ELUTRIATE	Sample Specific Notes:
SAMPLE#1	8/19/14	1600	C	S	1	N	N	X		
SAMPLE#1	8/19/14	1600	C	SW	2	N	N		X	

180-35998 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. NONE

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
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Special Instructions/QC Requirements & Comments:
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Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 133264 / 133265 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Amy Dempsey	Biolimpact	8/20/14 1600	FED EX		8/20/14 1600
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			[signature]	TAP	8/21/14 1500
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Login Sample Receipt Checklist

Client: Ocean Systems Laboratory, Inc.

Job Number: 180-35998-1

Login Number: 35998

List Source: TestAmerica Pittsburgh

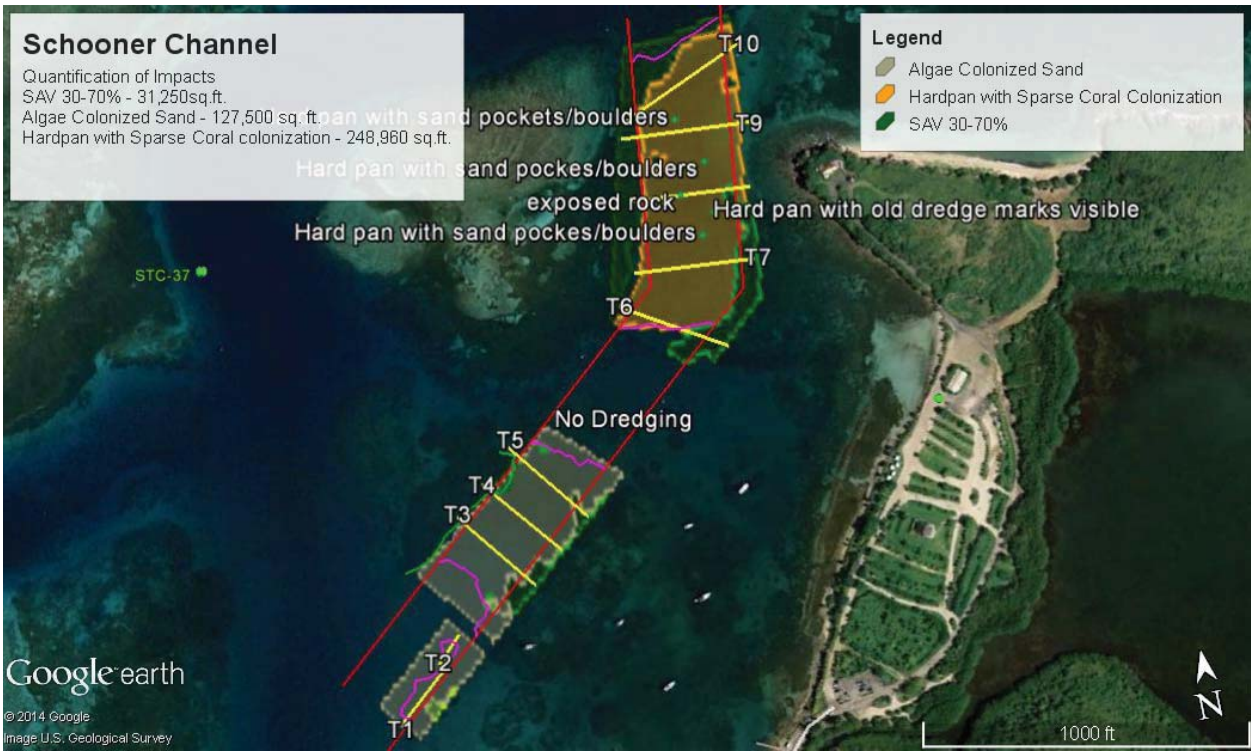
List Number: 1

Creator: Butcher, Ryan M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix D

MITIGATION PLAN
FOR
THE DREDGING OF THE SCHOONER CHANNEL
ST. CROIX, U.S. VIRGIN ISLANDS



PREPARED FOR

VIRGIN ISLANDS PORT AUTHORITY

PREPARED BY

BIOIMPACT, INC.
P.O. BOX 132 KINGSHILL
ST. CROIX, U.S. VIRGIN ISLANDS 00851

AND

CDR/MAGUIRE
1142 King Street
Christiansted, St. Croix, USVI

SEPTEMBER 2014

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This plan follows the compensatory mitigation guidelines as set forth in 40 CFR Part 230, Compensatory Mitigation for Loses of Aquatic Resources: Final Rule. The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to the waters of the United States authorized by DA permits.

I. INTRODUCTION

The Virgin Islands Port Authority is proposing to conduct maintenance dredging activities within the Schooner Channel. The Schooner Channel was dredged in 1991 to create an easier access to the Gallows Bay Marine Terminal. Sand has accumulated in the western portion of the channel and boulders have tumbled down into the outer portions of the channel. There is also remaining rock pavement or hardpan in the outer portion of the channel which was not completely removed in 1991.

Over the last 23 years since previous dredging project. The seagrass and coral species within the project area would be lost due to the dredging and there for will be transplanted out of the foot print. In total 31,250sq. ft. 30-70% SAV, 248,960 sq. ft. of hardpan with sparse coral colonization and 127,500 sq. ft. of algal colonized sand will be impacted. It is probable that at total of 250 corals lie within the dredging footprint.

In order to mitigate for these impacts, the coral and seagrass within the area of impact will be transplanted prior to dredging.

