284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

DATA PACKAGE

METALS

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : Q1539

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1539

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number	Client Sample Number
Q1539-01	TAPIAL3-MW03D-031025-00-T1
Q1539-02	TAPFTA-MW01I-031025-00-T2
Q1539-03	TAP-TB-03-031025
Q1539-04	TAP-TB-04-031025-T2

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 2:38 pm, Mar 25, 2025

Date: 3/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # Q1539
Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:
4 Water samples were received on 03/11/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group5, Diesel Range Organics, Gasoline Range Organics, Hardness, Total, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-TAL, Oil and Grease, PESTICIDE Group1, SVOC-TCL BNA -20, TOC and VOC-TCLVOA-10. This data package contains results for Metals ICP-TAL,Mercury.

C. Analytical Techniques:
The analysis of Metals ICP-TAL was based on method 6020B, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

D. QA/ QC Samples:
The Holding Times were met for all analysis.

The Blank Spike met criteria for all samples.
The Duplicate (TAPFTA-MW01I-031025-00-T2DUP) analysis met criteria for all samples except for Aluminum due to matrix interference.
The Matrix Spike (TAPFTA-MW01I-031025-00-T2MS) analysis met criteria for all samples except for Arsenic, Iron, Manganese, Potassium, Silver due to matrix interference.
The Matrix Spike Duplicate (TAPFTA-MW01I-031025-00-T2MSD) analysis met criteria for all samples except for Arsenic, Barium, Iron, Manganese, Potassium, Silver due to matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Calculations:

Calculation for ICP-MS Water Sample:

Concentration or Result (µg/L) = $C \times \frac{Vf}{} \times DF$

Vi

Where,

C = Instrument value in ppb (The average of all replicate integrations)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Calculation for Hg Water Sample:

Concentration or Result (µg/L) = C x DF

Where,

C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

F. Additional Comments:

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1539 MATRIX: Water

METHOD: 6020B,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike (TAPFTA-MW01I-031025-00-T2MS) analysis met criteria for all samples except for Arsenic, Iron, Manganese, Potassium, Silver due to matrix interference. The Matrix Spike Duplicate (TAPFTA-MW01I-031025-00-T2MSD) analysis met criteria for all samples except for Arsenic, Barium, Iron, Manganese, Potassium, Silver due to matrix interference.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	The Duplicate (TAPFTA-MW01I-031025-00-T2DUP) analysis met criteria for all samples except for Aluminum due to matrix interference.			
8.	Digestion Holding Time Met If not met, list number of days exceeded for each sample:			✓
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS: Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

APPROVED
By Nimisha Pandya, QA/QC Supervisor at 2:39 pm, Mar 25, 2025

QA REVIEW Date

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1539

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: MOHAMMAD AHMED **Date:** 03/25/2025

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LAB CHRONICLE

OrderID:	Q1539	**OrderDate:**	3/11/2025 10:36:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	I31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1539-01	**TAPIAL3-MW03D-031025-00-T1**	**Water**			**03/10/25**			**03/11/25**
			Mercury	7470A		03/11/25	03/12/25	
			Metals ICP-TAL	6020B		03/13/25	03/23/25	
Q1539-02	**TAPFTA-MW01I-031025-00-T2**	**Water**			**03/10/25**			**03/11/25**
			Mercury	7470A		03/11/25	03/12/25	
			Metals ICP-TAL	6020B		03/13/25	03/23/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1539 **Order ID:** Q1539

Client: Weston Solutions **Project ID:** Ft Meade Tipton Airfield Parcel RI - PO 01

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : TAPIAL3-MW03D-031025-00-T1									
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Aluminum	50.1		1.94	10.0	20.0	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Arsenic	0.54	J	0.089	0.25	1.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Barium	62.5		0.21	1.25	10.0	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Calcium	7450		45.7	190	500	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Chromium	1.36	J	0.21	0.75	2.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Cobalt	4.60		0.070	0.25	1.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Copper	2.02		0.30	1.50	2.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Iron	20300		7.81	25.0	50.0	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Lead	0.27	J	0.21	0.75	1.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Magnesium	2770		19.5	190	500	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Manganese	137		0.43	0.75	1.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Nickel	2.48		0.27	0.75	1.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Mercury	0.10	J	0.081	0.16	0.20	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Potassium	1220		36.4	190	500	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Sodium	22100		128	190	500	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Vanadium	0.15	J	0.077	0.25	5.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Zinc	8.99		1.25	1.50	5.00	ug/L
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Hardness, Total	30000		194	1260	3310	ug/L
Client ID : TAPFTA-MW01I-031025-00-T2									
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Aluminum	67.3		1.94	10.0	20.0	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Arsenic	16.9		0.089	0.25	1.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Barium	14.7		0.21	1.25	10.0	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Calcium	1950		45.7	190	500	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Chromium	0.65	J	0.21	0.75	2.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Copper	0.75	J	0.30	1.50	2.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Iron	24300		7.81	25.0	50.0	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Lead	0.40	J	0.21	0.75	1.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Magnesium	480	J	19.5	190	500	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Manganese	70.2		0.43	0.75	1.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Nickel	0.35	J	0.27	0.75	1.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Potassium	820		36.4	190	500	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Sodium	3910		128	190	500	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Vanadium	0.53	J	0.077	0.25	5.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Zinc	1.87	J	1.25	1.50	5.00	ug/L
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Hardness, Total	6850		194	1260	3310	ug/L

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Hit Summary Sheet
SW-846

SDG No.:	Q1539	**Order ID:**	Q1539
Client:	Weston Solutions	**Project ID:**	Ft Meade Tipton Airfield Parcel RI - PO 01

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions	Date Collected:	03/10/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/11/25
Client Sample ID:	TAPIAL3-MW03D-031025-00-T1	SDG No.:	Q1539
Lab Sample ID:	Q1539-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	50.1	*	1	1.94	10.0	20.0	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-36-0	Antimony	0.25	U	1	0.11	0.25	2.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-38-2	Arsenic	0.54	JN	1	0.089	0.25	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-39-3	Barium	62.5	N	1	0.21	1.25	10.0	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-41-7	Beryllium	0.75	U	1	0.32	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-43-9	Cadmium	0.50	U	1	0.34	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-70-2	Calcium	7450		1	45.7	190	500	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-47-3	Chromium	1.36	J	1	0.21	0.75	2.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-48-4	Cobalt	4.60		1	0.070	0.25	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-50-8	Copper	2.02		1	0.30	1.50	2.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
Hardness	Hardness, Total	30000		1	194	1260	3310	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7439-89-6	Iron	20300	N	1	7.81	25.0	50.0	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7439-92-1	Lead	0.27	J	1	0.21	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7439-95-4	Magnesium	2770		1	19.5	190	500	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7439-96-5	Manganese	137	N	1	0.43	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7439-97-6	Mercury	0.10	J	1	0.081	0.16	0.20	ug/L	03/11/25 15:10	03/12/25 13:04	SW7470A	
7440-02-0	Nickel	2.48		1	0.27	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-09-7	Potassium	1220	N	1	36.4	190	500	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7782-49-2	Selenium	4.50	U	1	2.90	4.50	5.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-22-4	Silver	0.50	UN	1	0.060	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-23-5	Sodium	22100		1	128	190	500	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-28-0	Thallium	0.50	U	1	0.060	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-62-2	Vanadium	0.15	J	1	0.077	0.25	5.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A
7440-66-6	Zinc	8.99		1	1.25	1.50	5.00	ug/L	03/13/25 10:40	03/23/25 16:24	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Weston Solutions	Date Collected:	03/10/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/11/25
Client Sample ID:	TAPFTA-MW01I-031025-00-T2	SDG No.:	Q1539
Lab Sample ID:	Q1539-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	67.3	*	1	1.94	10.0	20.0	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-36-0	Antimony	0.25	U	1	0.11	0.25	2.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-38-2	Arsenic	16.9	N	1	0.089	0.25	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-39-3	Barium	14.7	N	1	0.21	1.25	10.0	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-41-7	Beryllium	0.75	U	1	0.32	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-43-9	Cadmium	0.50	U	1	0.34	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-70-2	Calcium	1950		1	45.7	190	500	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-47-3	Chromium	0.65	J	1	0.21	0.75	2.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-48-4	Cobalt	0.25	U	1	0.070	0.25	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-50-8	Copper	0.75	J	1	0.30	1.50	2.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
Hardness	Hardness, Total	6850		1	194	1260	3310	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7439-89-6	Iron	24300	N	1	7.81	25.0	50.0	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7439-92-1	Lead	0.40	J	1	0.21	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7439-95-4	Magnesium	480	J	1	19.5	190	500	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7439-96-5	Manganese	70.2	N	1	0.43	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7439-97-6	Mercury	0.16	U	1	0.081	0.16	0.20	ug/L	03/11/25 15:10	03/12/25 13:06	SW7470A	
7440-02-0	Nickel	0.35	J	1	0.27	0.75	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-09-7	Potassium	820	N	1	36.4	190	500	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7782-49-2	Selenium	4.50	U	1	2.90	4.50	5.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-22-4	Silver	0.50	UN	1	0.060	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-23-5	Sodium	3910		1	128	190	500	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-28-0	Thallium	0.50	U	1	0.060	0.50	1.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-62-2	Vanadium	0.53	J	1	0.077	0.25	5.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A
7440-66-6	Zinc	1.87	J	1	1.25	1.50	5.00	ug/L	03/13/25 10:40	03/23/25 16:27	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV38	Mercury	3.65	4.0	91	90 - 110	CV	03/12/2025	11:00	LB134996

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV86	Mercury	4.85	5.0	97	90 - 110	CV	03/12/2025	11:10	LB134996
CCV87	Mercury	4.80	5.0	96	90 - 110	CV	03/12/2025	11:43	LB134996
CCV88	Mercury	4.78	5.0	96	90 - 110	CV	03/12/2025	12:54	LB134996
CCV89	Mercury	4.87	5.0	97	90 - 110	CV	03/12/2025	13:17	LB134996
CCV90	Mercury	5.23	5.0	105	90 - 110	CV	03/12/2025	13:46	LB134996

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	493	500	99	90 - 110	P	03/23/2025	15:35	LB135143
	Antimony	195	200	97	90 - 110	P	03/23/2025	15:35	LB135143
	Arsenic	215	200	107	90 - 110	P	03/23/2025	15:35	LB135143
	Barium	96.7	100	97	90 - 110	P	03/23/2025	15:35	LB135143
	Beryllium	96.7	100	97	90 - 110	P	03/23/2025	15:35	LB135143
	Cadmium	105	100	105	90 - 110	P	03/23/2025	15:35	LB135143
	Calcium	1880	2000	94	90 - 110	P	03/23/2025	15:35	LB135143
	Chromium	96.5	100	96	90 - 110	P	03/23/2025	15:35	LB135143
	Cobalt	96.6	100	97	90 - 110	P	03/23/2025	15:35	LB135143
	Copper	99.4	100	99	90 - 110	P	03/23/2025	15:35	LB135143
	Iron	2040	2000	102	90 - 110	P	03/23/2025	15:35	LB135143
	Lead	207	200	103	90 - 110	P	03/23/2025	15:35	LB135143
	Magnesium	1110	1200	93	90 - 110	P	03/23/2025	15:35	LB135143
	Manganese	101	100	101	90 - 110	P	03/23/2025	15:35	LB135143
	Nickel	120	110	110	90 - 110	P	03/23/2025	15:35	LB135143
	Potassium	1890	2000	94	90 - 110	P	03/23/2025	15:35	LB135143
	Selenium	220	200	110	90 - 110	P	03/23/2025	15:35	LB135143
	Silver	47.9	50.0	96	90 - 110	P	03/23/2025	15:35	LB135143
	Sodium	1870	2000	93	90 - 110	P	03/23/2025	15:35	LB135143
	Thallium	207	210	99	90 - 110	P	03/23/2025	15:35	LB135143
	Vanadium	93.5	100	94	90 - 110	P	03/23/2025	15:35	LB135143
	Zinc	185	200	93	90 - 110	P	03/23/2025	15:35	LB135143

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV	Aluminum	18.0	20.0	90	80 - 120	P	03/23/2025	15:47	LB135143
	Antimony	1.91	2.0	96	80 - 120	P	03/23/2025	15:47	LB135143
	Arsenic	1.16	1.0	116	80 - 120	P	03/23/2025	15:47	LB135143
	Barium	9.20	10.0	92	80 - 120	P	03/23/2025	15:47	LB135143
	Beryllium	1.03	1.0	103	80 - 120	P	03/23/2025	15:47	LB135143
	Cadmium	0.99	1.0	99	80 - 120	P	03/23/2025	15:47	LB135143
	Calcium	451	500	90	80 - 120	P	03/23/2025	15:47	LB135143
	Chromium	1.85	2.0	92	80 - 120	P	03/23/2025	15:47	LB135143
	Cobalt	0.97	1.0	97	80 - 120	P	03/23/2025	15:47	LB135143
	Copper	1.77	2.0	88	80 - 120	P	03/23/2025	15:47	LB135143
	Iron	54.4	50.0	109	80 - 120	P	03/23/2025	15:47	LB135143
	Lead	0.82	1.0	82	80 - 120	P	03/23/2025	15:47	LB135143
	Magnesium	441	500	88	80 - 120	P	03/23/2025	15:47	LB135143
	Manganese	0.81	1.0	81	80 - 120	P	03/23/2025	15:47	LB135143
	Nickel	0.89	1.0	89	80 - 120	P	03/23/2025	15:47	LB135143
	Potassium	463	500	93	80 - 120	P	03/23/2025	15:47	LB135143
	Selenium	5.09	5.0	102	80 - 120	P	03/23/2025	15:47	LB135143
	Silver	0.99	1.0	99	80 - 120	P	03/23/2025	15:47	LB135143
	Sodium	440	500	88	80 - 120	P	03/23/2025	15:47	LB135143
	Thallium	0.87	1.0	87	80 - 120	P	03/23/2025	15:47	LB135143
	Vanadium	4.50	5.0	90	80 - 120	P	03/23/2025	15:47	LB135143
	Zinc	4.30	5.0	86	80 - 120	P	03/23/2025	15:47	LB135143

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	49800	50000	100	90 - 110	P	03/23/2025	16:00	LB135143
	Antimony	504	500	101	90 - 110	P	03/23/2025	16:00	LB135143
	Arsenic	487	500	97	90 - 110	P	03/23/2025	16:00	LB135143
	Barium	2560	2500	103	90 - 110	P	03/23/2025	16:00	LB135143
	Beryllium	453	500	91	90 - 110	P	03/23/2025	16:00	LB135143
	Cadmium	457	500	91	90 - 110	P	03/23/2025	16:00	LB135143
	Calcium	246000	250000	98	90 - 110	P	03/23/2025	16:00	LB135143
	Chromium	503	500	100	90 - 110	P	03/23/2025	16:00	LB135143
	Cobalt	490	500	98	90 - 110	P	03/23/2025	16:00	LB135143
	Copper	5040	5000	101	90 - 110	P	03/23/2025	16:00	LB135143
	Iron	129000	125000	103	90 - 110	P	03/23/2025	16:00	LB135143
	Lead	2580	2500	103	90 - 110	P	03/23/2025	16:00	LB135143
	Magnesium	248000	250000	99	90 - 110	P	03/23/2025	16:00	LB135143
	Manganese	4980	5000	100	90 - 110	P	03/23/2025	16:00	LB135143
	Nickel	508	500	102	90 - 110	P	03/23/2025	16:00	LB135143
	Potassium	124000	125000	99	90 - 110	P	03/23/2025	16:00	LB135143
	Selenium	478	500	96	90 - 110	P	03/23/2025	16:00	LB135143
	Silver	457	500	91	90 - 110	P	03/23/2025	16:00	LB135143
	Sodium	244000	250000	98	90 - 110	P	03/23/2025	16:00	LB135143
	Thallium	527	500	105	90 - 110	P	03/23/2025	16:00	LB135143
	Vanadium	505	500	101	90 - 110	P	03/23/2025	16:00	LB135143
	Zinc	4890	5000	98	90 - 110	P	03/23/2025	16:00	LB135143
CCV02	Aluminum	50700	50000	101	90 - 110	P	03/23/2025	16:45	LB135143
	Antimony	502	500	100	90 - 110	P	03/23/2025	16:45	LB135143
	Arsenic	492	500	98	90 - 110	P	03/23/2025	16:45	LB135143
	Barium	2550	2500	102	90 - 110	P	03/23/2025	16:45	LB135143
	Beryllium	492	500	98	90 - 110	P	03/23/2025	16:45	LB135143
	Cadmium	457	500	91	90 - 110	P	03/23/2025	16:45	LB135143
	Calcium	250000	250000	100	90 - 110	P	03/23/2025	16:45	LB135143
	Chromium	505	500	101	90 - 110	P	03/23/2025	16:45	LB135143
	Cobalt	501	500	100	90 - 110	P	03/23/2025	16:45	LB135143
	Copper	5150	5000	103	90 - 110	P	03/23/2025	16:45	LB135143
	Iron	131000	125000	105	90 - 110	P	03/23/2025	16:45	LB135143
	Lead	2540	2500	102	90 - 110	P	03/23/2025	16:45	LB135143

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	252000	250000	101	90 - 110	P	03/23/2025	16:45	LB135143
	Manganese	5030	5000	101	90 - 110	P	03/23/2025	16:45	LB135143
	Nickel	516	500	103	90 - 110	P	03/23/2025	16:45	LB135143
	Potassium	128000	125000	102	90 - 110	P	03/23/2025	16:45	LB135143
	Selenium	477	500	95	90 - 110	P	03/23/2025	16:45	LB135143
	Silver	458	500	92	90 - 110	P	03/23/2025	16:45	LB135143
	Sodium	252000	250000	101	90 - 110	P	03/23/2025	16:45	LB135143
	Thallium	523	500	104	90 - 110	P	03/23/2025	16:45	LB135143
	Vanadium	516	500	103	90 - 110	P	03/23/2025	16:45	LB135143
	Zinc	5020	5000	100	90 - 110	P	03/23/2025	16:45	LB135143
CCV03	Aluminum	50800	50000	102	90 - 110	P	03/23/2025	17:31	LB135143
	Antimony	496	500	99	90 - 110	P	03/23/2025	17:31	LB135143
	Arsenic	481	500	96	90 - 110	P	03/23/2025	17:31	LB135143
	Barium	2530	2500	101	90 - 110	P	03/23/2025	17:31	LB135143
	Beryllium	486	500	97	90 - 110	P	03/23/2025	17:31	LB135143
	Cadmium	453	500	91	90 - 110	P	03/23/2025	17:31	LB135143
	Calcium	248000	250000	99	90 - 110	P	03/23/2025	17:31	LB135143
	Chromium	498	500	100	90 - 110	P	03/23/2025	17:31	LB135143
	Cobalt	495	500	99	90 - 110	P	03/23/2025	17:31	LB135143
	Copper	5140	5000	103	90 - 110	P	03/23/2025	17:31	LB135143
	Iron	131000	125000	105	90 - 110	P	03/23/2025	17:31	LB135143
	Lead	2550	2500	102	90 - 110	P	03/23/2025	17:31	LB135143
	Magnesium	253000	250000	101	90 - 110	P	03/23/2025	17:31	LB135143
	Manganese	5020	5000	100	90 - 110	P	03/23/2025	17:31	LB135143
	Nickel	514	500	103	90 - 110	P	03/23/2025	17:31	LB135143
	Potassium	126000	125000	101	90 - 110	P	03/23/2025	17:31	LB135143
	Selenium	476	500	95	90 - 110	P	03/23/2025	17:31	LB135143
	Silver	454	500	91	90 - 110	P	03/23/2025	17:31	LB135143
	Sodium	253000	250000	101	90 - 110	P	03/23/2025	17:31	LB135143
	Thallium	513	500	103	90 - 110	P	03/23/2025	17:31	LB135143
	Vanadium	511	500	102	90 - 110	P	03/23/2025	17:31	LB135143
	Zinc	4950	5000	99	90 - 110	P	03/23/2025	17:31	LB135143
CCV04	Aluminum	51000	50000	102	90 - 110	P	03/23/2025	18:20	LB135143
	Antimony	511	500	102	90 - 110	P	03/23/2025	18:20	LB135143

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	498	500	100	90 - 110	P	03/23/2025	18:20	LB135143
	Barium	2530	2500	101	90 - 110	P	03/23/2025	18:20	LB135143
	Beryllium	457	500	92	90 - 110	P	03/23/2025	18:20	LB135143
	Cadmium	494	500	99	90 - 110	P	03/23/2025	18:20	LB135143
	Calcium	247000	250000	99	90 - 110	P	03/23/2025	18:20	LB135143
	Chromium	501	500	100	90 - 110	P	03/23/2025	18:20	LB135143
	Cobalt	499	500	100	90 - 110	P	03/23/2025	18:20	LB135143
	Copper	5140	5000	103	90 - 110	P	03/23/2025	18:20	LB135143
	Iron	130000	125000	104	90 - 110	P	03/23/2025	18:20	LB135143
	Lead	2570	2500	103	90 - 110	P	03/23/2025	18:20	LB135143
	Magnesium	254000	250000	102	90 - 110	P	03/23/2025	18:20	LB135143
	Manganese	4980	5000	100	90 - 110	P	03/23/2025	18:20	LB135143
	Nickel	490	500	98	90 - 110	P	03/23/2025	18:20	LB135143
	Potassium	126000	125000	101	90 - 110	P	03/23/2025	18:20	LB135143
	Selenium	478	500	96	90 - 110	P	03/23/2025	18:20	LB135143
	Silver	469	500	94	90 - 110	P	03/23/2025	18:20	LB135143
	Sodium	250000	250000	100	90 - 110	P	03/23/2025	18:20	LB135143
	Thallium	521	500	104	90 - 110	P	03/23/2025	18:20	LB135143
	Vanadium	514	500	103	90 - 110	P	03/23/2025	18:20	LB135143
	Zinc	5020	5000	100	90 - 110	P	03/23/2025	18:20	LB135143

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.22	0.2	109	40 - 160	CV	03/12/2025	11:15	LB134996
CRI	Aluminum	17.7	20.0	88	70 - 130	P	03/23/2025	16:11	LB135143
	Antimony	1.92	2.0	96	70 - 130	P	03/23/2025	16:11	LB135143
	Arsenic	1.17	1.0	117	70 - 130	P	03/23/2025	16:11	LB135143
	Barium	8.95	10.0	90	70 - 130	P	03/23/2025	16:11	LB135143
	Beryllium	1.00	1.0	100	70 - 130	P	03/23/2025	16:11	LB135143
	Cadmium	0.91	1.0	91	70 - 130	P	03/23/2025	16:11	LB135143
	Calcium	458	500	92	70 - 130	P	03/23/2025	16:11	LB135143
	Chromium	1.82	2.0	91	70 - 130	P	03/23/2025	16:11	LB135143
	Cobalt	0.92	1.0	92	50 - 150	P	03/23/2025	16:11	LB135143
	Copper	2.06	2.0	103	70 - 130	P	03/23/2025	16:11	LB135143
	Iron	52.1	50.0	104	70 - 130	P	03/23/2025	16:11	LB135143
	Lead	0.79	1.0	79	70 - 130	P	03/23/2025	16:11	LB135143
	Magnesium	438	500	88	70 - 130	P	03/23/2025	16:11	LB135143
	Manganese	0.84	1.0	84	50 - 150	P	03/23/2025	16:11	LB135143
	Nickel	0.86	1.0	86	70 - 130	P	03/23/2025	16:11	LB135143
	Potassium	456	500	91	70 - 130	P	03/23/2025	16:11	LB135143
	Selenium	5.46	5.0	109	70 - 130	P	03/23/2025	16:11	LB135143
	Silver	0.98	1.0	98	70 - 130	P	03/23/2025	16:11	LB135143
	Sodium	443	500	88	70 - 130	P	03/23/2025	16:11	LB135143
	Thallium	0.91	1.0	91	70 - 130	P	03/23/2025	16:11	LB135143
	Vanadium	4.48	5.0	90	70 - 130	P	03/23/2025	16:11	LB135143
	Zinc	4.52	5.0	90	50 - 150	P	03/23/2025	16:11	LB135143

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB38	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	11:02	LB134996

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB86	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	11:12	LB134996
CCB87	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	11:46	LB134996
CCB88	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	12:56	LB134996
CCB89	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	13:20	LB134996
CCB90	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	03/12/2025	13:48	LB134996

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	6.25	+/-20.0	J	10.0	20.0	P	03/23/2025	15:50	LB135143
	Antimony	2.00	+/-2.00	U	0.25	2.00	P	03/23/2025	15:50	LB135143
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	15:50	LB135143
	Barium	10.0	+/-10.0	U	1.25	10.0	P	03/23/2025	15:50	LB135143
	Beryllium	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	15:50	LB135143
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	15:50	LB135143
	Calcium	500	+/-500	U	190	500	P	03/23/2025	15:50	LB135143
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	03/23/2025	15:50	LB135143
	Cobalt	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	15:50	LB135143
	Copper	2.00	+/-2.00	U	1.50	2.00	P	03/23/2025	15:50	LB135143
	Iron	50.0	+/-50.0	U	25.0	50.0	P	03/23/2025	15:50	LB135143
	Lead	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	15:50	LB135143
	Magnesium	500	+/-500	U	190	500	P	03/23/2025	15:50	LB135143
	Manganese	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	15:50	LB135143
	Nickel	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	15:50	LB135143
	Potassium	500	+/-500	U	190	500	P	03/23/2025	15:50	LB135143
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	03/23/2025	15:50	LB135143
	Silver	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	15:50	LB135143
	Sodium	500	+/-500	U	190	500	P	03/23/2025	15:50	LB135143
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	15:50	LB135143
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	03/23/2025	15:50	LB135143
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	03/23/2025	15:50	LB135143

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	5.68	+/-20.0	J	10.0	20.0	P	03/23/2025	16:04	LB135143
	Antimony	2.00	+/-2.00	U	0.25	2.00	P	03/23/2025	16:04	LB135143
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	16:04	LB135143
	Barium	10.0	+/-10.0	U	1.25	10.0	P	03/23/2025	16:04	LB135143
	Beryllium	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:04	LB135143
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	16:04	LB135143
	Calcium	500	+/-500	U	190	500	P	03/23/2025	16:04	LB135143
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	03/23/2025	16:04	LB135143
	Cobalt	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	16:04	LB135143
	Copper	0.56	+/-2.00	J	1.50	2.00	P	03/23/2025	16:04	LB135143
	Iron	50.0	+/-50.0	U	25.0	50.0	P	03/23/2025	16:04	LB135143
	Lead	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:04	LB135143
	Magnesium	500	+/-500	U	190	500	P	03/23/2025	16:04	LB135143
	Manganese	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:04	LB135143
	Nickel	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:04	LB135143
	Potassium	500	+/-500	U	190	500	P	03/23/2025	16:04	LB135143
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	03/23/2025	16:04	LB135143
	Silver	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	16:04	LB135143
	Sodium	500	+/-500	U	190	500	P	03/23/2025	16:04	LB135143
	Thallium	0.070	+/-1.00	J	0.50	1.00	P	03/23/2025	16:04	LB135143
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	03/23/2025	16:04	LB135143
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	03/23/2025	16:04	LB135143
CCB02	Aluminum	5.87	+/-20.0	J	10.0	20.0	P	03/23/2025	16:53	LB135143
	Antimony	2.00	+/-2.00	U	0.25	2.00	P	03/23/2025	16:53	LB135143
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	16:53	LB135143
	Barium	10.0	+/-10.0	U	1.25	10.0	P	03/23/2025	16:53	LB135143
	Beryllium	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:53	LB135143
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	16:53	LB135143
	Calcium	500	+/-500	U	190	500	P	03/23/2025	16:53	LB135143
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	03/23/2025	16:53	LB135143
	Cobalt	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	16:53	LB135143
	Copper	2.00	+/-2.00	U	1.50	2.00	P	03/23/2025	16:53	LB135143
	Iron	50.0	+/-50.0	U	25.0	50.0	P	03/23/2025	16:53	LB135143
	Lead	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:53	LB135143
	Magnesium	500	+/-500	U	190	500	P	03/23/2025	16:53	LB135143
	Manganese	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:53	LB135143
	Nickel	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	16:53	LB135143
	Potassium	500	+/-500	U	190	500	P	03/23/2025	16:53	LB135143
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	03/23/2025	16:53	LB135143

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	16:53	LB135143
	Sodium	500	+/-500	U	190	500	P	03/23/2025	16:53	LB135143
	Thallium	0.060	+/-1.00	J	0.50	1.00	P	03/23/2025	16:53	LB135143
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	03/23/2025	16:53	LB135143
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	03/23/2025	16:53	LB135143
CCB03	Aluminum	2.92	+/-20.0	J	10.0	20.0	P	03/23/2025	17:37	LB135143
	Antimony	2.00	+/-2.00	U	0.25	2.00	P	03/23/2025	17:37	LB135143
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	17:37	LB135143
	Barium	10.0	+/-10.0	U	1.25	10.0	P	03/23/2025	17:37	LB135143
	Beryllium	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	17:37	LB135143
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	17:37	LB135143
	Calcium	500	+/-500	U	190	500	P	03/23/2025	17:37	LB135143
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	03/23/2025	17:37	LB135143
	Cobalt	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	17:37	LB135143
	Copper	2.00	+/-2.00	U	1.50	2.00	P	03/23/2025	17:37	LB135143
	Iron	50.0	+/-50.0	U	25.0	50.0	P	03/23/2025	17:37	LB135143
	Lead	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	17:37	LB135143
	Magnesium	500	+/-500	U	190	500	P	03/23/2025	17:37	LB135143
	Manganese	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	17:37	LB135143
	Nickel	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	17:37	LB135143
	Potassium	500	+/-500	U	190	500	P	03/23/2025	17:37	LB135143
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	03/23/2025	17:37	LB135143
	Silver	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	17:37	LB135143
	Sodium	500	+/-500	U	190	500	P	03/23/2025	17:37	LB135143
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	17:37	LB135143
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	03/23/2025	17:37	LB135143
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	03/23/2025	17:37	LB135143
CCB04	Aluminum	2.76	+/-20.0	J	10.0	20.0	P	03/23/2025	18:25	LB135143
	Antimony	2.00	+/-2.00	U	0.25	2.00	P	03/23/2025	18:25	LB135143
	Arsenic	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	18:25	LB135143
	Barium	10.0	+/-10.0	U	1.25	10.0	P	03/23/2025	18:25	LB135143
	Beryllium	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	18:25	LB135143
	Cadmium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	18:25	LB135143
	Calcium	500	+/-500	U	190	500	P	03/23/2025	18:25	LB135143
	Chromium	2.00	+/-2.00	U	0.75	2.00	P	03/23/2025	18:25	LB135143
	Cobalt	1.00	+/-1.00	U	0.25	1.00	P	03/23/2025	18:25	LB135143
	Copper	2.00	+/-2.00	U	1.50	2.00	P	03/23/2025	18:25	LB135143
	Iron	50.0	+/-50.0	U	25.0	50.0	P	03/23/2025	18:25	LB135143
	Lead	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	18:25	LB135143

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	500	+/-500	U	190	500	P	03/23/2025	18:25	LB135143
	Manganese	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	18:25	LB135143
	Nickel	1.00	+/-1.00	U	0.75	1.00	P	03/23/2025	18:25	LB135143
	Potassium	500	+/-500	U	190	500	P	03/23/2025	18:25	LB135143
	Selenium	5.00	+/-5.00	U	4.50	5.00	P	03/23/2025	18:25	LB135143
	Silver	0.070	+/-1.00	J	0.50	1.00	P	03/23/2025	18:25	LB135143
	Sodium	500	+/-500	U	190	500	P	03/23/2025	18:25	LB135143
	Thallium	1.00	+/-1.00	U	0.50	1.00	P	03/23/2025	18:25	LB135143
	Vanadium	5.00	+/-5.00	U	0.25	5.00	P	03/23/2025	18:25	LB135143
	Zinc	5.00	+/-5.00	U	1.50	5.00	P	03/23/2025	18:25	LB135143

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167102BL		**WATER**		**Batch Number:**		**PB167102**		**Prep Date:**	**03/11/2025**	
	Mercury	0.20	<0.20	U	0.16	0.20	CV	03/12/2025	12:04	LB134996

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Instrument: P7

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167118BL		**WATER**		**Batch Number:**		**PB167118**		**Prep Date:**	**03/13/2025**	
	Aluminum	20.0	<20.0	U	10.0	20.0	P	03/23/2025	16:18	LB135143
	Antimony	2.00	<2.00	U	0.25	2.00	P	03/23/2025	16:18	LB135143
	Arsenic	1.00	<1.00	U	0.25	1.00	P	03/23/2025	16:18	LB135143
	Barium	10.0	<10.0	U	1.25	10.0	P	03/23/2025	16:18	LB135143
	Beryllium	1.00	<1.00	U	0.75	1.00	P	03/23/2025	16:18	LB135143
	Cadmium	1.00	<1.00	U	0.50	1.00	P	03/23/2025	16:18	LB135143
	Calcium	500	<500	U	190	500	P	03/23/2025	16:18	LB135143
	Chromium	2.00	<2.00	U	0.75	2.00	P	03/23/2025	16:18	LB135143
	Cobalt	1.00	<1.00	U	0.25	1.00	P	03/23/2025	16:18	LB135143
	Copper	2.00	<2.00	U	1.50	2.00	P	03/23/2025	16:18	LB135143
	Iron	50.0	<50.0	U	25.0	50.0	P	03/23/2025	16:18	LB135143
	Lead	1.00	<1.00	U	0.75	1.00	P	03/23/2025	16:18	LB135143
	Magnesium	500	<500	U	190	500	P	03/23/2025	16:18	LB135143
	Manganese	1.00	<1.00	U	0.75	1.00	P	03/23/2025	16:18	LB135143
	Nickel	1.00	<1.00	U	0.75	1.00	P	03/23/2025	16:18	LB135143
	Potassium	500	<500	U	190	500	P	03/23/2025	16:18	LB135143
	Selenium	5.00	<5.00	U	4.50	5.00	P	03/23/2025	16:18	LB135143
	Silver	1.00	<1.00	U	0.50	1.00	P	03/23/2025	16:18	LB135143
	Sodium	500	<500	U	190	500	P	03/23/2025	16:18	LB135143
	Thallium	1.00	<1.00	U	0.50	1.00	P	03/23/2025	16:18	LB135143
	Vanadium	5.00	<5.00	U	0.25	5.00	P	03/23/2025	16:18	LB135143
	Zinc	5.00	<5.00	U	1.50	5.00	P	03/23/2025	16:18	LB135143

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INTERFERENCE CHECK SAMPLE

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

ICS Source: EPA **Instrument ID:** P7

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	88600	100000	89	0	0	03/23/2025	15:54	LB135143
	Antimony	1.01	1.5	67	-2.5	5.5	03/23/2025	15:54	LB135143
	Arsenic	0.53	0.1	530	-1.9	2.1	03/23/2025	15:54	LB135143
	Barium	1.24	1.2	103	-18.8	21.2	03/23/2025	15:54	LB135143
	Beryllium	0.27			-2	2	03/23/2025	15:54	LB135143
	Cadmium	0.24	0.7	34	-1.3	2.7	03/23/2025	15:54	LB135143
	Calcium	97400	100000	97	0	0	03/23/2025	15:54	LB135143
	Chromium	18.0	21.0	86	17	25	03/23/2025	15:54	LB135143
	Cobalt	1.12	1.0	112	-1	3	03/23/2025	15:54	LB135143
	Copper	10.1	8.0	126	4	12	03/23/2025	15:54	LB135143
	Iron	103000	100000	103	0	0	03/23/2025	15:54	LB135143
	Lead	3.83	4.0	96	2	6	03/23/2025	15:54	LB135143
	Magnesium	93300	100000	93	0	0	03/23/2025	15:54	LB135143
	Manganese	6.39	7.0	91	5	9	03/23/2025	15:54	LB135143
	Nickel	5.31	6.0	88	4	8	03/23/2025	15:54	LB135143
	Potassium	97000	100000	97	0	0	03/23/2025	15:54	LB135143
	Selenium	0.97	0.3	323	-9.7	10	03/23/2025	15:54	LB135143
	Silver	0.020			-2	2	03/23/2025	15:54	LB135143
	Sodium	99700	100000	100	0	0	03/23/2025	15:54	LB135143
	Thallium	0.10			-2	2	03/23/2025	15:54	LB135143
	Vanadium	0.18	0.5	36	-9.5	10.5	03/23/2025	15:54	LB135143
	Zinc	8.99	11.0	82	1	21	03/23/2025	15:54	LB135143
ICSAB01	Aluminum	91600	100000	92	0	0	03/23/2025	15:57	LB135143
	Antimony	19.3	22.0	88	18	26	03/23/2025	15:57	LB135143
	Arsenic	20.5	19.0	108	16.2	21.9	03/23/2025	15:57	LB135143
	Barium	19.4	22.0	88	2	42	03/23/2025	15:57	LB135143
	Beryllium	18.5	19.0	97	16.2	21.9	03/23/2025	15:57	LB135143
	Cadmium	19.0	20.0	95	17	23	03/23/2025	15:57	LB135143
	Calcium	95800	100000	96	0	0	03/23/2025	15:57	LB135143
	Chromium	37.2	40.0	93	34	46	03/23/2025	15:57	LB135143
	Cobalt	19.9	20.0	100	17	23	03/23/2025	15:57	LB135143
	Copper	27.8	25.0	111	21	29	03/23/2025	15:57	LB135143
	Iron	107000	100000	107	0	0	03/23/2025	15:57	LB135143
	Lead	22.3	25.0	89	21.3	28.8	03/23/2025	15:57	LB135143
	Magnesium	94200	100000	94	0	0	03/23/2025	15:57	LB135143
	Manganese	24.7	27.0	92	23	31.1	03/23/2025	15:57	LB135143
	Nickel	26.1	24.0	109	20.4	27.6	03/23/2025	15:57	LB135143
	Potassium	100000	100000	100	0	0	03/23/2025	15:57	LB135143
	Selenium	20.6	19.0	108	9	29	03/23/2025	15:57	LB135143
	Silver	17.1	18.0	95	15.3	20.7	03/23/2025	15:57	LB135143
	Sodium	101000	100000	101	0	0	03/23/2025	15:57	LB135143
	Thallium	18.1	21.0	86	17.9	24.2	03/23/2025	15:57	LB135143

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

ICS Source: EPA **Instrument ID:** P7

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	18.9	19.0	100	9	29	03/23/2025	15:57	LB135143
	Zinc	35.9	29.0	124	19	39	03/23/2025	15:57	LB135143

METAL QC DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Weston Solutions **level:** low **sdg no.:** Q1539

contract: WEST04 **lab code:** CHEM **case no.:** Q1539 **sas no.:** Q1539

matrix: Water **sample id:** Q1539-02 **client id:** TAPFTA-MW01I-031025-00-T2MS

Percent Solids for Sample: NA **Spiked ID:** Q1539-02MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	84 - 117	8610		67.3		10000	85		P
Antimony	ug/L	85 - 117	494		2.00	U	500	99		P
Arsenic	ug/L	84 - 116	16.2		16.9		500	0	N	P
Barium	ug/L	86 - 114	2190		14.7		2500	87		P
Beryllium	ug/L	83 - 121	430		1.00	U	500	86		P
Cadmium	ug/L	87 - 115	452		1.00	U	500	90		P
Calcium	ug/L	87 - 118	47500		1950		50000	91		P
Chromium	ug/L	85 - 116	459		0.65	J	500	92		P
Cobalt	ug/L	86 - 115	473		1.00	U	500	95		P
Copper	ug/L	85 - 118	4270		0.75	J	5000	85		P
Iron	ug/L	87 - 118	44700		24300		25000	82	N	P
Lead	ug/L	88 - 115	2360		0.40	J	2500	94		P
Magnesium	ug/L	83 - 118	46600		480	J	50000	92		P
Manganese	ug/L	87 - 115	4360		70.2		5000	86	N	P
Nickel	ug/L	85 - 117	465		0.35	J	500	93		P
Potassium	ug/L	87 - 115	21900		820		25000	84	N	P
Selenium	ug/L	80 - 120	490		5.00	U	500	98		P
Silver	ug/L	85 - 116	67.4		1.00	U	500	14	N	P
Sodium	ug/L	85 - 117	49600		3910		50000	91		P
Thallium	ug/L	82 - 116	469		1.00	U	500	94		P
Vanadium	ug/L	86 - 115	478		0.53	J	500	96		P
Zinc	ug/L	83 - 119	4360		1.87	J	5000	87		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Weston Solutions **level:** low **sdg no.:** Q1539

contract: WEST04 **lab code:** CHEM **case no.:** Q1539 **sas no.:** Q1539

matrix: Water **sample id:** Q1539-02 **client id:** TAPFTA-MW01I-031025-00-T2MSD

Percent Solids for Sample: NA **Spiked ID:** Q1539-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	84 - 117	9040		67.3		10000	90		P
Antimony	ug/L	85 - 117	479		2.00	U	500	96		P
Arsenic	ug/L	84 - 116	16.0		16.9		500	0	N	P
Barium	ug/L	86 - 114	2110		14.7		2500	84	N	P
Beryllium	ug/L	83 - 121	421		1.00	U	500	84		P
Cadmium	ug/L	87 - 115	436		1.00	U	500	87		P
Calcium	ug/L	87 - 118	47500		1950		50000	91		P
Chromium	ug/L	85 - 116	453		0.65	J	500	90		P
Cobalt	ug/L	86 - 115	461		1.00	U	500	92		P
Copper	ug/L	85 - 118	4290		0.75	J	5000	86		P
Iron	ug/L	87 - 118	44400		24300		25000	81	N	P
Lead	ug/L	88 - 115	2340		0.40	J	2500	93		P
Magnesium	ug/L	83 - 118	46300		480	J	50000	92		P
Manganese	ug/L	87 - 115	4350		70.2		5000	86	N	P
Nickel	ug/L	85 - 117	460		0.35	J	500	92		P
Potassium	ug/L	87 - 115	22000		820		25000	85	N	P
Selenium	ug/L	80 - 120	475		5.00	U	500	95		P
Silver	ug/L	85 - 116	64.1		1.00	U	500	13	N	P
Sodium	ug/L	85 - 117	49600		3910		50000	91		P
Thallium	ug/L	82 - 116	460		1.00	U	500	92		P
Vanadium	ug/L	86 - 115	471		0.53	J	500	94		P
Zinc	ug/L	83 - 119	4330		1.87	J	5000	87		P

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metals
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MATRIX SPIKE SUMMARY

client: Weston Solutions **level:** low **sdg no.:** Q1539

contract: WEST04 **lab code:** CHEM **case no.:** Q1539 **sas no.:** Q1539

matrix: Water **sample id:** Q1541-01 **client id:** 205703MS

Percent Solids for Sample: NA **Spiked ID:** Q1541-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.94		0.20	U	4.0	98		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Weston Solutions **level:** low **sdg no.:** Q1539

contract: WEST04 **lab code:** CHEM **case no.:** Q1539 **sas no.:** Q1539

matrix: Water **sample id:** Q1541-01 **client id:** 205703MSD

Percent Solids for Sample: NA **Spiked ID:** Q1541-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.82		0.20	U	4.0	96		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Matrix: Water **Level:** LOW **Client ID:** TAPFTA-MW01I-031025-00-T2A

Sample ID: Q1539-02 **Spiked ID:** Q1539-02A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	84 - 116	16.4		16.9		500	0		P
Barium	ug/L	86 - 114	2140		14.7		2500	85		P
Iron	ug/L	87 - 118	45100		24300		25000	83		P
Manganese	ug/L	87 - 115	4400		70.2		5000	87		P
Potassium	ug/L	87 - 115	22000		820		25000	85		P
Silver	ug/L	85 - 116	66.0		1.00	U	500	13		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions **Level:** LOW **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Matrix: Water **Sample ID:** Q1539-02 **Client ID:** TAPFTA-MW01I-031025-00-T2DUP

Percent Solids for Sample: NA **Duplicate ID** Q1539-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	67.3		85.8		24	*	P
Antimony	ug/L	20	2.00	U	2.00	U			P
Arsenic	ug/L	20	16.9		16.7		1		P
Barium	ug/L	20	14.7		15.1		3		P
Beryllium	ug/L	20	1.00	U	1.00	U			P
Cadmium	ug/L	20	1.00	U	1.00	U			P
Calcium	ug/L	20	1950		1930		1		P
Chromium	ug/L	20	0.65	J	0.70	J	7		P
Cobalt	ug/L	20	1.00	U	1.00	U			P
Copper	ug/L	20	0.75	J	0.62	J	19		P
Iron	ug/L	20	24300		24100		1		P
Lead	ug/L	20	0.40	J	0.41	J	2		P
Magnesium	ug/L	20	480	J	479	J	0		P
Manganese	ug/L	20	70.2		70.1		0		P
Nickel	ug/L	20	0.35	J	1.00	U	200.0		P
Potassium	ug/L	20	820		835		2		P
Selenium	ug/L	20	5.00	U	5.00	U			P
Silver	ug/L	20	1.00	U	1.00	U			P
Sodium	ug/L	20	3910		3940		1		P
Thallium	ug/L	20	1.00	U	1.00	U			P
Vanadium	ug/L	20	0.53	J	0.54	J	2		P
Zinc	ug/L	20	1.87	J	1.38	J	30		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions **Level:** LOW **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Matrix: Water **Sample ID:** Q1539-02MS **Client ID:** TAPFTA-MW01I-031025-00-T2MSD

Percent Solids for Sample: NA **Duplicate ID** Q1539-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	8610		9040		5		P
Antimony	ug/L	20	494		479		3		P
Arsenic	ug/L	20	16.2		16.0		1		P
Barium	ug/L	20	2190		2110		4		P
Beryllium	ug/L	20	430		421		2		P
Cadmium	ug/L	20	452		436		4		P
Calcium	ug/L	20	47500		47500		0		P
Chromium	ug/L	20	459		453		1		P
Cobalt	ug/L	20	473		461		3		P
Copper	ug/L	20	4270		4290		0		P
Iron	ug/L	20	44700		44400		1		P
Lead	ug/L	20	2360		2340		1		P
Magnesium	ug/L	20	46600		46300		1		P
Manganese	ug/L	20	4360		4350		0		P
Nickel	ug/L	20	465		460		1		P
Potassium	ug/L	20	21900		22000		0		P
Selenium	ug/L	20	490		475		3		P
Silver	ug/L	20	67.4		64.1		5		P
Sodium	ug/L	20	49600		49600		0		P
Thallium	ug/L	20	469		460		2		P
Vanadium	ug/L	20	478		471		1		P
Zinc	ug/L	20	4360		4330		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions **Level:** LOW **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Matrix: Water **Sample ID:** Q1541-01 **Client ID:** 205703DUP

Percent Solids for Sample: NA **Duplicate ID** Q1541-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	0.20	U	0.20	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions **Level:** LOW **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Matrix: Water **Sample ID:** Q1541-01MS **Client ID:** 205703MSD

Percent Solids for Sample: NA **Duplicate ID** Q1541-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	3.94		3.82		3		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167102BS							
Mercury	ug/L	4.0	3.63		91	82 - 119	CV

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167118BS							
Aluminum	ug/L	10000	9730		97	84 - 117	P
Antimony	ug/L	500	521		104	85 - 117	P
Arsenic	ug/L	500	507		101	84 - 116	P
Barium	ug/L	2500	2560		102	86 - 114	P
Beryllium	ug/L	500	449		90	83 - 121	P
Cadmium	ug/L	500	489		98	87 - 115	P
Calcium	ug/L	50000	50800		102	87 - 118	P
Chromium	ug/L	500	513		103	85 - 116	P
Cobalt	ug/L	500	509		102	86 - 115	P
Copper	ug/L	5000	5130		103	85 - 118	P
Iron	ug/L	25000	27200		109	87 - 118	P
Lead	ug/L	2500	2490		100	88 - 115	P
Magnesium	ug/L	50000	50800		102	83 - 118	P
Manganese	ug/L	5000	5110		102	87 - 115	P
Nickel	ug/L	500	513		103	85 - 117	P
Potassium	ug/L	25000	25300		101	87 - 115	P
Selenium	ug/L	500	518		104	80 - 120	P
Silver	ug/L	500	511		102	85 - 116	P
Sodium	ug/L	50000	51100		102	85 - 117	P
Thallium	ug/L	500	505		101	82 - 116	P
Vanadium	ug/L	500	511		102	86 - 115	P
Zinc	ug/L	5000	5200		104	83 - 119	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Case No.:** Q1539 **SAS No.:** Q1539

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
Q1168-08							
Mercury	ug/L	4.0	0.22		6	82 - 119	CV

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Weston Solutions | Contract: WEST04

Lab Code: CHEM | Case no.: Q1539 | Sas No.: Q1539 | SDG No.: Q1539

Instrument ID: P7 | Start Date : 03/23/2025

Run Number: LB135143 | End Date : 03/23/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1444	100		100		100		100		100	
S2	S2	1450	100		100		99		99		102	
S3	S3	1454	101		99		99		99		101	
S4	S4	1457	103		96		96		97		100	
S5	S5	1500	103		92		94		93		99	
S6	S6	1503	103		94		94		93		103	
S7	S7	1505	101		94		96		93		103	
S8	S8	1508	98		95		95		88		99	
ICV01	ICV01	1535	102		99		100		99		101	
LLICV	LLICV	1547	101		100		99		99		101	
ICB01	ICB01	1550	99		97		97		98		99	
ICSA01	ICSA01	1554	97		93		96		92		100	
ICSAB01	ICSAB01	1557	101		99		100		98		106	
CCV01	CCV01	1600	98		96		97		92		102	
CCB01	CCB01	1604	100		96		98		99		103	
CRI	CRI	1611	99		96		97		98		101	
PB167118BL	PB167118BL	1618	100		97		98		98		102	
PB167118BS	PB167118BS	1621	103		96		99		97		104	
Q1539-01	TAPIAL3-MW0	1624	109		103		108		106		110	
Q1539-02	TAPFTA-MW01	1627	106		104		106		107		111	
Q1539-02DUP	TAPFTA-MW01	1630	106		105		107		106		110	
Q1539-02L	TAPFTA-MW01	1634	99		98		99		100		103	
Q1539-02MS	TAPFTA-MW01	1637	108		104		105		104		109	
Q1539-02MSD	TAPFTA-MW01	1640	111		103		106		104		112	
Q1539-02A	TAPFTA-MW01	1643	110		104		106		103		113	
CCV02	CCV02	1645	101		95		97		92		103	
CCB02	CCB02	1653	99		96		98		98		102	

Internal Standard %RI Limit: 30 - 120

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FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Weston Solutions | Contract: WEST04

Lab Code: CHEM | Case no.: Q1539 | Sas No.: Q1539 | SDG No.: Q1539

Instrument ID: P7 | Start Date : 03/23/2025

Run Number: LB135143 | End Date : 03/23/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1444	100		100		100		100		100	
S2	S2	1450	99		102		100		100		99	
S3	S3	1454	100		98		100		101		99	
S4	S4	1457	97		96		99		99		100	
S5	S5	1500	95		95		95		99		101	
S6	S6	1503	96		96		96		101		100	
S7	S7	1505	96		95		94		101		100	
S8	S8	1508	100		98		90		97		98	
ICV01	ICV01	1535	100		100		102		101		100	
LLICV	LLICV	1547	100		99		101		102		100	
ICB01	ICB01	1550	98		98		99		99		97	
ICSA01	ICSA01	1554	95		96		94		99		98	
ICSAB01	ICSAB01	1557	98		99		96		102		101	
CCV01	CCV01	1600	99		97		93		100		100	
CCB01	CCB01	1604	98		99		101		102		101	
CRI	CRI	1611	97		100		100		102		99	
PB167118BL	PB167118BL	1618	99		99		101		103		100	
PB167118BS	PB167118BS	1621	99		99		98		103		102	
Q1539-01	TAPIAL3-MW0	1624	105		107		109		110		108	
Q1539-02	TAPFTA-MW01	1627	105		106		108		109		107	
Q1539-02DUP	TAPFTA-MW01	1630	105		106		106		107		105	
Q1539-02L	TAPFTA-MW01	1634	101		101		104		103		100	
Q1539-02MS	TAPFTA-MW01	1637	104		104		103		108		107	
Q1539-02MSD	TAPFTA-MW01	1640	105		106		105		111		110	
Q1539-02A	TAPFTA-MW01	1643	106		106		105		111		110	
CCV02	CCV02	1645	100		99		94		102		101	
CCB02	CCB02	1653	97		99		100		101		100	

Internal Standard %RI Limit: 30 - 120

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FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Weston Solutions | Contract: WEST04

Lab Code: CHEM | Case no.: Q1539 | Sas No.: Q1539 | SDG No.: Q1539

Instrument ID: P7 | Start Date : 03/23/2025

Run Number: LB135143 | End Date : 03/23/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1444	100		100							
S2	S2	1450	100		100							
S3	S3	1454	100		102							
S4	S4	1457	99		100							
S5	S5	1500	98		100							
S6	S6	1503	101		102							
S7	S7	1505	101		101							
S8	S8	1508	99		90							
ICV01	ICV01	1535	101		101							
LLICV	LLICV	1547	101		101							
ICB01	ICB01	1550	99		98							
ICSA01	ICSA01	1554	100		95							
ICSAB01	ICSAB01	1557	105		103							
CCV01	CCV01	1600	101		96							
CCB01	CCB01	1604	103		103							
CRI	CRI	1611	100		102							
PB167118BL	PB167118BL	1618	101		104							
PB167118BS	PB167118BS	1621	104		104							
Q1539-01	TAPIAL3-MW03	1624	109		112							
Q1539-02	TAPFTA-MW01I	1627	110		111							
Q1539-02DUP	TAPFTA-MW01I	1630	108		109							
Q1539-02L	TAPFTA-MW01I	1634	102		103							
Q1539-02MS	TAPFTA-MW01I	1637	108		108							
Q1539-02MSD	TAPFTA-MW01I	1640	110		110							
Q1539-02A	TAPFTA-MW01I	1643	111		112							
CCV02	CCV02	1645	103		98							
CCB02	CCB02	1653	102		104							

Internal Standard %RI Limit: 30 -120

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Fax : 908 789 8922

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Weston Solutions Contract: WEST04

Lab Code: CHEM Case no.: Q1539 Sas No.: Q1539 SDG No.: Q1539

Instrument ID: P7 Start Date : 03/23/2025

Run Number: LB135143 End Date : 03/23/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1444	100									
S2	S2	1450	100									
S3	S3	1454	101									
S4	S4	1457	100									
S5	S5	1500	100									
S6	S6	1503	100									
S7	S7	1505	97									
S8	S8	1508	89									
ICV01	ICV01	1535	101									
LLICV	LLICV	1547	102									
ICB01	ICB01	1550	99									
ICSA01	ICSA01	1554	96									
ICSAB01	ICSAB01	1557	100									
CCV01	CCV01	1600	93									
CCB01	CCB01	1604	104									
CRI	CRI	1611	101									
PB167118BL	PB167118BL	1618	103									
PB167118BS	PB167118BS	1621	101									
Q1539-01	TAPIAL3-MW03	1624	112									
Q1539-02	TAPFTA-MW01I	1627	109									
Q1539-02DUP	TAPFTA-MW01I	1630	109									
Q1539-02L	TAPFTA-MW01I	1634	104									
Q1539-02MS	TAPFTA-MW01I	1637	107									
Q1539-02MSD	TAPFTA-MW01I	1640	108									
Q1539-02A	TAPFTA-MW01I	1643	110									
CCV02	CCV02	1645	96									
CCB02	CCB02	1653	103									

Internal Standard %RI Limit: 30 -120

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TAPFTA-MW01I-031025-00-T2L

Lab Name: Chemtech Consulting Group **Contract:** WEST04

Lab Code: CHEM **Lb No.:** lb135143 **Lab Sample ID :** Q1539-02L **SDG No.:** Q1539

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	67.3		1490		2122		P
Antimony	2.00	U	10.0	U			P
Arsenic	16.9		17.1		1		P
Barium	14.7		18.8	J	28		P
Beryllium	1.00	U	5.00	U			P
Cadmium	1.00	U	5.00	U			P
Calcium	1950		1870	J	4		P
Chromium	0.65	J	1.85	J	185		P
Cobalt	1.00	U	5.00	U			P
Copper	0.75	J	10.0	U	100.0		P
Iron	24300		21800		10		P
Lead	0.40	J	5.00	U	100.0		P
Magnesium	480	J	487	J	1		P
Manganese	70.2		71.1		1		P
Nickel	0.35	J	5.00	U	100.0		P
Potassium	820		1030	J	25		P
Selenium	5.00	U	25.0	U			P
Silver	1.00	U	5.00	U			P
Sodium	3910		3280		16		P
Thallium	1.00	U	5.00	U			P
Vanadium	0.53	J	2.10	J	296		P
Zinc	1.87	J	12.4	J	563		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

205703L

Lab Name: Chemtech Consulting Group **Contract:** WEST04

Lab Code: CHEM **Lb No.:** lb134996 **Lab Sample ID :** Q1541-01L **SDG No.:** Q1539

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.20	U	1.00	U			CV

METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Method:**

Case No.: Q1539 **SAS No.:** Q1539

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167102**						
PB167102BL	PB167102BL	MB	WATER	03/11/2025	30.0	30.0	
PB167102BS	PB167102BS	LCS	WATER	03/11/2025	30.0	30.0	
Q1168-08	LOQ-WATER-02-QT1-2025	LCS	WATER	03/11/2025	30.0	30.0	
Q1539-01	TAPIAL3-MW03D-031025-00-T1	SAM	WATER	03/11/2025	30.0	30.0	
Q1539-02	TAPFTA-MW01I-031025-00-T2	SAM	WATER	03/11/2025	30.0	30.0	
Q1541-01DUP	205703DUP	DUP	WATER	03/11/2025	30.0	30.0	
Q1541-01MS	205703MS	MS	WATER	03/11/2025	30.0	30.0	
Q1541-01MSD	205703MSD	MSD	WATER	03/11/2025	30.0	30.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions **SDG No.:** Q1539

Contract: WEST04 **Lab Code:** CHEM **Method:**

Case No.: Q1539 **SAS No.:** Q1539

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167118**						
PB167118BL	PB167118BL	MB	WATER	03/13/2025	50.0	50.0	
PB167118BS	PB167118BS	LCS	WATER	03/13/2025	50.0	50.0	
Q1539-01	TAPIAL3-MW03D-031025-00-T1	SAM	WATER	03/13/2025	50.0	50.0	
Q1539-02	TAPFTA-MW01I-031025-00-T2	SAM	WATER	03/13/2025	50.0	50.0	
Q1539-02DUP	TAPFTA-MW01I-031025-00-T2DUP	DUP	WATER	03/13/2025	50.0	50.0	
Q1539-02MS	TAPFTA-MW01I-031025-00-T2MS	MS	WATER	03/13/2025	50.0	50.0	
Q1539-02MSD	TAPFTA-MW01I-031025-00-T2MSD	MSD	WATER	03/13/2025	50.0	50.0	

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metals
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ANALYSIS RUN LOG

Client: Weston Solutions **Contract:** WEST04

Lab code: CHEM **Case no.:** Q1539 **Sas no.:** Q1539 **Sdg no.:** Q1539

Instrument id number: **Method:** **Run number:** LB134996

Start date: 03/12/2025 **End date:** 03/12/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1041	HG
S0.2	S0.2	1	1043	HG
S2.5	S2.5	1	1045	HG
S5	S5	1	1048	HG
S7.5	S7.5	1	1050	HG
S10	S10	1	1055	HG
ICV38	ICV38	1	1100	HG
ICB38	ICB38	1	1102	HG
CCV86	CCV86	1	1110	HG
CCB86	CCB86	1	1112	HG
CRA	CRA	1	1115	HG
CCV87	CCV87	1	1143	HG
CCB87	CCB87	1	1146	HG
PB167102BL	PB167102BL	1	1204	HG
CCV88	CCV88	1	1254	HG
CCB88	CCB88	1	1256	HG
Q1168-08	LOQ-WATER-02-QT1-2025	1	1301	HG
Q1539-01	TAPIAL3-MW03D-031025-00-T	1	1304	HG
Q1539-02	TAPFTA-MW01I-031025-00-T2	1	1306	HG
Q1541-01DUP	205703DUP	1	1310	HG
Q1541-01MS	205703MS	1	1313	HG
Q1541-01MSD	205703MSD	1	1315	HG
CCV89	CCV89	1	1317	HG
CCB89	CCB89	1	1320	HG
PB167102BS	PB167102BS	1	1322	HG
Q1541-01L	205703L	5	1331	HG
CCV90	CCV90	1	1346	HG
CCB90	CCB90	1	1348	HG

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metals
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ANALYSIS RUN LOG

Client: Weston Solutions **Contract:** WEST04

Lab code: CHEM **Case no.:** Q1539 **Sas no.:** Q1539 **Sdg no.:** Q1539

Instrument id number: **Method:** **Run number:** LB135143

Start date: 03/23/2025 **End date:** 03/23/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1444	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1450	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1454	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1457	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S6	S6	1	1503	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S7	S7	1	1505	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S8	S8	1	1508	Al,Ca,Fe,K,Mg,Na
ICV01	ICV01	1	1535	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV	LLICV	1	1547	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1550	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1554	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1557	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1600	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1604	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI	CRI	1	1611	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167118BL	PB167118BL	1	1618	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167118BS	PB167118BS	1	1621	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-01	TAPIAL3-MW03D-031025-00-T	1	1624	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02	TAPFTA-MW01I-031025-00-T2	1	1627	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02DUP	TAPFTA-MW01I-031025-00-T2	1	1630	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02L	TAPFTA-MW01I-031025-00-T2	5	1634	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02MS	TAPFTA-MW01I-031025-00-T2	1	1637	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02MSD	TAPFTA-MW01I-031025-00-T2	1	1640	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1539-02A	TAPFTA-MW01I-031025-00-T2	1	1643	Ag,As,Ba,Fe,K,Mn
CCV02	CCV02	1	1645	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1653	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1731	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1737	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1820	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1825	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

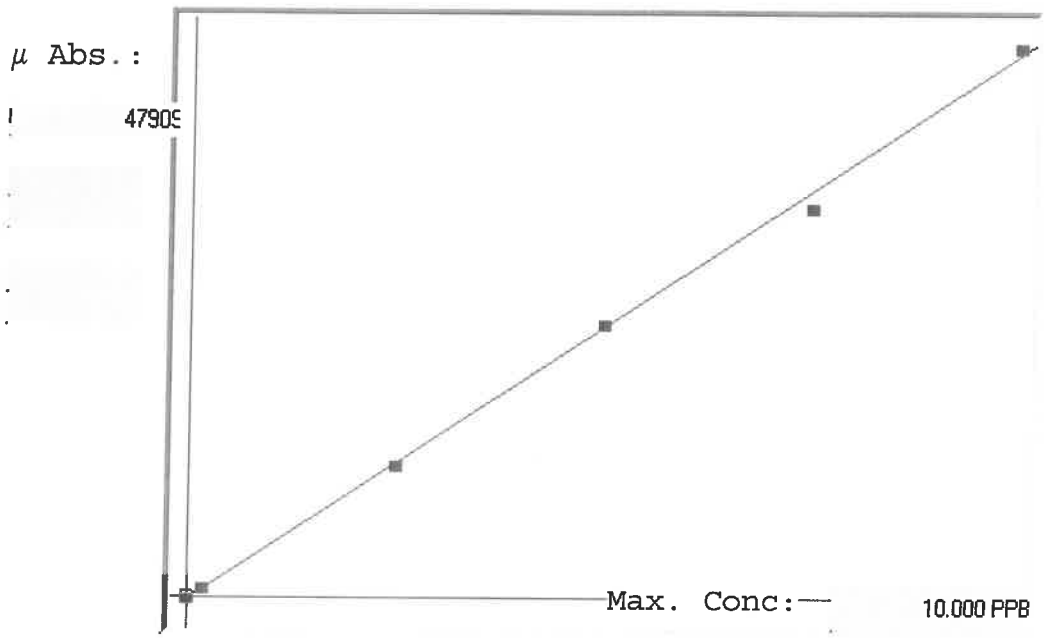
Reviewed By:jaswal
On:3/14/2025 1:48:29 PM
Inst Id :CV1
LB :LB134996

LB134996

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.1091e-004

C= 4.3678e-002

Rho= 0.9993816

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	D/D
0.0	0.000	0.009	0.009	-164	0.000	-164	0				-
0.2	0.200	0.230	0.030	883	0.0 %	883					15
2.5	2.500	2.495	-0.005	11622	0.0 %	11622					0
5.0	5.000	5.084	0.084	23899	0.0 %	23899					2
7.5	7.500	7.234	-0.266	34090	0.0 %	34090					-4
10.0	10.000	10.148	0.148	47909	0.0 %	47909					1

Reviewed By:jaswal
On:3/14/2025 1:48:29 PM
Inst Id :CV1
LB :LB134996

LB134996 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 12 Mar 2025 10:26:20

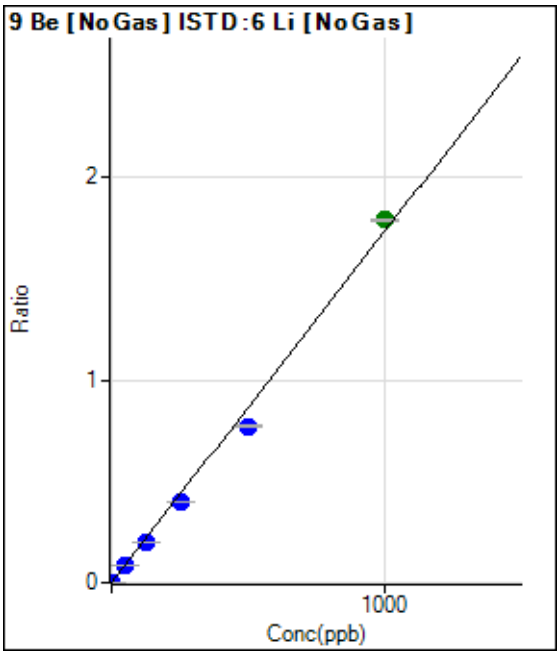
Sample ID	Extended ID	µ Abs	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	50	-164	-	0.00000	7470A	PPB	12 Mar 2025 10:41:11	S	Std
0.2 - 1	80 2	883	-	0.20000	7470A	PPB	12 Mar 2025 10:43:28	S	Std
2.5 - 1	32.5	11622	-	2.50000	7470A	PPB	12 Mar 2025 10:45:45	S	Std
5.0 - 1	55	23899	-	5.00000	7470A	PPB	12 Mar 2025 10:48:02	S	Std
7.5 - 1	325	34090	-	7.50000	7470A	PPB	12 Mar 2025 10:50:20	S	Std
10.0 - 1	5+	47909	-	10.00000	7470A	PPB	12 Mar 2025 10:55:16	S	Std
ICV38 - 1	ICV38	17083	3.6467		7470A	PPB	12 Mar 2025 11:00:40	U	SMPL
ICB38 - 1	ICB38	-284	-0.0162		7470A	PPB	12 Mar 2025 11:02:56	U	SMPL
CCV86 - 1	CCV86	22775	4.8472		7470A	PPB	12 Mar 2025 11:10:37	U	SMPL
CCB86 - 1	CCB86	-268	-0.0128		7470A	PPB	12 Mar 2025 11:12:52	U	SMPL
CRA - 1	CRA	830	0.2187		7470A	PPB	12 Mar 2025 11:15:09	U	SMPL
HighStd - 1	HighStd	44722	9.4760		7470A	PPB	12 Mar 2025 11:17:24	U	SMPL
ChkStd - 1	ChkStd	30059	6.3835		7470A	PPB	12 Mar 2025 11:25:36	U	SMPL
PB167093BL - 1	PBW	-135	0.0152		7470A	PPB	12 Mar 2025 11:27:52	U	SMPL
PB167093BS - 1	LCSW	19950	4.2514		7470A	PPB	12 Mar 2025 11:30:11	U	SMPL
Q1523-03 - 1	WC-A1-01-C	-218	-0.0023		7470A	PPB	12 Mar 2025 11:32:27	U	SMPL
Q1523-06 - 1	WC-A2-02-C	-25	0.0384		7470A	PPB	12 Mar 2025 11:34:47	U	SMPL
Q1534-06 - 1	OR-363-COMP-16	-23	0.0388		7470A	PPB	12 Mar 2025 11:37:04	U	SMPL
Q1534-12 - 1	OR-363-COMP-17	-5	0.0426		7470A	PPB	12 Mar 2025 11:39:21	U	SMPL
Q1534-18 - 1	OR-363-COMP-18	1	0.0439		7470A	PPB	12 Mar 2025 11:41:36	U	SMPL
CCV87 - 1	CCV87	22568	4.8035		7470A	PPB	12 Mar 2025 11:43:51	U	SMPL
CCB87 - 1	CCB87	-290	-0.0175		7470A	PPB	12 Mar 2025 11:46:06	U	SMPL
Q1534-24 - 1	OR-363OR-363-COMP-19-	50	0.0542		7470A	PPB	12 Mar 2025 11:48:24	U	SMPL
Q1537-05 - 1	COMP-1	30	0.0500		7470A	PPB	12 Mar 2025 11:50:40	U	SMPL
Q1537-06 - 1	COMP-2	-1	0.0435		7470A	PPB	12 Mar 2025 11:52:55	U	SMPL
Q1537-07 - 1	COMP-3	20	0.0479		7470A	PPB	12 Mar 2025 11:55:10	U	SMPL
Q1537-07DUP - 1	COMP-3DUP	-27	0.0380		7470A	PPB	12 Mar 2025 11:57:26	U	SMPL
Q1537-07MS - 1	COMP-3MS	14456	3.0926		7470A	PPB	12 Mar 2025 11:59:43	U	SMPL
Q1537-07MSD - 1	COMP-3MSD	13776	2.9492		7470A	PPB	12 Mar 2025 12:02:00	U	SMPL
PB167102BL - 1	PBW	103	0.0654		7470A	PPB	12 Mar 2025 12:04:19	U	SMPL
Q1168-07 - 1	LOD-MDL-WATER-01-QT1-2025	19	0.0477		7470A	PPB	12 Mar 2025 12:32:19	U	SMPL
CCV88 - 1	CCV88	22439	4.7763		7470A	PPB	12 Mar 2025 12:54:14	U	SMPL
CCB88 - 1	CCB88	-143	0.0135		7470A	PPB	12 Mar 2025 12:56:45	U	SMPL
Q1168-08 - 1	LOQ-WATER-02-QT1-2025	836	0.2200		7470A	PPB	12 Mar 2025 13:01:51	U	SMPL
Q1539-01 - 1	TAPIAL3-MW03D-031025-00-T1	265	0.0996		7470A	PPB	12 Mar 2025 13:04:07	U	SMPL
Q1539-02 - 1	TAPFTA-MW01I-031025-00-T2	99	0.0646		7470A	PPB	12 Mar 2025 13:06:22	U	SMPL
Q1541-01 - 1	205703	-131	0.0160		7470A	PPB	12 Mar 2025 13:08:38	U	SMPL
Q1541-01DUP - 1	205703DUP	-39	0.0355		7470A	PPB	12 Mar 2025 13:10:54	U	SMPL
Q1541-01MS - 1	205703MS	18459	3.9369		7470A	PPB	12 Mar 2025 13:13:11	U	SMPL
Q1541-01MSD - 1	205703MSD	17915	3.8222		7470A	PPB	12 Mar 2025 13:15:28	U	SMPL
CCV89 - 1	CCV89	22889	4.8712		7470A	PPB	12 Mar 2025 13:17:46	U	SMPL
CCB89 - 1	CCB89	-135	0.0152		7470A	PPB	12 Mar 2025 13:20:05	U	SMPL
PB167102BS - 1	LCSW	17016	3.6325		7470A	PPB	12 Mar 2025 13:22:22	U	SMPL
PB167049TB - 1	PB167049TB	-249	-0.0088		7470A	PPB	12 Mar 2025 13:24:38	U	SMPL
Q1537-07LX5 - 1		3	0.0443		7470A	PPB	12 Mar 2025 13:26:56	U	SMPL
Q1537-07A - 1		18159	3.8736		7470A	PPB	12 Mar 2025 13:29:12	U	SMPL
Q1541-01LX5 - 1		-101	0.0224		7470A	PPB	12 Mar 2025 13:31:27	U	SMPL
Q1541-01A - 1		18521	3.9500		7470A	PPB	12 Mar 2025 13:33:45	U	SMPL
CCV90 - 1	CCV90	24596	5.2313		7470A	PPB	12 Mar 2025 13:46:04	U	SMPL
CCB90 - 1	CCB90	-165	0.0089		7470A	PPB	12 Mar 2025 13:48:19	U	SMPL

Calibration for 006CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7032325MS2.b\
Analysis File: P7032325MS2.batch.bin
DA Date-Time: 2025-03-23 23:35:45
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-03-23 14:44:14
2	006CALS.d	S02	2025-03-23 14:50:49
3	007CALS.d	S03	2025-03-23 14:54:06
4	008CALS.d	S04	2025-03-23 14:57:15
5	009CALS.d	S05	2025-03-23 15:00:12
6	010CALS.d	S06	2025-03-23 15:03:06
7	011CALS.d	S07	2025-03-23 15:05:49
8	012CALS.d	S08	2025-03-23 15:08:36

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



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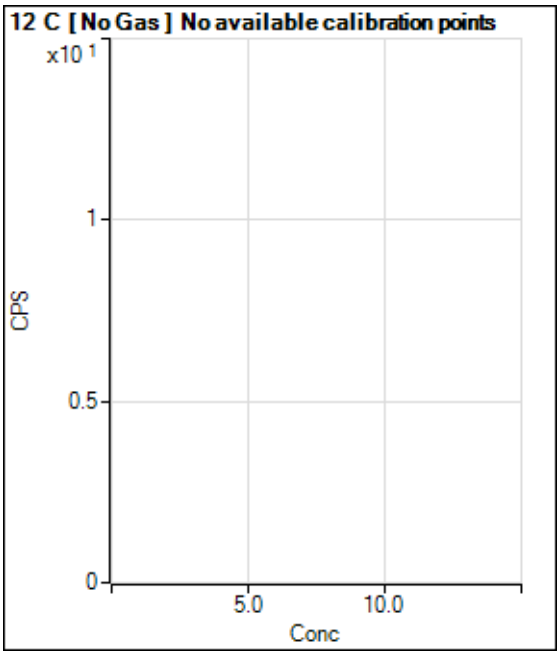
1	☐	0.000	0.000	71.11	0.0001	P	17.3
2	☐	1.000	0.885	962.26	0.0017	P	9.4
3	☐	50.000	47.159	48051.82	0.0818	P	0.4
4	☐	125.000	116.649	120861.88	0.2023	P	0.3
5	☐	250.000	231.720	239700.97	0.4017	P	0.8
6	☐	500.000	444.753	461777.90	0.7709	P	1.2
7	☐	1000.000	1033.379	1050200.88	1.7910	A	0.9
8	☐			160.00	0.0003	P	9.1

y = 0.0017 * x + 1.2222E-004
R = 0.9976
DL = 0.03668
BEC = 0.07052

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐						
3	☐						
4	☐						
5	☐						
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Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
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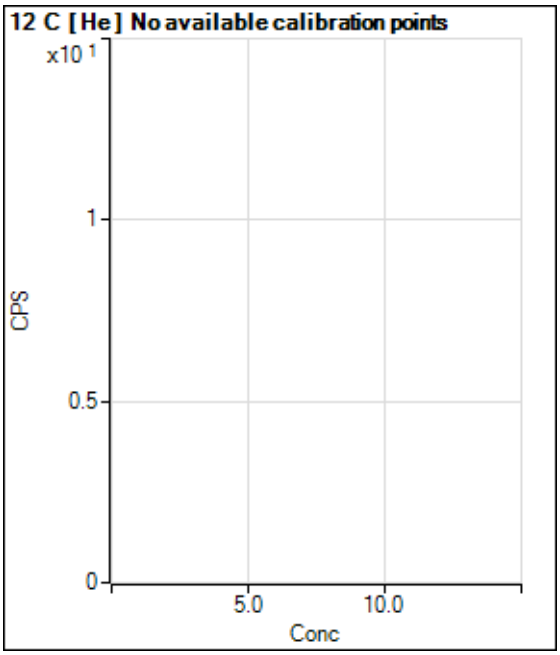

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐						
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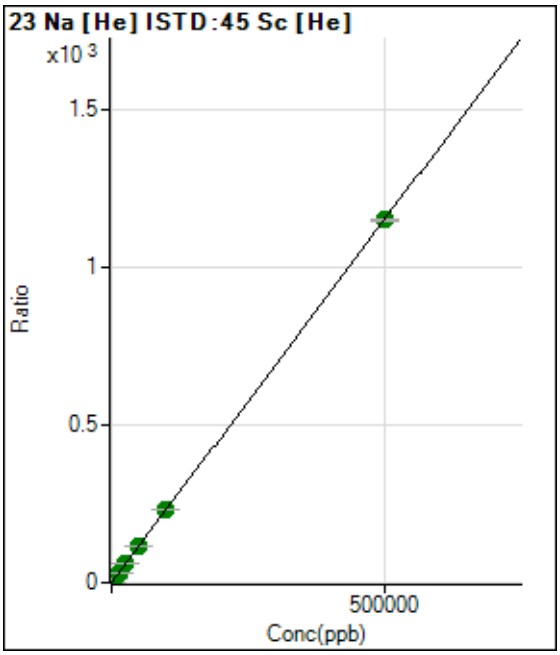
6	☐						
7	☐						
8	☐						



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2	☐	500.000	424.860	217365.99	1.0471	P	0.8
3	☐	5000.000	5135.116	2482895.33	11.8776	A	1.2
4	☐	12500.000	12916.095	6041764.28	29.7687	A	0.2
5	☐	25000.000	26075.004	11861172.60	60.0254	A	0.3
6	☐	50000.000	51073.646	23538065.76	117.5058	A	1.7
7	☐	100000.00	100402.53	46492935.42	230.9295	A	1.7
8	☐	500000.00	499746.70	239983858.6	1,149.156	A	0.4

y = 0.0023 * x + 0.0702
R = 1.0000
DL = 0.4306
BEC = 30.54

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
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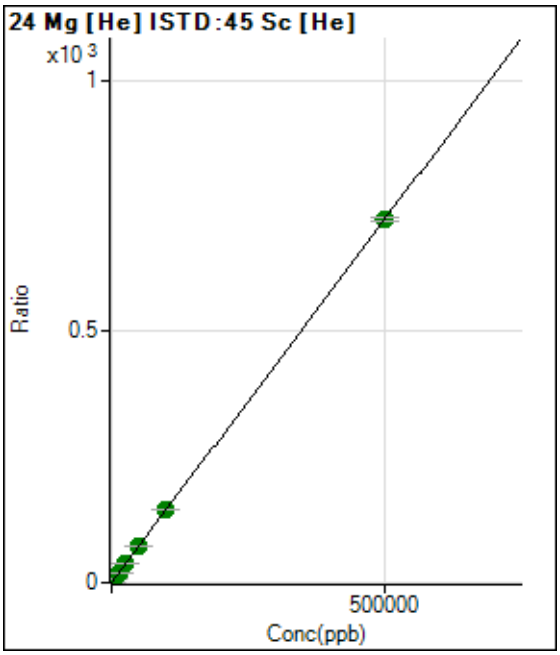
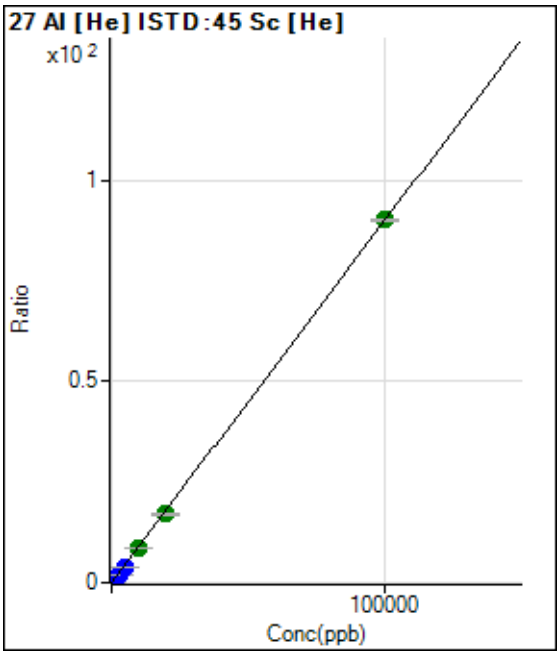


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	397.78	0.0019	P	17.8
2	☐	500.000	432.527	130050.05	0.6265	P	0.3
3	☐	5000.000	5131.549	1549518.62	7.4120	A	1.0
4	☐	12500.000	13041.560	3822568.66	18.8344	A	0.8
5	☐	25000.000	25873.537	7383059.89	37.3642	A	1.1
6	☐	50000.000	50741.419	14676447.28	73.2744	A	2.0
7	☐	100000.00	100302.14	29161755.67	144.8419	A	1.0
8	☐	500000.00	499806.96	150720117.7	721.7415	A	1.0

y = 0.0014 * x + 0.0019
R = 1.0000
DL = 0.704
BEC = 1.318

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	20.000	17.833	3477.10	0.0168	P	2.4
3	☐	1000.000	884.963	166347.26	0.7958	P	1.6
4	☐	2500.000	2168.498	395560.95	1.9490	P	0.7
5	☐	5000.000	4301.600	763815.24	3.8655	P	0.6
6	☐	10000.000	9635.075	1734084.31	8.6573	A	1.1
7	☐	20000.000	19001.464	3437205.85	17.0725	A	2.2
8	☐	100000.00	100280.55	18815082.50	90.0971	A	0.5

y = 8.9844E-004 * x + 7.2879E-004
R = 0.9999
DL = 0.1333
BEC = 0.8112

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
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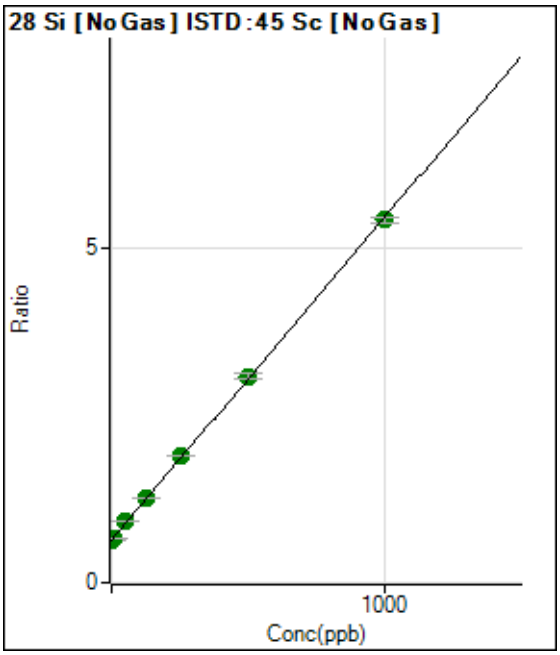
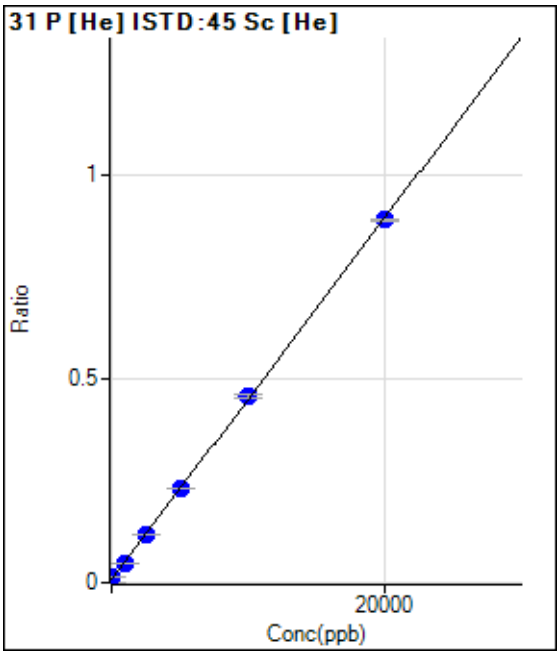