II. OBJECTIVES

The objective of this mitigation plan is to minimize the impact of the maintenance dredging. In order to mitigate for these impacts corals and sponges greater than 3 centimeters in diameter within the area of impact will be transplanted prior to dredging and all seagrass in areas with densities greater than 30% will be relocated.

III. SITE SELECTION

The plan proposes to transplant the corals to Round Reef which is immediately adjacent to the channel which has been colonized by similar species. The site supports *Porites astreoides, Siderastrea siderea, Diploria labyrinthiformes, Diploria strigosa,* and *Agaricia agaricites* as well as a variety of other corals. The corals will be transplanted to shallow depths but will be in the same water quality at which they currently thrive. The seagrass within the channel will be transplanted into the many boat scars in the seagrass around Round Reef.

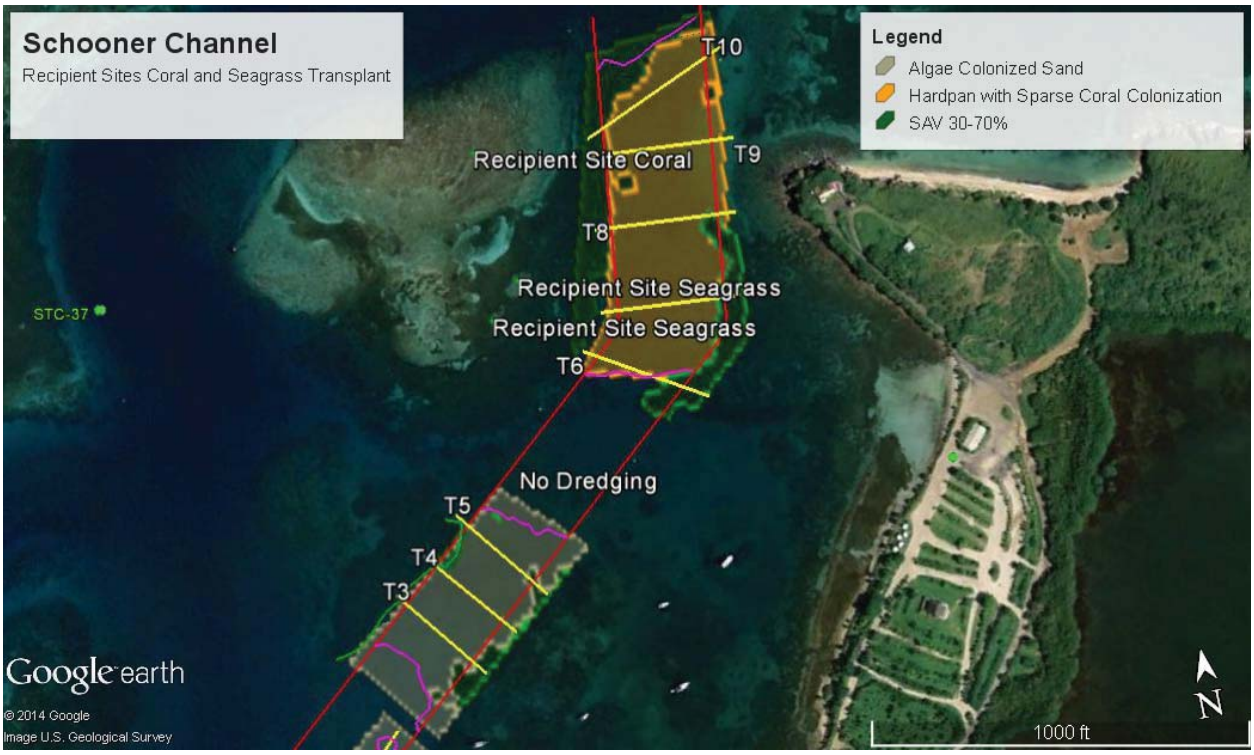


Figure 1. Location of coral and seagrass transplant sites.

IV. SITE PROTECTION INSTRUMENT

The recipient sites are located on submerged lands controlled by the VI Government. Both USACE and CZM permits would have to be obtained for any future alteration of this area. Therefore, no Site Protection Instruments should be necessary to protect the recipient area.

V. BASELINE INFORMATION

The channel was last dredged to a depth of 16ft. in 1991, since that time the area has recolonized by seagrass, seavine, algae, coral and sponge species.

Probes were also done to look at depth of underlying rock. The sand throughout the area relatively course with limited fines. Rock was encounter in all probes and it was noted that seagrass colonization only occurred where sand was deeper than 1ft. Sand was deepest in the inner channel areas to the southwest and the area was full of invertebrate mounds (burrowing shrimp). Where sand was less than 1 ft. and in sand pockets amid the hardpan (pavement) only algal species were present.

There are dense patches of seagrass which occur within the harbor and some of these has extended into the dredged channel as sand has built up in the channel. The grasses on the south side of the channel are mainly *Syringodium filiforme* with intermixed *Thalassia testudinum*. These beds range in density from 30 to 70% bottom coverage and intermixed with these seagrasses are *Penicillus capitatus, Caulerpa sertularioides, Hypnea sp., Laurencia papulose, Dictyota sp.* and *Halimeda opunta*. Queen conch (Strombus gigas) and milk conch (S. costatus) were noted within these beds. Along the northern and eastern side of the channel the cut from the previous dredging is still visible and only in areas where the

sides have slumped into the channel are seagrasses present. To the northern and eastern side *Thalassia* is the more dominant seagrass and is in a higher abundance usually 50-70% than the beds to the south. While Syringodium is present it only represents approximately 15% of the grass bed. The Thalassia along the northern and western side of the channel have helped stabilize this slope. To the east of the channel in the northern area are primarily Syringodium with some scattered patches of denser Thalassia, again these have colonized in areas where sand has accumulated in the channel. There are also several patches of *Thalassia* and *Syringodium* which have colonized some of the deeper sand pockets in the hardpan (pavement).