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1520934.98	0.6380	A	0.6
2	☐	10.000	4.611	1570279.42	0.6603	A	1.8
3	☐	50.000	56.705	2150771.53	0.9114	A	0.1
4	☐	125.000	130.324	2911042.18	1.2663	A	1.1
5	☐	250.000	260.981	4173933.65	1.8961	A	0.4
6	☐	500.000	507.911	6906126.98	3.0864	A	2.9
7	☐	1000.000	992.353	12146220.65	5.4217	A	1.5
8	☐			1521554.20	0.6696	A	2.1

y = 0.0048 * x + 0.6380
R = 0.9998
DL = 2.238
BEC = 132.4

Weight: <None>
Min Conc: 0

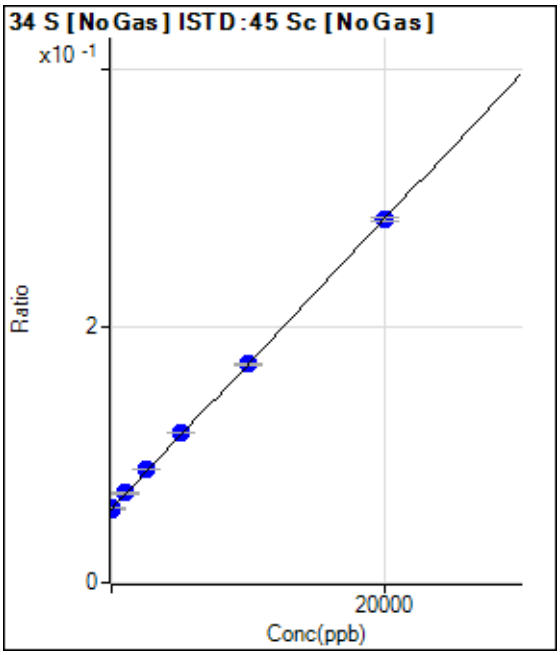


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-128.741	300.01	0.0014	P	10.5
2	☐	0.000	128.741	2673.60	0.0129	P	4.1
3	☐	1000.000	938.654	10216.84	0.0489	P	1.8
4	☐	2500.000	2513.518	24122.41	0.1189	P	1.8
5	☐	5000.000	5041.042	45681.36	0.2312	P	0.2
6	☐	10000.000	10178.183	92027.74	0.4595	P	1.7
7	☐	20000.000	19902.026	179517.72	0.8916	P	0.3
8	☐			358.90	0.0017	P	19.0

y = 4.4440E-005 * x + 0.0072
R = 0.9999
DL = 22.86
BEC = 161.1

Weight: <None>
Min Conc: 0

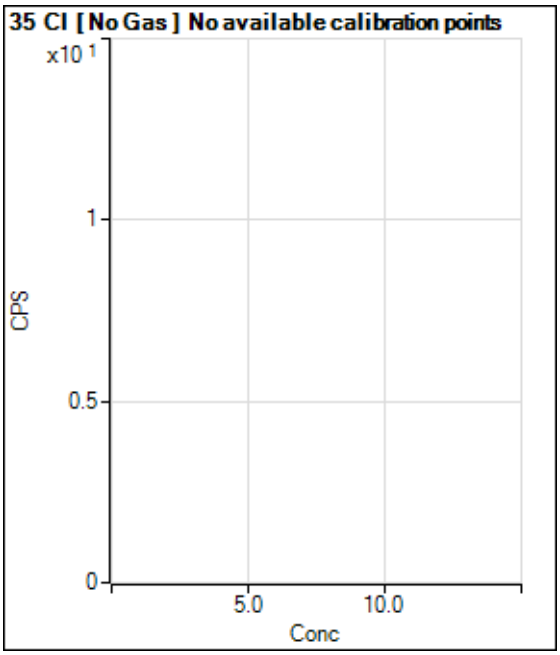
Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-96.095	134598.69	0.0565	P	0.4
2	☐	0.000	96.095	139471.34	0.0586	P	0.6
3	☐	1000.000	1098.749	165126.64	0.0700	P	1.8
4	☐	2500.000	2747.918	203770.74	0.0886	P	0.8
5	☐	5000.000	5256.879	257592.91	0.1170	P	0.5
6	☐	10000.000	9960.401	380943.28	0.1702	P	0.3
7	☐	20000.000	19919.653	633721.48	0.2829	P	1.1
8	☐			136565.98	0.0601	P	5.1

y = 1.1312E-005 * x + 0.0576
R = 0.9998
DL = 76.98
BEC = 5088

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐						
3	☐						
4	☐						
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Reviewed By:jaswal
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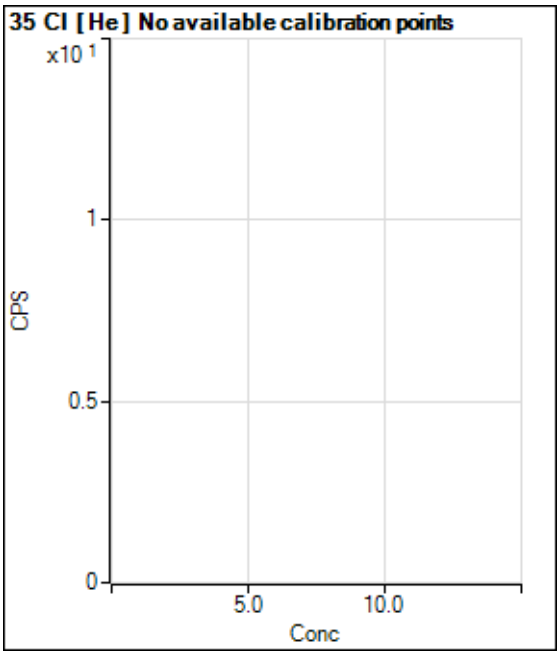

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐						
3	☐						
4	☐						
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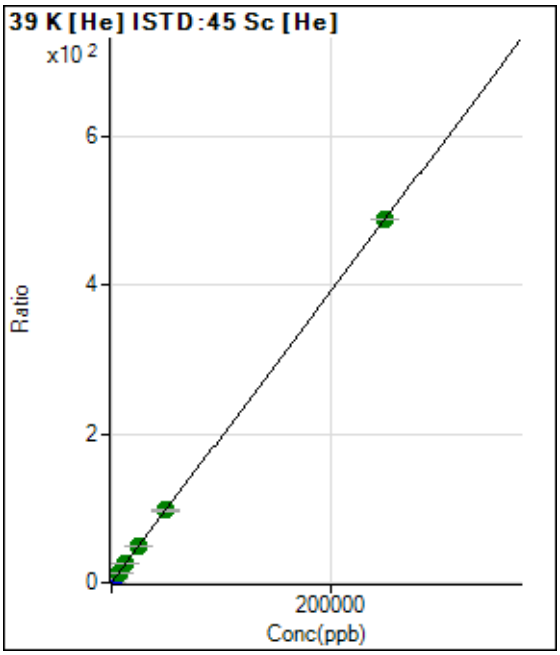
6	☐						
7	☐						
8	☐						

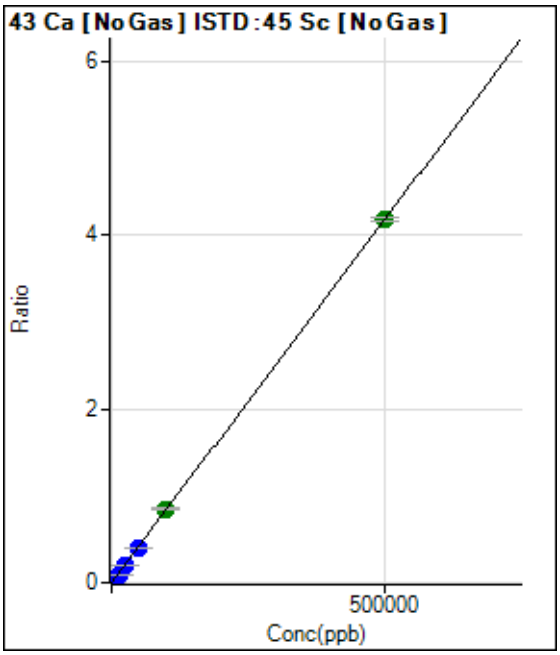


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59040.45	0.2826	P	0.7
2	☐	500.000	449.038	240157.54	1.1569	P	0.9
3	☐	2500.000	2383.979	1029389.14	4.9243	P	0.7
4	☐	6250.000	6345.565	2564852.91	12.6377	A	1.4
5	☐	12500.000	12610.200	4907378.68	24.8352	A	1.1
6	☐	25000.000	25095.212	9844639.65	49.1440	A	0.8
7	☐	50000.000	49708.098	19542693.04	97.0662	A	1.2
8	☐	250000.00	250042.22	101729151.8	487.1243	A	0.2

y = 0.0019 * x + 0.2826
R = 1.0000
DL = 3.137
BEC = 145.2

Weight: <None>
Min Conc: 0

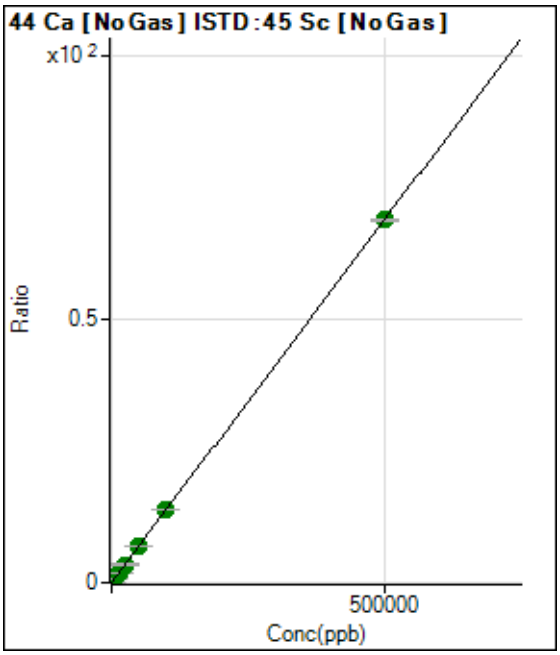
Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.35	0.0002	P	8.4
2	☐	500.000	443.028	9310.71	0.0039	P	1.6
3	☐	5000.000	4744.973	93897.37	0.0398	P	0.9
4	☐	12500.000	11768.348	226130.56	0.0984	P	1.3
5	☐	25000.000	23753.922	436564.38	0.1983	P	0.6
6	☐	50000.000	46936.461	876410.01	0.3917	P	1.6
7	☐	100000.00	101459.96	1895811.72	0.8464	A	3.2
8	☐	500000.00	500097.56	9478477.91	4.1709	A	1.2

y = 8.3397E-006 * x + 2.1956E-004
R = 1.0000
DL = 6.628
BEC = 26.33

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13406.41	0.0056	P	1.9
2	☐	500.000	448.778	160554.02	0.0675	P	1.0
3	☐	5000.000	5115.259	1677682.09	0.7109	A	0.9
4	☐	12500.000	12589.290	4003663.14	1.7415	A	0.7
5	☐	25000.000	25017.594	7606052.94	3.4552	A	1.3
6	☐	50000.000	50111.999	15474881.71	6.9153	A	1.6
7	☐	100000.00	100292.36	30992951.48	13.8345	A	1.3
8	☐	500000.00	499926.11	156666081.0	68.9380	A	0.8

y = 1.3789E-004 * x + 0.0056
R = 1.0000
DL = 2.31
BEC = 40.79

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
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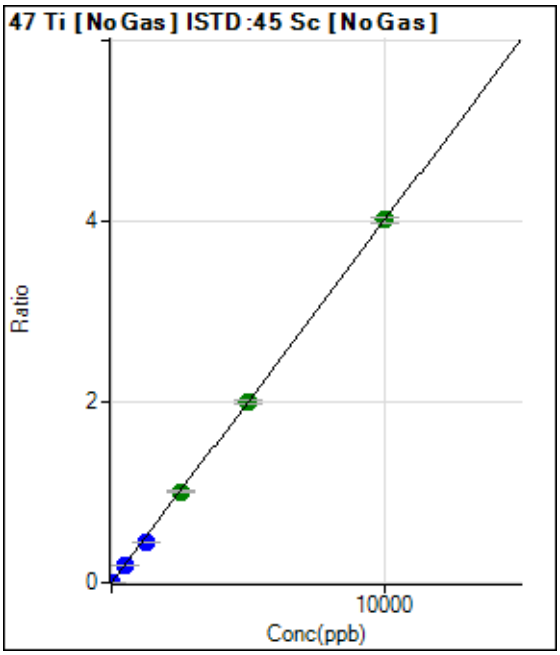
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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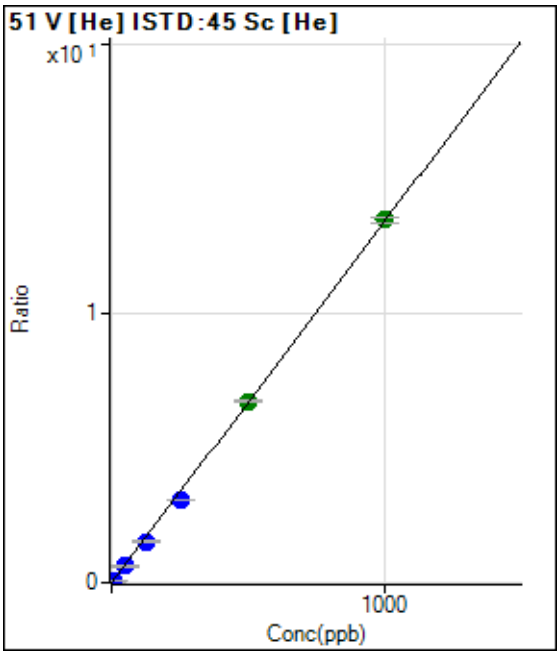
2	☐	5.000	4.417	4267.31	0.0018	P	3.0
3	☐	500.000	454.957	430752.39	0.1825	P	0.4
4	☐	1250.000	1124.457	1037067.72	0.4511	P	1.5
5	☐	2500.000	2511.802	2218193.98	1.0077	A	1.2
6	☐	5000.000	5003.813	4491761.32	2.0073	A	2.2
7	☐	10000.000	10013.088	8998323.41	4.0169	A	1.9
8	☐			422.23	0.0002	P	11.3

y = 4.0116E-004 * x + 2.2362E-005
R = 0.9999
DL = 0.06808
BEC = 0.05574

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.11	0.0001	P	40.5
2	☐	5.000	4.464	12456.34	0.0600	P	1.6
3	☐	50.000	45.433	127393.13	0.6094	P	0.9
4	☐	125.000	114.370	311302.18	1.5339	P	1.0
5	☐	250.000	229.721	608754.64	3.0807	P	0.5
6	☐	500.000	503.214	1351667.72	6.7483	A	1.3
7	☐	1000.000	1005.022	2713594.35	13.4776	A	1.3
8	☐			646.69	0.0031	P	11.2

y = 0.0134 * x + 1.4886E-004
R = 0.9998
DL = 0.01347
BEC = 0.0111

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
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Inst Id :P7
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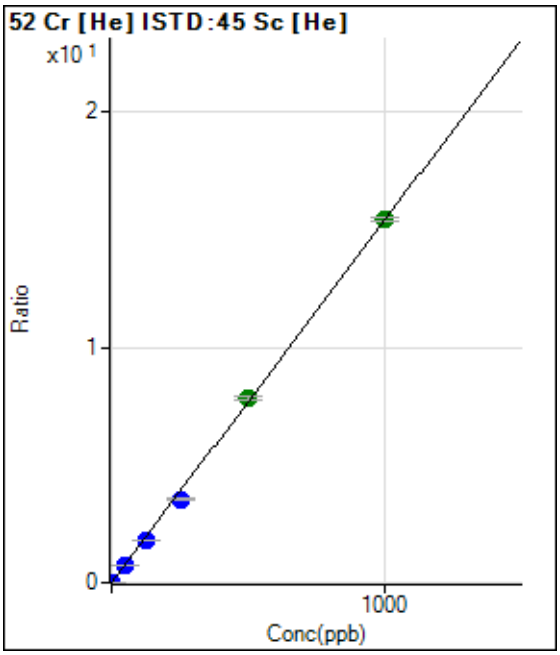

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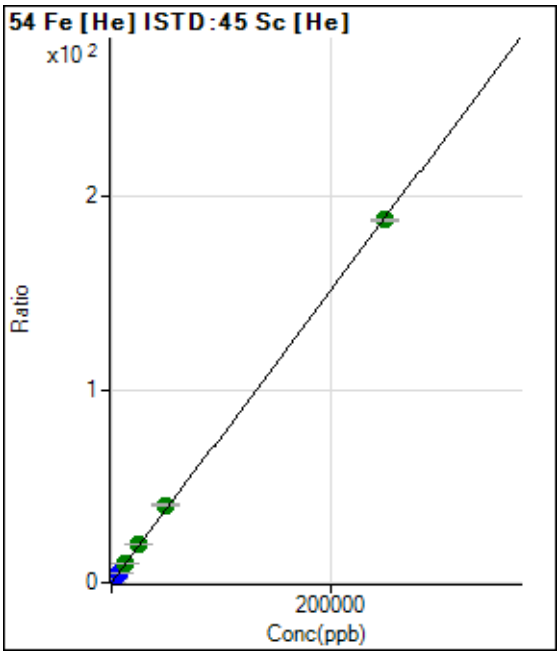
1	☐	0.000	0.000	536.68	0.0026	P	8.5
2	☐	2.000	1.807	6304.71	0.0304	P	2.0
3	☐	50.000	46.071	148742.32	0.7115	P	0.9
4	☐	125.000	115.845	362326.93	1.7853	P	0.7
5	☐	250.000	230.582	701665.64	3.5509	P	0.4
6	☐	500.000	508.884	1569158.74	7.8336	A	2.2
7	☐	1000.000	1001.754	3104307.84	15.4181	A	1.2
8	☐			16728.26	0.0801	P	1.6

y = 0.0154 * x + 0.0026
R = 0.9997
DL = 0.0424
BEC = 0.167

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3510.44	0.0168	P	0.7
2	☐	50.000	50.086	11326.57	0.0546	P	1.3
3	☐	2500.000	2594.464	412350.01	1.9727	P	1.7
4	☐	6250.000	6405.229	983431.03	4.8455	P	0.6
5	☐	12500.000	13746.546	2051018.01	10.3799	A	1.0
6	☐	25000.000	26804.341	4050679.21	20.2238	A	1.6
7	☐	50000.000	53369.533	8104147.52	40.2505	A	1.5
8	☐	250000.00	249078.50	39216394.97	187.7895	A	0.6

y = 7.5387E-004 * x + 0.0168
R = 0.9999
DL = 0.4901
BEC = 22.29

Weight: <None>
Min Conc: 0

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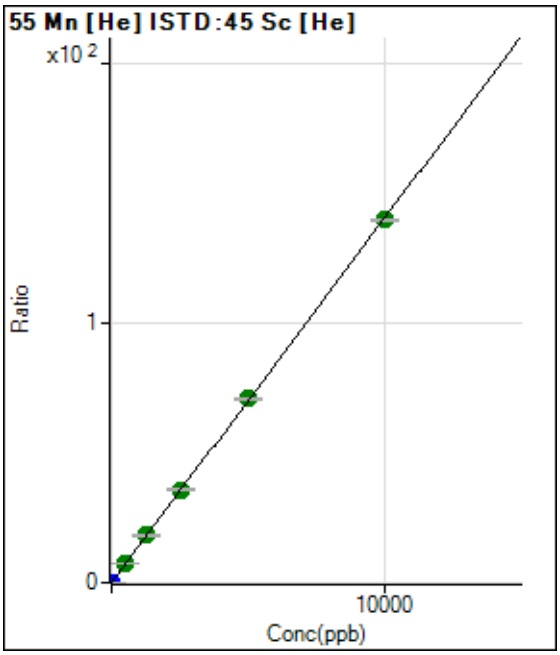
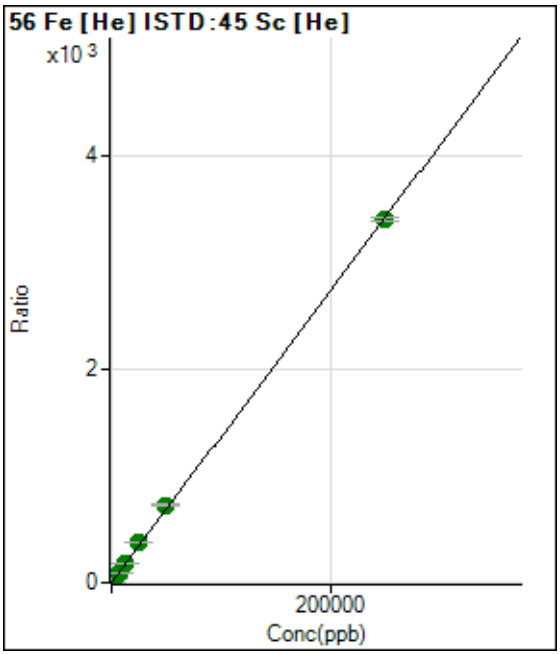
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1388.97	0.0066	P	5.8
2	☐	1.000	0.857	3873.88	0.0187	P	5.7
3	☐	500.000	508.897	1492949.87	7.1418	A	0.6
4	☐	1250.000	1294.275	3684371.99	18.1534	A	0.6
5	☐	2500.000	2558.376	7089224.27	35.8771	A	0.6
6	☐	5000.000	5045.466	14171602.71	70.7481	A	0.6
7	☐	10000.000	9956.694	28108357.36	139.6074	A	0.5
8	☐			13707.44	0.0656	P	4.0

y = 0.0140 * x + 0.0066
R = 1.0000
DL = 0.08188
BEC = 0.4743

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30328.34	0.1452	P	1.3
2	☐	50.000	49.806	171232.28	0.8249	P	0.5
3	☐	2500.000	2747.467	7867808.77	37.6390	A	1.2
4	☐	6250.000	6862.138	19035320.55	93.7905	A	0.6
5	☐	12500.000	13739.246	37077245.28	187.6402	A	0.5
6	☐	25000.000	27179.989	74328983.34	371.0616	A	0.2
7	☐	50000.000	53295.793	146456988.9	727.4554	A	1.9
8	☐	250000.00	249043.10	709758202.7	3,398.754	A	1.1

y = 0.0136 * x + 0.1452
R = 0.9999
DL = 0.4198
BEC = 10.64

Weight: <None>
Min Conc: 0

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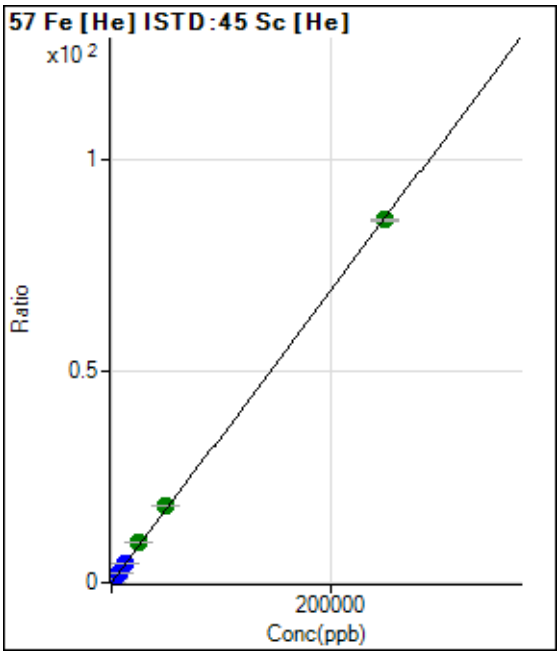
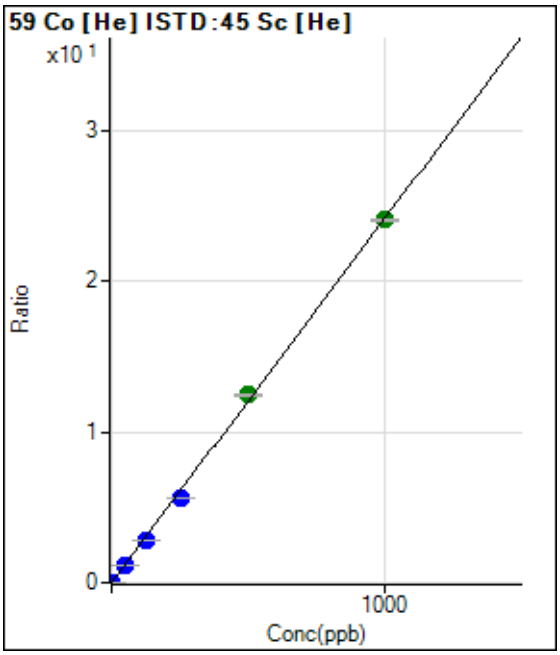
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1568.99	0.0075	P	8.3
2	☐	50.000	54.688	5468.83	0.0263	P	3.3
3	☐	2500.000	2568.592	186472.88	0.8921	P	1.2
4	☐	6250.000	6386.379	447886.02	2.2068	P	0.8
5	☐	12500.000	12795.548	872199.83	4.4140	P	0.3
6	☐	25000.000	27216.714	1879073.85	9.3803	A	1.1
7	☐	50000.000	53002.681	3676684.25	18.2604	A	0.9
8	☐	250000.00	249158.91	17920426.40	85.8119	A	0.8

y = 3.4438E-004 * x + 0.0075
R = 0.9999
DL = 5.417
BEC = 21.81

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	237.78	0.0011	P	5.9
2	☐	1.000	0.921	4844.16	0.0233	P	1.7
3	☐	50.000	46.476	234365.20	1.1212	P	1.0
4	☐	125.000	116.286	568979.44	2.8035	P	1.6
5	☐	250.000	231.330	1101800.57	5.5759	P	0.4
6	☐	500.000	516.645	2494131.68	12.4517	A	0.8
7	☐	1000.000	997.611	4840702.39	24.0425	A	0.5
8	☐			12143.88	0.0582	P	0.7

y = 0.0241 * x + 0.0011
R = 0.9996
DL = 0.008325
BEC = 0.04723

Weight: <None>
Min Conc: 0

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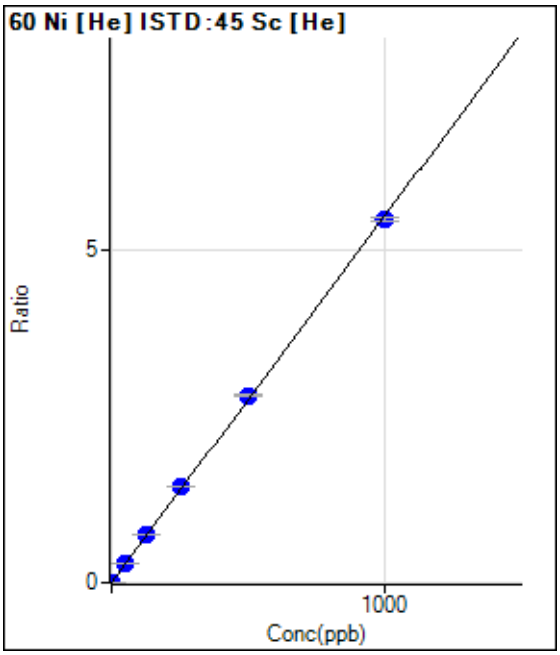
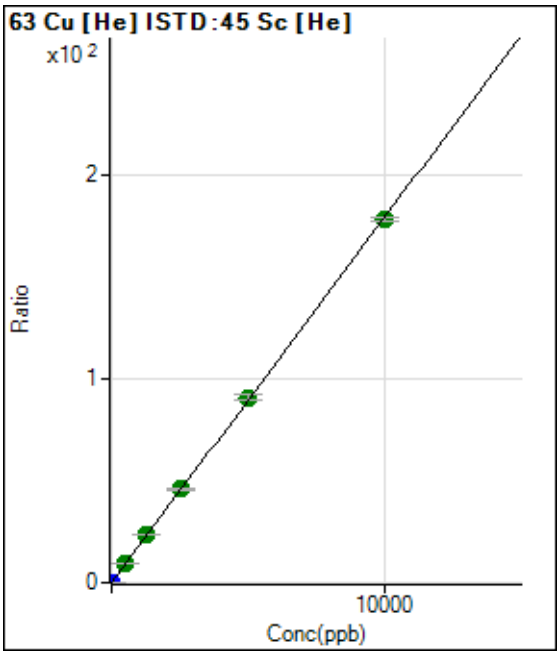


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	294.45	0.0014	P	15.8
2	☐	1.000	0.871	1285.63	0.0062	P	1.8
3	☐	50.000	52.649	60721.20	0.2905	P	1.4
4	☐	125.000	131.228	146525.33	0.7219	P	0.7
5	☐	250.000	261.064	283524.27	1.4348	P	0.3
6	☐	500.000	511.544	562855.25	2.8102	P	1.5
7	☐	1000.000	990.551	1095336.27	5.4403	P	1.2
8	☐			4855.28	0.0233	P	3.0

y = 0.0055 * x + 0.0014
R = 0.9998
DL = 0.1213
BEC = 0.2566

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2762.50	0.0132	P	4.3
2	☐	2.000	1.681	8983.86	0.0433	P	2.2
3	☐	500.000	522.982	1957136.90	9.3617	A	0.4
4	☐	1250.000	1307.085	4744723.54	23.3778	A	0.4
5	☐	2500.000	2570.814	9082823.27	45.9675	A	1.5
6	☐	5000.000	5078.203	18182838.20	90.7880	A	2.4
7	☐	10000.000	9934.911	35759122.25	177.6034	A	1.0
8	☐			9679.89	0.0464	P	1.3

y = 0.0179 * x + 0.0132
R = 0.9999
DL = 0.09442
BEC = 0.7398

Weight: <None>
Min Conc: 0

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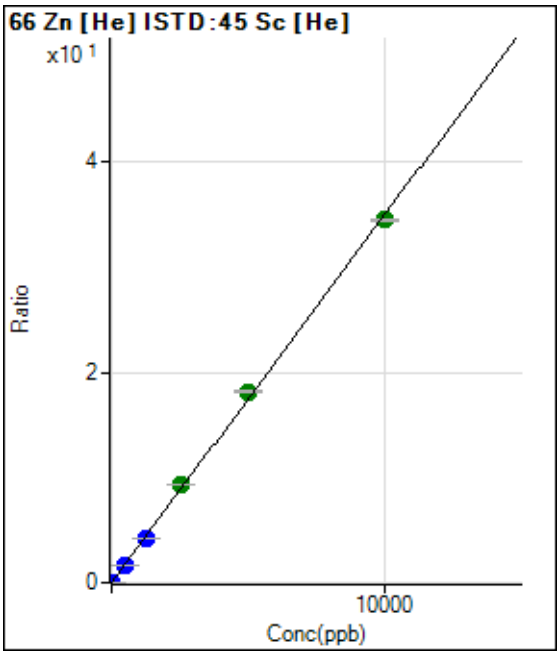
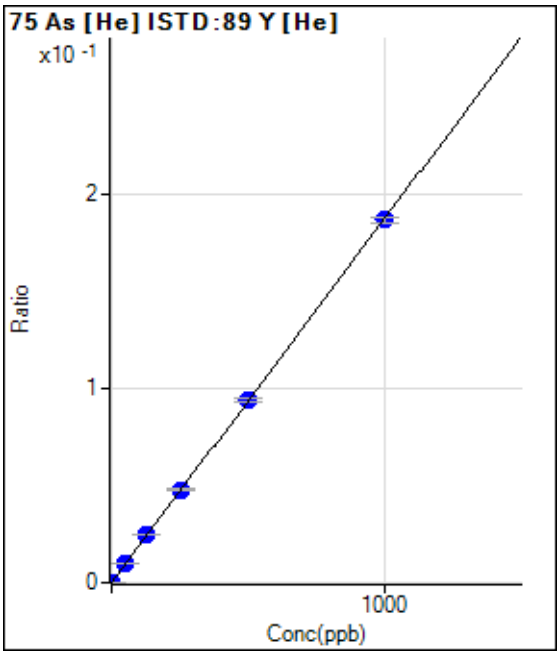


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	795.58	0.0038	P	4.2
2	☐	5.000	4.103	3771.62	0.0182	P	5.5
3	☐	500.000	483.618	354639.09	1.6965	P	0.8
4	☐	1250.000	1211.666	861499.57	4.2447	P	0.1
5	☐	2500.000	2669.127	1846755.86	9.3460	A	0.5
6	☐	5000.000	5193.703	3641731.16	18.1822	A	1.6
7	☐	10000.000	9866.478	6953598.65	34.5372	A	0.8
8	☐			11412.22	0.0546	P	1.4

y = 0.0035 * x + 0.0038
R = 0.9995
DL = 0.1358
BEC = 1.088

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45.56	0.0000	P	4.3
2	☐	1.000	0.991	461.13	0.0002	P	6.8
3	☐	50.000	52.420	21172.98	0.0098	P	2.2
4	☐	125.000	130.491	51614.98	0.0244	P	0.2
5	☐	250.000	254.632	100172.88	0.0476	P	1.4
6	☐	500.000	502.169	198518.84	0.0939	P	1.8
7	☐	1000.000	996.950	389978.74	0.1864	P	1.5
8	☐			271.12	0.0001	P	6.6

y = 1.8695E-004 * x + 2.0664E-005
R = 1.0000
DL = 0.01428
BEC = 0.1105

Weight: <None>
Min Conc: 0

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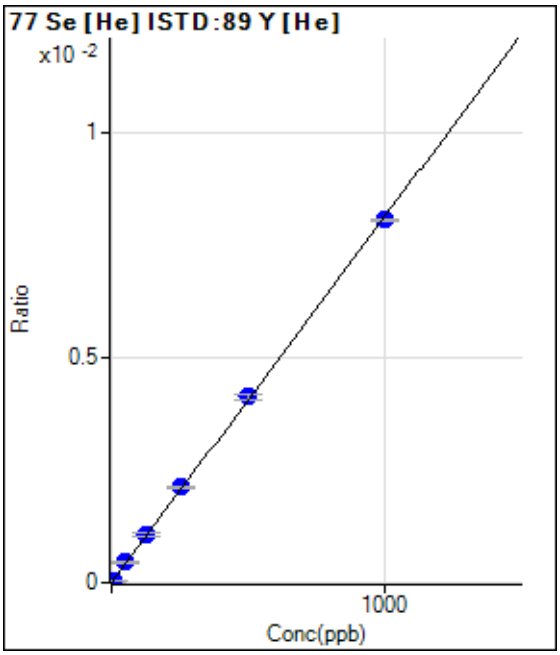
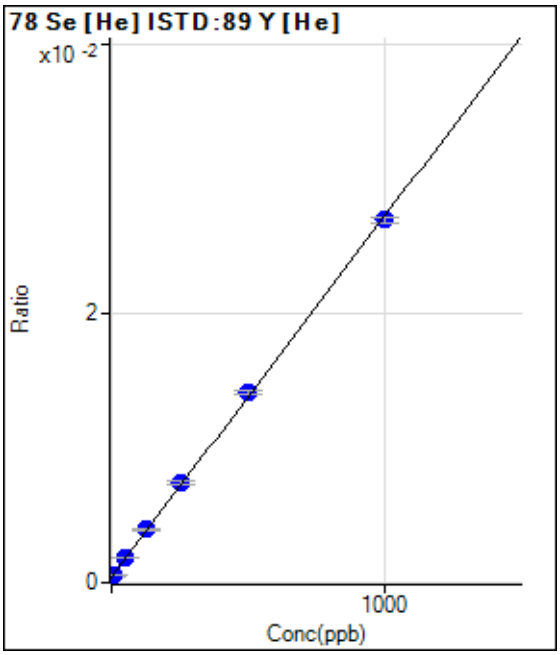


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.44	0.0000	P	114.
2	☐	5.000	4.574	87.78	0.0000	P	15.1
3	☐	50.000	55.327	973.37	0.0005	P	9.4
4	☐	125.000	131.768	2266.86	0.0011	P	6.4
5	☐	250.000	260.284	4452.94	0.0021	P	3.1
6	☐	500.000	508.283	8737.09	0.0041	P	3.4
7	☐	1000.000	992.177	16874.16	0.0081	P	0.7
8	☐			11.11	0.0000	P	46.3

y = 8.1262E-006 * x + 2.0195E-006
R = 0.9999
DL = 0.8562
BEC = 0.2485

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	986.71	0.0004	P	4.2
2	☐	5.000	5.065	1305.63	0.0006	P	1.7
3	☐	50.000	54.321	4096.17	0.0019	P	1.8
4	☐	125.000	131.404	8370.22	0.0040	P	3.2
5	☐	250.000	259.864	15552.72	0.0074	P	3.1
6	☐	500.000	511.669	29861.25	0.0141	P	1.7
7	☐	1000.000	990.683	56343.29	0.0269	P	1.4
8	☐			936.70	0.0004	P	6.0

y = 2.6731E-005 * x + 4.4751E-004
R = 0.9998
DL = 2.118
BEC = 16.74

Weight: <None>
Min Conc: 0

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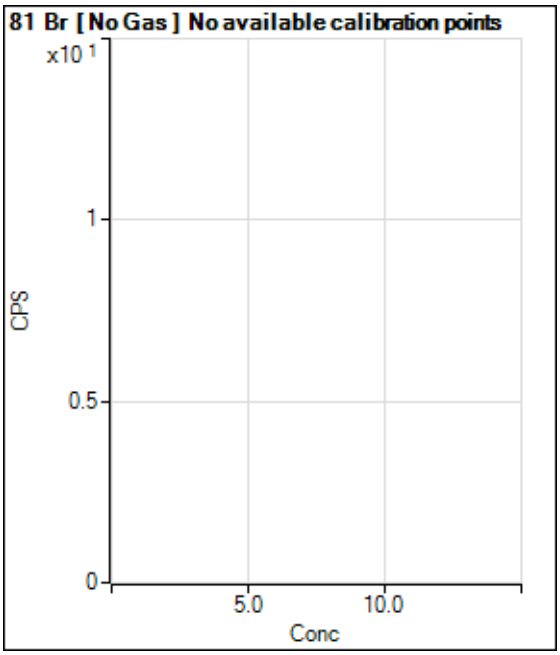
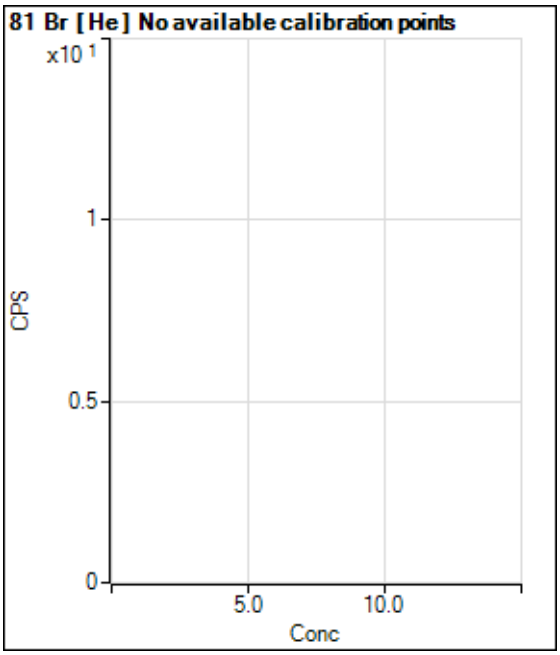


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			35130.75		P	1.6
2	☐			32896.61		P	2.4
3	☐			33496.94		P	0.6
4	☐			31862.19		P	3.2
5	☐			30483.79		P	0.3
6	☐			30905.72		P	1.0
7	☐			31959.06		P	0.2
8	☐			32588.28		P	2.5



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			214.45		P	7.2
2	☐			176.67		P	8.6
3	☐			231.12		P	16.7
4	☐			225.56		P	1.7
5	☐			221.11		P	10.7
6	☐			227.78		P	19.5
7	☐			221.12		P	16.7
8	☐			203.34		P	18.9

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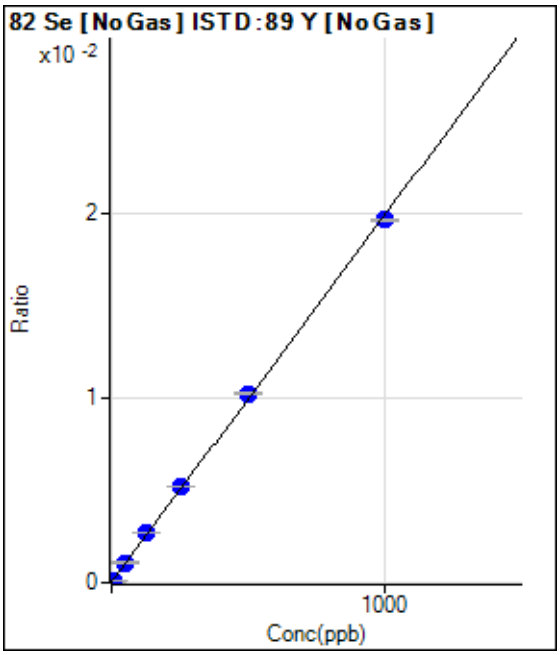
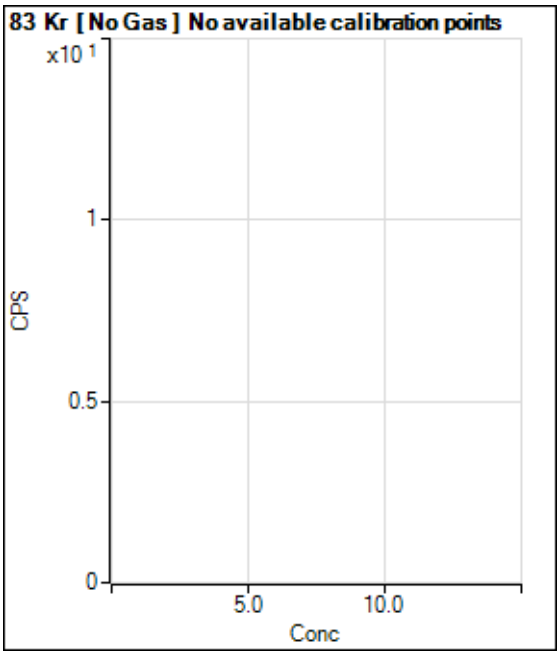


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	198.05	0.0000	P	26.6
2	☐	5.000	4.959	884.26	0.0001	P	8.9
3	☐	50.000	53.578	7630.23	0.0011	P	1.5
4	☐	125.000	134.396	18109.93	0.0027	P	1.1
5	☐	250.000	262.301	34441.67	0.0052	P	0.1
6	☐	500.000	514.960	68074.44	0.0103	P	1.2
7	☐	1000.000	988.091	131924.78	0.0197	P	0.9
8	☐			420.36	0.0001	P	8.6

y = 1.9876E-005 * x + 2.8224E-005
R = 0.9997
DL = 1.134
BEC = 1.42

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			426.68		P	9.0
2	☐			452.23		P	11.1
3	☐			497.79		P	11.1
4	☐			436.68		P	7.0
5	☐			385.56		P	6.9
6	☐			380.01		P	11.5
7	☐			402.23		P	13.6
8	☐			476.68		P	7.9

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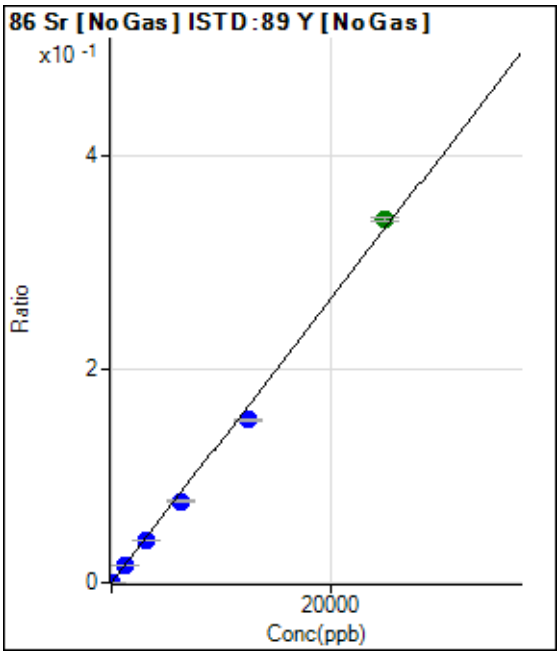
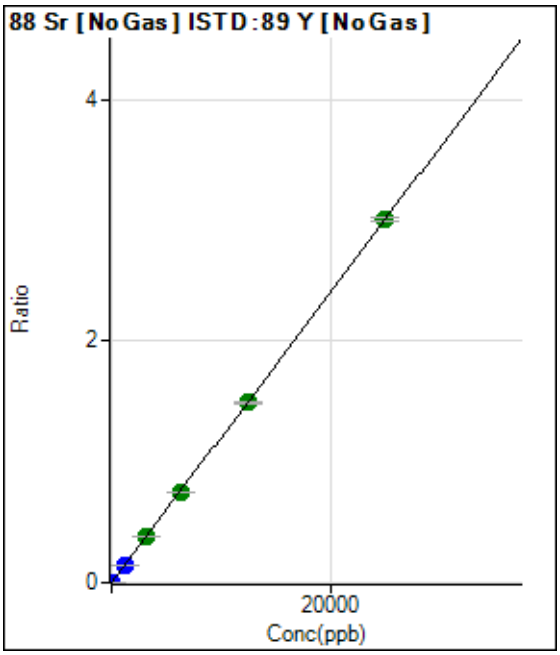


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	700.03	0.0001	P	12.1
2	☐	1.000	22.935	2812.51	0.0004	P	0.3
3	☐	1250.000	1162.528	108124.38	0.0155	P	0.6
4	☐	3125.000	2948.084	262512.35	0.0391	P	0.5
5	☐	6250.000	5761.241	501790.03	0.0764	P	0.7
6	☐	12500.000	11489.614	1009438.64	0.1522	P	2.2
7	☐	25000.000	25653.870	2278718.65	0.3397	A	1.0
8	☐			7652.04	0.0011	P	1.5

y = 1.3238E-005 * x + 9.9787E-005
R = 0.9986
DL = 2.737
BEC = 7.538

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.00	0.0000	P	14.4
2	☐	1.000	22.071	18644.14	0.0027	P	1.8
3	☐	1250.000	1139.015	953785.93	0.1366	P	1.4
4	☐	3125.000	3190.432	2567290.67	0.3827	A	1.5
5	☐	6250.000	6239.553	4917529.65	0.7484	A	1.0
6	☐	12500.000	12424.393	9883841.03	1.4902	A	1.7
7	☐	25000.000	25037.785	20143956.50	3.0031	A	1.2
8	☐			60555.01	0.0091	P	0.1

y = 1.1994E-004 * x + 2.7084E-005
R = 1.0000
DL = 0.0973
BEC = 0.2258

Weight: <None>
Min Conc: 0

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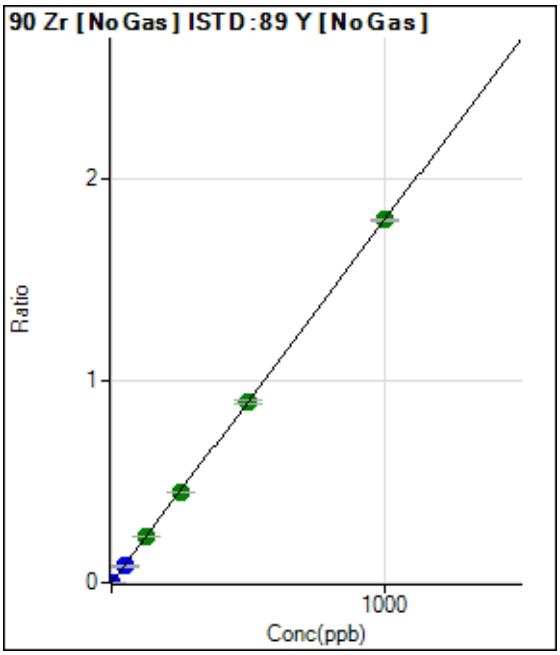
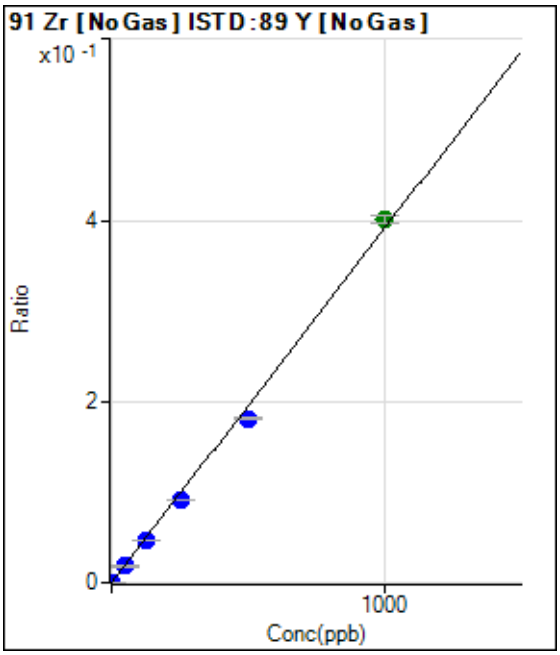


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375.56	0.0001	P	12.4
2	☐	1.000	0.912	11761.46	0.0017	P	0.6
3	☐	50.000	45.259	566331.91	0.0811	P	1.1
4	☐	125.000	126.947	1526087.86	0.2275	A	1.0
5	☐	250.000	249.444	2936616.31	0.4469	A	0.1
6	☐	500.000	499.031	5929689.98	0.8941	A	1.8
7	☐	1000.000	1000.617	12024627.46	1.7926	A	0.6
8	☐			5178.74	0.0008	P	2.5

y = 0.0018 * x + 5.3537E-005
R = 1.0000
DL = 0.01111
BEC = 0.02988

Weight: <None>
Min Conc: 0

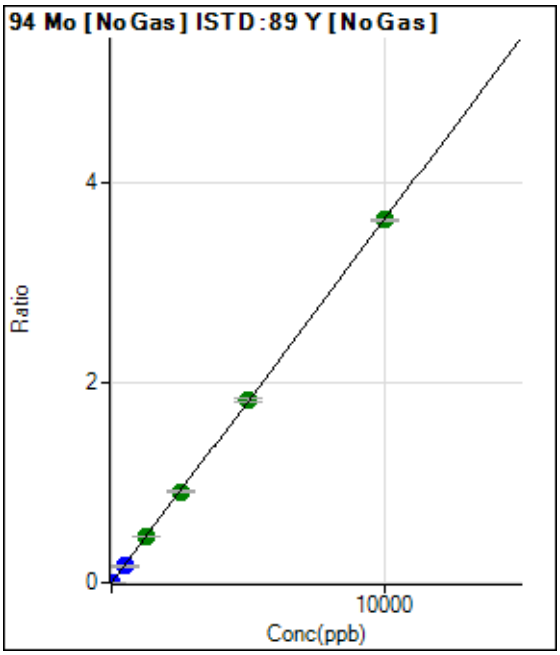


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.11	0.0000	P	20.5
2	☐	1.000	0.946	2649.15	0.0004	P	4.6
3	☐	50.000	46.234	126242.50	0.0181	P	1.0
4	☐	125.000	117.410	308029.44	0.0459	P	0.7
5	☐	250.000	231.511	594783.94	0.0905	P	0.6
6	☐	500.000	463.166	1201099.23	0.1811	P	1.3
7	☐	1000.000	1024.176	2685999.72	0.4004	A	2.1
8	☐			1084.50	0.0002	P	2.7

y = 3.9096E-004 * x + 1.0121E-005
R = 0.9988
DL = 0.01594
BEC = 0.02589

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



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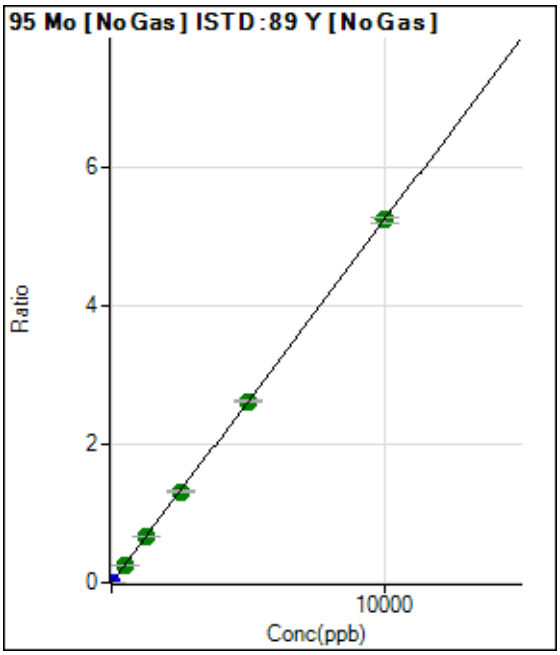
1	☐	0.000	0.000	151.11	0.0000	P	12.5
2	☐	5.000	5.255	13432.91	0.0019	P	3.0
3	☐	500.000	451.203	1142145.84	0.1636	P	1.0
4	☐	1250.000	1269.759	3089191.79	0.4604	A	1.6
5	☐	2500.000	2505.417	5969235.12	0.9085	A	1.5
6	☐	5000.000	5023.426	12080282.32	1.8215	A	2.4
7	☐	10000.000	9986.903	24290590.75	3.6212	A	0.5
8	☐			5084.26	0.0008	P	0.8

y = 3.6259E-004 * x + 2.1539E-005
R = 1.0000
DL = 0.02231
BEC = 0.0594

Weight: <None>
Min Conc: 0

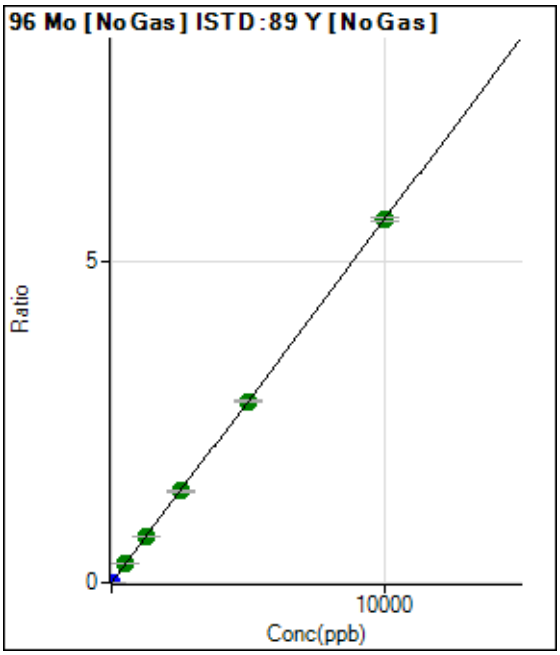


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	68.89	0.0000	P	25.6
2	☐	5.000	4.440	16266.91	0.0023	P	2.1
3	☐	500.000	496.515	1813602.98	0.2598	A	1.1
4	☐	1250.000	1278.637	4489106.18	0.6691	A	0.7
5	☐	2500.000	2511.007	8633224.73	1.3139	A	1.1
6	☐	5000.000	4997.618	17344613.35	2.6151	A	1.4
7	☐	10000.000	9995.034	35082247.26	5.2300	A	1.3
8	☐			4301.78	0.0006	P	5.7

y = 5.2326E-004 * x + 9.7950E-006
R = 1.0000
DL = 0.01438
BEC = 0.01872

Weight: <None>
Min Conc: 0

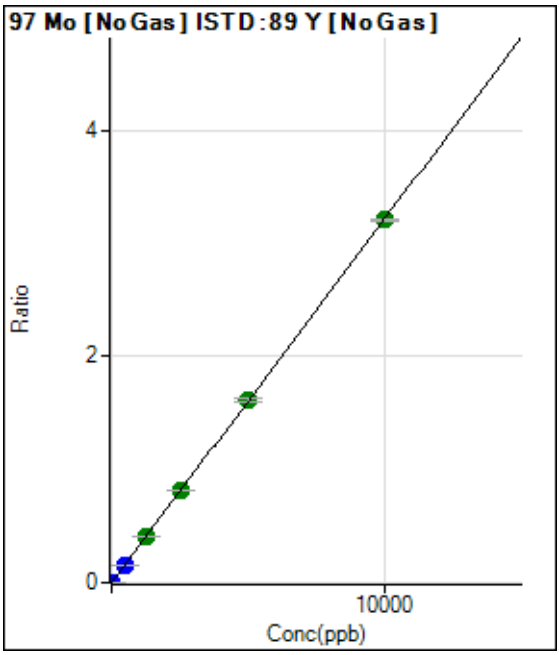
Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	207.78	0.0000	P	4.2
2	☐	5.000	4.453	17770.89	0.0025	P	0.1
3	☐	500.000	504.447	1992371.03	0.2854	A	0.5
4	☐	1250.000	1286.536	4883664.06	0.7279	A	0.8
5	☐	2500.000	2519.971	9367641.25	1.4257	A	0.8
6	☐	5000.000	5003.074	18774419.58	2.8305	A	0.7
7	☐	10000.000	9988.681	37907068.60	5.6511	A	1.0
8	☐			20830.55	0.0031	P	1.2

y = 5.6575E-004 * x + 2.9596E-005
R = 1.0000
DL = 0.006631
BEC = 0.05231

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	51.11	0.0000	P	14.0
2	☐	5.000	4.459	10032.42	0.0014	P	4.7
3	☐	500.000	456.294	1022883.59	0.1465	P	1.1
4	☐	1250.000	1276.233	2750115.03	0.4099	A	1.0
5	☐	2500.000	2536.396	5352243.11	0.8145	A	0.9
6	☐	5000.000	5021.391	10695443.03	1.6126	A	1.3
7	☐	10000.000	9979.112	21496388.29	3.2047	A	0.5
8	☐			2703.61	0.0004	P	2.9

y = 3.2114E-004 * x + 7.2720E-006
R = 1.0000
DL = 0.009513
BEC = 0.02264

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
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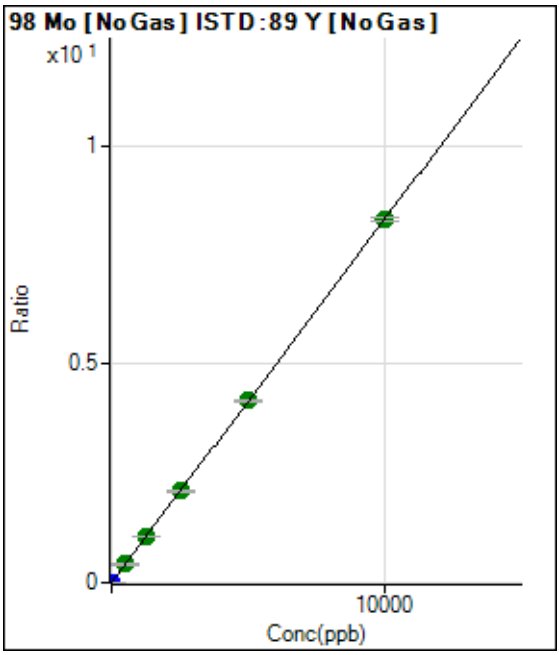
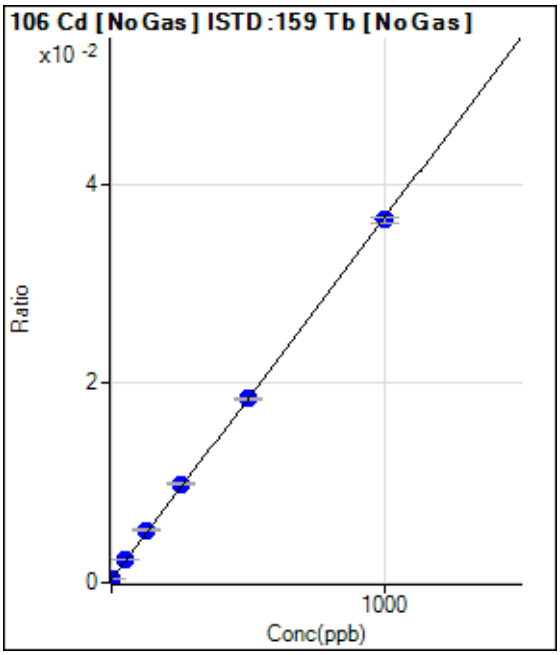
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	141.11	0.0000	P	20.3
2	☐	5.000	4.305	25080.46	0.0036	P	0.9
3	☐	500.000	503.188	2919007.04	0.4182	A	1.3
4	☐	1250.000	1266.762	7063092.12	1.0527	A	1.5
5	☐	2500.000	2518.306	13751050.77	2.0928	A	0.5
6	☐	5000.000	5004.932	27586062.37	4.1592	A	1.5
7	☐	10000.000	9990.703	55691110.84	8.3025	A	1.1
8	☐			6045.76	0.0009	P	5.2

y = 8.3102E-004 * x + 2.0117E-005
R = 1.0000
DL = 0.01474
BEC = 0.02421

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1476.76	0.0003	P	3.6
2	☐	1.000	0.776	1644.56	0.0003	P	3.3
3	☐	50.000	55.138	11002.05	0.0023	P	0.7
4	☐	125.000	136.798	24889.21	0.0053	P	1.1
5	☐	250.000	263.917	46188.71	0.0099	P	2.4
6	☐	500.000	500.998	89628.52	0.0185	P	1.2
7	☐	1000.000	994.290	176105.53	0.0364	P	1.3
8	☐			1555.65	0.0003	P	5.0

y = 3.6288E-005 * x + 3.1355E-004
R = 0.9999
DL = 0.9224
BEC = 8.641

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
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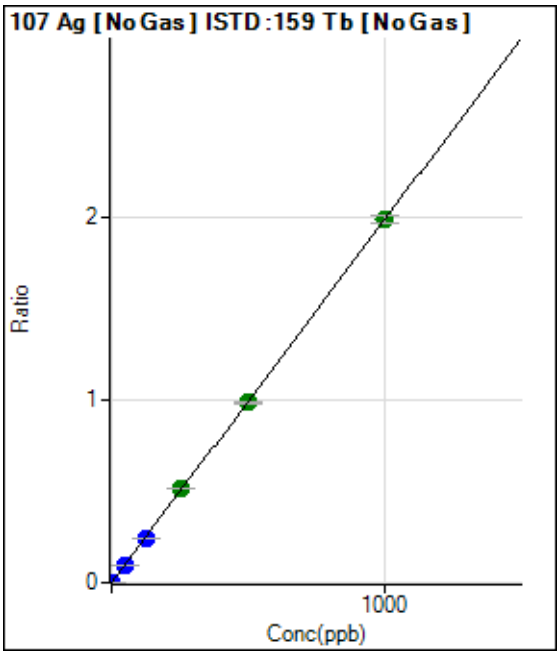
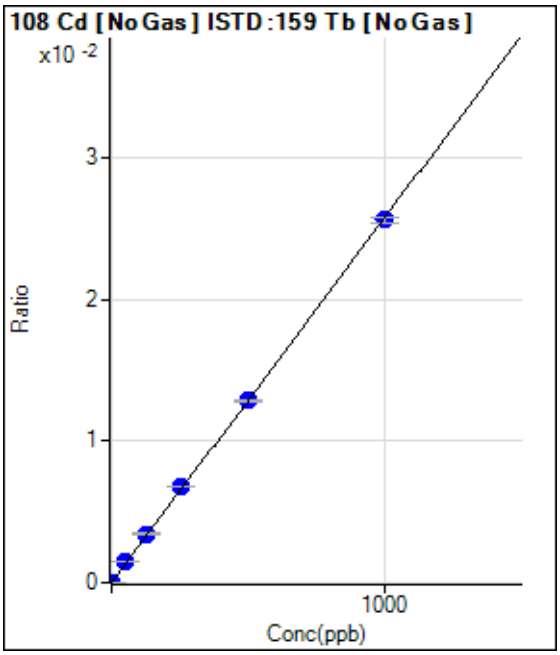
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.66	0.0000	P	25.4
2	☐	1.000	0.977	9392.00	0.0020	P	2.0
3	☐	50.000	49.931	471074.55	0.0991	P	0.8
4	☐	125.000	121.837	1140348.49	0.2418	P	0.5
5	☐	250.000	259.573	2405875.05	0.5151	A	1.1
6	☐	500.000	495.777	4768310.13	0.9838	A	0.6
7	☐	1000.000	1000.117	9602507.98	1.9847	A	2.0
8	☐			504.46	0.0001	P	8.4

y = 0.0020 * x + 1.1997E-005
R = 0.9999
DL = 0.004606
BEC = 0.006046

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15.56	0.0000	P	80.7
2	☐	1.000	0.812	116.67	0.0000	P	6.7
3	☐	50.000	56.400	6926.16	0.0015	P	1.4
4	☐	125.000	134.159	16325.94	0.0035	P	2.4
5	☐	250.000	263.652	31756.97	0.0068	P	0.8
6	☐	500.000	500.560	62547.44	0.0129	P	1.1
7	☐	1000.000	994.842	124087.30	0.0256	P	1.7
8	☐			53.33	0.0000	P	27.0

y = 2.5775E-005 * x + 3.2901E-006
R = 0.9999
DL = 0.3089
BEC = 0.1276

Weight: <None>
Min Conc: 0

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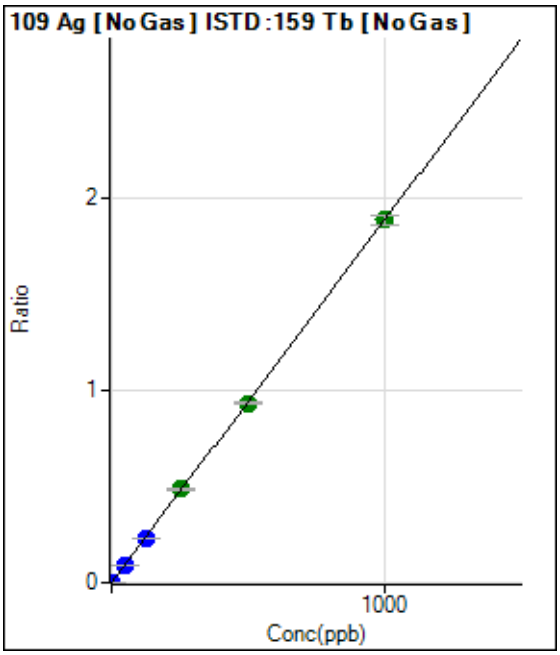
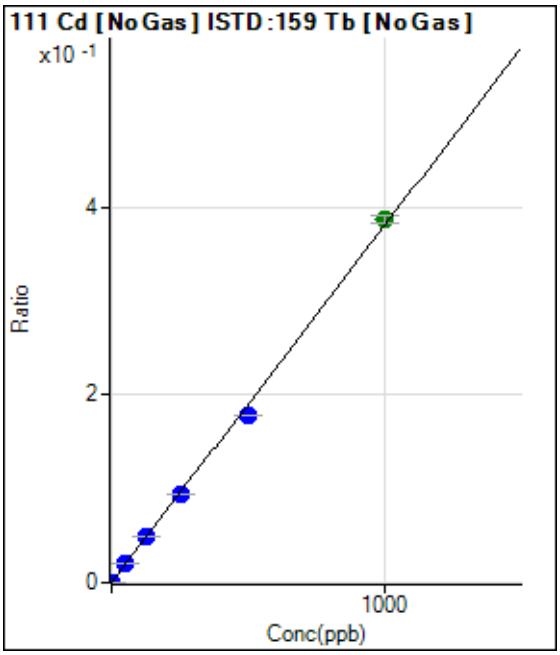


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.66	0.0000	P	67.5
2	☐	1.000	0.963	8771.61	0.0018	P	5.0
3	☐	50.000	49.487	443188.90	0.0932	P	0.8
4	☐	125.000	120.954	1074564.45	0.2279	P	1.2
5	☐	250.000	258.877	2277370.61	0.4877	A	2.4
6	☐	500.000	495.607	4525049.65	0.9336	A	0.7
7	☐	1000.000	1000.509	9118808.06	1.8848	A	2.5
8	☐			456.68	0.0001	P	2.0

y = 0.0019 * x + 7.7257E-006
R = 0.9999
DL = 0.008308
BEC = 0.004101

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1101.73	0.0002	P	2.5
2	☐	1.000	0.880	2735.19	0.0006	P	4.8
3	☐	50.000	51.522	94201.19	0.0198	P	0.5
4	☐	125.000	127.151	229001.73	0.0486	P	1.4
5	☐	250.000	246.790	439146.80	0.0940	P	1.6
6	☐	500.000	468.141	863445.59	0.1782	P	0.7
7	☐	1000.000	1016.387	1870230.22	0.3865	A	2.0
8	☐			1331.63	0.0003	P	3.6

y = 3.8007E-004 * x + 2.3393E-004
R = 0.9992
DL = 0.04625
BEC = 0.6155

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
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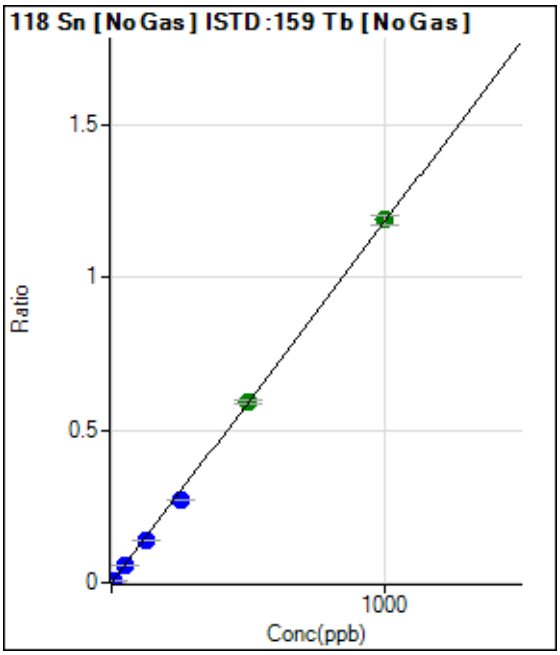
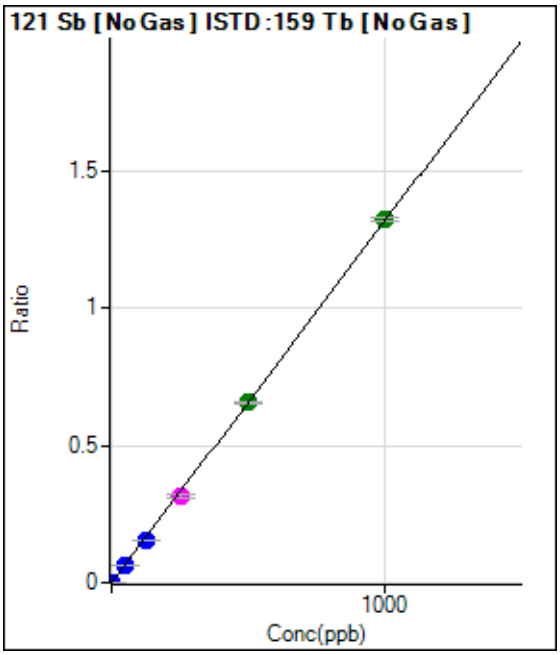


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1341.19	0.0003	P	0.9
2	☐	5.000	4.625	27667.78	0.0057	P	2.3
3	☐	50.000	47.784	269675.79	0.0567	P	0.5
4	☐	125.000	117.777	657419.50	0.1394	P	1.3
5	☐	250.000	229.690	1268484.85	0.2716	P	1.3
6	☐	500.000	500.632	2867446.87	0.5916	A	1.7
7	☐	1000.000	1005.777	5749440.89	1.1883	A	2.5
8	☐			1835.69	0.0004	P	4.3

y = 0.0012 * x + 2.8470E-004
R = 0.9998
DL = 0.006716
BEC = 0.241

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0000	P	40.0
2	☐	2.000	1.853	11788.23	0.0024	P	1.6
3	☐	50.000	47.849	299405.27	0.0630	P	0.6
4	☐	125.000	118.085	732945.00	0.1554	P	1.3
5	☐	250.000	238.890	1468961.35	0.3144	M	5.4
6	☐	500.000	498.338	3178661.62	0.6559	A	1.3
7	☐	1000.000	1004.581	6397617.06	1.3221	A	1.2
8	☐			2189.08	0.0005	P	5.1

y = 0.0013 * x + 9.2329E-006
R = 0.9999
DL = 0.008409
BEC = 0.007015

Weight: <None>
Min Conc: 0

Reviewed By:jaswal
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Inst Id :P7
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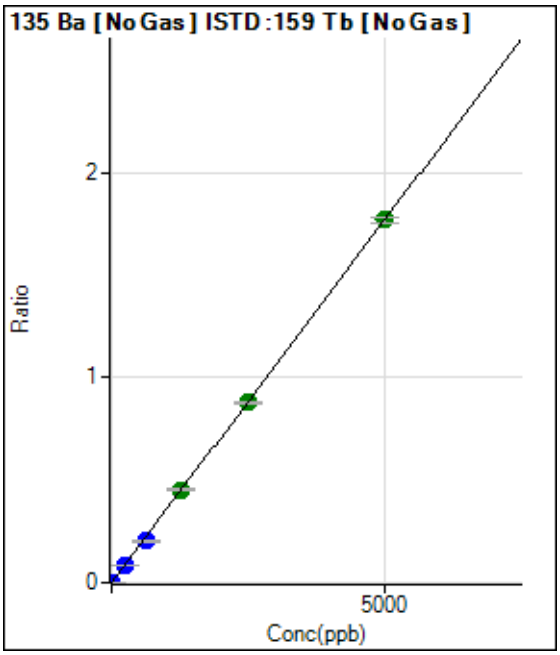
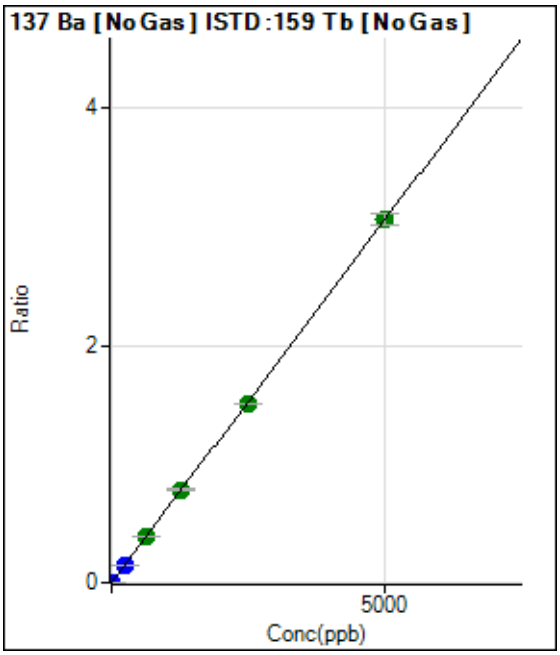


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	12.2
2	☐	10.000	8.674	14815.55	0.0031	P	0.7
3	☐	250.000	233.393	392323.99	0.0825	P	1.0
4	☐	625.000	572.432	954531.85	0.2024	P	0.9
5	☐	1250.000	1283.074	2118507.57	0.4537	A	2.6
6	☐	2500.000	2489.668	4266425.39	0.8803	A	0.9
7	☐	5000.000	5004.302	8560930.57	1.7694	A	1.9
8	☐			3224.85	0.0007	P	4.3

y = 3.5357E-004 * x + 1.0621E-005
R = 0.9999
DL = 0.01097
BEC = 0.03004

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	4.9
2	☐	10.000	8.690	25675.45	0.0053	P	1.4
3	☐	250.000	232.347	675559.93	0.1421	P	0.8
4	☐	625.000	643.466	1855953.58	0.3935	A	1.8
5	☐	1250.000	1285.532	3672010.29	0.7862	A	0.7
6	☐	2500.000	2468.644	7316536.63	1.5097	A	0.9
7	☐	5000.000	5005.372	14808626.72	3.0610	A	3.3
8	☐			5388.85	0.0012	P	4.0

y = 6.1155E-004 * x + 2.0058E-005
R = 0.9999
DL = 0.004842
BEC = 0.0328

Weight: <None>
Min Conc: 0

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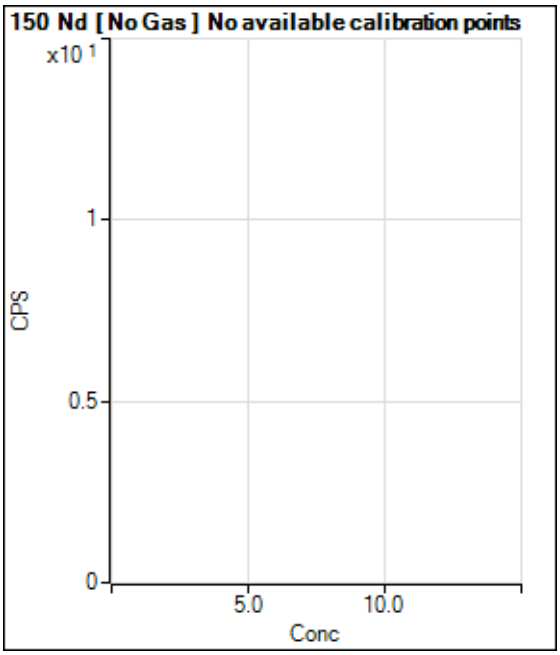
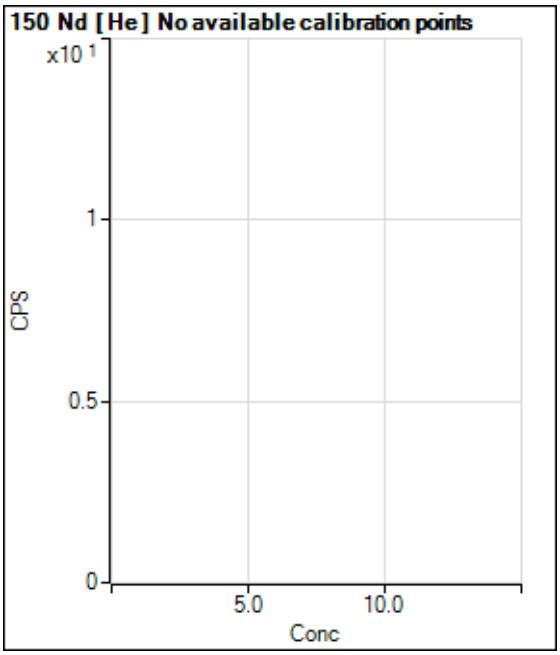
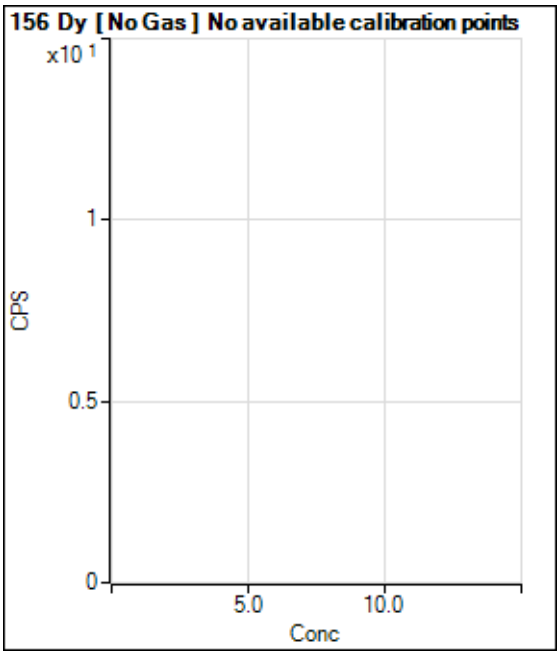


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.67		P	100.
2	☐			4.45		P	86.6
3	☐			38.89		P	9.9
4	☐			54.45		P	19.7
5	☐			103.34		P	11.6
6	☐			200.00		P	26.0
7	☐			395.57		P	8.6
8	☐			121.11		P	26.4

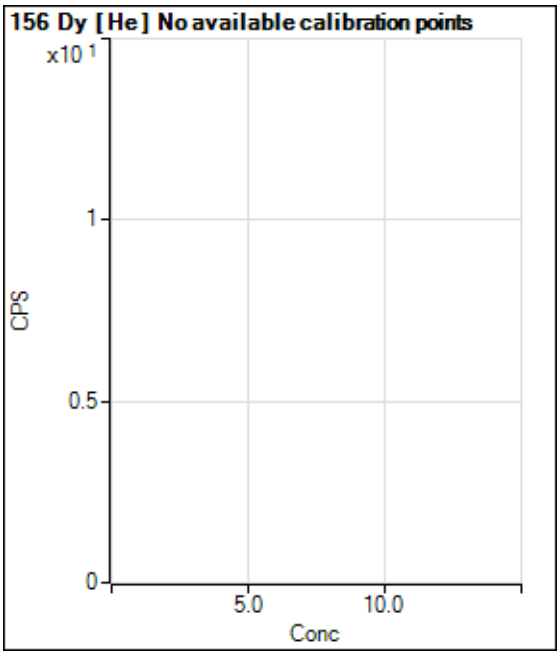


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2.22		P	86.6
2	☐			1.11		P	173.
3	☐			6.67		P	50.0
4	☐			25.55		P	52.7
5	☐			24.45		P	43.8
6	☐			55.56		P	33.0
7	☐			97.78		P	25.8
8	☐			91.11		P	11.8

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			7.78		P	49.5
2	☐			3.33		P	100.
3	☐			12.22		P	41.7
4	☐			17.78		P	28.6
5	☐			33.33		P	20.0
6	☐			55.56		P	38.6
7	☐			104.45		P	24.8
8	☐			194.45		P	15.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.67		P	50.0
2	☐			3.33		P	100.
3	☐			21.11		P	24.1
4	☐			48.89		P	7.9
5	☐			116.67		P	9.9
6	☐			204.45		P	14.7
7	☐			416.68		P	14.0
8	☐			193.34		P	6.2

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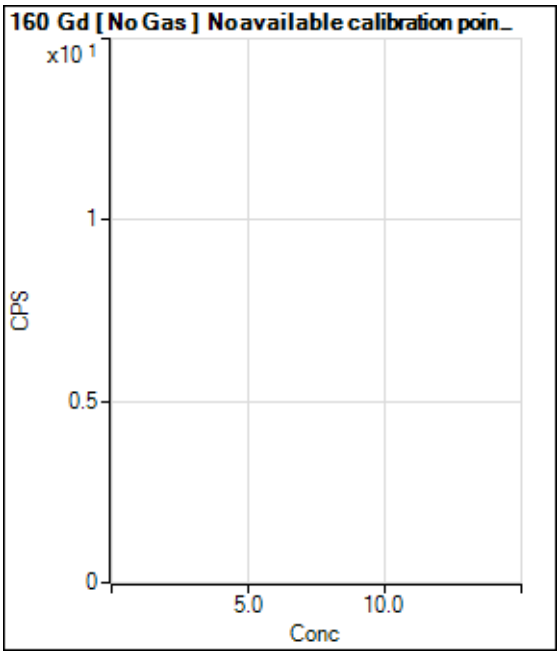

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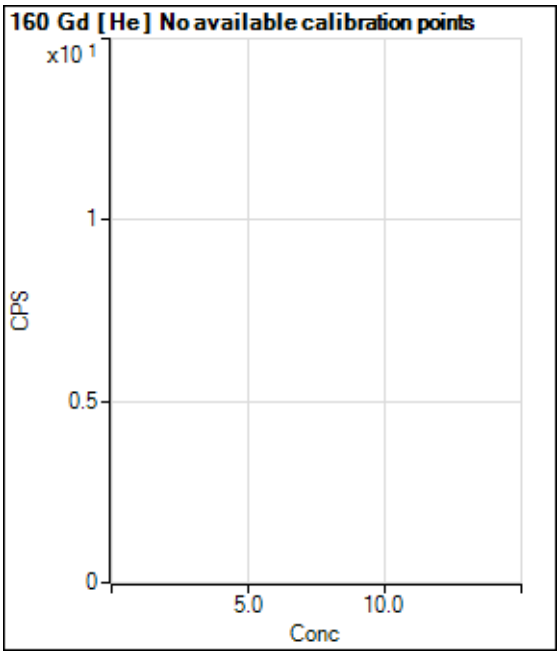
1	☐			15.56		P	12.4
2	☐			18.89		P	36.7
3	☐			23.33		P	14.3
4	☐			28.89		P	37.1
5	☐			35.56		P	35.5
6	☐			50.00		P	30.6
7	☐			84.45		P	16.0
8	☐			205.56		P	3.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			213.34		P	8.1
2	☐			195.56		P	5.2
3	☐			226.67		P	9.2
4	☐			200.00		P	7.6
5	☐			200.00		P	8.7
6	☐			203.34		P	4.3
7	☐			211.11		P	6.6
8	☐			346.68		P	8.5

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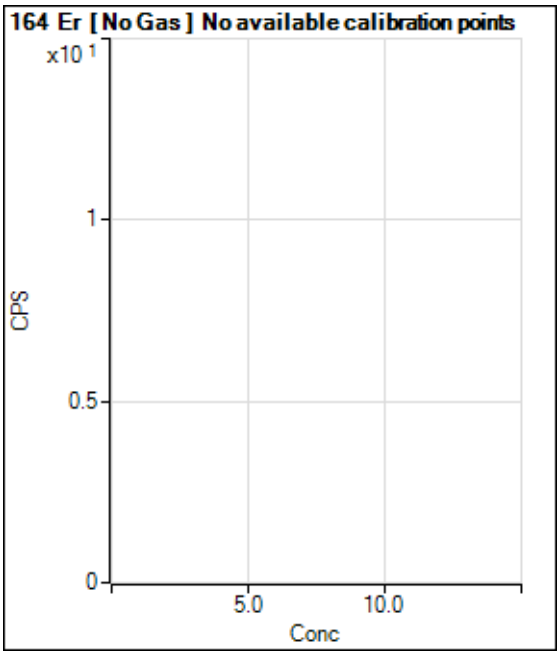

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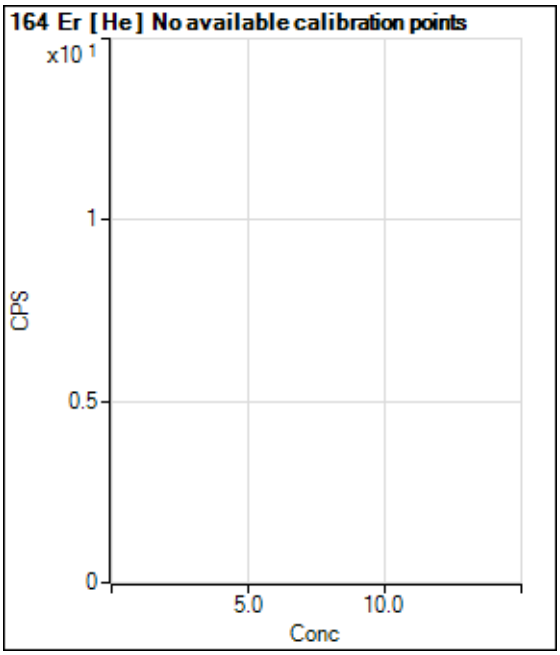
1	☐			18.89		P	10.2
2	☐			25.55		P	27.1
3	☐			34.45		P	20.1
4	☐			41.11		P	4.7
5	☐			61.11		P	17.5
6	☐			67.78		P	34.5
7	☐			107.78		P	10.9
8	☐			263.34		P	5.5



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1	☐			23.33		P	28.6
2	☐			32.22		P	6.0
3	☐			24.44		P	7.9
4	☐			35.56		P	27.1
5	☐			33.33		P	10.0
6	☐			40.00		P	38.2
7	☐			72.22		P	10.7
8	☐			197.78		P	25.9

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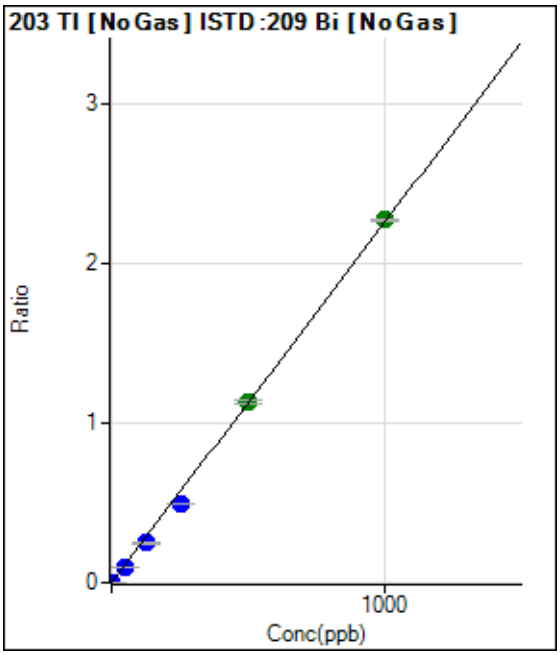
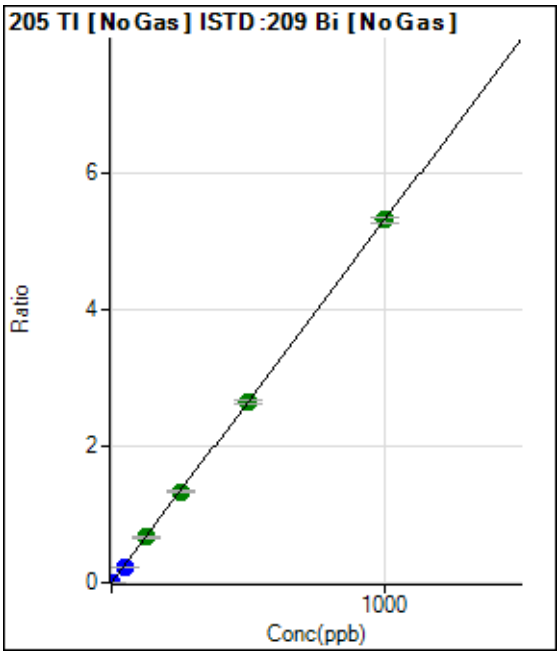


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	384.45	0.0001	P	17.0
2	☐	1.000	0.838	5754.59	0.0020	P	0.6
3	☐	50.000	43.848	284560.41	0.0991	P	1.5
4	☐	125.000	109.986	704502.49	0.2483	P	1.8
5	☐	250.000	219.870	1404783.99	0.4963	P	0.9
6	☐	500.000	504.346	3275513.39	1.1383	A	2.2
7	☐	1000.000	1007.544	6476785.80	2.2738	A	0.7
8	☐			700.03	0.0003	P	18.2

y = 0.0023 * x + 1.3585E-004
R = 0.9995
DL = 0.03078
BEC = 0.0602

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	866.71	0.0003	P	5.5
2	☐	1.000	0.829	13341.10	0.0047	P	0.5
3	☐	50.000	43.746	667231.53	0.2323	P	0.7
4	☐	125.000	125.353	1886780.96	0.6651	A	2.6
5	☐	250.000	250.488	3761122.13	1.3288	A	1.7
6	☐	500.000	498.411	7607593.98	2.6437	A	1.5
7	☐	1000.000	1000.941	15121483.94	5.3090	A	1.7
8	☐			1594.56	0.0006	P	6.9

y = 0.0053 * x + 3.0643E-004
R = 1.0000
DL = 0.009592
BEC = 0.05778

Weight: <None>
Min Conc: 0

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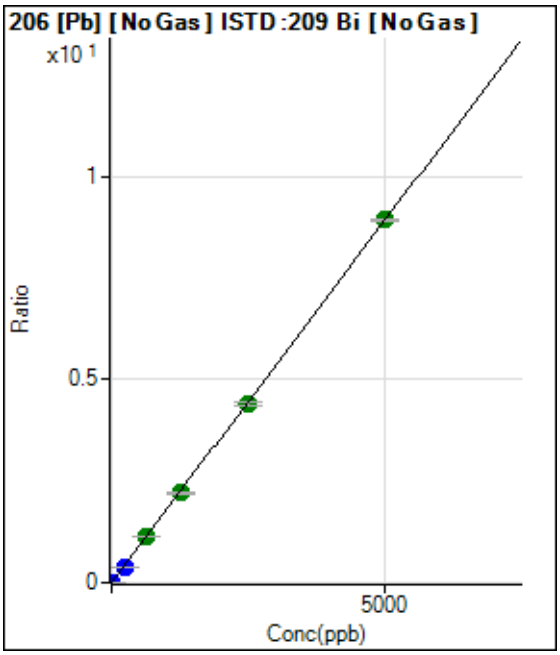
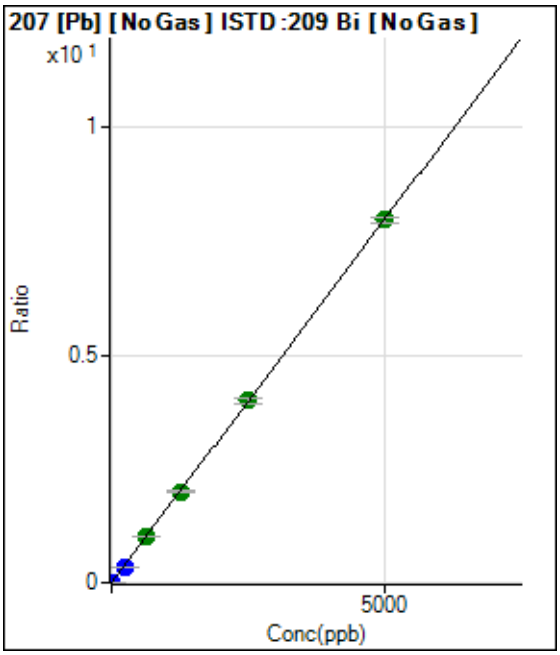


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1321.19	0.0005	P	5.5
2	☐	1.000	0.721	4969.85	0.0018	P	1.8
3	☐	250.000	221.601	1135818.70	0.3955	P	1.1
4	☐	625.000	632.532	3200048.53	1.1280	A	1.8
5	☐	1250.000	1240.274	6259193.80	2.2114	A	1.3
6	☐	2500.000	2476.943	12706757.59	4.4159	A	2.4
7	☐	5000.000	5014.438	25463106.01	8.9393	A	0.6
8	☐			10682.06	0.0042	P	0.9

y = 0.0018 * x + 4.6700E-004
R = 1.0000
DL = 0.04314
BEC = 0.262

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1185.62	0.0004	P	4.1
2	☐	1.000	0.703	4372.97	0.0015	P	2.3
3	☐	250.000	216.274	991760.38	0.3453	P	1.2
4	☐	625.000	631.201	2857159.33	1.0071	A	1.0
5	☐	1250.000	1252.907	5656944.50	1.9986	A	1.0
6	☐	2500.000	2507.629	11509126.21	3.9997	A	2.8
7	☐	5000.000	4996.370	22697220.50	7.9688	A	1.3
8	☐			9729.13	0.0038	P	2.3

y = 0.0016 * x + 4.1918E-004
R = 1.0000
DL = 0.03195
BEC = 0.2628

Weight: <None>
Min Conc: 0

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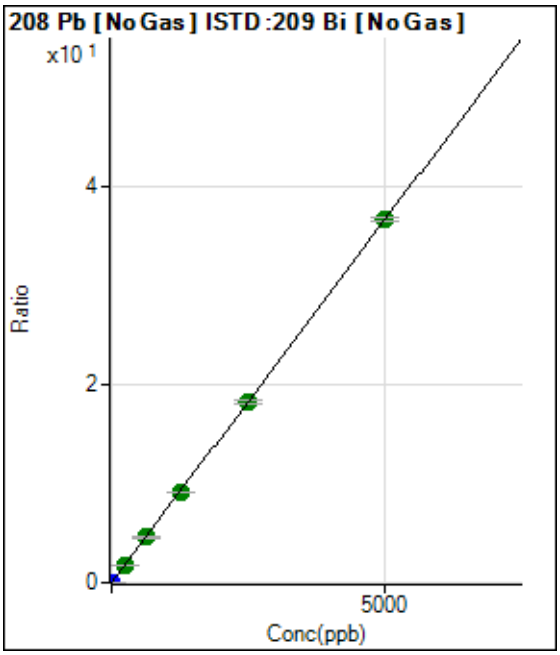
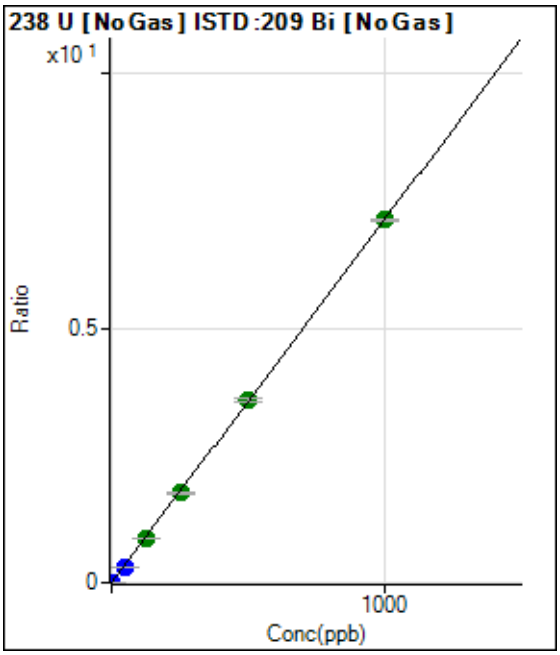


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5422.70	0.0019	P	1.0
2	☐	1.000	0.769	21374.57	0.0075	P	1.1
3	☐	250.000	234.008	4914530.46	1.7114	A	1.8
4	☐	625.000	627.703	13014451.13	4.5874	A	1.4
5	☐	1250.000	1247.470	25799815.73	9.1150	A	0.5
6	☐	2500.000	2489.781	52344644.74	18.1904	A	2.0
7	☐	5000.000	5006.204	104173697.9	36.5735	A	1.0
8	☐			43481.16	0.0170	P	0.7

y = 0.0073 * x + 0.0019
R = 1.0000
DL = 0.007707
BEC = 0.2624

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	431.12	0.0002	P	12.9
2	☐	1.000	0.807	16772.84	0.0059	P	0.2
3	☐	50.000	41.633	853458.98	0.2972	P	1.6
4	☐	125.000	123.706	2504676.79	0.8828	A	0.4
5	☐	250.000	247.225	4993301.38	1.7641	A	1.0
6	☐	500.000	503.227	10332240.54	3.5906	A	1.6
7	☐	1000.000	999.660	20317650.81	7.1325	A	0.5
8	☐			912.26	0.0004	P	10.9

y = 0.0071 * x + 1.5236E-004
R = 1.0000
DL = 0.008253
BEC = 0.02135

Weight: <None>
Min Conc: 0

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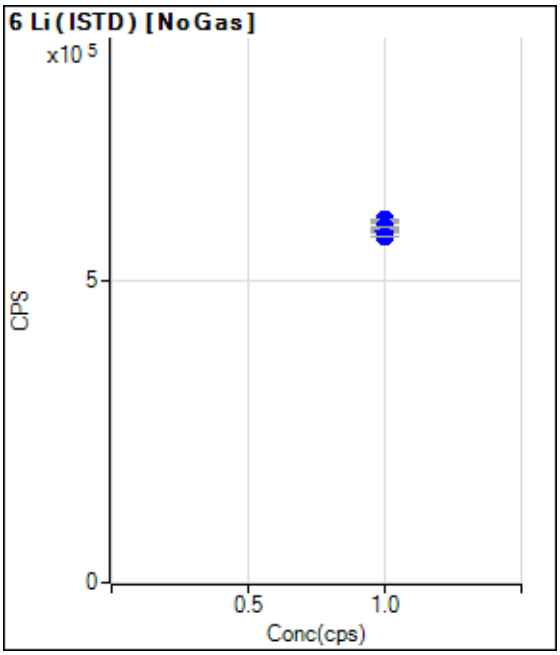

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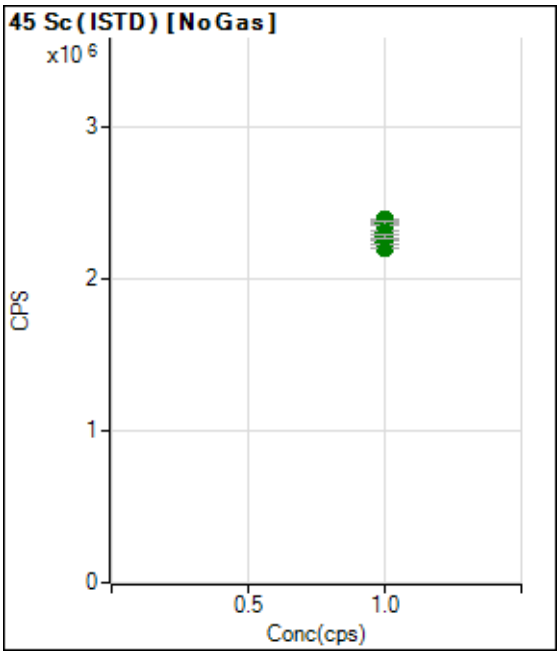
1	☐	1.000		581535.39		P	0.5
2	☐	1.000		581462.25		P	1.5
3	☐	1.000		587090.68		P	0.5
4	☐	1.000		597517.67		P	0.3
5	☐	1.000		596741.45		P	0.5
6	☐	1.000		599040.57		P	0.4
7	☐	1.000		586374.24		P	0.5
8	☐	1.000		571228.43		P	0.1



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1	☐	1.000		2383804.72		A	0.5
2	☐	1.000		2378610.19		A	1.2
3	☐	1.000		2359910.87		A	1.0
4	☐	1.000		2299038.71		A	0.6
5	☐	1.000		2201328.40		A	0.1
6	☐	1.000		2237937.66		A	0.9
7	☐	1.000		2240427.50		A	1.1
8	☐	1.000		2272664.36		A	1.2

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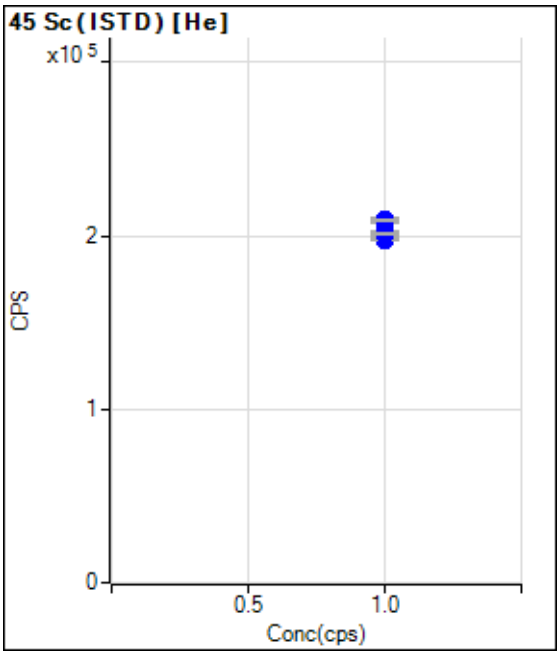

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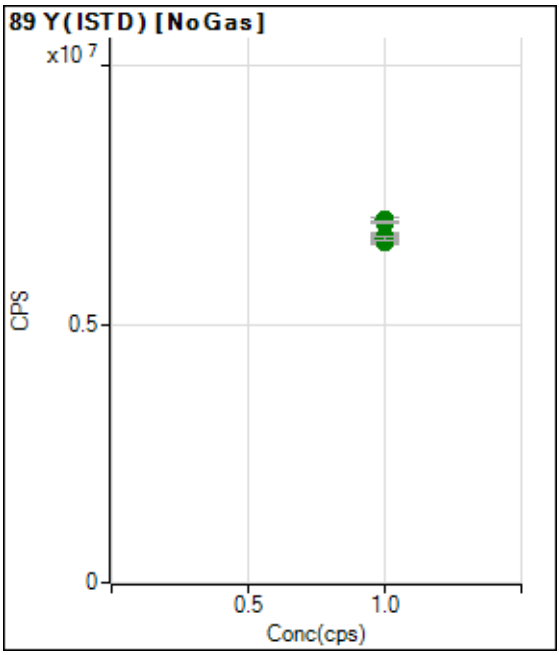
1	☐	1.000		208908.11		P	0.4
2	☐	1.000		207587.00		P	0.3
3	☐	1.000		209053.55		P	1.2
4	☐	1.000		202957.18		P	0.3
5	☐	1.000		197600.65		P	0.5
6	☐	1.000		200317.94		P	1.3
7	☐	1.000		201341.88		P	0.6
8	☐	1.000		208834.90		P	0.6



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1	☐	1.000		7022548.30		A	1.3
2	☐	1.000		6971941.49		A	0.7
3	☐	1.000		6980510.94		A	0.6
4	☐	1.000		6709381.36		A	1.4
5	☐	1.000		6570705.81		A	0.5
6	☐	1.000		6633174.97		A	1.1
7	☐	1.000		6707930.60		A	0.5
8	☐	1.000		6657622.61		A	1.2

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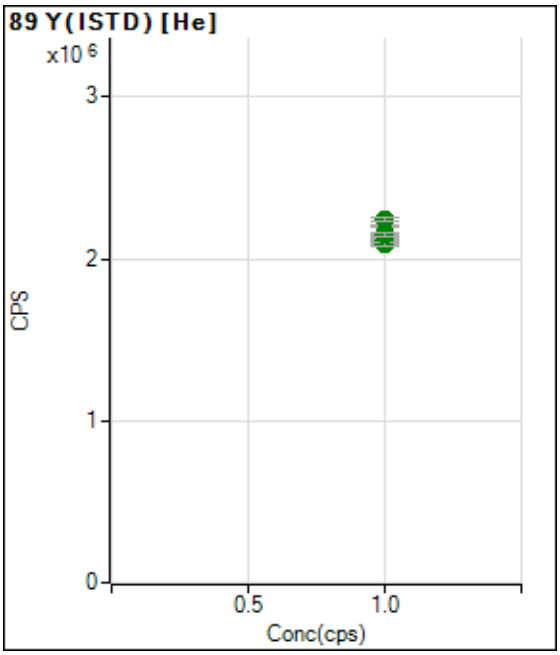

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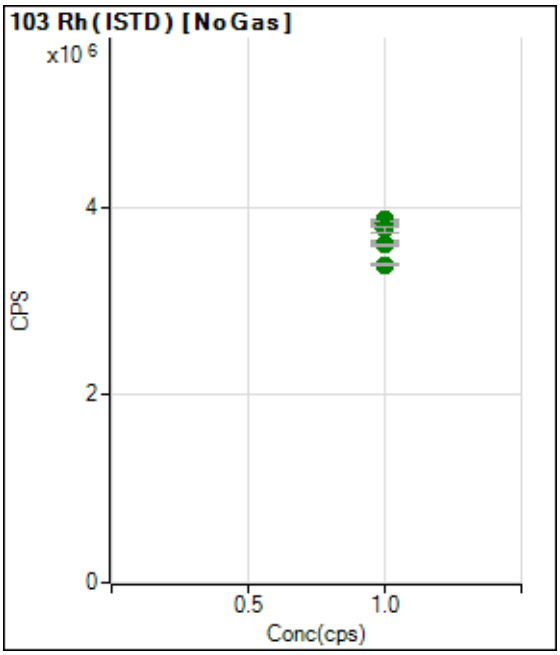
1	☐	1.000		2204701.89		A	0.3
2	☐	1.000		2239704.58		A	1.2
3	☐	1.000		2156165.54		A	0.8
4	☐	1.000		2114010.72		A	1.1
5	☐	1.000		2103566.08		A	0.9
6	☐	1.000		2114418.28		A	1.4
7	☐	1.000		2092410.58		A	1.3
8	☐	1.000		2150402.21		A	0.8



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2	☐	1.000		3844226.44		A	0.9
3	☐	1.000		3838313.76		A	1.2
4	☐	1.000		3764308.94		A	1.4
5	☐	1.000		3608597.06		A	1.7
6	☐	1.000		3606234.32		A	1.2
7	☐	1.000		3597830.33		A	0.6
8	☐	1.000		3391378.25		A	0.6

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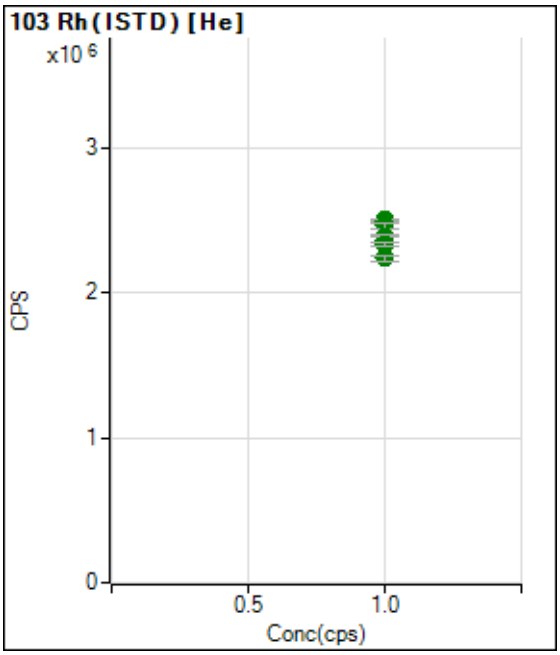

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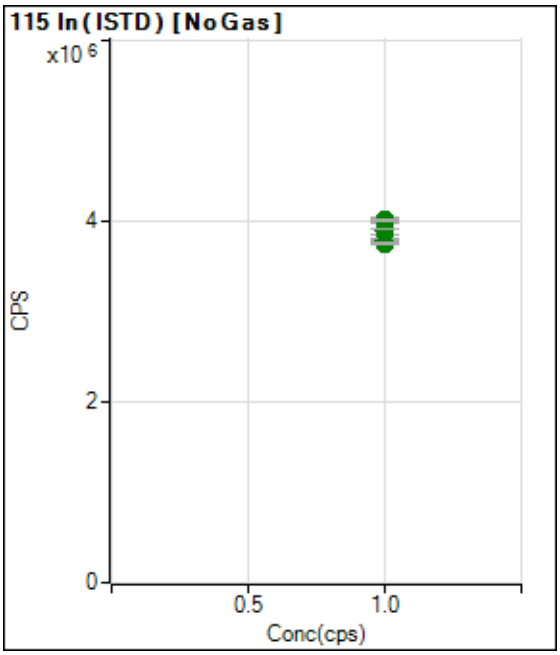
1	☐	1.000		2494952.13		A	0.0
2	☐	1.000		2504513.64		A	0.6
3	☐	1.000		2499901.94		A	1.0
4	☐	1.000		2465075.83		A	1.8
5	☐	1.000		2368469.69		A	1.7
6	☐	1.000		2393739.62		A	0.8
7	☐	1.000		2340327.54		A	1.0
8	☐	1.000		2239087.05		A	1.5



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2	☐	1.000		4004865.58		A	1.0
3	☐	1.000		4011332.49		A	0.4
4	☐	1.000		3884010.01		A	1.6
5	☐	1.000		3796779.88		A	1.0
6	☐	1.000		3794459.60		A	1.1
7	☐	1.000		3748662.25		A	0.5
8	☐	1.000		3747223.88		A	0.3

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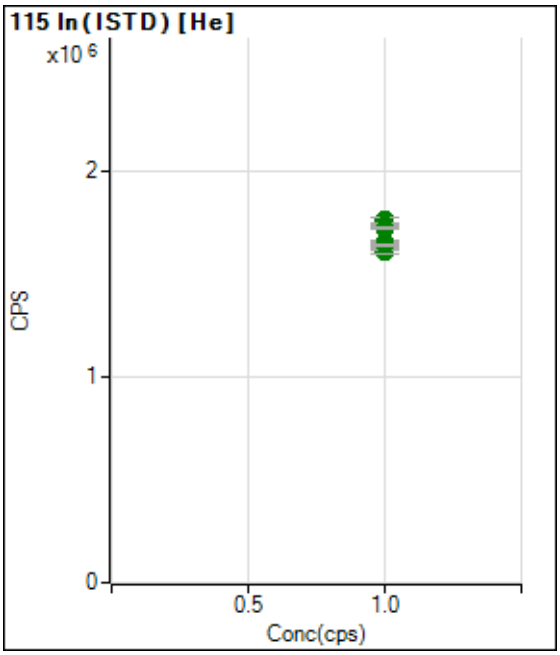

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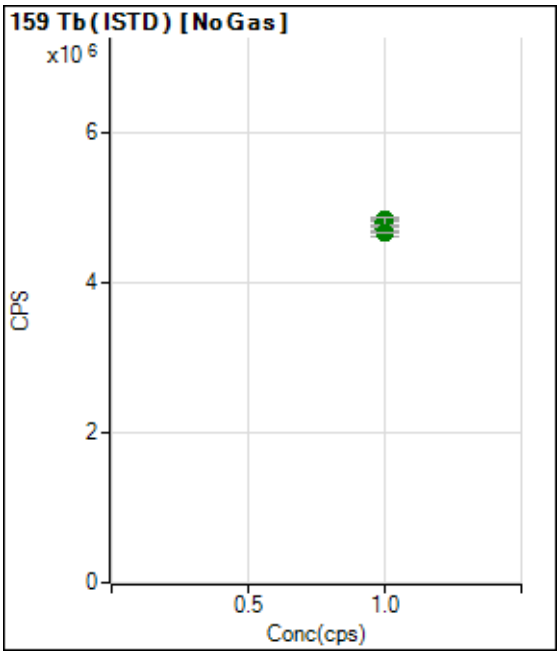
2	☐	1.000		1759462.88		A	1.5
3	☐	1.000		1738724.62		A	0.7
4	☐	1.000		1718706.27		A	0.4
5	☐	1.000		1641659.17		A	1.9
6	☐	1.000		1653532.38		A	0.7
7	☐	1.000		1602966.36		A	0.9
8	☐	1.000		1636690.39		A	1.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	1.000		4813928.22		A	1.2
3	☐	1.000		4753810.55		A	0.5
4	☐	1.000		4716325.42		A	1.2
5	☐	1.000		4671060.28		A	1.7
6	☐	1.000		4846562.67		A	0.9
7	☐	1.000		4839652.78		A	2.0
8	☐	1.000		4677657.29		A	0.3

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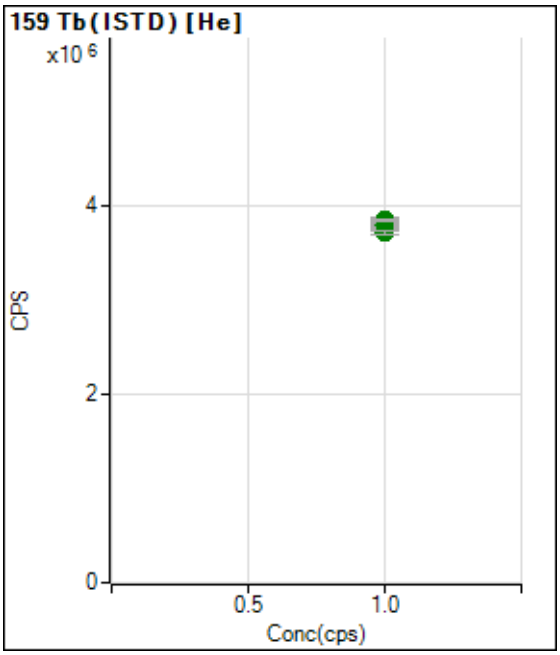
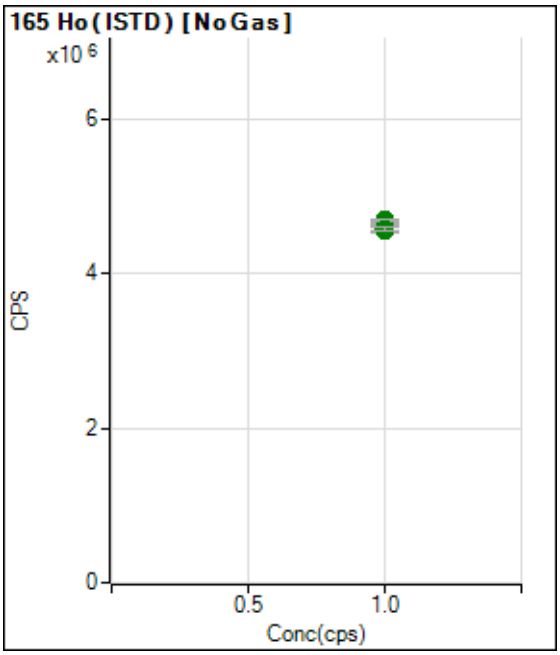
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3813783.90		A	0.6
2	☐	1.000		3811411.71		A	1.1
3	☐	1.000		3841987.03		A	0.6
4	☐	1.000		3782019.49		A	0.8
5	☐	1.000		3781018.07		A	1.3
6	☐	1.000		3842299.87		A	0.9
7	☐	1.000		3833668.73		A	0.4
8	☐	1.000		3707768.94		A	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4637239.93		A	1.1
2	☐	1.000		4636191.43		A	0.3
3	☐	1.000		4659962.95		A	1.3
4	☐	1.000		4610132.26		A	0.3
5	☐	1.000		4561648.75		A	1.7
6	☐	1.000		4677570.90		A	1.4
7	☐	1.000		4698832.47		A	0.3
8	☐	1.000		4584753.13		A	1.5

Reviewed By:jaswal
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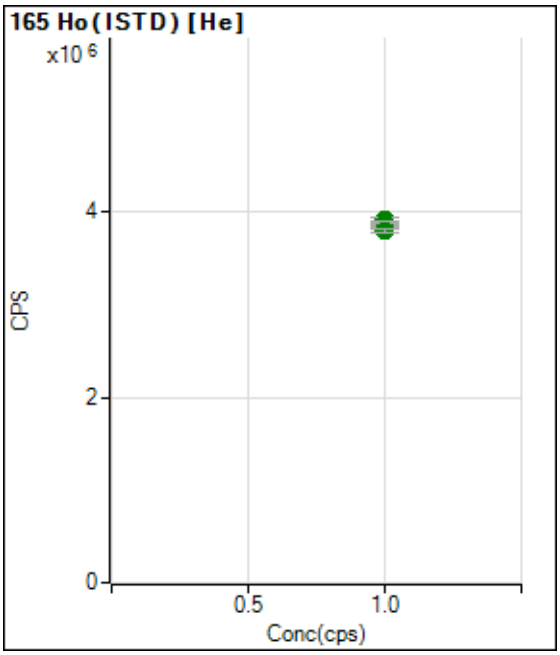
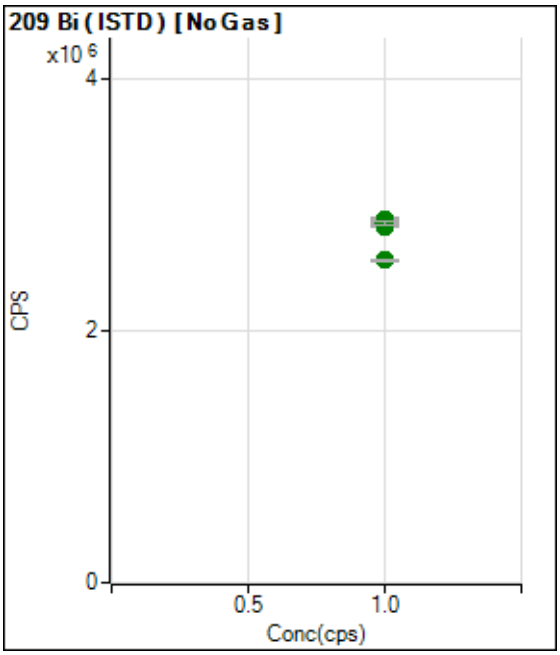
Inst Id :P7
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3892499.35		A	0.6
2	☐	1.000		3835500.99		A	1.4
3	☐	1.000		3869617.37		A	2.1
4	☐	1.000		3886125.91		A	1.0
5	☐	1.000		3914625.11		A	0.9
6	☐	1.000		3879161.61		A	0.8
7	☐	1.000		3881874.91		A	0.5
8	☐	1.000		3797552.93		A	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2828561.00		A	0.7
2	☐	1.000		2837806.35		A	0.6
3	☐	1.000		2872227.73		A	1.7
4	☐	1.000		2837362.28		A	1.5
5	☐	1.000		2830515.20		A	0.4
6	☐	1.000		2877827.77		A	0.8
7	☐	1.000		2848510.72		A	1.0
8	☐	1.000		2557689.42		A	0.9

Reviewed By:jaswal
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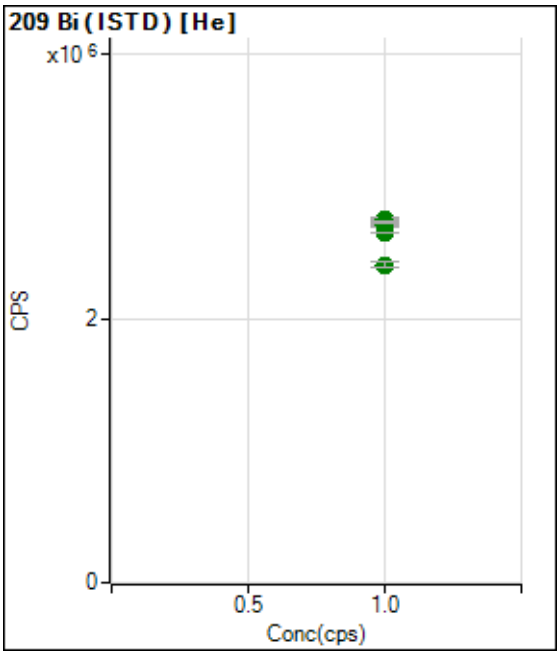
LB :LB135143



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2719981.19		A	1.8
2	☐	1.000		2722296.39		A	1.6
3	☐	1.000		2746087.88		A	0.9
4	☐	1.000		2717041.24		A	0.7
5	☐	1.000		2712352.22		A	1.5
6	☐	1.000		2728524.44		A	0.8
7	☐	1.000		2644767.29		A	0.2
8	☐	1.000		2407469.50		A	2.0

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

US EPA Tune Check Report

Operator Name	Jaswal
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\P7032325MS2.b
Acq. Date-Time	2025-03-23 14:08:56
Report Comment	---
Instrument Name	G8403A JP14410463

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		3950	39497.13			1.056	5.000
24		31991	319911.84			0.949	5.000
25		4268	42679.77			0.965	5.000
26		5032	50316.31			1.353	5.000
59		54618	546181.57			0.594	5.000
113		7346	73459.74			0.692	5.000
115		93886	938858.03			1.125	5.000
206		16749	167489.64			2.163	5.000
207		14725	147252.31			2.707	5.000
208		34767	347671.10			2.329	5.000
220		0	2.90			44.628	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

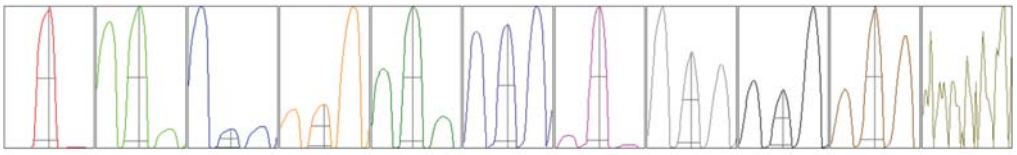
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	4006	3978	3939	3919	3906
24	32368	32100	32129	31705	31654
25	4318	4290	4280	4231	4220
26	5114	5096	5003	4977	4969
59	55011	54528	54740	54684	54129
113	7368	7286	7393	7386	7296
115	93210	92368	94856	94586	94410
206	16530	16437	17105	17181	16492
207	14426	14395	15096	15219	14489
208	34109	34047	35556	35723	34401

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	6834.14	9.00	8.90 - 9.10	
24	52922.49	23.95	23.90 - 24.10	
25	6938.41	24.95	24.90 - 25.10	
26	7923.36	26.00	25.90 - 26.10	
59	91189.60	58.90	58.90 - 59.10	
113	13707.37	113.00	112.90 - 113.10	
115	177207.22	115.00	114.90 - 115.10	
206	32923.04	206.00	205.90 - 206.10	
207	28652.45	207.00	206.90 - 207.10	
208	68582.00	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.779	0.900	
24	0.64	0.793	0.900	
25	0.64	0.775	0.900	
26	0.64	0.786	0.900	
59	0.63	0.780	0.900	
113	0.55	0.736	0.900	
115	0.53	0.734	0.900	
206	0.52	0.764	0.900	
207	0.52	0.746	0.900	
208	0.52	0.782	0.900	
220				

Integration Time [sec] 0.1
Acquisition Time [sec] 256.770000000002
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.87 L/min	Dilution Gas	0.40 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.5 V	Deflect	16.2 V
Extract 2	-110.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-45 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	160 V		

QP Parameters

Mass Gain	138	Axis Gain	0.9978	QP Bias	-3.0 V
Mass Offset	129	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	-0.4 mm	Torch V	0.4 mm		

EM

Discriminator	4.7 mV	Analog HV	2340 V	Pulse HV	1120 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		18784	187839.86			0.552	
89		18499	184988.78			0.473	
205		20420	204199.20			1.012	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	18895	18618	18793	18777	18838
89	18630	18464	18538	18458	18404
205	20785	20282	20332	20330	20370

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.87 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	3.2 V

Reviewed By:jaswal
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LB :LB135143

US EPA Tune Check Report

Extract 2	-140.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-65 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.9 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	138	Axis Gain	0.9978	QP Bias	-13.0 V
Mass Offset	129	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	-0.4 mm	Torch V	0.4 mm

EM

Discriminator	4.7 mV	Analog HV	2340 V	Pulse HV	1120 V

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.05	0.03	0.03	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.00	0.00	-0.01	0.00	N/A	ppb
Barium	135-1	0.00	0.00	0.00	0.00	N/A	ppb
Barium	137-1	0.00	0.00	0.00	0.00	N/A	ppb
Beryllium	9-1	0.01	-0.01	0.01	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.07	0.12	0.00	N/A	ppb
Cadmium	106-1	-0.32	0.02	0.30	0.00	N/A	ppb
Cadmium	111-1	-0.02	0.00	0.01	0.00	N/A	ppb
Calcium	43-1	1.32	-2.55	1.23	0.00	N/A	ppb
Calcium	44-1	0.71	0.11	-0.82	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	-0.01	0.02	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	0.01	0.03	-0.03	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	-0.12	0.15	-0.03	0.00	N/A	ppb
Iron	57-2	-2.08	1.14	0.94	0.00	N/A	ppb
Iron	54-2	0.06	0.13	-0.18	0.00	N/A	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	-0.01	-0.01	0.00	N/A	ppb
Lead	207-1	-0.01	0.01	0.00	0.00	N/A	ppb
Lead	208-1	0.00	0.00	0.00	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	0.18	0.09	-0.27	0.00	N/A	ppb
Manganese	55-2	-0.03	0.00	0.03	0.00	N/A	ppb
Molybdenum	94-1	0.00	-0.01	0.01	0.00	N/A	ppb
Molybdenum	95-1	0.01	0.00	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	98-1	-0.01	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	-0.01	-0.04	0.00	N/A	ppb
Phosphorus	31-2	-127.11	-126.48	-132.62	-128.74		ppb
Potassium	39-2	-1.21	0.55	0.66	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.16	-0.43	0.27	0.00	N/A	ppb
Selenium	77-2	0.31	-0.06	-0.25	0.00	N/A	ppb
Selenium	78-2	-0.79	0.57	0.22	0.00	N/A	ppb
Silicon	28-1	-0.49	0.86	-0.36	0.00	N/A	ppb
Silver	107-1	0.00	0.00	0.00	0.00	N/A	ppb
Silver	109-1	0.00	0.00	0.00	0.00	N/A	ppb
Sodium	23-2	0.14	-0.14	0.00	0.00	N/A	ppb
Strontium	86-1	-0.59	-0.46	1.05	0.00	N/A	ppb
Strontium	88-1	-0.01	-0.03	0.04	0.00	N/A	ppb
Sulfur	34-1	-77.82	-118.33	-92.14	-96.10		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.01	-0.01	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	0.00	0.00	0.00	0.00	N/A	ppb
Titanium	47-1	0.00	-0.02	0.02	0.00	N/A	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb
Vanadium	51-2	0.00	-0.01	0.00	0.00	N/A	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.04	0.05	0.00	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	0.01	-0.01	0.00	0.00	N/A	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17.59	18.36	17.56	17.83	2.55	ppb
Antimony	121-1	1.83	1.89	1.85	1.85	1.63	ppb
Arsenic	75-2	0.91	1.00	1.06	0.99	7.60	ppb
Barium	135-1	8.65	8.63	8.74	8.67	0.69	ppb
Barium	137-1	8.83	8.60	8.64	8.69	1.44	ppb
Beryllium	9-1	0.90	0.97	0.79	0.88	10.18	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.77	0.88	0.78	0.81	7.77	ppb
Cadmium	106-1	1.13	0.67	0.53	0.78	40.03	ppb
Cadmium	111-1	0.90	0.94	0.80	0.88	8.11	ppb
Calcium	43-1	446.35	448.13	434.61	443.03	1.66	ppb
Calcium	44-1	443.88	453.98	448.47	448.78	1.13	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.78	1.79	1.85	1.81	2.17	ppb
Cobalt	59-2	0.92	0.94	0.91	0.92	1.75	ppb
Copper	63-2	1.71	1.71	1.62	1.68	3.23	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				99		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	49.67	49.57	50.17	49.81	0.65	ppb
Iron	57-2	51.86	56.74	55.46	54.69	4.63	ppb
Iron	54-2	50.53	48.98	50.75	50.09	1.92	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.74	0.71	0.71	0.72	2.49	ppb
Lead	207-1	0.68	0.70	0.72	0.70	3.10	ppb
Lead	208-1	0.78	0.76	0.77	0.77	1.45	ppb
Lithium	6-1				100		%
Magnesium	24-2	433.28	433.47	430.83	432.53	0.34	ppb
Manganese	55-2	0.91	0.77	0.89	0.86	8.90	ppb
Molybdenum	94-1	5.07	5.34	5.35	5.25	3.03	ppb
Molybdenum	95-1	4.42	4.54	4.36	4.44	2.08	ppb
Molybdenum	96-1	4.45	4.46	4.45	4.45	0.11	ppb
Molybdenum	97-1	4.23	4.50	4.65	4.46	4.77	ppb
Molybdenum	98-1	4.26	4.32	4.34	4.30	0.93	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.89	0.86	0.86	0.87	2.39	ppb
Phosphorus	31-2	127.81	117.37	141.04	128.74	9.22	ppb
Potassium	39-2	452.21	451.81	443.09	449.04	1.15	ppb
Rhodium	103-1				99		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				99		%
Selenium	82-1	5.11	5.44	4.33	4.96	11.44	ppb
Selenium	77-2	5.19	4.76	3.77	4.57	15.94	ppb
Selenium	78-2	5.02	4.71	5.46	5.06	7.51	ppb
Silicon	28-1	1.84	5.54	6.45	4.61	52.98	ppb
Silver	107-1	0.99	0.96	0.98	0.98	1.98	ppb
Silver	109-1	0.98	0.91	1.00	0.96	4.97	ppb
Sodium	23-2	420.94	428.51	425.13	424.86	0.89	ppb
Strontium	86-1	22.84	22.97	23.00	22.93	0.36	ppb
Strontium	88-1	21.62	22.39	22.21	22.07	1.83	ppb
Sulfur	34-1	60.55	113.69	114.05	96.10	32.03	ppb
Terbium	159-1				102		%
Terbium	159-2				100		%
Thallium	203-1	0.84	0.84	0.83	0.84	0.67	ppb
Thallium	205-1	0.83	0.83	0.83	0.83	0.53	ppb
Tin	118-1	4.63	4.73	4.51	4.62	2.39	ppb
Titanium	47-1	4.29	4.41	4.55	4.42	3.00	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.81	0.81	0.81	0.81	0.18	ppb
Vanadium	51-2	4.39	4.48	4.53	4.46	1.60	ppb
Yttrium	89-1				99		%
Yttrium	89-2				102		%
Zinc	66-2	3.80	4.36	4.15	4.10	6.92	ppb
Zirconium	90-1	0.91	0.91	0.92	0.91	0.65	ppb
Zirconium	91-1	0.92	0.92	1.00	0.95	4.77	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	876.32	901.05	877.51	884.96	1.58	ppb
Antimony	121-1	48.10	47.90	47.54	47.85	0.59	ppb
Arsenic	75-2	53.74	51.57	51.95	52.42	2.21	ppb
Barium	135-1	236.09	231.38	232.72	233.39	1.04	ppb
Barium	137-1	232.48	234.24	230.32	232.35	0.85	ppb
Beryllium	9-1	47.25	46.94	47.29	47.16	0.40	ppb
Bismuth	209-1				102		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	56.44	57.20	55.56	56.40	1.45	ppb
Cadmium	106-1	55.54	55.19	54.69	55.14	0.78	ppb
Cadmium	111-1	51.45	51.83	51.29	51.52	0.54	ppb
Calcium	43-1	4721.53	4718.66	4794.73	4744.97	0.91	ppb
Calcium	44-1	5129.82	5065.65	5150.31	5115.26	0.86	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	46.21	46.38	45.62	46.07	0.86	ppb
Cobalt	59-2	46.47	46.95	46.00	46.48	1.02	ppb
Copper	63-2	522.11	521.38	525.45	522.98	0.41	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				99		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	56-2	2732.21	2785.36	2724.83	2747.47	1.20	ppb
Iron	57-2	2555.23	2605.38	2545.17	2568.59	1.26	ppb
Iron	54-2	2592.69	2640.55	2550.15	2594.46	1.74	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	222.45	218.87	223.49	221.60	1.09	ppb
Lead	207-1	217.40	213.37	218.05	216.27	1.17	ppb
Lead	208-1	237.49	229.29	235.25	234.01	1.81	ppb
Lithium	6-1				101		%
Magnesium	24-2	5178.10	5136.04	5080.51	5131.55	0.95	ppb
Manganese	55-2	507.88	512.19	506.63	508.90	0.57	ppb
Molybdenum	94-1	447.98	456.26	449.37	451.20	0.98	ppb
Molybdenum	95-1	490.77	501.21	497.56	496.52	1.07	ppb
Molybdenum	96-1	506.54	505.22	501.58	504.45	0.51	ppb
Molybdenum	97-1	454.56	461.98	452.34	456.29	1.11	ppb
Molybdenum	98-1	496.10	508.57	504.89	503.19	1.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	52.03	53.48	52.44	52.65	1.42	ppb
Phosphorus	31-2	958.74	938.71	918.52	938.65	2.14	ppb
Potassium	39-2	2373.91	2403.92	2374.11	2383.98	0.72	ppb
Rhodium	103-1				99		%
Rhodium	103-2				100		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	52.95	54.51	53.28	53.58	1.54	ppb
Selenium	77-2	61.16	51.02	53.80	55.33	9.47	ppb
Selenium	78-2	53.23	55.69	54.04	54.32	2.31	ppb
Silicon	28-1	56.91	56.63	56.57	56.71	0.32	ppb
Silver	107-1	50.18	50.12	49.50	49.93	0.75	ppb
Silver	109-1	49.69	49.72	49.05	49.49	0.77	ppb
Sodium	23-2	5153.15	5186.84	5065.36	5135.12	1.22	ppb
Strontium	86-1	1162.53	1169.35	1155.70	1162.53	0.59	ppb
Strontium	88-1	1127.30	1157.45	1132.29	1139.01	1.42	ppb
Sulfur	34-1	1052.63	1019.76	1223.86	1098.75	9.97	ppb
Terbium	159-1				101		%
Terbium	159-2				101		%
Thallium	203-1	43.83	43.22	44.49	43.85	1.45	ppb
Thallium	205-1	43.83	43.40	44.01	43.75	0.71	ppb
Tin	118-1	47.82	47.98	47.55	47.78	0.46	ppb
Titanium	47-1	452.70	455.47	456.70	454.96	0.45	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	41.97	40.85	42.08	41.63	1.63	ppb
Vanadium	51-2	45.51	45.82	44.97	45.43	0.94	ppb
Yttrium	89-1				99		%
Yttrium	89-2				98		%
Zinc	66-2	479.98	487.61	483.26	483.62	0.79	ppb
Zirconium	90-1	44.90	45.81	45.07	45.26	1.07	ppb
Zirconium	91-1	45.99	46.79	45.92	46.23	1.05	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2179.40	2151.29	2174.80	2168.50	0.70	ppb
Antimony	121-1	116.82	119.74	117.70	118.09	1.27	ppb
Arsenic	75-2	130.77	130.56	130.15	130.49	0.24	ppb
Barium	135-1	567.33	577.88	572.08	572.43	0.92	ppb
Barium	137-1	644.45	654.36	631.58	643.47	1.78	ppb
Beryllium	9-1	116.72	116.21	117.02	116.65	0.35	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	137.06	134.77	130.65	134.16	2.42	ppb
Cadmium	106-1	135.23	138.44	136.73	136.80	1.17	ppb
Cadmium	111-1	125.55	129.06	126.84	127.15	1.40	ppb
Calcium	43-1	11838.69	11871.15	11595.20	11768.35	1.28	ppb
Calcium	44-1	12604.68	12667.56	12495.63	12589.29	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	116.31	114.87	116.36	115.84	0.73	ppb
Cobalt	59-2	117.25	114.18	117.43	116.29	1.57	ppb
Copper	63-2	1311.13	1308.04	1302.08	1307.08	0.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				98		%
Iron	56-2	6889.41	6812.27	6884.73	6862.14	0.63	ppb
Iron	57-2	6361.97	6354.89	6442.28	6386.38	0.76	ppb
Iron	54-2	6451.18	6373.31	6391.20	6405.23	0.64	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	625.16	626.65	645.78	632.53	1.82	ppb
Lead	207-1	624.99	630.69	637.93	631.20	1.03	ppb
Lead	208-1	620.63	624.84	637.64	627.70	1.41	ppb
Lithium	6-1				103		%
Magnesium	24-2	13161.81	12943.94	13018.92	13041.56	0.85	ppb
Manganese	55-2	1303.71	1288.90	1290.21	1294.28	0.63	ppb
Molybdenum	94-1	1265.36	1292.11	1251.81	1269.76	1.62	ppb
Molybdenum	95-1	1278.18	1287.58	1270.15	1278.64	0.68	ppb
Molybdenum	96-1	1288.39	1275.22	1296.00	1286.54	0.82	ppb
Molybdenum	97-1	1290.67	1271.01	1267.03	1276.23	0.99	ppb
Molybdenum	98-1	1261.45	1288.49	1250.34	1266.76	1.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	130.44	132.20	131.04	131.23	0.68	ppb
Phosphorus	31-2	2493.99	2478.49	2568.07	2513.52	1.90	ppb
Potassium	39-2	6373.22	6243.39	6420.09	6345.57	1.44	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				96		%
Scandium	45-2				97		%
Selenium	82-1	132.74	135.23	135.22	134.40	1.07	ppb
Selenium	77-2	139.59	133.00	122.71	131.77	6.46	ppb
Selenium	78-2	136.85	128.70	128.67	131.40	3.59	ppb
Silicon	28-1	130.38	133.19	127.40	130.32	2.22	ppb
Silver	107-1	121.97	122.43	121.11	121.84	0.55	ppb
Silver	109-1	119.77	122.55	120.54	120.95	1.19	ppb
Sodium	23-2	12936.96	12898.07	12913.26	12916.09	0.15	ppb
Strontium	86-1	2932.97	2962.07	2949.21	2948.08	0.49	ppb
Strontium	88-1	3138.29	3204.68	3228.33	3190.43	1.46	ppb
Sulfur	34-1	2793.65	2777.70	2672.41	2747.92	2.40	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	108.20	109.59	112.17	109.99	1.83	ppb
Thallium	205-1	122.27	124.98	128.82	125.35	2.63	ppb
Tin	118-1	116.47	119.45	117.41	117.78	1.30	ppb
Titanium	47-1	1137.51	1130.71	1105.15	1124.46	1.52	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	123.66	123.28	124.18	123.71	0.37	ppb
Vanadium	51-2	114.50	113.21	115.40	114.37	0.96	ppb
Yttrium	89-1				96		%
Yttrium	89-2				96		%
Zinc	66-2	1212.82	1211.72	1210.45	1211.67	0.10	ppb
Zirconium	90-1	125.54	127.57	127.74	126.95	0.96	ppb
Zirconium	91-1	116.50	117.68	118.05	117.41	0.69	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4320.61	4273.60	4310.59	4301.60	0.58	ppb
Antimony	121-1	253.46	228.94	234.26	238.89	5.40	ppb
Arsenic	75-2	258.40	254.24	251.25	254.63	1.41	ppb
Barium	135-1	1254.00	1276.19	1319.03	1283.07	2.58	ppb
Barium	137-1	1278.52	1281.91	1296.17	1285.53	0.73	ppb
Beryllium	9-1	230.64	233.90	230.63	231.72	0.81	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	265.10	261.27	264.59	263.65	0.79	ppb
Cadmium	106-1	257.25	264.21	270.29	263.92	2.47	ppb
Cadmium	111-1	244.20	244.71	251.45	246.79	1.64	ppb
Calcium	43-1	23645.49	23930.26	23686.02	23753.92	0.65	ppb
Calcium	44-1	25397.69	24755.25	24899.84	25017.59	1.35	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	230.49	231.45	229.80	230.58	0.36	ppb
Cobalt	59-2	230.25	231.55	232.19	231.33	0.43	ppb
Copper	63-2	2537.56	2563.67	2611.21	2570.81	1.45	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				101		%
Indium	115-1				95		%
Indium	115-2				93		%
Iron	56-2	13719.87	13680.04	13817.83	13739.25	0.52	ppb
Iron	57-2	12789.11	12758.90	12838.63	12795.55	0.31	ppb
Iron	54-2	13616.50	13729.26	13893.87	13746.55	1.01	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1228.45	1233.06	1259.31	1240.27	1.34	ppb
Lead	207-1	1247.09	1244.16	1267.48	1252.91	1.01	ppb
Lead	208-1	1241.35	1246.78	1254.28	1247.47	0.52	ppb
Lithium	6-1				103		%
Magnesium	24-2	25561.33	25995.70	26063.58	25873.54	1.05	ppb
Manganese	55-2	2546.92	2554.08	2574.13	2558.38	0.55	ppb
Molybdenum	94-1	2505.50	2466.57	2544.18	2505.42	1.55	ppb
Molybdenum	95-1	2496.24	2494.33	2542.45	2511.01	1.09	ppb
Molybdenum	96-1	2500.11	2520.06	2539.74	2519.97	0.79	ppb
Molybdenum	97-1	2561.43	2524.84	2522.91	2536.40	0.86	ppb
Molybdenum	98-1	2513.03	2533.22	2508.66	2518.31	0.52	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	261.28	260.23	261.69	261.06	0.29	ppb
Phosphorus	31-2	5028.72	5040.63	5053.78	5041.04	0.25	ppb
Potassium	39-2	12712.75	12450.75	12667.09	12610.20	1.11	ppb
Rhodium	103-1				93		%
Rhodium	103-2				95		%
Scandium	45-1				92		%
Scandium	45-2				95		%
Selenium	82-1	262.65	261.91	262.34	262.30	0.14	ppb
Selenium	77-2	267.86	251.92	261.07	260.28	3.07	ppb
Selenium	78-2	261.31	267.74	250.53	259.86	3.35	ppb
Silicon	28-1	259.22	261.37	262.36	260.98	0.61	ppb
Silver	107-1	259.16	256.82	262.74	259.57	1.15	ppb
Silver	109-1	256.39	254.23	266.01	258.88	2.42	ppb
Sodium	23-2	26113.27	26122.59	25989.16	26075.00	0.29	ppb
Strontium	86-1	5718.83	5798.96	5765.94	5761.24	0.70	ppb
Strontium	88-1	6224.32	6188.64	6305.70	6239.55	0.96	ppb
Sulfur	34-1	5313.55	5226.15	5230.94	5256.88	0.93	ppb
Terbium	159-1				99		%
Terbium	159-2				99		%
Thallium	203-1	217.75	219.95	221.91	219.87	0.94	ppb
Thallium	205-1	247.17	248.88	255.41	250.49	1.74	ppb
Tin	118-1	227.53	228.48	233.06	229.69	1.29	ppb
Titanium	47-1	2542.55	2508.14	2484.72	2511.80	1.16	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	249.10	248.03	244.55	247.23	0.96	ppb
Vanadium	51-2	230.89	228.84	229.44	229.72	0.46	ppb
Yttrium	89-1				94		%
Yttrium	89-2				95		%
Zinc	66-2	2654.51	2677.79	2675.09	2669.13	0.48	ppb
Zirconium	90-1	249.23	249.29	249.81	249.44	0.13	ppb
Zirconium	91-1	230.12	231.37	233.04	231.51	0.63	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9535.29	9628.47	9741.47	9635.08	1.07	ppb
Antimony	121-1	491.35	504.47	499.19	498.34	1.32	ppb
Arsenic	75-2	492.94	502.16	511.41	502.17	1.84	ppb
Barium	135-1	2465.14	2494.76	2509.10	2489.67	0.90	ppb
Barium	137-1	2480.45	2482.43	2443.06	2468.64	0.90	ppb
Beryllium	9-1	440.35	450.62	443.29	444.75	1.19	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	494.73	501.52	505.43	500.56	1.08	ppb
Cadmium	106-1	495.76	507.62	499.62	501.00	1.21	ppb
Cadmium	111-1	465.54	471.62	467.26	468.14	0.67	ppb
Calcium	43-1	46265.02	46773.96	47770.40	46936.46	1.63	ppb
Calcium	44-1	49188.88	50486.61	50660.51	50112.00	1.60	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	506.17	499.51	520.98	508.88	2.16	ppb
Cobalt	59-2	511.77	519.55	518.62	516.64	0.82	ppb
Copper	63-2	4945.01	5178.53	5111.07	5078.20	2.37	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				95		%
Indium	115-2				94		%
Iron	56-2	27114.16	27194.17	27231.63	27179.99	0.22	ppb
Iron	57-2	27303.06	27476.41	26870.67	27216.71	1.15	ppb
Iron	54-2	26343.96	26905.70	27163.36	26804.34	1.56	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2407.86	2520.66	2502.32	2476.94	2.44	ppb
Lead	207-1	2427.64	2541.93	2553.31	2507.63	2.77	ppb
Lead	208-1	2432.50	2518.84	2518.00	2489.78	1.99	ppb
Lithium	6-1				103		%
Magnesium	24-2	49886.77	50478.48	51859.00	50741.42	1.99	ppb
Manganese	55-2	5019.24	5035.67	5081.49	5045.47	0.64	ppb
Molybdenum	94-1	4897.13	5033.95	5139.19	5023.43	2.42	ppb
Molybdenum	95-1	4923.65	5002.56	5066.65	4997.62	1.43	ppb
Molybdenum	96-1	4965.72	5005.35	5038.15	5003.07	0.72	ppb
Molybdenum	97-1	4950.11	5035.50	5078.56	5021.39	1.30	ppb
Molybdenum	98-1	4923.70	5026.20	5064.90	5004.93	1.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	502.81	516.64	515.18	511.54	1.48	ppb
Phosphorus	31-2	9972.30	10296.40	10265.85	10178.18	1.76	ppb
Potassium	39-2	25157.05	24865.00	25263.58	25095.21	0.82	ppb
Rhodium	103-1				93		%
Rhodium	103-2				96		%
Scandium	45-1				94		%
Scandium	45-2				96		%
Selenium	82-1	509.22	514.13	521.52	514.96	1.20	ppb
Selenium	77-2	503.05	494.09	527.72	508.28	3.43	ppb
Selenium	78-2	501.31	517.68	516.02	511.67	1.76	ppb
Silicon	28-1	488.46	509.92	525.35	507.91	3.65	ppb
Silver	107-1	492.52	497.66	497.16	495.78	0.57	ppb
Silver	109-1	495.00	492.44	499.38	495.61	0.71	ppb
Sodium	23-2	50877.55	50321.24	52022.14	51073.65	1.70	ppb
Strontium	86-1	11205.50	11604.80	11658.54	11489.61	2.15	ppb
Strontium	88-1	12199.84	12452.57	12620.77	12424.39	1.71	ppb
Sulfur	34-1	9912.91	9987.89	9980.40	9960.40	0.41	ppb
Terbium	159-1				103		%
Terbium	159-2				101		%
Thallium	203-1	491.40	510.26	511.38	504.35	2.23	ppb
Thallium	205-1	492.75	507.04	495.45	498.41	1.52	ppb
Tin	118-1	490.97	507.20	503.72	500.63	1.71	ppb
Titanium	47-1	4882.81	5025.33	5103.30	5003.81	2.23	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	494.14	510.18	505.36	503.23	1.63	ppb
Vanadium	51-2	496.68	509.36	503.61	503.21	1.26	ppb
Yttrium	89-1				94		%
Yttrium	89-2				96		%
Zinc	66-2	5100.33	5223.57	5257.21	5193.70	1.59	ppb
Zirconium	90-1	488.91	503.28	504.90	499.03	1.76	ppb
Zirconium	91-1	456.60	465.30	467.60	463.17	1.25	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19219.07	19266.30	18519.02	19001.46	2.20	ppb
Antimony	121-1	1013.09	1010.15	990.50	1004.58	1.22	ppb
Arsenic	75-2	1012.90	993.47	984.48	996.95	1.46	ppb
Barium	135-1	5076.10	5041.21	4895.59	5004.30	1.91	ppb
Barium	137-1	5069.37	5128.63	4818.11	5005.37	3.29	ppb
Beryllium	9-1	1043.85	1029.16	1027.13	1033.38	0.88	ppb
Bismuth	209-1				101		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1013.07	990.80	980.65	994.84	1.67	ppb
Cadmium	106-1	1007.02	995.02	980.82	994.29	1.32	ppb
Cadmium	111-1	1024.40	1031.91	992.85	1016.39	2.04	ppb
Calcium	43-1	99279.97	105143.68	99956.26	101459.97	3.16	ppb
Calcium	44-1	99035.46	101653.07	100188.57	100292.37	1.31	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	997.95	1015.37	991.94	1001.75	1.21	ppb
Cobalt	59-2	1000.52	1000.37	991.95	997.61	0.49	ppb
Copper	63-2	9893.77	10046.65	9864.31	9934.91	0.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				94		%
Indium	115-2				91		%
Iron	56-2	54342.27	53169.41	52375.69	53295.79	1.86	ppb
Iron	57-2	52477.71	53363.44	53166.89	53002.68	0.88	ppb
Iron	54-2	53034.15	54261.03	52813.41	53369.53	1.46	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4982.28	5016.03	5045.00	5014.44	0.63	ppb
Lead	207-1	4998.98	4930.73	5059.40	4996.37	1.29	ppb
Lead	208-1	4985.39	4968.43	5064.79	5006.20	1.03	ppb
Lithium	6-1				101		%
Magnesium	24-2	101131.63	100592.87	99181.94	100302.15	1.00	ppb
Manganese	55-2	9998.95	9963.65	9907.48	9956.69	0.46	ppb
Molybdenum	94-1	9970.13	10038.06	9952.52	9986.90	0.45	ppb
Molybdenum	95-1	10018.25	10110.63	9856.22	9995.03	1.29	ppb
Molybdenum	96-1	10020.76	10071.39	9873.90	9988.68	1.03	ppb
Molybdenum	97-1	9946.34	10035.69	9955.30	9979.11	0.49	ppb
Molybdenum	98-1	9869.59	10035.46	10067.07	9990.70	1.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	992.07	1001.83	977.75	990.55	1.22	ppb
Phosphorus	31-2	19913.49	19847.08	19945.50	19902.03	0.25	ppb
Potassium	39-2	50198.99	49902.04	49023.26	49708.10	1.23	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				94		%
Scandium	45-2				96		%
Selenium	82-1	978.75	989.91	995.62	988.09	0.87	ppb
Selenium	77-2	997.07	983.91	995.55	992.18	0.73	ppb
Selenium	78-2	997.74	999.67	974.64	990.68	1.41	ppb
Silicon	28-1	974.74	1007.84	994.49	992.35	1.68	ppb
Silver	107-1	1017.24	1005.68	977.43	1000.12	2.05	ppb
Silver	109-1	1012.01	1017.16	972.36	1000.51	2.45	ppb
Sodium	23-2	102345.02	99436.32	99426.26	100402.53	1.68	ppb
Strontium	86-1	25364.68	25816.00	25780.93	25653.87	0.98	ppb
Strontium	88-1	24845.35	25380.29	24887.71	25037.78	1.19	ppb
Sulfur	34-1	19820.16	20243.73	19695.07	19919.65	1.44	ppb
Terbium	159-1				103		%
Terbium	159-2				101		%
Thallium	203-1	1005.33	1001.45	1015.86	1007.54	0.74	ppb
Thallium	205-1	1012.05	981.88	1008.89	1000.94	1.66	ppb
Tin	118-1	1015.30	1025.12	976.91	1005.78	2.53	ppb
Titanium	47-1	9900.25	10231.78	9907.24	10013.09	1.89	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	995.72	1005.67	997.59	999.66	0.53	ppb
Vanadium	51-2	1001.27	1019.93	993.87	1005.02	1.34	ppb
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	9935.95	9876.96	9786.52	9866.48	0.76	ppb
Zirconium	90-1	994.37	1006.58	1000.90	1000.62	0.61	ppb
Zirconium	91-1	1033.71	1039.74	999.09	1024.18	2.14	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	99715.49	100620.39	100505.79	100280.56	0.49	ppb
Antimony	121-1	0.34	0.34	0.37	0.35	5.15	ppb
Arsenic	75-2	0.51	0.58	0.60	0.56	7.92	ppb
Barium	135-1	1.88	1.86	2.02	1.92	4.32	ppb
Barium	137-1	1.78	1.93	1.84	1.85	4.02	ppb
Beryllium	9-1	0.08	0.08	0.11	0.09	16.13	ppb
Bismuth	209-1				90		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.45	0.23	0.26	0.31	37.95	ppb
Cadmium	106-1	1.05	0.23	0.29	0.52	87.86	ppb
Cadmium	111-1	0.16	0.11	0.13	0.13	20.11	ppb
Calcium	43-1	498008.32	495288.96	506995.41	500097.56	1.23	ppb
Calcium	44-1	499333.02	496161.24	504284.08	499926.11	0.82	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5.07	5.10	4.95	5.04	1.63	ppb
Cobalt	59-2	2.35	2.38	2.36	2.37	0.70	ppb
Copper	63-2	1.82	1.88	1.86	1.85	1.80	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				93		%
Indium	115-2				93		%
Iron	56-2	248341.18	252043.37	246744.76	249043.10	1.09	ppb
Iron	57-2	249987.20	250715.42	246774.14	249158.92	0.84	ppb
Iron	54-2	247458.49	249317.14	250459.89	249078.51	0.61	ppb
Krypton	83-1						cps

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2.11	2.07	2.06	2.08	1.02	ppb
Lead	207-1	2.06	2.17	2.13	2.12	2.62	ppb
Lead	208-1	2.08	2.07	2.05	2.06	0.77	ppb
Lithium	6-1				98		%
Magnesium	24-2	497594.61	505570.41	496255.88	499806.97	1.01	ppb
Manganese	55-2	4.08	4.42	4.12	4.21	4.43	ppb
Molybdenum	94-1	2.06	2.06	2.03	2.05	0.82	ppb
Molybdenum	95-1	1.15	1.21	1.29	1.22	5.76	ppb
Molybdenum	96-1	5.54	5.41	5.48	5.48	1.18	ppb
Molybdenum	97-1	1.28	1.22	1.22	1.24	2.99	ppb
Molybdenum	98-1	1.12	1.01	1.08	1.07	5.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	3.90	4.12	3.90	3.98	3.19	ppb
Phosphorus	31-2	-118.21	-118.06	-130.88	-122.38		ppb
Potassium	39-2	250361.51	249625.01	250140.14	250042.22	0.15	ppb
Rhodium	103-1				88		%
Rhodium	103-2				90		%
Scandium	45-1				95		%
Scandium	45-2				100		%
Selenium	82-1	2.06	1.70	1.52	1.76	15.58	ppb
Selenium	77-2	0.32	0.13	0.71	0.39	75.98	ppb
Selenium	78-2	-1.23	-0.74	0.65	-0.44		ppb
Silicon	28-1	6.17	3.90	9.58	6.55	43.67	ppb
Silver	107-1	0.05	0.05	0.04	0.05	9.46	ppb
Silver	109-1	0.05	0.05	0.05	0.05	2.16	ppb
Sodium	23-2	498681.30	498684.69	501874.11	499746.70	0.37	ppb
Strontium	86-1	78.94	78.16	80.75	79.28	1.68	ppb
Strontium	88-1	75.64	75.62	75.56	75.61	0.06	ppb
Sulfur	34-1	-36.21	203.99	504.75	224.18	120.91	ppb
Terbium	159-1				99		%
Terbium	159-2				97		%
Thallium	203-1	0.08	0.06	0.04	0.06	36.06	ppb
Thallium	205-1	0.07	0.05	0.06	0.06	13.49	ppb
Tin	118-1	0.08	0.08	0.11	0.09	15.76	ppb
Titanium	47-1	0.35	0.43	0.44	0.41	12.88	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.03	0.03	0.02	0.03	18.98	ppb
Vanadium	51-2	0.19	0.24	0.23	0.22	11.78	ppb
Yttrium	89-1				95		%
Yttrium	89-2				98		%
Zinc	66-2	14.45	14.77	14.36	14.53	1.50	ppb
Zirconium	90-1	0.41	0.41	0.39	0.40	2.73	ppb
Zirconium	91-1	0.38	0.40	0.40	0.39	2.93	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	488.92	491.05	499.50	493.16	1.13	ppb
Antimony	121-1	193.04	196.20	194.99	194.74	0.82	ppb
Arsenic	75-2	216.62	213.48	214.54	214.88	0.74	ppb
Barium	135-1	96.48	96.22	96.68	96.46	0.24	ppb
Barium	137-1	96.68	97.33	96.07	96.70	0.65	ppb
Beryllium	9-1	96.37	96.44	97.39	96.73	0.59	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	99.80	104.59	104.63	103.01	2.70	ppb
Cadmium	106-1	98.87	100.36	99.31	99.51	0.77	ppb
Cadmium	111-1	105.40	104.84	106.00	105.41	0.55	ppb
Calcium	43-1	1817.80	1857.29	1864.73	1846.61	1.37	ppb
Calcium	44-1	1863.21	1906.03	1876.81	1882.02	1.16	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	96.92	95.66	96.94	96.51	0.76	ppb
Cobalt	59-2	95.89	96.34	97.66	96.63	0.95	ppb
Copper	63-2	99.45	99.14	99.59	99.39	0.23	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				101		%
Iron	56-2	2189.91	2195.89	2226.94	2204.24	0.90	ppb
Iron	57-2	2045.57	2029.89	2053.54	2043.00	0.59	ppb
Iron	54-2	2111.48	2113.45	2129.02	2117.98	0.45	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	183.84	184.87	187.52	185.41	1.02	ppb
Lead	207-1	171.78	174.15	175.10	173.67	0.99	ppb
Lead	208-1	204.73	207.98	207.17	206.63	0.82	ppb
Lithium	6-1				102		%
Magnesium	24-2	1109.49	1117.46	1113.32	1113.42	0.36	ppb
Manganese	55-2	101.09	99.65	101.80	100.85	1.09	ppb
Molybdenum	94-1	0.04	0.02	0.05	0.04	37.22	ppb
Molybdenum	95-1	0.02	0.02	0.03	0.02	18.77	ppb
Molybdenum	96-1	0.05	0.06	0.05	0.05	7.08	ppb
Molybdenum	97-1	0.01	0.03	0.03	0.03	39.18	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	12.90	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	120.83	119.59	120.93	120.45	0.62	ppb
Phosphorus	31-2	-135.07	-127.16	-124.68	-128.97		ppb
Potassium	39-2	1885.49	1879.82	1901.43	1888.91	0.59	ppb
Rhodium	103-1				99		%
Rhodium	103-2				102		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	219.22	219.71	220.40	219.78	0.27	ppb
Selenium	77-2	223.31	222.80	225.44	223.85	0.63	ppb
Selenium	78-2	223.82	221.42	225.17	223.47	0.85	ppb
Silicon	28-1	-3.08	0.33	-2.27	-1.67		ppb
Silver	107-1	47.39	48.34	47.83	47.86	0.99	ppb
Silver	109-1	47.62	47.96	47.15	47.58	0.86	ppb
Sodium	23-2	1858.35	1867.41	1869.94	1865.23	0.33	ppb
Strontium	86-1	6.18	6.31	5.79	6.09	4.43	ppb
Strontium	88-1	5.59	5.66	5.63	5.63	0.67	ppb
Sulfur	34-1	-264.96	-172.61	-162.91	-200.16		ppb
Terbium	159-1				101		%
Terbium	159-2				101		%
Thallium	203-1	176.52	180.15	181.67	179.45	1.48	ppb
Thallium	205-1	207.03	207.04	207.23	207.10	0.06	ppb
Tin	118-1	0.02	0.02	-0.02	0.01	347.13	ppb
Titanium	47-1	0.03	0.02	0.02	0.02	29.63	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	273.30	ppb
Vanadium	51-2	92.98	93.29	94.14	93.47	0.64	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	187.55	183.20	185.29	185.35	1.17	ppb
Zirconium	90-1	0.00	0.00	0.01	0.00	131.32	ppb
Zirconium	91-1	0.05	0.04	0.08	0.06	32.44	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.07	17.78	18.12	17.99	1.02	ppb
Antimony	121-1	1.88	1.95	1.90	1.91	1.76	ppb
Arsenic	75-2	1.25	1.10	1.13	1.16	6.61	ppb
Barium	135-1	9.07	8.90	9.25	9.08	1.93	ppb
Barium	137-1	9.20	9.09	9.32	9.20	1.24	ppb
Beryllium	9-1	1.06	1.03	1.02	1.03	2.00	ppb
Bismuth	209-1				101		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.90	0.81	1.06	0.92	13.25	ppb
Cadmium	106-1	1.93	1.68	1.72	1.78	7.55	ppb
Cadmium	111-1	1.00	0.99	0.98	0.99	0.92	ppb
Calcium	43-1	455.86	440.96	449.87	448.90	1.67	ppb
Calcium	44-1	446.50	452.16	454.54	451.07	0.92	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.94	1.78	1.83	1.85	4.44	ppb
Cobalt	59-2	0.98	0.97	0.96	0.97	1.04	ppb
Copper	63-2	1.77	1.72	1.81	1.77	2.52	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				101		%
Indium	115-2				103		%
Iron	56-2	50.96	50.16	50.96	50.69	0.91	ppb
Iron	57-2	52.23	53.82	57.09	54.38	4.56	ppb
Iron	54-2	51.26	51.96	53.42	52.21	2.11	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.77	0.75	0.79	0.77	2.39	ppb
Lead	207-1	0.77	0.79	0.79	0.78	1.45	ppb
Lead	208-1	0.81	0.82	0.82	0.82	0.48	ppb
Lithium	6-1				101		%
Magnesium	24-2	444.42	433.92	445.27	441.20	1.43	ppb
Manganese	55-2	0.79	0.83	0.81	0.81	2.58	ppb
Molybdenum	94-1	5.33	5.34	5.41	5.36	0.74	ppb
Molybdenum	95-1	4.44	4.49	4.37	4.43	1.37	ppb
Molybdenum	96-1	4.59	4.55	4.47	4.54	1.29	ppb
Molybdenum	97-1	4.39	4.37	4.39	4.38	0.37	ppb
Molybdenum	98-1	4.47	4.55	4.39	4.47	1.88	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.89	0.91	0.87	0.89	2.30	ppb
Phosphorus	31-2	122.26	133.39	134.99	130.22	5.32	ppb
Potassium	39-2	461.49	456.19	472.32	463.34	1.77	ppb
Rhodium	103-1				99		%
Rhodium	103-2				101		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	4.82	5.02	5.43	5.09	6.08	ppb
Selenium	77-2	3.87	5.70	3.79	4.45	24.29	ppb
Selenium	78-2	3.80	5.76	4.71	4.76	20.57	ppb
Silicon	28-1	-3.18	-0.87	0.69	-1.12		ppb
Silver	107-1	0.96	1.00	1.01	0.99	2.45	ppb
Silver	109-1	0.98	1.00	1.04	1.01	2.70	ppb
Sodium	23-2	438.83	437.63	442.90	439.79	0.63	ppb
Strontium	86-1	23.39	22.00	23.15	22.85	3.25	ppb
Strontium	88-1	23.11	23.41	23.14	23.22	0.72	ppb
Sulfur	34-1	28.00	116.59	108.67	84.42	58.07	ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	0.83	0.90	0.86	0.86	4.21	ppb
Thallium	205-1	0.86	0.89	0.85	0.87	2.46	ppb
Tin	118-1	4.77	4.70	4.74	4.73	0.78	ppb
Titanium	47-1	4.48	4.69	4.28	4.48	4.52	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.82	0.81	0.84	0.82	1.57	ppb
Vanadium	51-2	4.49	4.50	4.51	4.50	0.33	ppb
Yttrium	89-1				99		%
Yttrium	89-2				99		%
Zinc	66-2	4.22	4.12	4.55	4.30	5.26	ppb
Zirconium	90-1	0.96	0.95	0.95	0.95	0.59	ppb
Zirconium	91-1	0.97	1.03	0.93	0.98	5.06	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.15	5.87	6.74	6.25	7.14	ppb
Antimony	121-1	0.00	0.01	0.00	0.00	39.27	ppb
Arsenic	75-2	-0.05	-0.03	-0.08	-0.05		ppb
Barium	135-1	0.01	0.01	0.01	0.01	32.68	ppb
Barium	137-1	0.01	0.00	0.01	0.01	119.93	ppb
Beryllium	9-1	0.02	0.03	0.00	0.02	107.58	ppb
Bismuth	209-1				98		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.07	-0.02	0.01	445.95	ppb
Cadmium	106-1	0.31	0.69	0.29	0.43	52.28	ppb
Cadmium	111-1	0.01	0.05	0.03	0.03	57.73	ppb
Calcium	43-1	-2.65	-4.59	-2.02	-3.09		ppb
Calcium	44-1	-1.56	-1.46	-1.24	-1.42		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	-0.02	0.01	0.00	1226.62	ppb
Cobalt	59-2	-0.01	0.00	0.00	-0.01		ppb
Copper	63-2	0.01	-0.01	-0.03	-0.01		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				97		%
Indium	115-1				99		%
Indium	115-2				99		%
Iron	56-2	0.93	1.22	1.06	1.07	13.22	ppb
Iron	57-2	-0.02	2.03	1.45	1.15	91.74	ppb
Iron	54-2	3.63	1.50	2.63	2.59	41.18	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	0.03	0.01	0.02	42.52	ppb
Lead	207-1	0.02	0.01	0.00	0.01	71.46	ppb
Lead	208-1	0.01	0.01	0.00	0.01	48.90	ppb
Lithium	6-1				99		%
Magnesium	24-2	0.14	0.20	0.13	0.16	25.58	ppb
Manganese	55-2	-0.04	0.01	-0.05	-0.03		ppb
Molybdenum	94-1	0.01	0.01	0.01	0.01	20.93	ppb
Molybdenum	95-1	0.01	0.01	0.00	0.00	38.80	ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00	254.56	ppb
Molybdenum	97-1	-0.01	0.00	0.00	0.00		ppb
Molybdenum	98-1	0.00	0.00	-0.01	0.00		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.07	0.02	0.04	0.05	49.71	ppb
Phosphorus	31-2	-129.18	-127.49	-128.31	-128.33		ppb
Potassium	39-2	3.89	7.77	1.31	4.32	75.22	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				97		%
Scandium	45-2				98		%
Selenium	82-1	0.23	0.42	0.13	0.26	55.19	ppb
Selenium	77-2	0.13	-0.25	-0.25	-0.12		ppb
Selenium	78-2	2.32	0.13	0.95	1.13	97.35	ppb
Silicon	28-1	0.89	5.95	8.12	4.99	74.40	ppb
Silver	107-1	0.00	0.00	0.00	0.00	440.26	ppb
Silver	109-1	0.00	0.00	0.00	0.00		ppb
Sodium	23-2	4.06	4.01	4.30	4.12	3.79	ppb
Strontium	86-1	0.94	0.10	1.36	0.80	79.91	ppb
Strontium	88-1	0.11	0.02	0.06	0.06	74.03	ppb
Sulfur	34-1	-234.41	-153.64	-102.04	-163.36		ppb
Terbium	159-1				99		%
Terbium	159-2				99		%
Thallium	203-1	-0.01	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	-0.01	0.04	0.00	0.01	257.75	ppb
Titanium	47-1	0.03	0.00	0.01	0.01	118.29	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.01	0.00	0.01	114.90	ppb
Yttrium	89-1				97		%
Yttrium	89-2				98		%
Zinc	66-2	0.46	0.46	0.54	0.49	9.03	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	290.32	ppb
Zirconium	91-1	0.00	0.00	0.01	0.00	244.17	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	88958.76	88387.09	88374.37	88573.40	0.38	ppb
Antimony	121-1	0.99	0.98	1.05	1.01	3.50	ppb
Arsenic	75-2	0.52	0.57	0.50	0.53	6.59	ppb
Barium	135-1	1.38	1.27	1.28	1.31	4.98	ppb
Barium	137-1	1.23	1.27	1.24	1.24	1.54	ppb
Beryllium	9-1	0.31	0.28	0.23	0.27	15.11	ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	7.18	6.29	7.01	6.83	6.92	ppb
Cadmium	106-1	0.05	0.16	-1.34	-0.38		ppb
Cadmium	111-1	0.30	0.26	0.15	0.24	31.95	ppb
Calcium	43-1	98858.84	98134.43	96660.67	97884.64	1.14	ppb
Calcium	44-1	97619.30	96685.46	97991.50	97432.09	0.69	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	18.18	17.93	17.93	18.01	0.81	ppb
Cobalt	59-2	1.11	1.11	1.13	1.12	1.32	ppb
Copper	63-2	9.99	10.06	10.12	10.06	0.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				94		%
Iron	56-2	107429.09	105447.93	103328.84	105401.95	1.95	ppb
Iron	57-2	104447.87	100959.17	104029.46	103145.50	1.85	ppb
Iron	54-2	105262.67	102323.72	104002.07	103862.82	1.42	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4.25	4.04	4.28	4.19	3.19	ppb
Lead	207-1	3.75	3.63	3.68	3.69	1.63	ppb
Lead	208-1	3.86	3.74	3.88	3.83	1.96	ppb
Lithium	6-1				97		%
Magnesium	24-2	94126.40	93262.58	92626.28	93338.42	0.81	ppb
Manganese	55-2	6.49	6.31	6.38	6.39	1.37	ppb
Molybdenum	94-1	1583.83	1549.73	1601.74	1578.43	1.67	ppb
Molybdenum	95-1	1894.66	1917.05	1939.98	1917.23	1.18	ppb
Molybdenum	96-1	1877.98	1869.02	1907.64	1884.88	1.07	ppb
Molybdenum	97-1	1931.04	1910.17	1958.16	1933.12	1.24	ppb
Molybdenum	98-1	1894.79	1901.73	1945.32	1913.95	1.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.46	5.38	5.08	5.31	3.87	ppb
Phosphorus	31-2	101498.31	99578.24	99879.25	100318.60	1.03	ppb
Potassium	39-2	97628.79	96249.00	97253.46	97043.75	0.74	ppb
Rhodium	103-1				92		%
Rhodium	103-2				94		%
Scandium	45-1				93		%
Scandium	45-2				95		%
Selenium	82-1	0.99	1.30	0.62	0.97	34.82	ppb
Selenium	77-2	-0.06	0.14	0.34	0.14	140.87	ppb
Selenium	78-2	0.79	-0.16	-1.18	-0.18		ppb
Silicon	28-1	5.37	2.14	2.78	3.43	49.83	ppb
Silver	107-1	0.01	0.02	0.03	0.02	43.88	ppb
Silver	109-1	0.02	0.02	0.03	0.02	22.82	ppb
Sodium	23-2	100713.40	99210.66	99202.94	99709.00	0.87	ppb
Strontium	86-1	765.23	774.15	780.37	773.25	0.98	ppb
Strontium	88-1	744.41	751.42	767.45	754.43	1.57	ppb
Sulfur	34-1	115702.21	114886.41	114458.61	115015.75	0.55	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	0.07	0.10	0.13	0.10	28.11	ppb
Thallium	205-1	0.07	0.10	0.13	0.10	31.18	ppb
Tin	118-1	0.36	0.40	0.37	0.38	4.81	ppb
Titanium	47-1	2007.71	1974.93	1951.51	1978.05	1.43	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	14.49	ppb
Vanadium	51-2	0.17	0.20	0.18	0.18	8.10	ppb
Yttrium	89-1				96		%
Yttrium	89-2				96		%
Zinc	66-2	9.12	8.74	9.12	8.99	2.47	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	41.86	ppb
Zirconium	91-1	0.02	0.02	0.02	0.02	6.26	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	90915.61	91186.31	92620.54	91574.15	1.00	ppb
Antimony	121-1	18.21	19.84	19.72	19.26	4.71	ppb
Arsenic	75-2	19.72	20.91	20.71	20.45	3.11	ppb
Barium	135-1	18.24	20.00	20.12	19.45	5.40	ppb
Barium	137-1	18.38	19.55	20.15	19.36	4.65	ppb
Beryllium	9-1	17.53	19.22	18.84	18.53	4.80	ppb
Bismuth	209-1				103		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	23.84	24.67	25.44	24.65	3.23	ppb
Cadmium	106-1	16.94	17.34	18.13	17.47	3.45	ppb
Cadmium	111-1	17.77	19.35	19.84	18.99	5.69	ppb
Calcium	43-1	89891.90	96189.60	101569.14	95883.55	6.10	ppb
Calcium	44-1	89323.72	97163.67	100911.17	95799.52	6.17	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	37.14	37.34	37.21	37.23	0.26	ppb
Cobalt	59-2	19.59	19.82	20.22	19.88	1.61	ppb
Copper	63-2	27.38	27.59	28.37	27.78	1.88	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				101		%
Indium	115-1				101		%
Indium	115-2				97		%
Iron	56-2	107316.00	106935.23	108063.23	107438.15	0.53	ppb
Iron	57-2	105822.22	108041.46	106393.22	106752.30	1.08	ppb
Iron	54-2	106520.09	106572.11	107727.64	106939.95	0.64	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	20.76	22.52	23.18	22.15	5.64	ppb
Lead	207-1	20.13	20.85	21.81	20.93	4.05	ppb
Lead	208-1	21.13	22.45	23.36	22.31	5.03	ppb
Lithium	6-1				101		%
Magnesium	24-2	93220.88	94867.71	94398.48	94162.36	0.90	ppb
Manganese	55-2	24.69	24.52	24.74	24.65	0.47	ppb
Molybdenum	94-1	1472.03	1604.78	1618.11	1564.97	5.16	ppb
Molybdenum	95-1	1831.24	1967.32	1983.50	1927.35	4.34	ppb
Molybdenum	96-1	1822.77	1946.40	1948.58	1905.92	3.78	ppb
Molybdenum	97-1	1851.17	1978.92	1982.90	1937.66	3.87	ppb
Molybdenum	98-1	1809.53	1957.54	1958.63	1908.56	4.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	25.89	26.22	26.20	26.10	0.70	ppb
Phosphorus	31-2	102084.23	103292.89	103362.62	102913.25	0.70	ppb
Potassium	39-2	99896.53	99598.07	100896.61	100130.41	0.68	ppb
Rhodium	103-1				98		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				98		%
Selenium	82-1	19.69	20.71	21.31	20.57	3.96	ppb
Selenium	77-2	23.19	16.76	21.26	20.40	16.19	ppb
Selenium	78-2	18.90	20.47	19.59	19.65	4.01	ppb
Silicon	28-1	-11.71	-7.56	-0.29	-6.52		ppb
Silver	107-1	16.10	17.59	17.48	17.06	4.89	ppb
Silver	109-1	16.07	17.52	17.59	17.06	5.02	ppb
Sodium	23-2	101396.75	100814.25	101957.36	101389.45	0.56	ppb
Strontium	86-1	736.05	802.19	810.87	783.04	5.23	ppb
Strontium	88-1	726.53	779.83	783.58	763.31	4.18	ppb
Sulfur	34-1	104866.11	114802.65	119360.84	113009.87	6.56	ppb
Terbium	159-1				106		%
Terbium	159-2				102		%
Thallium	203-1	16.66	17.97	18.88	17.84	6.26	ppb
Thallium	205-1	17.08	17.99	19.22	18.10	5.92	ppb
Tin	118-1	0.14	0.24	0.24	0.21	25.55	ppb
Titanium	47-1	1845.84	1983.29	2004.39	1944.51	4.43	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.02	0.02	8.04	ppb
Vanadium	51-2	18.50	19.07	19.06	18.88	1.73	ppb
Yttrium	89-1				100		%
Yttrium	89-2				99		%
Zinc	66-2	35.73	36.13	35.97	35.94	0.57	ppb
Zirconium	90-1	0.07	0.07	0.09	0.08	8.63	ppb
Zirconium	91-1	0.09	0.09	0.08	0.09	7.06	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50597.68	49370.75	49399.18	49789.20	1.41	ppb
Antimony	121-1	494.43	500.63	518.13	504.40	2.44	ppb
Arsenic	75-2	485.01	486.39	489.85	487.09	0.51	ppb
Barium	135-1	2550.03	2637.46	2575.50	2587.66	1.74	ppb
Barium	137-1	2554.43	2554.66	2584.57	2564.55	0.68	ppb
Beryllium	9-1	454.37	451.82	452.44	452.88	0.29	ppb
Bismuth	209-1				96		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	481.69	495.16	492.01	489.62	1.44	ppb
Cadmium	106-1	487.58	493.26	490.57	490.47	0.58	ppb
Cadmium	111-1	450.59	458.97	459.95	456.50	1.13	ppb
Calcium	43-1	251247.33	247531.95	250141.92	249640.40	0.76	ppb
Calcium	44-1	242054.89	249725.29	244977.80	245585.99	1.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	505.75	501.56	500.60	502.64	0.55	ppb
Cobalt	59-2	488.12	497.73	485.46	490.44	1.32	ppb
Copper	63-2	5039.67	5074.33	5018.57	5044.19	0.56	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				95		%
Indium	115-2				94		%
Iron	56-2	131010.97	132101.99	129034.79	130715.92	1.19	ppb
Iron	57-2	126709.06	130634.12	129290.49	128877.89	1.55	ppb
Iron	54-2	128552.73	129564.10	130293.63	129470.15	0.68	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2532.22	2587.78	2646.02	2588.67	2.20	ppb
Lead	207-1	2546.17	2579.32	2623.88	2583.12	1.51	ppb
Lead	208-1	2553.23	2580.20	2598.14	2577.19	0.88	ppb
Lithium	6-1				98		%
Magnesium	24-2	249406.14	247166.30	246190.28	247587.58	0.67	ppb
Manganese	55-2	4956.70	5013.85	4982.57	4984.37	0.57	ppb
Molybdenum	94-1	5020.81	5135.37	5006.38	5054.19	1.40	ppb
Molybdenum	95-1	4989.81	5092.49	5059.93	5047.41	1.04	ppb
Molybdenum	96-1	5084.40	5076.91	5127.36	5096.22	0.53	ppb
Molybdenum	97-1	5155.03	5182.36	5060.86	5132.75	1.24	ppb
Molybdenum	98-1	5141.45	5126.51	5047.11	5105.02	0.99	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	507.71	511.02	505.73	508.16	0.53	ppb
Phosphorus	31-2	10048.88	10127.17	10086.56	10087.54	0.39	ppb
Potassium	39-2	123733.81	123949.98	123633.72	123772.50	0.13	ppb
Rhodium	103-1				92		%
Rhodium	103-2				93		%
Scandium	45-1				96		%
Scandium	45-2				99		%
Selenium	82-1	475.28	482.35	477.04	478.22	0.77	ppb
Selenium	77-2	489.95	478.51	475.16	481.20	1.61	ppb
Selenium	78-2	468.32	493.27	492.61	484.73	2.93	ppb
Silicon	28-1	371.66	372.68	378.24	374.19	0.95	ppb
Silver	107-1	453.25	451.79	465.83	456.96	1.69	ppb
Silver	109-1	453.83	465.40	456.67	458.63	1.32	ppb
Sodium	23-2	246343.20	244612.89	242237.84	244397.97	0.84	ppb
Strontium	86-1	11521.94	11681.81	11545.34	11583.03	0.75	ppb
Strontium	88-1	12366.05	12677.72	12664.67	12569.48	1.40	ppb
Sulfur	34-1	10026.47	9863.62	9819.63	9903.24	1.10	ppb
Terbium	159-1				102		%
Terbium	159-2				100		%
Thallium	203-1	516.19	526.18	523.43	521.93	0.99	ppb
Thallium	205-1	525.79	523.82	530.31	526.64	0.63	ppb
Tin	118-1	504.44	510.14	512.84	509.14	0.84	ppb
Titanium	47-1	4997.70	5050.84	5002.98	5017.17	0.58	ppb