The depths of penetration found during the probes is shown below.

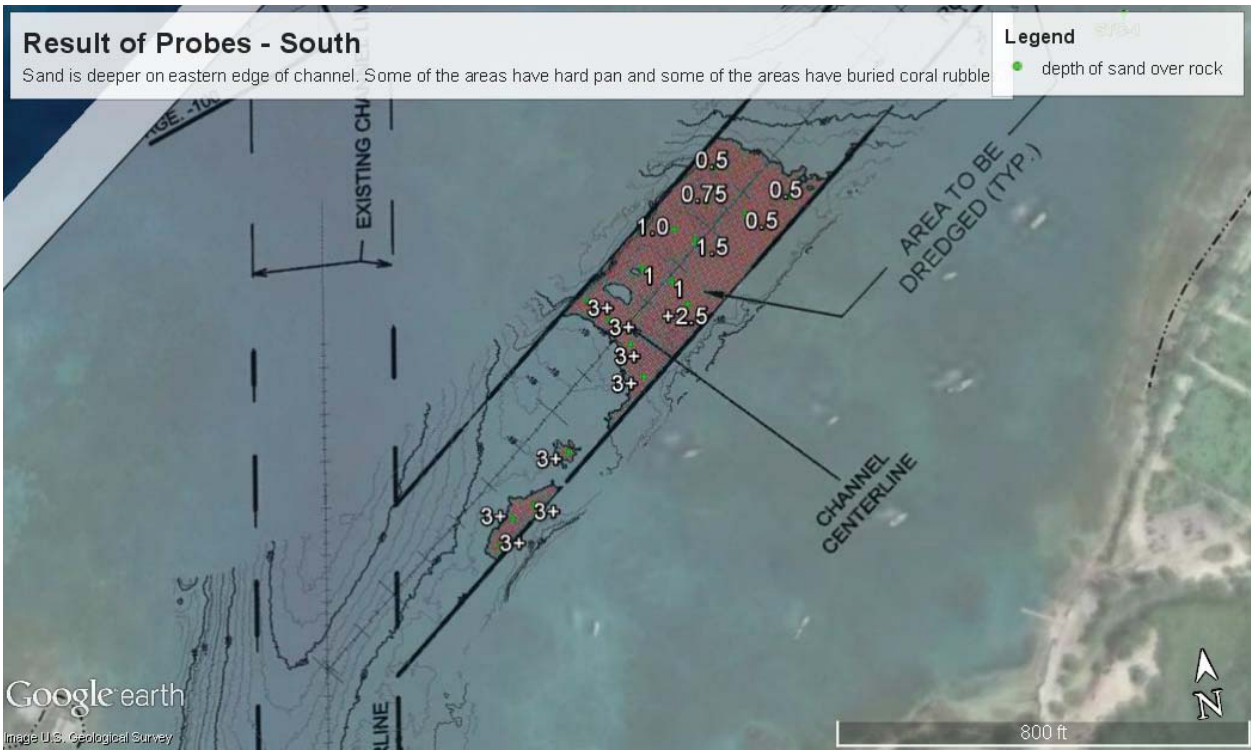


Figure 3. Location of probes.

The northern area is primarily hardpan or pavement. There are obvious dredge cutterhead marks within area. There are scattered boulders, coral rubble, rock rubble, and sand pockets on top of the pavement. There are some abrupt small rock ledges at some of the channel sides. The area has some algal colonization with *Dictyota* being the most common species, other species present include *Laurencia papillosa, Caulerpa sertularioides, Halimeda opuntia, Hypnea sp.* and *Padina* sanctae-crucis. There are widely scattered corals, some on the boulders and some having colonized the rock pavement, *Porites porites* is the most abundant followed by *Porites astreoides, Siderastrea siderea, Diploria labyrinthiformes, Diploria strigosa,* and *Agaricia agaricites*. No currently ESA listed corals were noted in the dredging foot print. *Acropora palmata* (Elkhorn coral), *Acropora cervicornis* (Staghorn coral), *Dendrogyra cylindrus* (Pillar coral), *Mycetophyllia ferox* (Rough cactus coral), *Orbicella annularis* (Lobed star coral), *Orbicella faveolata* (Mountainous star coral) and *Orbicella franksi* (Boulder star coral) are all ESA listed Threatened species and the *Acropora* species have critical habitat protected under the 4D Rule. *Acropora palmata, Orbicella annularis, O. faveolata* and *Dendrogyra cylindrus* all occur on Round Reef which is immediately adjacent to the channel footprint. *Acropora palmata, Orbicella annularis, O. faveolata, O. franksi, Mycetophyllia ferox* and *Dendrogyra cylindrus* all occur on Long Reef which is on the northern edge of the channel, and *Orbicella annularis, O. faveolata,* and *Dendrogyra cylindrus* are found on Ft. Louise August Point. Round Reef, the hard bottom areas off Ft. Louise Augusta Point, and Long Reef are critical habitat.

Within the channel there were a few feather duster worms and some spaghetti worms, *Pomatostegus stellatus, Spirobranchus spp., Sabellastarte magnifica, Bispira brunnea, B. variegate,* and *Loimia medusa* were seen. A very few *Diadema antillarum, Echinometra lucunter* and *Tripneustes ventricosus* were noted within the hardbottom area within the channel.

Within the channel there were very few fish seen within the channel proper only damsel fish (*Stegastes partitus*, and *S. leucostictus*) and lion fish (*Pterois volitans*) were noted around the boulders in the northern area of the channel. Within the seagrass beds only a juvenile Puddingwife (*Halichoeres radiatus*) was noted.

The seagrass beds surrounding the channel and the surrounding reefs are essential fish habitat. The channel itself, although some of the resources are present is a significant fish habitat.

VI. IMPACT OF MAINTENANCE DREDGING

The project is the dredging of areas which have been previously dredged. Over the last 23 years since previous dredging project. The seagrass and coral species within the project area would be lost due to the dredging and there for will be transplanted out of the foot print. In total 31,250sq. ft. 30-70% SAV, 248,960 sq. ft. of hardpan with sparse coral colonization and 127,500 sq. ft. of algal colonized sand will be impacted. It is probable that at total of 250 corals lie within the dredging footprint.

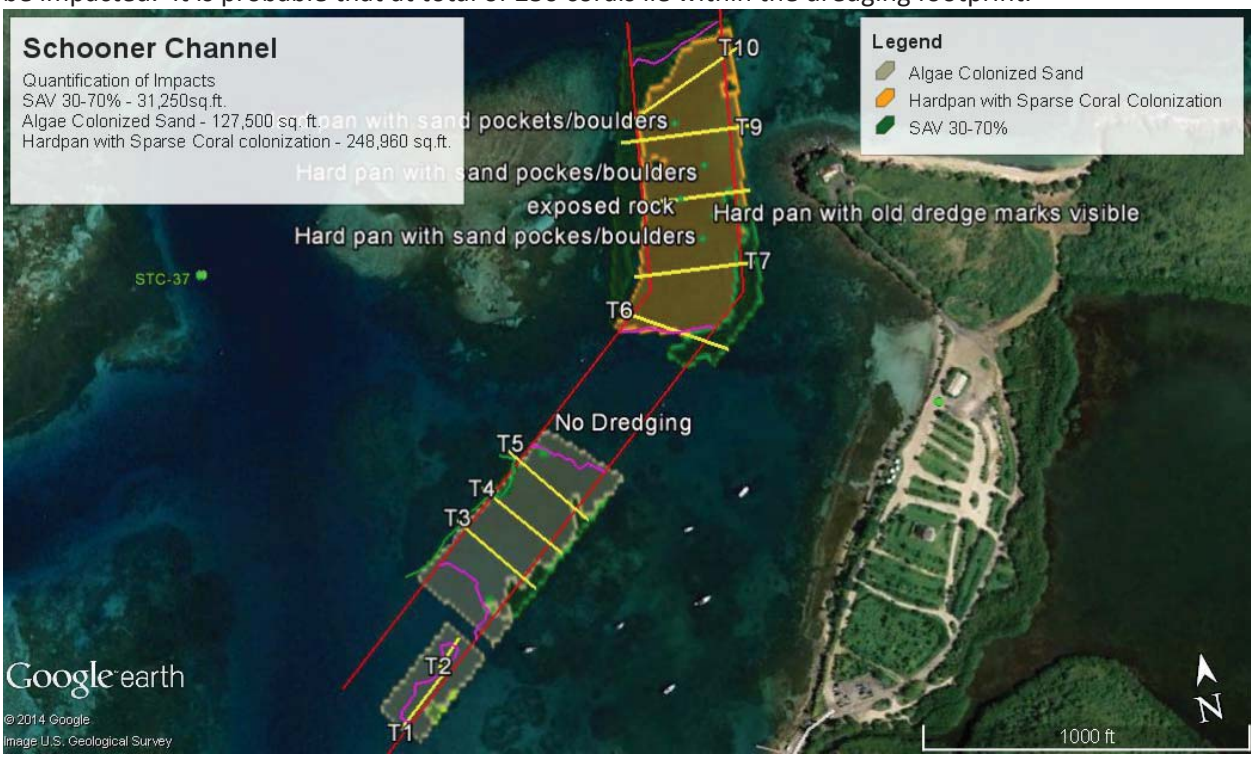


Figure 2. Impacts of dredging.

VII. MITIGATION WORK PLAN

Corals and Sponges

Prior to dredging the sponges and corals larger than 3 centimeters in diameter or length will be removed from the dredging footprint. Any coral or sponge showing signs of disease will not be handled or moved. Due to the close proximity of the channel to the recipient site organisms will be transported underwater by divers to the recipient site. First divers will collect those corals and sessile invertebrates that colonize pavement, cobbles and rocks within the footprint that are of a small enough size to allow hand carrying. Organisms that are attached to the pavement will then be carefully removed from the pavement using a

chisel and rested in baskets. Care will be taken to minimize impact to the organism. All divers will use neoprene gloves while handling the coral and sponges. Corals and sponges will be carefully placed in the baskets so that they do not damage each other.