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	517.39	522.15	535.00	524.85	1.74	ppb
Vanadium	51-2	505.35	499.86	509.01	504.74	0.91	ppb
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	4863.35	4964.47	4853.32	4893.71	1.26	ppb
Zirconium	90-1	502.08	507.36	510.01	506.48	0.80	ppb
Zirconium	91-1	464.14	472.48	470.46	469.03	0.93	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5.71	6.11	5.22	5.68	7.86	ppb
Antimony	121-1	0.06	0.06	0.06	0.06	1.03	ppb
Arsenic	75-2	-0.01	-0.01	0.09	0.02	285.47	ppb
Barium	135-1	0.04	0.02	0.01	0.03	55.05	ppb
Barium	137-1	0.02	0.02	0.00	0.01	98.46	ppb
Beryllium	9-1	0.08	-0.02	0.01	0.03	198.25	ppb
Bismuth	209-1				103		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.10	-0.07	-0.13	-0.10		ppb
Cadmium	106-1	-0.58	-0.99	0.12	-0.48		ppb
Cadmium	111-1	-0.03	-0.06	0.05	-0.01		ppb
Calcium	43-1	-6.52	-4.15	-5.80	-5.49		ppb
Calcium	44-1	-3.66	-2.13	-2.73	-2.84		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	-0.02	0.03	-0.01		ppb
Cobalt	59-2	-0.01	-0.01	0.00	-0.01		ppb
Copper	63-2	0.52	0.62	0.55	0.56	9.10	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				101		%
Indium	115-1				101		%
Indium	115-2				101		%
Iron	56-2	0.17	0.35	0.38	0.30	38.02	ppb
Iron	57-2	-3.69	-2.68	0.30	-2.02		ppb
Iron	54-2	0.09	-0.46	0.88	0.17	390.95	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	-0.01	-0.01	0.00		ppb
Lead	207-1	-0.01	0.03	-0.02	0.00		ppb
Lead	208-1	0.01	0.01	0.00	0.01	57.12	ppb
Lithium	6-1				100		%
Magnesium	24-2	0.55	0.73	0.50	0.59	20.19	ppb
Manganese	55-2	0.00	0.04	0.01	0.02	118.17	ppb
Molybdenum	94-1	0.07	0.05	0.08	0.06	23.35	ppb
Molybdenum	95-1	0.05	0.04	0.05	0.05	18.50	ppb
Molybdenum	96-1	0.03	0.02	0.04	0.03	27.35	ppb
Molybdenum	97-1	0.04	0.05	0.05	0.05	13.71	ppb
Molybdenum	98-1	0.04	0.04	0.04	0.04	5.63	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	-0.08	0.01	-0.03		ppb
Phosphorus	31-2	-134.56	-130.22	-133.16	-132.65		ppb
Potassium	39-2	3.34	5.42	7.04	5.27	35.24	ppb
Rhodium	103-1				99		%
Rhodium	103-2				101		%
Scandium	45-1				96		%
Scandium	45-2				98		%
Selenium	82-1	-0.47	-0.04	0.00	-0.17		ppb
Selenium	77-2	-0.06	-0.06	-0.25	-0.12		ppb
Selenium	78-2	-1.94	-0.41	-0.13	-0.83		ppb
Silicon	28-1	-7.50	-4.21	-9.41	-7.04		ppb
Silver	107-1	0.00	0.01	0.01	0.01	43.01	ppb
Silver	109-1	0.01	0.01	0.01	0.01	15.68	ppb
Sodium	23-2	10.58	9.61	12.33	10.84	12.69	ppb
Strontium	86-1	0.44	-0.02	-0.12	0.10	304.47	ppb
Strontium	88-1	0.01	0.07	0.06	0.05	63.39	ppb
Sulfur	34-1	-745.98	-562.79	-708.69	-672.49		ppb
Terbium	159-1				103		%
Terbium	159-2				102		%
Thallium	203-1	0.08	0.08	0.06	0.07	14.25	ppb
Thallium	205-1	0.07	0.07	0.07	0.07	3.62	ppb
Tin	118-1	-0.03	-0.01	0.00	-0.01		ppb
Titanium	47-1	0.02	0.03	0.02	0.03	14.44	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Yttrium	89-1				98		%
Yttrium	89-2				99		%
Zinc	66-2	-0.16	-0.14	-0.04	-0.11		ppb
Zirconium	90-1	0.00	0.00	0.01	0.01	50.29	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	39.74	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.17	16.86	18.08	17.70	4.14	ppb
Antimony	121-1	1.97	1.90	1.90	1.92	2.02	ppb
Arsenic	75-2	1.08	1.49	0.93	1.17	25.03	ppb
Barium	135-1	8.85	8.60	9.41	8.96	4.61	ppb
Barium	137-1	9.02	8.83	9.00	8.95	1.14	ppb
Beryllium	9-1	0.90	1.00	1.11	1.00	10.17	ppb
Bismuth	209-1				102		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.19	0.59	0.72	0.84	37.91	ppb
Cadmium	106-1	0.93	1.08	0.53	0.85	33.35	ppb
Cadmium	111-1	0.88	0.91	0.92	0.91	2.31	ppb
Calcium	43-1	432.05	462.03	446.42	446.84	3.36	ppb
Calcium	44-1	451.89	463.46	457.27	457.54	1.27	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.88	1.75	1.83	1.82	3.66	ppb
Cobalt	59-2	0.93	0.91	0.92	0.92	0.88	ppb
Copper	63-2	2.10	2.05	2.02	2.06	2.09	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				99		%
Indium	115-1				100		%
Indium	115-2				101		%
Iron	56-2	50.25	49.98	50.44	50.22	0.47	ppb
Iron	57-2	49.26	56.35	50.70	52.10	7.19	ppb
Iron	54-2	52.22	50.74	49.76	50.91	2.43	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.73	0.70	0.75	0.73	3.30	ppb
Lead	207-1	0.71	0.80	0.70	0.74	7.48	ppb
Lead	208-1	0.80	0.79	0.80	0.79	0.69	ppb
Lithium	6-1				99		%
Magnesium	24-2	442.94	437.32	433.78	438.02	1.05	ppb
Manganese	55-2	0.83	0.81	0.89	0.84	5.35	ppb
Molybdenum	94-1	5.36	5.40	5.38	5.38	0.38	ppb
Molybdenum	95-1	4.37	4.43	4.42	4.41	0.79	ppb
Molybdenum	96-1	4.53	4.54	4.55	4.54	0.19	ppb
Molybdenum	97-1	4.58	4.55	4.36	4.49	2.68	ppb
Molybdenum	98-1	4.40	4.51	4.38	4.43	1.53	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.84	0.87	0.87	0.86	2.06	ppb
Phosphorus	31-2	134.80	123.16	136.99	131.65	5.65	ppb
Potassium	39-2	457.58	456.87	454.26	456.24	0.38	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				96		%
Scandium	45-2				97		%
Selenium	82-1	5.58	5.46	5.33	5.46	2.23	ppb
Selenium	77-2	4.93	3.85	6.01	4.93	21.90	ppb
Selenium	78-2	4.86	3.30	5.50	4.55	24.89	ppb
Silicon	28-1	-4.76	-4.40	-4.88	-4.68		ppb
Silver	107-1	1.00	0.95	1.00	0.98	2.46	ppb
Silver	109-1	0.98	0.95	0.96	0.96	1.87	ppb
Sodium	23-2	446.80	442.95	437.95	442.57	1.00	ppb
Strontium	86-1	22.47	23.58	24.19	23.41	3.72	ppb
Strontium	88-1	22.79	22.88	23.00	22.89	0.45	ppb
Sulfur	34-1	-398.78	-338.95	-300.41	-346.05		ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	0.92	0.90	0.88	0.90	2.52	ppb
Thallium	205-1	0.93	0.91	0.89	0.91	2.48	ppb
Tin	118-1	4.81	4.62	4.79	4.74	2.27	ppb
Titanium	47-1	4.44	4.56	4.65	4.55	2.31	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.85	0.84	0.83	0.84	1.09	ppb
Vanadium	51-2	4.49	4.55	4.40	4.48	1.70	ppb
Yttrium	89-1				97		%
Yttrium	89-2				100		%
Zinc	66-2	4.39	4.53	4.65	4.52	2.85	ppb
Zirconium	90-1	0.93	0.98	0.95	0.95	2.53	ppb
Zirconium	91-1	0.99	1.02	0.96	0.99	3.27	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.96	2.14	1.60	1.90	14.72	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	217.37	ppb
Arsenic	75-2	-0.08	-0.04	-0.04	-0.05		ppb
Barium	135-1	0.01	0.01	0.01	0.01	13.15	ppb
Barium	137-1	-0.01	0.00	0.01	0.00	1683.01	ppb
Beryllium	9-1	0.02	0.01	0.01	0.01	35.07	ppb
Bismuth	209-1				104		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	-0.05	-0.07	-0.05		ppb
Cadmium	106-1	0.28	-0.31	-0.83	-0.29		ppb
Cadmium	111-1	0.03	-0.02	-0.06	-0.02		ppb
Calcium	43-1	-3.91	-3.74	-1.69	-3.11		ppb
Calcium	44-1	-2.95	-2.39	-3.53	-2.96		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	-0.01	0.00	0.00		ppb
Cobalt	59-2	-0.02	-0.01	-0.02	-0.02		ppb
Copper	63-2	0.21	0.19	0.25	0.22	14.53	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				100		%
Indium	115-1				101		%
Indium	115-2				101		%
Iron	56-2	-0.60	-0.44	-0.34	-0.46		ppb
Iron	57-2	-3.52	-3.20	-2.60	-3.11		ppb
Iron	54-2	1.48	0.56	0.98	1.01	45.75	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.02	-0.01	-0.02	-0.02		ppb
Lead	207-1	-0.02	-0.03	-0.04	-0.03		ppb
Lead	208-1	-0.02	-0.02	-0.03	-0.03		ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.14	-0.04	0.01	-0.06		ppb
Manganese	55-2	-0.01	-0.03	0.00	-0.01		ppb
Molybdenum	94-1	0.00	0.01	0.03	0.02	80.53	ppb
Molybdenum	95-1	0.01	0.02	0.01	0.01	29.62	ppb
Molybdenum	96-1	-0.01	0.02	0.02	0.01	166.27	ppb
Molybdenum	97-1	0.00	0.00	0.00	0.00	15.75	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	0.01	0.04	0.00	808.71	ppb
Phosphorus	31-2	-132.63	-135.55	-130.69	-132.96		ppb
Potassium	39-2	-3.57	-1.59	-1.26	-2.14		ppb
Rhodium	103-1				98		%
Rhodium	103-2				101		%
Scandium	45-1				97		%
Scandium	45-2				99		%
Selenium	82-1	-0.09	-0.05	0.05	-0.03		ppb
Selenium	77-2	-0.06	-0.06	0.13	0.00	4812.92	ppb
Selenium	78-2	0.87	0.05	1.53	0.82	90.37	ppb
Silicon	28-1	-5.71	-5.83	-5.78	-5.77		ppb
Silver	107-1	0.00	0.00	0.00	0.00	309.30	ppb
Silver	109-1	0.00	0.00	0.00	0.00		ppb
Sodium	23-2	4.22	4.58	4.94	4.58	7.85	ppb
Strontium	86-1	-0.75	-0.16	-0.24	-0.38		ppb
Strontium	88-1	0.01	0.04	0.03	0.02	63.80	ppb
Sulfur	34-1	-573.70	-481.80	-548.12	-534.54		ppb
Terbium	159-1				102		%
Terbium	159-2				103		%
Thallium	203-1	0.02	0.01	0.02	0.02	52.66	ppb
Thallium	205-1	0.01	0.02	0.02	0.01	32.59	ppb
Tin	118-1	-0.01	-0.02	-0.04	-0.03		ppb
Titanium	47-1	0.00	0.00	0.02	0.01	220.26	ppb

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.01	0.01	0.01	93.33	ppb
Yttrium	89-1				98		%
Yttrium	89-2				99		%
Zinc	66-2	-0.15	-0.14	-0.17	-0.15		ppb
Zirconium	90-1	0.00	-0.01	0.00	0.00		ppb
Zirconium	91-1	0.01	0.00	0.01	0.00	104.11	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9589.76	9565.63	10041.70	9732.36	2.76	ppb
Antimony	121-1	523.70	513.75	526.10	521.19	1.26	ppb
Arsenic	75-2	494.30	507.17	519.42	506.97	2.48	ppb
Barium	135-1	2558.88	2550.08	2609.97	2572.98	1.26	ppb
Barium	137-1	2536.17	2543.66	2609.79	2563.21	1.58	ppb
Beryllium	9-1	446.78	449.08	452.47	449.44	0.64	ppb
Bismuth	209-1				104		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	516.79	521.73	522.39	520.30	0.59	ppb
Cadmium	106-1	519.78	515.99	530.32	522.03	1.42	ppb
Cadmium	111-1	485.41	485.86	495.07	488.78	1.12	ppb
Calcium	43-1	46720.07	47773.20	48486.85	47660.04	1.86	ppb
Calcium	44-1	49670.22	51213.69	51427.32	50770.41	1.89	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	493.88	521.89	523.95	513.24	3.27	ppb
Cobalt	59-2	498.89	511.71	517.61	509.40	1.88	ppb
Copper	63-2	5026.05	5174.79	5201.92	5134.25	1.84	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				102		%
Indium	115-1				98		%
Indium	115-2				98		%
Iron	56-2	27185.79	27124.10	27963.29	27424.39	1.71	ppb
Iron	57-2	26578.99	26776.14	28203.65	27186.26	3.26	ppb
Iron	54-2	27209.88	27837.10	28146.12	27731.03	1.72	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2464.69	2498.88	2478.51	2480.69	0.69	ppb
Lead	207-1	2425.05	2553.28	2484.49	2487.61	2.58	ppb
Lead	208-1	2451.43	2531.45	2499.71	2494.20	1.62	ppb
Lithium	6-1				103		%
Magnesium	24-2	49754.28	50883.54	51727.36	50788.40	1.95	ppb
Manganese	55-2	5079.41	5121.97	5131.74	5111.04	0.54	ppb
Molybdenum	94-1	5011.75	5010.57	5060.07	5027.46	0.56	ppb
Molybdenum	95-1	4969.12	5031.47	5049.89	5016.83	0.84	ppb
Molybdenum	96-1	4965.83	4996.83	5060.60	5007.75	0.96	ppb
Molybdenum	97-1	5015.79	5023.10	5069.68	5036.19	0.58	ppb
Molybdenum	98-1	5039.11	4975.16	5093.79	5036.02	1.18	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	499.66	518.49	520.61	512.92	2.25	ppb
Phosphorus	31-2	10082.53	10169.22	10465.20	10238.98	1.96	ppb
Potassium	39-2	24654.86	25326.87	25991.06	25324.26	2.64	ppb
Rhodium	103-1				97		%
Rhodium	103-2				98		%
Scandium	45-1				96		%
Scandium	45-2				99		%
Selenium	82-1	512.64	516.61	524.12	517.79	1.13	ppb
Selenium	77-2	488.47	515.68	507.40	503.85	2.77	ppb
Selenium	78-2	505.70	519.61	517.31	514.20	1.45	ppb
Silicon	28-1	494.91	505.77	514.34	505.01	1.93	ppb
Silver	107-1	509.19	508.06	516.04	511.10	0.85	ppb
Silver	109-1	509.91	509.17	512.07	510.38	0.29	ppb
Sodium	23-2	49806.48	51499.55	51919.12	51075.05	2.19	ppb
Strontium	86-1	11387.07	11531.46	11550.52	11489.68	0.78	ppb
Strontium	88-1	12373.34	12483.60	12681.92	12512.95	1.25	ppb
Sulfur	34-1	9776.29	9947.79	10328.47	10017.52	2.82	ppb
Terbium	159-1				104		%
Terbium	159-2				103		%
Thallium	203-1	497.64	517.55	513.55	509.58	2.07	ppb
Thallium	205-1	495.40	513.61	505.88	504.96	1.81	ppb
Tin	118-1	524.28	508.36	517.79	516.81	1.55	ppb
Titanium	47-1	4963.44	5084.43	5230.26	5092.71	2.62	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	491.56	501.32	500.50	497.79	1.09	ppb
Vanadium	51-2	494.18	511.53	528.31	511.34	3.34	ppb
Yttrium	89-1				99		%
Yttrium	89-2				99		%
Zinc	66-2	5093.36	5247.01	5246.42	5195.60	1.70	ppb
Zirconium	90-1	504.46	502.53	492.84	499.95	1.25	ppb
Zirconium	91-1	503.39	518.79	463.41	495.19	5.77	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47.92	52.99	49.44	50.11	5.19	ppb
Antimony	121-1	0.08	0.09	0.09	0.09	6.52	ppb
Arsenic	75-2	0.56	0.56	0.49	0.54	7.81	ppb
Barium	135-1	64.07	61.06	62.06	62.40	2.46	ppb
Barium	137-1	63.64	61.73	62.10	62.49	1.62	ppb
Beryllium	9-1	0.08	0.06	0.14	0.09	46.62	ppb
Bismuth	209-1				112		%
Bismuth	209-2				112		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.05	0.00	0.02	0.02	124.38	ppb
Cadmium	106-1	-0.55	0.18	-0.37	-0.25		ppb
Cadmium	111-1	0.04	0.05	0.05	0.04	12.59	ppb
Calcium	43-1	6837.65	6904.35	6862.51	6868.17	0.49	ppb
Calcium	44-1	7272.04	7540.33	7526.75	7446.37	2.03	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.36	1.33	1.40	1.36	2.34	ppb
Cobalt	59-2	4.56	4.62	4.62	4.60	0.77	ppb
Copper	63-2	2.05	2.01	2.01	2.02	1.12	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				108		%
Indium	115-1				109		%
Indium	115-2				108		%
Iron	56-2	20601.24	20582.02	20443.15	20542.14	0.42	ppb
Iron	57-2	20282.95	20199.57	20441.32	20307.95	0.60	ppb
Iron	54-2	20537.94	20230.13	20412.10	20393.39	0.76	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.28	0.28	0.28	0.28	1.22	ppb
Lead	207-1	0.27	0.27	0.26	0.27	2.52	ppb
Lead	208-1	0.27	0.25	0.27	0.27	3.50	ppb
Lithium	6-1				109		%
Magnesium	24-2	2779.35	2767.34	2756.84	2767.84	0.41	ppb
Manganese	55-2	137.98	135.58	136.92	136.83	0.88	ppb
Molybdenum	94-1	0.46	0.38	0.41	0.41	9.34	ppb
Molybdenum	95-1	0.31	0.31	0.33	0.32	4.19	ppb
Molybdenum	96-1	0.64	0.65	0.67	0.65	2.93	ppb
Molybdenum	97-1	0.30	0.29	0.33	0.31	6.49	ppb
Molybdenum	98-1	0.31	0.30	0.30	0.30	1.75	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.44	2.49	2.50	2.48	1.33	ppb
Phosphorus	31-2	-121.93	-116.32	-121.86	-120.04		ppb
Potassium	39-2	1229.97	1215.64	1221.38	1222.33	0.59	ppb
Rhodium	103-1				106		%
Rhodium	103-2				109		%
Scandium	45-1				103		%
Scandium	45-2				105		%
Selenium	82-1	1.03	0.70	0.84	0.85	19.37	ppb
Selenium	77-2	-0.25	0.63	0.27	0.22	203.61	ppb
Selenium	78-2	-1.87	-2.59	-1.90	-2.12		ppb
Silicon	28-1	685.75	705.64	684.11	691.84	1.73	ppb
Silver	107-1	0.01	0.01	0.01	0.01	32.28	ppb
Silver	109-1	0.01	0.01	0.01	0.01	16.80	ppb
Sodium	23-2	22348.38	21965.21	21990.76	22101.45	0.97	ppb
Strontium	86-1	901.52	915.12	912.77	909.80	0.80	ppb
Strontium	88-1	893.09	892.31	897.71	894.37	0.33	ppb
Sulfur	34-1	4648.78	4899.33	4782.19	4776.77	2.62	ppb
Terbium	159-1				110		%
Terbium	159-2				110		%
Thallium	203-1	0.06	0.04	0.04	0.05	25.86	ppb
Thallium	205-1	0.04	0.04	0.04	0.04	3.33	ppb
Tin	118-1	0.12	0.11	0.14	0.12	9.67	ppb
Titanium	47-1	0.47	0.43	0.52	0.47	9.72	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.09	0.08	0.09	0.09	5.93	ppb
Vanadium	51-2	0.15	0.13	0.16	0.15	10.33	ppb
Yttrium	89-1				108		%
Yttrium	89-2				107		%
Zinc	66-2	9.30	8.95	8.71	8.99	3.34	ppb
Zirconium	90-1	0.04	0.04	0.05	0.04	19.60	ppb
Zirconium	91-1	0.07	0.06	0.05	0.06	18.38	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	70.67	67.72	63.39	67.26	5.45	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	11.59	ppb
Arsenic	75-2	16.76	17.14	16.73	16.87	1.35	ppb
Barium	135-1	15.11	14.43	15.00	14.85	2.47	ppb
Barium	137-1	14.67	14.61	14.82	14.70	0.74	ppb
Beryllium	9-1	0.02	0.00	0.04	0.02	83.05	ppb
Bismuth	209-1				111		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.10	-0.05	0.00	-0.05		ppb
Cadmium	106-1	0.53	0.33	0.15	0.34	57.43	ppb
Cadmium	111-1	0.04	0.02	0.00	0.02	103.45	ppb
Calcium	43-1	1921.52	1934.97	1931.26	1929.25	0.36	ppb
Calcium	44-1	1921.22	1951.96	1989.06	1954.08	1.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.64	0.67	0.63	0.65	3.22	ppb
Cobalt	59-2	0.03	0.04	0.03	0.03	7.45	ppb
Copper	63-2	0.77	0.66	0.82	0.75	10.66	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				107		%
Indium	115-1				109		%
Indium	115-2				107		%
Iron	56-2	24587.16	24433.81	24442.00	24487.66	0.35	ppb
Iron	57-2	24324.33	24445.51	24005.71	24258.52	0.94	ppb
Iron	54-2	24661.54	24380.05	24215.74	24419.11	0.92	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.36	0.38	0.47	0.40	14.42	ppb
Lead	207-1	0.41	0.41	0.38	0.40	4.65	ppb
Lead	208-1	0.40	0.41	0.41	0.40	1.59	ppb
Lithium	6-1				106		%
Magnesium	24-2	483.17	484.57	472.89	480.21	1.33	ppb
Manganese	55-2	70.63	70.22	69.87	70.24	0.54	ppb
Molybdenum	94-1	0.70	0.72	0.64	0.69	5.94	ppb
Molybdenum	95-1	0.39	0.40	0.41	0.40	2.88	ppb
Molybdenum	96-1	0.87	0.88	0.85	0.86	1.66	ppb
Molybdenum	97-1	0.43	0.37	0.35	0.38	11.49	ppb
Molybdenum	98-1	0.41	0.38	0.38	0.39	4.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.28	0.39	0.38	0.35	17.42	ppb
Phosphorus	31-2	-122.39	-114.15	-118.27	-118.27		ppb
Potassium	39-2	820.57	823.86	816.36	820.26	0.46	ppb
Rhodium	103-1				107		%
Rhodium	103-2				108		%
Scandium	45-1				104		%
Scandium	45-2				105		%
Selenium	82-1	0.69	0.69	0.13	0.50	63.91	ppb
Selenium	77-2	-0.07	-0.25	-0.25	-0.19		ppb
Selenium	78-2	-2.97	-1.65	-2.20	-2.27		ppb
Silicon	28-1	1368.71	1418.90	1451.00	1412.87	2.94	ppb
Silver	107-1	0.00	0.00	0.01	0.00	73.12	ppb
Silver	109-1	0.00	0.01	0.01	0.01	55.31	ppb
Sodium	23-2	3940.55	3857.08	3944.51	3914.05	1.26	ppb
Strontium	86-1	1072.20	1092.94	1080.88	1082.01	0.96	ppb
Strontium	88-1	1065.52	1078.32	1060.57	1068.13	0.86	ppb
Sulfur	34-1	-898.44	-804.54	-521.50	-741.49		ppb
Terbium	159-1				111		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.02	0.02	0.02	20.88	ppb
Thallium	205-1	0.01	0.02	0.02	0.02	31.35	ppb
Tin	118-1	0.67	0.74	0.67	0.69	5.33	ppb
Titanium	47-1	1.45	1.31	1.45	1.40	5.69	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.03	0.03	0.02	0.03	6.37	ppb
Vanadium	51-2	0.53	0.53	0.53	0.53	0.25	ppb
Yttrium	89-1				106		%
Yttrium	89-2				106		%
Zinc	66-2	1.91	2.13	1.56	1.87	15.41	ppb
Zirconium	90-1	0.18	0.20	0.19	0.19	5.21	ppb
Zirconium	91-1	0.19	0.19	0.20	0.19	5.34	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100.04	84.39	72.92	85.78	15.87	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	8.69	ppb
Arsenic	75-2	16.26	16.45	17.37	16.69	3.53	ppb
Barium	135-1	15.09	14.88	14.78	14.92	1.07	ppb
Barium	137-1	15.48	14.63	15.04	15.05	2.81	ppb
Beryllium	9-1	0.02	0.04	0.04	0.03	27.10	ppb
Bismuth	209-1				109		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.12	0.12	-0.03	0.07	118.69	ppb
Cadmium	106-1	0.34	0.32	0.32	0.33	3.05	ppb
Cadmium	111-1	0.02	0.03	0.02	0.02	28.09	ppb
Calcium	43-1	1926.62	1972.98	1978.53	1959.37	1.45	ppb
Calcium	44-1	1929.37	1937.72	1933.23	1933.44	0.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.74	0.70	0.66	0.70	5.44	ppb
Cobalt	59-2	0.05	0.03	0.02	0.03	32.89	ppb
Copper	63-2	0.63	0.62	0.61	0.62	2.00	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				105		%
Indium	115-1				108		%
Indium	115-2				106		%
Iron	56-2	24653.37	24269.71	24127.63	24350.24	1.12	ppb
Iron	57-2	24049.10	24278.57	23900.13	24075.93	0.79	ppb
Iron	54-2	24114.51	24566.20	24106.98	24262.56	1.08	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.40	0.44	0.45	0.43	5.68	ppb
Lead	207-1	0.43	0.41	0.42	0.42	2.70	ppb
Lead	208-1	0.39	0.41	0.43	0.41	5.58	ppb
Lithium	6-1				106		%
Magnesium	24-2	475.84	484.05	477.74	479.21	0.90	ppb
Manganese	55-2	70.73	70.23	69.43	70.13	0.93	ppb
Molybdenum	94-1	0.72	0.66	0.78	0.72	8.62	ppb
Molybdenum	95-1	0.36	0.37	0.35	0.36	3.68	ppb
Molybdenum	96-1	0.86	0.87	0.84	0.86	1.66	ppb
Molybdenum	97-1	0.46	0.44	0.43	0.45	3.88	ppb
Molybdenum	98-1	0.38	0.38	0.36	0.37	3.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.26	0.19	0.28	0.24	20.91	ppb
Phosphorus	31-2	-114.15	-116.75	-119.78	-116.89		ppb
Potassium	39-2	832.98	841.19	830.70	834.96	0.66	ppb
Rhodium	103-1				106		%
Rhodium	103-2				106		%
Scandium	45-1				105		%
Scandium	45-2				105		%
Selenium	82-1	0.56	1.06	1.18	0.93	35.23	ppb
Selenium	77-2	-0.25	-0.25	0.10	-0.13		ppb
Selenium	78-2	-0.87	-0.10	-2.11	-1.03		ppb
Silicon	28-1	1432.54	1409.20	1437.30	1426.35	1.05	ppb
Silver	107-1	0.00	0.01	0.00	0.00	154.30	ppb
Silver	109-1	0.01	0.00	0.00	0.00	70.83	ppb
Sodium	23-2	3868.63	4062.14	3900.09	3943.62	2.63	ppb
Strontium	86-1	1091.24	1076.40	1088.40	1085.34	0.73	ppb
Strontium	88-1	1065.01	1057.74	1060.84	1061.19	0.34	ppb
Sulfur	34-1	-616.14	-528.83	-446.59	-530.52		ppb
Terbium	159-1				110		%
Terbium	159-2				107		%
Thallium	203-1	0.01	0.01	0.02	0.01	51.86	ppb
Thallium	205-1	0.00	0.01	0.01	0.01	167.55	ppb
Tin	118-1	0.74	0.67	0.74	0.72	5.48	ppb
Titanium	47-1	1.95	3.21	2.00	2.39	29.75	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.02	0.02	7.43	ppb
Vanadium	51-2	0.54	0.52	0.57	0.54	4.87	ppb
Yttrium	89-1				107		%
Yttrium	89-2				106		%
Zinc	66-2	1.40	1.37	1.38	1.38	1.13	ppb
Zirconium	90-1	0.19	0.17	0.19	0.18	5.02	ppb
Zirconium	91-1	0.32	0.25	0.22	0.26	20.43	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	330.93	301.02	264.70	298.88	11.10	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	23.23	ppb
Arsenic	75-2	3.26	3.61	3.39	3.42	5.12	ppb
Barium	135-1	3.76	3.39	3.57	3.57	5.28	ppb
Barium	137-1	3.41	4.60	3.25	3.75	19.71	ppb
Beryllium	9-1	-0.02	0.02	0.00	0.00	1114.98	ppb
Bismuth	209-1				103		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.09	0.03	-0.02	0.03	165.13	ppb
Cadmium	106-1	0.01	-0.59	-0.46	-0.34		ppb
Cadmium	111-1	-0.01	-0.04	-0.04	-0.03		ppb
Calcium	43-1	386.47	379.59	383.22	383.09	0.90	ppb
Calcium	44-1	379.33	372.25	372.01	374.53	1.11	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.38	0.40	0.32	0.37	11.14	ppb
Cobalt	59-2	0.00	0.01	0.00	0.00	441.99	ppb
Copper	63-2	0.26	0.20	0.24	0.23	14.30	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				100		%
Indium	115-1				101		%
Indium	115-2				103		%
Iron	56-2	4857.78	4654.38	4820.94	4777.70	2.27	ppb
Iron	57-2	4400.63	4338.65	4350.73	4363.34	0.75	ppb
Iron	54-2	4445.24	4367.64	4348.49	4387.12	1.17	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.13	0.14	0.08	0.12	26.62	ppb
Lead	207-1	0.17	0.08	0.08	0.11	44.22	ppb
Lead	208-1	0.12	0.09	0.07	0.09	23.72	ppb
Lithium	6-1				99		%
Magnesium	24-2	99.41	97.57	95.35	97.44	2.09	ppb
Manganese	55-2	14.43	14.06	14.14	14.21	1.40	ppb
Molybdenum	94-1	1.87	0.58	2.32	1.59	56.72	ppb
Molybdenum	95-1	0.14	0.13	0.14	0.13	4.19	ppb
Molybdenum	96-1	0.23	0.27	0.37	0.29	25.81	ppb
Molybdenum	97-1	0.09	0.13	0.10	0.11	17.35	ppb
Molybdenum	98-1	0.11	0.11	0.11	0.11	2.45	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.27	0.17	0.16	0.20	30.64	ppb
Phosphorus	31-2	-117.75	-128.42	-125.26	-123.81		ppb
Potassium	39-2	216.35	210.29	189.43	205.36	6.88	ppb
Rhodium	103-1				100		%
Rhodium	103-2				104		%
Scandium	45-1				98		%
Scandium	45-2				101		%
Selenium	82-1	-0.08	0.07	-0.05	-0.02		ppb
Selenium	77-2	-0.07	-0.25	-0.06	-0.13		ppb
Selenium	78-2	1.34	-0.09	0.51	0.59	122.02	ppb
Silicon	28-1	708.77	374.03	398.20	493.67	37.81	ppb
Silver	107-1	0.00	0.00	0.00	0.00	28.69	ppb
Silver	109-1	0.00	0.00	0.00	0.00	62.10	ppb
Sodium	23-2	664.99	649.94	653.55	656.16	1.20	ppb
Strontium	86-1	215.64	212.57	209.66	212.62	1.41	ppb
Strontium	88-1	209.33	205.45	206.47	207.08	0.97	ppb
Sulfur	34-1	-683.68	-713.53	-732.39	-709.87		ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	0.00	0.00	-0.01	0.00		ppb
Thallium	205-1	0.01	0.01	0.01	0.01	13.86	ppb
Tin	118-1	0.18	0.15	0.16	0.17	7.54	ppb
Titanium	47-1	7.50	8.39	9.66	8.52	12.71	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	16.62	ppb
Vanadium	51-2	0.37	0.45	0.44	0.42	10.01	ppb
Yttrium	89-1				99		%
Yttrium	89-2				101		%
Zinc	66-2	2.44	2.47	2.52	2.48	1.48	ppb
Zirconium	90-1	0.22	0.36	0.20	0.26	34.39	ppb
Zirconium	91-1	1.97	0.30	0.22	0.83	119.53	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8617.52	8677.87	8526.31	8607.23	0.89	ppb
Antimony	121-1	497.15	499.07	486.74	494.32	1.34	ppb
Arsenic	75-2	16.73	16.44	15.54	16.23	3.82	ppb
Barium	135-1	2242.15	2203.26	2235.15	2226.85	0.93	ppb
Barium	137-1	2202.48	2156.53	2217.97	2192.32	1.46	ppb
Beryllium	9-1	431.69	426.96	430.06	429.57	0.56	ppb
Bismuth	209-1				108		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	469.37	473.33	469.70	470.80	0.47	ppb
Cadmium	106-1	488.03	479.80	484.97	484.26	0.86	ppb
Cadmium	111-1	451.73	449.68	453.52	451.64	0.43	ppb
Calcium	43-1	44007.55	44912.23	44223.04	44380.94	1.06	ppb
Calcium	44-1	47042.93	48023.94	47291.92	47452.93	1.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	465.22	461.78	449.44	458.81	1.81	ppb
Cobalt	59-2	475.37	479.26	465.76	473.46	1.47	ppb
Copper	63-2	4323.23	4254.78	4245.33	4274.45	0.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				107		%
Indium	115-1				104		%
Indium	115-2				100		%
Iron	56-2	45315.48	44965.16	44438.25	44906.30	0.98	ppb
Iron	57-2	45203.35	44136.31	44773.88	44704.51	1.20	ppb
Iron	54-2	46184.43	45331.17	44269.58	45261.73	2.12	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2344.42	2409.45	2352.93	2368.93	1.49	ppb
Lead	207-1	2383.57	2405.85	2321.00	2370.14	1.86	ppb
Lead	208-1	2359.42	2387.81	2337.53	2361.59	1.07	ppb
Lithium	6-1				108		%
Magnesium	24-2	46813.70	46988.17	45877.02	46559.63	1.28	ppb
Manganese	55-2	4410.59	4364.34	4291.53	4355.49	1.38	ppb
Molybdenum	94-1	2249.06	2265.87	2239.10	2251.34	0.60	ppb
Molybdenum	95-1	1682.20	1681.62	1669.16	1677.66	0.44	ppb
Molybdenum	96-1	1766.49	1780.89	1776.36	1774.58	0.41	ppb
Molybdenum	97-1	1728.68	1735.43	1695.27	1719.79	1.25	ppb
Molybdenum	98-1	1697.01	1728.51	1686.53	1704.02	1.28	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	470.92	464.37	459.43	464.91	1.24	ppb
Phosphorus	31-2	-117.97	-118.60	-117.53	-118.03		ppb
Potassium	39-2	21965.11	21787.03	21828.37	21860.17	0.43	ppb
Rhodium	103-1				104		%
Rhodium	103-2				103		%
Scandium	45-1				104		%
Scandium	45-2				104		%
Selenium	82-1	487.39	492.84	489.62	489.95	0.56	ppb
Selenium	77-2	489.13	490.97	462.45	480.85	3.32	ppb
Selenium	78-2	479.93	483.61	468.45	477.33	1.66	ppb
Silicon	28-1	1335.15	1365.41	1353.52	1351.36	1.13	ppb
Silver	107-1	67.80	67.16	67.14	67.37	0.56	ppb
Silver	109-1	66.71	65.92	66.55	66.39	0.63	ppb
Sodium	23-2	50258.31	50073.58	48413.06	49581.65	2.05	ppb
Strontium	86-1	15731.26	15825.32	15309.35	15621.97	1.76	ppb
Strontium	88-1	15207.10	15358.07	15340.72	15301.96	0.54	ppb
Sulfur	34-1	-289.84	-140.04	-187.36	-205.74		ppb
Terbium	159-1				109		%
Terbium	159-2				108		%
Thallium	203-1	455.97	485.82	458.78	466.86	3.53	ppb
Thallium	205-1	466.43	474.43	465.16	468.67	1.07	ppb
Tin	118-1	441.36	442.65	440.62	441.54	0.23	ppb
Titanium	47-1	2.85	4.97	6.40	4.74	37.67	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	464.63	471.21	465.78	467.21	0.75	ppb
Vanadium	51-2	479.01	480.16	475.18	478.12	0.55	ppb
Yttrium	89-1				105		%
Yttrium	89-2				104		%
Zinc	66-2	4438.47	4396.53	4233.18	4356.06	2.49	ppb
Zirconium	90-1	467.80	468.85	467.31	467.99	0.17	ppb
Zirconium	91-1	484.26	483.99	427.27	465.17	7.06	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9238.59	9081.97	8806.97	9042.51	2.42	ppb
Antimony	121-1	476.25	485.81	475.12	479.06	1.23	ppb
Arsenic	75-2	15.82	16.23	16.00	16.02	1.29	ppb
Barium	135-1	2118.58	2146.60	2103.97	2123.05	1.02	ppb
Barium	137-1	2082.73	2126.83	2119.18	2109.58	1.12	ppb
Beryllium	9-1	422.04	416.13	424.63	420.94	1.04	ppb
Bismuth	209-1				110		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	464.97	468.25	458.21	463.81	1.10	ppb
Cadmium	106-1	462.26	474.24	467.73	468.08	1.28	ppb
Cadmium	111-1	434.12	439.72	435.44	436.43	0.67	ppb
Calcium	43-1	44291.18	44585.20	44370.24	44415.54	0.34	ppb
Calcium	44-1	47174.22	47702.52	47524.94	47467.23	0.57	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	456.10	450.79	452.06	452.98	0.61	ppb
Cobalt	59-2	463.06	461.98	458.10	461.04	0.57	ppb
Copper	63-2	4298.85	4290.25	4293.71	4294.27	0.10	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				110		%
Indium	115-1				105		%
Indium	115-2				104		%
Iron	56-2	45394.27	45603.07	44837.38	45278.24	0.87	ppb
Iron	57-2	44777.31	44229.66	44297.65	44434.87	0.67	ppb
Iron	54-2	45302.19	44981.00	44767.65	45016.95	0.60	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2375.65	2347.99	2323.39	2349.01	1.11	ppb
Lead	207-1	2343.81	2351.03	2325.56	2340.14	0.56	ppb
Lead	208-1	2332.38	2345.44	2328.85	2335.56	0.37	ppb
Lithium	6-1				111		%
Magnesium	24-2	46239.26	46271.36	46310.12	46273.58	0.08	ppb
Manganese	55-2	4379.13	4298.84	4374.69	4350.89	1.04	ppb
Molybdenum	94-1	4572.66	4563.12	4616.14	4583.97	0.62	ppb
Molybdenum	95-1	4585.25	4562.86	4581.58	4576.56	0.26	ppb
Molybdenum	96-1	4580.47	4641.66	4556.57	4592.90	0.96	ppb
Molybdenum	97-1	4635.56	4557.56	4598.26	4597.13	0.85	ppb
Molybdenum	98-1	4571.13	4491.69	4572.65	4545.16	1.02	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	459.03	458.79	461.23	459.69	0.29	ppb
Phosphorus	31-2	-116.22	-117.92	-117.55	-117.23		ppb
Potassium	39-2	22249.83	21990.78	21743.44	21994.68	1.15	ppb
Rhodium	103-1				104		%
Rhodium	103-2				105		%
Scandium	45-1				103		%
Scandium	45-2				105		%
Selenium	82-1	469.36	476.44	479.71	475.17	1.11	ppb
Selenium	77-2	469.84	468.25	446.45	461.51	2.83	ppb
Selenium	78-2	473.82	464.35	488.57	475.58	2.57	ppb
Silicon	28-1	1614.89	1605.53	1661.70	1627.38	1.85	ppb
Silver	107-1	63.87	64.68	63.69	64.08	0.83	ppb
Silver	109-1	62.88	63.70	62.72	63.10	0.84	ppb
Sodium	23-2	49455.94	49651.39	49718.34	49608.56	0.27	ppb
Strontium	86-1	15775.00	15354.13	15325.97	15485.03	1.62	ppb
Strontium	88-1	14687.79	14962.30	15069.26	14906.45	1.32	ppb
Sulfur	34-1	-713.68	-766.55	-851.05	-777.09		ppb
Terbium	159-1				112		%
Terbium	159-2				111		%
Thallium	203-1	468.47	456.58	454.98	460.01	1.60	ppb
Thallium	205-1	464.50	460.36	454.21	459.69	1.13	ppb
Tin	118-1	431.08	437.58	436.72	435.13	0.81	ppb
Titanium	47-1	2829.45	2929.81	2900.96	2886.74	1.79	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	462.96	472.76	466.79	467.51	1.06	ppb
Vanadium	51-2	477.99	470.88	462.70	470.52	1.63	ppb
Yttrium	89-1				106		%
Yttrium	89-2				106		%
Zinc	66-2	4338.08	4388.71	4268.23	4331.67	1.40	ppb
Zirconium	90-1	459.73	455.91	457.98	457.88	0.42	ppb
Zirconium	91-1	419.74	418.65	420.73	419.70	0.25	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	8867.88	8534.85	8893.96	8765.56	2.28	ppb
Antimony	121-1	480.99	472.52	486.79	480.10	1.50	ppb
Arsenic	75-2	16.16	16.81	16.28	16.41	2.11	ppb
Barium	135-1	2179.38	2209.22	2218.85	2202.48	0.93	ppb
Barium	137-1	2142.72	2128.19	2160.80	2143.90	0.76	ppb
Beryllium	9-1	427.54	430.46	430.93	429.64	0.43	ppb
Bismuth	209-1				112		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	458.82	450.95	460.71	456.83	1.13	ppb
Cadmium	106-1	476.56	475.00	475.77	475.78	0.16	ppb
Cadmium	111-1	441.89	445.58	446.56	444.68	0.55	ppb
Calcium	43-1	44146.22	44436.04	44440.42	44340.89	0.38	ppb
Calcium	44-1	47073.37	47700.91	47651.74	47475.34	0.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	474.04	448.60	461.10	461.25	2.76	ppb
Cobalt	59-2	470.74	474.23	477.01	474.00	0.66	ppb
Copper	63-2	4353.61	4302.03	4376.75	4344.13	0.88	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				110		%
Indium	115-1				106		%
Indium	115-2				105		%
Iron	56-2	46127.56	46447.18	46358.13	46310.96	0.36	ppb
Iron	57-2	44860.47	45456.94	45006.40	45107.93	0.69	ppb
Iron	54-2	46403.34	44936.00	45517.46	45618.93	1.62	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2345.35	2369.86	2313.40	2342.87	1.21	ppb
Lead	207-1	2334.48	2385.89	2324.70	2348.36	1.40	ppb
Lead	208-1	2342.92	2383.65	2316.19	2347.59	1.45	ppb
Lithium	6-1				110		%
Magnesium	24-2	46636.32	46254.81	46639.60	46510.24	0.48	ppb
Manganese	55-2	4417.63	4352.49	4443.15	4404.42	1.06	ppb
Molybdenum	94-1	2464.17	2466.00	2441.45	2457.21	0.56	ppb
Molybdenum	95-1	1962.55	1975.36	1946.33	1961.41	0.74	ppb
Molybdenum	96-1	2007.94	2050.10	2024.13	2027.39	1.05	ppb
Molybdenum	97-1	1955.60	2029.66	1964.95	1983.40	2.03	ppb
Molybdenum	98-1	1962.11	1993.82	1923.83	1959.92	1.79	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	469.44	463.60	470.33	467.79	0.78	ppb
Phosphorus	31-2	-118.95	-107.51	-117.41	-114.63		ppb
Potassium	39-2	22008.52	21948.09	22119.13	22025.25	0.39	ppb
Rhodium	103-1				103		%
Rhodium	103-2				105		%
Scandium	45-1				104		%
Scandium	45-2				106		%
Selenium	82-1	488.95	490.05	481.03	486.68	1.01	ppb
Selenium	77-2	487.79	481.92	486.91	485.54	0.65	ppb
Selenium	78-2	494.02	493.79	482.84	490.22	1.30	ppb
Silicon	28-1	1408.24	1459.10	1437.16	1434.83	1.78	ppb
Silver	107-1	65.80	65.35	66.87	66.01	1.18	ppb
Silver	109-1	65.38	64.50	65.93	65.27	1.11	ppb
Sodium	23-2	49453.52	49588.64	50317.46	49786.54	0.93	ppb
Strontium	86-1	15719.22	15697.56	15647.08	15687.95	0.24	ppb
Strontium	88-1	15105.38	15315.64	14909.24	15110.09	1.35	ppb
Sulfur	34-1	-885.20	-943.63	-906.82	-911.88		ppb
Terbium	159-1				113		%
Terbium	159-2				111		%
Thallium	203-1	459.30	469.57	455.38	461.42	1.59	ppb
Thallium	205-1	451.55	457.12	456.96	455.21	0.70	ppb
Tin	118-1	437.09	425.43	443.69	435.41	2.12	ppb
Titanium	47-1	254.12	260.13	252.02	255.42	1.65	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	467.88	468.68	466.94	467.84	0.19	ppb
Vanadium	51-2	483.57	473.06	475.66	477.43	1.15	ppb
Yttrium	89-1				106		%
Yttrium	89-2				106		%
Zinc	66-2	4358.65	4392.37	4474.90	4408.64	1.36	ppb
Zirconium	90-1	454.86	467.21	459.03	460.37	1.36	ppb
Zirconium	91-1	425.82	427.39	423.74	425.65	0.43	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	51598.69	50433.91	50072.73	50701.78	1.57	ppb
Antimony	121-1	499.23	499.04	506.88	501.72	0.89	ppb
Arsenic	75-2	495.00	485.74	494.25	491.67	1.05	ppb
Barium	135-1	2538.47	2501.97	2609.50	2549.98	2.14	ppb
Barium	137-1	2516.92	2565.39	2575.42	2552.58	1.23	ppb
Beryllium	9-1	484.00	493.48	497.82	491.77	1.44	ppb
Bismuth	209-1				98		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	493.58	494.54	491.83	493.32	0.28	ppb
Cadmium	106-1	493.17	490.54	494.82	492.84	0.44	ppb
Cadmium	111-1	455.47	455.02	460.74	457.07	0.70	ppb
Calcium	43-1	248910.63	248156.04	253961.18	250342.62	1.26	ppb
Calcium	44-1	246671.35	248830.51	253736.52	249746.12	1.45	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	503.85	502.50	509.22	505.19	0.70	ppb
Cobalt	59-2	496.89	506.35	498.68	500.64	1.00	ppb
Copper	63-2	5179.76	5061.69	5204.65	5148.70	1.48	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				101		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	56-2	132321.87	133247.39	133262.77	132944.01	0.41	ppb
Iron	57-2	133077.77	130602.49	130766.13	131482.13	1.05	ppb
Iron	54-2	135467.54	130939.08	130911.39	132439.34	1.98	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2489.16	2561.29	2575.37	2541.94	1.82	ppb
Lead	207-1	2485.41	2514.97	2598.73	2533.04	2.32	ppb
Lead	208-1	2491.32	2531.31	2586.93	2536.52	1.89	ppb
Lithium	6-1				101		%
Magnesium	24-2	253829.87	250573.29	252868.31	252423.82	0.66	ppb
Manganese	55-2	5126.53	4951.77	5008.57	5028.96	1.77	ppb
Molybdenum	94-1	4961.85	5068.07	5131.47	5053.80	1.70	ppb
Molybdenum	95-1	5025.12	5091.78	5050.68	5055.86	0.67	ppb
Molybdenum	96-1	5100.54	5063.98	5128.63	5097.72	0.64	ppb
Molybdenum	97-1	5064.88	5036.99	5114.64	5072.17	0.78	ppb
Molybdenum	98-1	5045.71	5014.18	5067.09	5042.33	0.53	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	517.61	509.64	522.06	516.44	1.22	ppb
Phosphorus	31-2	10331.64	10190.13	10244.97	10255.58	0.70	ppb
Potassium	39-2	127516.96	126557.45	128838.41	127637.61	0.90	ppb
Rhodium	103-1				92		%
Rhodium	103-2				94		%
Scandium	45-1				95		%
Scandium	45-2				100		%
Selenium	82-1	473.29	478.02	479.71	477.01	0.70	ppb
Selenium	77-2	476.70	455.85	477.83	470.13	2.63	ppb
Selenium	78-2	479.49	465.81	477.25	474.18	1.55	ppb
Silicon	28-1	366.74	392.27	379.03	379.35	3.37	ppb
Silver	107-1	454.98	460.44	457.37	457.60	0.60	ppb
Silver	109-1	455.49	466.39	462.32	461.40	1.19	ppb
Sodium	23-2	253024.84	251543.18	252304.52	252290.85	0.29	ppb
Strontium	86-1	11430.17	11565.22	11549.63	11515.01	0.64	ppb
Strontium	88-1	12505.50	12560.91	12537.04	12534.48	0.22	ppb
Sulfur	34-1	9598.71	9966.92	10121.06	9895.57	2.71	ppb
Terbium	159-1				103		%
Terbium	159-2				102		%
Thallium	203-1	510.28	523.87	529.04	521.06	1.86	ppb
Thallium	205-1	510.50	522.90	534.08	522.50	2.26	ppb
Tin	118-1	507.99	507.09	521.25	512.11	1.55	ppb
Titanium	47-1	5017.45	5059.13	5060.41	5045.66	0.48	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	517.32	520.51	538.12	525.32	2.13	ppb
Vanadium	51-2	522.58	504.99	521.72	516.43	1.92	ppb
Yttrium	89-1				97		%
Yttrium	89-2				99		%
Zinc	66-2	5103.53	4984.98	4971.55	5020.02	1.45	ppb
Zirconium	90-1	508.51	513.81	517.23	513.19	0.86	ppb
Zirconium	91-1	460.30	516.89	466.09	481.10	6.47	ppb

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	6.08	5.84	5.68	5.87	3.40	ppb
Antimony	121-1	0.03	0.03	0.05	0.04	25.63	ppb
Arsenic	75-2	-0.05	-0.04	-0.07	-0.05		ppb
Barium	135-1	0.04	0.01	0.01	0.02	71.60	ppb
Barium	137-1	0.02	0.00	0.00	0.01	95.93	ppb
Beryllium	9-1	0.03	0.03	0.03	0.03	7.19	ppb
Bismuth	209-1				104		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.07	-0.05	0.12	0.00		ppb
Cadmium	106-1	-0.77	-0.77	-0.68	-0.74		ppb
Cadmium	111-1	-0.04	-0.03	-0.05	-0.04		ppb
Calcium	43-1	-7.16	-5.99	-8.71	-7.29		ppb
Calcium	44-1	-3.97	-3.28	-4.61	-3.95		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.01	-0.03	0.02	0.00		ppb
Cobalt	59-2	-0.01	-0.01	-0.02	-0.01		ppb
Copper	63-2	0.23	0.21	0.25	0.23	7.51	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	0.10	0.12	0.25	0.16	50.44	ppb
Iron	57-2	-1.43	-2.08	-0.96	-1.49		ppb
Iron	54-2	1.22	0.66	1.56	1.15	39.78	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.02	-0.02	-0.01	-0.01		ppb
Lead	207-1	-0.06	0.00	0.00	-0.02		ppb
Lead	208-1	-0.03	-0.01	0.00	-0.01		ppb
Lithium	6-1				99		%
Magnesium	24-2	0.75	0.65	0.54	0.65	16.55	ppb
Manganese	55-2	0.03	0.01	0.06	0.04	71.41	ppb
Molybdenum	94-1	0.04	0.02	0.05	0.04	34.22	ppb
Molybdenum	95-1	0.04	0.03	0.02	0.03	21.43	ppb
Molybdenum	96-1	0.04	0.03	0.02	0.03	29.86	ppb
Molybdenum	97-1	0.03	0.04	0.03	0.03	21.20	ppb
Molybdenum	98-1	0.03	0.02	0.01	0.02	28.67	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.01	0.02	0.02	0.02	34.27	ppb
Phosphorus	31-2	-133.04	-136.31	-137.38	-135.58		ppb
Potassium	39-2	1.36	1.10	0.03	0.83	85.21	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				96		%
Scandium	45-2				97		%
Selenium	82-1	0.12	0.23	0.23	0.19	33.81	ppb
Selenium	77-2	-0.06	-0.25	-0.25	-0.19		ppb
Selenium	78-2	-1.61	-2.41	0.99	-1.01		ppb
Silicon	28-1	-7.11	-9.00	-3.28	-6.46		ppb
Silver	107-1	0.03	0.04	0.04	0.04	23.85	ppb
Silver	109-1	0.02	0.03	0.04	0.03	30.10	ppb
Sodium	23-2	10.28	9.16	8.20	9.22	11.31	ppb
Strontium	86-1	1.06	0.66	-0.13	0.53	113.70	ppb
Strontium	88-1	0.12	0.09	0.11	0.10	15.42	ppb
Sulfur	34-1	-931.21	-915.02	-832.71	-892.98		ppb
Terbium	159-1				102		%
Terbium	159-2				101		%
Thallium	203-1	0.07	0.06	0.06	0.06	9.81	ppb
Thallium	205-1	0.06	0.07	0.07	0.06	8.88	ppb
Tin	118-1	-0.03	-0.02	-0.01	-0.02		ppb
Titanium	47-1	0.02	0.00	0.00	0.01	159.35	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.01	0.01	0.01	117.57	ppb
Yttrium	89-1				98		%
Yttrium	89-2				99		%
Zinc	66-2	-0.04	0.00	-0.10	-0.04		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	24.88	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	45.64	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	78.93	78.30	75.51	77.58	2.35	ppb
Antimony	121-1	0.24	0.24	0.23	0.23	3.03	ppb
Arsenic	75-2	-0.03	0.00	0.00	-0.01		ppb
Barium	135-1	12.14	12.02	12.46	12.21	1.85	ppb
Barium	137-1	12.33	12.17	12.46	12.32	1.18	ppb
Beryllium	9-1	0.01	0.03	0.02	0.02	55.72	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.17	-0.02	0.09	0.08	122.87	ppb
Cadmium	106-1	1.01	-0.24	-0.26	0.17	434.14	ppb
Cadmium	111-1	0.19	0.11	0.15	0.15	28.17	ppb
Calcium	43-1	3875.73	3994.76	3902.78	3924.42	1.59	ppb
Calcium	44-1	3998.17	4234.00	4281.35	4171.17	3.64	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.18	0.12	0.16	0.15	19.56	ppb
Cobalt	59-2	0.31	0.35	0.31	0.33	6.39	ppb
Copper	63-2	3.11	2.99	2.97	3.03	2.53	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				103		%
Indium	115-1				102		%
Indium	115-2				101		%
Iron	56-2	776.13	769.42	767.66	771.07	0.58	ppb
Iron	57-2	713.86	724.49	727.11	721.82	0.97	ppb
Iron	54-2	702.15	695.07	714.10	703.78	1.37	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.24	1.23	1.26	1.24	1.58	ppb
Lead	207-1	1.10	1.04	1.13	1.09	4.05	ppb
Lead	208-1	1.14	1.13	1.16	1.14	1.37	ppb
Lithium	6-1				99		%
Magnesium	24-2	161.71	156.98	162.06	160.25	1.77	ppb
Manganese	55-2	66.90	66.03	66.23	66.39	0.69	ppb
Molybdenum	94-1	0.09	0.05	0.09	0.08	27.83	ppb
Molybdenum	95-1	0.07	0.06	0.08	0.07	14.81	ppb
Molybdenum	96-1	0.11	0.09	0.09	0.09	11.55	ppb
Molybdenum	97-1	0.08	0.07	0.05	0.06	24.50	ppb
Molybdenum	98-1	0.07	0.07	0.06	0.07	7.12	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.31	1.16	1.33	1.27	7.16	ppb
Phosphorus	31-2	-124.41	-125.83	-129.44	-126.56		ppb
Potassium	39-2	1359.66	1349.29	1363.41	1357.45	0.54	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Selenium	82-1	-0.07	0.85	0.44	0.40	113.66	ppb
Selenium	77-2	-0.25	-0.06	-0.06	-0.12		ppb
Selenium	78-2	-0.96	-0.41	-1.11	-0.83		ppb
Silicon	28-1	56.00	64.53	63.66	61.39	7.65	ppb
Silver	107-1	0.01	0.01	0.01	0.01	33.40	ppb
Silver	109-1	0.01	0.01	0.01	0.01	18.13	ppb
Sodium	23-2	150553.64	150065.47	149274.27	149964.46	0.43	ppb
Strontium	86-1	622.03	628.43	623.69	624.72	0.53	ppb
Strontium	88-1	606.83	618.05	612.01	612.30	0.92	ppb
Sulfur	34-1	-243.27	-89.16	-133.39	-155.27		ppb
Terbium	159-1				103		%
Terbium	159-2				103		%
Thallium	203-1	0.06	0.04	0.05	0.05	21.92	ppb
Thallium	205-1	0.04	0.05	0.04	0.04	19.25	ppb
Tin	118-1	0.26	0.21	0.25	0.24	10.11	ppb
Titanium	47-1	0.25	0.19	0.18	0.21	17.38	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.00	0.01	52.14	ppb
Vanadium	51-2	0.10	0.10	0.12	0.11	8.78	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	107.17	107.79	108.19	107.72	0.48	ppb
Zirconium	90-1	0.02	0.02	0.01	0.02	20.52	ppb
Zirconium	91-1	0.03	0.03	0.01	0.02	40.79	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	122.01	122.91	122.61	122.51	0.37	ppb
Antimony	121-1	0.24	0.22	0.23	0.23	4.45	ppb
Arsenic	75-2	0.02	0.03	0.03	0.03	37.77	ppb
Barium	135-1	12.02	12.29	12.61	12.31	2.42	ppb
Barium	137-1	12.18	12.14	12.33	12.21	0.85	ppb
Beryllium	9-1	0.02	0.03	0.01	0.02	31.07	ppb
Bismuth	209-1				104		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.16	0.13	0.08	0.13	30.95	ppb
Cadmium	106-1	0.18	-0.08	-0.58	-0.16		ppb
Cadmium	111-1	0.14	0.13	0.07	0.11	33.49	ppb
Calcium	43-1	3938.71	3993.93	4036.68	3989.77	1.23	ppb
Calcium	44-1	4197.93	4233.78	4225.19	4218.96	0.44	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.18	0.19	0.18	0.19	4.11	ppb
Cobalt	59-2	0.30	0.34	0.32	0.32	4.89	ppb
Copper	63-2	4.70	5.00	4.74	4.81	3.33	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				103		%
Indium	115-1				102		%
Indium	115-2				103		%
Iron	56-2	766.89	758.63	777.87	767.79	1.26	ppb
Iron	57-2	715.23	728.26	728.67	724.05	1.06	ppb
Iron	54-2	695.18	707.44	712.15	704.92	1.24	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.17	1.24	1.16	1.19	3.64	ppb
Lead	207-1	1.15	1.12	1.11	1.13	1.61	ppb
Lead	208-1	1.14	1.17	1.11	1.14	2.80	ppb
Lithium	6-1				101		%
Magnesium	24-2	158.47	162.20	162.18	160.95	1.34	ppb
Manganese	55-2	65.98	66.71	67.39	66.69	1.06	ppb
Molybdenum	94-1	0.13	0.13	0.13	0.13	0.69	ppb
Molybdenum	95-1	0.12	0.08	0.09	0.10	19.39	ppb
Molybdenum	96-1	0.11	0.10	0.13	0.12	12.02	ppb
Molybdenum	97-1	0.12	0.10	0.14	0.12	16.94	ppb
Molybdenum	98-1	0.10	0.12	0.09	0.10	13.98	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.81	1.64	1.82	1.75	5.71	ppb
Phosphorus	31-2	-129.63	-125.81	-132.52	-129.32		ppb
Potassium	39-2	1323.04	1348.07	1376.65	1349.25	1.99	ppb
Rhodium	103-1				100		%
Rhodium	103-2				102		%
Scandium	45-1				98		%
Scandium	45-2				101		%
Selenium	82-1	0.83	0.46	0.09	0.46	79.78	ppb
Selenium	77-2	-0.25	-0.25	-0.07	-0.19		ppb
Selenium	78-2	-0.95	0.30	0.15	-0.17		ppb
Silicon	28-1	56.35	61.74	62.46	60.19	5.55	ppb
Silver	107-1	0.01	0.01	0.01	0.01	3.14	ppb
Silver	109-1	0.01	0.01	0.01	0.01	24.18	ppb
Sodium	23-2	146660.35	152001.54	150533.61	149731.83	1.84	ppb
Strontium	86-1	634.26	635.50	616.45	628.74	1.70	ppb
Strontium	88-1	622.04	616.88	614.00	617.64	0.66	ppb
Sulfur	34-1	-89.23	46.33	115.48	24.20	430.39	ppb
Terbium	159-1				105		%
Terbium	159-2				105		%
Thallium	203-1	0.04	0.03	0.04	0.04	19.15	ppb
Thallium	205-1	0.03	0.03	0.04	0.03	20.79	ppb
Tin	118-1	0.22	0.22	0.25	0.23	8.10	ppb
Titanium	47-1	0.79	0.78	0.75	0.77	2.66	ppb

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.01	0.00	0.01	85.78	ppb
Vanadium	51-2	0.11	0.09	0.09	0.10	7.32	ppb
Yttrium	89-1				100		%
Yttrium	89-2				102		%
Zinc	66-2	105.47	109.52	109.50	108.16	2.16	ppb
Zirconium	90-1	0.03	0.02	0.02	0.02	11.40	ppb
Zirconium	91-1	0.02	0.03	0.03	0.03	18.57	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	25.73	25.08	26.44	25.75	2.65	ppb
Antimony	121-1	0.06	0.06	0.05	0.05	9.29	ppb
Arsenic	75-2	-0.02	-0.03	0.00	-0.02		ppb
Barium	135-1	2.60	2.57	2.41	2.53	4.08	ppb
Barium	137-1	2.55	2.51	2.43	2.50	2.35	ppb
Beryllium	9-1	0.01	-0.02	0.02	0.01	335.00	ppb
Bismuth	209-1				107		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	-0.10	0.05	-0.01		ppb
Cadmium	106-1	-0.02	0.15	-1.16	-0.34		ppb
Cadmium	111-1	0.01	0.02	-0.04	0.00		ppb
Calcium	43-1	809.57	835.81	809.54	818.31	1.85	ppb
Calcium	44-1	821.56	839.53	819.27	826.79	1.34	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.06	0.10	0.07	0.07	29.51	ppb
Cobalt	59-2	0.04	0.05	0.05	0.05	10.17	ppb
Copper	63-2	0.74	0.72	0.73	0.73	1.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				105		%
Indium	115-1				105		%
Indium	115-2				104		%
Iron	56-2	140.29	143.10	143.34	142.25	1.19	ppb
Iron	57-2	140.07	143.10	141.24	141.47	1.08	ppb
Iron	54-2	138.73	145.30	144.96	143.00	2.58	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.17	0.21	0.24	0.21	15.98	ppb
Lead	207-1	0.17	0.20	0.19	0.19	9.37	ppb
Lead	208-1	0.18	0.20	0.22	0.20	10.81	ppb
Lithium	6-1				103		%
Magnesium	24-2	45.26	46.23	45.94	45.81	1.09	ppb
Manganese	55-2	14.05	14.42	14.24	14.24	1.30	ppb
Molybdenum	94-1	0.10	0.09	0.08	0.09	8.26	ppb
Molybdenum	95-1	0.03	0.02	0.02	0.02	37.11	ppb
Molybdenum	96-1	0.03	0.03	0.02	0.02	28.06	ppb
Molybdenum	97-1	0.02	0.01	0.02	0.02	37.84	ppb
Molybdenum	98-1	0.02	0.02	0.01	0.02	16.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.27	0.24	0.26	0.26	7.60	ppb
Phosphorus	31-2	-138.93	-128.65	-132.21	-133.26		ppb
Potassium	39-2	262.69	269.48	271.91	268.03	1.78	ppb
Rhodium	103-1				101		%
Rhodium	103-2				104		%
Scandium	45-1				100		%
Scandium	45-2				101		%
Selenium	82-1	0.72	-0.24	0.31	0.26	185.75	ppb
Selenium	77-2	-0.07	-0.25	-0.06	-0.13		ppb
Selenium	78-2	1.66	-2.16	0.57	0.02	8070.01	ppb
Silicon	28-1	14.44	15.75	12.61	14.27	11.09	ppb
Silver	107-1	0.00	0.00	0.01	0.00	47.92	ppb
Silver	109-1	0.01	0.01	0.01	0.01	10.94	ppb
Sodium	23-2	29046.38	29466.74	30363.93	29625.68	2.27	ppb
Strontium	86-1	131.95	125.40	129.93	129.09	2.60	ppb
Strontium	88-1	123.86	123.52	124.16	123.84	0.26	ppb
Sulfur	34-1	-557.99	-477.80	-525.89	-520.56		ppb
Terbium	159-1				106		%
Terbium	159-2				105		%
Thallium	203-1	0.02	0.03	0.02	0.03	21.28	ppb
Thallium	205-1	0.03	0.04	0.02	0.03	29.35	ppb
Tin	118-1	0.00	0.02	0.01	0.01	109.32	ppb
Titanium	47-1	0.63	0.61	0.60	0.61	2.18	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	97.12	ppb
Vanadium	51-2	0.02	0.02	0.02	0.02	16.78	ppb
Yttrium	89-1				101		%
Yttrium	89-2				102		%
Zinc	66-2	22.24	22.60	22.33	22.39	0.84	ppb
Zirconium	90-1	0.04	0.04	0.04	0.04	6.70	ppb
Zirconium	91-1	0.05	0.04	0.04	0.04	24.18	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1544.32	1562.82	1546.56	1551.23	0.65	ppb
Antimony	121-1	87.58	86.37	87.75	87.24	0.86	ppb
Arsenic	75-2	0.04	0.00	0.13	0.06	111.43	ppb
Barium	135-1	395.76	388.53	395.98	393.42	1.08	ppb
Barium	137-1	397.55	389.48	398.37	395.13	1.24	ppb
Beryllium	9-1	85.05	84.69	85.85	85.20	0.69	ppb
Bismuth	209-1				105		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	95.69	93.83	100.43	96.65	3.52	ppb
Cadmium	106-1	96.28	96.08	95.33	95.89	0.52	ppb
Cadmium	111-1	89.98	88.83	89.26	89.36	0.65	ppb
Calcium	43-1	12137.48	12381.29	12346.33	12288.37	1.07	ppb
Calcium	44-1	12756.86	13305.31	13225.39	13095.85	2.26	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	82.23	82.80	83.40	82.81	0.71	ppb
Cobalt	59-2	85.43	86.13	85.10	85.55	0.61	ppb
Copper	63-2	876.41	871.64	888.54	878.86	0.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				105		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	5286.06	5226.48	5248.95	5253.83	0.57	ppb
Iron	57-2	4895.44	4837.17	4938.51	4890.37	1.04	ppb
Iron	54-2	4883.67	4913.94	4915.50	4904.37	0.37	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	471.82	465.19	462.12	466.38	1.06	ppb
Lead	207-1	473.94	461.60	481.20	472.25	2.10	ppb
Lead	208-1	470.22	462.11	477.95	470.10	1.68	ppb
Lithium	6-1				104		%
Magnesium	24-2	9550.79	9446.87	9604.53	9534.06	0.84	ppb
Manganese	55-2	930.03	923.57	913.54	922.38	0.90	ppb
Molybdenum	94-1	910.28	939.55	924.07	924.63	1.58	ppb
Molybdenum	95-1	910.08	939.93	917.20	922.40	1.69	ppb
Molybdenum	96-1	902.48	934.79	925.84	921.04	1.81	ppb
Molybdenum	97-1	915.55	944.53	922.01	927.36	1.64	ppb
Molybdenum	98-1	895.26	937.61	931.16	921.34	2.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	94.62	94.92	94.42	94.65	0.27	ppb
Phosphorus	31-2	-138.81	-127.65	-130.33	-132.26		ppb
Potassium	39-2	5602.96	5637.64	5696.80	5645.80	0.84	ppb
Rhodium	103-1				99		%
Rhodium	103-2				100		%
Scandium	45-1				99		%
Scandium	45-2				101		%
Selenium	82-1	94.77	97.19	96.78	96.25	1.35	ppb
Selenium	77-2	99.00	93.84	102.45	98.43	4.40	ppb
Selenium	78-2	92.04	91.57	95.35	92.99	2.21	ppb
Silicon	28-1	50.77	56.85	57.95	55.19	7.01	ppb
Silver	107-1	14.18	13.97	14.38	14.17	1.45	ppb
Silver	109-1	13.96	13.83	14.13	13.97	1.11	ppb
Sodium	23-2	150738.47	147863.22	151431.49	150011.06	1.26	ppb
Strontium	86-1	3103.07	3203.01	3174.61	3160.23	1.63	ppb
Strontium	88-1	3329.12	3497.87	3445.11	3424.04	2.52	ppb
Sulfur	34-1	125.04	114.50	151.93	130.49	14.79	ppb
Terbium	159-1				105		%
Terbium	159-2				105		%
Thallium	203-1	78.97	80.04	81.63	80.21	1.67	ppb
Thallium	205-1	79.06	79.07	81.13	79.75	1.49	ppb
Tin	118-1	79.66	78.94	80.56	79.72	1.02	ppb
Titanium	47-1	508.40	517.47	515.87	513.91	0.94	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	91.70	92.12	95.62	93.15	2.31	ppb
Vanadium	51-2	86.20	85.66	85.96	85.94	0.31	ppb
Yttrium	89-1				101		%
Yttrium	89-2				100		%
Zinc	66-2	884.98	892.51	899.02	892.17	0.79	ppb
Zirconium	90-1	81.19	83.64	83.20	82.68	1.58	ppb
Zirconium	91-1	83.60	85.27	85.97	84.95	1.44	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1573.15	1556.72	1571.83	1567.23	0.58	ppb
Antimony	121-1	86.25	87.40	88.30	87.32	1.18	ppb
Arsenic	75-2	0.10	0.16	0.11	0.12	25.48	ppb
Barium	135-1	388.20	393.20	400.03	393.81	1.51	ppb
Barium	137-1	390.51	394.05	399.64	394.74	1.17	ppb
Beryllium	9-1	84.43	86.82	85.72	85.66	1.40	ppb
Bismuth	209-1				104		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	91.82	94.07	98.37	94.75	3.51	ppb
Cadmium	106-1	95.01	94.62	98.55	96.06	2.25	ppb
Cadmium	111-1	89.56	88.79	91.55	89.96	1.58	ppb
Calcium	43-1	12353.32	12232.56	12275.00	12286.96	0.50	ppb
Calcium	44-1	13112.89	12919.46	13046.96	13026.44	0.75	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	84.53	83.66	84.77	84.32	0.69	ppb
Cobalt	59-2	86.18	85.82	87.09	86.36	0.76	ppb
Copper	63-2	908.15	892.58	926.48	909.07	1.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				103		%
Indium	115-1				102		%
Indium	115-2				101		%
Iron	56-2	5378.92	5343.18	5711.45	5477.85	3.71	ppb
Iron	57-2	4936.38	4914.59	4987.33	4946.10	0.75	ppb
Iron	54-2	4961.34	4954.51	4988.65	4968.17	0.36	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	480.68	493.92	471.06	481.89	2.38	ppb
Lead	207-1	480.06	489.01	479.47	482.85	1.11	ppb
Lead	208-1	473.88	494.71	476.95	481.85	2.33	ppb
Lithium	6-1				105		%
Magnesium	24-2	9584.75	9634.70	9657.90	9625.78	0.39	ppb
Manganese	55-2	974.98	947.47	965.01	962.49	1.45	ppb
Molybdenum	94-1	938.04	926.79	936.81	933.88	0.66	ppb
Molybdenum	95-1	929.23	916.83	921.77	922.61	0.68	ppb
Molybdenum	96-1	948.24	925.35	913.19	928.93	1.92	ppb
Molybdenum	97-1	938.16	928.13	924.59	930.29	0.76	ppb
Molybdenum	98-1	932.08	916.67	925.84	924.86	0.84	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	97.06	96.69	96.85	96.87	0.20	ppb
Phosphorus	31-2	-132.95	-135.36	-128.49	-132.26		ppb
Potassium	39-2	5809.79	5783.36	5705.34	5766.16	0.94	ppb
Rhodium	103-1				98		%
Rhodium	103-2				101		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	97.29	95.71	94.11	95.70	1.66	ppb
Selenium	77-2	98.05	96.11	88.64	94.27	5.27	ppb
Selenium	78-2	96.50	98.71	92.14	95.78	3.49	ppb
Silicon	28-1	54.93	52.70	56.70	54.78	3.66	ppb
Silver	107-1	14.06	14.11	14.35	14.17	1.08	ppb
Silver	109-1	13.96	13.96	14.41	14.11	1.84	ppb
Sodium	23-2	150828.10	151137.97	153111.65	151692.57	0.82	ppb
Strontium	86-1	3159.44	3171.10	3129.05	3153.20	0.69	ppb
Strontium	88-1	3468.42	3461.76	3477.29	3469.16	0.22	ppb
Sulfur	34-1	176.33	168.64	166.58	170.52	3.01	ppb
Terbium	159-1				106		%
Terbium	159-2				105		%
Thallium	203-1	80.36	83.16	81.18	81.56	1.77	ppb
Thallium	205-1	80.69	83.17	81.21	81.69	1.61	ppb
Tin	118-1	78.19	78.87	79.85	78.97	1.06	ppb
Titanium	47-1	518.40	520.44	516.80	518.54	0.35	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	95.24	96.87	94.61	95.57	1.22	ppb
Vanadium	51-2	87.62	86.83	88.02	87.49	0.69	ppb
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	906.00	895.13	915.01	905.38	1.10	ppb
Zirconium	90-1	82.22	82.55	82.52	82.43	0.22	ppb
Zirconium	91-1	84.99	84.71	84.84	84.85	0.17	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1596.16	1583.89	1571.70	1583.92	0.77	ppb
Antimony	121-1	87.17	87.82	88.46	87.82	0.74	ppb
Arsenic	75-2	0.02	0.00	0.04	0.02	108.10	ppb
Barium	135-1	392.84	401.56	398.96	397.79	1.13	ppb
Barium	137-1	389.41	397.42	399.32	395.39	1.33	ppb
Beryllium	9-1	85.01	86.42	85.47	85.63	0.84	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	91.12	95.51	94.38	93.67	2.43	ppb
Cadmium	106-1	92.93	93.87	100.12	95.64	4.09	ppb
Cadmium	111-1	89.47	90.64	90.92	90.34	0.85	ppb
Calcium	43-1	12472.38	12447.10	12585.78	12501.76	0.59	ppb
Calcium	44-1	13094.62	13288.53	13510.76	13297.97	1.57	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	84.37	83.66	82.12	83.38	1.38	ppb
Cobalt	59-2	86.24	86.92	84.50	85.89	1.45	ppb
Copper	63-2	881.26	894.43	863.77	879.82	1.75	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				101		%
Indium	115-1				99		%
Indium	115-2				99		%
Iron	56-2	5385.54	5284.26	5198.74	5289.51	1.77	ppb
Iron	57-2	4902.40	4897.54	4808.66	4869.53	1.08	ppb
Iron	54-2	4898.70	4889.22	4833.02	4873.65	0.73	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	482.22	464.33	470.74	472.43	1.92	ppb
Lead	207-1	477.08	470.12	466.71	471.30	1.12	ppb
Lead	208-1	479.58	469.09	471.31	473.33	1.17	ppb
Lithium	6-1				102		%
Magnesium	24-2	9451.71	9629.38	9313.95	9465.01	1.67	ppb
Manganese	55-2	945.42	939.49	934.56	939.83	0.58	ppb
Molybdenum	94-1	395.70	402.05	407.18	401.64	1.43	ppb
Molybdenum	95-1	298.64	300.93	306.27	301.95	1.30	ppb
Molybdenum	96-1	311.75	313.70	318.22	314.56	1.05	ppb
Molybdenum	97-1	306.17	308.86	310.56	308.53	0.72	ppb
Molybdenum	98-1	342.73	339.25	342.68	341.55	0.58	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	96.14	94.28	94.78	95.07	1.02	ppb
Phosphorus	31-2	-125.82	-132.70	-126.18	-128.23		ppb
Potassium	39-2	5757.90	5762.84	5681.31	5734.02	0.80	ppb
Rhodium	103-1				96		%
Rhodium	103-2				98		%
Scandium	45-1				95		%
Scandium	45-2				98		%
Selenium	82-1	96.96	96.51	98.82	97.43	1.26	ppb
Selenium	77-2	94.15	88.55	90.56	91.08	3.11	ppb
Selenium	78-2	92.27	91.54	91.18	91.66	0.61	ppb
Silicon	28-1	56.29	55.28	63.07	58.21	7.28	ppb
Silver	107-1	13.95	14.22	14.16	14.11	1.00	ppb
Silver	109-1	13.90	13.99	14.11	14.00	0.74	ppb
Sodium	23-2	151978.71	152306.95	148611.33	150965.66	1.35	ppb
Strontium	86-1	3162.15	3189.43	3228.77	3193.45	1.05	ppb
Strontium	88-1	3519.81	3467.84	3601.19	3529.61	1.90	ppb
Sulfur	34-1	281.31	273.39	255.68	270.13	4.86	ppb
Terbium	159-1				102		%
Terbium	159-2				103		%
Thallium	203-1	80.70	81.38	81.93	81.34	0.76	ppb
Thallium	205-1	81.27	81.20	82.12	81.53	0.63	ppb
Tin	118-1	78.65	80.39	79.81	79.61	1.11	ppb
Titanium	47-1	0.84	0.85	1.13	0.94	17.54	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	96.03	92.43	96.21	94.89	2.25	ppb
Vanadium	51-2	86.42	87.13	85.48	86.35	0.96	ppb
Yttrium	89-1				98		%
Yttrium	89-2				100		%
Zinc	66-2	899.76	897.76	883.02	893.51	1.02	ppb
Zirconium	90-1	82.89	83.34	85.11	83.78	1.40	ppb
Zirconium	91-1	84.60	85.65	86.41	85.55	1.06	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2854.34	2903.70	2849.05	2869.03	1.05	ppb
Antimony	121-1	0.26	0.25	0.29	0.27	6.78	ppb
Arsenic	75-2	1.98	1.96	2.30	2.08	9.08	ppb
Barium	135-1	57.69	58.81	59.32	58.60	1.42	ppb
Barium	137-1	57.41	57.97	59.20	58.19	1.57	ppb
Beryllium	9-1	1.39	1.52	1.52	1.48	4.98	ppb
Bismuth	209-1				113		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.32	0.44	0.48	0.42	20.07	ppb
Cadmium	106-1	0.50	0.81	1.12	0.81	38.68	ppb
Cadmium	111-1	0.05	0.08	0.10	0.08	36.36	ppb
Calcium	43-1	3981.77	4027.65	3982.11	3997.18	0.66	ppb
Calcium	44-1	4293.76	4393.59	4372.29	4353.21	1.21	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	24.69	24.82	24.60	24.70	0.44	ppb
Cobalt	59-2	4.35	4.34	4.27	4.32	1.06	ppb
Copper	63-2	18.36	18.52	18.04	18.31	1.33	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				113		%
Holmium	165-2				109		%
Indium	115-1				110		%
Indium	115-2				108		%
Iron	56-2	6791.09	6819.79	6879.73	6830.20	0.66	ppb
Iron	57-2	6291.05	6358.80	6294.70	6314.85	0.60	ppb
Iron	54-2	6263.04	6344.35	6272.27	6293.22	0.71	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	8.63	8.83	8.90	8.79	1.58	ppb
Lead	207-1	7.73	7.69	8.01	7.81	2.23	ppb
Lead	208-1	8.06	8.19	8.37	8.21	1.87	ppb
Lithium	6-1				110		%
Magnesium	24-2	898.26	900.17	880.29	892.91	1.23	ppb
Manganese	55-2	81.52	82.59	81.64	81.92	0.72	ppb
Molybdenum	94-1	8.83	9.11	9.08	9.01	1.70	ppb
Molybdenum	95-1	4.62	4.84	4.64	4.70	2.61	ppb
Molybdenum	96-1	5.19	5.37	5.25	5.27	1.80	ppb
Molybdenum	97-1	4.73	4.84	4.99	4.85	2.60	ppb
Molybdenum	98-1	4.60	4.83	4.72	4.72	2.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	11.31	10.80	11.52	11.21	3.28	ppb
Phosphorus	31-2	68.79	77.06	68.26	71.37	6.91	ppb
Potassium	39-2	1476.01	1475.95	1459.63	1470.53	0.64	ppb
Rhodium	103-1				108		%
Rhodium	103-2				109		%
Scandium	45-1				111		%
Scandium	45-2				112		%
Selenium	82-1	1.58	1.67	1.22	1.49	16.16	ppb
Selenium	77-2	14.60	17.60	15.73	15.98	9.50	ppb
Selenium	78-2	1.36	1.66	2.41	1.81	29.84	ppb
Silicon	28-1	2680.06	2775.17	2693.49	2716.24	1.90	ppb
Silver	107-1	0.03	0.03	0.04	0.03	12.57	ppb
Silver	109-1	0.04	0.03	0.04	0.04	10.07	ppb
Sodium	23-2	15400.87	15430.17	15211.06	15347.37	0.78	ppb
Strontium	86-1	1211.46	1265.42	1258.11	1244.99	2.35	ppb
Strontium	88-1	1187.42	1240.36	1228.04	1218.61	2.27	ppb
Sulfur	34-1	3192.80	3184.28	3079.44	3152.17	2.00	ppb
Terbium	159-1				115		%
Terbium	159-2				112		%
Thallium	203-1	0.13	0.13	0.13	0.13	1.30	ppb
Thallium	205-1	0.14	0.14	0.14	0.14	0.82	ppb
Tin	118-1	0.53	0.57	0.55	0.55	3.79	ppb
Titanium	47-1	48.01	48.52	48.19	48.24	0.54	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	3.67	3.78	3.83	3.76	2.15	ppb
Vanadium	51-2	86.62	87.08	85.84	86.52	0.73	ppb
Yttrium	89-1				120		%
Yttrium	89-2				120		%
Zinc	66-2	25.04	25.67	24.33	25.01	2.67	ppb
Zirconium	90-1	2.81	2.91	2.86	2.86	1.90	ppb
Zirconium	91-1	2.99	3.03	2.92	2.98	1.89	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3282.03	3277.65	3262.77	3274.15	0.31	ppb
Antimony	121-1	0.27	0.26	0.27	0.26	2.12	ppb
Arsenic	75-2	2.19	2.17	2.14	2.16	1.14	ppb
Barium	135-1	63.62	60.94	61.47	62.01	2.29	ppb
Barium	137-1	62.56	61.46	61.59	61.87	0.97	ppb
Beryllium	9-1	1.43	1.61	1.50	1.51	6.14	ppb
Bismuth	209-1				112		%
Bismuth	209-2				112		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.48	0.39	0.23	0.37	35.06	ppb
Cadmium	106-1	1.28	0.62	1.12	1.01	34.54	ppb
Cadmium	111-1	0.10	0.06	0.10	0.09	24.20	ppb
Calcium	43-1	4066.70	4137.10	4235.72	4146.51	2.05	ppb
Calcium	44-1	4371.67	4414.20	4622.26	4469.38	3.00	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	27.79	27.02	27.10	27.30	1.55	ppb
Cobalt	59-2	4.42	4.49	4.42	4.44	0.93	ppb
Copper	63-2	18.92	18.68	18.53	18.71	1.07	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				112		%
Holmium	165-2				111		%
Indium	115-1				111		%
Indium	115-2				111		%
Iron	56-2	7505.92	7480.46	7611.45	7532.61	0.92	ppb
Iron	57-2	6977.16	6863.43	6860.63	6900.40	0.96	ppb
Iron	54-2	7496.22	7514.65	7319.14	7443.34	1.45	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	8.88	9.21	9.05	9.05	1.87	ppb
Lead	207-1	7.97	8.21	8.11	8.10	1.53	ppb
Lead	208-1	8.30	8.45	8.37	8.37	0.91	ppb
Lithium	6-1				107		%
Magnesium	24-2	924.03	931.31	916.63	923.99	0.79	ppb
Manganese	55-2	84.40	83.90	82.55	83.61	1.14	ppb
Molybdenum	94-1	8.68	8.73	8.79	8.73	0.58	ppb
Molybdenum	95-1	3.84	3.79	3.62	3.75	3.16	ppb
Molybdenum	96-1	4.32	4.42	4.33	4.36	1.35	ppb
Molybdenum	97-1	3.78	3.69	3.68	3.72	1.57	ppb
Molybdenum	98-1	3.71	3.72	3.68	3.70	0.62	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	11.84	11.77	11.67	11.76	0.72	ppb
Phosphorus	31-2	89.17	79.21	95.66	88.01	9.42	ppb
Potassium	39-2	1509.21	1505.70	1490.56	1501.82	0.66	ppb
Rhodium	103-1				109		%
Rhodium	103-2				111		%
Scandium	45-1				112		%
Scandium	45-2				114		%
Selenium	82-1	1.87	0.84	1.76	1.49	37.84	ppb
Selenium	77-2	20.72	16.81	16.49	18.01	13.10	ppb
Selenium	78-2	-0.22	-0.19	-0.10	-0.17		ppb
Silicon	28-1	2886.38	2956.41	3006.33	2949.71	2.04	ppb
Silver	107-1	0.04	0.03	0.04	0.04	11.01	ppb
Silver	109-1	0.04	0.03	0.04	0.04	4.72	ppb
Sodium	23-2	15535.80	15640.74	15379.10	15518.55	0.85	ppb
Strontium	86-1	1282.47	1311.22	1287.97	1293.89	1.18	ppb
Strontium	88-1	1249.25	1257.99	1251.66	1252.97	0.36	ppb
Sulfur	34-1	2831.92	3111.67	3250.18	3064.59	6.95	ppb
Terbium	159-1				115		%
Terbium	159-2				113		%
Thallium	203-1	0.11	0.13	0.11	0.12	9.68	ppb
Thallium	205-1	0.11	0.13	0.12	0.12	5.96	ppb
Tin	118-1	0.52	0.49	0.55	0.52	6.02	ppb
Titanium	47-1	57.10	54.78	59.96	57.28	4.53	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	3.87	3.92	3.85	3.88	0.89	ppb
Vanadium	51-2	92.39	92.10	92.16	92.22	0.16	ppb
Yttrium	89-1				122		%
Yttrium	89-2				123		%
Zinc	66-2	26.06	25.55	25.11	25.58	1.85	ppb
Zirconium	90-1	3.17	3.18	3.15	3.17	0.42	ppb
Zirconium	91-1	3.27	3.35	3.34	3.32	1.21	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	613.36	620.60	609.49	614.48	0.92	ppb
Antimony	121-1	0.06	0.05	0.05	0.05	13.00	ppb
Arsenic	75-2	0.56	0.43	0.45	0.48	14.76	ppb
Barium	135-1	11.54	11.96	11.76	11.75	1.77	ppb
Barium	137-1	11.53	11.77	12.05	11.78	2.21	ppb
Beryllium	9-1	0.28	0.28	0.31	0.29	6.28	ppb
Bismuth	209-1				105		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	0.03	0.13	0.06	102.05	ppb
Cadmium	106-1	-0.10	-0.22	0.01	-0.10		ppb
Cadmium	111-1	0.00	-0.03	0.00	-0.01		ppb
Calcium	43-1	856.60	833.58	833.80	841.33	1.57	ppb
Calcium	44-1	827.83	824.88	821.84	824.85	0.36	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5.03	5.15	5.11	5.10	1.22	ppb
Cobalt	59-2	0.88	0.86	0.86	0.87	1.06	ppb
Copper	63-2	3.87	3.87	3.80	3.85	1.05	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				102		%
Indium	115-1				105		%
Indium	115-2				102		%
Iron	56-2	1419.66	1417.15	1417.14	1417.98	0.10	ppb
Iron	57-2	1315.64	1300.92	1302.42	1306.32	0.62	ppb
Iron	54-2	1324.41	1325.57	1315.59	1321.86	0.41	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.70	1.67	1.77	1.71	2.86	ppb
Lead	207-1	1.51	1.48	1.56	1.52	2.58	ppb
Lead	208-1	1.58	1.54	1.60	1.58	2.03	ppb
Lithium	6-1				101		%
Magnesium	24-2	180.06	181.70	181.41	181.06	0.48	ppb
Manganese	55-2	16.88	16.72	16.47	16.69	1.23	ppb
Molybdenum	94-1	1.73	1.83	1.88	1.81	4.24	ppb
Molybdenum	95-1	0.87	0.90	0.88	0.88	1.83	ppb
Molybdenum	96-1	1.06	0.97	1.04	1.02	4.37	ppb
Molybdenum	97-1	0.93	0.90	0.94	0.92	2.10	ppb
Molybdenum	98-1	0.85	0.87	0.86	0.86	1.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.31	2.39	2.23	2.31	3.35	ppb
Phosphorus	31-2	-86.42	-89.85	-87.62	-87.96		ppb
Potassium	39-2	295.39	301.78	296.15	297.77	1.17	ppb
Rhodium	103-1				101		%
Rhodium	103-2				103		%
Scandium	45-1				101		%
Scandium	45-2				102		%
Selenium	82-1	0.23	-0.14	0.60	0.23	160.29	ppb
Selenium	77-2	3.49	3.13	2.30	2.98	20.48	ppb
Selenium	78-2	1.18	0.02	-0.67	0.18	525.50	ppb
Silicon	28-1	569.04	565.19	573.90	569.38	0.77	ppb
Silver	107-1	0.01	0.01	0.02	0.02	38.30	ppb
Silver	109-1	0.01	0.02	0.02	0.02	16.00	ppb
Sodium	23-2	3073.71	3147.23	3034.70	3085.21	1.85	ppb
Strontium	86-1	263.05	268.51	267.18	266.25	1.07	ppb
Strontium	88-1	258.21	257.51	260.91	258.88	0.69	ppb
Sulfur	34-1	-430.04	-400.68	-395.62	-408.78		ppb
Terbium	159-1				107		%
Terbium	159-2				104		%
Thallium	203-1	0.03	0.04	0.03	0.03	14.17	ppb
Thallium	205-1	0.04	0.04	0.03	0.03	7.49	ppb
Tin	118-1	0.11	0.07	0.08	0.09	24.32	ppb
Titanium	47-1	10.13	10.84	10.39	10.45	3.41	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.75	0.71	0.73	0.73	2.18	ppb
Vanadium	51-2	17.75	17.76	17.37	17.63	1.28	ppb
Yttrium	89-1				106		%
Yttrium	89-2				104		%
Zinc	66-2	4.79	4.90	5.06	4.92	2.74	ppb
Zirconium	90-1	0.61	0.62	0.63	0.62	1.43	ppb
Zirconium	91-1	0.56	0.65	0.60	0.61	7.60	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11544.54	11792.15	11882.84	11739.84	1.49	ppb
Antimony	121-1	471.75	482.49	477.10	477.11	1.13	ppb
Arsenic	75-2	2.36	2.18	2.34	2.29	4.41	ppb
Barium	135-1	2217.27	2218.47	2244.90	2226.88	0.70	ppb
Barium	137-1	2117.70	2201.16	2234.55	2184.47	2.76	ppb
Beryllium	9-1	419.05	418.32	418.94	418.77	0.09	ppb
Bismuth	209-1				103		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	462.75	464.05	475.57	467.46	1.51	ppb
Cadmium	106-1	460.37	474.85	470.32	468.51	1.58	ppb
Cadmium	111-1	430.83	442.20	441.81	438.28	1.47	ppb
Calcium	43-1	43012.17	43342.71	44699.33	43684.74	2.05	ppb
Calcium	44-1	46233.35	46953.21	47959.71	47048.75	1.84	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	473.81	471.57	479.05	474.81	0.81	ppb
Cobalt	59-2	459.60	458.61	461.54	459.91	0.32	ppb
Copper	63-2	4201.15	4083.47	4149.63	4144.75	1.42	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				103		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	56-2	29502.35	29276.89	29126.41	29301.88	0.65	ppb
Iron	57-2	29878.12	28083.56	29215.87	29059.18	3.12	ppb
Iron	54-2	29251.07	29042.38	29582.35	29291.93	0.93	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2343.55	2394.43	2397.64	2378.54	1.28	ppb
Lead	207-1	2340.78	2370.60	2375.88	2362.42	0.80	ppb
Lead	208-1	2339.41	2376.83	2375.30	2363.84	0.90	ppb
Lithium	6-1				103		%
Magnesium	24-2	45070.69	45481.41	45559.58	45370.56	0.58	ppb
Manganese	55-2	4236.30	4264.68	4234.81	4245.26	0.40	ppb
Molybdenum	94-1	3996.14	3992.12	4163.56	4050.61	2.42	ppb
Molybdenum	95-1	3984.85	4008.52	4115.91	4036.43	1.73	ppb
Molybdenum	96-1	4046.73	4102.02	4152.55	4100.43	1.29	ppb
Molybdenum	97-1	3995.60	4067.60	4180.71	4081.31	2.29	ppb
Molybdenum	98-1	4019.13	4026.57	4135.99	4060.56	1.61	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	454.83	451.37	460.22	455.47	0.98	ppb
Phosphorus	31-2	114.14	90.60	102.94	102.56	11.48	ppb
Potassium	39-2	21606.35	21548.58	21880.33	21678.42	0.82	ppb
Rhodium	103-1				98		%
Rhodium	103-2				99		%
Scandium	45-1				105		%
Scandium	45-2				103		%
Selenium	82-1	413.84	419.12	428.38	420.45	1.75	ppb
Selenium	77-2	427.63	444.76	444.26	438.89	2.22	ppb
Selenium	78-2	423.70	415.24	407.68	415.54	1.93	ppb
Silicon	28-1	2617.18	2685.21	2741.55	2681.31	2.32	ppb
Silver	107-1	63.20	64.63	64.73	64.19	1.33	ppb
Silver	109-1	62.60	63.46	63.95	63.33	1.08	ppb
Sodium	23-2	59227.19	59453.38	59775.81	59485.46	0.46	ppb
Strontium	86-1	13832.49	13826.24	12836.90	13498.55	4.24	ppb
Strontium	88-1	13657.37	13784.53	13918.46	13786.78	0.95	ppb
Sulfur	34-1	3510.69	3567.57	3852.38	3643.54	5.02	ppb
Terbium	159-1				106		%
Terbium	159-2				105		%
Thallium	203-1	461.18	474.03	471.08	468.76	1.44	ppb
Thallium	205-1	460.87	468.81	464.19	464.62	0.86	ppb
Tin	118-1	423.53	443.66	437.18	434.79	2.36	ppb
Titanium	47-1	2739.00	2730.42	2818.58	2762.67	1.76	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	452.38	465.78	466.27	461.48	1.71	ppb
Vanadium	51-2	570.78	555.82	583.77	570.12	2.45	ppb
Yttrium	89-1				113		%
Yttrium	89-2				112		%
Zinc	66-2	4175.75	4120.12	4187.19	4161.02	0.86	ppb
Zirconium	90-1	401.65	402.61	418.92	407.73	2.38	ppb
Zirconium	91-1	369.73	373.45	387.02	376.73	2.42	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50861.57	50930.23	50667.11	50819.64	0.27	ppb
Antimony	121-1	486.61	497.65	504.75	496.33	1.84	ppb
Arsenic	75-2	486.93	481.89	474.29	481.04	1.32	ppb
Barium	135-1	2519.77	2546.77	2554.93	2540.49	0.72	ppb
Barium	137-1	2506.86	2519.94	2548.26	2525.02	0.84	ppb
Beryllium	9-1	479.55	487.76	491.31	486.21	1.24	ppb
Bismuth	209-1				97		%
Bismuth	209-2				94		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	480.94	484.62	488.45	484.67	0.78	ppb
Cadmium	106-1	474.64	485.25	497.04	485.64	2.31	ppb
Cadmium	111-1	448.35	454.00	455.96	452.77	0.87	ppb
Calcium	43-1	249238.76	249882.21	246859.94	248660.30	0.64	ppb
Calcium	44-1	247820.53	250403.93	246643.54	248289.33	0.77	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	496.61	496.13	500.20	497.65	0.45	ppb
Cobalt	59-2	504.26	495.37	486.69	495.44	1.77	ppb
Copper	63-2	5122.54	5156.56	5127.31	5135.47	0.36	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				99		%
Indium	115-1				93		%
Indium	115-2				92		%
Iron	56-2	132924.30	133379.25	126934.61	131079.39	2.74	ppb
Iron	57-2	131844.49	129612.80	131265.32	130907.54	0.88	ppb
Iron	54-2	130005.82	129900.77	131695.95	130534.18	0.77	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2539.51	2625.03	2540.54	2568.36	1.91	ppb
Lead	207-1	2498.12	2586.37	2546.60	2543.70	1.74	ppb
Lead	208-1	2523.27	2580.50	2539.44	2547.74	1.16	ppb
Lithium	6-1				103		%
Magnesium	24-2	251507.77	253042.40	253116.04	252555.40	0.36	ppb
Manganese	55-2	5036.91	5054.33	4979.68	5023.64	0.78	ppb
Molybdenum	94-1	4966.69	5056.28	5013.70	5012.22	0.89	ppb
Molybdenum	95-1	4920.89	5049.42	5044.80	5005.04	1.46	ppb
Molybdenum	96-1	4992.67	5095.74	5033.12	5040.51	1.03	ppb
Molybdenum	97-1	5003.18	5046.07	4971.73	5006.99	0.75	ppb
Molybdenum	98-1	5036.40	5076.64	4982.59	5031.88	0.94	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	514.84	513.80	513.02	513.89	0.18	ppb
Phosphorus	31-2	10134.77	9990.20	10228.25	10117.74	1.19	ppb
Potassium	39-2	126262.85	124886.60	126248.07	125799.17	0.63	ppb
Rhodium	103-1				90		%
Rhodium	103-2				94		%
Scandium	45-1				95		%
Scandium	45-2				98		%
Selenium	82-1	475.37	477.93	475.02	476.10	0.33	ppb
Selenium	77-2	487.16	469.25	470.42	475.61	2.11	ppb
Selenium	78-2	475.71	460.52	459.42	465.21	1.96	ppb
Silicon	28-1	367.76	378.93	375.56	374.08	1.53	ppb
Silver	107-1	447.70	453.72	459.30	453.58	1.28	ppb
Silver	109-1	448.54	454.03	464.20	455.59	1.74	ppb
Sodium	23-2	253417.91	252369.43	253704.19	253163.84	0.28	ppb
Strontium	86-1	11422.31	11524.83	11391.69	11446.28	0.61	ppb
Strontium	88-1	12387.46	12593.11	12576.07	12518.88	0.91	ppb
Sulfur	34-1	10120.96	10062.52	10010.96	10064.81	0.55	ppb
Terbium	159-1				102		%
Terbium	159-2				99		%
Thallium	203-1	522.25	530.38	517.04	523.22	1.29	ppb
Thallium	205-1	513.05	521.87	505.20	513.37	1.62	ppb
Tin	118-1	501.51	501.52	511.82	504.95	1.18	ppb
Titanium	47-1	5090.40	5025.29	4984.02	5033.24	1.07	ppb

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	519.08	531.36	521.66	524.03	1.24	ppb
Vanadium	51-2	506.54	515.28	511.08	510.97	0.86	ppb
Yttrium	89-1				96		%
Yttrium	89-2				97		%
Zinc	66-2	4933.92	4882.86	5042.13	4952.97	1.64	ppb
Zirconium	90-1	498.25	508.95	501.84	503.01	1.08	ppb
Zirconium	91-1	455.53	463.50	461.11	460.05	0.89	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.62	3.07	3.07	2.92	8.82	ppb
Antimony	121-1	0.02	0.03	0.04	0.03	39.69	ppb
Arsenic	75-2	-0.06	-0.06	-0.02	-0.05		ppb
Barium	135-1	0.00	-0.02	0.02	0.00	3353.73	ppb
Barium	137-1	0.02	0.00	0.00	0.01	96.11	ppb
Beryllium	9-1	0.06	0.05	0.03	0.05	34.65	ppb
Bismuth	209-1				102		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.10	0.04	-0.04	-0.04		ppb
Cadmium	106-1	-1.07	-0.89	-0.65	-0.87		ppb
Cadmium	111-1	-0.06	-0.07	-0.02	-0.05		ppb
Calcium	43-1	-3.13	-6.99	-7.35	-5.82		ppb
Calcium	44-1	-3.40	-2.78	-1.79	-2.66		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.01	0.00	-0.01	-0.01		ppb
Cobalt	59-2	-0.02	-0.01	-0.01	-0.02		ppb
Copper	63-2	0.06	0.13	0.13	0.11	39.96	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				98		%
Indium	115-1				99		%
Indium	115-2				97		%
Iron	56-2	-0.49	-0.39	-0.01	-0.30		ppb
Iron	57-2	-4.61	-2.05	-3.34	-3.33		ppb
Iron	54-2	-0.12	0.82	1.53	0.74	110.96	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.04	-0.05	-0.01	-0.03		ppb
Lead	207-1	-0.05	-0.01	-0.04	-0.03		ppb
Lead	208-1	-0.04	-0.02	-0.02	-0.03		ppb
Lithium	6-1				99		%
Magnesium	24-2	0.42	0.44	0.51	0.46	10.53	ppb
Manganese	55-2	-0.01	-0.01	-0.04	-0.02		ppb
Molybdenum	94-1	0.05	0.03	0.05	0.05	22.66	ppb
Molybdenum	95-1	0.02	0.02	0.02	0.02	19.88	ppb
Molybdenum	96-1	0.02	0.03	0.03	0.02	21.18	ppb
Molybdenum	97-1	0.06	0.03	0.03	0.04	38.97	ppb
Molybdenum	98-1	0.03	0.02	0.03	0.03	9.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.01	0.02	0.00	0.01	120.56	ppb
Phosphorus	31-2	-125.78	-128.01	-130.97	-128.26		ppb
Potassium	39-2	0.09	2.72	3.79	2.20	86.62	ppb
Rhodium	103-1				97		%
Rhodium	103-2				99		%
Scandium	45-1				95		%
Scandium	45-2				96		%
Selenium	82-1	-0.79	-0.03	-0.19	-0.33		ppb
Selenium	77-2	-0.25	-0.25	-0.06	-0.18		ppb
Selenium	78-2	-1.77	-2.05	0.04	-1.26		ppb
Silicon	28-1	-9.09	-4.82	0.26	-4.55		ppb
Silver	107-1	0.01	0.01	0.01	0.01	24.82	ppb
Silver	109-1	0.01	0.01	0.01	0.01	12.81	ppb
Sodium	23-2	16.50	16.89	18.23	17.21	5.27	ppb
Strontium	86-1	0.15	0.93	0.15	0.41	110.42	ppb
Strontium	88-1	-0.02	0.11	0.05	0.04	152.78	ppb
Sulfur	34-1	-778.81	-629.45	-547.06	-651.77		ppb
Terbium	159-1				101		%
Terbium	159-2				100		%
Thallium	203-1	0.04	0.04	0.01	0.03	51.03	ppb
Thallium	205-1	0.03	0.04	0.03	0.03	14.51	ppb
Tin	118-1	-0.05	-0.04	-0.04	-0.04		ppb
Titanium	47-1	0.01	0.01	0.02	0.01	34.05	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.00	0.00	0.00	231.73	ppb
Yttrium	89-1				97		%
Yttrium	89-2				97		%
Zinc	66-2	-0.06	0.05	-0.10	-0.04		ppb
Zirconium	90-1	0.00	0.01	0.00	0.00	76.85	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	45.13	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11931.69	11699.55	11502.24	11711.16	1.84	ppb
Antimony	121-1	487.40	485.50	484.96	485.95	0.26	ppb
Arsenic	75-2	2.41	2.33	2.36	2.37	1.67	ppb
Barium	135-1	2239.53	2215.80	2221.68	2225.67	0.56	ppb
Barium	137-1	2192.19	2180.44	2224.65	2199.10	1.04	ppb
Beryllium	9-1	418.49	418.22	429.90	422.20	1.58	ppb
Bismuth	209-1				102		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	466.19	468.30	474.44	469.64	0.91	ppb
Cadmium	106-1	473.07	468.23	473.40	471.57	0.61	ppb
Cadmium	111-1	438.53	435.96	439.62	438.04	0.43	ppb
Calcium	43-1	45236.38	45102.11	44752.26	45030.25	0.56	ppb
Calcium	44-1	48197.14	47670.53	48251.32	48039.66	0.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	469.49	475.19	484.32	476.33	1.57	ppb
Cobalt	59-2	461.38	464.54	455.51	460.48	0.99	ppb
Copper	63-2	4107.58	4136.38	4117.67	4120.54	0.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				104		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	56-2	28896.95	29021.45	29124.64	29014.34	0.39	ppb
Iron	57-2	28804.01	28592.41	28308.67	28568.37	0.87	ppb
Iron	54-2	29234.71	28740.29	29092.50	29022.50	0.88	ppb
Krypton	83-1						cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2407.22	2432.51	2362.63	2400.78	1.47	ppb
Lead	207-1	2405.41	2442.07	2402.87	2416.78	0.91	ppb
Lead	208-1	2405.81	2422.88	2389.38	2406.02	0.70	ppb
Lithium	6-1				102		%
Magnesium	24-2	45646.95	44505.96	45385.46	45179.45	1.32	ppb
Manganese	55-2	4214.92	4205.82	4225.14	4215.29	0.23	ppb
Molybdenum	94-1	4080.27	4168.52	4127.76	4125.52	1.07	ppb
Molybdenum	95-1	4120.22	4069.71	4098.01	4095.98	0.62	ppb
Molybdenum	96-1	4108.76	4114.19	4089.68	4104.21	0.31	ppb
Molybdenum	97-1	4169.81	4200.26	4121.25	4163.77	0.96	ppb
Molybdenum	98-1	4111.15	4113.59	4104.45	4109.73	0.12	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	454.27	455.66	454.04	454.65	0.19	ppb
Phosphorus	31-2	97.00	105.26	104.85	102.37	4.55	ppb
Potassium	39-2	21979.79	21576.55	21834.65	21796.99	0.94	ppb
Rhodium	103-1				97		%
Rhodium	103-2				100		%
Scandium	45-1				102		%
Scandium	45-2				106		%
Selenium	82-1	420.93	414.31	414.06	416.43	0.94	ppb
Selenium	77-2	423.88	454.98	448.23	442.37	3.70	ppb
Selenium	78-2	410.34	433.75	421.82	421.97	2.77	ppb
Silicon	28-1	2829.52	2778.68	2754.56	2787.59	1.37	ppb
Silver	107-1	60.90	59.92	61.02	60.62	1.00	ppb
Silver	109-1	60.42	60.08	59.90	60.13	0.44	ppb
Sodium	23-2	60100.98	59713.39	58629.88	59481.42	1.28	ppb
Strontium	86-1	12647.85	14150.41	14333.16	13710.47	6.75	ppb
Strontium	88-1	14000.63	13888.81	13870.53	13919.99	0.51	ppb
Sulfur	34-1	3639.08	3538.08	3662.98	3613.38	1.83	ppb
Terbium	159-1				106		%
Terbium	159-2				107		%
Thallium	203-1	468.63	474.50	475.35	472.83	0.77	ppb
Thallium	205-1	467.61	467.65	469.86	468.38	0.27	ppb
Tin	118-1	439.28	427.22	438.32	434.94	1.54	ppb
Titanium	47-1	2855.88	2802.78	2820.16	2826.28	0.96	ppb

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On:3/24/2025 12:27:15 PM
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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	474.73	468.94	473.28	472.32	0.64	ppb
Vanadium	51-2	574.01	568.33	562.31	568.21	1.03	ppb
Yttrium	89-1				112		%
Yttrium	89-2				113		%
Zinc	66-2	4127.71	4107.55	4143.19	4126.15	0.43	ppb
Zirconium	90-1	419.67	419.21	414.47	417.78	0.69	ppb
Zirconium	91-1	384.61	382.43	381.93	382.99	0.37	ppb

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11387.27	11521.24	11607.58	11505.36	0.96	ppb
Antimony	121-1	489.56	481.89	481.67	484.37	0.93	ppb
Arsenic	75-2	2.48	2.28	2.40	2.39	4.32	ppb
Barium	135-1	2257.70	2222.95	2251.19	2243.95	0.82	ppb
Barium	137-1	2207.49	2212.00	2193.81	2204.43	0.43	ppb
Beryllium	9-1	426.51	421.09	425.40	424.33	0.67	ppb
Bismuth	209-1				103		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	477.51	470.54	463.14	470.40	1.53	ppb
Cadmium	106-1	472.88	468.56	466.89	469.44	0.66	ppb
Cadmium	111-1	443.30	443.82	441.18	442.77	0.32	ppb
Calcium	43-1	44952.21	44489.04	44898.43	44779.89	0.57	ppb
Calcium	44-1	47800.44	48071.35	48251.64	48041.14	0.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	471.33	467.51	474.55	471.13	0.75	ppb
Cobalt	59-2	459.07	453.21	453.14	455.14	0.75	ppb
Copper	63-2	4143.59	4165.54	4195.57	4168.23	0.63	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				105		%
Indium	115-1				99		%
Indium	115-2				99		%
Iron	56-2	29051.79	28561.07	28595.40	28736.08	0.95	ppb
Iron	57-2	28835.88	28192.46	28850.41	28626.25	1.31	ppb
Iron	54-2	28948.50	28967.76	28942.17	28952.81	0.05	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2475.45	2385.81	2387.52	2416.26	2.12	ppb
Lead	207-1	2438.01	2416.55	2413.18	2422.58	0.56	ppb
Lead	208-1	2445.77	2409.87	2396.82	2417.49	1.05	ppb
Lithium	6-1				103		%
Magnesium	24-2	44186.15	44379.84	44583.32	44383.11	0.45	ppb
Manganese	55-2	4221.09	4212.74	4120.69	4184.84	1.33	ppb
Molybdenum	94-1	4097.19	4126.46	4076.39	4100.01	0.61	ppb
Molybdenum	95-1	4078.15	4077.73	4059.19	4071.69	0.27	ppb
Molybdenum	96-1	4088.24	4120.69	4060.78	4089.90	0.73	ppb
Molybdenum	97-1	4089.89	4172.86	4095.04	4119.26	1.13	ppb
Molybdenum	98-1	4065.07	4096.14	4067.60	4076.27	0.42	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	453.33	455.64	457.57	455.51	0.47	ppb
Phosphorus	31-2	113.25	77.26	101.83	97.45	18.87	ppb
Potassium	39-2	21510.68	21258.56	22077.49	21615.58	1.94	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				103		%
Scandium	45-2				106		%
Selenium	82-1	421.38	426.31	421.86	423.19	0.64	ppb
Selenium	77-2	427.64	435.20	445.89	436.24	2.10	ppb
Selenium	78-2	418.61	412.84	418.15	416.53	0.77	ppb
Silicon	28-1	2777.49	2760.70	2767.60	2768.60	0.30	ppb
Silver	107-1	65.27	65.10	64.79	65.05	0.37	ppb
Silver	109-1	64.72	64.07	64.45	64.41	0.50	ppb
Sodium	23-2	58659.64	59127.18	59300.95	59029.26	0.56	ppb
Strontium	86-1	13871.34	14461.59	14333.68	14222.20	2.18	ppb
Strontium	88-1	13824.42	13811.22	13816.85	13817.50	0.05	ppb
Sulfur	34-1	3437.20	3360.37	3522.38	3439.98	2.36	ppb
Terbium	159-1				106		%
Terbium	159-2				107		%
Thallium	203-1	476.47	465.91	469.51	470.63	1.14	ppb
Thallium	205-1	471.58	463.61	464.24	466.47	0.95	ppb
Tin	118-1	439.15	441.07	434.31	438.18	0.79	ppb
Titanium	47-1	2713.16	2778.18	2804.79	2765.37	1.70	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	473.66	477.18	472.92	474.59	0.48	ppb
Vanadium	51-2	554.57	564.42	580.73	566.57	2.33	ppb
Yttrium	89-1				113		%
Yttrium	89-2				114		%
Zinc	66-2	4183.96	4183.16	4289.43	4218.85	1.45	ppb
Zirconium	90-1	417.70	418.62	417.18	417.83	0.17	ppb
Zirconium	91-1	382.20	382.14	380.97	381.77	0.18	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	204.22	201.23	199.80	201.75	1.12	ppb
Antimony	121-1	11.81	12.15	12.09	12.02	1.51	ppb
Arsenic	75-2	98.74	99.03	104.02	100.60	2.95	ppb
Barium	135-1	39.72	40.07	40.54	40.11	1.02	ppb
Barium	137-1	39.17	40.20	39.83	39.73	1.31	ppb
Beryllium	9-1	0.04	0.10	0.15	0.10	57.44	ppb
Bismuth	209-1				48		%
Bismuth	209-2				46		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	137.92	134.65	137.15	136.57	1.25	ppb
Cadmium	106-1	0.15	-0.71	-1.10	-0.55		ppb
Cadmium	111-1	4.60	4.95	4.71	4.75	3.70	ppb
Calcium	43-1	3336.09	3033.18	2944.55	3104.61	6.61	ppb
Calcium	44-1	3794.22	3416.83	3348.94	3520.00	6.82	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6.91	7.04	7.08	7.01	1.24	ppb
Cobalt	59-2	0.40	0.41	0.42	0.41	3.36	ppb
Copper	63-2	108.33	105.59	105.07	106.33	1.65	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				54		%
Holmium	165-2				55		%
Indium	115-1				53		%
Indium	115-2				47		%
Iron	56-2	283.47	279.07	280.07	280.87	0.82	ppb
Iron	57-2	305.17	293.90	339.32	312.80	7.56	ppb
Iron	54-2	299.63	290.39	293.00	294.34	1.62	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2.81	2.92	2.98	2.90	2.97	ppb
Lead	207-1	2.79	2.86	2.81	2.82	1.31	ppb
Lead	208-1	2.84	2.92	2.93	2.90	1.80	ppb
Lithium	6-1				55		%
Magnesium	24-2	962.50	951.75	964.95	959.73	0.73	ppb
Manganese	55-2	43.32	42.84	43.15	43.10	0.56	ppb
Molybdenum	94-1	32732.42	32677.12	32669.70	32693.08	0.10	ppb
Molybdenum	95-1	40166.17	39526.80	40172.69	39955.22	0.93	ppb
Molybdenum	96-1	39349.68	38931.91	39352.18	39211.26	0.62	ppb
Molybdenum	97-1	40233.61	40165.21	40103.44	40167.42	0.16	ppb
Molybdenum	98-1	39840.38	39856.15	40145.55	39947.36	0.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.04	0.96	1.15	1.05	8.84	ppb
Phosphorus	31-2	1717.21	1579.44	1593.41	1630.02	4.65	ppb
Potassium	39-2	1035460.14	1020230.10	1011608.15	1022432.79	1.18	ppb
Rhodium	103-1				50		%
Rhodium	103-2				46		%
Scandium	45-1				49		%
Scandium	45-2				52		%
Selenium	82-1	108.50	146.33	164.89	139.90	20.54	ppb
Selenium	77-2	170.10	172.07	193.76	178.64	7.35	ppb
Selenium	78-2	204.70	213.05	211.33	209.69	2.10	ppb
Silicon	28-1	2809.78	2700.59	2776.47	2762.28	2.03	ppb
Silver	107-1	0.07	0.08	0.08	0.08	12.35	ppb
Silver	109-1	0.09	0.10	0.09	0.09	7.44	ppb
Sodium	23-2	580268.23	570494.32	589860.39	580207.65	1.67	ppb
Strontium	86-1	565.53	561.34	559.82	562.23	0.53	ppb
Strontium	88-1	550.89	546.31	544.49	547.23	0.60	ppb
Sulfur	34-1	9159.15	7632.07	7104.35	7965.19	13.40	ppb
Terbium	159-1				56		%
Terbium	159-2				55		%
Thallium	203-1	1.31	1.35	1.37	1.34	2.05	ppb
Thallium	205-1	1.30	1.29	1.29	1.29	0.24	ppb
Tin	118-1	1.37	1.48	1.50	1.45	4.97	ppb
Titanium	47-1	3.64	3.50	3.37	3.50	3.76	ppb

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.01	0.02	32.31	ppb
Vanadium	51-2	1.32	1.29	1.28	1.30	1.81	ppb
Yttrium	89-1				52		%
Yttrium	89-2				47		%
Zinc	66-2	148.56	143.65	142.44	144.88	2.24	ppb
Zirconium	90-1	0.16	0.17	0.18	0.17	7.28	ppb
Zirconium	91-1	0.23	0.17	0.19	0.20	16.62	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	33.05	32.42	34.15	33.21	2.63	ppb
Antimony	121-1	1.90	1.88	1.84	1.88	1.51	ppb
Arsenic	75-2	13.53	14.20	13.48	13.74	2.94	ppb
Barium	135-1	6.30	6.27	6.13	6.23	1.48	ppb
Barium	137-1	6.31	6.47	6.34	6.37	1.31	ppb
Beryllium	9-1	0.07	0.02	0.02	0.04	65.33	ppb
Bismuth	209-1				83		%
Bismuth	209-2				81		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	21.76	20.77	21.88	21.47	2.85	ppb
Cadmium	106-1	-1.11	-1.88	-1.14	-1.38		ppb
Cadmium	111-1	0.80	0.72	0.57	0.70	16.54	ppb
Calcium	43-1	466.72	457.04	471.72	465.16	1.61	ppb
Calcium	44-1	505.21	519.54	516.39	513.71	1.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.09	1.04	1.20	1.11	7.15	ppb
Cobalt	59-2	0.06	0.05	0.04	0.05	17.17	ppb
Copper	63-2	17.22	17.06	17.10	17.13	0.48	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				82		%
Holmium	165-2				81		%
Indium	115-1				81		%
Indium	115-2				71		%
Iron	56-2	44.85	44.61	44.85	44.77	0.30	ppb
Iron	57-2	43.08	45.83	50.56	46.49	8.13	ppb
Iron	54-2	47.64	49.31	47.65	48.20	2.00	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.39	0.36	0.36	0.37	4.44	ppb
Lead	207-1	0.30	0.36	0.32	0.33	10.17	ppb
Lead	208-1	0.36	0.38	0.38	0.37	3.31	ppb
Lithium	6-1				81		%
Magnesium	24-2	150.69	154.01	150.51	151.74	1.30	ppb
Manganese	55-2	6.65	7.04	6.69	6.79	3.19	ppb
Molybdenum	94-1	5095.45	5088.13	5197.81	5127.13	1.20	ppb
Molybdenum	95-1	6271.14	6221.45	6351.03	6281.21	1.04	ppb
Molybdenum	96-1	6257.65	6175.88	6315.19	6249.58	1.12	ppb
Molybdenum	97-1	6384.94	6341.93	6446.51	6391.12	0.82	ppb
Molybdenum	98-1	6302.38	6322.81	6421.82	6349.00	1.01	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.35	0.36	0.27	0.33	15.59	ppb
Phosphorus	31-2	112.11	125.12	132.13	123.12	8.25	ppb
Potassium	39-2	163393.84	165413.94	165242.92	164683.57	0.68	ppb
Rhodium	103-1				77		%
Rhodium	103-2				79		%
Scandium	45-1				77		%
Scandium	45-2				78		%
Selenium	82-1	22.01	23.80	25.36	23.73	7.06	ppb
Selenium	77-2	23.98	27.15	22.93	24.69	8.91	ppb
Selenium	78-2	29.73	30.51	26.97	29.07	6.39	ppb
Silicon	28-1	342.44	360.12	367.35	356.64	3.59	ppb
Silver	107-1	0.02	0.01	0.01	0.01	8.91	ppb
Silver	109-1	0.01	0.02	0.02	0.02	19.13	ppb
Sodium	23-2	91618.17	89858.51	92169.81	91215.50	1.32	ppb
Strontium	86-1	88.32	91.94	92.60	90.95	2.54	ppb
Strontium	88-1	84.83	85.51	87.66	86.00	1.72	ppb
Sulfur	34-1	350.76	527.42	437.92	438.70	20.13	ppb
Terbium	159-1				83		%
Terbium	159-2				82		%
Thallium	203-1	0.15	0.13	0.15	0.14	6.59	ppb
Thallium	205-1	0.14	0.15	0.17	0.15	8.06	ppb
Tin	118-1	0.22	0.17	0.17	0.19	15.98	ppb
Titanium	47-1	0.53	0.45	0.51	0.50	8.98	ppb

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.24	0.23	0.26	0.24	6.62	ppb
Yttrium	89-1				78		%
Yttrium	89-2				78		%
Zinc	66-2	23.78	24.09	23.83	23.90	0.71	ppb
Zirconium	90-1	0.02	0.03	0.03	0.03	9.64	ppb
Zirconium	91-1	0.03	0.03	0.03	0.03	12.93	ppb

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	50633.83	51197.59	51179.75	51003.72	0.63	ppb
Antimony	121-1	502.84	509.16	521.55	511.18	1.86	ppb
Arsenic	75-2	499.00	495.74	499.19	497.98	0.39	ppb
Barium	135-1	2530.22	2595.42	2573.75	2566.46	1.29	ppb
Barium	137-1	2498.07	2572.46	2531.39	2533.97	1.47	ppb
Beryllium	9-1	451.79	457.79	462.75	457.44	1.20	ppb
Bismuth	209-1				96		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	520.17	532.34	536.58	529.70	1.61	ppb
Cadmium	106-1	530.65	527.56	529.29	529.17	0.29	ppb
Cadmium	111-1	489.92	496.73	496.72	494.46	0.79	ppb
Calcium	43-1	245703.06	251153.99	253498.20	250118.42	1.60	ppb
Calcium	44-1	243922.81	249034.19	247403.92	246786.97	1.06	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	496.08	506.02	499.83	500.64	1.00	ppb
Cobalt	59-2	502.87	487.55	507.46	499.30	2.09	ppb
Copper	63-2	5098.66	5147.44	5177.71	5141.27	0.78	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				101		%
Indium	115-1				98		%
Indium	115-2				96		%
Iron	56-2	130880.92	132919.48	130432.13	131410.84	1.01	ppb
Iron	57-2	129232.00	129779.70	129521.43	129511.04	0.21	ppb
Iron	54-2	128851.76	128801.02	129889.40	129180.73	0.48	ppb
Krypton	83-1						cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2542.31	2652.43	2532.79	2575.84	2.58	ppb
Lead	207-1	2542.35	2656.36	2553.64	2584.12	2.43	ppb
Lead	208-1	2531.52	2652.02	2524.90	2569.48	2.78	ppb
Lithium	6-1				99		%
Magnesium	24-2	256569.97	249422.18	256467.22	254153.12	1.61	ppb
Manganese	55-2	5006.98	5020.86	4921.18	4983.01	1.08	ppb
Molybdenum	94-1	4988.79	5205.44	5004.98	5066.40	2.38	ppb
Molybdenum	95-1	4938.17	5157.28	4954.12	5016.52	2.44	ppb
Molybdenum	96-1	5034.05	5207.46	5002.34	5081.28	2.17	ppb
Molybdenum	97-1	5030.45	5065.94	5063.28	5053.23	0.39	ppb
Molybdenum	98-1	4990.30	5100.38	4981.14	5023.94	1.32	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	491.91	487.05	490.72	489.89	0.52	ppb
Phosphorus	31-2	10170.75	10087.62	10222.38	10160.25	0.67	ppb
Potassium	39-2	125332.16	125108.58	127234.04	125891.59	0.93	ppb
Rhodium	103-1				94		%
Rhodium	103-2				95		%
Scandium	45-1				98		%
Scandium	45-2				102		%
Selenium	82-1	480.49	480.26	473.13	477.96	0.88	ppb
Selenium	77-2	488.59	480.45	464.24	477.76	2.59	ppb
Selenium	78-2	480.54	482.31	491.41	484.75	1.20	ppb
Silicon	28-1	507.87	526.06	528.06	520.66	2.14	ppb
Silver	107-1	664.02	327.08	416.22	469.11	37.22	ppb
Silver	109-1	708.74	1005.21	169.70	627.88	67.46	ppb
Sodium	23-2	251673.24	246619.14	250985.47	249759.28	1.10	ppb
Strontium	86-1	11420.09	11559.06	11322.54	11433.90	1.04	ppb
Strontium	88-1	12502.33	12502.16	12429.09	12477.86	0.34	ppb
Sulfur	34-1	9820.17	9955.57	9845.82	9873.85	0.73	ppb
Terbium	159-1				104		%
Terbium	159-2				101		%
Thallium	203-1	515.39	535.94	519.78	523.70	2.07	ppb
Thallium	205-1	511.03	538.87	513.18	521.03	2.97	ppb
Tin	118-1	514.49	516.20	518.37	516.35	0.38	ppb
Titanium	47-1	4965.81	5121.81	5025.68	5037.76	1.56	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	511.08	532.28	522.84	522.06	2.03	ppb
Vanadium	51-2	519.40	505.63	516.57	513.87	1.41	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	4991.29	4971.46	5104.79	5022.51	1.43	ppb
Zirconium	90-1	505.10	503.76	498.73	502.53	0.67	ppb
Zirconium	91-1	512.49	469.85	495.74	492.69	4.36	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.66	2.64	2.96	2.76	6.50	ppb
Antimony	121-1	0.03	0.05	0.04	0.04	19.97	ppb
Arsenic	75-2	-0.01	0.00	0.02	0.01	226.87	ppb
Barium	135-1	0.01	0.03	0.01	0.02	44.05	ppb
Barium	137-1	0.02	0.01	0.01	0.01	19.51	ppb
Beryllium	9-1	0.01	0.03	0.07	0.04	86.23	ppb
Bismuth	209-1				102		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	-0.05	0.03	0.01	708.86	ppb
Cadmium	106-1	0.35	-1.17	0.72	-0.03		ppb
Cadmium	111-1	0.05	-0.04	0.06	0.02	262.93	ppb
Calcium	43-1	-4.31	-8.31	-3.46	-5.36		ppb
Calcium	44-1	0.72	-0.14	-1.51	-0.31		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	-0.01	0.03	0.01	346.68	ppb
Cobalt	59-2	-0.02	0.00	-0.02	-0.01		ppb
Copper	63-2	0.16	0.05	0.09	0.10	55.15	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				101		%
Indium	115-1				103		%
Indium	115-2				102		%
Iron	56-2	0.45	0.72	0.66	0.61	23.60	ppb
Iron	57-2	-2.57	-1.99	7.98	1.14	521.74	ppb
Iron	54-2	1.01	0.32	1.11	0.81	53.12	ppb
Krypton	83-1						cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	0.00	0.00	0.00	192.49	ppb
Lead	207-1	0.03	-0.02	0.00	0.01	399.40	ppb
Lead	208-1	0.02	0.00	0.01	0.01	75.42	ppb
Lithium	6-1				99		%
Magnesium	24-2	1.21	1.38	1.31	1.30	6.72	ppb
Manganese	55-2	-0.02	0.01	-0.01	-0.01		ppb
Molybdenum	94-1	0.07	0.06	0.09	0.07	23.83	ppb
Molybdenum	95-1	0.06	0.05	0.07	0.06	12.62	ppb
Molybdenum	96-1	0.05	0.03	0.04	0.04	34.97	ppb
Molybdenum	97-1	0.07	0.05	0.06	0.06	12.09	ppb
Molybdenum	98-1	0.05	0.04	0.04	0.05	11.34	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	0.04	0.08	0.05	45.93	ppb
Phosphorus	31-2	-136.68	-132.77	-141.62	-137.02		ppb
Potassium	39-2	15.36	12.26	15.06	14.23	12.01	ppb
Rhodium	103-1				101		%
Rhodium	103-2				102		%
Scandium	45-1				99		%
Scandium	45-2				100		%
Selenium	82-1	1.03	0.88	0.67	0.86	21.12	ppb
Selenium	77-2	0.87	-0.06	1.06	0.62	96.58	ppb
Selenium	78-2	1.14	0.22	0.65	0.67	69.51	ppb
Silicon	28-1	3.29	4.49	2.88	3.55	23.54	ppb
Silver	107-1	0.09	0.06	0.06	0.07	23.27	ppb
Silver	109-1	0.10	0.07	0.05	0.08	28.76	ppb
Sodium	23-2	22.92	22.21	22.38	22.50	1.64	ppb
Strontium	86-1	0.01	-0.10	1.39	0.43	191.74	ppb
Strontium	88-1	0.07	0.08	0.01	0.05	73.57	ppb
Sulfur	34-1	-410.65	-341.11	-461.56	-404.44		ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	0.02	0.02	0.02	0.02	19.75	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	8.59	ppb
Tin	118-1	-0.02	-0.02	-0.02	-0.02		ppb
Titanium	47-1	0.05	0.04	0.06	0.05	16.31	ppb

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.02	0.00	0.00	0.01	148.38	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.03	-0.03	0.09	0.01	819.73	ppb
Zirconium	90-1	0.00	0.00	0.01	0.01	122.49	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	25.39	ppb