Baskets will be moved underwater to the recipient site by divers. The corals will then be affixed to the rock substrate using either Splash Zone two part underwater epoxy or Portland cement. The base of the coral will be carefully cleaned with a wire brush and the new substrate will be cleaned to remove algae and any other material which might interfere with the adhesion of the epoxy or cement. The new locations will either be existing uncolonized coral boulders or rubble or bedrock. The coral will be carefully placed and held until the epoxy or cement starts to set.

Pins will be drilled and epoxied into the rocks. Sponges will be attached using tie wraps to the pins in a position that will allow the sponge to grow and attach to the rock substrate. Care will be taken during the transplant to prevent impact to existing corals and sponges within the area.

Using lift bags, and ropes divers will lift and transport larger coral colonized rocks and coral heads to the recipient site. When attaching the corals to the lift bags ropes will be placed so that they avoid live coral tissue. If necessary a plate may be placed underneath the coral so that it lifted without the tissue being impacted by the ropes. Care will be taken while positioning the boulders or coral heads so that they will remain stable. It maybe necessary to epoxy or cement the boulder to the pavement.

Seagrass

The footprint of the channel area will be delineated on the seafloor utilizing rebar stakes and ropes.
Two methods of seagrass transplant may be utilized depending on the consistency of the substrate. If the substrate proves to be very coarse and sandy, which appears to be the case, the seagrasses rhizomes will be carefully removed from the sand in as long of runners as possible. Care will be taken to not break hair roots and rhizomes. These runners will be collected in large baskets and carried underwater by divers to the relocation site. The baskets will be covered to prevent the loss of seagrass during movement. Once at the recipient site trenches will then be excavated for the rhizomes and the grasses will be carefully replanted with care taken to make sure the rhizomes are sufficiently buried. Seagrass staples will also be used to help stabilize the new runners in place.

If the sediment is found to be sufficient consistency to be relocated with the sea grass, large sodding squares will be cut from the beds and the sodding units will we placed on in baskets and carried by divers to the recipient site where they will be placed in depressions excavated to receive them. The seagrasses will be covered during transport to avoid grass and sediment loss. The planting units will be planted abutting one another to aid in the stability of the newly planted bed. Seagrass staples will be utilized to stabilize the planting units.

Both of these methods have been found to be very successful in previous transplanting efforts.
During the transplanting activity all invertebrates encountered within the area of impact, conch, starfish and if possible lobster and other small invertebrates will be relocated. It is however probable that not all juveniles will be found and relocated. Fish species will be able to leave the area as impacts occur and there are abundant seagrass beds and coral colonized hard bottoms to the south in the harbor to which they can relocate. Many of the smaller fish may inadvertently be transplanted as corals and seagrasses are moved. During previous transplants, wrasses and damsels frequently followed corals into baskets and move with the coral to the new site.

Protection of Round Reef and Recipient Areas

In order to help protect the transplanted organisms, informational buoys will be installed around Round Reef to help alert vessels the presence of shallow seagrass beds or coral reefs.

VIII. MAINTENANCE PLAN

Divers will survey the coral recipient site on a bi-weekly basis for the first two months after the transplant to ensure that the corals have not become unattached or shifted. If for any reason the corals become loose or move they will be re-situated and or reattached. After the first two months the corals will be monitored on a monthly basis, making sure that the rocks have remained stable and not shifted, and that corals and sponges have not come loose. If necessary corals will be repositioned and re-attached.

Divers will survey the seagrass recipient site on a monthly basis, making sure that the sea grasses have not become uprooted and will re-bury sea grasses that are coming loose from the substrate.

IX. ECOLOGICAL PERFORMANCE STANDARDS

The object of this mitigation is to minimize impact to benthic resources which provide high quality habitat to marine species. In order to objectively evaluate the mitigation project, ecological performance standards must be established. The performance standards will include viability of the transplanted corals and sponges and relocated sea gras.

It is the intent of this transplanting program to obtain a minimum of 85% survival of the transplanted corals, sponges and sea grasses. VIPA is committed to put forth the greatest effort to see that the relocation is successful and that they obtain the greatest potential survival of transplanted organisms.

X. MONITORING REQUIREMENTS

Monitoring the compensatory mitigation project site is necessary to determine if the project is meeting its performance standards, and to determine if adaptive measures are necessary to ensure that the project does meet its objectives.

As per the guidelines set forth in §230.96 Monitoring the mitigation project will be monitored for a minimum period of 5 years.

Once the project is complete 25 monitoring quadrats will be established in the coral recipient site and a baseline report will be prepared. The quadrats will be marked with large cattle tag and photographed on a monthly basis for a period of 12 months after the transplant. After the first year, the transplanted species will be monitored bi-annually for the remainder of the five year monitoring period.

A transect line will be established through the seagrass recipient site and it will be surveyed on a monthly basis for the first year after transplant. . After the first year, the project will be monitored bi-annually for the remainder of the monitoring period.

Reports will be provided with the photographs to the reviewing agencies within 30 days of the survey. All species utilizing the area will be documented in the monitoring reports.

XI. LONG TERM MANAGEMENT PLAN

Informational buoys will be placed around Round Reef to help boater better identify the shallow reef area, and alerting vessels of the presence of important resources and the need for caution while navigating the channel.

XII. ADAPTIVE MANAGEMENT PLAN

In the event that there are difficulties with the mitigation or if the mitigation is deemed unsuccessful as planned, VIPA is prepared to take additional steps to see that compensatory mitigation goal is achieved. If necessary, extended monitoring and maintenance or additional marking of the site will be undertaken in order to meet the mitigation goal.

If the mitigation goal of 85% survival at the end of five years is not met, the applicant will prepare a detailed report of why the mitigation was not successful. VIPA will meet with the permitting agencies to determine the additional compensatory mitigation needed to meet the mitigation goal.

XIII. FINANCIAL ASSURANCES

Virgin Islands Port Authority will secure a performance bond in the amount of the cost mitigation program and subsequent monitoring throughout the implementation and monitoring period. The bond will follow the guidelines set out by the U.S. Army Corps of Engineers Regulatory Guidance Letter No. 50-1, 14 February 2005, SUBJECT: Guidance on the Use of Financial Assurances, and Suggested Language for Special Conditions for Department of the Army Permits Requiring Performance Bonds.

Appendix E

GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES
DEPARTMENT OF PLANNING AND NATURAL RESOURCES
DEVELOPMENT PERMIT APPLICATION

FORM L&WD-1
APPLICATION LETTER

November 7, 2014

Mr. Jean Pierre Oriol
Acting Commissioner
Department of Planning And Natural Resources
Cyril E. King Airport Terminal, Second Floor
St. Thomas, Virgin Islands 00802

Dear Commissioner Oriol:

The VI Port Authority wishes to make application to the Virgin Islands Government and the Secretary to the Army for a Coastal Zone Permit to conduct maintenance dredging of Schooner Channel, in Gallows Bay, St. Croix.

The maintenance dredging will be located immediately to the east of Christiansted in Gallows Bay. It will consist of dredging to a depth of -5.5 meters (-18 ft) and will dredge approximately 30,000 cubic meters (38,800 cy) of material within Schooner Channel. Disposal of the dredged spoils will be located at an old upland Quarry on St. Croix.

It is understood that your approval of the Dredging Project must be first obtained by virtue of the authority vested in you by Act No. 4248 of the Virgin Islands Code. Your favorable endorsement is, therefore, respectfully requested.

It is further requested that this letter be considered as an application for the Department of the Army Permit. We have attached a joint application form (4345, Oct 2012) and permit drawings for the marine related activities of the development that falls under the jurisdiction of the U.S. Army Corps of Engineers (USACE). We request that the Application be forwarded with your endorsement thereon to the area Engineer, San Juan Area, US Army Corps of Engineers, 400 Fernandez, Juncos Avenue, San Juan Puerto Rico 00901 for consideration. If you have any questions, please contact, Dale Gregory, Director of Engineering, VI Port Authority, at (340) 774-1629, ext. 631.

Early advice concerning your decision and also concerning the decision of the Department of the Army in the manner will be appreciated.

Regards,

David Mapp
Assistance Executive Director VI Port Authority.

Cc: William McComb, CDR Maguire

U.S. ARMY CORPS OF ENGINEERS

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003
EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME
First - David Middle - Last - Mapp
Company - US Virgin Islands Port Authority
E-mail Address - dmapp@viport.com

8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - William Middle - F Last - McComb
Company - CDR Maguire Inc
E-mail Address - bill.mccomb@cdrmaguire.com

6. APPLICANT'S ADDRESS:
Address- P. O. Box 301707
City - St. Thomas State - VI Zip - 00803 Country - USA

9. AGENT'S ADDRESS:
Address- P. O. Box 303408
City - St. Thomas State - VI Zip - 00803 Country - USA

7. APPLICANT'S PHONE NOs. w/AREA CODE
a. Residence b. Business (340) 774-1629 c. Fax (340) 776-3491

10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business (340) 690-0308 c. Fax (800) 859-8736

STATEMENT OF AUTHORIZATION

11. I hereby authorize, William McComb to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
Schooner Channel Maintenance Dredging

13. NAME OF WATERBODY, IF KNOWN (if applicable)
Gallows Bay

14. PROJECT STREET ADDRESS (if applicable)
Address
City - State- Zip-

15. LOCATION OF PROJECT
Latitude: °N 17.7553 Longitude: °W 64.6958

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)
State Tax Parcel ID Municipality
Section - Township - Range -

17. DIRECTIONS TO THE SITE

Exit the St. Croix Airport turn left and head east on Route 64 (Airport Road) approximately 1 mile and turn right onto Route 66 (Melvin Evans Highway). Travel approximately 3 miles to Route 70 and go straight. Follow Route 70 to the Route 66 (Christiansted By-Pass) until it ends at Routes 75 and 753. Head north on Route 753 to VIPA's Gallows bay Marine Terminal. Schooner Channel is north of the terminal.

18. Nature of Activity (Description of project, include all features)

Maintenance dredging of Schooner Channel to a depth of -5.5 meters (-18 feet), which will be 30,000 cubic meters (38,808 cy) of material.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The Virgin Islands Port Authority (VIPA) needs to conduct maintenance dredging of Schooner Channel to the previously approved depth of -5.5 meters (-18 feet) to allow its Gallows Bay Marine Terminal to be used by Mini- Cruise Ships and other deep draft vessels.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- USVI Department of Property and Procurement, Building No. 1, Subbase St. Thomas, Usvi 00802

City - St. Thomas State - VI Zip - 00802

b. Address- USVI Department of Planning and Natural Resources, Cyril E. King Airport, Terminal Bldg. 2nd Fl.