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	143	157	157	152	5.06	cps
Antimony	121-1	43	60	27	43	38.46	cps
Arsenic	75-2	47	47	43	46	4.23	cps
Barium	135-1	53	53	43	50	11.55	cps
Barium	137-1	97	97	90	94	4.08	cps
Beryllium	9-1	80	57	77	71	17.74	cps
Bismuth	209-1	2847644	2828607	2809433	2828561	0.68	cps
Bismuth	209-2	2721023	2768574	2670346	2719981	1.81	cps
Bromine	81-1	35389	34474	35529	35131	1.63	cps
Bromine	81-2	197	223	223	214	7.18	cps
Cadmium	108-1	10	7	30	16	81.11	cps
Cadmium	106-1	1443	1450	1537	1477	3.53	cps
Cadmium	111-1	1087	1087	1131	1102	2.33	cps
Calcium	43-1	547	473	550	523	8.28	cps
Calcium	44-1	13567	13463	13190	13406	1.45	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	523	500	587	537	8.36	cps
Cobalt	59-2	230	230	253	238	5.67	cps
Copper	63-2	2797	2860	2630	2763	4.30	cps
Dysprosium	156-1	3	10	10	8	49.52	cps
Dysprosium	156-2	3	7	10	7	50.03	cps
Erbium	164-1	17	20	20	19	10.18	cps
Erbium	164-2	17	30	23	23	28.56	cps
Gadolinium	160-1	13	17	17	16	12.40	cps
Gadolinium	160-2	223	193	223	213	8.12	cps
Holmium	165-1	4590408	4689021	4632290	4637240	1.07	cps
Holmium	165-2	3863899	3908830	3904770	3892499	0.64	cps
Indium	115-1	3989873	4055666	3982176	4009238	1.01	cps
Indium	115-2	1781940	1774562	1715176	1757226	2.08	cps
Iron	56-2	30127	30675	30184	30328	0.99	cps
Iron	57-2	1427	1647	1633	1569	7.86	cps
Iron	54-2	3537	3520	3474	3510	0.94	cps
Krypton	83-1	390	467	423	427	9.01	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1413	1270	1280	1321	6.06	cps
Lead	207-1	1157	1240	1160	1186	3.98	cps
Lead	208-1	5516	5415	5337	5423	1.65	cps
Lithium	6-1	582633	578289	583684	581535	0.49	cps
Magnesium	24-2	453	423	317	398	18.06	cps
Manganese	55-2	1317	1383	1467	1389	5.41	cps
Molybdenum	94-1	147	137	170	151	11.32	cps
Molybdenum	95-1	90	57	60	69	26.65	cps
Molybdenum	96-1	200	213	210	208	3.34	cps
Molybdenum	97-1	60	47	47	51	15.06	cps
Molybdenum	98-1	110	163	150	141	19.67	cps
Neodymium	150-1	0	7	13	7	99.98	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	347	283	253	294	16.18	cps
Phosphorus	31-2	317	320	263	300	10.60	cps
Potassium	39-2	58846	59097	59178	59040	0.29	cps
Rhodium	103-1	3854847	3905289	3841320	3867152	0.87	cps
Rhodium	103-2	2494022	2495829	2495006	2494952	0.04	cps
Scandium	45-1	2371015	2387173	2393227	2383805	0.48	cps
Scandium	45-2	209961	208315	208448	208908	0.44	cps
Selenium	82-1	224	138	232	198	26.22	cps
Selenium	77-2	10	3	0	4	114.60	cps
Selenium	78-2	937	1023	1000	987	4.55	cps
Silicon	28-1	1507129	1532949	1522727	1520935	0.85	cps
Silver	107-1	73	43	53	57	26.96	cps
Silver	109-1	63	13	33	37	68.64	cps
Sodium	23-2	14814	14560	14637	14670	0.89	cps
Strontium	86-1	653	660	787	700	10.73	cps
Strontium	88-1	187	167	217	190	13.25	cps
Sulfur	34-1	134368	134190	135239	134599	0.42	cps
Terbium	159-1	4778315	4614917	4737794	4710342	1.81	cps
Terbium	159-2	3828649	3786138	3826565	3813784	0.63	cps
Thallium	203-1	403	440	310	384	17.43	cps
Thallium	205-1	887	813	900	867	5.38	cps
Tin	118-1	1370	1300	1353	1341	2.73	cps
Titanium	47-1	50	33	77	53	40.99	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S0	Instrumnet Name :	P7
Client Sample ID :	S0	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:44:14	DataFile Name :	004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	450	477	367	431	13.31	cps
Vanadium	51-2	37	17	40	31	40.56	cps
Yttrium	89-1	7104102	7044290	6919253	7022548	1.34	cps
Yttrium	89-2	2196662	2211164	2206280	2204702	0.33	cps
Zinc	66-2	767	827	793	796	3.78	cps
Zirconium	90-1	350	353	423	376	11.03	cps
Zirconium	91-1	87	57	70	71	21.14	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3434	3564	3434	3477	2.16	cps
Antimony	121-1	11461	12092	11812	11788	2.68	cps
Arsenic	75-2	433	457	493	461	6.56	cps
Barium	135-1	14584	14858	15005	14816	1.44	cps
Barium	137-1	25753	25617	25656	25675	0.27	cps
Beryllium	9-1	990	1033	863	962	9.18	cps
Bismuth	209-1	2828600	2826519	2858299	2837806	0.63	cps
Bismuth	209-2	2674217	2761867	2730805	2722296	1.63	cps
Bromine	81-1	33628	32997	32065	32897	2.39	cps
Bromine	81-2	160	190	180	177	8.65	cps
Cadmium	108-1	110	127	113	117	7.56	cps
Cadmium	106-1	1683	1640	1610	1645	2.24	cps
Cadmium	111-1	2732	2870	2605	2735	4.85	cps
Calcium	43-1	9500	9326	9106	9311	2.12	cps
Calcium	44-1	161051	160802	159809	160554	0.41	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6231	6218	6465	6305	2.20	cps
Cobalt	59-2	4828	4918	4787	4844	1.37	cps
Copper	63-2	9106	9073	8773	8984	2.04	cps
Dysprosium	156-1	7	0	3	3	100.05	cps
Dysprosium	156-2	0	7	3	3	100.05	cps
Erbium	164-1	23	20	33	26	27.15	cps
Erbium	164-2	33	33	30	32	5.97	cps
Gadolinium	160-1	27	13	17	19	36.75	cps
Gadolinium	160-2	207	187	193	196	5.21	cps
Holmium	165-1	4648036	4639686	4620852	4636191	0.30	cps
Holmium	165-2	3850669	3879378	3776457	3835501	1.38	cps
Indium	115-1	4027440	4028512	3958645	4004866	1.00	cps
Indium	115-2	1788934	1739974	1749480	1759463	1.48	cps
Iron	56-2	170984	170026	172687	171232	0.79	cps
Iron	57-2	5271	5598	5538	5469	3.18	cps
Iron	54-2	11404	11118	11458	11327	1.62	cps
Krypton	83-1	403	450	503	452	11.07	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	5058	4908	4944	4970	1.57	cps
Lead	207-1	4257	4361	4501	4373	2.79	cps
Lead	208-1	21549	21077	21497	21375	1.21	cps
Lithium	6-1	590947	574009	579431	581462	1.49	cps
Magnesium	24-2	130381	129914	129856	130050	0.22	cps
Manganese	55-2	4027	3607	3987	3874	5.99	cps
Molybdenum	94-1	13046	13683	13570	13433	2.53	cps
Molybdenum	95-1	16289	16660	15852	16267	2.49	cps
Molybdenum	96-1	17868	17821	17624	17771	0.73	cps
Molybdenum	97-1	9573	10147	10377	10032	4.13	cps
Molybdenum	98-1	24971	25182	25088	25080	0.42	cps
Neodymium	150-1	0	7	7	4	86.60	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	1313	1273	1270	1286	1.88	cps
Phosphorus	31-2	2667	2560	2794	2674	4.37	cps
Potassium	39-2	241633	240508	238332	240158	0.70	cps
Rhodium	103-1	3861777	3805423	3865479	3844226	0.88	cps
Rhodium	103-2	2487091	2507900	2518550	2504514	0.64	cps
Scandium	45-1	2409903	2357043	2368884	2378610	1.17	cps
Scandium	45-2	207752	206921	208089	207587	0.29	cps
Selenium	82-1	910	952	791	884	9.43	cps
Selenium	77-2	100	90	73	88	15.35	cps
Selenium	78-2	1317	1267	1333	1306	2.66	cps
Silicon	28-1	1558953	1566773	1585112	1570279	0.86	cps
Silver	107-1	9433	9270	9473	9392	1.15	cps
Silver	109-1	8833	8346	9136	8772	4.55	cps
Sodium	23-2	215667	218409	218022	217366	0.68	cps
Strontium	86-1	2820	2820	2797	2813	0.48	cps
Strontium	88-1	18372	18942	18619	18644	1.54	cps
Sulfur	34-1	140344	138682	139388	139471	0.60	cps
Terbium	159-1	4750450	4853347	4837988	4813928	1.15	cps
Terbium	159-2	3859011	3795019	3780204	3811412	1.10	cps
Thallium	203-1	5758	5751	5755	5755	0.06	cps
Thallium	205-1	13260	13250	13514	13341	1.12	cps
Tin	118-1	27316	28522	27166	27668	2.69	cps
Titanium	47-1	4197	4227	4377	4267	2.26	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S2	Instrumnet Name :	P7
Client Sample ID :	S2	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:50:49	DataFile Name :	006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	16721	16734	16864	16773	0.47	cps
Vanadium	51-2	12248	12462	12659	12456	1.65	cps
Yttrium	89-1	7012908	6983271	6919645	6971941	0.68	cps
Yttrium	89-2	2263109	2209524	2246481	2239705	1.22	cps
Zinc	66-2	3554	3947	3814	3772	5.30	cps
Zirconium	90-1	11778	11748	11758	11761	0.13	cps
Zirconium	91-1	2584	2594	2770	2649	3.96	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	166125	167008	165909	166347	0.35	cps
Antimony	121-1	299264	300097	298855	299405	0.21	cps
Arsenic	75-2	21586	21028	20905	21173	1.71	cps
Barium	135-1	394591	389394	392987	392324	0.68	cps
Barium	137-1	672087	681865	672728	675560	0.81	cps
Beryllium	9-1	47997	48108	48051	48052	0.11	cps
Bismuth	209-1	2837883	2929346	2849454	2872228	1.73	cps
Bismuth	209-2	2769141	2720482	2748641	2746088	0.89	cps
Bromine	81-1	33705	33348	33438	33497	0.56	cps
Bromine	81-2	187	257	250	231	16.72	cps
Cadmium	108-1	6892	7032	6855	6926	1.35	cps
Cadmium	106-1	11008	11024	10974	11002	0.23	cps
Cadmium	111-1	93536	94865	94203	94201	0.71	cps
Calcium	43-1	93848	94096	93748	93897	0.19	cps
Calcium	44-1	1689816	1674263	1668967	1677682	0.65	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	150456	147625	148146	148742	1.01	cps
Cobalt	59-2	236313	233455	233327	234365	0.72	cps
Copper	63-2	1970212	1923679	1977519	1957137	1.49	cps
Dysprosium	156-1	17	7	13	12	41.65	cps
Dysprosium	156-2	20	17	27	21	24.12	cps
Erbium	164-1	40	37	27	34	20.14	cps
Erbium	164-2	23	27	23	24	7.89	cps
Gadolinium	160-1	23	27	20	23	14.29	cps
Gadolinium	160-2	220	250	210	227	9.18	cps
Holmium	165-1	4588197	4687229	4704462	4659963	1.35	cps
Holmium	165-2	3866663	3791592	3950597	3869617	2.06	cps
Indium	115-1	4016290	3995148	4022559	4011332	0.36	cps
Indium	115-2	1752628	1736595	1726951	1738725	0.75	cps
Iron	56-2	7890539	7864441	7848447	7867809	0.27	cps
Iron	57-2	187082	186479	185858	186473	0.33	cps
Iron	54-2	415568	413757	407725	412350	1.00	cps
Krypton	83-1	497	443	553	498	11.05	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1126649	1144273	1136534	1135819	0.78	cps
Lead	207-1	985108	998059	992114	991760	0.65	cps
Lead	208-1	4928909	4912325	4902358	4914530	0.27	cps
Lithium	6-1	585335	590461	585476	587091	0.50	cps
Magnesium	24-2	1576655	1529054	1542847	1549519	1.58	cps
Manganese	55-2	1502494	1481525	1494831	1492950	0.71	cps
Molybdenum	94-1	1137998	1147407	1141033	1142146	0.42	cps
Molybdenum	95-1	1798968	1818801	1823040	1813603	0.71	cps
Molybdenum	96-1	2007678	1982317	1987117	1992371	0.68	cps
Molybdenum	97-1	1022615	1028878	1017157	1022884	0.57	cps
Molybdenum	98-1	2888111	2930938	2937972	2919007	0.92	cps
Neodymium	150-1	37	43	37	39	9.89	cps
Neodymium	150-2	3	7	10	7	50.03	cps
Nickel	60-2	60515	60813	60836	60721	0.29	cps
Phosphorus	31-2	10490	10073	10087	10217	2.32	cps
Potassium	39-2	1033930	1022965	1031272	1029389	0.56	cps
Rhodium	103-1	3890200	3822459	3802282	3838314	1.20	cps
Rhodium	103-2	2512101	2516392	2471213	2499902	1.00	cps
Scandium	45-1	2370174	2377868	2331691	2359911	1.05	cps
Scandium	45-2	210803	206113	210245	209054	1.23	cps
Selenium	82-1	7569	7709	7612	7630	0.94	cps
Selenium	77-2	1070	907	943	973	8.81	cps
Selenium	78-2	4011	4214	4064	4096	2.57	cps
Silicon	28-1	2162464	2166277	2123574	2150772	1.10	cps
Silver	107-1	470685	473415	469124	471075	0.46	cps
Silver	109-1	442450	445841	441276	443189	0.53	cps
Sodium	23-2	2512574	2472635	2463477	2482895	1.05	cps
Strontium	86-1	108506	108043	107824	108124	0.32	cps
Strontium	88-1	947341	962905	951112	953786	0.85	cps
Sulfur	34-1	164629	164279	166472	165127	0.71	cps
Terbium	159-1	4726603	4759293	4775536	4753811	0.52	cps
Terbium	159-2	3866447	3842169	3817345	3841987	0.64	cps
Thallium	203-1	281099	286092	286491	284560	1.06	cps
Thallium	205-1	660499	675197	665998	667232	1.11	cps
Tin	118-1	268350	271102	269575	269676	0.51	cps
Titanium	47-1	430492	434530	427236	430752	0.85	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S3	Instrumnet Name :	P7
Client Sample ID :	S3	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:54:06	DataFile Name :	007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	850245	854229	855903	853459	0.34	cps
Vanadium	51-2	128683	126673	126824	127393	0.88	cps
Yttrium	89-1	7005002	6934659	7001872	6980511	0.57	cps
Yttrium	89-2	2144218	2176480	2147798	2156166	0.82	cps
Zinc	66-2	354946	352555	356416	354639	0.55	cps
Zirconium	90-1	563809	569464	565722	566332	0.51	cps
Zirconium	91-1	126022	126929	125776	126242	0.48	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	397804	393275	395604	395561	0.57	cps
Antimony	121-1	735002	735611	728222	732945	0.56	cps
Arsenic	75-2	51248	51519	52078	51615	0.82	cps
Barium	135-1	958966	953718	950911	954532	0.43	cps
Barium	137-1	1884137	1867921	1815803	1855954	1.92	cps
Beryllium	9-1	120988	120796	120802	120862	0.09	cps
Bismuth	209-1	2869267	2852680	2790140	2837362	1.47	cps
Bismuth	209-2	2702563	2737298	2711262	2717041	0.67	cps
Bromine	81-1	31303	33027	31256	31862	3.17	cps
Bromine	81-2	230	223	223	226	1.70	cps
Cadmium	108-1	16903	16229	15845	16326	3.28	cps
Cadmium	106-1	24958	24912	24798	24889	0.33	cps
Cadmium	111-1	229226	230050	227729	229002	0.51	cps
Calcium	43-1	227539	226635	224218	226131	0.76	cps
Calcium	44-1	4009512	4002488	3998989	4003663	0.13	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	364016	360053	362912	362327	0.56	cps
Cobalt	59-2	574056	559911	572972	568979	1.38	cps
Copper	63-2	4762380	4758442	4713349	4744724	0.57	cps
Dysprosium	156-1	13	17	23	18	28.64	cps
Dysprosium	156-2	47	47	53	49	7.86	cps
Erbium	164-1	40	40	43	41	4.68	cps
Erbium	164-2	30	30	47	36	27.07	cps
Gadolinium	160-1	33	37	17	29	37.08	cps
Gadolinium	160-2	217	197	187	200	7.64	cps
Holmium	165-1	4615514	4620452	4594431	4610132	0.30	cps
Holmium	165-2	3907858	3843348	3907172	3886126	0.95	cps
Indium	115-1	3951333	3825812	3874885	3884010	1.63	cps
Indium	115-2	1725940	1716414	1713765	1718706	0.37	cps
Iron	56-2	19123123	18938180	19044659	19035321	0.49	cps
Iron	57-2	446469	446654	450536	447886	0.51	cps
Iron	54-2	991090	980662	978541	983431	0.68	cps
Krypton	83-1	470	410	430	437	7.00	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3198900	3187995	3213250	3200049	0.40	cps
Lead	207-1	2861147	2870529	2839802	2857159	0.55	cps
Lead	208-1	13014399	13026825	13002129	13014451	0.09	cps
Lithium	6-1	597780	599433	595340	597518	0.34	cps
Magnesium	24-2	3860267	3802164	3805274	3822569	0.86	cps
Manganese	55-2	3713582	3677010	3662524	3684372	0.71	cps
Molybdenum	94-1	3127482	3126617	3013476	3089192	2.12	cps
Molybdenum	95-1	4558862	4496105	4412352	4489106	1.64	cps
Molybdenum	96-1	4968552	4814608	4867832	4883664	1.60	cps
Molybdenum	97-1	2825211	2723834	2701300	2750115	2.40	cps
Molybdenum	98-1	7145454	7145569	6898254	7063092	2.02	cps
Neodymium	150-1	67	50	47	54	19.68	cps
Neodymium	150-2	23	13	40	26	52.73	cps
Nickel	60-2	145743	147928	145905	146525	0.83	cps
Phosphorus	31-2	23962	23859	24546	24122	1.54	cps
Potassium	39-2	2577468	2529986	2587105	2564853	1.19	cps
Rhodium	103-1	3822880	3718242	3751805	3764309	1.42	cps
Rhodium	103-2	2418448	2508514	2468266	2465076	1.83	cps
Scandium	45-1	2299529	2284142	2313445	2299039	0.64	cps
Scandium	45-2	203086	203396	202390	202957	0.25	cps
Selenium	82-1	18176	18124	18030	18110	0.41	cps
Selenium	77-2	2380	2284	2137	2267	5.41	cps
Selenium	78-2	8599	8199	8312	8370	2.46	cps
Silicon	28-1	2912429	2923828	2896870	2911042	0.46	cps
Silver	107-1	1157082	1134062	1129901	1140348	1.28	cps
Silver	109-1	1078593	1077570	1067531	1074564	0.57	cps
Sodium	23-2	6055342	6046392	6023559	6041764	0.27	cps
Strontium	86-1	265336	262342	259859	262512	1.04	cps
Strontium	88-1	2565870	2565199	2570802	2567291	0.12	cps
Sulfur	34-1	205009	203225	203077	203771	0.53	cps
Terbium	159-1	4780455	4667549	4700972	4716325	1.23	cps
Terbium	159-2	3790325	3747626	3808107	3782019	0.82	cps
Thallium	203-1	701013	705867	706627	704502	0.43	cps
Thallium	205-1	1861492	1891732	1907120	1886781	1.23	cps
Tin	118-1	659049	659930	653280	657420	0.55	cps
Titanium	47-1	1049376	1036129	1025698	1037068	1.14	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S4	Instrumnet Name :	P7
Client Sample ID :	S4	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 14:57:15	DataFile Name :	008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	2531881	2509622	2472528	2504677	1.20	cps
Vanadium	51-2	311856	308811	313239	311302	0.73	cps
Yttrium	89-1	6816143	6673207	6638794	6709381	1.40	cps
Yttrium	89-2	2094530	2108973	2138529	2114011	1.06	cps
Zinc	66-2	862868	863400	858230	861500	0.33	cps
Zirconium	90-1	1533335	1525386	1519543	1526088	0.45	cps
Zirconium	91-1	310535	307095	306458	308029	0.71	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	769122	761015	761309	763815	0.60	cps
Antimony	121-1	1574997	1419127	1412760	1468961	6.26	cps
Arsenic	75-2	100577	100417	99524	100173	0.57	cps
Barium	135-1	2093364	2125162	2136996	2118508	1.07	cps
Barium	137-1	3691578	3692241	3632212	3672010	0.94	cps
Beryllium	9-1	239545	240457	239101	239701	0.29	cps
Bismuth	209-1	2845063	2825000	2821483	2830515	0.45	cps
Bismuth	209-2	2686061	2691345	2759650	2712352	1.51	cps
Bromine	81-1	30421	30582	30448	30484	0.28	cps
Bromine	81-2	200	247	217	221	10.70	cps
Cadmium	108-1	32276	31731	31264	31757	1.60	cps
Cadmium	106-1	45555	46631	46380	46189	1.22	cps
Cadmium	111-1	439313	439142	438986	439147	0.04	cps
Calcium	43-1	435066	439513	435115	436564	0.58	cps
Calcium	44-1	7730074	7521389	7566695	7606053	1.44	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	703144	706322	695531	701666	0.79	cps
Cobalt	59-2	1099411	1106028	1099963	1101801	0.33	cps
Copper	63-2	8988275	9083828	9176367	9082823	1.04	cps
Dysprosium	156-1	33	27	40	33	20.00	cps
Dysprosium	156-2	110	130	110	117	9.90	cps
Erbium	164-1	57	73	53	61	17.53	cps
Erbium	164-2	30	37	33	33	10.01	cps
Gadolinium	160-1	27	50	30	36	35.49	cps
Gadolinium	160-2	190	220	190	200	8.66	cps
Holmium	165-1	4594850	4617097	4472999	4561649	1.70	cps
Holmium	165-2	3894609	3892855	3956411	3914625	0.92	cps
Indium	115-1	3809859	3755521	3824961	3796780	0.96	cps
Indium	115-2	1611730	1673431	1639817	1641659	1.88	cps
Iron	56-2	37118572	37023559	37089604	37077245	0.13	cps
Iron	57-2	873960	872197	870443	872200	0.20	cps
Iron	54-2	2036808	2054348	2061898	2051018	0.63	cps
Krypton	83-1	383	360	413	386	6.93	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	6231565	6210863	6335153	6259194	1.06	cps
Lead	207-1	5659708	5606587	5704538	5656945	0.87	cps
Lead	208-1	25805576	25735721	25858150	25799816	0.24	cps
Lithium	6-1	599135	593038	598051	596741	0.55	cps
Magnesium	24-2	7312434	7439233	7397513	7383060	0.88	cps
Manganese	55-2	7075326	7097628	7094719	7089224	0.17	cps
Molybdenum	94-1	6003673	5865850	6038182	5969235	1.53	cps
Molybdenum	95-1	8631793	8560186	8707695	8633225	0.85	cps
Molybdenum	96-1	9347274	9350835	9404814	9367641	0.34	cps
Molybdenum	97-1	5435868	5317833	5303029	5352243	1.36	cps
Molybdenum	98-1	13800862	13806877	13645413	13751051	0.67	cps
Neodymium	150-1	90	113	107	103	11.63	cps
Neodymium	150-2	17	20	37	24	43.83	cps
Nickel	60-2	284469	283424	282680	283524	0.32	cps
Phosphorus	31-2	45688	45808	45548	45681	0.29	cps
Potassium	39-2	4959324	4859932	4902880	4907379	1.02	cps
Rhodium	103-1	3679239	3559424	3587128	3608597	1.74	cps
Rhodium	103-2	2324870	2379505	2401033	2368470	1.66	cps
Scandium	45-1	2203814	2199876	2200296	2201328	0.10	cps
Scandium	45-2	198097	198165	196540	197601	0.47	cps
Selenium	82-1	34685	34327	34314	34442	0.61	cps
Selenium	77-2	4534	4327	4497	4453	2.48	cps
Selenium	78-2	15468	16059	15131	15553	3.02	cps
Silicon	28-1	4159944	4175276	4186581	4173934	0.32	cps
Silver	107-1	2428157	2400298	2389170	2405875	0.83	cps
Silver	109-1	2280376	2255558	2296177	2277371	0.90	cps
Sodium	23-2	11908291	11916606	11758621	11861173	0.75	cps
Strontium	86-1	500962	504144	500264	501790	0.41	cps
Strontium	88-1	4933678	4868424	4950487	4917530	0.88	cps
Sulfur	34-1	259296	256657	256826	257593	0.57	cps
Terbium	159-1	4721345	4709703	4582132	4671060	1.65	cps
Terbium	159-2	3767718	3740453	3834883	3781018	1.29	cps
Thallium	203-1	1398459	1402583	1413310	1404784	0.55	cps
Thallium	205-1	3730514	3729864	3822988	3761122	1.42	cps
Tin	118-1	1270255	1272438	1262761	1268485	0.40	cps
Titanium	47-1	2247866	2213481	2193235	2218194	1.25	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S5	Instrumnet Name :	P7
Client Sample ID :	S5	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:00:12	DataFile Name :	009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5056959	4999599	4923346	4993301	1.34	cps
Vanadium	51-2	613384	608147	604733	608755	0.72	cps
Yttrium	89-1	6608325	6558523	6545269	6570706	0.51	cps
Yttrium	89-2	2081097	2111745	2117856	2103566	0.94	cps
Zinc	66-2	1841270	1858043	1840955	1846756	0.53	cps
Zirconium	90-1	2950877	2929406	2929566	2936616	0.42	cps
Zirconium	91-1	594614	593327	596411	594784	0.26	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1741810	1718605	1741837	1734084	0.77	cps
Antimony	121-1	3127232	3194230	3214523	3178662	1.44	cps
Arsenic	75-2	198090	196801	200665	198519	0.99	cps
Barium	135-1	4214940	4243720	4340617	4266425	1.54	cps
Barium	137-1	7335637	7303854	7310119	7316537	0.23	cps
Beryllium	9-1	459298	466565	459470	461778	0.90	cps
Bismuth	209-1	2897884	2851473	2884127	2877828	0.83	cps
Bismuth	209-2	2738797	2704359	2742417	2728524	0.77	cps
Bromine	81-1	30735	30725	31256	30906	0.98	cps
Bromine	81-2	257	177	250	228	19.49	cps
Cadmium	108-1	61680	62206	63756	62547	1.73	cps
Cadmium	106-1	88514	90131	90241	89629	1.08	cps
Cadmium	111-1	856771	863504	870062	863446	0.77	cps
Calcium	43-1	870500	875662	883067	876410	0.72	cps
Calcium	44-1	15306131	15630917	15487597	15474882	1.05	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1584068	1527492	1595917	1569159	2.33	cps
Cobalt	59-2	2507565	2487456	2487374	2494132	0.47	cps
Copper	63-2	17973256	18391415	18183843	18182838	1.15	cps
Dysprosium	156-1	40	80	47	56	38.57	cps
Dysprosium	156-2	233	207	173	204	14.70	cps
Erbium	164-1	70	43	90	68	34.55	cps
Erbium	164-2	37	57	27	40	38.18	cps
Gadolinium	160-1	63	53	33	50	30.55	cps
Gadolinium	160-2	207	193	210	203	4.34	cps
Holmium	165-1	4671560	4745257	4615896	4677571	1.39	cps
Holmium	165-2	3906886	3883286	3847314	3879162	0.77	cps
Indium	115-1	3842844	3760927	3779608	3794460	1.13	cps
Indium	115-2	1665998	1643033	1651567	1653532	0.70	cps
Iron	56-2	75254527	73750364	73982059	74328983	1.09	cps
Iron	57-2	1913068	1881175	1842978	1879074	1.87	cps
Iron	54-2	4040953	4032662	4078423	4050679	0.60	cps
Krypton	83-1	387	333	420	380	11.50	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12439838	12814001	12866433	12706758	1.83	cps
Lead	207-1	11220856	11560883	11745640	11509126	2.31	cps
Lead	208-1	51501123	52474790	53058021	52344645	1.50	cps
Lithium	6-1	601763	597354	598005	599041	0.40	cps
Magnesium	24-2	14645845	14480632	14902865	14676447	1.45	cps
Manganese	55-2	14308394	14026914	14179501	14171603	0.99	cps
Molybdenum	94-1	11921793	12049821	12269233	12080282	1.45	cps
Molybdenum	95-1	17297465	17280616	17455759	17344613	0.56	cps
Molybdenum	96-1	18861884	18694285	18767089	18774420	0.45	cps
Molybdenum	97-1	10672854	10675317	10738158	10695443	0.35	cps
Molybdenum	98-1	27471320	27573983	27712885	27586062	0.44	cps
Neodymium	150-1	140	227	233	200	26.04	cps
Neodymium	150-2	47	77	43	56	33.05	cps
Nickel	60-2	561565	563804	563196	562855	0.21	cps
Phosphorus	31-2	91552	92319	92212	92028	0.45	cps
Potassium	39-2	10015489	9673475	9844954	9844640	1.74	cps
Rhodium	103-1	3641201	3556459	3621042	3606234	1.23	cps
Rhodium	103-2	2413262	2392031	2375926	2393740	0.78	cps
Scandium	45-1	2254867	2243571	2215375	2237938	0.91	cps
Scandium	45-2	203301	198651	199001	200318	1.29	cps
Selenium	82-1	68142	67646	68435	68074	0.59	cps
Selenium	77-2	8789	8419	9003	8737	3.38	cps
Selenium	78-2	29760	29940	29884	29861	0.31	cps
Silicon	28-1	6748098	6946358	7023924	6906127	2.06	cps
Silver	107-1	4726473	4751310	4827147	4768310	1.10	cps
Silver	109-1	4509342	4463049	4602758	4525050	1.57	cps
Sodium	23-2	23797361	22999011	23817825	23538066	1.98	cps
Strontium	86-1	996624	1014845	1016847	1009439	1.10	cps
Strontium	88-1	9824430	9860160	9966933	9883841	0.75	cps
Sulfur	34-1	382618	382604	377608	380943	0.76	cps
Terbium	159-1	4835847	4811062	4892779	4846563	0.86	cps
Terbium	159-2	3863349	3802906	3860645	3842300	0.89	cps
Thallium	203-1	3213968	3283850	3328723	3275513	1.77	cps
Thallium	205-1	7574227	7669006	7579549	7607594	0.70	cps
Tin	118-1	2805941	2883765	2912634	2867447	1.92	cps
Titanium	47-1	4416846	4522992	4535446	4491761	1.45	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S6	Instrumnet Name :	P7
Client Sample ID :	S6	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:03:06	DataFile Name :	010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10217288	10379869	10399564	10332241	0.97	cps
Vanadium	51-2	1354116	1356917	1343970	1351668	0.50	cps
Yttrium	89-1	6713881	6601544	6584101	6633175	1.06	cps
Yttrium	89-2	2149044	2095834	2098377	2114418	1.42	cps
Zinc	66-2	3630010	3632676	3662508	3641731	0.50	cps
Zirconium	90-1	5880845	5952441	5955784	5929690	0.71	cps
Zirconium	91-1	1198582	1200993	1203722	1201099	0.21	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3454791	3490715	3366111	3437206	1.87	cps
Antimony	121-1	6337565	6406895	6448391	6397617	0.88	cps
Arsenic	75-2	390234	390577	389125	389979	0.19	cps
Barium	135-1	8530775	8589809	8562208	8560931	0.35	cps
Barium	137-1	14735670	15114985	14575225	14808627	1.87	cps
Beryllium	9-1	1064208	1048036	1038358	1050201	1.24	cps
Bismuth	209-1	2847727	2876343	2821462	2848511	0.96	cps
Bismuth	209-2	2638150	2648184	2647967	2644767	0.22	cps
Bromine	81-1	31891	31941	32045	31959	0.25	cps
Bromine	81-2	187	260	217	221	16.68	cps
Cadmium	108-1	124129	123087	125046	124087	0.79	cps
Cadmium	106-1	175185	175520	177611	176106	0.75	cps
Cadmium	111-1	1851726	1891196	1867769	1870230	1.06	cps
Calcium	43-1	1860821	1941505	1885109	1895812	2.18	cps
Calcium	44-1	30694943	31039209	31244703	30992951	0.90	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3072971	3151376	3088577	3104308	1.34	cps
Cobalt	59-2	4824175	4861662	4836270	4840702	0.40	cps
Copper	63-2	35385860	36217259	35674247	35759122	1.18	cps
Dysprosium	156-1	83	97	133	104	24.79	cps
Dysprosium	156-2	420	357	473	417	14.02	cps
Erbium	164-1	97	107	120	108	10.86	cps
Erbium	164-2	77	77	63	72	10.66	cps
Gadolinium	160-1	87	70	97	84	15.95	cps
Gadolinium	160-2	200	207	227	211	6.57	cps
Holmium	165-1	4713517	4687935	4695045	4698832	0.28	cps
Holmium	165-2	3858180	3890339	3897106	3881875	0.54	cps
Indium	115-1	3753066	3726529	3766391	3748662	0.54	cps
Indium	115-2	1596539	1619786	1592574	1602966	0.92	cps
Iron	56-2	148398641	146346631	144625695	146456989	1.29	cps
Iron	57-2	3617168	3707332	3705553	3676684	1.40	cps
Iron	54-2	8002296	8252201	8057946	8104148	1.62	cps
Krypton	83-1	423	443	340	402	13.63	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	25293320	25720500	25375497	25463106	0.89	cps
Lead	207-1	22704713	22619796	22767152	22697220	0.33	cps
Lead	208-1	103718468	104404327	104398299	104173698	0.38	cps
Lithium	6-1	588248	587576	583299	586374	0.46	cps
Magnesium	24-2	29218051	29292627	28974589	29161756	0.57	cps
Manganese	55-2	28049695	28172071	28103306	28108357	0.22	cps
Molybdenum	94-1	24371520	24295907	24204345	24290591	0.34	cps
Molybdenum	95-1	35340375	35314976	34591390	35082247	1.21	cps
Molybdenum	96-1	38219574	38034348	37467284	37907069	1.03	cps
Molybdenum	97-1	21533431	21512882	21442852	21496388	0.22	cps
Molybdenum	98-1	55293079	55668594	56111659	55691111	0.74	cps
Neodymium	150-1	357	410	420	396	8.61	cps
Neodymium	150-2	127	80	87	98	25.81	cps
Nickel	60-2	1090101	1109548	1086360	1095336	1.14	cps
Phosphorus	31-2	178485	179304	180765	179518	0.64	cps
Potassium	39-2	19611181	19649945	19366953	19542693	0.79	cps
Rhodium	103-1	3585830	3586935	3620727	3597830	0.55	cps
Rhodium	103-2	2329608	2368014	2323362	2340328	1.03	cps
Scandium	45-1	2246879	2213595	2260809	2240428	1.08	cps
Scandium	45-2	200069	201654	202302	201342	0.57	cps
Selenium	82-1	131336	131523	132916	131925	0.65	cps
Selenium	77-2	16700	16816	17107	16874	1.24	cps
Selenium	78-2	55878	57130	56022	56343	1.22	cps
Silicon	28-1	11991160	12166743	12280759	12146221	1.20	cps
Silver	107-1	9595040	9617739	9594745	9602508	0.14	cps
Silver	109-1	9061483	9234142	9060799	9118808	1.10	cps
Sodium	23-2	47095486	46119889	46263431	46492935	1.13	cps
Strontium	86-1	2264390	2281970	2289796	2278719	0.57	cps
Strontium	88-1	20089958	20320379	20021533	20143957	0.78	cps
Sulfur	34-1	633070	634299	633796	633721	0.10	cps
Terbium	159-1	4753172	4819192	4946594	4839653	2.03	cps
Terbium	159-2	3847257	3837474	3816275	3833669	0.41	cps
Thallium	203-1	6461044	6500795	6468519	6476786	0.33	cps
Thallium	205-1	15286421	14979807	15098224	15121484	1.02	cps
Tin	118-1	5701813	5836937	5709573	5749441	1.32	cps
Titanium	47-1	8923700	9085910	8985360	8998323	0.91	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S7	Instrumnet Name :	P7
Client Sample ID :	S7	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:05:49	DataFile Name :	011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	20231392	20638974	20082586	20317651	1.42	cps
Vanadium	51-2	2686386	2758122	2696276	2713594	1.43	cps
Yttrium	89-1	6741529	6675131	6707132	6707931	0.50	cps
Yttrium	89-2	2060540	2102697	2113994	2092411	1.35	cps
Zinc	66-2	6958485	6971973	6930339	6953599	0.31	cps
Zirconium	90-1	12009681	12037372	12026829	12024627	0.12	cps
Zirconium	91-1	2724597	2713492	2619910	2686000	2.14	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	18823167	18767892	18854188	18815082	0.23	cps
Antimony	121-1	2114	2147	2307	2189	4.72	cps
Arsenic	75-2	253	277	283	271	5.81	cps
Barium	135-1	3170	3134	3370	3225	3.95	cps
Barium	137-1	5204	5618	5344	5389	3.90	cps
Beryllium	9-1	153	150	177	160	9.08	cps
Bismuth	209-1	2548711	2539528	2584830	2557689	0.94	cps
Bismuth	209-2	2353094	2426156	2443158	2407469	1.99	cps
Bromine	81-1	31671	33224	32870	32588	2.50	cps
Bromine	81-2	207	163	240	203	18.90	cps
Cadmium	108-1	70	43	47	53	27.24	cps
Cadmium	106-1	1650	1507	1510	1556	5.26	cps
Cadmium	111-1	1383	1284	1328	1332	3.70	cps
Calcium	43-1	9349387	9519182	9566865	9478478	1.21	cps
Calcium	44-1	154995351	157668808	157334084	156666081	0.93	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	16930	16829	16426	16728	1.59	cps
Cobalt	59-2	12162	12168	12102	12144	0.30	cps
Copper	63-2	9603	9733	9703	9680	0.70	cps
Dysprosium	156-1	227	187	170	194	14.98	cps
Dysprosium	156-2	203	197	180	193	6.22	cps
Erbium	164-1	257	253	280	263	5.52	cps
Erbium	164-2	163	173	257	198	25.91	cps
Gadolinium	160-1	213	203	200	206	3.38	cps
Gadolinium	160-2	380	337	323	347	8.55	cps
Holmium	165-1	4579333	4657625	4517302	4584753	1.53	cps
Holmium	165-2	3763017	3776132	3853509	3797553	1.29	cps
Indium	115-1	3749475	3735393	3756803	3747224	0.29	cps
Indium	115-2	1653623	1633889	1622560	1636690	0.96	cps
Iron	56-2	712081936	714094469	703098203	709758203	0.82	cps
Iron	57-2	18089412	17926151	17745716	17920426	0.96	cps
Iron	54-2	39198864	39023156	39427164	39216395	0.52	cps
Krypton	83-1	433	500	497	477	7.88	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10754	10571	10721	10682	0.91	cps
Lead	207-1	9457	9870	9860	9729	2.43	cps
Lead	208-1	43542	43300	43602	43481	0.37	cps
Lithium	6-1	570924	571570	571191	571228	0.06	cps
Magnesium	24-2	150970088	151564081	149626184	150720118	0.66	cps
Manganese	55-2	13409	14250	13463	13707	3.43	cps
Molybdenum	94-1	5041	5161	5051	5084	1.31	cps
Molybdenum	95-1	4014	4327	4564	4302	6.42	cps
Molybdenum	96-1	20802	20788	20902	20831	0.30	cps
Molybdenum	97-1	2760	2690	2660	2704	1.90	cps
Molybdenum	98-1	6251	5771	6115	6046	4.09	cps
Neodymium	150-1	87	150	127	121	26.45	cps
Neodymium	150-2	83	87	103	91	11.77	cps
Nickel	60-2	4801	4994	4771	4855	2.50	cps
Phosphorus	31-2	400	397	280	359	19.04	cps
Potassium	39-2	102477742	100960212	101749502	101729152	0.75	cps
Rhodium	103-1	3406713	3370482	3396940	3391378	0.55	cps
Rhodium	103-2	2271200	2241900	2204161	2239087	1.50	cps
Scandium	45-1	2250999	2304462	2262532	2272664	1.24	cps
Scandium	45-2	210105	207604	208796	208835	0.60	cps
Selenium	82-1	454	417	390	420	7.70	cps
Selenium	77-2	10	7	17	11	45.82	cps
Selenium	78-2	900	917	993	937	5.31	cps
Silicon	28-1	1503096	1513583	1547984	1521554	1.54	cps
Silver	107-1	543	513	457	504	8.72	cps
Silver	109-1	457	467	447	457	2.19	cps
Sodium	23-2	240928503	238062263	240960810	239983859	0.69	cps
Strontium	86-1	7525	7629	7802	7652	1.83	cps
Strontium	88-1	59814	61173	60678	60555	1.14	cps
Sulfur	34-1	128626	137942	143130	136566	5.38	cps
Terbium	159-1	4690814	4681313	4660846	4677657	0.33	cps
Terbium	159-2	3736323	3698506	3688479	3707769	0.68	cps
Thallium	203-1	833	677	590	700	17.62	cps
Thallium	205-1	1710	1493	1580	1595	6.84	cps
Tin	118-1	1787	1800	1920	1836	4.00	cps
Titanium	47-1	363	453	450	422	12.09	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	S8	Instrumnet Name :	P7
Client Sample ID :	S8	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:08:36	DataFile Name :	012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	967	963	807	912	10.02	cps
Vanadium	51-2	570	703	667	647	10.65	cps
Yttrium	89-1	6573504	6724102	6675261	6657623	1.15	cps
Yttrium	89-2	2170791	2143843	2136573	2150402	0.84	cps
Zinc	66-2	11424	11525	11288	11412	1.04	cps
Zirconium	90-1	5201	5294	5041	5179	2.48	cps
Zirconium	91-1	1037	1110	1107	1085	3.82	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	92745	92916	93633	93098	0.51	cps
Antimony	121-1	1211243	1224889	1224360	1220164	0.63	cps
Arsenic	75-2	90192	88060	87171	88474	1.76	cps
Barium	135-1	162680	161417	163135	162411	0.55	cps
Barium	137-1	281962	282445	280399	281602	0.38	cps
Beryllium	9-1	98698	99435	99466	99200	0.44	cps
Bismuth	209-1	2887353	2861484	2857238	2868691	0.57	cps
Bismuth	209-2	2765707	2728162	2740025	2744631	0.70	cps
Bromine	81-1	33521	33919	33602	33681	0.62	cps
Bromine	81-2	233	247	233	238	3.24	cps
Cadmium	108-1	12279	12802	12882	12655	2.59	cps
Cadmium	106-1	18599	18762	18689	18683	0.44	cps
Cadmium	111-1	192098	190110	193328	191845	0.85	cps
Calcium	43-1	36521	36724	37232	36826	1.00	cps
Calcium	44-1	623424	627563	624231	625072	0.35	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	314918	310048	311283	312083	0.81	cps
Cobalt	59-2	487322	488408	490482	488737	0.33	cps
Copper	63-2	377484	375386	373592	375487	0.52	cps
Dysprosium	156-1	20	13	7	13	49.99	cps
Dysprosium	156-2	7	10	10	9	21.63	cps
Erbium	164-1	30	30	27	29	6.65	cps
Erbium	164-2	33	37	23	31	22.31	cps
Gadolinium	160-1	3	7	23	11	96.43	cps
Gadolinium	160-2	183	190	223	199	10.78	cps
Holmium	165-1	4618260	4698591	4665460	4660770	0.87	cps
Holmium	165-2	3958851	3859228	3844492	3887524	1.60	cps
Indium	115-1	4011464	3918351	4062436	3997417	1.83	cps
Indium	115-2	1755888	1786782	1790979	1777883	1.08	cps
Iron	56-2	6329921	6331240	6360681	6340614	0.27	cps
Iron	57-2	150071	148559	148876	149169	0.53	cps
Iron	54-2	339066	338531	337830	338476	0.18	cps
Krypton	83-1	463	443	390	432	8.77	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	947573	944347	956422	949447	0.66	cps
Lead	207-1	792204	795927	799107	795746	0.43	cps
Lead	208-1	4323915	4353060	4329644	4335540	0.36	cps
Lithium	6-1	590526	594526	588894	591315	0.49	cps
Magnesium	24-2	338111	339684	335283	337693	0.66	cps
Manganese	55-2	300151	295172	298707	298010	0.86	cps
Molybdenum	94-1	247	213	287	249	14.75	cps
Molybdenum	95-1	137	147	167	150	10.18	cps
Molybdenum	96-1	423	437	407	422	3.56	cps
Molybdenum	97-1	83	117	127	109	20.84	cps
Molybdenum	98-1	243	247	270	253	5.74	cps
Neodymium	150-1	20	20	10	17	34.64	cps
Neodymium	150-2	7	0	7	4	86.60	cps
Nickel	60-2	140145	138365	138607	139039	0.69	cps
Phosphorus	31-2	243	317	337	299	16.44	cps
Potassium	39-2	833390	828985	830047	830807	0.28	cps
Rhodium	103-1	3800036	3831459	3815932	3815809	0.41	cps
Rhodium	103-2	2553833	2519725	2527164	2533574	0.71	cps
Scandium	45-1	2374644	2337830	2360854	2357776	0.79	cps
Scandium	45-2	210786	210258	208305	209783	0.62	cps
Selenium	82-1	30677	30686	30816	30726	0.25	cps
Selenium	77-2	4044	3997	3984	4008	0.79	cps
Selenium	78-2	14314	14040	14047	14134	1.10	cps
Silicon	28-1	1479814	1495333	1480445	1485197	0.59	cps
Silver	107-1	448423	455124	452916	452154	0.76	cps
Silver	109-1	427703	428605	423793	426700	0.60	cps
Sodium	23-2	915483	917574	910259	914439	0.41	cps
Strontium	86-1	1270	1280	1233	1261	1.95	cps
Strontium	88-1	4878	4931	4908	4905	0.55	cps
Sulfur	34-1	129546	129980	131520	130349	0.80	cps
Terbium	159-1	4767368	4743427	4770898	4760564	0.31	cps
Terbium	159-2	3969233	3872587	3735515	3859112	3.04	cps
Thallium	203-1	1150573	1163700	1171797	1162023	0.92	cps
Thallium	205-1	3171267	3143061	3141301	3151876	0.53	cps
Tin	118-1	1497	1467	1230	1398	10.45	cps
Titanium	47-1	80	67	73	73	9.09	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICV01	Instrumnet Name :	P7
Client Sample ID :	ICV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:35:50	DataFile Name :	016ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	453	413	483	450	7.80	cps
Vanadium	51-2	262844	263065	262991	262967	0.04	cps
Yttrium	89-1	6995302	6981739	6989531	6988858	0.10	cps
Yttrium	89-2	2225957	2205335	2172274	2201188	1.23	cps
Zinc	66-2	139172	135623	135882	136892	1.45	cps
Zirconium	90-1	377	387	450	404	9.83	cps
Zirconium	91-1	210	183	280	224	22.24	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3570	3510	3504	3528	1.04	cps
Antimony	121-1	11885	12349	11828	12021	2.38	cps
Arsenic	75-2	557	500	497	518	6.51	cps
Barium	135-1	15405	15175	15428	15336	0.91	cps
Barium	137-1	27022	26819	26892	26911	0.38	cps
Beryllium	9-1	1157	1123	1110	1130	2.13	cps
Bismuth	209-1	2844522	2849204	2854574	2849433	0.18	cps
Bismuth	209-2	2813606	2747142	2758610	2773120	1.28	cps
Bromine	81-1	36077	35960	35189	35742	1.35	cps
Bromine	81-2	280	303	277	287	5.07	cps
Cadmium	108-1	127	117	143	129	10.45	cps
Cadmium	106-1	1837	1800	1767	1801	1.94	cps
Cadmium	111-1	2934	2939	2850	2907	1.72	cps
Calcium	43-1	9687	9256	9440	9461	2.28	cps
Calcium	44-1	161847	161445	162341	161878	0.28	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6825	6295	6331	6484	4.57	cps
Cobalt	59-2	5188	5174	4988	5116	2.19	cps
Copper	63-2	9450	9253	9396	9366	1.09	cps
Dysprosium	156-1	0	3	3	2	86.60	cps
Dysprosium	156-2	7	3	17	9	78.08	cps
Erbium	164-1	33	37	33	34	5.60	cps
Erbium	164-2	20	23	20	21	9.11	cps
Gadolinium	160-1	13	17	23	18	28.64	cps
Gadolinium	160-2	173	223	190	196	13.02	cps
Holmium	165-1	4649275	4684904	4666146	4666775	0.38	cps
Holmium	165-2	3938625	3873220	3897983	3903276	0.85	cps
Indium	115-1	4047123	4031995	4013567	4030895	0.42	cps
Indium	115-2	1825741	1810717	1773302	1803253	1.50	cps
Iron	56-2	176935	174382	173169	174829	1.10	cps
Iron	57-2	5368	5474	5598	5480	2.10	cps
Iron	54-2	11671	11765	11758	11731	0.44	cps
Krypton	83-1	430	420	377	409	6.93	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	5251	5138	5331	5240	1.85	cps
Lead	207-1	4684	4784	4788	4752	1.24	cps
Lead	208-1	22388	22588	22564	22514	0.49	cps
Lithium	6-1	591668	589501	588789	589986	0.25	cps
Magnesium	24-2	135487	132102	132851	133480	1.33	cps
Manganese	55-2	3720	3837	3714	3757	1.85	cps
Molybdenum	94-1	13470	13613	13973	13685	1.90	cps
Molybdenum	95-1	16056	16389	16182	16209	1.04	cps
Molybdenum	96-1	18081	18095	18051	18076	0.12	cps
Molybdenum	97-1	9767	9790	9997	9851	1.29	cps
Molybdenum	98-1	25726	26437	25840	26001	1.47	cps
Neodymium	150-1	3	13	10	9	57.30	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	1330	1350	1277	1319	2.87	cps
Phosphorus	31-2	2650	2750	2710	2704	1.86	cps
Potassium	39-2	248628	246095	247668	247464	0.52	cps
Rhodium	103-1	3802809	3857373	3813704	3824629	0.76	cps
Rhodium	103-2	2544060	2523901	2520339	2529433	0.51	cps
Scandium	45-1	2408796	2375219	2376957	2386991	0.79	cps
Scandium	45-2	210495	210186	206004	208895	1.20	cps
Selenium	82-1	855	889	960	901	5.95	cps
Selenium	77-2	73	107	70	83	24.33	cps
Selenium	78-2	1203	1327	1223	1251	5.29	cps
Silicon	28-1	1499972	1505444	1524421	1509946	0.85	cps
Silver	107-1	9223	9580	9493	9432	1.97	cps
Silver	109-1	8909	9120	9223	9084	1.76	cps
Sodium	23-2	227173	226262	224257	225897	0.66	cps
Strontium	86-1	2820	2717	2864	2800	2.69	cps
Strontium	88-1	19279	19700	19757	19579	1.33	cps
Sulfur	34-1	139392	139829	139719	139647	0.16	cps
Terbium	159-1	4788060	4804884	4700728	4764557	1.17	cps
Terbium	159-2	3971692	3851688	3797047	3873476	2.31	cps
Thallium	203-1	5691	6165	5908	5921	4.00	cps
Thallium	205-1	13850	14384	13810	14015	2.29	cps
Tin	118-1	28338	28017	27637	27997	1.25	cps
Titanium	47-1	4387	4517	4134	4346	4.49	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	LLICV	Instrumnet Name :	P7
Client Sample ID :	LLICV	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:47:37	DataFile Name :	019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	17084	16911	17465	17153	1.65	cps
Vanadium	51-2	12692	12709	12502	12634	0.91	cps
Yttrium	89-1	6887334	6947896	7049914	6961715	1.18	cps
Yttrium	89-2	2191215	2205824	2133198	2176746	1.76	cps
Zinc	66-2	3907	3834	4067	3936	3.03	cps
Zirconium	90-1	12178	12182	12332	12231	0.72	cps
Zirconium	91-1	2677	2870	2644	2730	4.48	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1280	1220	1383	1295	6.38	cps
Antimony	121-1	70	87	63	73	16.39	cps
Arsenic	75-2	23	33	13	23	42.86	cps
Barium	135-1	70	60	63	64	7.90	cps
Barium	137-1	127	87	123	112	19.78	cps
Beryllium	9-1	93	100	67	87	20.35	cps
Bismuth	209-1	2809953	2795381	2748974	2784769	1.14	cps
Bismuth	209-2	2682688	2658587	2730224	2690500	1.35	cps
Bromine	81-1	35068	33491	34474	34344	2.32	cps
Bromine	81-2	180	210	163	184	12.82	cps
Cadmium	108-1	13	23	13	17	34.65	cps
Cadmium	106-1	1527	1583	1503	1538	2.68	cps
Cadmium	111-1	1126	1182	1133	1147	2.66	cps
Calcium	43-1	463	420	460	448	5.38	cps
Calcium	44-1	12692	12566	12375	12544	1.27	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	577	463	547	529	11.10	cps
Cobalt	59-2	163	237	213	204	18.32	cps
Copper	63-2	2734	2664	2580	2659	2.89	cps
Dysprosium	156-1	7	0	3	3	100.05	cps
Dysprosium	156-2	7	0	0	2	173.21	cps
Erbium	164-1	40	40	23	34	27.94	cps
Erbium	164-2	37	30	17	28	36.66	cps
Gadolinium	160-1	17	17	13	16	12.40	cps
Gadolinium	160-2	237	217	197	217	9.23	cps
Holmium	165-1	4569153	4553750	4623711	4582205	0.80	cps
Holmium	165-2	3818471	3739646	3796091	3784736	1.07	cps
Indium	115-1	3950075	3943628	3986026	3959910	0.58	cps
Indium	115-2	1766697	1712396	1737176	1738757	1.56	cps
Iron	56-2	32338	32903	32555	32599	0.87	cps
Iron	57-2	1537	1670	1633	1613	4.27	cps
Iron	54-2	4001	3647	3831	3826	4.62	cps
Krypton	83-1	413	397	417	409	2.62	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1370	1433	1357	1387	2.95	cps
Lead	207-1	1280	1220	1173	1225	4.37	cps
Lead	208-1	5648	5659	5366	5557	2.99	cps
Lithium	6-1	576426	579603	574731	576920	0.43	cps
Magnesium	24-2	430	447	427	434	2.47	cps
Manganese	55-2	1260	1367	1227	1285	5.69	cps
Molybdenum	94-1	167	170	177	171	2.98	cps
Molybdenum	95-1	87	90	77	84	8.22	cps
Molybdenum	96-1	207	197	213	206	4.08	cps
Molybdenum	97-1	33	40	47	40	16.68	cps
Molybdenum	98-1	127	123	103	118	10.72	cps
Neodymium	150-1	0	7	7	4	86.60	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	367	313	337	339	7.89	cps
Phosphorus	31-2	290	303	297	297	2.25	cps
Potassium	39-2	59422	60553	58144	59373	2.03	cps
Rhodium	103-1	3759350	3759455	3838653	3785819	1.21	cps
Rhodium	103-2	2496242	2428210	2475178	2466544	1.41	cps
Scandium	45-1	2346224	2317089	2269273	2310862	1.68	cps
Scandium	45-2	204765	203373	203894	204011	0.34	cps
Selenium	82-1	224	250	211	228	8.87	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	1107	987	1003	1032	6.30	cps
Silicon	28-1	1507023	1544775	1536685	1529494	1.30	cps
Silver	107-1	50	93	43	62	43.63	cps
Silver	109-1	33	37	27	32	15.80	cps
Sodium	23-2	16289	16159	16335	16261	0.56	cps
Strontium	86-1	763	693	803	753	7.39	cps
Strontium	88-1	273	200	233	236	15.59	cps
Sulfur	34-1	128807	129324	127980	128704	0.53	cps
Terbium	159-1	4700841	4675924	4637788	4671517	0.68	cps
Terbium	159-2	3830940	3774271	3697360	3767524	1.78	cps
Thallium	203-1	317	367	373	352	8.79	cps
Thallium	205-1	810	913	820	848	6.72	cps
Tin	118-1	1303	1557	1300	1387	10.62	cps
Titanium	47-1	80	53	57	63	22.94	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICB01	Instrumnet Name :	P7
Client Sample ID :	ICB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:50:55	DataFile Name :	020CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	400	350	380	377	6.68	cps
Vanadium	51-2	67	50	27	48	42.05	cps
Yttrium	89-1	6805156	6854697	6822566	6827473	0.37	cps
Yttrium	89-2	2172413	2187272	2122145	2160610	1.58	cps
Zinc	66-2	1110	1103	1160	1125	2.75	cps
Zirconium	90-1	340	413	380	378	9.72	cps
Zirconium	91-1	63	70	93	76	20.85	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	15676905	15817389	15797601	15763965	0.48	cps
Antimony	121-1	6225	6148	6535	6303	3.25	cps
Arsenic	75-2	250	270	240	253	6.03	cps
Barium	135-1	2370	2160	2174	2235	5.26	cps
Barium	137-1	3657	3744	3667	3689	1.29	cps
Beryllium	9-1	373	347	290	337	12.64	cps
Bismuth	209-1	2666808	2724520	2712277	2701201	1.13	cps
Bismuth	209-2	2621001	2633488	2614320	2622936	0.37	cps
Bromine	81-1	33622	33471	32429	33174	1.96	cps
Bromine	81-2	413	343	343	367	11.02	cps
Cadmium	108-1	893	780	867	847	7.00	cps
Cadmium	106-1	1497	1507	1247	1417	10.40	cps
Cadmium	111-1	1652	1569	1376	1532	9.25	cps
Calcium	43-1	1836912	1825647	1778428	1813662	1.71	cps
Calcium	44-1	29994649	29743534	29813073	29850418	0.43	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	55371	55461	55395	55409	0.08	cps
Cobalt	59-2	5481	5531	5661	5558	1.67	cps
Copper	63-2	37617	38469	38636	38241	1.43	cps
Dysprosium	156-1	20	33	10	21	55.45	cps
Dysprosium	156-2	27	13	37	26	45.82	cps
Erbium	164-1	57	40	37	44	24.11	cps
Erbium	164-2	43	7	27	26	71.82	cps
Gadolinium	160-1	50	27	33	37	32.78	cps
Gadolinium	160-2	213	257	230	233	9.37	cps
Holmium	165-1	4570030	4708885	4579924	4619613	1.68	cps
Holmium	165-2	3799675	3841595	3844225	3828498	0.65	cps
Indium	115-1	3890999	3785803	3802899	3826567	1.48	cps
Indium	115-2	1642593	1632890	1666370	1647285	1.05	cps
Iron	56-2	287586596	286655249	280584176	284942007	1.33	cps
Iron	57-2	7056676	6926659	7129359	7037565	1.46	cps
Iron	54-2	15568239	15368036	15602757	15513010	0.82	cps
Krypton	83-1	403	407	467	426	8.38	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	21467	20869	21944	21427	2.51	cps
Lead	207-1	17064	16914	17047	17008	0.48	cps
Lead	208-1	80266	79727	82174	80723	1.59	cps
Lithium	6-1	565747	567414	559042	564067	0.79	cps
Magnesium	24-2	26660775	26825205	26612690	26699557	0.42	cps
Manganese	55-2	19142	18952	19126	19073	0.55	cps
Molybdenum	94-1	3923620	3798056	3809891	3843856	1.80	cps
Molybdenum	95-1	6773249	6779953	6658946	6737383	1.01	cps
Molybdenum	96-1	7258880	7146950	7079727	7161852	1.26	cps
Molybdenum	97-1	4236692	4146065	4125041	4169266	1.42	cps
Molybdenum	98-1	10757729	10681590	10604532	10681284	0.72	cps
Neodymium	150-1	27	27	27	27	0.00	cps
Neodymium	150-2	33	23	20	26	27.15	cps
Nickel	60-2	6161	6168	5825	6051	3.25	cps
Phosphorus	31-2	886134	882862	884546	884514	0.19	cps
Potassium	39-2	37340019	37383192	37730915	37484709	0.57	cps
Rhodium	103-1	3576969	3523194	3528738	3542967	0.83	cps
Rhodium	103-2	2377571	2318659	2320975	2339069	1.43	cps
Scandium	45-1	2227455	2230132	2205565	2221051	0.61	cps
Scandium	45-2	196145	199183	198962	198096	0.85	cps
Selenium	82-1	327	365	267	320	15.58	cps
Selenium	77-2	3	7	10	7	50.03	cps
Selenium	78-2	997	943	873	938	6.60	cps
Silicon	28-1	1478786	1445895	1436732	1453804	1.52	cps
Silver	107-1	167	253	337	252	33.70	cps
Silver	109-1	183	250	267	233	18.90	cps
Sodium	23-2	45435838	45451259	45397404	45428167	0.06	cps
Strontium	86-1	69892	69942	68421	69418	1.24	cps
Strontium	88-1	610176	609336	603997	607836	0.55	cps
Sulfur	34-1	3043518	3026595	2982582	3017565	1.04	cps
Terbium	159-1	4744178	4715731	4708145	4722685	0.40	cps
Terbium	159-2	3789123	3771360	3737092	3765859	0.70	cps
Thallium	203-1	790	977	1143	970	18.22	cps
Thallium	205-1	1787	2300	2717	2268	20.54	cps
Tin	118-1	3390	3567	3420	3459	2.73	cps
Titanium	47-1	1794065	1766899	1726711	1762558	1.92	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSA01	Instrumnet Name :	P7
Client Sample ID :	ICSA01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:54:13	DataFile Name :	021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	593	670	630	631	6.08	cps
Vanadium	51-2	480	567	517	521	8.35	cps
Yttrium	89-1	6831891	6758793	6559696	6716793	2.10	cps
Yttrium	89-2	2126417	2128487	2099951	2118285	0.75	cps
Zinc	66-2	7005	6848	7112	6988	1.90	cps
Zirconium	90-1	517	450	417	461	11.04	cps
Zirconium	91-1	117	113	107	112	4.54	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	16742473	16722522	16992009	16819002	0.89	cps
Antimony	121-1	123811	128999	127946	126919	2.16	cps
Arsenic	75-2	8046	8629	8539	8405	3.74	cps
Barium	135-1	33363	34986	35106	34485	2.82	cps
Barium	137-1	58141	59162	60826	59377	2.28	cps
Beryllium	9-1	18968	19229	18751	18983	1.26	cps
Bismuth	209-1	3014410	2903253	2785915	2901193	3.94	cps
Bismuth	209-2	2741149	2715633	2680835	2712539	1.12	cps
Bromine	81-1	34607	34497	34022	34376	0.90	cps
Bromine	81-2	517	490	570	526	7.75	cps
Cadmium	108-1	3190	3157	3247	3198	1.42	cps
Cadmium	106-1	4794	4657	4788	4746	1.62	cps
Cadmium	111-1	36091	37486	38319	37299	3.02	cps
Calcium	43-1	1851798	1885744	1915151	1884231	1.68	cps
Calcium	44-1	30428486	31498600	31463913	31130333	1.95	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	117685	117802	117450	117646	0.15	cps
Cobalt	59-2	97011	97749	99756	98172	1.45	cps
Copper	63-2	103038	103351	106267	104219	1.71	cps
Dysprosium	156-1	23	17	23	21	18.21	cps
Dysprosium	156-2	27	13	43	28	54.11	cps
Erbium	164-1	43	73	47	54	30.20	cps
Erbium	164-2	43	23	47	38	33.41	cps
Gadolinium	160-1	33	27	50	37	32.78	cps
Gadolinium	160-2	217	183	210	203	8.67	cps
Holmium	165-1	5036120	4762490	4802942	4867184	3.03	cps
Holmium	165-2	3878539	3950559	3936109	3921736	0.97	cps
Indium	115-1	4229767	3941945	3986250	4052654	3.82	cps
Indium	115-2	1685111	1722279	1682355	1696582	1.31	cps
Iron	56-2	300207049	297898529	301155236	299753604	0.56	cps
Iron	57-2	7471123	7596065	7483053	7516747	0.92	cps
Iron	54-2	16462854	16402428	16586551	16483944	0.57	cps
Krypton	83-1	347	403	490	413	17.46	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	112947	117902	116393	115748	2.19	cps
Lead	207-1	98014	97748	98084	97949	0.18	cps
Lead	208-1	470986	481753	480672	477804	1.24	cps
Lithium	6-1	621996	575189	572079	589755	4.74	cps
Magnesium	24-2	27592063	27962774	27835066	27796634	0.68	cps
Manganese	55-2	72309	71533	72195	72012	0.58	cps
Molybdenum	94-1	3849346	4018789	4049119	3972418	2.71	cps
Molybdenum	95-1	6910384	7109539	7162626	7060850	1.88	cps
Molybdenum	96-1	7437048	7605222	7608029	7550100	1.30	cps
Molybdenum	97-1	4287208	4389012	4394543	4356921	1.39	cps
Molybdenum	98-1	10844649	11234956	11232754	11104120	2.02	cps
Neodymium	150-1	33	57	50	47	25.76	cps
Neodymium	150-2	37	7	23	22	67.63	cps
Nickel	60-2	29429	29673	29663	29588	0.47	cps
Phosphorus	31-2	931333	938426	939416	936392	0.47	cps
Potassium	39-2	39924732	39640160	40171520	39912137	0.67	cps
Rhodium	103-1	3939519	3733593	3686906	3786673	3.55	cps
Rhodium	103-2	2379172	2383137	2407227	2389845	0.64	cps
Scandium	45-1	2469435	2350106	2260374	2359972	4.44	cps
Scandium	45-2	204968	204116	204194	204426	0.23	cps
Selenium	82-1	3026	3038	3117	3061	1.61	cps
Selenium	77-2	413	303	383	367	15.51	cps
Selenium	78-2	2067	2184	2130	2127	2.75	cps
Silicon	28-1	1436196	1413805	1439054	1429685	0.97	cps
Silver	107-1	164993	172522	170978	169497	2.35	cps
Silver	109-1	156380	163042	163312	160911	2.44	cps
Sodium	23-2	47801781	47329693	47884423	47671965	0.63	cps
Strontium	86-1	70990	74032	74769	73264	2.73	cps
Strontium	88-1	628625	646158	648781	641188	1.71	cps
Sulfur	34-1	3071455	3187190	3182046	3146897	2.08	cps
Terbium	159-1	5163806	4939346	4928174	5010442	2.65	cps
Terbium	159-2	3900471	3912714	3855237	3889474	0.78	cps
Thallium	203-1	113747	118130	119081	116986	2.43	cps
Thallium	205-1	274065	277964	284836	278955	1.95	cps
Tin	118-1	2354	2784	2774	2637	9.31	cps
Titanium	47-1	1828607	1869836	1817570	1838671	1.50	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	ICSAB01	Instrumnet Name :	P7
Client Sample ID :	ICSAB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 15:57:17	DataFile Name :	022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	833	787	810	810	2.88	cps
Vanadium	51-2	50879	52223	52230	51777	1.50	cps
Yttrium	89-1	7211613	6906261	6901077	7006317	2.54	cps
Yttrium	89-2	2169692	2195341	2193630	2186221	0.66	cps
Zinc	66-2	26410	26590	26484	26495	0.34	cps
Zirconium	90-1	1350	1287	1433	1357	5.42	cps
Zirconium	91-1	330	300	283	304	7.77	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9458927	9160651	9250285	9289954	1.65	cps
Antimony	121-1	3146559	3177271	3266548	3196793	1.95	cps
Arsenic	75-2	195706	194487	196459	195551	0.51	cps
Barium	135-1	4359742	4496861	4362119	4406240	1.78	cps
Barium	137-1	7553845	7533817	7571496	7553052	0.25	cps
Beryllium	9-1	449450	446128	447197	447592	0.38	cps
Bismuth	209-1	2738276	2712511	2685102	2711963	0.98	cps
Bismuth	209-2	2563565	2560001	2499092	2540886	1.43	cps
Bromine	81-1	33799	34367	34791	34319	1.45	cps
Bromine	81-2	243	247	263	251	4.27	cps
Cadmium	108-1	60050	61560	60763	60791	1.24	cps
Cadmium	106-1	87072	87827	86777	87225	0.62	cps
Cadmium	111-1	829225	842319	838527	836690	0.81	cps
Calcium	43-1	4740808	4718101	4775942	4744951	0.61	cps
Calcium	44-1	75519969	78703242	77338419	77187210	2.07	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1619919	1594484	1606090	1606831	0.79	cps
Cobalt	59-2	2447814	2477368	2438565	2454582	0.83	cps
Copper	63-2	18747108	18735103	18699768	18727327	0.13	cps
Dysprosium	156-1	127	137	140	134	5.16	cps
Dysprosium	156-2	270	237	277	261	8.21	cps
Erbium	164-1	173	160	160	164	4.68	cps
Erbium	164-2	107	120	143	123	15.05	cps
Gadolinium	160-1	113	87	113	104	14.74	cps
Gadolinium	160-2	237	257	260	251	5.03	cps
Holmium	165-1	4677298	4740911	4624283	4680831	1.25	cps
Holmium	165-2	3865080	3899642	3895200	3886641	0.48	cps
Indium	115-1	3822143	3809123	3785163	3805476	0.49	cps
Indium	115-2	1662254	1648031	1636804	1649030	0.77	cps
Iron	56-2	372034568	372331648	367034568	370466928	0.80	cps
Iron	57-2	9080902	9292250	9281333	9218162	1.29	cps
Iron	54-2	20168163	20175039	20475343	20272849	0.87	cps
Krypton	83-1	370	460	450	427	11.56	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12361755	12514098	12666379	12514078	1.22	cps
Lead	207-1	11120470	11159214	11237290	11172325	0.53	cps
Lead	208-1	51079551	51133399	50968587	51060512	0.16	cps
Lithium	6-1	570700	569670	570251	570207	0.09	cps
Magnesium	24-2	74937859	73710381	74095021	74247753	0.85	cps
Manganese	55-2	14461740	14519252	14561458	14514150	0.34	cps
Molybdenum	94-1	12322742	12589036	12392838	12434872	1.11	cps
Molybdenum	95-1	17673140	18015511	18075367	17921339	1.21	cps
Molybdenum	96-1	19470458	19418859	19803572	19564296	1.07	cps
Molybdenum	97-1	11205507	11251608	11095250	11184122	0.72	cps
Molybdenum	98-1	28920619	28802540	28633696	28785618	0.50	cps
Neodymium	150-1	220	287	300	269	15.94	cps
Neodymium	150-2	87	117	67	90	27.96	cps
Nickel	60-2	580337	579760	579045	579714	0.11	cps
Phosphorus	31-2	94409	94422	94915	94582	0.31	cps
Potassium	39-2	50186346	49898558	50229458	50104787	0.36	cps
Rhodium	103-1	3547055	3553108	3605690	3568618	0.90	cps
Rhodium	103-2	2339836	2302877	2282078	2308264	1.27	cps
Scandium	45-1	2262336	2285291	2289173	2278933	0.64	cps
Scandium	45-2	208072	206518	208419	207670	0.49	cps
Selenium	82-1	64132	65007	64922	64687	0.75	cps
Selenium	77-2	8596	8319	8286	8400	2.03	cps
Selenium	78-2	27980	29152	29202	28778	2.40	cps
Silicon	28-1	5496610	5563723	5634436	5564923	1.24	cps
Silver	107-1	4349313	4323389	4428264	4366989	1.25	cps
Silver	109-1	4133939	4227744	4120948	4160877	1.40	cps
Sodium	23-2	117872002	116170282	116101262	116714515	0.86	cps
Strontium	86-1	1033122	1046212	1044107	1041147	0.68	cps
Strontium	88-1	10039636	10280525	10370355	10230172	1.67	cps
Sulfur	34-1	386791	386506	386024	386440	0.10	cps
Terbium	159-1	4835472	4822215	4790257	4815981	0.48	cps
Terbium	159-2	3843107	3809290	3801779	3818059	0.58	cps
Thallium	203-1	3190104	3221256	3172051	3194470	0.78	cps
Thallium	205-1	7636924	7536675	7553062	7575554	0.71	cps
Tin	118-1	2882615	2907193	2903230	2897679	0.46	cps
Titanium	47-1	4535743	4630485	4594399	4586876	1.04	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV01	Instrumnet Name :	P7
Client Sample ID :	CCV01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:00:40	DataFile Name :	023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10108613	10105694	10249854	10154720	0.81	cps
Vanadium	51-2	1410083	1384352	1422680	1405705	1.39	cps
Yttrium	89-1	6768737	6760749	6826854	6785447	0.53	cps
Yttrium	89-2	2157879	2138333	2144756	2146990	0.46	cps
Zinc	66-2	3542613	3589253	3541203	3557690	0.77	cps
Zirconium	90-1	6088659	6145374	6237830	6157287	1.22	cps
Zirconium	91-1	1228343	1248917	1255742	1244334	1.15	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1210	1270	1107	1196	6.91	cps
Antimony	121-1	410	400	390	400	2.50	cps
Arsenic	75-2	40	40	80	53	43.30	cps
Barium	135-1	127	93	73	98	27.56	cps
Barium	137-1	160	163	90	138	30.06	cps
Beryllium	9-1	153	53	83	97	53.09	cps
Bismuth	209-1	2912473	2879881	2957968	2916774	1.34	cps
Bismuth	209-2	2818382	2866915	2818257	2834518	0.99	cps
Bromine	81-1	34193	34500	34176	34290	0.53	cps
Bromine	81-2	237	250	313	267	15.36	cps
Cadmium	108-1	3	7	0	3	100.05	cps
Cadmium	106-1	1437	1347	1510	1431	5.72	cps
Cadmium	111-1	1100	1031	1197	1110	7.50	cps
Calcium	43-1	383	413	393	397	3.85	cps
Calcium	44-1	11882	11915	12059	11952	0.79	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	467	447	613	509	17.88	cps
Cobalt	59-2	207	177	227	203	12.38	cps
Copper	63-2	4641	4954	4707	4767	3.46	cps
Dysprosium	156-1	10	3	7	7	50.03	cps
Dysprosium	156-2	3	10	7	7	50.03	cps
Erbium	164-1	17	33	33	28	34.63	cps
Erbium	164-2	37	10	20	22	60.63	cps
Gadolinium	160-1	23	7	20	17	52.90	cps
Gadolinium	160-2	177	183	197	186	5.49	cps
Holmium	165-1	4839943	4750671	4764587	4785067	1.00	cps
Holmium	165-2	3894628	4025724	3919353	3946568	1.76	cps
Indium	115-1	4001806	4038593	4073065	4037821	0.88	cps
Indium	115-2	1773045	1802841	1737045	1770977	1.86	cps
Iron	56-2	30481	30638	30735	30618	0.42	cps
Iron	57-2	1290	1347	1557	1398	10.05	cps
Iron	54-2	3487	3364	3570	3474	2.99	cps
Krypton	83-1	423	467	450	447	4.89	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1407	1310	1350	1356	3.58	cps
Lead	207-1	1160	1333	1130	1208	9.09	cps
Lead	208-1	5758	5834	5768	5787	0.71	cps
Lithium	6-1	578243	580045	578523	578937	0.17	cps
Magnesium	24-2	557	603	537	566	6.05	cps
Manganese	55-2	1377	1473	1390	1413	3.71	cps
Molybdenum	94-1	323	267	340	310	12.40	cps
Molybdenum	95-1	263	200	240	234	13.66	cps
Molybdenum	96-1	340	293	363	332	10.73	cps
Molybdenum	97-1	140	167	153	153	8.70	cps
Molybdenum	98-1	363	377	387	376	3.12	cps
Neodymium	150-1	7	10	7	8	24.71	cps
Neodymium	150-2	0	7	3	3	100.05	cps
Nickel	60-2	257	203	303	254	19.66	cps
Phosphorus	31-2	243	280	253	259	7.32	cps
Potassium	39-2	59753	59914	60570	60079	0.72	cps
Rhodium	103-1	3817388	3828582	3795598	3813856	0.44	cps
Rhodium	103-2	2540463	2521269	2521918	2527884	0.43	cps
Scandium	45-1	2321069	2235177	2297511	2284586	1.94	cps
Scandium	45-2	206670	204369	204397	205145	0.64	cps
Selenium	82-1	131	189	194	171	20.50	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	877	953	957	929	4.87	cps
Silicon	28-1	1397003	1380782	1361682	1379822	1.28	cps
Silver	107-1	103	170	160	144	24.89	cps
Silver	109-1	127	130	103	120	12.11	cps
Sodium	23-2	19539	18868	20147	19518	3.28	cps
Strontium	86-1	733	683	677	698	4.44	cps
Strontium	88-1	200	247	233	227	10.61	cps
Sulfur	34-1	113994	114408	113806	114069	0.27	cps
Terbium	159-1	4909247	4853197	4752628	4838357	1.64	cps
Terbium	159-2	3865846	3977644	3844065	3895852	1.84	cps
Thallium	203-1	897	923	813	878	6.54	cps
Thallium	205-1	2004	2000	1977	1994	0.73	cps
Tin	118-1	1250	1310	1360	1307	4.22	cps
Titanium	47-1	73	77	73	74	2.59	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB01	Instrumnet Name :	P7
Client Sample ID :	CCB01	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:04:59	DataFile Name :	024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	417	387	403	402	3.74	cps
Vanadium	51-2	27	37	27	30	19.24	cps
Yttrium	89-1	6945011	6870641	6890709	6902120	0.56	cps
Yttrium	89-2	2216338	2184272	2154635	2185082	1.41	cps
Zinc	66-2	673	680	750	701	6.06	cps
Zirconium	90-1	430	407	473	437	7.75	cps
Zirconium	91-1	110	107	87	101	12.48	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3464	3230	3464	3386	3.98	cps
Antimony	121-1	12192	12169	11832	12064	1.67	cps
Arsenic	75-2	493	660	420	524	23.45	cps
Barium	135-1	14748	14821	15739	15103	3.66	cps
Barium	137-1	25994	26321	26041	26118	0.68	cps
Beryllium	9-1	977	1083	1163	1074	8.72	cps
Bismuth	209-1	2839215	2902962	2891328	2877835	1.18	cps
Bismuth	209-2	2743521	2773220	2722772	2746504	0.92	cps
Bromine	81-1	32867	32740	33408	33005	1.08	cps
Bromine	81-2	297	283	260	280	6.63	cps
Cadmium	108-1	160	90	103	118	31.56	cps
Cadmium	106-1	1630	1713	1570	1638	4.40	cps
Cadmium	111-1	2673	2823	2754	2750	2.74	cps
Calcium	43-1	8803	9236	8953	8997	2.45	cps
Calcium	44-1	156430	157678	155946	156685	0.57	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6411	6008	6265	6228	3.28	cps
Cobalt	59-2	4787	4717	4764	4756	0.75	cps
Copper	63-2	10320	10157	10060	10179	1.29	cps
Dysprosium	156-1	17	10	10	12	31.50	cps
Dysprosium	156-2	3	7	0	3	100.05	cps
Erbium	164-1	47	23	33	34	34.00	cps
Erbium	164-2	7	30	23	20	60.08	cps
Gadolinium	160-1	10	20	10	13	43.30	cps
Gadolinium	160-2	170	247	177	198	21.47	cps
Holmium	165-1	4666470	4686658	4588159	4647095	1.12	cps
Holmium	165-2	3878196	3879816	3845884	3867965	0.49	cps
Indium	115-1	4063768	3961266	3965073	3996702	1.45	cps
Indium	115-2	1779058	1781630	1742080	1767589	1.25	cps
Iron	56-2	168765	168333	170150	169083	0.56	cps
Iron	57-2	4971	5478	5098	5182	5.09	cps
Iron	54-2	11408	11204	11088	11233	1.44	cps
Krypton	83-1	363	410	413	396	7.07	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	5018	4991	5218	5075	2.44	cps
Lead	207-1	4411	4924	4441	4592	6.28	cps
Lead	208-1	22017	22293	22379	22229	0.85	cps
Lithium	6-1	579335	584245	570551	578044	1.20	cps
Magnesium	24-2	130293	128898	128253	129148	0.81	cps
Manganese	55-2	3714	3657	3917	3763	3.63	cps
Molybdenum	94-1	13416	13453	13610	13493	0.76	cps
Molybdenum	95-1	15682	15835	16036	15851	1.12	cps
Molybdenum	96-1	17724	17667	17964	17785	0.89	cps
Molybdenum	97-1	10090	9977	9697	9921	2.04	cps
Molybdenum	98-1	25122	25599	25249	25323	0.98	cps
Neodymium	150-1	7	0	3	3	100.05	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	1223	1257	1267	1249	1.82	cps
Phosphorus	31-2	2670	2570	2704	2648	2.62	cps
Potassium	39-2	238348	238530	238233	238370	0.06	cps
Rhodium	103-1	3771508	3790685	3755209	3772467	0.47	cps
Rhodium	103-2	2481196	2487706	2536042	2501648	1.20	cps
Scandium	45-1	2302710	2267816	2270772	2280433	0.85	cps
Scandium	45-2	203099	203497	204126	203574	0.25	cps
Selenium	82-1	950	930	926	935	1.37	cps
Selenium	77-2	93	73	110	92	19.91	cps
Selenium	78-2	1280	1180	1287	1249	4.78	cps
Silicon	28-1	1416331	1398807	1395407	1403515	0.80	cps
Silver	107-1	9343	9253	9376	9324	0.68	cps
Silver	109-1	8736	8709	8556	8667	1.12	cps
Sodium	23-2	222917	221552	219888	221452	0.68	cps
Strontium	86-1	2714	2800	2897	2804	3.27	cps
Strontium	88-1	18855	18839	19209	18968	1.10	cps
Sulfur	34-1	122136	121821	122969	122309	0.49	cps
Terbium	159-1	4696015	4855075	4715505	4755532	1.82	cps
Terbium	159-2	3890238	3841774	3911812	3881275	0.92	cps
Thallium	203-1	6298	6275	6118	6230	1.57	cps
Thallium	205-1	14938	14895	14521	14785	1.55	cps
Tin	118-1	28041	27850	28004	27965	0.36	cps
Titanium	47-1	4151	4197	4284	4211	1.61	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CRI	Instrumnet Name :	P7
Client Sample ID :	CRI	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:11:35	DataFile Name :	026LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	17625	17785	17575	17662	0.62	cps
Vanadium	51-2	12265	12435	12062	12254	1.53	cps
Yttrium	89-1	6830244	6797575	6896952	6841591	0.74	cps
Yttrium	89-2	2216535	2202954	2164188	2194559	1.24	cps
Zinc	66-2	3894	4001	4097	3997	2.55	cps
Zirconium	90-1	11755	12272	12052	12026	2.16	cps
Zirconium	91-1	2700	2780	2647	2709	2.48	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	520	547	443	503	10.66	cps
Antimony	121-1	57	33	67	52	32.76	cps
Arsenic	75-2	13	30	30	24	39.37	cps
Barium	135-1	67	63	67	66	2.94	cps
Barium	137-1	80	87	127	98	25.81	cps
Beryllium	9-1	90	83	80	84	6.03	cps
Bismuth	209-1	2938051	2929351	2946521	2937975	0.29	cps
Bismuth	209-2	2803543	2833804	2792408	2809918	0.76	cps
Bromine	81-1	33201	34086	33521	33603	1.33	cps
Bromine	81-2	337	360	347	348	3.37	cps
Cadmium	108-1	13	10	7	10	33.30	cps
Cadmium	106-1	1560	1450	1357	1456	6.99	cps
Cadmium	111-1	1179	1078	1008	1089	7.90	cps
Calcium	43-1	433	430	477	447	5.83	cps
Calcium	44-1	12095	12089	11918	12034	0.83	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	557	497	523	526	5.72	cps
Cobalt	59-2	160	160	133	151	10.19	cps
Copper	63-2	3540	3417	3630	3529	3.04	cps
Dysprosium	156-1	3	7	10	7	50.03	cps
Dysprosium	156-2	0	7	3	3	100.05	cps
Erbium	164-1	17	17	27	20	28.86	cps
Erbium	164-2	20	20	20	20	0.00	cps
Gadolinium	160-1	37	27	20	28	30.20	cps
Gadolinium	160-2	220	207	200	209	4.87	cps
Holmium	165-1	4683474	4675830	4698133	4685812	0.24	cps
Holmium	165-2	3851241	3923928	3943220	3906129	1.24	cps
Indium	115-1	4073632	4073818	3984537	4043996	1.27	cps
Indium	115-2	1760428	1789580	1796001	1782003	1.06	cps
Iron	56-2	28571	28644	28824	28680	0.46	cps
Iron	57-2	1313	1320	1357	1330	1.75	cps
Iron	54-2	3737	3547	3597	3627	2.72	cps
Krypton	83-1	440	437	427	434	1.60	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1253	1320	1287	1287	2.59	cps
Lead	207-1	1117	1103	1063	1095	2.54	cps
Lead	208-1	5166	5104	4981	5084	1.85	cps
Lithium	6-1	584219	584012	577367	581866	0.67	cps
Magnesium	24-2	353	380	393	376	5.42	cps
Manganese	55-2	1367	1277	1353	1332	3.65	cps
Molybdenum	94-1	160	180	220	187	16.37	cps
Molybdenum	95-1	107	123	100	110	10.93	cps
Molybdenum	96-1	170	267	287	241	25.88	cps
Molybdenum	97-1	53	53	53	53	0.00	cps
Molybdenum	98-1	133	133	133	133	0.00	cps
Neodymium	150-1	0	0	0	0	0.00	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	257	300	330	296	12.48	cps
Phosphorus	31-2	263	233	277	258	8.61	cps
Potassium	39-2	57482	57552	57455	57496	0.09	cps
Rhodium	103-1	3812634	3782105	3786913	3793884	0.43	cps
Rhodium	103-2	2509514	2562535	2512514	2528188	1.18	cps
Scandium	45-1	2318252	2283217	2319709	2307059	0.90	cps
Scandium	45-2	208522	205893	205073	206496	0.87	cps
Selenium	82-1	183	186	199	189	4.53	cps
Selenium	77-2	3	3	7	4	43.40	cps
Selenium	78-2	1023	973	1070	1022	4.73	cps
Silicon	28-1	1415239	1392633	1415370	1407747	0.93	cps
Silver	107-1	43	70	77	63	27.85	cps
Silver	109-1	27	40	37	34	20.14	cps
Sodium	23-2	16666	16629	16729	16675	0.30	cps
Strontium	86-1	623	663	660	649	3.42	cps
Strontium	88-1	193	213	210	206	5.21	cps
Sulfur	34-1	118374	118958	119119	118817	0.33	cps
Terbium	159-1	4820262	4799157	4785769	4801730	0.36	cps
Terbium	159-2	3828198	3998750	3921332	3916094	2.18	cps
Thallium	203-1	537	440	543	507	11.41	cps
Thallium	205-1	1053	1200	1140	1131	6.52	cps
Tin	118-1	1300	1227	1110	1212	7.91	cps
Titanium	47-1	53	47	73	58	24.02	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BL	Instrumnet Name :	P7
Client Sample ID :	PB167118BL	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:18:25	DataFile Name :	028CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	350	437	347	378	13.51	cps
Vanadium	51-2	30	60	70	53	39.03	cps
Yttrium	89-1	6932800	6794820	6835673	6854431	1.03	cps
Yttrium	89-2	2173627	2168085	2190614	2177442	0.54	cps
Zinc	66-2	683	687	660	677	2.15	cps
Zirconium	90-1	350	293	360	334	10.75	cps
Zirconium	91-1	87	67	90	81	15.56	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1824757	1755292	1820277	1800109	2.16	cps
Antimony	121-1	3377392	3328318	3340505	3348738	0.76	cps
Arsenic	75-2	208132	204479	206705	206439	0.89	cps
Barium	135-1	4433331	4438232	4452070	4441211	0.22	cps
Barium	137-1	7600054	7657264	7699992	7652437	0.66	cps
Beryllium	9-1	465152	463795	469847	466265	0.68	cps
Bismuth	209-1	2969019	2895927	2932640	2932529	1.25	cps
Bismuth	209-2	2754760	2728854	2727392	2737002	0.56	cps
Bromine	81-1	34621	35055	33458	34378	2.40	cps
Bromine	81-2	507	570	533	537	5.93	cps
Cadmium	108-1	65286	66210	64975	65490	0.98	cps
Cadmium	106-1	93961	93713	94357	94010	0.35	cps
Cadmium	111-1	905161	910122	908903	908062	0.28	cps
Calcium	43-1	916356	912107	903085	910516	0.74	cps
Calcium	44-1	16111572	16170494	15840777	16040948	1.10	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1610040	1640675	1627153	1625956	0.94	cps
Cobalt	59-2	2546303	2518690	2516764	2527252	0.65	cps
Copper	63-2	19028976	18893749	18762250	18894992	0.71	cps
Dysprosium	156-1	50	77	43	57	31.13	cps
Dysprosium	156-2	177	213	190	193	9.60	cps
Erbium	164-1	30	37	73	47	49.99	cps
Erbium	164-2	60	73	67	67	10.00	cps
Gadolinium	160-1	43	37	43	41	9.35	cps
Gadolinium	160-2	223	200	207	210	5.72	cps
Holmium	165-1	4772670	4837427	4829935	4813344	0.74	cps
Holmium	165-2	3972405	3989200	3915922	3959175	0.97	cps
Indium	115-1	3973864	3932565	3926720	3944383	0.65	cps
Indium	115-2	1741969	1699387	1710143	1717166	1.29	cps
Iron	56-2	78597469	75624209	77016662	77079447	1.93	cps
Iron	57-2	1939981	1884703	1961004	1928563	2.04	cps
Iron	54-2	4347586	4289199	4284133	4306973	0.82	cps
Krypton	83-1	473	433	437	448	4.96	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	13045995	12901339	12958386	12968573	0.56	cps
Lead	207-1	11484024	11793535	11621328	11632962	1.33	cps
Lead	208-1	53175928	53559704	53558607	53431413	0.41	cps
Lithium	6-1	600664	595851	599093	598536	0.41	cps
Magnesium	24-2	15215632	15006357	15070030	15097340	0.71	cps
Manganese	55-2	15083296	14667584	14517163	14756014	1.99	cps
Molybdenum	94-1	12771685	12610355	12687209	12689750	0.64	cps
Molybdenum	95-1	18274030	18273867	18272047	18273315	0.01	cps
Molybdenum	96-1	19744850	19621760	19797697	19721436	0.46	cps
Molybdenum	97-1	11320472	11196397	11257877	11258249	0.55	cps
Molybdenum	98-1	29430730	28696919	29271121	29132923	1.32	cps
Neodymium	150-1	233	170	193	199	16.11	cps
Neodymium	150-2	70	57	83	70	19.04	cps
Nickel	60-2	581296	581695	576983	579991	0.45	cps
Phosphorus	31-2	96404	93755	95271	95143	1.40	cps
Potassium	39-2	10225773	10128526	10266480	10206926	0.69	cps
Rhodium	103-1	3830196	3747191	3719838	3765742	1.53	cps
Rhodium	103-2	2513707	2434527	2409595	2452610	2.22	cps
Scandium	45-1	2350540	2288094	2232136	2290257	2.59	cps
Scandium	45-2	211773	204225	201746	205914	2.54	cps
Selenium	82-1	71808	71466	72230	71834	0.53	cps
Selenium	77-2	8943	9039	8779	8921	1.47	cps
Selenium	78-2	31447	30912	30381	30913	1.72	cps
Silicon	28-1	7107449	7038469	6958557	7034825	1.06	cps
Silver	107-1	4951350	4962903	4940553	4951602	0.23	cps
Silver	109-1	4706856	4721437	4653818	4694037	0.76	cps
Sodium	23-2	24267472	24197583	24098489	24187848	0.35	cps
Strontium	86-1	1060149	1060270	1058043	1059487	0.12	cps
Strontium	88-1	10430359	10392817	10518361	10447179	0.62	cps
Sulfur	34-1	395220	389159	389254	391211	0.89	cps
Terbium	159-1	4900083	4922428	4824468	4882327	1.05	cps
Terbium	159-2	3967974	4010467	3858129	3945523	1.99	cps
Thallium	203-1	3334637	3382717	3399126	3372160	0.99	cps
Thallium	205-1	7801924	7889494	7869315	7853578	0.58	cps
Tin	118-1	3035981	2957244	2952131	2981785	1.58	cps
Titanium	47-1	4680285	4666996	4683445	4676909	0.19	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	PB167118BS	Instrumnet Name :	P7
Client Sample ID :	PB167118BS	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:21:43	DataFile Name :	029LCS6.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10413277	10358673	10472754	10414901	0.55	cps
Vanadium	51-2	1403457	1400930	1429343	1411243	1.11	cps
Yttrium	89-1	7028020	6940870	6914868	6961253	0.85	cps
Yttrium	89-2	2251763	2156099	2128177	2178679	2.97	cps
Zinc	66-2	3776106	3751349	3705397	3744284	0.96	cps
Zirconium	90-1	6351854	6249048	6105582	6235494	1.98	cps
Zirconium	91-1	1383220	1407864	1252867	1347984	6.18	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9653	10617	9937	10069	4.92	cps
Antimony	121-1	603	650	700	651	7.43	cps
Arsenic	75-2	300	293	267	287	6.15	cps
Barium	135-1	115547	113360	115285	114731	1.04	cps
Barium	137-1	198536	198232	199559	198776	0.35	cps
Beryllium	9-1	170	140	230	180	25.46	cps
Bismuth	209-1	3210438	3187587	3113829	3170618	1.59	cps
Bismuth	209-2	3075577	3019342	3004899	3033273	1.23	cps
Bromine	81-1	45958	51346	53610	50305	7.81	cps
Bromine	81-2	5641	5554	5311	5502	3.11	cps
Cadmium	108-1	23	17	20	20	16.65	cps
Cadmium	106-1	1497	1680	1577	1585	5.80	cps
Cadmium	111-1	1268	1328	1320	1305	2.48	cps
Calcium	43-1	142198	141614	141544	141785	0.25	cps
Calcium	44-1	2504788	2561144	2570815	2545583	1.40	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5181	5064	5291	5179	2.19	cps
Cobalt	59-2	24487	24730	24750	24656	0.60	cps
Copper	63-2	10994	10814	10807	10872	0.97	cps
Dysprosium	156-1	3417	3470	3284	3390	2.84	cps
Dysprosium	156-2	3420	3090	3170	3227	5.34	cps
Erbium	164-1	4047	3981	4057	4028	1.03	cps
Erbium	164-2	3317	3364	3424	3368	1.59	cps
Gadolinium	160-1	3881	3787	3971	3879	2.36	cps
Gadolinium	160-2	3590	3607	3594	3597	0.25	cps
Holmium	165-1	5128214	5080042	4999863	5069373	1.28	cps
Holmium	165-2	4209244	4136042	4210388	4185224	1.02	cps
Indium	115-1	4322668	4415765	4335321	4357918	1.16	cps
Indium	115-2	1913534	1886079	1896954	1898856	0.73	cps
Iron	56-2	62021381	61725362	61439291	61728678	0.47	cps
Iron	57-2	1541800	1529566	1551139	1540835	0.70	cps
Iron	54-2	3417600	3353493	3390810	3387301	0.95	cps
Krypton	83-1	380	403	377	387	3.76	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3090	3054	3020	3055	1.15	cps
Lead	207-1	2750	2717	2604	2690	2.86	cps
Lead	208-1	12466	12035	12147	12216	1.83	cps
Lithium	6-1	640039	638410	627282	635244	1.09	cps
Magnesium	24-2	885370	878155	876684	880070	0.53	cps
Manganese	55-2	428042	418997	424035	423691	1.07	cps
Molybdenum	94-1	1427	1207	1267	1300	8.76	cps
Molybdenum	95-1	1313	1303	1380	1332	3.13	cps
Molybdenum	96-1	2974	3010	3080	3021	1.79	cps
Molybdenum	97-1	780	770	847	799	5.22	cps
Molybdenum	98-1	2094	2017	2003	2038	2.38	cps
Neodymium	150-1	4321	4391	4397	4370	0.97	cps
Neodymium	150-2	3217	3440	3130	3263	4.90	cps
Nickel	60-2	3264	3310	3334	3303	1.08	cps
Phosphorus	31-2	383	437	383	401	7.68	cps
Potassium	39-2	590355	581957	585652	585988	0.72	cps
Rhodium	103-1	4114039	4102372	4077019	4097810	0.46	cps
Rhodium	103-2	2749196	2643698	2749670	2714188	2.25	cps
Scandium	45-1	2484094	2450096	2463759	2465983	0.69	cps
Scandium	45-2	220494	219647	220113	220085	0.19	cps
Selenium	82-1	371	318	336	342	7.80	cps
Selenium	77-2	0	17	10	9	94.38	cps
Selenium	78-2	947	883	943	924	3.86	cps
Silicon	28-1	9796660	9897450	9696963	9797025	1.02	cps
Silver	107-1	187	130	157	158	17.97	cps
Silver	109-1	110	137	113	120	12.11	cps
Sodium	23-2	11345898	11108767	11145288	11199984	1.14	cps
Strontium	86-1	91764	92431	91224	91806	0.66	cps
Strontium	88-1	817001	810109	806409	811173	0.66	cps
Sulfur	34-1	273593	276792	275072	275152	0.58	cps
Terbium	159-1	5098275	5248115	5251589	5199326	1.68	cps
Terbium	159-2	4166842	4175010	4188961	4176937	0.27	cps
Thallium	203-1	873	750	680	768	12.75	cps
Thallium	205-1	1707	1697	1617	1673	2.95	cps
Tin	118-1	2177	2187	2334	2232	3.93	cps
Titanium	47-1	523	477	570	523	8.92	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-01	Instrumnet Name :	P7
Client Sample ID :	TAPIAL3-MW03D-03102	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:24:26	DataFile Name :	030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	2527	2294	2414	2411	4.84	cps
Vanadium	51-2	463	420	510	464	9.69	cps
Yttrium	89-1	7625130	7567356	7487557	7560014	0.91	cps
Yttrium	89-2	2382162	2335147	2377223	2364844	1.09	cps
Zinc	66-2	8019	7719	7545	7761	3.09	cps
Zirconium	90-1	917	940	1110	989	10.67	cps
Zirconium	91-1	300	263	227	263	13.92	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	14079	13490	12743	13437	4.99	cps
Antimony	121-1	237	243	277	252	8.50	cps
Arsenic	75-2	7425	7459	7479	7454	0.36	cps
Barium	135-1	28091	26742	27453	27429	2.46	cps
Barium	137-1	47191	46864	46931	46995	0.37	cps
Beryllium	9-1	93	80	113	96	17.56	cps
Bismuth	209-1	3205360	3112435	3061195	3126330	2.34	cps
Bismuth	209-2	2912223	3026439	2995534	2978065	1.98	cps
Bromine	81-1	41886	42468	42501	42285	0.82	cps
Bromine	81-2	1993	1887	1913	1931	2.87	cps
Cadmium	108-1	3	10	17	10	66.70	cps
Cadmium	106-1	1747	1703	1647	1699	2.95	cps
Cadmium	111-1	1317	1265	1208	1263	4.33	cps
Calcium	43-1	40979	40561	39374	40305	2.06	cps
Calcium	44-1	682454	681378	675038	679623	0.59	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2737	2824	2707	2756	2.20	cps
Cobalt	59-2	420	447	433	433	3.08	cps
Copper	63-2	5915	5491	6155	5853	5.74	cps
Dysprosium	156-1	220	187	250	219	14.47	cps
Dysprosium	156-2	200	237	233	223	9.08	cps
Erbium	164-1	197	193	233	208	10.68	cps
Erbium	164-2	173	213	203	197	10.58	cps
Gadolinium	160-1	290	220	247	252	14.01	cps
Gadolinium	160-2	343	383	423	383	10.43	cps
Holmium	165-1	5157418	5118053	4998871	5091448	1.62	cps
Holmium	165-2	4146755	4151197	4187455	4161802	0.54	cps
Indium	115-1	4436732	4370289	4266775	4357932	1.97	cps
Indium	115-2	1869735	1864799	1893627	1876053	0.82	cps
Iron	56-2	73589622	73087011	73720731	73465788	0.46	cps
Iron	57-2	1838048	1846089	1828012	1837383	0.49	cps
Iron	54-2	4079457	4030517	4036739	4048904	0.66	cps
Krypton	83-1	410	403	470	428	8.58	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3567	3537	3987	3697	6.81	cps
Lead	207-1	3440	3364	3140	3315	4.70	cps
Lead	208-1	15459	15197	15048	15235	1.37	cps
Lithium	6-1	619607	615293	617411	617437	0.35	cps
Magnesium	24-2	153375	153727	151279	152794	0.87	cps
Manganese	55-2	218541	217155	217879	217858	0.32	cps
Molybdenum	94-1	2094	2080	1873	2016	6.12	cps
Molybdenum	95-1	1613	1617	1663	1631	1.71	cps
Molybdenum	96-1	3927	3884	3761	3857	2.24	cps
Molybdenum	97-1	1107	937	877	973	12.26	cps
Molybdenum	98-1	2737	2500	2494	2577	5.38	cps
Neodymium	150-1	397	487	403	429	11.69	cps
Neodymium	150-2	313	237	303	284	14.65	cps
Nickel	60-2	647	783	767	732	10.18	cps
Phosphorus	31-2	377	457	420	418	9.59	cps
Potassium	39-2	412214	413371	413585	413057	0.18	cps
Rhodium	103-1	4199220	4093933	4076738	4123297	1.61	cps
Rhodium	103-2	2709141	2708351	2660313	2692602	1.04	cps
Scandium	45-1	2522632	2479805	2411823	2471420	2.26	cps
Scandium	45-2	219227	219095	220921	219748	0.46	cps
Selenium	82-1	317	309	228	285	17.47	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	867	933	923	908	3.96	cps
Silicon	28-1	18253774	18543772	18408612	18402053	0.79	cps
Silver	107-1	70	97	113	93	23.42	cps
Silver	109-1	63	103	123	97	31.61	cps
Sodium	23-2	2001732	1958484	2019216	1993144	1.57	cps
Strontium	86-1	108026	107573	106270	107290	0.85	cps
Strontium	88-1	966047	955206	938387	953214	1.46	cps
Sulfur	34-1	119543	120147	124576	121422	2.26	cps
Terbium	159-1	5248434	5232042	5165177	5215218	0.85	cps
Terbium	159-2	4179234	4156608	4154411	4163418	0.33	cps
Thallium	203-1	537	573	547	552	3.43	cps
Thallium	205-1	1190	1233	1313	1246	5.02	cps
Tin	118-1	5661	6045	5581	5762	4.30	cps
Titanium	47-1	1527	1360	1453	1447	5.77	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:27:40	DataFile Name :	031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1120	1037	1000	1052	5.84	cps
Vanadium	51-2	1580	1587	1597	1588	0.53	cps
Yttrium	89-1	7557444	7383926	7375302	7438891	1.38	cps
Yttrium	89-2	2354514	2313075	2375674	2347754	1.36	cps
Zinc	66-2	2300	2467	2047	2271	9.31	cps
Zirconium	90-1	2807	3000	2880	2896	3.37	cps
Zirconium	91-1	627	613	663	634	4.08	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	19853	16718	14569	17047	15.59	cps
Antimony	121-1	207	200	180	196	7.10	cps
Arsenic	75-2	7165	7289	7629	7361	3.26	cps
Barium	135-1	27630	27457	26839	27308	1.52	cps
Barium	137-1	49017	46717	47245	47660	2.53	cps
Beryllium	9-1	100	113	117	110	8.02	cps
Bismuth	209-1	3194475	3051809	3027896	3091394	2.91	cps
Bismuth	209-2	2940236	2971787	2947333	2953119	0.56	cps
Bromine	81-1	40195	40515	40409	40373	0.40	cps
Bromine	81-2	1503	1513	1617	1545	4.06	cps
Cadmium	108-1	33	33	13	27	43.31	cps
Cadmium	106-1	1683	1693	1667	1681	0.80	cps
Cadmium	111-1	1238	1272	1244	1252	1.44	cps
Calcium	43-1	40969	41567	41841	41459	1.08	cps
Calcium	44-1	683331	680106	681145	681527	0.24	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3054	2924	2807	2928	4.22	cps
Cobalt	59-2	490	413	377	427	13.55	cps
Copper	63-2	5368	5311	5291	5323	0.75	cps
Dysprosium	156-1	160	260	253	224	24.91	cps
Dysprosium	156-2	267	333	257	286	14.60	cps
Erbium	164-1	183	253	197	211	17.61	cps
Erbium	164-2	170	163	190	174	7.95	cps
Gadolinium	160-1	267	217	253	246	10.54	cps
Gadolinium	160-2	343	397	407	382	8.91	cps
Holmium	165-1	5051962	5049179	4955751	5018964	1.09	cps
Holmium	165-2	4209511	3978200	4090195	4092635	2.83	cps
Indium	115-1	4339082	4360107	4242595	4313928	1.45	cps
Indium	115-2	1866774	1849755	1876003	1864177	0.71	cps
Iron	56-2	73748259	72363554	72444222	72852012	1.07	cps
Iron	57-2	1816297	1827613	1811758	1818556	0.45	cps
Iron	54-2	3986917	4048240	4000471	4011876	0.80	cps
Krypton	83-1	450	417	430	432	3.88	cps

Reviewed By:jaswal
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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3771	3797	3824	3797	0.70	cps
Lead	207-1	3541	3277	3277	3365	4.53	cps
Lead	208-1	15181	15071	15404	15219	1.12	cps
Lithium	6-1	621761	616440	616279	618160	0.50	cps
Magnesium	24-2	150973	153070	152138	152060	0.69	cps
Manganese	55-2	218734	216495	215563	216931	0.75	cps
Molybdenum	94-1	2124	1957	2257	2112	7.12	cps
Molybdenum	95-1	1513	1547	1420	1493	4.40	cps
Molybdenum	96-1	3911	3941	3761	3871	2.49	cps
Molybdenum	97-1	1180	1130	1080	1130	4.43	cps
Molybdenum	98-1	2557	2540	2357	2485	4.47	cps
Neodymium	150-1	417	343	367	376	9.98	cps
Neodymium	150-2	297	313	320	310	3.88	cps
Nickel	60-2	623	530	650	601	10.48	cps
Phosphorus	31-2	457	430	403	430	6.20	cps
Potassium	39-2	417287	419414	417861	418187	0.26	cps
Rhodium	103-1	4120742	4105653	4103144	4109846	0.23	cps
Rhodium	103-2	2690420	2621170	2629644	2647078	1.43	cps
Scandium	45-1	2515429	2492992	2502480	2503634	0.45	cps
Scandium	45-2	219110	218393	219923	219142	0.35	cps
Selenium	82-1	297	372	384	351	13.44	cps
Selenium	77-2	0	0	7	2	173.21	cps
Selenium	78-2	993	1047	913	984	6.82	cps
Silicon	28-1	18975649	18525853	18935346	18812283	1.32	cps
Silver	107-1	83	117	50	83	40.00	cps
Silver	109-1	117	83	53	84	37.52	cps
Sodium	23-2	1964430	2055175	1987629	2002411	2.35	cps
Strontium	86-1	109691	108331	107701	108574	0.94	cps
Strontium	88-1	963482	957986	944744	955404	1.01	cps
Sulfur	34-1	127234	128562	131379	129058	1.64	cps
Terbium	159-1	5166942	5208064	5125107	5166704	0.80	cps
Terbium	159-2	4131973	4049222	4022409	4067868	1.40	cps
Thallium	203-1	487	487	547	507	6.84	cps
Thallium	205-1	910	1040	1137	1029	11.06	cps
Tin	118-1	5985	5624	5958	5856	3.43	cps
Titanium	47-1	2027	3264	2067	2453	28.65	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:30:53	DataFile Name :	032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1007	913	977	966	4.93	cps
Vanadium	51-2	1627	1543	1710	1627	5.12	cps
Yttrium	89-1	7540963	7549489	7423360	7504604	0.94	cps
Yttrium	89-2	2340853	2353650	2335001	2343168	0.41	cps
Zinc	66-2	1907	1877	1903	1896	0.87	cps
Zirconium	90-1	2964	2734	2874	2857	4.06	cps
Zirconium	91-1	1024	824	700	849	19.25	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	61962	57352	50489	56601	10.20	cps
Antimony	121-1	93	117	93	101	13.33	cps
Arsenic	75-2	1417	1530	1453	1467	3.94	cps
Barium	135-1	6408	5855	6188	6150	4.53	cps
Barium	137-1	10050	13745	9763	11186	19.85	cps
Beryllium	9-1	53	93	70	72	27.82	cps
Bismuth	209-1	2903128	2870120	2948686	2907312	1.36	cps
Bismuth	209-2	2818715	2781316	2853408	2817813	1.28	cps
Bromine	81-1	35586	35907	36418	35971	1.17	cps
Bromine	81-2	570	647	700	639	10.23	cps
Cadmium	108-1	27	20	13	20	33.35	cps
Cadmium	106-1	1500	1417	1443	1453	2.93	cps
Cadmium	111-1	1095	1058	1068	1073	1.78	cps
Calcium	43-1	8006	8016	8019	8013	0.09	cps
Calcium	44-1	134709	134850	133632	134397	0.50	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1743	1847	1590	1727	7.48	cps
Cobalt	59-2	237	270	227	244	9.28	cps
Copper	63-2	3717	3537	3714	3656	2.82	cps
Dysprosium	156-1	70	90	70	77	15.06	cps
Dysprosium	156-2	110	233	123	156	43.52	cps
Erbium	164-1	57	167	90	104	54.01	cps
Erbium	164-2	183	70	77	110	57.82	cps
Gadolinium	160-1	93	117	93	101	13.32	cps
Gadolinium	160-2	220	240	257	239	7.69	cps
Holmium	165-1	4740663	4667137	4760203	4722668	1.04	cps
Holmium	165-2	3894552	3849353	3929437	3891114	1.03	cps
Indium	115-1	4054280	4095287	4027469	4059012	0.84	cps
Indium	115-2	1791422	1782525	1835604	1803184	1.58	cps
Iron	56-2	13811809	13463819	13955029	13743552	1.84	cps
Iron	57-2	316615	317580	318700	317632	0.33	cps
Iron	54-2	700164	699908	697381	699151	0.22	cps
Krypton	83-1	477	470	453	467	2.57	cps

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Inst Id :P7
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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2020	2054	1803	1959	6.93	cps
Lead	207-1	1984	1580	1617	1727	12.93	cps
Lead	208-1	8023	7477	7191	7564	5.59	cps
Lithium	6-1	574970	580936	571843	575917	0.80	cps
Magnesium	24-2	30240	30200	29545	29995	1.30	cps
Manganese	55-2	43453	43088	43359	43300	0.44	cps
Molybdenum	94-1	4862	1624	6008	4165	54.59	cps
Molybdenum	95-1	567	533	563	554	3.31	cps
Molybdenum	96-1	1100	1263	1675	1346	21.99	cps
Molybdenum	97-1	260	340	273	291	14.72	cps
Molybdenum	98-1	790	777	763	777	1.72	cps
Neodymium	150-1	100	120	117	112	9.55	cps
Neodymium	150-2	180	223	107	170	34.70	cps
Nickel	60-2	600	493	483	526	12.30	cps
Phosphorus	31-2	400	307	337	348	13.70	cps
Potassium	39-2	146329	146362	137877	143522	3.41	cps
Rhodium	103-1	3864269	3905833	3863620	3877907	0.62	cps
Rhodium	103-2	2613223	2572904	2573711	2586613	0.89	cps
Scandium	45-1	2325455	2367791	2347779	2347009	0.90	cps
Scandium	45-2	207891	211489	211648	210343	1.01	cps
Selenium	82-1	185	207	190	194	5.78	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	1087	980	1023	1030	5.21	cps
Silicon	28-1	9429004	5779915	6004666	7071195	28.92	cps
Silver	107-1	70	73	67	70	4.76	cps
Silver	109-1	63	43	67	58	21.85	cps
Sodium	23-2	332474	330907	332912	332098	0.32	cps
Strontium	86-1	20488	20378	20040	20302	1.15	cps
Strontium	88-1	174286	172523	172787	173199	0.55	cps
Sulfur	34-1	115848	117158	115667	116224	0.70	cps
Terbium	159-1	4778277	4847883	4860708	4828956	0.92	cps
Terbium	159-2	3941330	3932598	3944466	3939465	0.16	cps
Thallium	203-1	410	403	367	393	5.93	cps
Thallium	205-1	987	997	997	993	0.58	cps
Tin	118-1	2367	2260	2320	2316	2.31	cps
Titanium	47-1	7053	8027	9151	8077	13.00	cps