City - St. Thomas State - VI Zip - 00802

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
VI DPNR	CZM		November 7, 2014		

* Would include but is not restricted to zoning, building, and flood plain permits

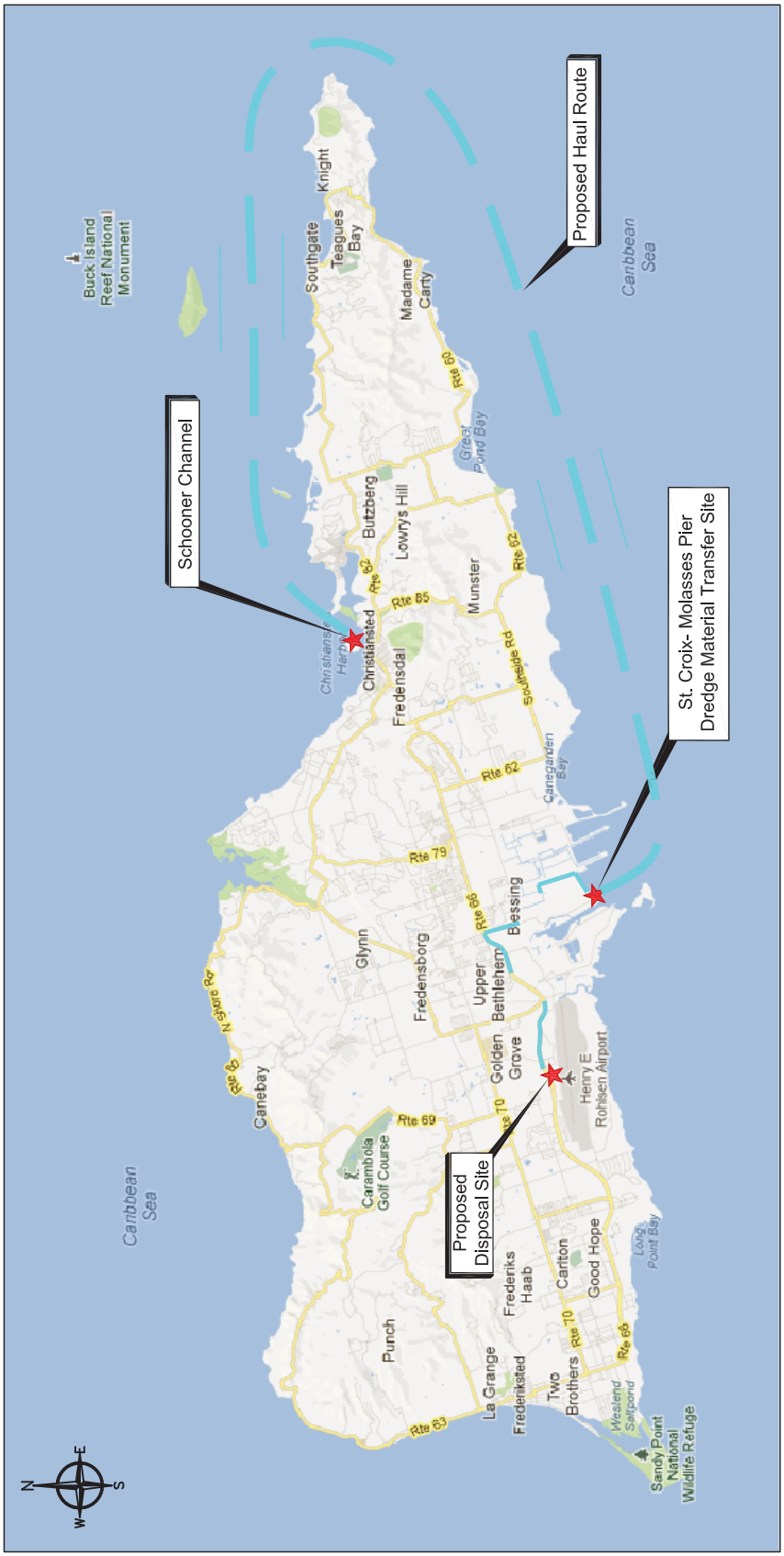
27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE

William F. McComb 11/5/14
SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.



St. Croix

Not to Scale

PURPOSE: DREDGING OF THE SCHOONER CHANNEL

DATUM: MLLW

ADJACENT PROPERTY OWNERS: NOT APPLICABLE

SCHOONER CHANNEL DREDGING PROJECT

ST. CROIX, USVI

VI PORT AUTHORITY
PO BOX 301707
ST. THOMAS, VI 00803

CDR MAGUIRE
1142 King Street. P.O. Box 223039
Christiansted, St. Croix USVI 00822

LOCATION PLAN

APPLICATION BY: VI PORT AUTHORITY

SHEET: 1 OF 4 DATE: NOVEMBER 3, 2014

DREDGING OF SCHOONER CHANNEL
ELEVATIONS BASED ON MLLW
DREDGE TO EL.=-18.00
AREA OF -18 CONTOURS IN DREDGE AREA = 392,530 SF
DREDGE VOLUME (TO EL.=-18) = 24,270 CY