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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:34:08	DataFile Name :	033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	637	587	663	629	6.19	cps
Vanadium	51-2	1070	1307	1283	1220	10.69	cps
Yttrium	89-1	6934268	6993379	6969659	6965769	0.43	cps
Yttrium	89-2	2248127	2201357	2219419	2222968	1.06	cps
Zinc	66-2	2570	2634	2670	2625	1.93	cps
Zirconium	90-1	3118	4933	2847	3633	31.22	cps
Zirconium	91-1	5406	887	657	2316	115.60	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1671650	1694406	1663846	1676634	0.95	cps
Antimony	121-1	3405281	3411784	3245690	3354252	2.80	cps
Arsenic	75-2	7168	7058	6815	7014	2.58	cps
Barium	135-1	4125873	4046425	4004084	4058794	1.52	cps
Barium	137-1	7010049	6850433	6872433	6910972	1.25	cps
Beryllium	9-1	475699	465884	466873	469486	1.15	cps
Bismuth	209-1	3103423	3016345	3053849	3057872	1.43	cps
Bismuth	209-2	2810390	2973077	2910621	2898029	2.83	cps
Bromine	81-1	38380	38664	39329	38791	1.26	cps
Bromine	81-2	2034	1977	1843	1951	5.00	cps
Cadmium	108-1	62979	63388	61356	62574	1.72	cps
Cadmium	106-1	93800	92066	90754	92207	1.66	cps
Cadmium	111-1	894752	888962	874511	886075	1.18	cps
Calcium	43-1	929591	922146	901462	917733	1.59	cps
Calcium	44-1	16434075	16307087	15943033	16228065	1.57	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1546117	1544754	1502634	1531168	1.61	cps
Cobalt	59-2	2473485	2510067	2437940	2473830	1.46	cps
Copper	63-2	16686634	16530288	16483992	16566971	0.64	cps
Dysprosium	156-1	353	340	360	351	2.90	cps
Dysprosium	156-2	473	470	403	449	8.80	cps
Erbium	164-1	233	253	240	242	4.20	cps
Erbium	164-2	213	137	197	182	22.13	cps
Gadolinium	160-1	323	303	307	311	3.44	cps
Gadolinium	160-2	403	487	440	443	9.42	cps
Holmium	165-1	5050951	5085646	4945095	5027231	1.46	cps
Holmium	165-2	4180611	4173291	4130018	4161307	0.66	cps
Indium	115-1	4296924	4209702	4045819	4184148	3.05	cps
Indium	115-2	1759827	1785935	1741508	1762423	1.27	cps
Iron	56-2	133538578	133376391	131736925	132883965	0.75	cps
Iron	57-2	3362363	3304584	3350341	3339096	0.91	cps
Iron	54-2	7520258	7429847	7251702	7400602	1.85	cps
Krypton	83-1	440	440	513	464	9.12	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12971233	12956945	12810346	12912841	0.69	cps
Lead	207-1	11798614	11574714	11305375	11559568	2.14	cps
Lead	208-1	53497055	52621697	52154119	52757624	1.29	cps
Lithium	6-1	635758	629529	626317	630534	0.76	cps
Magnesium	24-2	14594691	14745251	14388175	14576039	1.23	cps
Manganese	55-2	13352039	13298782	13069321	13240047	1.13	cps
Molybdenum	94-1	6081163	6016226	5896343	5997911	1.56	cps
Molybdenum	95-1	6563801	6443319	6343061	6450060	1.71	cps
Molybdenum	96-1	7452508	7377867	7298679	7376351	1.04	cps
Molybdenum	97-1	4139664	4080942	3953766	4058124	2.34	cps
Molybdenum	98-1	10516149	10518302	10178661	10404371	1.88	cps
Neodymium	150-1	543	597	493	544	9.49	cps
Neodymium	150-2	343	317	607	422	37.99	cps
Nickel	60-2	558530	554387	548169	553695	0.94	cps
Phosphorus	31-2	413	410	420	414	1.23	cps
Potassium	39-2	9293940	9279606	9291672	9288406	0.08	cps
Rhodium	103-1	4104565	3983276	3977609	4021817	1.78	cps
Rhodium	103-2	2573887	2603696	2513479	2563687	1.79	cps
Scandium	45-1	2531377	2460550	2442822	2478250	1.89	cps
Scandium	45-2	215889	217307	217180	216792	0.36	cps
Selenium	82-1	72447	71935	70879	71754	1.11	cps
Selenium	77-2	9056	9106	8759	8974	2.09	cps
Selenium	78-2	30234	30511	30214	30320	0.55	cps
Silicon	28-1	17907516	17765356	17497370	17723414	1.18	cps
Silver	107-1	700323	692328	675112	689255	1.87	cps
Silver	109-1	654082	645041	635231	644785	1.46	cps
Sodium	23-2	24963516	25035101	24191281	24729966	1.89	cps
Strontium	86-1	1553675	1534794	1472590	1520353	2.79	cps
Strontium	88-1	13601237	13488727	13362898	13484287	0.88	cps
Sulfur	34-1	137384	137710	135410	136835	0.91	cps
Terbium	159-1	5204440	5194300	5066635	5155125	1.49	cps
Terbium	159-2	4072187	4163593	4135371	4123717	1.14	cps
Thallium	203-1	3193769	3307338	3162160	3221089	2.37	cps
Thallium	205-1	7678247	7590802	7534999	7601349	0.95	cps
Tin	118-1	2714787	2717435	2638515	2690246	1.67	cps
Titanium	47-1	2950	4958	6323	4744	35.76	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:37:24	DataFile Name :	034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10288381	10141425	10149197	10193001	0.81	cps
Vanadium	51-2	1386802	1399264	1383946	1390004	0.59	cps
Yttrium	89-1	7456828	7322451	7262345	7347208	1.36	cps
Yttrium	89-2	2277275	2281269	2329605	2296050	1.27	cps
Zinc	66-2	3354660	3344784	3218662	3306035	2.29	cps
Zirconium	90-1	6249578	6150821	6080222	6160207	1.38	cps
Zirconium	91-1	1411854	1385630	1213222	1336902	8.07	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1819596	1788275	1746481	1784784	2.06	cps
Antimony	121-1	3348083	3349230	3306678	3334663	0.73	cps
Arsenic	75-2	6912	7125	7032	7023	1.52	cps
Barium	135-1	4001210	3975673	3933793	3970225	0.86	cps
Barium	137-1	6803579	6813196	6853271	6823349	0.39	cps
Beryllium	9-1	475610	465767	467394	469590	1.12	cps
Bismuth	209-1	3139199	3098033	3129584	3122272	0.69	cps
Bismuth	209-2	2958051	2926271	2908560	2930961	0.86	cps
Bromine	81-1	37665	38748	38660	38358	1.57	cps
Bromine	81-2	1887	1900	1893	1893	0.35	cps
Cadmium	108-1	64034	63237	62470	63247	1.24	cps
Cadmium	106-1	91278	91788	91412	91492	0.29	cps
Cadmium	111-1	882581	876654	876393	878543	0.40	cps
Calcium	43-1	909024	905362	905031	906472	0.24	cps
Calcium	44-1	16012140	16019799	16031632	16021190	0.06	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1539059	1520738	1535881	1531892	0.64	cps
Cobalt	59-2	2446349	2439997	2436739	2441028	0.20	cps
Copper	63-2	16846986	16808811	16942191	16865996	0.41	cps
Dysprosium	156-1	453	530	393	459	14.93	cps
Dysprosium	156-2	720	563	627	637	12.38	cps
Erbium	164-1	330	313	303	316	4.27	cps
Erbium	164-2	220	253	1008	494	90.27	cps
Gadolinium	160-1	380	453	330	388	16.00	cps
Gadolinium	160-2	520	380	433	444	15.90	cps
Holmium	165-1	5122266	5093691	5034290	5083416	0.88	cps
Holmium	165-2	4279205	4250363	4315062	4281543	0.76	cps
Indium	115-1	4323619	4124771	4202510	4216967	2.38	cps
Indium	115-2	1847877	1828851	1825855	1834195	0.65	cps
Iron	56-2	135821965	136410225	135075535	135769241	0.49	cps
Iron	57-2	3381760	3339530	3368481	3363257	0.64	cps
Iron	54-2	7489786	7434730	7452179	7458898	0.38	cps
Krypton	83-1	443	387	417	416	6.82	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	13295514	12968434	12963254	13075734	1.46	cps
Lead	207-1	11735566	11617341	11608526	11653811	0.61	cps
Lead	208-1	53493755	53087870	53249205	53276943	0.38	cps
Lithium	6-1	650161	645753	635036	643650	1.21	cps
Magnesium	24-2	14636658	14642917	14759553	14679709	0.47	cps
Manganese	55-2	13460084	13209805	13538599	13402829	1.28	cps
Molybdenum	94-1	12418761	12285621	12377101	12360495	0.55	cps
Molybdenum	95-1	17970815	17728308	17727637	17808920	0.79	cps
Molybdenum	96-1	19409865	19498949	19062554	19323789	1.19	cps
Molybdenum	97-1	11150067	10867599	10919429	10979032	1.37	cps
Molybdenum	98-1	28452561	27716122	28099395	28089359	1.31	cps
Neodymium	150-1	747	807	700	751	7.12	cps
Neodymium	150-2	497	550	737	595	21.21	cps
Nickel	60-2	552788	552354	559243	554795	0.70	cps
Phosphorus	31-2	437	420	427	428	1.96	cps
Potassium	39-2	9557968	9444890	9405870	9469576	0.83	cps
Rhodium	103-1	4073686	4013542	3994628	4027285	1.03	cps
Rhodium	103-2	2618153	2641347	2578448	2612649	1.22	cps
Scandium	45-1	2459527	2433475	2444364	2445789	0.53	cps
Scandium	45-2	219200	219142	220702	219681	0.40	cps
Selenium	82-1	70085	70523	70714	70441	0.46	cps
Selenium	77-2	8866	8879	8473	8739	2.65	cps
Selenium	78-2	30435	29994	31527	30652	2.57	cps
Silicon	28-1	20715955	20386654	21139818	20747476	1.82	cps
Silver	107-1	677065	672411	668370	672616	0.65	cps
Silver	109-1	632783	628652	624840	628758	0.63	cps
Sodium	23-2	24941905	25033746	25246006	25073886	0.62	cps
Strontium	86-1	1564927	1510014	1501032	1525324	2.27	cps
Strontium	88-1	13195248	13325540	13365464	13295417	0.67	cps
Sulfur	34-1	121693	118949	117144	119262	1.92	cps
Terbium	159-1	5341568	5238201	5288035	5289268	0.98	cps
Terbium	159-2	4197448	4222159	4236523	4218710	0.47	cps
Thallium	203-1	3319186	3192520	3213718	3241808	2.09	cps
Thallium	205-1	7734700	7565111	7540133	7613315	1.39	cps
Tin	118-1	2721470	2709017	2729395	2719961	0.38	cps
Titanium	47-1	2791762	2860165	2844679	2832202	1.27	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:40:14	DataFile Name :	035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10369733	10450325	10423475	10414511	0.39	cps
Vanadium	51-2	1405064	1383821	1369443	1386109	1.29	cps
Yttrium	89-1	7490019	7425202	7394587	7436603	0.66	cps
Yttrium	89-2	2320932	2332311	2334023	2329088	0.31	cps
Zinc	66-2	3329077	3367029	3297938	3331348	1.04	cps
Zirconium	90-1	6169207	6064954	6067413	6100525	0.98	cps
Zirconium	91-1	1229203	1215398	1216399	1220334	0.63	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1774521	1697620	1758152	1743431	2.32	cps
Antimony	121-1	3350615	3332872	3368484	3350657	0.53	cps
Arsenic	75-2	7118	7345	7202	7222	1.59	cps
Barium	135-1	4078558	4186252	4124786	4129865	1.31	cps
Barium	137-1	6935797	6975171	6947791	6952919	0.29	cps
Beryllium	9-1	471817	476925	475330	474691	0.55	cps
Bismuth	209-1	3173039	3138325	3215912	3175759	1.22	cps
Bismuth	209-2	3005357	3011913	2979841	2999037	0.56	cps
Bromine	81-1	38109	38995	39957	39020	2.37	cps
Bromine	81-2	2010	1960	2010	1993	1.45	cps
Cadmium	108-1	62611	62310	62450	62457	0.24	cps
Cadmium	106-1	93193	94058	92421	93224	0.88	cps
Cadmium	111-1	890181	908855	893588	897542	1.11	cps
Calcium	43-1	909737	918787	916840	915121	0.52	cps
Calcium	44-1	16042938	16311329	16258404	16204224	0.88	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1625161	1528746	1561640	1571849	3.12	cps
Cobalt	59-2	2526720	2530143	2529304	2528722	0.07	cps
Copper	63-2	17334406	17026106	17215138	17191883	0.90	cps
Dysprosium	156-1	403	367	307	359	13.60	cps
Dysprosium	156-2	467	697	840	668	28.21	cps
Erbium	164-1	240	300	300	280	12.37	cps
Erbium	164-2	373	227	267	289	26.25	cps
Gadolinium	160-1	330	370	313	338	8.62	cps
Gadolinium	160-2	443	437	430	437	1.53	cps
Holmium	165-1	5161898	5129300	5185346	5158848	0.55	cps
Holmium	165-2	4255605	4323584	4221997	4267062	1.21	cps
Indium	115-1	4260712	4276811	4193927	4243817	1.04	cps
Indium	115-2	1850904	1848261	1851172	1850112	0.09	cps
Iron	56-2	140222738	140345408	139214038	139927395	0.44	cps
Iron	57-2	3442222	3467002	3411523	3440249	0.81	cps
Iron	54-2	7794441	7502717	7552965	7616708	2.05	cps
Krypton	83-1	463	450	467	460	1.92	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	13267460	13259418	13263575	13263484	0.03	cps
Lead	207-1	11814859	11942906	11924332	11894032	0.58	cps
Lead	208-1	54314696	54654165	54420613	54463158	0.32	cps
Lithium	6-1	636691	639217	636377	637429	0.24	cps
Magnesium	24-2	14998433	14786320	14817539	14867430	0.77	cps
Manganese	55-2	13795563	13510461	13706942	13670989	1.07	cps
Molybdenum	94-1	6669350	6612428	6627593	6636457	0.44	cps
Molybdenum	95-1	7665226	7643755	7624612	7644531	0.27	cps
Molybdenum	96-1	8479440	8577256	8573350	8543349	0.65	cps
Molybdenum	97-1	4687661	4820089	4724161	4743971	1.44	cps
Molybdenum	98-1	12170872	12252960	11969112	12130982	1.20	cps
Neodymium	150-1	707	653	590	650	8.99	cps
Neodymium	150-2	470	417	487	458	7.99	cps
Nickel	60-2	574357	563801	568467	568875	0.93	cps
Phosphorus	31-2	417	527	427	457	13.32	cps
Potassium	39-2	9606193	9522403	9537048	9555214	0.47	cps
Rhodium	103-1	4005137	4020682	3954696	3993505	0.86	cps
Rhodium	103-2	2644453	2626100	2613257	2627937	0.60	cps
Scandium	45-1	2469533	2477843	2472350	2473242	0.17	cps
Scandium	45-2	222706	221367	220004	221359	0.61	cps
Selenium	82-1	72750	72237	71789	72258	0.67	cps
Selenium	77-2	9283	9100	9306	9230	1.23	cps
Selenium	78-2	31958	31694	31393	31682	0.89	cps
Silicon	28-1	18340072	19009325	18705756	18685051	1.79	cps
Silver	107-1	691235	695084	697722	694680	0.47	cps
Silver	109-1	651889	651223	653055	652056	0.14	cps
Sodium	23-2	25339560	25256018	25469216	25354932	0.42	cps
Strontium	86-1	1554014	1537489	1551507	1547670	0.58	cps
Strontium	88-1	13523552	13584697	13387842	13498697	0.75	cps
Sulfur	34-1	117397	116154	116926	116825	0.54	cps
Terbium	159-1	5292917	5359313	5257710	5303313	0.97	cps
Terbium	159-2	4284085	4229576	4175836	4229832	1.28	cps
Thallium	203-1	3289263	3326016	3305276	3306852	0.56	cps
Thallium	205-1	7600022	7609662	7795071	7668252	1.43	cps
Tin	118-1	2734271	2694756	2757059	2728695	1.16	cps
Titanium	47-1	251806	258624	250006	253479	1.79	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1539-02A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01I-031025-	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:43:01	DataFile Name :	036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10592901	10494876	10714426	10600734	1.04	cps
Vanadium	51-2	1444203	1404321	1403355	1417293	1.64	cps
Yttrium	89-1	7464164	7394978	7486465	7448536	0.64	cps
Yttrium	89-2	2340690	2322383	2350814	2337962	0.62	cps
Zinc	66-2	3398358	3404052	3446649	3416353	0.77	cps
Zirconium	90-1	6082729	6189971	6156864	6143188	0.89	cps
Zirconium	91-1	1242708	1235739	1240332	1239593	0.29	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9567898	9558324	9313963	9480062	1.52	cps
Antimony	121-1	3169201	3205488	3239096	3204595	1.09	cps
Arsenic	75-2	198995	199706	201161	199954	0.55	cps
Barium	135-1	4329138	4317420	4479781	4375446	2.07	cps
Barium	137-1	7424335	7656914	7647259	7576169	1.74	cps
Beryllium	9-1	493391	500839	503294	499175	1.03	cps
Bismuth	209-1	2798569	2799250	2730056	2775958	1.43	cps
Bismuth	209-2	2607910	2578024	2629932	2605289	1.00	cps
Bromine	81-1	34327	34824	34527	34559	0.72	cps
Bromine	81-2	383	333	380	366	7.65	cps
Cadmium	108-1	61379	62226	61567	61724	0.72	cps
Cadmium	106-1	87833	88407	88705	88315	0.50	cps
Cadmium	111-1	836104	845172	851369	844215	0.91	cps
Calcium	43-1	4717669	4686168	4769688	4724508	0.89	cps
Calcium	44-1	77303286	77694651	78795202	77931046	0.99	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1600748	1631700	1622864	1618437	0.99	cps
Cobalt	59-2	2471625	2574245	2488246	2511372	2.19	cps
Copper	63-2	19112020	19088671	19263887	19154859	0.50	cps
Dysprosium	156-1	120	157	93	123	25.78	cps
Dysprosium	156-2	303	277	310	297	5.95	cps
Erbium	164-1	197	137	160	164	18.39	cps
Erbium	164-2	183	103	160	149	27.63	cps
Gadolinium	160-1	137	123	90	117	20.60	cps
Gadolinium	160-2	300	313	253	289	10.91	cps
Holmium	165-1	4781973	4747678	4749508	4759720	0.41	cps
Holmium	165-2	3929151	3994899	3905113	3943054	1.18	cps
Indium	115-1	3773490	3842761	3798597	3804950	0.92	cps
Indium	115-2	1660873	1670726	1654604	1662068	0.49	cps
Iron	56-2	372712221	383602674	376535368	377616754	1.46	cps
Iron	57-2	9459974	9488955	9324728	9424552	0.93	cps
Iron	54-2	21080608	20825760	20435395	20780588	1.56	cps
Krypton	83-1	427	397	483	436	10.10	cps

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12419116	12782063	12534611	12578597	1.47	cps
Lead	207-1	11094131	11228810	11315932	11212957	1.00	cps
Lead	208-1	50938631	51768813	51598395	51435280	0.85	cps
Lithium	6-1	588145	585549	583299	585664	0.41	cps
Magnesium	24-2	75649057	76326749	75598019	75857942	0.54	cps
Manganese	55-2	14836004	14646581	14539960	14674182	1.02	cps
Molybdenum	94-1	12208785	12598618	12697852	12501752	2.07	cps
Molybdenum	95-1	17843121	18266081	18035768	18048323	1.17	cps
Molybdenum	96-1	19581583	19641553	19801291	19674809	0.58	cps
Molybdenum	97-1	11037332	11089654	11209084	11112023	0.79	cps
Molybdenum	98-1	28453715	28567271	28736639	28585875	0.50	cps
Neodymium	150-1	247	260	253	253	2.63	cps
Neodymium	150-2	93	123	103	107	14.33	cps
Nickel	60-2	586858	590574	593749	590394	0.58	cps
Phosphorus	31-2	96237	97035	95740	96337	0.68	cps
Potassium	39-2	51299926	52038099	51992928	51776984	0.80	cps
Rhodium	103-1	3532896	3563968	3583338	3560068	0.71	cps
Rhodium	103-2	2338240	2342714	2345170	2342041	0.15	cps
Scandium	45-1	2272426	2264116	2251797	2262780	0.46	cps
Scandium	45-2	206386	210941	207031	208119	1.18	cps
Selenium	82-1	64026	65330	65261	64872	1.13	cps
Selenium	77-2	8332	8149	8456	8312	1.86	cps
Selenium	78-2	28517	28361	28741	28540	0.67	cps
Silicon	28-1	5467333	5725934	5551098	5581455	2.36	cps
Silver	107-1	4355025	4459495	4406947	4407156	1.19	cps
Silver	109-1	4138744	4287988	4228594	4218442	1.78	cps
Sodium	23-2	120087698	122019545	120120118	120742454	0.92	cps
Strontium	86-1	1027486	1050330	1044116	1040644	1.14	cps
Strontium	88-1	10178483	10328921	10262123	10256509	0.73	cps
Sulfur	34-1	377521	385571	387399	383497	1.37	cps
Terbium	159-1	4823398	4880518	4855375	4853097	0.59	cps
Terbium	159-2	3853791	3934119	3874033	3887315	1.07	cps
Thallium	203-1	3223067	3309670	3259716	3264151	1.33	cps
Thallium	205-1	7578187	7764121	7734071	7692126	1.30	cps
Tin	118-1	2895689	2924777	2990915	2937127	1.66	cps
Titanium	47-1	4573983	4595107	4571263	4580118	0.28	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV02	Instrumnet Name :	P7
Client Sample ID :	CCV02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:45:51	DataFile Name :	037CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10329869	10396049	10482170	10402696	0.73	cps
Vanadium	51-2	1446362	1428525	1448486	1441124	0.76	cps
Yttrium	89-1	6785822	6855741	6824376	6821979	0.51	cps
Yttrium	89-2	2149859	2198667	2176545	2175024	1.12	cps
Zinc	66-2	3687402	3681260	3603292	3657318	1.28	cps
Zirconium	90-1	6182160	6310969	6323922	6272350	1.25	cps
Zirconium	91-1	1221250	1385520	1243636	1283469	6.94	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1243	1213	1183	1213	2.47	cps
Antimony	121-1	240	263	353	286	20.96	cps
Arsenic	75-2	27	30	17	24	28.38	cps
Barium	135-1	113	77	67	86	28.72	cps
Barium	137-1	143	107	107	119	17.81	cps
Beryllium	9-1	100	97	97	98	1.97	cps
Bismuth	209-1	2894221	2970726	2928061	2931003	1.31	cps
Bismuth	209-2	2834137	2795468	2767392	2798999	1.20	cps
Bromine	81-1	34447	32546	32930	33308	3.02	cps
Bromine	81-2	233	270	287	263	10.36	cps
Cadmium	108-1	7	10	30	16	81.11	cps
Cadmium	106-1	1373	1390	1380	1381	0.61	cps
Cadmium	111-1	1053	1086	1032	1057	2.59	cps
Calcium	43-1	367	390	333	363	7.84	cps
Calcium	44-1	11648	11895	11318	11620	2.49	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	490	440	590	507	15.07	cps
Cobalt	59-2	173	187	140	167	14.42	cps
Copper	63-2	3477	3460	3580	3506	1.85	cps
Dysprosium	156-1	0	7	13	7	99.98	cps
Dysprosium	156-2	3	3	0	2	86.60	cps
Erbium	164-1	27	37	30	31	16.37	cps
Erbium	164-2	23	17	13	18	28.64	cps
Gadolinium	160-1	7	13	17	12	41.65	cps
Gadolinium	160-2	157	190	193	180	11.26	cps
Holmium	165-1	4735135	4681758	4733095	4716663	0.64	cps
Holmium	165-2	3878806	3927397	3847009	3884404	1.04	cps
Indium	115-1	3995040	3985608	4074380	4018343	1.21	cps
Indium	115-2	1761836	1741878	1779803	1761172	1.08	cps
Iron	56-2	29442	29813	30124	29793	1.14	cps
Iron	57-2	1410	1380	1457	1416	2.73	cps
Iron	54-2	3560	3514	3647	3574	1.89	cps
Krypton	83-1	403	433	407	414	3.97	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1270	1287	1337	1298	2.67	cps
Lead	207-1	953	1240	1213	1136	13.95	cps
Lead	208-1	5007	5390	5512	5303	4.97	cps
Lithium	6-1	578201	581379	573210	577596	0.71	cps
Magnesium	24-2	600	577	543	573	4.97	cps
Manganese	55-2	1427	1383	1523	1445	4.96	cps
Molybdenum	94-1	250	207	273	243	13.90	cps
Molybdenum	95-1	203	177	157	179	13.09	cps
Molybdenum	96-1	367	310	300	326	11.04	cps
Molybdenum	97-1	123	140	110	124	12.08	cps
Molybdenum	98-1	283	267	220	257	12.79	cps
Neodymium	150-1	0	7	3	3	100.05	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	293	307	307	302	2.55	cps
Phosphorus	31-2	250	223	213	229	8.28	cps
Potassium	39-2	57301	57836	57331	57489	0.52	cps
Rhodium	103-1	3850197	3809476	3761244	3806972	1.17	cps
Rhodium	103-2	2500250	2491495	2496145	2495963	0.18	cps
Scandium	45-1	2294120	2300020	2268558	2287566	0.73	cps
Scandium	45-2	200859	203103	202815	202259	0.60	cps
Selenium	82-1	210	225	227	221	4.06	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	897	823	1030	917	11.43	cps
Silicon	28-1	1385120	1367678	1411515	1388104	1.59	cps
Silver	107-1	317	487	420	408	21.01	cps
Silver	109-1	223	283	373	293	25.74	cps
Sodium	23-2	18855	18541	18067	18488	2.14	cps
Strontium	86-1	783	743	680	736	7.08	cps
Strontium	88-1	283	257	280	273	5.32	cps
Sulfur	34-1	107864	108562	109190	108539	0.61	cps
Terbium	159-1	4806236	4865196	4776324	4815919	0.94	cps
Terbium	159-2	3870071	3865471	3852965	3862836	0.23	cps
Thallium	203-1	843	790	790	808	3.81	cps
Thallium	205-1	1767	1960	1947	1891	5.71	cps
Tin	118-1	1217	1267	1310	1265	3.69	cps
Titanium	47-1	70	53	50	58	18.55	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB02	Instrumnet Name :	P7
Client Sample ID :	CCB02	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 16:53:12	DataFile Name :	038CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	453	450	393	432	7.80	cps
Vanadium	51-2	23	63	60	49	45.40	cps
Yttrium	89-1	6886356	6849497	6931643	6889165	0.60	cps
Yttrium	89-2	2216974	2148718	2173595	2179762	1.58	cps
Zinc	66-2	740	777	703	740	4.95	cps
Zirconium	90-1	507	453	513	491	6.70	cps
Zirconium	91-1	93	123	137	118	18.85	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	14814	14681	14153	14549	2.40	cps
Antimony	121-1	1540	1593	1487	1540	3.46	cps
Arsenic	75-2	33	47	47	42	18.24	cps
Barium	135-1	20769	20832	21353	20984	1.53	cps
Barium	137-1	36490	36503	36961	36652	0.73	cps
Beryllium	9-1	80	100	87	89	11.46	cps
Bismuth	209-1	2869017	2880901	2855989	2868636	0.43	cps
Bismuth	209-2	2751700	2757090	2764895	2757895	0.24	cps
Bromine	81-1	40753	42448	43039	42080	2.82	cps
Bromine	81-2	2847	2920	2974	2914	2.18	cps
Cadmium	108-1	37	13	27	26	45.82	cps
Cadmium	106-1	1690	1490	1470	1550	7.85	cps
Cadmium	111-1	1481	1344	1407	1411	4.86	cps
Calcium	43-1	77855	77892	76368	77372	1.12	cps
Calcium	44-1	1332397	1369099	1388942	1363479	2.10	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1097	910	1030	1012	9.35	cps
Cobalt	59-2	1803	1973	1787	1855	5.57	cps
Copper	63-2	14240	13786	13690	13905	2.11	cps
Dysprosium	156-1	17	20	13	17	20.01	cps
Dysprosium	156-2	13	13	23	17	34.65	cps
Erbium	164-1	27	20	37	28	30.20	cps
Erbium	164-2	23	23	37	28	27.73	cps
Gadolinium	160-1	27	40	33	33	20.00	cps
Gadolinium	160-2	240	213	250	234	8.08	cps
Holmium	165-1	4819183	4780638	4768114	4789312	0.56	cps
Holmium	165-2	4052279	4022274	3937558	4004037	1.49	cps
Indium	115-1	4108965	4091900	4084252	4095039	0.31	cps
Indium	115-2	1784770	1778293	1775554	1779539	0.27	cps
Iron	56-2	2220010	2198819	2192394	2203741	0.66	cps
Iron	57-2	52385	53087	53237	52903	0.86	cps
Iron	54-2	112923	111704	114591	113073	1.28	cps
Krypton	83-1	440	417	470	442	6.05	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7659	7639	7766	7688	0.89	cps
Lead	207-1	6245	5985	6322	6184	2.85	cps
Lead	208-1	29333	29312	29682	29442	0.71	cps
Lithium	6-1	582270	580065	571552	577962	0.98	cps
Magnesium	24-2	48677	47216	48700	48198	1.76	cps
Manganese	55-2	195327	192611	193048	193662	0.75	cps
Molybdenum	94-1	393	287	380	353	16.45	cps
Molybdenum	95-1	330	290	370	330	12.12	cps
Molybdenum	96-1	633	543	570	582	7.94	cps
Molybdenum	97-1	227	200	157	194	18.17	cps
Molybdenum	98-1	563	523	507	531	5.48	cps
Neodymium	150-1	90	87	60	79	20.84	cps
Neodymium	150-2	63	40	30	44	38.48	cps
Nickel	60-2	1773	1610	1800	1728	5.95	cps
Phosphorus	31-2	337	323	290	317	7.59	cps
Potassium	39-2	605817	601020	606297	604378	0.48	cps
Rhodium	103-1	3842776	3839793	3715768	3799446	1.91	cps
Rhodium	103-2	2526936	2494425	2418122	2479828	2.25	cps
Scandium	45-1	2392470	2322750	2330598	2348606	1.63	cps
Scandium	45-2	206768	206555	206418	206580	0.09	cps
Selenium	82-1	189	314	259	254	24.64	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	943	963	907	938	3.06	cps
Silicon	28-1	2172249	2204526	2202140	2192972	0.82	cps
Silver	107-1	127	197	157	160	21.95	cps
Silver	109-1	130	167	133	143	14.15	cps
Sodium	23-2	71592152	71286592	70863591	71247445	0.51	cps
Strontium	86-1	58757	58680	58753	58730	0.07	cps
Strontium	88-1	513310	516862	516306	515493	0.37	cps
Sulfur	34-1	131106	131335	130612	131018	0.28	cps
Terbium	159-1	4825144	4889944	4836129	4850406	0.71	cps
Terbium	159-2	3997304	3942682	3856176	3932054	1.81	cps
Thallium	203-1	760	630	687	692	9.42	cps
Thallium	205-1	1437	1690	1497	1541	8.59	cps
Tin	118-1	2861	2627	2794	2760	4.36	cps
Titanium	47-1	290	230	220	247	15.35	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:56:33	DataFile Name :	039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	610	567	487	554	11.29	cps
Vanadium	51-2	317	313	360	330	7.89	cps
Yttrium	89-1	7049816	6969773	7030971	7016854	0.60	cps
Yttrium	89-2	2235982	2206802	2170644	2204476	1.48	cps
Zinc	66-2	78347	78713	78954	78671	0.39	cps
Zirconium	90-1	617	580	533	577	7.24	cps
Zirconium	91-1	143	157	107	136	19.10	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	23705	23421	23027	23385	1.46	cps
Antimony	121-1	1593	1457	1537	1529	4.49	cps
Arsenic	75-2	53	60	60	58	6.67	cps
Barium	135-1	21122	21493	21950	21522	1.93	cps
Barium	137-1	37021	36727	37135	36961	0.57	cps
Beryllium	9-1	97	100	87	94	7.35	cps
Bismuth	209-1	2927353	2929227	2951142	2935907	0.45	cps
Bismuth	209-2	2843600	2829433	2741044	2804692	1.98	cps
Bromine	81-1	44216	45945	47754	45971	3.85	cps
Bromine	81-2	3497	3547	3857	3634	5.37	cps
Cadmium	108-1	37	33	27	32	15.80	cps
Cadmium	106-1	1587	1533	1437	1519	5.01	cps
Cadmium	111-1	1418	1397	1277	1364	5.58	cps
Calcium	43-1	78237	78502	78472	78404	0.19	cps
Calcium	44-1	1382830	1380030	1362247	1375036	0.81	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1153	1173	1113	1147	2.66	cps
Cobalt	59-2	1820	1943	1827	1863	3.72	cps
Copper	63-2	20901	21609	20344	20951	3.03	cps
Dysprosium	156-1	23	23	7	18	54.11	cps
Dysprosium	156-2	10	10	7	9	21.63	cps
Erbium	164-1	27	63	20	37	63.63	cps
Erbium	164-2	30	33	53	39	32.45	cps
Gadolinium	160-1	30	17	20	22	31.22	cps
Gadolinium	160-2	227	213	217	219	3.17	cps
Holmium	165-1	4846958	4865163	4913869	4875330	0.71	cps
Holmium	165-2	4054986	4010188	4011027	4025400	0.64	cps
Indium	115-1	4085661	4125332	4095413	4102135	0.50	cps
Indium	115-2	1852716	1803768	1781628	1812704	2.01	cps
Iron	56-2	2279353	2212006	2234639	2241999	1.53	cps
Iron	57-2	54525	54428	53672	54208	0.86	cps
Iron	54-2	116191	115915	114982	115696	0.55	cps
Krypton	83-1	397	483	487	456	11.20	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7462	7842	7492	7599	2.78	cps
Lead	207-1	6575	6455	6465	6498	1.03	cps
Lead	208-1	29902	30692	29552	30049	1.94	cps
Lithium	6-1	587308	587292	588368	587656	0.10	cps
Magnesium	24-2	49566	49753	49031	49450	0.76	cps
Manganese	55-2	200154	198486	197597	198746	0.65	cps
Molybdenum	94-1	490	490	490	490	0.00	cps
Molybdenum	95-1	503	370	410	428	16.00	cps
Molybdenum	96-1	653	617	730	667	8.67	cps
Molybdenum	97-1	313	287	380	327	14.72	cps
Molybdenum	98-1	697	837	690	741	11.18	cps
Neodymium	150-1	63	67	87	72	17.48	cps
Neodymium	150-2	50	40	37	42	16.43	cps
Nickel	60-2	2437	2194	2364	2331	5.36	cps
Phosphorus	31-2	300	330	263	298	11.21	cps
Potassium	39-2	614085	612608	615331	614008	0.22	cps
Rhodium	103-1	3897499	3868708	3839899	3868702	0.74	cps
Rhodium	103-2	2565570	2525831	2533147	2541516	0.83	cps
Scandium	45-1	2366012	2341417	2315898	2341109	1.07	cps
Scandium	45-2	214818	210709	207670	211066	1.70	cps
Selenium	82-1	312	262	212	262	19.07	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	957	1013	1013	994	3.29	cps
Silicon	28-1	2152305	2190754	2174916	2172658	0.89	cps
Silver	107-1	147	143	140	143	2.33	cps
Silver	109-1	140	117	100	119	16.90	cps
Sodium	23-2	72456411	73658301	71895024	72669912	1.24	cps
Strontium	86-1	59466	59741	58352	59186	1.24	cps
Strontium	88-1	522379	519434	520405	520739	0.29	cps
Sulfur	34-1	133779	135979	136308	135355	1.02	cps
Terbium	159-1	4958273	4935534	4910711	4934840	0.48	cps
Terbium	159-2	4036473	3992309	3945987	3991590	1.13	cps
Thallium	203-1	640	583	677	633	7.42	cps
Thallium	205-1	1323	1350	1527	1400	7.89	cps
Tin	118-1	2674	2677	2840	2730	3.49	cps
Titanium	47-1	800	783	747	777	3.51	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02DUPDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERDUPDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 16:59:50	DataFile Name :	040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	540	673	480	564	17.53	cps
Vanadium	51-2	337	293	293	308	8.13	cps
Yttrium	89-1	6999084	7017799	7063868	7026917	0.47	cps
Yttrium	89-2	2266239	2224620	2244932	2245264	0.93	cps
Zinc	66-2	80117	81571	80382	80690	0.96	cps
Zirconium	90-1	693	630	677	667	4.92	cps
Zirconium	91-1	133	153	163	150	10.18	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	5094	4901	5094	5030	2.22	cps
Antimony	121-1	430	410	370	403	7.57	cps
Arsenic	75-2	37	33	47	39	17.85	cps
Barium	135-1	4621	4547	4334	4501	3.31	cps
Barium	137-1	7839	7699	7579	7705	1.69	cps
Beryllium	9-1	87	57	93	79	24.75	cps
Bismuth	209-1	2997094	3054814	3024254	3025387	0.95	cps
Bismuth	209-2	2916989	2879756	2935387	2910711	0.97	cps
Bromine	81-1	42210	44230	44487	43642	2.86	cps
Bromine	81-2	2730	2687	2817	2745	2.41	cps
Cadmium	108-1	20	3	23	16	68.90	cps
Cadmium	106-1	1553	1577	1363	1498	7.81	cps
Cadmium	111-1	1173	1201	1091	1155	4.95	cps
Calcium	43-1	16626	16973	16719	16773	1.07	cps
Calcium	44-1	283583	286546	284433	284854	0.54	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	733	863	757	784	8.84	cps
Cobalt	59-2	470	500	507	492	3.97	cps
Copper	63-2	5664	5484	5474	5541	1.93	cps
Dysprosium	156-1	10	13	13	12	15.73	cps
Dysprosium	156-2	23	7	13	14	58.06	cps
Erbium	164-1	43	47	47	46	4.23	cps
Erbium	164-2	23	27	37	29	24.03	cps
Gadolinium	160-1	20	27	27	24	15.75	cps
Gadolinium	160-2	203	193	190	196	3.55	cps
Holmium	165-1	4867280	4857881	4819107	4848089	0.53	cps
Holmium	165-2	4123632	4128779	4004622	4085677	1.72	cps
Indium	115-1	4180679	4207086	4217009	4201591	0.45	cps
Indium	115-2	1820454	1841586	1804189	1822076	1.03	cps
Iron	56-2	439952	442019	437142	439704	0.56	cps
Iron	57-2	11908	11965	11681	11851	1.27	cps
Iron	54-2	25929	26617	26230	26258	1.31	cps
Krypton	83-1	373	467	393	411	11.95	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2324	2597	2700	2540	7.66	cps
Lead	207-1	2057	2264	2187	2169	4.82	cps
Lead	208-1	9584	10406	10602	10197	5.30	cps
Lithium	6-1	603127	594826	595733	597895	0.76	cps
Magnesium	24-2	14367	14467	14197	14343	0.95	cps
Manganese	55-2	43506	44001	42921	43476	1.24	cps
Molybdenum	94-1	400	387	363	383	4.84	cps
Molybdenum	95-1	187	130	140	152	19.87	cps
Molybdenum	96-1	313	323	273	303	8.72	cps
Molybdenum	97-1	100	73	93	89	15.61	cps
Molybdenum	98-1	253	237	223	238	6.32	cps
Neodymium	150-1	23	30	23	26	15.07	cps
Neodymium	150-2	33	13	20	22	45.83	cps
Nickel	60-2	623	570	590	594	4.53	cps
Phosphorus	31-2	210	303	267	260	18.09	cps
Potassium	39-2	169617	170082	168932	169543	0.34	cps
Rhodium	103-1	3857461	3949485	3897499	3901482	1.18	cps
Rhodium	103-2	2621749	2588309	2552990	2587683	1.33	cps
Scandium	45-1	2384959	2360672	2398454	2381362	0.80	cps
Scandium	45-2	213598	210678	208034	210770	1.32	cps
Selenium	82-1	300	166	243	236	28.45	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	1113	883	1023	1007	11.51	cps
Silicon	28-1	1687685	1685445	1676011	1683047	0.37	cps
Silver	107-1	107	83	130	107	21.88	cps
Silver	109-1	97	97	110	101	7.61	cps
Sodium	23-2	14280669	14289045	14538911	14369542	1.02	cps
Strontium	86-1	13043	12512	12896	12817	2.14	cps
Strontium	88-1	105122	105522	105713	105452	0.29	cps
Sulfur	34-1	122204	123101	123766	123023	0.64	cps
Terbium	159-1	4965916	4942426	5023767	4977370	0.84	cps
Terbium	159-2	3985531	4005585	3968369	3986495	0.47	cps
Thallium	203-1	553	630	563	582	7.16	cps
Thallium	205-1	1330	1507	1240	1359	9.98	cps
Tin	118-1	1403	1530	1503	1479	4.52	cps
Titanium	47-1	653	627	633	638	2.18	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02LDLX25	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERLDL	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:03:08	DataFile Name :	041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	483	463	487	478	2.64	cps
Vanadium	51-2	80	93	77	83	10.58	cps
Yttrium	89-1	7063184	7109758	7085990	7086311	0.33	cps
Yttrium	89-2	2263011	2266826	2211317	2247051	1.38	cps
Zinc	66-2	17437	17467	17053	17319	1.33	cps
Zirconium	90-1	847	910	910	889	4.11	cps
Zirconium	91-1	223	180	170	191	14.84	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	294974	296541	291902	294472	0.80	cps
Antimony	121-1	567177	571081	572754	570337	0.50	cps
Arsenic	75-2	63	47	100	70	38.98	cps
Barium	135-1	688528	690144	694315	690996	0.43	cps
Barium	137-1	1196295	1196647	1208172	1200371	0.56	cps
Beryllium	9-1	89382	88755	89905	89347	0.64	cps
Bismuth	209-1	2964420	2987542	2925397	2959120	1.06	cps
Bismuth	209-2	2818548	2846540	2805739	2823609	0.74	cps
Bromine	81-1	43775	46062	47212	45683	3.83	cps
Bromine	81-2	3510	3751	3681	3647	3.38	cps
Cadmium	108-1	12152	12165	12852	12390	3.23	cps
Cadmium	106-1	18732	19089	18709	18843	1.13	cps
Cadmium	111-1	169407	170780	169398	169861	0.47	cps
Calcium	43-1	241238	244408	244455	243367	0.76	cps
Calcium	44-1	4196395	4346604	4333623	4292207	1.94	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	269425	269511	270024	269654	0.12	cps
Cobalt	59-2	437685	438378	430865	435642	0.95	cps
Copper	63-2	3331626	3291690	3337672	3320329	0.75	cps
Dysprosium	156-1	30	27	27	28	6.92	cps
Dysprosium	156-2	63	57	103	74	33.91	cps
Erbium	164-1	60	40	37	46	27.70	cps
Erbium	164-2	23	40	33	32	26.04	cps
Gadolinium	160-1	43	47	83	58	38.41	cps
Gadolinium	160-2	257	243	210	237	10.16	cps
Holmium	165-1	4948049	4872751	4872160	4897653	0.89	cps
Holmium	165-2	4059313	4112861	4093798	4088658	0.66	cps
Indium	115-1	4179384	4112914	4151739	4148012	0.81	cps
Indium	115-2	1769396	1800365	1757441	1775734	1.25	cps
Iron	56-2	15358918	15086156	15070608	15171894	1.07	cps
Iron	57-2	359819	353214	358670	357234	0.99	cps
Iron	54-2	785866	785509	781594	784323	0.30	cps
Krypton	83-1	423	467	473	454	5.97	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2494688	2478829	2411225	2461581	1.80	cps
Lead	207-1	2241911	2200592	2246265	2229590	1.13	cps
Lead	208-1	10188772	10091244	10219819	10166612	0.66	cps
Lithium	6-1	605902	604213	603812	604642	0.18	cps
Magnesium	24-2	2930931	2879959	2912505	2907798	0.89	cps
Manganese	55-2	2772163	2734801	2690785	2732583	1.49	cps
Molybdenum	94-1	2373510	2394078	2371926	2379838	0.52	cps
Molybdenum	95-1	3424330	3456176	3397352	3425953	0.86	cps
Molybdenum	96-1	3671578	3716497	3707930	3698668	0.64	cps
Molybdenum	97-1	2114227	2131508	2095960	2113899	0.84	cps
Molybdenum	98-1	5349858	5475414	5477616	5434296	1.35	cps
Neodymium	150-1	107	153	80	113	32.75	cps
Neodymium	150-2	50	47	67	54	19.68	cps
Nickel	60-2	110695	110315	109150	110053	0.73	cps
Phosphorus	31-2	210	313	287	270	19.87	cps
Potassium	39-2	2378090	2376687	2388281	2381019	0.27	cps
Rhodium	103-1	3876708	3782825	3844460	3834664	1.24	cps
Rhodium	103-2	2479161	2494917	2480547	2484875	0.35	cps
Scandium	45-1	2378092	2361990	2369123	2369735	0.34	cps
Scandium	45-2	212485	211086	209968	211180	0.60	cps
Selenium	82-1	13747	13773	13816	13779	0.25	cps
Selenium	77-2	1763	1697	1843	1768	4.15	cps
Selenium	78-2	6358	6425	6618	6467	2.09	cps
Silicon	28-1	2099337	2154318	2173409	2142355	1.80	cps
Silver	107-1	138513	139278	141525	139772	1.12	cps
Silver	109-1	129388	130881	132076	130782	1.03	cps
Sodium	23-2	73661922	71781402	73123822	72855716	1.33	cps
Strontium	86-1	296106	298665	298195	297656	0.46	cps
Strontium	88-1	2871427	2948324	2925157	2914969	1.35	cps
Sulfur	34-1	140226	138995	140418	139879	0.55	cps
Terbium	159-1	4920212	5023580	4958855	4967549	1.05	cps
Terbium	159-2	3996459	3999651	3974340	3990150	0.35	cps
Thallium	203-1	528694	540013	539274	535994	1.18	cps
Thallium	205-1	1243918	1253811	1259674	1252468	0.64	cps
Tin	118-1	464361	469861	473289	469171	0.96	cps
Titanium	47-1	485063	490371	490333	488589	0.62	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:06:36	DataFile Name :	042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1940006	1963942	1996223	1966724	1.43	cps
Vanadium	51-2	245641	242514	242066	243407	0.80	cps
Yttrium	89-1	7190633	7027026	7078573	7098744	1.18	cps
Yttrium	89-2	2186489	2219126	2208839	2204818	0.76	cps
Zinc	66-2	658984	660203	661491	660226	0.19	cps
Zirconium	90-1	1046280	1053357	1055468	1051702	0.46	cps
Zirconium	91-1	235081	234339	237990	235803	0.82	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	298136	294106	292906	295049	0.93	cps
Antimony	121-1	572014	575542	569458	572338	0.53	cps
Arsenic	75-2	87	110	93	97	12.43	cps
Barium	135-1	691660	695645	693068	693458	0.29	cps
Barium	137-1	1203453	1205831	1197601	1202295	0.35	cps
Beryllium	9-1	90643	91900	90035	90859	1.05	cps
Bismuth	209-1	2964773	2879715	2941214	2928567	1.50	cps
Bismuth	209-2	2792117	2877675	2779755	2816516	1.89	cps
Bromine	81-1	42518	43982	45981	44160	3.94	cps
Bromine	81-2	3207	2984	3227	3139	4.30	cps
Cadmium	108-1	11942	12149	12439	12176	2.05	cps
Cadmium	106-1	18952	18749	19059	18920	0.83	cps
Cadmium	111-1	172687	170016	171629	171444	0.78	cps
Calcium	43-1	243425	241958	242439	242607	0.31	cps
Calcium	44-1	4276363	4229328	4264665	4256785	0.58	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	274785	271118	270964	272289	0.79	cps
Cobalt	59-2	438083	434899	435318	436100	0.40	cps
Copper	63-2	3425297	3356124	3435943	3405788	1.27	cps
Dysprosium	156-1	27	40	33	33	20.00	cps
Dysprosium	156-2	57	77	53	62	20.29	cps
Erbium	164-1	50	50	40	47	12.37	cps
Erbium	164-2	40	30	23	31	26.97	cps
Gadolinium	160-1	57	20	40	39	47.21	cps
Gadolinium	160-2	273	163	247	228	25.19	cps
Holmium	165-1	4971154	4819774	4809347	4866758	1.86	cps
Holmium	165-2	4032015	4073649	3977991	4027885	1.19	cps
Indium	115-1	4130235	4072754	4071396	4091462	0.82	cps
Indium	115-2	1755626	1777243	1773442	1768770	0.65	cps
Iron	56-2	15506354	15355590	16187889	15683278	2.83	cps
Iron	57-2	359987	357289	357607	358294	0.41	cps
Iron	54-2	792084	788537	783113	787912	0.57	cps
Krypton	83-1	363	397	507	422	17.76	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2541780	2536857	2471183	2516606	1.57	cps
Lead	207-1	2271090	2247060	2250310	2256154	0.58	cps
Lead	208-1	10269250	10412722	10253454	10311809	0.85	cps
Lithium	6-1	618971	610280	605561	611604	1.11	cps
Magnesium	24-2	2918425	2924503	2891541	2911490	0.60	cps
Manganese	55-2	2883442	2793382	2806243	2827689	1.72	cps
Molybdenum	94-1	2424897	2402289	2420621	2415936	0.50	cps
Molybdenum	95-1	3466387	3429362	3436983	3444244	0.57	cps
Molybdenum	96-1	3824636	3742396	3681605	3749546	1.91	cps
Molybdenum	97-1	2147838	2130606	2115819	2131421	0.75	cps
Molybdenum	98-1	5522070	5445389	5482596	5483352	0.70	cps
Neodymium	150-1	93	120	87	100	17.64	cps
Neodymium	150-2	83	30	63	59	45.75	cps
Nickel	60-2	112659	111873	110527	111686	0.97	cps
Phosphorus	31-2	263	240	300	268	11.30	cps
Potassium	39-2	2444455	2426032	2361435	2410641	1.81	cps
Rhodium	103-1	3885796	3759595	3712382	3785924	2.37	cps
Rhodium	103-2	2529498	2513040	2527989	2523509	0.36	cps
Scandium	45-1	2357813	2366684	2363209	2362569	0.19	cps
Scandium	45-2	210829	210173	207305	209435	0.89	cps
Selenium	82-1	13987	13799	13530	13772	1.67	cps
Selenium	77-2	1800	1733	1613	1716	5.51	cps
Selenium	78-2	6822	6832	6501	6718	2.80	cps
Silicon	28-1	2128720	2111215	2153678	2131205	1.00	cps
Silver	107-1	140627	140173	139550	140117	0.39	cps
Silver	109-1	132526	131645	133040	132404	0.53	cps
Sodium	23-2	73131211	73053331	72997272	73060604	0.09	cps
Strontium	86-1	298884	300794	295882	298520	0.83	cps
Strontium	88-1	2965887	2968185	2972127	2968733	0.11	cps
Sulfur	34-1	140398	140720	140459	140526	0.12	cps
Terbium	159-1	5038827	5003432	4899764	4980674	1.45	cps
Terbium	159-2	3974283	4043815	3962041	3993380	1.10	cps
Thallium	203-1	538042	540814	539198	539351	0.26	cps
Thallium	205-1	1269692	1271226	1267660	1269526	0.14	cps
Tin	118-1	466826	467571	463542	465979	0.46	cps
Titanium	47-1	490382	494165	489992	491513	0.47	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02MSDDLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERMSDDL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:09:36	DataFile Name :	043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	2015074	1990681	1985781	1997179	0.79	cps
Vanadium	51-2	247760	244744	244714	245739	0.71	cps
Yttrium	89-1	7128913	7148150	7125686	7134250	0.17	cps
Yttrium	89-2	2253572	2213681	2233781	2233678	0.89	cps
Zinc	66-2	669357	659277	664706	664447	0.76	cps
Zirconium	90-1	1050462	1057510	1053794	1053922	0.33	cps
Zirconium	91-1	236962	236814	236435	236737	0.11	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	293288	290080	288660	290676	0.82	cps
Antimony	121-1	555331	557626	556770	556576	0.21	cps
Arsenic	75-2	57	43	60	53	16.54	cps
Barium	135-1	672359	684957	674571	677296	0.99	cps
Barium	137-1	1152800	1172520	1167836	1164385	0.88	cps
Beryllium	9-1	87247	89282	87498	88009	1.26	cps
Bismuth	209-1	2829204	2896436	2815905	2847182	1.52	cps
Bismuth	209-2	2793324	2724249	2721139	2746237	1.49	cps
Bromine	81-1	42284	42441	42595	42440	0.37	cps
Bromine	81-2	2757	2767	2970	2831	4.25	cps
Cadmium	108-1	11385	11892	11648	11641	2.18	cps
Cadmium	106-1	17841	17945	18872	18219	3.12	cps
Cadmium	111-1	165720	167321	166354	166465	0.48	cps
Calcium	43-1	236700	236766	235756	236407	0.24	cps
Calcium	44-1	4112875	4183225	4188263	4161454	1.01	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	265914	262821	258714	262483	1.38	cps
Cobalt	59-2	425047	426987	416315	422783	1.34	cps
Copper	63-2	3222778	3260152	3157368	3213433	1.62	cps
Dysprosium	156-1	43	40	27	37	24.04	cps
Dysprosium	156-2	47	73	60	60	22.22	cps
Erbium	164-1	37	40	70	49	37.55	cps
Erbium	164-2	33	47	27	36	28.64	cps
Gadolinium	160-1	37	50	57	48	21.31	cps
Gadolinium	160-2	183	240	193	206	14.71	cps
Holmium	165-1	4683760	4739405	4749203	4724123	0.75	cps
Holmium	165-2	3981365	3924633	3873335	3926444	1.38	cps
Indium	115-1	3990142	3942762	3990652	3974519	0.69	cps
Indium	115-2	1718981	1726423	1767250	1737551	1.50	cps
Iron	56-2	15052912	14721897	14524932	14766580	1.81	cps
Iron	57-2	346639	345160	339879	343893	1.03	cps
Iron	54-2	758327	754381	747850	753519	0.70	cps
Krypton	83-1	417	420	413	417	0.80	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2433332	2398807	2364248	2398796	1.44	cps
Lead	207-1	2153834	2172861	2097097	2141264	1.84	cps
Lead	208-1	9917370	9931199	9700770	9849780	1.31	cps
Lithium	6-1	591742	595653	590206	592534	0.47	cps
Magnesium	24-2	2790339	2833451	2748372	2790720	1.52	cps
Manganese	55-2	2710967	2685120	2678573	2691553	0.64	cps
Molybdenum	94-1	989978	1000989	1006654	999207	0.85	cps
Molybdenum	95-1	1078150	1081125	1092601	1083958	0.70	cps
Molybdenum	96-1	1216984	1218664	1227542	1221063	0.46	cps
Molybdenum	97-1	678357	681000	679962	679773	0.20	cps
Molybdenum	98-1	1965033	1935695	1941529	1947419	0.80	cps
Neodymium	150-1	87	93	77	86	9.80	cps
Neodymium	150-2	67	60	60	62	6.19	cps
Nickel	60-2	108197	105753	106613	106854	1.16	cps
Phosphorus	31-2	320	257	317	298	11.97	cps
Potassium	39-2	2349409	2343660	2317826	2336965	0.72	cps
Rhodium	103-1	3711259	3695556	3702504	3703106	0.21	cps
Rhodium	103-2	2497110	2409876	2459634	2455540	1.78	cps
Scandium	45-1	2270829	2276070	2241441	2262780	0.82	cps
Scandium	45-2	204413	203742	204316	204157	0.18	cps
Selenium	82-1	13490	13363	13583	13478	0.82	cps
Selenium	77-2	1717	1567	1607	1630	4.77	cps
Selenium	78-2	6522	6285	6281	6363	2.16	cps
Silicon	28-1	2064993	2058714	2111602	2078437	1.39	cps
Silver	107-1	134059	136171	134463	134898	0.83	cps
Silver	109-1	126775	127182	127101	127019	0.17	cps
Sodium	23-2	71446416	71365644	69830559	70880873	1.28	cps
Strontium	86-1	289487	290564	292077	290709	0.45	cps
Strontium	88-1	2912710	2855793	2944818	2904440	1.55	cps
Sulfur	34-1	137915	138030	135480	137142	1.05	cps
Terbium	159-1	4840354	4823980	4781788	4815374	0.63	cps
Terbium	159-2	3981888	3936185	3857922	3925332	1.60	cps
Thallium	203-1	515638	532318	521044	523000	1.63	cps
Thallium	205-1	1220335	1248313	1227265	1231971	1.18	cps
Tin	118-1	451053	459433	452139	454208	1.00	cps
Titanium	47-1	817	827	1067	903	15.69	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1563-02ADLX5	Instrumnet Name :	P7
Client Sample ID :	FERNOT-WATERADL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:12:39	DataFile Name :	044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1938933	1910655	1933421	1927670	0.78	cps
Vanadium	51-2	236926	238092	234246	236421	0.83	cps
Yttrium	89-1	6898876	6865441	6817317	6860544	0.60	cps
Yttrium	89-2	2238103	2171312	2177458	2195624	1.68	cps
Zinc	66-2	644521	640975	632247	639248	0.99	cps
Zirconium	90-1	1024765	1025346	1039760	1029957	0.82	cps
Zirconium	91-1	228258	229964	230379	229534	0.49	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	595240	606708	603901	601949	0.99	cps
Antimony	121-1	1943	1833	2047	1941	5.50	cps
Arsenic	75-2	1037	1023	1190	1083	8.55	cps
Barium	135-1	111613	112789	111529	111977	0.63	cps
Barium	137-1	192130	192319	192525	192325	0.10	cps
Beryllium	9-1	1667	1757	1720	1715	2.64	cps
Bismuth	209-1	3259971	3206859	3104297	3190375	2.48	cps
Bismuth	209-2	2962276	2934887	2991954	2963039	0.96	cps
Bromine	81-1	39172	40582	40449	40068	1.94	cps
Bromine	81-2	2010	2164	2204	2126	4.80	cps
Cadmium	108-1	63	80	83	76	14.18	cps
Cadmium	106-1	1813	1860	1883	1852	1.92	cps
Cadmium	111-1	1378	1443	1453	1425	2.85	cps
Calcium	43-1	89037	88567	89083	88896	0.32	cps
Calcium	44-1	1592003	1601738	1621553	1605098	0.94	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	88753	89386	89899	89346	0.64	cps
Cobalt	59-2	24587	24597	24523	24569	0.16	cps
Copper	63-2	79221	80056	79195	79491	0.62	cps
Dysprosium	156-1	88563	88208	89492	88755	0.75	cps
Dysprosium	156-2	83325	84093	84469	83962	0.69	cps
Erbium	164-1	70651	70446	70259	70452	0.28	cps
Erbium	164-2	56946	57946	57866	57586	0.97	cps
Gadolinium	160-1	91815	91271	91419	91502	0.31	cps
Gadolinium	160-2	76568	77901	77912	77460	1.00	cps
Holmium	165-1	5302450	5203818	5200691	5235653	1.11	cps
Holmium	165-2	4228612	4202362	4271809	4234261	0.83	cps
Indium	115-1	4478633	4393391	4386412	4419479	1.16	cps
Indium	115-2	1890881	1911068	1873722	1891890	0.99	cps
Iron	56-2	21538626	21671526	22177947	21796033	1.55	cps
Iron	57-2	504465	510870	513053	509463	0.88	cps
Iron	54-2	1099502	1115890	1119215	1111536	0.95	cps
Krypton	83-1	510	507	567	528	6.39	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	51685	51959	50698	51447	1.29	cps
Lead	207-1	41550	40654	40938	41047	1.12	cps
Lead	208-1	198295	198064	195755	197372	0.71	cps
Lithium	6-1	656798	635662	624607	639022	2.56	cps
Magnesium	24-2	301431	302659	300266	301452	0.40	cps
Manganese	55-2	266766	270777	271556	269700	0.95	cps
Molybdenum	94-1	27720	27653	27833	27735	0.33	cps
Molybdenum	95-1	20855	21152	20468	20825	1.65	cps
Molybdenum	96-1	25489	25542	25199	25410	0.73	cps
Molybdenum	97-1	13139	12999	13506	13215	1.98	cps
Molybdenum	98-1	33058	33589	33134	33260	0.86	cps
Neodymium	150-1	135147	136540	135103	135596	0.60	cps
Neodymium	150-2	96222	96887	96021	96377	0.47	cps
Nickel	60-2	14731	14117	15248	14698	3.85	cps
Phosphorus	31-2	2370	2460	2404	2411	1.89	cps
Potassium	39-2	732444	733837	736960	734413	0.31	cps
Rhodium	103-1	4256838	4115373	4109706	4160639	2.00	cps
Rhodium	103-2	2717598	2720721	2683455	2707258	0.76	cps
Scandium	45-1	2663683	2619637	2664846	2649389	0.97	cps
Scandium	45-2	232045	232496	235859	233466	0.89	cps
Selenium	82-1	513	511	440	488	8.53	cps
Selenium	77-2	320	383	343	349	9.18	cps
Selenium	78-2	1283	1300	1353	1312	2.79	cps
Silicon	28-1	36112775	36716724	36301013	36376838	0.85	cps
Silver	107-1	380	403	453	412	9.09	cps
Silver	109-1	430	380	447	419	8.28	cps
Sodium	23-2	8233423	8265083	8265804	8254770	0.22	cps
Strontium	86-1	138797	140235	140685	139906	0.70	cps
Strontium	88-1	1225186	1238251	1236988	1233475	0.58	cps
Sulfur	34-1	249502	245124	246193	246940	0.92	cps
Terbium	159-1	5469290	5421708	5315055	5402018	1.46	cps
Terbium	159-2	4268256	4291502	4258117	4272625	0.40	cps
Thallium	203-1	1413	1390	1367	1390	1.68	cps
Thallium	205-1	3407	3390	3267	3355	2.28	cps
Tin	118-1	4984	5208	4994	5062	2.49	cps
Titanium	47-1	51357	51049	51574	51327	0.51	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:15:42	DataFile Name :	045SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	85928	86921	85348	86066	0.92	cps
Vanadium	51-2	269580	271540	271540	270887	0.42	cps
Yttrium	89-1	8600902	8321633	8396541	8439692	1.71	cps
Yttrium	89-2	2652873	2642619	2644233	2646575	0.21	cps
Zinc	66-2	21219	21773	20985	21325	1.90	cps
Zirconium	90-1	43688	43892	43418	43666	0.55	cps
Zirconium	91-1	10140	9950	9673	9921	2.37	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	693238	703539	699164	698647	0.74	cps
Antimony	121-1	1907	1903	1963	1925	1.75	cps
Arsenic	75-2	1150	1180	1143	1158	1.69	cps
Barium	135-1	119194	118098	118468	118587	0.47	cps
Barium	137-1	202751	206037	205345	204711	0.85	cps
Beryllium	9-1	1620	1803	1690	1705	5.43	cps
Bismuth	209-1	3182883	3153809	3181739	3172810	0.52	cps
Bismuth	209-2	3032121	3040009	3039634	3037255	0.15	cps
Bromine	81-1	40983	40683	42732	41466	2.67	cps
Bromine	81-2	1997	2127	2090	2071	3.24	cps
Cadmium	108-1	83	73	50	69	24.83	cps
Cadmium	106-1	1907	1840	1930	1892	2.47	cps
Cadmium	111-1	1446	1413	1473	1444	2.06	cps
Calcium	43-1	92896	91833	92765	92498	0.63	cps
Calcium	44-1	1655783	1624661	1678057	1652834	1.62	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	101117	99925	100059	100367	0.65	cps
Cobalt	59-2	25315	26119	25649	25694	1.57	cps
Copper	63-2	82620	82918	82134	82557	0.48	cps
Dysprosium	156-1	93649	94696	93297	93881	0.78	cps
Dysprosium	156-2	87182	88345	87443	87657	0.70	cps
Erbium	164-1	75335	75117	74728	75060	0.41	cps
Erbium	164-2	61511	62358	60832	61567	1.24	cps
Gadolinium	160-1	94671	96593	95483	95582	1.01	cps
Gadolinium	160-2	81783	81972	80439	81398	1.03	cps
Holmium	165-1	5189921	5228657	5158753	5192444	0.67	cps
Holmium	165-2	4268968	4396576	4320419	4328654	1.48	cps
Indium	115-1	4510505	4431055	4409008	4450189	1.20	cps
Indium	115-2	1968553	1944504	1932992	1948683	0.93	cps
Iron	56-2	24109433	24417402	24802406	24443080	1.42	cps
Iron	57-2	566511	566343	565157	566004	0.13	cps
Iron	54-2	1332200	1357121	1319685	1336336	1.43	cps
Krypton	83-1	507	693	537	579	17.32	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	51845	53274	52832	52650	1.39	cps
Lead	207-1	41771	42623	42510	42301	1.09	cps
Lead	208-1	199072	200756	200645	200158	0.47	cps
Lithium	6-1	624296	618943	622196	621811	0.43	cps
Magnesium	24-2	314069	321671	316076	317272	1.24	cps
Manganese	55-2	279685	282549	277565	279933	0.89	cps
Molybdenum	94-1	27275	27316	27680	27424	0.81	cps
Molybdenum	95-1	17390	17073	16419	16961	2.92	cps
Molybdenum	96-1	21259	21699	21399	21452	1.05	cps
Molybdenum	97-1	10514	10207	10257	10326	1.59	cps
Molybdenum	98-1	26701	26651	26534	26629	0.32	cps
Neodymium	150-1	143236	140673	143141	142350	1.02	cps
Neodymium	150-2	102358	101310	102002	101890	0.52	cps
Nickel	60-2	15612	15775	15618	15668	0.59	cps
Phosphorus	31-2	2614	2550	2720	2628	3.27	cps
Potassium	39-2	757090	767731	759408	761410	0.73	cps
Rhodium	103-1	4206256	4162692	4303455	4224134	1.71	cps
Rhodium	103-2	2806375	2757530	2714264	2759390	1.67	cps
Scandium	45-1	2721477	2644834	2609869	2658727	2.15	cps
Scandium	45-2	235040	238851	238448	237446	0.88	cps
Selenium	82-1	563	385	545	498	19.64	cps
Selenium	77-2	457	383	370	403	11.57	cps
Selenium	78-2	1183	1223	1210	1206	1.69	cps
Silicon	28-1	39603051	39380569	39488036	39490552	0.28	cps
Silver	107-1	500	433	507	480	8.45	cps
Silver	109-1	403	387	413	401	3.36	cps
Sodium	23-2	8412604	8606658	8448673	8489312	1.22	cps
Strontium	86-1	146929	149598	148027	148185	0.91	cps
Strontium	88-1	1289378	1293164	1295991	1292844	0.26	cps
Sulfur	34-1	243805	245309	246155	245090	0.49	cps
Terbium	159-1	5296616	5478678	5448522	5407939	1.80	cps
Terbium	159-2	4382308	4268256	4278771	4309778	1.46	cps
Thallium	203-1	1230	1353	1220	1268	5.86	cps
Thallium	205-1	2860	3067	2947	2958	3.51	cps
Tin	118-1	4791	4707	5081	4860	4.03	cps
Titanium	47-1	62402	58181	62832	61138	4.20	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01DUP	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:18:59	DataFile Name :	046SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	88444	88706	87965	88372	0.43	cps
Vanadium	51-2	291231	295044	294723	293666	0.72	cps
Yttrium	89-1	8603609	8568967	8631094	8601223	0.36	cps
Yttrium	89-2	2679658	2765471	2720902	2722010	1.58	cps
Zinc	66-2	22333	22273	21866	22158	1.15	cps
Zirconium	90-1	49364	49246	49212	49274	0.16	cps
Zirconium	91-1	11098	11301	11348	11249	1.18	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	118130	117630	117623	117795	0.25	cps
Antimony	121-1	440	353	347	380	13.70	cps
Arsenic	75-2	290	233	237	253	12.55	cps
Barium	135-1	21116	21166	20635	20972	1.40	cps
Barium	137-1	36483	36032	36577	36364	0.80	cps
Beryllium	9-1	363	353	383	367	4.17	cps
Bismuth	209-1	2995013	2981361	2892639	2956338	1.88	cps
Bismuth	209-2	2879132	2809412	2806103	2831549	1.46	cps
Bromine	81-1	37975	37995	38387	38119	0.61	cps
Bromine	81-2	717	810	677	734	9.32	cps
Cadmium	108-1	20	20	33	24	31.49	cps
Cadmium	106-1	1600	1527	1553	1560	2.38	cps
Cadmium	111-1	1209	1111	1151	1157	4.26	cps
Calcium	43-1	17771	17223	17157	17383	1.94	cps
Calcium	44-1	289053	286673	284485	286737	0.80	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	17126	17253	17420	17267	0.85	cps
Cobalt	59-2	4771	4624	4691	4695	1.56	cps
Copper	63-2	17637	17367	17410	17471	0.83	cps
Dysprosium	156-1	16480	16313	16033	16275	1.39	cps
Dysprosium	156-2	14705	15392	15365	15154	2.57	cps
Erbium	164-1	12986	12916	12686	12863	1.22	cps
Erbium	164-2	11041	10367	10908	10772	3.31	cps
Gadolinium	160-1	16743	16580	16703	16676	0.51	cps
Gadolinium	160-2	14441	13897	14147	14162	1.92	cps
Holmium	165-1	4966598	4930073	4818497	4905056	1.57	cps
Holmium	165-2	3998293	3987160	3921412	3968955	1.05	cps
Indium	115-1	4241739	4235968	4136978	4204895	1.40	cps
Indium	115-2	1786839	1793300	1799919	1793352	0.36	cps
Iron	56-2	4178653	4105280	4179680	4154538	1.03	cps
Iron	57-2	98604	95974	97826	97468	1.39	cps
Iron	54-2	217346	214088	216356	215930	0.77	cps
Krypton	83-1	467	543	433	481	11.72	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10487	10267	10457	10404	1.15	cps
Lead	207-1	8466	8293	8403	8387	1.05	cps
Lead	208-1	40419	39263	39402	39695	1.59	cps
Lithium	6-1	592611	583513	577395	584507	1.31	cps
Magnesium	24-2	56072	55684	56604	56120	0.82	cps
Manganese	55-2	52090	50799	50969	51286	1.37	cps
Molybdenum	94-1	4908	5094	5181	5061	2.76	cps
Molybdenum	95-1	3510	3580	3444	3512	1.95	cps
Molybdenum	96-1	4744	4321	4547	4537	4.67	cps
Molybdenum	97-1	2300	2217	2280	2266	1.92	cps
Molybdenum	98-1	5471	5544	5431	5482	1.05	cps
Neodymium	150-1	25289	25557	24845	25230	1.42	cps
Neodymium	150-2	18075	18122	18102	18100	0.13	cps
Nickel	60-2	3020	3057	2930	3003	2.17	cps
Phosphorus	31-2	710	667	700	692	3.28	cps
Potassium	39-2	183630	183343	184318	183764	0.27	cps
Rhodium	103-1	3943695	3896622	3875918	3905412	0.89	cps
Rhodium	103-2	2610187	2538533	2568553	2572424	1.40	cps
Scandium	45-1	2413393	2401691	2391755	2402280	0.45	cps
Scandium	45-2	214084	210693	214514	213097	0.98	cps
Selenium	82-1	248	190	296	245	21.77	cps
Selenium	77-2	70	63	47	60	20.03	cps
Selenium	78-2	1103	1033	967	1034	6.61	cps
Silicon	28-1	8159971	8075899	8142839	8126236	0.55	cps
Silver	107-1	190	180	283	218	26.17	cps
Silver	109-1	173	217	200	197	11.11	cps
Sodium	23-2	1528069	1539486	1511903	1526486	0.91	cps
Strontium	86-1	27075	27225	26748	27016	0.90	cps
Strontium	88-1	234281	230306	230353	231647	0.98	cps
Sulfur	34-1	127154	127335	126945	127144	0.15	cps
Terbium	159-1	5161046	4993668	4951157	5035290	2.20	cps
Terbium	159-2	4067830	3930458	3907531	3968607	2.18	cps
Thallium	203-1	627	657	577	620	6.52	cps
Thallium	205-1	1490	1473	1367	1443	4.64	cps
Tin	118-1	2144	1833	1880	1952	8.56	cps
Titanium	47-1	9863	10494	10020	10126	3.24	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01LX5	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:22:12	DataFile Name :	047SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	16417	15663	15536	15872	3.00	cps
Vanadium	51-2	50996	50210	49986	50397	1.05	cps
Yttrium	89-1	7558227	7449965	7354631	7454274	1.37	cps
Yttrium	89-2	2302739	2306244	2250344	2286442	1.37	cps
Zinc	66-2	4407	4417	4617	4481	2.64	cps
Zirconium	90-1	8683	8616	8673	8657	0.42	cps
Zirconium	91-1	1737	1980	1810	1842	6.78	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2242272	2292931	2278414	2271205	1.15	cps
Antimony	121-1	3156924	3146231	3092130	3131762	1.11	cps
Arsenic	75-2	1143	1060	1117	1107	3.85	cps
Barium	135-1	3986212	3886312	3908716	3927080	1.33	cps
Barium	137-1	6585132	6669500	6729547	6661393	1.09	cps
Beryllium	9-1	432507	435643	441062	436404	0.99	cps
Bismuth	209-1	2953764	2869912	2951142	2924939	1.63	cps
Bismuth	209-2	2776009	2755280	2799823	2777037	0.80	cps
Bromine	81-1	44343	43882	44815	44346	1.05	cps
Bromine	81-2	3370	3104	3384	3286	4.81	cps
Cadmium	108-1	60663	59277	60378	60106	1.22	cps
Cadmium	106-1	86539	86928	85590	86352	0.80	cps
Cadmium	111-1	833775	833866	828068	831903	0.40	cps
Calcium	43-1	915369	904532	912874	910925	0.62	cps
Calcium	44-1	16272209	16205250	16198294	16225251	0.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1576676	1570992	1573705	1573791	0.18	cps
Cobalt	59-2	2394480	2391995	2373778	2386751	0.47	cps
Copper	63-2	16236397	15799404	15831916	15955906	1.53	cps
Dysprosium	156-1	95666	96519	96700	96295	0.57	cps
Dysprosium	156-2	87946	89627	89319	88964	1.01	cps
Erbium	164-1	76186	74635	74299	75040	1.34	cps
Erbium	164-2	63092	63028	61002	62374	1.91	cps
Gadolinium	160-1	97013	97509	98369	97630	0.70	cps
Gadolinium	160-2	83074	83668	82531	83091	0.68	cps
Holmium	165-1	4895531	4838704	4797433	4843889	1.02	cps
Holmium	165-2	4011618	4076527	3978334	4022160	1.24	cps
Indium	115-1	3967440	3953355	4008744	3976513	0.72	cps
Indium	115-2	1721797	1730324	1698542	1716888	0.96	cps
Iron	56-2	87062329	86494219	84852459	86136335	1.33	cps
Iron	57-2	2225837	2094594	2148661	2156364	3.06	cps
Iron	54-2	4770447	4741755	4762643	4758282	0.31	cps
Krypton	83-1	527	500	503	510	2.85	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12341138	12251064	12614742	12402315	1.53	cps
Lead	207-1	11028060	10851446	11183456	11020987	1.51	cps
Lead	208-1	50485496	49836731	51214324	50512184	1.36	cps
Lithium	6-1	595462	600823	607405	601230	0.99	cps
Magnesium	24-2	14069395	14213540	14039856	14107597	0.66	cps
Manganese	55-2	12840973	12941496	12672072	12818180	1.06	cps
Molybdenum	94-1	11700406	11570419	11665277	11645367	0.58	cps
Molybdenum	95-1	16837103	16765790	16641439	16748110	0.59	cps
Molybdenum	96-1	18487035	18550073	18152952	18396687	1.16	cps
Molybdenum	97-1	10361158	10441166	10373992	10392105	0.41	cps
Molybdenum	98-1	26969936	26746565	26558083	26758195	0.77	cps
Neodymium	150-1	143829	143529	144516	143958	0.35	cps
Neodymium	150-2	102358	104201	104362	103641	1.07	cps
Nickel	60-2	540150	536644	539554	538783	0.35	cps
Phosphorus	31-2	2644	2420	2504	2522	4.48	cps
Potassium	39-2	9154907	9140843	9151492	9149081	0.08	cps
Rhodium	103-1	3783614	3744436	3786650	3771567	0.62	cps
Rhodium	103-2	2478073	2478126	2456335	2470845	0.51	cps
Scandium	45-1	2550296	2500896	2447405	2499532	2.06	cps
Scandium	45-2	216167	216410	213399	215325	0.78	cps
Selenium	82-1	66646	66812	66008	66489	0.64	cps
Selenium	77-2	8603	8969	8816	8796	2.09	cps
Selenium	78-2	29129	28641	27689	28486	2.57	cps
Silicon	28-1	33802434	33967908	33906058	33892133	0.25	cps
Silver	107-1	637784	635502	632578	635288	0.41	cps
Silver	109-1	599623	592312	593272	595069	0.67	cps
Sodium	23-2	29453571	29599189	29345539	29466100	0.43	cps
Strontium	86-1	1479464	1463838	1313870	1419057	6.44	cps
Strontium	88-1	13227524	13215647	12899489	13114220	1.42	cps
Sulfur	34-1	248052	244856	247504	246804	0.69	cps
Terbium	159-1	5084680	4954574	4924475	4987910	1.71	cps
Terbium	159-2	3967186	4045448	4030821	4014485	1.04	cps
Thallium	203-1	3074495	3070435	3137735	3094221	1.22	cps
Thallium	205-1	7220862	7136707	7266481	7208017	0.91	cps
Tin	118-1	2545225	2597923	2544421	2562523	1.20	cps
Titanium	47-1	2802260	2739369	2767336	2769655	1.14	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MS	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:25:29	DataFile Name :	048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9534092	9537957	9818053	9630034	1.69	cps
Vanadium	51-2	1654626	1613059	1670601	1646095	1.80	cps
Yttrium	89-1	8074821	7993148	7726854	7931608	2.29	cps
Yttrium	89-2	2474089	2480300	2440621	2465004	0.87	cps
Zinc	66-2	3160203	3121614	3128272	3136696	0.66	cps
Zirconium	90-1	5810663	5765616	5799252	5791844	0.40	cps
Zirconium	91-1	1167300	1167112	1169219	1167877	0.10	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9398463	9392811	9301502	9364259	0.58	cps
Antimony	121-1	3099361	3165941	3153845	3139716	1.13	cps
Arsenic	75-2	193238	194278	189423	192313	1.33	cps
Barium	135-1	4311616	4352685	4288713	4317671	0.75	cps
Barium	137-1	7419379	7449301	7398577	7422419	0.34	cps
Beryllium	9-1	502496	500197	505427	502707	0.52	cps
Bismuth	209-1	2767309	2709306	2735279	2737298	1.06	cps
Bismuth	209-2	2564122	2537295	2546369	2549262	0.54	cps
Bromine	81-1	32449	33461	32686	32866	1.61	cps
Bromine	81-2	290	300	387	326	16.33	cps
Cadmium	108-1	60007	60395	59786	60063	0.51	cps
Cadmium	106-1	84873	86633	87119	86208	1.37	cps
Cadmium	111-1	825807	835217	823845	828290	0.73	cps
Calcium	43-1	4671566	4689613	4669486	4676888	0.24	cps
Calcium	44-1	76803174	77702881	77140607	77215554	0.59	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1572276	1567691	1573309	1571092	0.19	cps
Cobalt	59-2	2499535	2450726	2396734	2448998	2.10	cps
Copper	63-2	18835309	18923405	18729928	18829547	0.51	cps
Dysprosium	156-1	117	157	140	138	14.58	cps
Dysprosium	156-2	277	270	290	279	3.65	cps
Erbium	164-1	197	193	170	187	7.79	cps
Erbium	164-2	83	160	133	126	31.00	cps
Gadolinium	160-1	160	93	123	126	26.59	cps
Gadolinium	160-2	217	277	300	264	16.26	cps
Holmium	165-1	4737708	4748174	4752425	4746102	0.16	cps
Holmium	165-2	3891883	3833950	3887556	3871130	0.83	cps
Indium	115-1	3728383	3752701	3677455	3719513	1.03	cps
Indium	115-2	1614709	1616335	1599163	1610069	0.59	cps
Iron	56-2	373108701	373656021	353974941	366913221	3.05	cps
Iron	57-2	9339771	9163813	9238137	9247240	0.96	cps
Iron	54-2	20160572	20105029	20289501	20185034	0.47	cps
Krypton	83-1	387	440	453	427	8.27	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12528784	12679184	12388806	12532258	1.16	cps
Lead	207-1	11026298	11176488	11110187	11104324	0.68	cps
Lead	208-1	51015511	51078839	50748101	50947483	0.34	cps
Lithium	6-1	604551	591656	593530	596579	1.17	cps
Magnesium	24-2	74696691	75006012	74684322	74795675	0.24	cps
Manganese	55-2	14526046	14547869	14267410	14447109	1.08	cps
Molybdenum	94-1	12150214	12345221	12280071	12258502	0.81	cps
Molybdenum	95-1	17372269	17791164	17831271	17664901	1.44	cps
Molybdenum	96-1	19056925	19412326	19234601	19234617	0.92	cps
Molybdenum	97-1	10840012	10911567	10784916	10845498	0.59	cps
Molybdenum	98-1	28237474	28407465	27969583	28204840	0.78	cps
Neodymium	150-1	233	270	217	240	11.37	cps
Neodymium	150-2	80	73	90	81	10.34	cps
Nickel	60-2	581691	579387	575849	578976	0.51	cps
Phosphorus	31-2	94104	92601	94339	93681	1.01	cps
Potassium	39-2	50619568	49970883	50283729	50291393	0.65	cps
Rhodium	103-1	3493403	3494999	3470278	3486227	0.40	cps
Rhodium	103-2	2328485	2327485	2369786	2341918	1.03	cps
Scandium	45-1	2247257	2250130	2267900	2255095	0.50	cps
Scandium	45-2	205669	205268	204329	205089	0.34	cps
Selenium	82-1	63935	64153	63966	64018	0.18	cps
Selenium	77-2	8406	8226	8169	8267	1.50	cps
Selenium	78-2	27936	27506	27185	27542	1.37	cps
Silicon	28-1	5417791	5545858	5552765	5505471	1.38	cps
Silver	107-1	4299695	4352353	4327203	4326417	0.61	cps
Silver	109-1	4089180	4134382	4151587	4125050	0.78	cps
Sodium	23-2	119856538	119128105	119209772	119398138	0.33	cps
Strontium	86-1	1020859	1028003	1019357	1022740	0.45	cps
Strontium	88-1	10024270	10170766	10189219	10128085	0.89	cps
Sulfur	34-1	386615	385622	387345	386527	0.22	cps
Terbium	159-1	4839528	4833819	4747558	4806968	1.07	cps
Terbium	159-2	3865903	3776524	3739252	3793893	1.72	cps
Thallium	203-1	3261777	3243161	3191874	3232271	1.12	cps
Thallium	205-1	7530913	7499732	7329870	7453505	1.45	cps
Tin	118-1	2868317	2864994	2871622	2868311	0.12	cps
Titanium	47-1	4589086	4536183	4534454	4553241	0.68	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV03	Instrumnet Name :	P7
Client Sample ID :	CCV03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:31:36	DataFile Name :	050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10249217	10271729	10180899	10233948	0.46	cps
Vanadium	51-2	1397079	1418437	1400409	1405308	0.82	cps
Yttrium	89-1	6746697	6733508	6754864	6745023	0.16	cps
Yttrium	89-2	2122243	2156005	2135806	2138018	0.79	cps
Zinc	66-2	3552506	3508893	3606733	3556044	1.38	cps
Zirconium	90-1	6022494	6139797	6073167	6078486	0.97	cps
Zirconium	91-1	1201620	1220258	1217806	1213228	0.83	cps