OPTIONS FOR OVER DREDGE VOL. IN AREAS WITH ELEVATIONS GREATER THAN -18

OVER DREDGE DEPTH	ADD. DREDGE VOL.	TOTAL DREDGE VOL.
1.00 FT	14,538 CY	38,808 CY

PURPOSE: DREDGING OF THE SCHOONER CHANNEL

DATUM: MLLW
ADJACENT PROPERTY OWNERS:
NOT APPLICABLE

SCHOONER CHANNEL DREDGING PROJECT

ST. CROIX, USVI

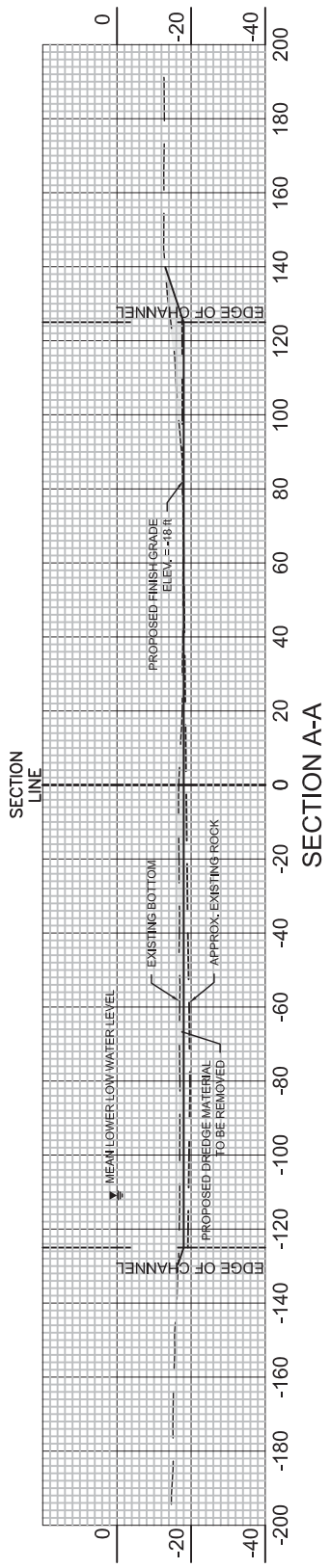
VI PORT AUTHORITY
PO BOX 301707
ST. THOMAS, VI 00803

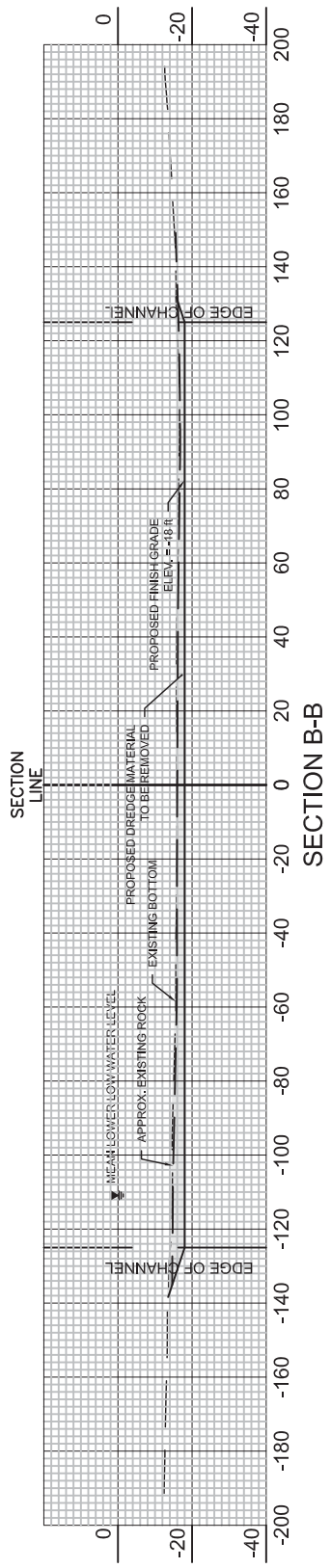
CDR MAGUIRE
1142 King Street. P.O. Box 223039
Christiansted, St. Croix USVI 00822

DREDGE SITE SECTIONS

APPLICATION BY: VI PORT AUTHORITY

SHEET: 2 OF 4 DATE: NOVEMBER 3, 2014





PURPOSE: DREDGING OF THE SCHOONER CHANNEL

DATUM: MLLW

ADJACENT PROPERTY OWNERS: NOT APPLICABLE

SCHOONER CHANNEL DREDGING PROJECT

ST. CROIX, USVI

VI PORT AUTHORITY
PO BOX 301707
ST. THOMAS, VI 00803

CDR MAGUIRE
1142 King Street. P.O. Box 223039
Christiansted, St. Croix USVI 00822

DREDGE SITE SECTIONS

APPLICATION BY: VI PORT AUTHORITY

SHEET: 3 OF 4 DATE: NOVEMBER 3, 2014

PURPOSE: DREDGING OF THE SCHOONER CHANNEL

DATUM: MLLW

ADJACENT PROPERTY OWNERS: NOT APPLICABLE

SCHOONER CHANNEL DREDGING PROJECT

ST. CROIX, USVI

VI PORT AUTHORITY
PO BOX 301707
ST. THOMAS, VI 00803

CDR MAGUIRE
1142 King Street. P.O. Box 223039
Christiansted, St. Croix USVI 00822

DREDGE MATERIAL DISPOSAL SITE

APPLICATION BY: VI PORT AUTHORITY

SHEET: 4 OF 4 DATE: NOVEMBER 3, 2014