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On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	623	697	687	669	5.95	cps
Antimony	121-1	150	253	280	228	30.15	cps
Arsenic	75-2	20	20	37	26	37.66	cps
Barium	135-1	50	23	80	51	55.47	cps
Barium	137-1	153	107	103	121	23.09	cps
Beryllium	9-1	130	123	97	117	15.12	cps
Bismuth	209-1	3002630	2837466	2832513	2890870	3.35	cps
Bismuth	209-2	2754510	2732824	2710527	2732620	0.80	cps
Bromine	81-1	31440	32108	32162	31903	1.26	cps
Bromine	81-2	333	253	277	288	14.30	cps
Cadmium	108-1	3	20	10	11	75.52	cps
Cadmium	106-1	1340	1320	1350	1337	1.14	cps
Cadmium	111-1	1032	973	1045	1017	3.75	cps
Calcium	43-1	450	363	347	387	14.35	cps
Calcium	44-1	11995	11808	11778	11861	0.99	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	497	513	470	493	4.43	cps
Cobalt	59-2	143	160	160	154	6.23	cps
Copper	63-2	2880	3114	3070	3021	4.11	cps
Dysprosium	156-1	7	13	10	10	33.30	cps
Dysprosium	156-2	7	3	7	6	34.70	cps
Erbium	164-1	23	20	17	20	16.65	cps
Erbium	164-2	23	20	20	21	9.11	cps
Gadolinium	160-1	23	7	13	14	58.06	cps
Gadolinium	160-2	187	147	213	182	18.41	cps
Holmium	165-1	4732104	4679738	4576626	4662822	1.70	cps
Holmium	165-2	3816927	3840680	3811323	3822977	0.41	cps
Indium	115-1	4021492	3983132	3936914	3980513	1.06	cps
Indium	115-2	1735100	1685928	1677722	1699583	1.83	cps
Iron	56-2	27983	27929	28564	28159	1.25	cps
Iron	57-2	1197	1360	1253	1270	6.53	cps
Iron	54-2	3377	3480	3537	3465	2.34	cps
Krypton	83-1	507	393	433	444	12.93	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1197	1073	1257	1176	7.95	cps
Lead	207-1	1013	1140	1027	1060	6.57	cps
Lead	208-1	4841	4930	4960	4910	1.26	cps
Lithium	6-1	594735	570842	569291	578289	2.47	cps
Magnesium	24-2	507	507	520	511	1.51	cps
Manganese	55-2	1317	1310	1197	1275	5.29	cps
Molybdenum	94-1	287	230	263	260	10.95	cps
Molybdenum	95-1	137	123	150	137	9.76	cps
Molybdenum	96-1	280	313	297	297	5.62	cps
Molybdenum	97-1	180	120	113	138	26.65	cps
Molybdenum	98-1	293	270	297	287	5.07	cps
Neodymium	150-1	0	0	3	1	173.21	cps
Neodymium	150-2	7	0	0	2	173.21	cps
Nickel	60-2	293	307	277	292	5.14	cps
Phosphorus	31-2	317	293	263	291	9.18	cps
Potassium	39-2	57133	57521	57137	57264	0.39	cps
Rhodium	103-1	3754718	3764332	3731857	3750302	0.44	cps
Rhodium	103-2	2520146	2460984	2416982	2466037	2.10	cps
Scandium	45-1	2326632	2253073	2190360	2256688	3.02	cps
Scandium	45-2	202032	199786	197018	199612	1.26	cps
Selenium	82-1	87	187	164	146	35.79	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	863	840	963	889	7.37	cps
Silicon	28-1	1382542	1385208	1400297	1389349	0.69	cps
Silver	107-1	137	130	167	144	13.52	cps
Silver	109-1	130	140	150	140	7.14	cps
Sodium	23-2	21852	21789	22093	21911	0.73	cps
Strontium	86-1	703	757	683	714	5.31	cps
Strontium	88-1	167	270	220	219	23.61	cps
Sulfur	34-1	113403	113625	112503	113177	0.52	cps
Terbium	159-1	4877645	4693743	4654048	4741812	2.52	cps
Terbium	159-2	3854542	3784767	3803957	3814422	0.94	cps
Thallium	203-1	650	643	463	586	18.09	cps
Thallium	205-1	1337	1397	1327	1353	2.80	cps
Tin	118-1	1080	1137	1083	1100	2.89	cps
Titanium	47-1	60	60	63	61	3.15	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB03	Instrumnet Name :	P7
Client Sample ID :	CCB03	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:37:01	DataFile Name :	051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	417	427	340	394	12.02	cps
Vanadium	51-2	67	20	33	40	60.10	cps
Yttrium	89-1	6912374	6748995	6715902	6792424	1.55	cps
Yttrium	89-2	2157358	2138855	2148033	2148082	0.43	cps
Zinc	66-2	727	793	683	734	7.54	cps
Zirconium	90-1	390	463	403	419	9.33	cps
Zirconium	91-1	87	83	100	90	9.80	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2359169	2327384	2303321	2329958	1.20	cps
Antimony	121-1	3174921	3201608	3180404	3185644	0.44	cps
Arsenic	75-2	1187	1120	1157	1155	2.89	cps
Barium	135-1	3919163	3925502	3914225	3919630	0.14	cps
Barium	137-1	6635487	6681384	6779294	6698722	1.10	cps
Beryllium	9-1	426866	430233	441500	432866	1.77	cps
Bismuth	209-1	2887082	2857051	2929052	2891062	1.25	cps
Bismuth	209-2	2784270	2784895	2781607	2783591	0.06	cps
Bromine	81-1	41087	43013	44688	42929	4.20	cps
Bromine	81-2	2970	3540	3430	3314	9.13	cps
Cadmium	108-1	59488	60495	60951	60311	1.24	cps
Cadmium	106-1	86519	86707	87163	86796	0.38	cps
Cadmium	111-1	826087	831405	833745	830412	0.47	cps
Calcium	43-1	911690	914602	911788	912693	0.18	cps
Calcium	44-1	16064403	15987217	16258067	16103229	0.87	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1590429	1619567	1661603	1623866	2.20	cps
Cobalt	59-2	2447024	2478800	2446760	2457528	0.75	cps
Copper	63-2	16160551	16373124	16407239	16313638	0.82	cps
Dysprosium	156-1	95264	95992	95381	95545	0.41	cps
Dysprosium	156-2	90313	89688	89462	89821	0.49	cps
Erbium	164-1	74712	73870	75710	74764	1.23	cps
Erbium	164-2	63099	63540	63433	63357	0.36	cps
Gadolinium	160-1	97278	97043	99252	97858	1.24	cps
Gadolinium	160-2	83883	84754	85013	84550	0.70	cps
Holmium	165-1	4809728	4858186	4810586	4826167	0.57	cps
Holmium	165-2	4093436	4022636	4024676	4046916	1.00	cps
Indium	115-1	4007304	4039660	4020585	4022516	0.40	cps
Indium	115-2	1776236	1712652	1729973	1739620	1.89	cps
Iron	56-2	86811112	87716892	88612859	87713621	1.03	cps
Iron	57-2	2184497	2181691	2174392	2180193	0.24	cps
Iron	54-2	4853586	4800675	4891710	4848657	0.94	cps
Krypton	83-1	633	580	540	584	8.01	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12390185	12390101	12337503	12372596	0.25	cps
Lead	207-1	11076647	11128488	11225830	11143655	0.68	cps
Lead	208-1	50746127	50574673	51132415	50817738	0.56	cps
Lithium	6-1	588478	593503	592511	591497	0.45	cps
Magnesium	24-2	14505721	14229429	14606910	14447353	1.35	cps
Manganese	55-2	13006113	13057202	13204234	13089183	0.79	cps
Molybdenum	94-1	11570288	11917173	11889226	11792229	1.63	cps
Molybdenum	95-1	16860475	16789965	17033651	16894697	0.74	cps
Molybdenum	96-1	18178965	18351783	18379437	18303395	0.59	cps
Molybdenum	97-1	10472169	10634877	10513182	10540076	0.80	cps
Molybdenum	98-1	26718100	26952532	27094553	26921728	0.71	cps
Neodymium	150-1	144353	144556	145549	144819	0.44	cps
Neodymium	150-2	105857	106592	107291	106580	0.67	cps
Nickel	60-2	549197	554235	555927	553120	0.63	cps
Phosphorus	31-2	2524	2620	2634	2592	2.32	cps
Potassium	39-2	9479672	9363678	9537817	9460389	0.94	cps
Rhodium	103-1	3774140	3754332	3774579	3767683	0.31	cps
Rhodium	103-2	2499408	2520111	2477003	2498841	0.86	cps
Scandium	45-1	2415229	2430154	2441603	2428995	0.54	cps
Scandium	45-2	220058	221400	222870	221443	0.64	cps
Selenium	82-1	65649	65148	65598	65465	0.42	cps
Selenium	77-2	8686	9080	9140	8968	2.75	cps
Selenium	78-2	28771	29556	29399	29242	1.42	cps
Silicon	28-1	34484474	34102001	33978814	34188430	0.77	cps
Silver	107-1	598240	595846	603495	599194	0.65	cps
Silver	109-1	563390	567080	562275	564248	0.45	cps
Sodium	23-2	30425768	30414082	30060667	30300172	0.68	cps
Strontium	86-1	1310200	1477743	1508054	1431999	7.44	cps
Strontium	88-1	13132694	13134321	13215512	13160843	0.36	cps
Sulfur	34-1	238422	237119	241686	239076	0.98	cps
Terbium	159-1	4949467	5010567	4982946	4980994	0.61	cps
Terbium	159-2	4129043	4020944	4065915	4071968	1.33	cps
Thallium	203-1	3053630	3059711	3142420	3085254	1.61	cps
Thallium	205-1	7161120	7087253	7300177	7182850	1.51	cps
Tin	118-1	2569620	2529978	2581343	2560314	1.05	cps
Titanium	47-1	2767095	2732426	2762321	2753947	0.68	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01MSD	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:40:17	DataFile Name :	052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9779299	9559565	9891120	9743328	1.73	cps
Vanadium	51-2	1693930	1687388	1680607	1687308	0.39	cps
Yttrium	89-1	7820379	7884315	7943508	7882734	0.78	cps
Yttrium	89-2	2520175	2454397	2507786	2494119	1.40	cps
Zinc	66-2	3180073	3183858	3232787	3198906	0.92	cps
Zirconium	90-1	5880041	5921617	5898539	5900066	0.35	cps
Zirconium	91-1	1176014	1178896	1186204	1180371	0.45	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2274873	2313508	2294538	2294306	0.84	cps
Antimony	121-1	3205506	3189512	3184940	3193319	0.34	cps
Arsenic	75-2	1217	1133	1170	1173	3.56	cps
Barium	135-1	3971417	3952642	3998944	3974334	0.59	cps
Barium	137-1	6716392	6803026	6740473	6753297	0.66	cps
Beryllium	9-1	439927	438703	436793	438474	0.36	cps
Bismuth	209-1	2874907	2955486	2943691	2924695	1.49	cps
Bismuth	209-2	2852638	2856581	2746872	2818697	2.21	cps
Bromine	81-1	45841	48316	50222	48126	4.56	cps
Bromine	81-2	4324	4367	4634	4442	3.78	cps
Cadmium	108-1	61249	61008	59990	60749	1.10	cps
Cadmium	106-1	86932	87086	86696	86905	0.23	cps
Cadmium	111-1	839400	849476	843609	844162	0.60	cps
Calcium	43-1	917599	921235	916654	918496	0.26	cps
Calcium	44-1	16136873	16462064	16291769	16296902	1.00	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1613204	1608413	1607195	1609604	0.20	cps
Cobalt	59-2	2460040	2441149	2402773	2434654	1.20	cps
Copper	63-2	16471203	16643858	16502706	16539256	0.56	cps
Dysprosium	156-1	96509	95619	96596	96241	0.56	cps
Dysprosium	156-2	90734	90975	90707	90805	0.16	cps
Erbium	164-1	75171	76354	74922	75482	1.01	cps
Erbium	164-2	62757	62084	62680	62507	0.59	cps
Gadolinium	160-1	96905	98932	98281	98040	1.06	cps
Gadolinium	160-2	84476	85546	83785	84602	1.05	cps
Holmium	165-1	4890651	4924049	4952034	4922244	0.62	cps
Holmium	165-2	4106418	4072524	4059561	4079501	0.59	cps
Indium	115-1	3966986	3982665	4013500	3987717	0.59	cps
Indium	115-2	1762914	1752189	1715848	1743651	1.41	cps
Iron	56-2	88180869	87139189	85884912	87068323	1.32	cps
Iron	57-2	2209583	2171463	2187487	2189511	0.87	cps
Iron	54-2	4855929	4884225	4803900	4848018	0.84	cps
Krypton	83-1	507	493	493	498	1.55	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12687603	12570959	12529765	12596109	0.65	cps
Lead	207-1	11179405	11391594	11330309	11300436	0.97	cps
Lead	208-1	51371527	52036184	51547892	51651868	0.67	cps
Lithium	6-1	595090	601063	592388	596180	0.74	cps
Magnesium	24-2	14187085	14322784	14164325	14224731	0.60	cps
Manganese	55-2	13160186	13201896	12712328	13024803	2.08	cps
Molybdenum	94-1	11738980	11874257	11778403	11797213	0.59	cps
Molybdenum	95-1	16861737	16933296	16925625	16906886	0.23	cps
Molybdenum	96-1	18276108	18501264	18307274	18361548	0.66	cps
Molybdenum	97-1	10378194	10634763	10479357	10497438	1.23	cps
Molybdenum	98-1	26693188	27014127	26936196	26881170	0.62	cps
Neodymium	150-1	144586	145676	145781	145348	0.46	cps
Neodymium	150-2	104151	106139	103752	104681	1.22	cps
Nickel	60-2	553740	559432	553054	555409	0.63	cps
Phosphorus	31-2	2710	2367	2570	2549	6.77	cps
Potassium	39-2	9374868	9313524	9519245	9402545	1.12	cps
Rhodium	103-1	3827407	3786878	3812300	3808862	0.54	cps
Rhodium	103-2	2532030	2517444	2466002	2505159	1.38	cps
Scandium	45-1	2446242	2481487	2446648	2458126	0.82	cps
Scandium	45-2	222339	223486	220005	221943	0.80	cps
Selenium	82-1	66402	67468	67041	66970	0.80	cps
Selenium	77-2	8719	8976	9036	8911	1.89	cps
Selenium	78-2	29182	29129	28975	29095	0.37	cps
Silicon	28-1	34313779	34607272	34202791	34374614	0.61	cps
Silver	107-1	644424	649764	646022	646737	0.42	cps
Silver	109-1	606580	607018	610012	607870	0.31	cps
Sodium	23-2	30004327	30399374	30013754	30139151	0.75	cps
Strontium	86-1	1451798	1520120	1512879	1494932	2.51	cps
Strontium	88-1	13102164	13146551	13206001	13151572	0.40	cps
Sulfur	34-1	235898	237139	238294	237110	0.51	cps
Terbium	159-1	4975098	5028988	5024068	5009384	0.59	cps
Terbium	159-2	4075623	4109065	4038257	4074315	0.87	cps
Thallium	203-1	3091612	3107833	3119369	3106271	0.45	cps
Thallium	205-1	7191400	7267990	7248816	7236069	0.55	cps
Tin	118-1	2582183	2621570	2578896	2594216	0.92	cps
Titanium	47-1	2662564	2765650	2752942	2727052	2.06	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1588-01A	Instrumnet Name :	P7
Client Sample ID :	TAPFTA-MW01D-031425	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 17:43:05	DataFile Name :	053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9716080	10062726	9932937	9903914	1.77	cps
Vanadium	51-2	1653537	1691584	1713351	1686157	1.80	cps
Yttrium	89-1	7901645	7935993	7968629	7935422	0.42	cps
Yttrium	89-2	2507639	2536673	2492445	2512252	0.89	cps
Zinc	66-2	3256820	3272992	3303839	3277884	0.73	cps
Zirconium	90-1	5913164	5952023	5955928	5940372	0.40	cps
Zirconium	91-1	1180775	1185740	1186976	1184497	0.28	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	19993	19993	19810	19932	0.53	cps
Antimony	121-1	40463	41881	41934	41426	2.01	cps
Arsenic	75-2	19403	19326	20047	19592	2.02	cps
Barium	135-1	36560	37115	37763	37146	1.62	cps
Barium	137-1	62366	64402	64187	63652	1.76	cps
Beryllium	9-1	60	97	123	93	34.07	cps
Bismuth	209-1	1360997	1344761	1347754	1351171	0.64	cps
Bismuth	209-2	1258310	1273814	1255516	1262546	0.78	cps
Bromine	81-1	1484487	1785463	1952322	1740757	13.62	cps
Bromine	81-2	414876	416390	419740	417002	0.60	cps
Cadmium	108-1	9256	9093	9316	9222	1.25	cps
Cadmium	106-1	830	753	720	768	7.35	cps
Cadmium	111-1	5159	5534	5330	5341	3.51	cps
Calcium	43-1	29722	30728	30618	30356	1.82	cps
Calcium	44-1	560491	574155	577593	570746	1.58	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	11825	12208	12258	12097	1.96	cps
Cobalt	59-2	1157	1220	1243	1207	3.72	cps
Copper	63-2	211616	209351	207880	209616	0.90	cps
Dysprosium	156-1	13	17	17	16	12.40	cps
Dysprosium	156-2	27	10	27	21	45.58	cps
Erbium	164-1	30	20	27	26	19.92	cps
Erbium	164-2	27	13	13	18	43.33	cps
Gadolinium	160-1	17	13	13	14	13.35	cps
Gadolinium	160-2	87	110	117	104	15.08	cps
Holmium	165-1	2494603	2512065	2558674	2521781	1.31	cps
Holmium	165-2	2116737	2152559	2097847	2122381	1.31	cps
Indium	115-1	2111116	2131627	2121422	2121388	0.48	cps
Indium	115-2	829609	824571	823911	826030	0.38	cps
Iron	56-2	435619	435449	436024	435697	0.07	cps
Iron	57-2	12222	11975	13668	12622	7.25	cps
Iron	54-2	26340	25962	26123	26142	0.72	cps
Krypton	83-1	367	367	403	379	5.59	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	7445	7629	7779	7618	2.19	cps
Lead	207-1	6618	6695	6605	6639	0.73	cps
Lead	208-1	30814	31288	31442	31181	1.05	cps
Lithium	6-1	318475	322351	325098	321974	1.03	cps
Magnesium	24-2	151058	151582	153353	151998	0.79	cps
Manganese	55-2	66643	66888	67219	66917	0.43	cps
Molybdenum	94-1	42372564	43195868	43349244	42972559	1.22	cps
Molybdenum	95-1	75035307	75402999	76924707	75787671	1.32	cps
Molybdenum	96-1	79478807	80298530	81472040	80416459	1.25	cps
Molybdenum	97-1	46128006	47023776	47128863	46760215	1.18	cps
Molybdenum	98-1	118200965	120749322	122085672	120345319	1.64	cps
Neodymium	150-1	13	27	17	19	36.75	cps
Neodymium	150-2	10	3	7	7	50.03	cps
Nickel	60-2	773	737	847	786	7.13	cps
Phosphorus	31-2	9059	8519	8569	8716	3.43	cps
Potassium	39-2	218846357	218817157	216504617	218056043	0.62	cps
Rhodium	103-1	1929653	1934467	1971628	1945249	1.18	cps
Rhodium	103-2	1152152	1144723	1136232	1144369	0.70	cps
Scandium	45-1	1059948	1204297	1235775	1166673	8.04	cps
Scandium	45-2	108535	110141	109905	109527	0.79	cps
Selenium	82-1	7800	10706	12096	10201	21.49	cps
Selenium	77-2	1453	1460	1623	1512	6.37	cps
Selenium	78-2	6215	6405	6278	6299	1.54	cps
Silicon	28-1	15032990	16446408	17328280	16269226	7.12	cps
Silver	107-1	377	470	463	437	11.92	cps
Silver	109-1	440	510	490	480	7.51	cps
Sodium	23-2	144818801	144485501	149070768	146125023	1.75	cps
Strontium	86-1	27085	27456	27486	27342	0.82	cps
Strontium	88-1	235995	238984	239087	238022	0.74	cps
Sulfur	34-1	170820	173280	170432	171511	0.90	cps
Terbium	159-1	2601478	2617551	2632949	2617326	0.60	cps
Terbium	159-2	2100973	2074685	2133271	2102977	1.40	cps
Thallium	203-1	4214	4271	4337	4274	1.45	cps
Thallium	205-1	9774	9613	9647	9678	0.87	cps
Tin	118-1	4941	5314	5421	5225	4.83	cps
Titanium	47-1	1570	1717	1700	1662	4.83	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DLX5	Instrumnet Name :	P7
Client Sample ID :	3799DL	Dilution Factor :	5
Date & Time Acquired :	2025-03-23 17:45:52	DataFile Name :	054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	383	397	303	361	13.98	cps
Vanadium	51-2	1943	1927	1900	1923	1.14	cps
Yttrium	89-1	3570138	3645665	3659440	3625081	1.33	cps
Yttrium	89-2	1049910	1042696	1029753	1040786	0.98	cps
Zinc	66-2	56848	55797	55211	55952	1.48	cps
Zirconium	90-1	1183	1317	1370	1290	7.45	cps
Zirconium	91-1	360	277	307	314	13.42	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	4938	4884	5071	4964	1.94	cps
Antimony	121-1	9860	9667	9520	9682	1.76	cps
Arsenic	75-2	4317	4647	4407	4457	3.83	cps
Barium	135-1	8796	8656	8506	8653	1.68	cps
Barium	137-1	15252	15452	15218	15307	0.83	cps
Beryllium	9-1	117	77	77	90	25.66	cps
Bismuth	209-1	2406148	2325160	2295958	2342422	2.44	cps
Bismuth	209-2	2224710	2197197	2189505	2203804	0.84	cps
Bromine	81-1	267433	326081	357095	316870	14.37	cps
Bromine	81-2	81463	82988	84687	83046	1.94	cps
Cadmium	108-1	2217	2094	2217	2176	3.27	cps
Cadmium	106-1	1073	953	1063	1030	6.46	cps
Cadmium	111-1	2117	1976	1766	1953	9.03	cps
Calcium	43-1	7722	7288	7625	7545	3.02	cps
Calcium	44-1	141385	139694	141041	140707	0.64	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	3140	3037	3384	3187	5.59	cps
Cobalt	59-2	420	383	350	384	9.11	cps
Copper	63-2	52100	52040	51495	51878	0.64	cps
Dysprosium	156-1	10	7	10	9	21.63	cps
Dysprosium	156-2	3	7	10	7	50.03	cps
Erbium	164-1	23	37	13	24	47.91	cps
Erbium	164-2	20	20	33	24	31.49	cps
Gadolinium	160-1	13	17	10	13	25.01	cps
Gadolinium	160-2	157	157	137	150	7.70	cps
Holmium	165-1	3856464	3794643	3805680	3818929	0.86	cps
Holmium	165-2	3138437	3183083	3156185	3159235	0.71	cps
Indium	115-1	3307766	3224199	3187884	3239950	1.90	cps
Indium	115-2	1242222	1240043	1234574	1238947	0.32	cps
Iron	56-2	122884	123321	122245	122817	0.44	cps
Iron	57-2	3627	3811	4024	3821	5.20	cps
Iron	54-2	8556	8829	8512	8633	1.99	cps
Krypton	83-1	343	417	477	412	16.20	cps

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LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2780	2567	2540	2629	5.00	cps
Lead	207-1	2160	2327	2127	2205	4.86	cps
Lead	208-1	10873	10861	10736	10824	0.70	cps
Lithium	6-1	480972	465383	464242	470199	1.99	cps
Magnesium	24-2	35625	36687	35397	35903	1.92	cps
Manganese	55-2	16206	17233	16209	16549	3.58	cps
Molybdenum	94-1	10223737	10061591	10144141	10143157	0.80	cps
Molybdenum	95-1	18158055	17753959	17886882	17932965	1.15	cps
Molybdenum	96-1	19590298	19055037	19230203	19291846	1.41	cps
Molybdenum	97-1	11346190	11106969	11142582	11198580	1.15	cps
Molybdenum	98-1	28981425	28655406	28723772	28786868	0.60	cps
Neodymium	150-1	10	3	13	9	57.30	cps
Neodymium	150-2	3	7	0	3	100.05	cps
Nickel	60-2	543	557	467	522	9.30	cps
Phosphorus	31-2	1970	2080	2104	2051	3.47	cps
Potassium	39-2	51677341	52725346	51988514	52130400	1.03	cps
Rhodium	103-1	3050883	2964772	2953122	2989592	1.79	cps
Rhodium	103-2	1979843	1987360	1924077	1963760	1.76	cps
Scandium	45-1	1877988	1808072	1835848	1840636	1.91	cps
Scandium	45-2	162295	163566	161447	162436	0.66	cps
Selenium	82-1	2577	2734	2865	2725	5.29	cps
Selenium	77-2	333	387	327	349	9.43	cps
Selenium	78-2	2104	2194	2027	2108	3.96	cps
Silicon	28-1	4298290	4292397	4422331	4337673	1.69	cps
Silver	107-1	170	150	153	158	6.79	cps
Silver	109-1	140	190	167	166	15.11	cps
Sodium	23-2	34200577	33806597	34226620	34077931	0.69	cps
Strontium	86-1	7022	7182	7135	7113	1.16	cps
Strontium	88-1	56451	56080	56736	56422	0.58	cps
Sulfur	34-1	115532	114844	114750	115042	0.37	cps
Terbium	159-1	3930158	3887308	3907813	3908426	0.55	cps
Terbium	159-2	3129901	3136454	3128398	3131584	0.14	cps
Thallium	203-1	1127	1020	1103	1083	5.18	cps
Thallium	205-1	2547	2527	2714	2596	3.95	cps
Tin	118-1	2150	1893	1893	1979	7.49	cps
Titanium	47-1	440	363	420	408	9.75	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	Q1590-04DL2X25	Instrumnet Name :	P7
Client Sample ID :	3799DL2	Dilution Factor :	25
Date & Time Acquired :	2025-03-23 17:55:07	DataFile Name :	055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	340	303	300	314	7.06	cps
Vanadium	51-2	540	527	587	551	5.72	cps
Yttrium	89-1	5533518	5453590	5382317	5456475	1.39	cps
Yttrium	89-2	1693192	1736592	1734472	1721419	1.42	cps
Zinc	66-2	14127	14417	14080	14208	1.29	cps
Zirconium	90-1	540	583	557	560	3.90	cps
Zirconium	91-1	117	113	127	119	5.84	cps

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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9728304	9901811	9766870	9798995	0.93	cps
Antimony	121-1	3236455	3267313	3354658	3286142	1.87	cps
Arsenic	75-2	205125	204784	204165	204691	0.24	cps
Barium	135-1	4375072	4474327	4447390	4432263	1.16	cps
Barium	137-1	7471190	7670549	7565821	7569186	1.32	cps
Beryllium	9-1	446459	458799	461277	455512	1.74	cps
Bismuth	209-1	2734114	2652302	2726934	2704450	1.68	cps
Bismuth	209-2	2628825	2549512	2549699	2576012	1.78	cps
Bromine	81-1	36468	37822	37264	37185	1.83	cps
Bromine	81-2	760	797	830	796	4.40	cps
Cadmium	108-1	65584	66916	67607	66702	1.54	cps
Cadmium	106-1	95706	94871	95401	95326	0.44	cps
Cadmium	111-1	911769	921645	923783	919066	0.70	cps
Calcium	43-1	4811590	4883155	4938862	4877869	1.31	cps
Calcium	44-1	78981595	80059782	79699292	79580223	0.69	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1633035	1676794	1634268	1648032	1.51	cps
Cobalt	59-2	2591771	2529468	2597777	2573005	1.47	cps
Copper	63-2	19492751	19809607	19661416	19654591	0.81	cps
Dysprosium	156-1	130	117	157	134	15.15	cps
Dysprosium	156-2	273	317	323	304	8.92	cps
Erbium	164-1	160	140	153	151	6.74	cps
Erbium	164-2	110	160	170	147	21.92	cps
Gadolinium	160-1	150	117	163	143	16.77	cps
Gadolinium	160-2	313	363	333	337	7.47	cps
Holmium	165-1	4777931	4784965	4728215	4763704	0.65	cps
Holmium	165-2	3958737	3891425	3911975	3920713	0.88	cps
Indium	115-1	3934038	3891800	3920175	3915338	0.55	cps
Indium	115-2	1689310	1691566	1698475	1693117	0.28	cps
Iron	56-2	381976888	390497021	378099808	383524572	1.65	cps
Iron	57-2	9518642	9622330	9475614	9538862	0.79	cps
Iron	54-2	20775922	20905385	20801951	20827753	0.33	cps
Krypton	83-1	543	420	473	479	12.92	cps

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Inst Id :P7
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LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12392128	12541985	12313292	12415802	0.94	cps
Lead	207-1	11086890	11237395	11106892	11143725	0.73	cps
Lead	208-1	50568385	51390007	50303699	50754031	1.12	cps
Lithium	6-1	570133	578216	575105	574485	0.71	cps
Magnesium	24-2	79229144	77532386	78663275	78474935	1.10	cps
Manganese	55-2	15013711	15155125	14656951	14941929	1.72	cps
Molybdenum	94-1	12674541	13249766	12953044	12959117	2.22	cps
Molybdenum	95-1	18105033	18943823	18502540	18517132	2.27	cps
Molybdenum	96-1	19955268	20681401	20199742	20278804	1.82	cps
Molybdenum	97-1	11319061	11420307	11605614	11448327	1.27	cps
Molybdenum	98-1	29057087	29753740	29545176	29452001	1.21	cps
Neodymium	150-1	227	253	227	236	6.54	cps
Neodymium	150-2	107	90	110	102	10.48	cps
Nickel	60-2	577882	575976	572597	575485	0.47	cps
Phosphorus	31-2	98186	98042	98011	98080	0.10	cps
Potassium	39-2	52244228	52496778	52678401	52473135	0.42	cps
Rhodium	103-1	3591339	3644711	3699363	3645137	1.48	cps
Rhodium	103-2	2370154	2364733	2345591	2360159	0.55	cps
Scandium	45-1	2347920	2331131	2335924	2338325	0.37	cps
Scandium	45-2	213845	215262	212403	213836	0.67	cps
Selenium	82-1	67113	67206	67322	67213	0.16	cps
Selenium	77-2	8733	8629	8256	8539	2.94	cps
Selenium	78-2	29222	29469	29710	29467	0.83	cps
Silicon	28-1	7246262	7398887	7436576	7360575	1.37	cps
Silver	107-1	6444251	3164803	4036701	4548585	37.34	cps
Silver	109-1	6529337	9232789	1562347	5774824	67.37	cps
Sodium	23-2	123763065	122081752	122592462	122812426	0.70	cps
Strontium	86-1	1059990	1074893	1070559	1068481	0.72	cps
Strontium	88-1	10507071	10526631	10640500	10558067	0.68	cps
Sulfur	34-1	395944	396684	394599	395742	0.27	cps
Terbium	159-1	4890470	4875767	4887221	4884486	0.16	cps
Terbium	159-2	3853641	3822415	3897298	3857785	0.97	cps
Thallium	203-1	3180338	3208200	3199037	3195858	0.44	cps
Thallium	205-1	7411323	7581100	7422911	7471778	1.27	cps
Tin	118-1	2973477	2974371	2993873	2980574	0.39	cps
Titanium	47-1	4677296	4789733	4709500	4725510	1.23	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCV04	Instrumnet Name :	P7
Client Sample ID :	CCV04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:20:54	DataFile Name :	059CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	9970251	10073026	10172840	10072039	1.01	cps
Vanadium	51-2	1489508	1459635	1471395	1473513	1.02	cps
Yttrium	89-1	7006664	7019804	7137456	7054641	1.02	cps
Yttrium	89-2	2198341	2209084	2187207	2198211	0.50	cps
Zinc	66-2	3736657	3746481	3795839	3759659	0.84	cps
Zirconium	90-1	6340572	6335542	6377374	6351163	0.36	cps
Zirconium	91-1	1403960	1289565	1383418	1358981	4.49	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	653	650	707	670	4.75	cps
Antimony	121-1	263	363	313	313	15.96	cps
Arsenic	75-2	43	47	53	48	10.66	cps
Barium	135-1	77	93	70	80	15.02	cps
Barium	137-1	143	133	127	134	6.24	cps
Beryllium	9-1	77	103	140	107	29.81	cps
Bismuth	209-1	2889788	2870225	2880776	2880263	0.34	cps
Bismuth	209-2	2845084	2806186	2795738	2815669	0.92	cps
Bromine	81-1	37728	37845	38026	37866	0.40	cps
Bromine	81-2	587	590	563	580	2.51	cps
Cadmium	108-1	20	10	20	17	34.64	cps
Cadmium	106-1	1590	1290	1633	1505	12.43	cps
Cadmium	111-1	1226	1036	1233	1165	9.58	cps
Calcium	43-1	430	350	453	411	13.18	cps
Calcium	44-1	13406	13053	12873	13111	2.07	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	557	490	623	557	11.98	cps
Cobalt	59-2	140	213	137	163	26.53	cps
Copper	63-2	3360	2954	3100	3138	6.56	cps
Dysprosium	156-1	7	3	3	4	43.40	cps
Dysprosium	156-2	7	0	0	2	173.21	cps
Erbium	164-1	20	27	13	20	33.35	cps
Erbium	164-2	20	17	40	26	49.38	cps
Gadolinium	160-1	20	27	43	30	40.05	cps
Gadolinium	160-2	227	190	193	203	9.97	cps
Holmium	165-1	4756409	4680672	4656976	4698019	1.11	cps
Holmium	165-2	3930524	3861039	3978410	3923324	1.50	cps
Indium	115-1	4213278	4093516	4086330	4131041	1.73	cps
Indium	115-2	1801617	1798895	1770211	1790241	0.97	cps
Iron	56-2	31663	32475	32138	32092	1.27	cps
Iron	57-2	1387	1430	2138	1652	25.55	cps
Iron	54-2	3677	3570	3677	3642	1.69	cps
Krypton	83-1	373	407	427	402	6.70	cps

Reviewed By:jaswal
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Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1397	1347	1337	1360	2.36	cps
Lead	207-1	1360	1130	1217	1236	9.40	cps
Lead	208-1	5958	5571	5734	5754	3.38	cps
Lithium	6-1	574853	571837	578700	575130	0.60	cps
Magnesium	24-2	763	817	790	790	3.38	cps
Manganese	55-2	1343	1420	1353	1372	3.04	cps
Molybdenum	94-1	330	307	383	340	11.56	cps
Molybdenum	95-1	277	263	307	282	7.86	cps
Molybdenum	96-1	423	313	373	370	14.89	cps
Molybdenum	97-1	203	173	193	190	8.04	cps
Molybdenum	98-1	447	393	390	410	7.76	cps
Neodymium	150-1	3	3	0	2	86.60	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	340	337	383	353	7.37	cps
Phosphorus	31-2	227	263	180	223	18.70	cps
Potassium	39-2	65413	64208	65021	64881	0.95	cps
Rhodium	103-1	3919272	3911798	3939659	3923577	0.37	cps
Rhodium	103-2	2521563	2544762	2530814	2532380	0.46	cps
Scandium	45-1	2342286	2329001	2376718	2349335	1.05	cps
Scandium	45-2	209302	209492	208441	209078	0.27	cps
Selenium	82-1	343	325	286	318	9.20	cps
Selenium	77-2	20	3	23	16	68.90	cps
Selenium	78-2	1053	1000	1020	1024	2.63	cps
Silicon	28-1	1531607	1536369	1549396	1539124	0.60	cps
Silver	107-1	933	647	640	740	22.63	cps
Silver	109-1	937	707	530	724	28.15	cps
Sodium	23-2	25728	25411	25364	25501	0.78	cps
Strontium	86-1	703	700	813	739	8.73	cps
Strontium	88-1	247	260	193	233	15.12	cps
Sulfur	34-1	123921	125050	124374	124448	0.46	cps
Terbium	159-1	4873382	4756195	4808039	4812539	1.22	cps
Terbium	159-2	3896941	3942363	3877206	3905503	0.86	cps
Thallium	203-1	527	493	547	522	5.16	cps
Thallium	205-1	1370	1300	1297	1322	3.13	cps
Tin	118-1	1280	1250	1240	1257	1.66	cps
Titanium	47-1	97	93	110	100	8.82	cps

Reviewed By:jaswal
On:3/24/2025 12:27:15 PM
Inst Id :P7
LB :LB135143

LB Number :	LB135143	Operator :	Jaswal
Lab Sample ID :	CCB04	Instrumnet Name :	P7
Client Sample ID :	CCB04	Dilution Factor :	1
Date & Time Acquired :	2025-03-23 18:25:52	DataFile Name :	060CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	420	450	423	431	3.81	cps
Vanadium	51-2	73	33	33	47	49.49	cps
Yttrium	89-1	7040557	7108552	6884041	7011050	1.64	cps
Yttrium	89-2	2203215	2206313	2194510	2201346	0.28	cps
Zinc	66-2	773	777	857	802	5.88	cps
Zirconium	90-1	383	420	543	449	18.67	cps
Zirconium	91-1	107	93	97	99	7.02	cps

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167102

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 03/11/2025 **Time :** 15:10 **Temp :** 94 °C

End Digest Date: ~~03/04/2025~~ 03/11/2025 **Time :** 17:10 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: VL

MB 03/24/2025

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP84836
CCV	30mL	MP84838
CRA	30mL	MP84840
Blank Spike	0.48mL	MP84828
Matrix Spike	0.48mL	MP84828

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP84563
KMnO4 (5%)	4.5mL	MP84564
K2S2O8 (5%)	2.5mL	MP84565
Hydroxylamine HCL (12%)	2.0mL	MP84566
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP84829
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP84831
2.5 ppb	S2.5	30mL	MP84832
5.0 ppb	S5.0	30mL	MP84833
7.5 ppb	S7.5	30mL	MP84834
10.0 ppb	S10.0	30mL	MP84835
ICV	ICV	30mL	MP84836
ICB	ICB	30mL	MP84837
CCV	CCV	30mL	MP84838
CCB	CCB	30mL	MP84839
CRI	CRI	30mL	MP84840
CHK STD	CHK STD	30mL	MP84841

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
3/11/25 @ 17:40	MB - Dig. Lab	MB - ISO Extraction Lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167102

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB167102BL	PBW102	30	30	<2	N/A	3-16
PB167102BS	LCS102	30	30	<2	MP84828	17
Q1168-07	LOD-MDL-WATER-01-QT1-2025	30	30	<2	N/A	18
Q1168-08	LOQ-WATER-02-QT1-2025	30	30	<2	N/A	19
Q1539-01	TAPIAL3-MW03D-031025-00-T1	30	30	<2	N/A	20
Q1539-02	TAPFTA-MW01I-031025-00-T2	30	30	<2	N/A	21
Q1541-01	205703	30	30	<2	N/A	22
Q1541-01DUP	205703DUP	30	30	<2	N/A	23
Q1541-01MS	205703MS	30	30	<2	MP84828	24
Q1541-01MSD	205703MSD	30	30	<2	MP84828	25

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 031125_7470 **WorkList ID :** 188208 **Department :** Digestion **Date :** 03-11-2025 08:02:29

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1539-01	TAPIAL3-MW03D-031025-00-T1	Water	Mercury	1:1 HNO3 to pH < 2	WEST04	I31	03/10/2025	7470A
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Mercury	1:1 HNO3 to pH < 2	WEST04	I31	03/10/2025	7470A
Q1168-07	LOD-MDL-WATER-01-QT1-2025	Water	Mercury	1:1 HNO3 to pH < 2	CHEM02	QA Office	01/23/2025	7470A
Q1168-08	LOQ-WATER-02-QT1-2025	Water	Mercury	1:1 HNO3 to pH < 2	CHEM02	QA Office	01/23/2025	7470A
Q1541-01	205703	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	H31	03/11/2025	7470A

Date/Time 3/11/25 @ 14:40

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 3/11/25 @ 15:30

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167118

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 03/13/2025 **Time :** 10:40 **Temp :** 96 °C

End Digest Date: 03/13/2025 **Time :** 12:45 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLG.

Supervisor Signature: MB

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
Spike Sol 1	0.50	MP84706
Spike Sol 2	1.00	MP84719
Spike Sol 3	1.00	MP84716
Spike Sol 4	1.00	MP84717
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
CONC: HNO3	3.00	M6126
1:1 HCL	5.00	MP84720
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 CELL #50: 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/13/25 13:45	SLG. met.dig	MB- metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167118

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167118BL	PBW118	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	20
PB167118BS	LCS118	<2	50	50	Colorless	Colorless	Clear	Clear	MP84706,MP84719,MP84716,M	21
Q1539-01	TAPIAL3-MW03D-031025-00-T1	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	22
Q1539-02	TAPFTA-MW01I-031025-00-T2	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	23
Q1539-02MS	TAPFTA-MW01I-031025-00-T2MS	<2	50	50	Colorless	Colorless	Clear	Clear	MP84706,MP84719,MP84716,M	25
Q1539-02MSD	TAPFTA-MW01I-031025-00-T2MSD	<2	50	50	Colorless	Colorless	Clear	Clear	MP84706,MP84719,MP84716,M	26
Q1539-02DUP	TAPFTA-MW01I-031025-00-T2DUP	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	24

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB167118 **WorkList ID :** 188255 **Department :** Digestion **Date :** 03-13-2025 10:05:27

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	WEST04	I31	03/10/2025	6020B
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	WEST04	I31	03/10/2025	6020B

Date/Time 03/13/25 10:20
Raw Sample Received by: SBS.met.dig
Raw Sample Relinquished by: JD CSM)

Date/Time 03/13/25 11:20
Raw Sample Received by: JD CSM)
Raw Sample Relinquished by: SBS.met.dig

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134996

Review By	Mohan	Review On	3/14/2025 11:17:02 AM
Supervise By	jaswal	Supervise On	3/14/2025 1:48:29 PM

STD. NAME	STD REF.#
ICAL Standard	MP84848,MP84850,MP84851,MP84852,MP84853,MP84854
ICV Standard	MP84855
CCV Standard	MP84857
ICSA Standard	
CRI Standard	MP84859
LCS Standard	
Chk Standard	MP84856,MP84858,MP84860,MP84862

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	03/12/25 10:41		Mohan	OK
2	S0.2	S0.2	CAL2	03/12/25 10:43		Mohan	OK
3	S2.5	S2.5	CAL3	03/12/25 10:45		Mohan	OK
4	S5	S5	CAL4	03/12/25 10:48		Mohan	OK
5	S7.5	S7.5	CAL5	03/12/25 10:50		Mohan	OK
6	S10	S10	CAL6	03/12/25 10:55		Mohan	OK
7	ICV38	ICV38	ICV	03/12/25 11:00		Mohan	OK
8	ICB38	ICB38	ICB	03/12/25 11:02		Mohan	OK
9	CCV86	CCV86	CCV	03/12/25 11:10		Mohan	OK
10	CCB86	CCB86	CCB	03/12/25 11:12		Mohan	OK
11	CRA	CRA	CRDL	03/12/25 11:15		Mohan	OK
12	HighStd	HighStd	HIGH STD	03/12/25 11:17		Mohan	OK
13	ChkStd	ChkStd	SAM	03/12/25 11:25		Mohan	OK
14	PB167093BL	PB167093BL	MB	03/12/25 11:27		Mohan	OK
15	PB167093BS	PB167093BS	LCS	03/12/25 11:30		Mohan	OK
16	Q1523-03	WC-A1-01-C	SAM	03/12/25 11:32		Mohan	OK
17	Q1523-06	WC-A1-02-C	SAM	03/12/25 11:34		Mohan	OK
18	Q1534-06	OR-636-COMP-16	SAM	03/12/25 11:37		Mohan	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134996

Review By	Mohan	Review On	3/14/2025 11:17:02 AM
Supervise By	jaswal	Supervise On	3/14/2025 1:48:29 PM

STD. NAME	STD REF.#
ICAL Standard	MP84848,MP84850,MP84851,MP84852,MP84853,MP84854
ICV Standard	MP84855
CCV Standard	MP84857
ICSA Standard	
CRI Standard	MP84859
LCS Standard	
Chk Standard	MP84856,MP84858,MP84860,MP84862

19	Q1534-12	OR-636-COMP-17	SAM	03/12/25 11:39		Mohan	OK
20	Q1534-18	OR-636-COMP-18	SAM	03/12/25 11:41		Mohan	OK
21	CCV87	CCV87	CCV	03/12/25 11:43		Mohan	OK
22	CCB87	CCB87	CCB	03/12/25 11:46		Mohan	OK
23	Q1534-24	OR-636-COMP-19	SAM	03/12/25 11:48		Mohan	OK
24	Q1537-05	COMP-1	SAM	03/12/25 11:50		Mohan	OK
25	Q1537-06	COMP-2	SAM	03/12/25 11:52		Mohan	OK
26	Q1537-07	COMP-3	SAM	03/12/25 11:55		Mohan	OK
27	Q1537-07DUP	COMP-3DUP	DUP	03/12/25 11:57		Mohan	OK
28	Q1537-07MS	COMP-3MS	MS	03/12/25 11:59		Mohan	OK
29	Q1537-07MSD	COMP-3MSD	MSD	03/12/25 12:02		Mohan	OK
30	PB167102BL	PB167102BL	MB	03/12/25 12:04		Mohan	OK
31	Q1168-07	LOD-MDL-WATER-01	SAM	03/12/25 12:32		Mohan	OK
32	CCV88	CCV88	CCV	03/12/25 12:54		Mohan	OK
33	CCB88	CCB88	CCB	03/12/25 12:56		Mohan	OK
34	Q1168-08	LOQ-WATER-02-QT1	LCS	03/12/25 13:01		Mohan	OK
35	Q1539-01	TAPIAL3-MW03D-031	SAM	03/12/25 13:04		Mohan	OK
36	Q1539-02	TAPFTA-MW01I-0310	SAM	03/12/25 13:06		Mohan	OK
37	Q1541-01	205703	SAM	03/12/25 13:08		Mohan	OK
38	Q1541-01DUP	205703DUP	DUP	03/12/25 13:10		Mohan	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134996

Review By	Mohan	Review On	3/14/2025 11:17:02 AM
Supervise By	jaswal	Supervise On	3/14/2025 1:48:29 PM

STD. NAME	STD REF.#
ICAL Standard	MP84848,MP84850,MP84851,MP84852,MP84853,MP84854
ICV Standard	MP84855
CCV Standard	MP84857
ICSA Standard	
CRI Standard	MP84859
LCS Standard	
Chk Standard	MP84856,MP84858,MP84860,MP84862

39	Q1541-01MS	205703MS	MS	03/12/25 13:13		Mohan	OK
40	Q1541-01MSD	205703MSD	MSD	03/12/25 13:15		Mohan	OK
41	CCV89	CCV89	CCV	03/12/25 13:17		Mohan	OK
42	CCB89	CCB89	CCB	03/12/25 13:20		Mohan	OK
43	PB167102BS	PB167102BS	LCS	03/12/25 13:22		Mohan	OK
44	PB167049TB	PB167049TB	MB	03/12/25 13:24		Mohan	OK
45	Q1537-07L	COMP-3L	SD	03/12/25 13:26		Mohan	OK
46	Q1537-07A	COMP-3A	PS	03/12/25 13:29		Mohan	OK
47	Q1541-01L	205703L	SD	03/12/25 13:31		Mohan	OK
48	Q1541-01A	205703A	PS	03/12/25 13:33		Mohan	OK
49	CCV90	CCV90	CCV	03/12/25 13:46		Mohan	OK
50	CCB90	CCB90	CCB	03/12/25 13:48		Mohan	OK

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Fax : 908 789 8922

Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB135143

Review By	Janvi	Review On	3/24/2025 10:32:11 AM
Supervise By	jaswal	Supervise On	3/24/2025 12:27:15 PM

STD. NAME	STD REF.#
ICAL Standard	MP84682,MP84684,MP84683,MP84688,MP84687,MP84686,MP84685,MP84681,MP84689
ICV Standard	MP84690
CCV Standard	MP84697
ICSA Standard	MP84692,MP84693
CRI Standard	MP84683
LCS Standard	
Chk Standard	MP84695,MP84696

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE	TUNE	03/23/25 14:11		Jaswal	OK
2	S0	S0	CAL1	03/23/25 14:44		Jaswal	OK
3	S2	S2	CAL3	03/23/25 14:50		Jaswal	OK
4	S3	S3	CAL4	03/23/25 14:54		Jaswal	OK
5	S4	S4	CAL5	03/23/25 14:57		Jaswal	OK
6	S5	S5	CAL6	03/23/25 15:00		Jaswal	OK
7	S6	S6	CAL7	03/23/25 15:03		Jaswal	OK
8	S7	S7	CAL8	03/23/25 15:05		Jaswal	OK
9	S8	S8	CAL9	03/23/25 15:08		Jaswal	OK
10	ICV01	ICV01	ICV	03/23/25 15:35		Jaswal	OK
11	LLICV	LLICV	LLICV	03/23/25 15:47		Jaswal	OK
12	ICB01	ICB01	ICB	03/23/25 15:50		Jaswal	OK
13	ICSA01	ICSA01	ICSA	03/23/25 15:54		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	03/23/25 15:57		Jaswal	OK
15	CCV01	CCV01	CCV	03/23/25 16:00		Jaswal	OK
16	CCB01	CCB01	CCB	03/23/25 16:04		Jaswal	OK
17	CRI	CRI	CRDL	03/23/25 16:11		Jaswal	OK
18	PB167118BL	PB167118BL	MB	03/23/25 16:18		Jaswal	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB135143

Review By	Janvi	Review On	3/24/2025 10:32:11 AM
Supervise By	jaswal	Supervise On	3/24/2025 12:27:15 PM

STD. NAME	STD REF.#
ICAL Standard	MP84682,MP84684,MP84683,MP84688,MP84687,MP84686,MP84685,MP84681,MP84689
ICV Standard	MP84690
CCV Standard	MP84697
ICSA Standard	MP84692,MP84693
CRI Standard	MP84683
LCS Standard	
Chk Standard	MP84695,MP84696

19	PB167118BS	PB167118BS	LCS	03/23/25 16:21		Jaswal	OK
20	Q1539-01	TAPIAL3-MW03D-031	SAM	03/23/25 16:24		Jaswal	OK
21	Q1539-02	TAPFTA-MW01I-0310	SAM	03/23/25 16:27		Jaswal	OK
22	Q1539-02DUP	TAPFTA-MW01I-0310	DUP	03/23/25 16:30		Jaswal	OK
23	Q1539-02L	TAPFTA-MW01I-0310	SD	03/23/25 16:34		Jaswal	OK
24	Q1539-02MS	TAPFTA-MW01I-0310	MS	03/23/25 16:37		Jaswal	OK
25	Q1539-02MSD	TAPFTA-MW01I-0310	MSD	03/23/25 16:40		Jaswal	OK
26	Q1539-02A	TAPFTA-MW01I-0310	PS	03/23/25 16:43		Jaswal	OK
27	CCV02	CCV02	CCV	03/23/25 16:45		Jaswal	OK
28	CCB02	CCB02	CCB	03/23/25 16:53		Jaswal	OK
29	Q1563-02DL	FERNOT-WATERDL	SAM	03/23/25 16:56	Not use	Jaswal	Not Ok
30	Q1563-02DUPDL	FERNOT-WATERDUP	DUP	03/23/25 16:59	Not use	Jaswal	Not Ok
31	Q1563-02LDL	FERNOT-WATERLDL	SD	03/23/25 17:03	Not use	Jaswal	Not Ok
32	Q1563-02MSDL	FERNOT-WATERMSD	MS	03/23/25 17:06	Not use	Jaswal	Not Ok
33	Q1563-02MSDDL	FERNOT-WATERMSD	MSD	03/23/25 17:09	Not use	Jaswal	Not Ok
34	Q1563-02ADL	FERNOT-WATERADL	PS	03/23/25 17:12	Not use	Jaswal	Not Ok
35	Q1588-01	TAPFTA-MW01D-031	SAM	03/23/25 17:15	INT_STD 89Y(1&2) Fail	Jaswal	Dilution
36	Q1588-01DUP	TAPFTA-MW01D-031	DUP	03/23/25 17:18	INT_STD 89Y(1&2) Fail	Jaswal	Dilution
37	Q1588-01L	TAPFTA-MW01D-031	SD	03/23/25 17:22	INT_STD 89Y(1&2) Fail	Jaswal	Dilution
38	Q1588-01MS	TAPFTA-MW01D-031	MS	03/23/25 17:25	INT_STD 89Y(1&2) Fail	Jaswal	Dilution

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Instrument ID: P7

Daily Analysis Runlog For Sequence/QCBatch ID # LB135143

Review By	Janvi	Review On	3/24/2025 10:32:11 AM
Supervise By	jaswal	Supervise On	3/24/2025 12:27:15 PM

STD. NAME	STD REF.#
ICAL Standard	MP84682,MP84684,MP84683,MP84688,MP84687,MP84686,MP84685,MP84681,MP84689
ICV Standard	MP84690
CCV Standard	MP84697
ICSA Standard	MP84692,MP84693
CRI Standard	MP84683
LCS Standard	
Chk Standard	MP84695,MP84696

39	CCV03	CCV03	CCV	03/23/25 17:31		Jaswal	OK
40	CCB03	CCB03	CCB	03/23/25 17:37		Jaswal	OK
41	Q1588-01MSD	TAPFTA-MW01D-031	MSD	03/23/25 17:40	INT_STD 89Y(1&2) Fail	Jaswal	Dilution
42	Q1588-01A	TAPFTA-MW01D-031	PS	03/23/25 17:43	INT_STD 89Y(1&2) Fail	Jaswal	Dilution
43	Q1590-04DL	3799DL	SAM	03/23/25 17:45	K,NA High	Jaswal	Dilution
44	Q1590-04DL2	3799DL2	SAM	03/23/25 17:55	25X For K,NA	Jaswal	Confirms
45	CCV04	CCV04	CCV	03/23/25 18:20		Jaswal	OK
46	CCB04	CCB04	CCB	03/23/25 18:25		Jaswal	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1539

Test : Hardness, Total,Mercury,Metals ICP-TAL

Prepbatch ID : PB167102,PB167118,

Sequence ID/Qc Batch ID: LB134996,LB135143,

Standard ID :
MP84563,MP84564,MP84565,MP84566,MP84680,MP84681,MP84682,MP84683,MP84684,MP84685,MP84686,MP84687,MP84688,MP84689,MP84690,MP84692,MP84693,MP84694,MP84695,MP84696,MP84697,MP84706,MP84716,MP84717,MP84719,MP84720,MP84828,MP84836,MP84838,MP84840,MP84847,MP84848,MP84850,MP84851,MP84852,MP84853,MP84854,MP84855,MP84856,MP84857,MP84858,MP84859,MP84860,MP84862,

Chemical ID :
M4371,M4465,M4884,M4888,M4916,M5062,M5288,M5307,M5472,M5476,M5498,M5520,M5532,M5658,M5744,M5751,M5798,M5799,M5800,M5801,M5802,M5808,M5811,M5815,M5817,M5873,M5874,M5882,M5884,M5942,M5961,M5962,M5977,M5981,M6021,M6023,M6025,M6026,M6028,M6030,M6032,M6041,M6055,M6079,M6126,M6127,M6128,M6144,M6145,M6146,M6150,M6151,M6158,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP84563	02/18/2025	06/03/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6126 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP84564	02/18/2025	08/18/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP84565	02/18/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP84566	02/18/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3955	S2CONC(SFAM,6020,200.8)	MP84680	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.05000ml of M5472 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.10000ml of M5808 + 0.25000ml of M5799 + 0.25000ml of M5811 + 0.25000ml of M5942 + 0.25000ml of M5962 + 0.25000ml of M5977 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.50000ml of M4884 + 0.50000ml of M6032 + 1.25000ml of M5815 + 1.25000ml of M5817 + 1.25000ml of M6151 + 2.50000ml of M5498 + 2.50000ml of M5520 + 2.50000ml of M6126 + 2.50000ml of M6127 + 2.50000ml of M6144 + 230.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3947	S7(SFAM,6020,200.8)	MP84681	03/03/2025	03/24/2025	Janvi Patel	None	None	Sarabjit Jaswal 03/03/2025

FROM 1.00000ml of M4884 + 1.00000ml of M5476 + 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M6079 + 1.90000ml of M5808 + 10.00000ml of M5942 + 10.00000ml of M5977 + 10.00000ml of M6126 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6025 + 4.00000ml of M6032 + 4.90000ml of M5520 + 4.90000ml of M5811 + 5.00000ml of M6151 + 50.00000ml of M5307 + 829.60000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M5498 + 9.90000ml of M6127 + 9.90000ml of M6144 = Final Quantity: 1000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP84682	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 25.00000ml of M6151 + 4925.00000ml of W3112 + 50.00000ml of M6126 = Final Quantity: 5000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3956	S2(SFAM,6020,200.8)	MP84683	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 98.00000ml of W3112 + 0.50000ml of MP84680 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3957	S1(SFAM,6020,200.8)	MP84684	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84683 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3948	S6(SFAM,6020,200.8)	MP84685	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 48.50000ml of W3112 + 50.00000ml of MP84681 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3949	S5(SFAM,6020,200.8)	MP84686	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 73.50000ml of W3112 + 25.00000ml of MP84681 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3954	S4(SFAM,6020,200.8)	MP84687	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 86.00000ml of W3112 + 12.50000ml of MP84681 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3951	S3(SFAM, 6020,200.8)	MP84688	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP84685 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2902	S8 ICPMS	MP84689	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 1.00000ml of M5808 + 2.50000ml of M5288 + 2.50000ml of M5811 + 5.00000ml of M5498 + 5.00000ml of M6127 + 5.00000ml of M6144 + 79.00000ml of MP84682 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3958	ICV(SFAM)	MP84690	03/03/2025	03/24/2025	Janvi Patel	None	None	Sarabjit Jaswal 03/03/2025

FROM 2.00000ml of M6150 + 98.00000ml of MP84682 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1142	ICSA ICPMS	MP84692	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP84682 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1143	ICSAB ICPMS	MP84693	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP84682 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3962	MG 10PPM FOR TUNE	MP84694	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP84682 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3894	TUNE 200PPB	MP84695	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP84694 + 96.00000ml of MP84682 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3903	ISS 3PPM	MP84696	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 5.00000ml of M6126 + 75.00000ml of M5744 + 170.00000ml of MP84682 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3961	CCV	MP84697	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.20000ml of M6026 + 0.50000ml of M4884 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M6079 + 1.00000ml of M5815 + 1.00000ml of M5817 + 1.25000ml of M5476 + 10.00000ml of M6126 + 12.45000ml of M5520 + 12.45000ml of M5811 + 2.00000ml of M6032 + 24.95000ml of M5498 + 24.95000ml of M6127 + 24.95000ml of M6144 + 25.00000ml of M5307 + 4.50000ml of M5751 + 4.50000ml of M6128 + 4.50000ml of M6145 + 4.95000ml of M5808 + 5.00000ml of M6151 + 5.50000ml of M5942 + 5.50000ml of M5977 + 823.35000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3880	M&B SPIKE-1	MP84706	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 5.00000ml of M5472 + 5.00000ml of M5658 + 5.00000ml of M5798 + 5.00000ml of M5800 + 5.00000ml of M5961 + 5.00000ml of M5962 + 5.00000ml of M5981 + 5.00000ml of M6021 + 5.00000ml of M6023 + 5.00000ml of M6028 + 5.00000ml of M6030 + 5.00000ml of M6079 + 5.00000ml of M6146 + 35.00000ml of MP84682 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3882	M&B SPIKE-3	MP84716	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 0.62500ml of M6026 + 12.50000ml of M5751 + 12.50000ml of M6128 + 12.50000ml of M6145 + 11.87500ml of MP84682 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3900	M&B SPIKE-4	MP84717	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 6.25000ml of M5498 + 6.25000ml of M6127 + 6.25000ml of M6144 + 6.25000ml of MP84682 = Final Quantity: 25.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3881	M&B SPIKE-2	MP84719	03/03/2025	03/24/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 03/03/2025

FROM 10.00000ml of M4888 + 10.00000ml of M5977 + 12.50000ml of M5520 + 12.50000ml of M5811 + 12.50000ml of M6032 + 2.50000ml of M4884 + 2.50000ml of M5799 + 5.00000ml of M5808 + 32.50000ml of MP84682 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP84720	03/03/2025	04/04/2025	Sagar Kanani	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 03/03/2025

FROM 1000.00000ml of M6151 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP84828	03/11/2025	03/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/11/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP84836	03/11/2025	03/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/11/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6158 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP84838	03/11/2025	03/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/11/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP84828 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP84840	03/11/2025	03/12/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/11/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP84828 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP84847	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP84848	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP84850	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP84847 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP84851	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP84847 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP84852	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP84847 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP84853	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP84847 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP84854	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP84847 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP84855	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6158 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP84856	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP84857	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP84847 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP84858	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6158 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP84859	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP84847 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP84860	03/12/2025	03/13/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 03/22/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP84847 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP84862	03/12/2025	03/13/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 03/22/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	030921	03/09/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57022 / Ti, 1000 PPM, 125 ml	070721	09/27/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4888

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	12/05/2025	12/05/2024 / JANVI	04/01/2022 / jaswal	M5307

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5520

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	03/31/2025	01/02/2025 / jaswal	03/30/2023 / mohan	M5532

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB716346	03/07/2025	03/07/2024 / JANVI	08/09/2022 / jaswal	M5744

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	122926	12/29/2026	12/18/2024 / janvi	01/03/2024 / jaswal	M5808

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	01/16/2025 / JANVI	02/22/2024 / Jaswal	M5977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	01/15/2025 / Jaswal	09/30/2024 / Jaswal	M6079

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

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Fair Lawn, NJ 07410
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201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
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Certified Reference Material CRM

R: 01/03/24 M5808, M5809

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Lot #**	
Lot Number:	**122923**	**Solvent:**	24002546	Nitric Acid
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

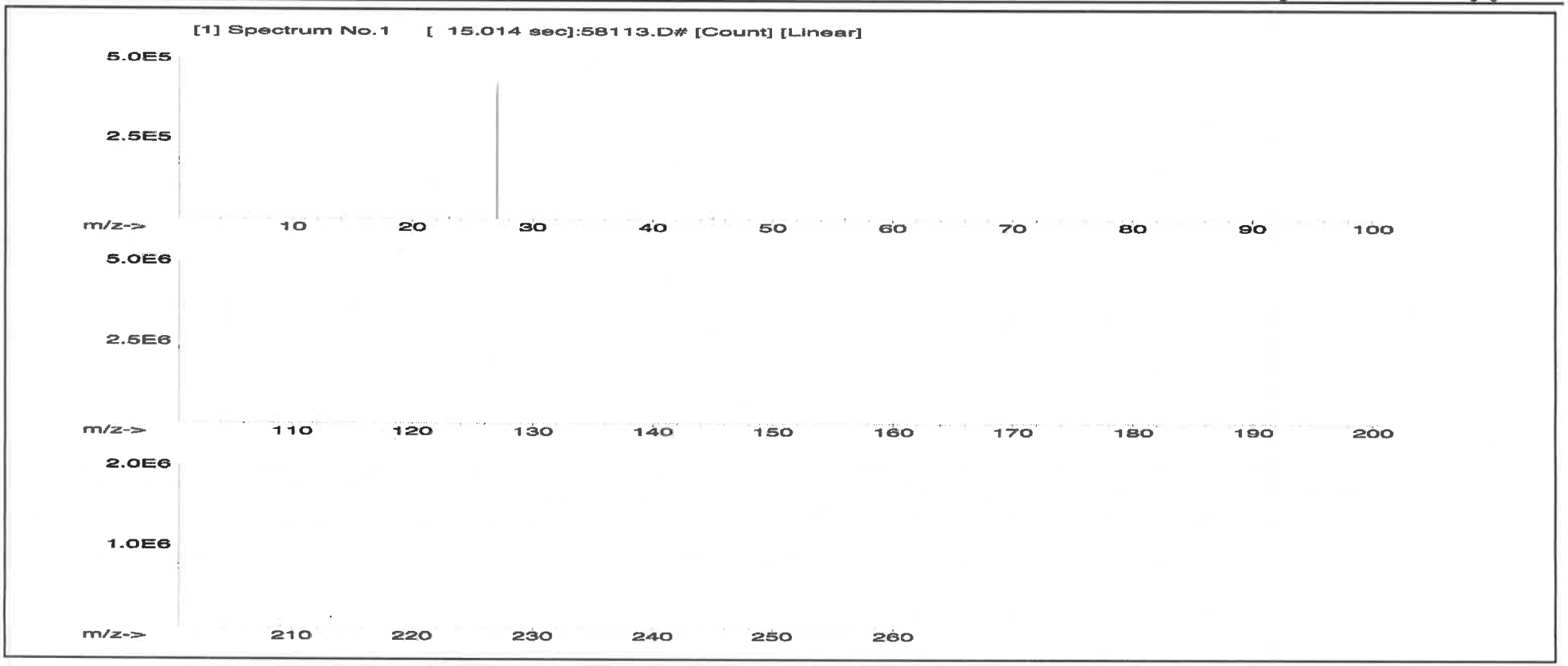
Giovanni Esposito

Formulated By:	Giovanni Esposito	122923

Pedro Rentas

Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM092022A1	10000	99.999	0.10	7.30	273.9779	273.9813	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	17	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	0.03
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	4.5	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	0.56	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M6032

R! 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**		**Solvent:**	24002546	Nitric Acid
Description:	**Barium (Ba)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

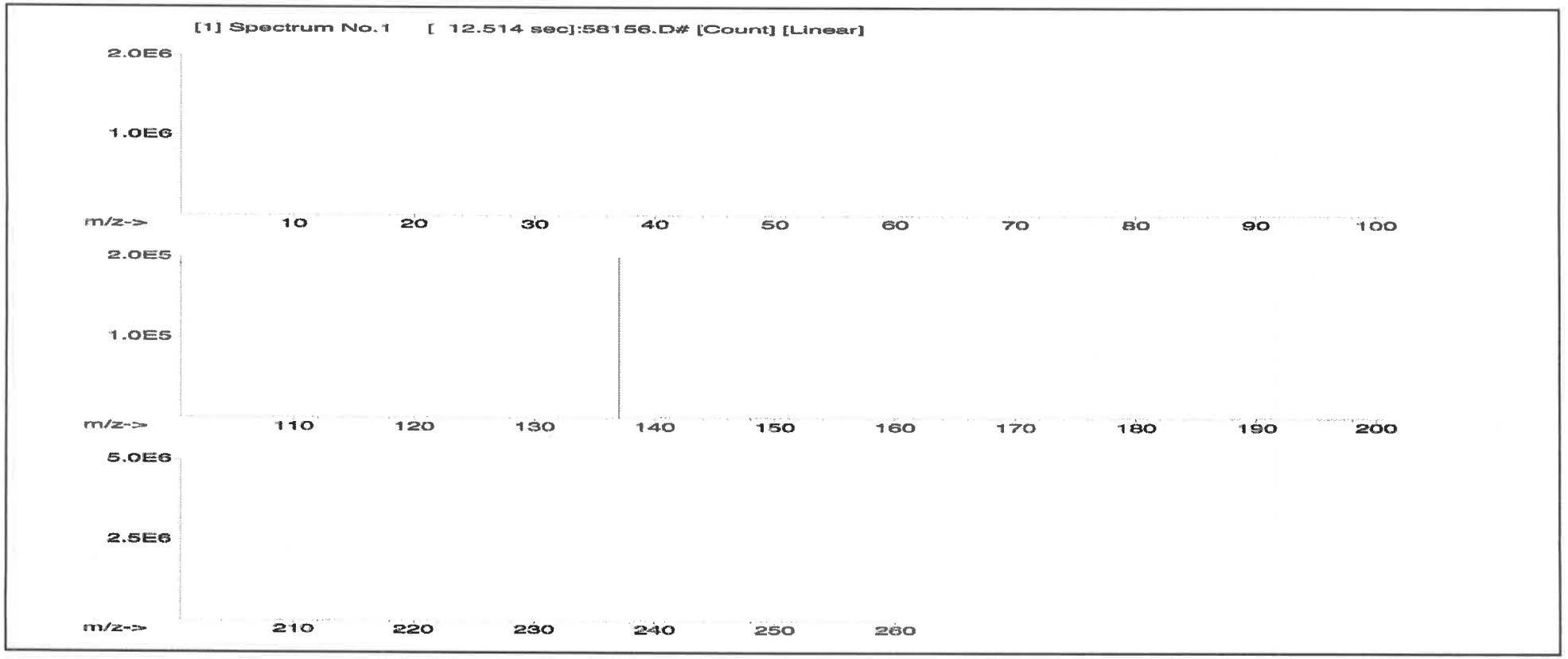
Giovanni Esposito

Formulated By:	Giovanni Esposito	010924

Pedro Rentas

Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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Q1539-METALS

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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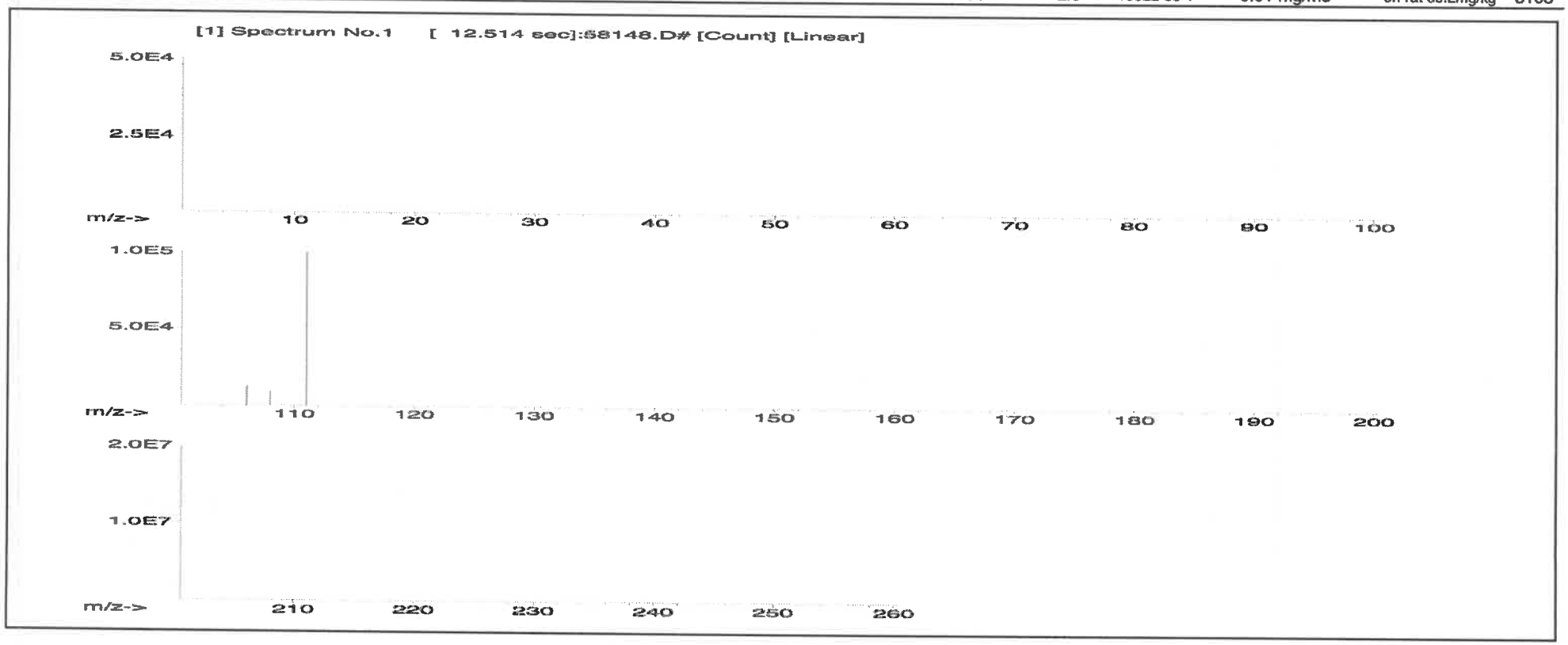
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R : 01/03/24. M5810, M5811

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CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**58126**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**051523**			
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty	

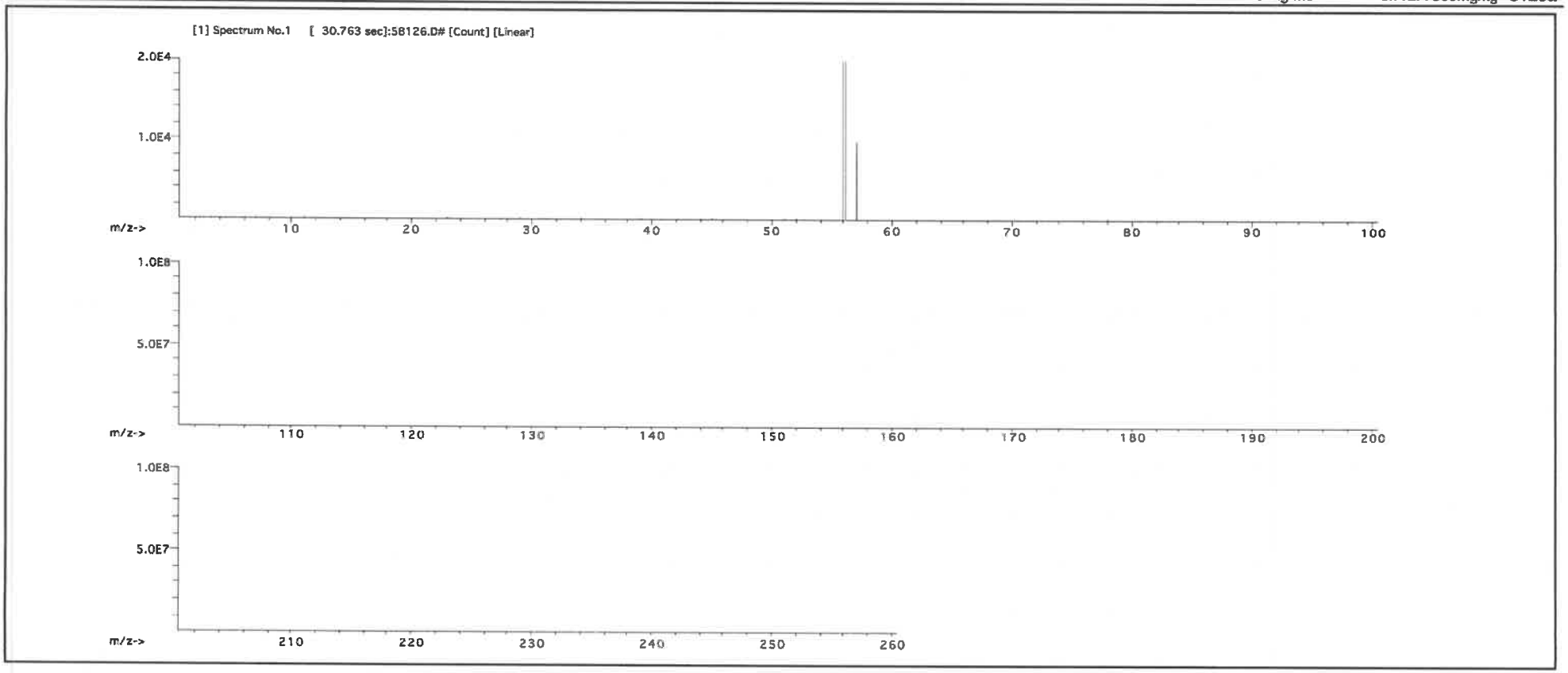
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 8/15/24 M6025

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

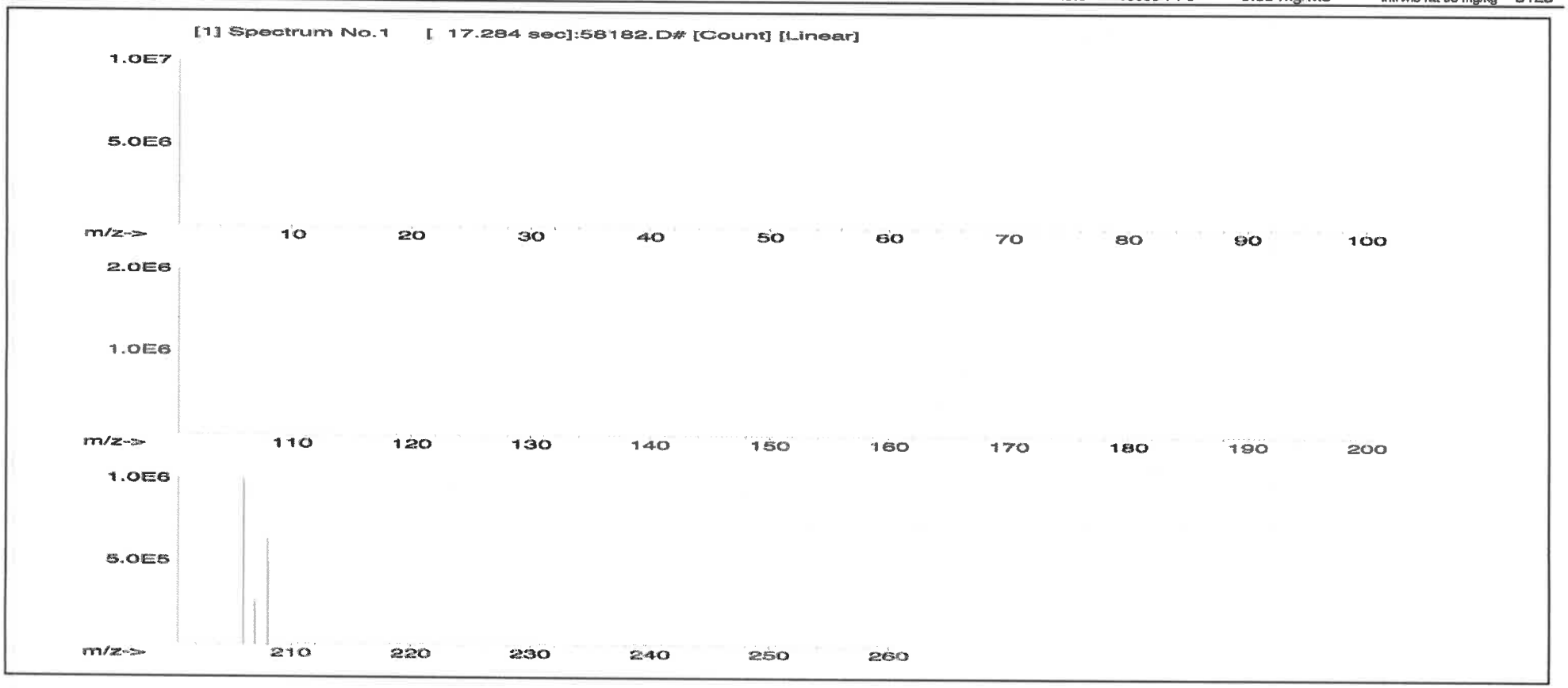
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

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M6026

R: 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

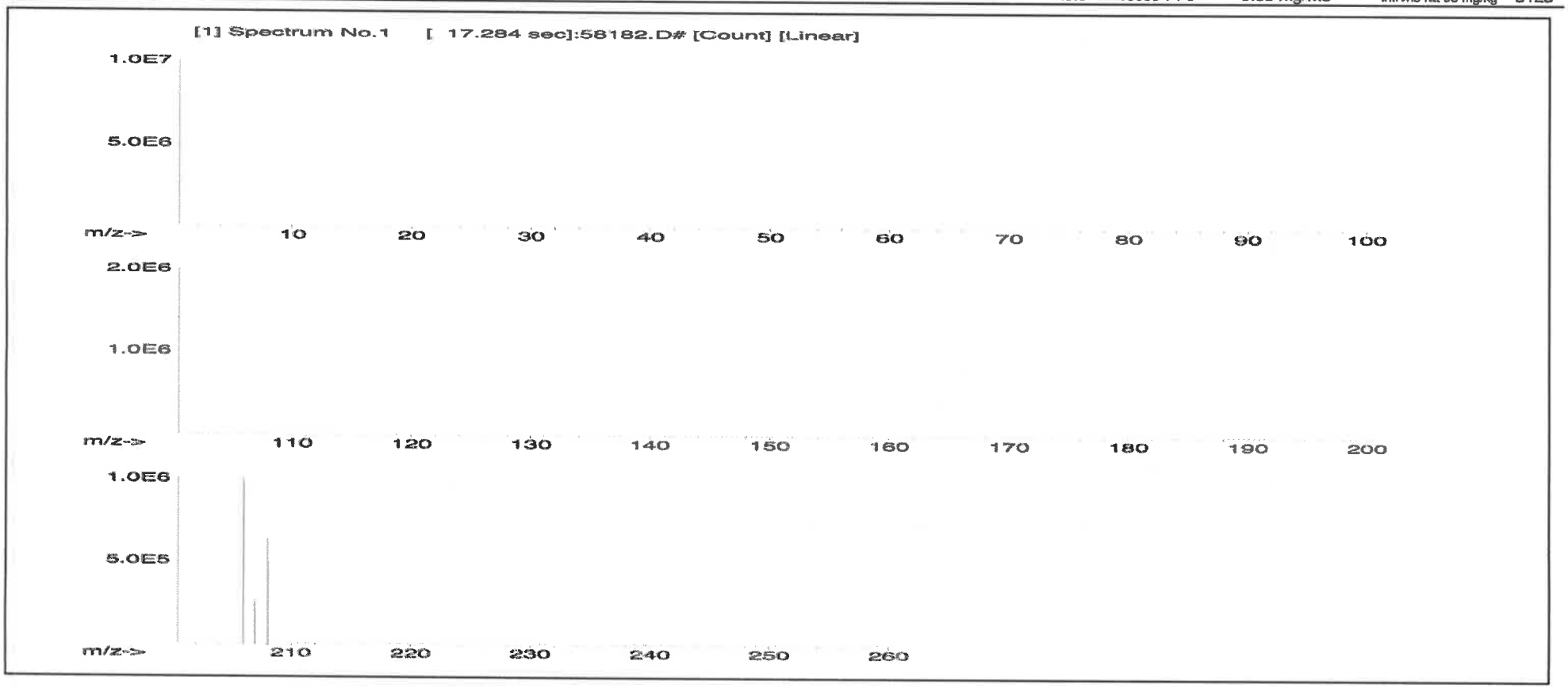
Weight shown below was diluted to (mL): 2000.02 ± 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
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As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

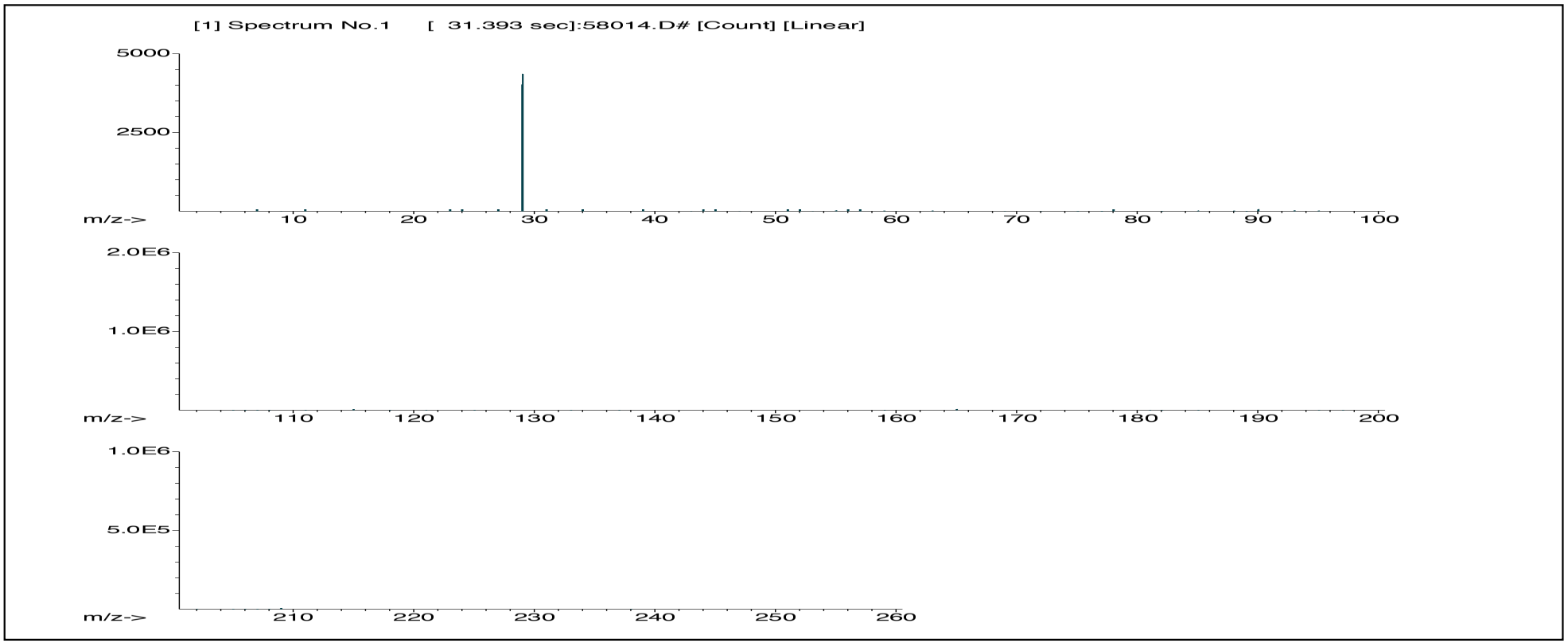
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57014**	19410105	Nitric Acid	
Lot Number:	**030921**			
Description:	**Silicon (Si)**			
		2.0%	60.0	Nitric Acid
Expiration Date:	030924		(mL)	
Recommended Storage:	Ambient (20 ºC)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry 030921
Reviewed By:	Pedro L. Rentas 030921

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1.	Ammonium hexafluorosilicate (Si)	58114	070120	0.1000	300.0	0.084	1000	10000.0	**1000.0**	**2.1**	16919-19-0	2.50 mg/m3	orl-rat 70 mg/kg	NA



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https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

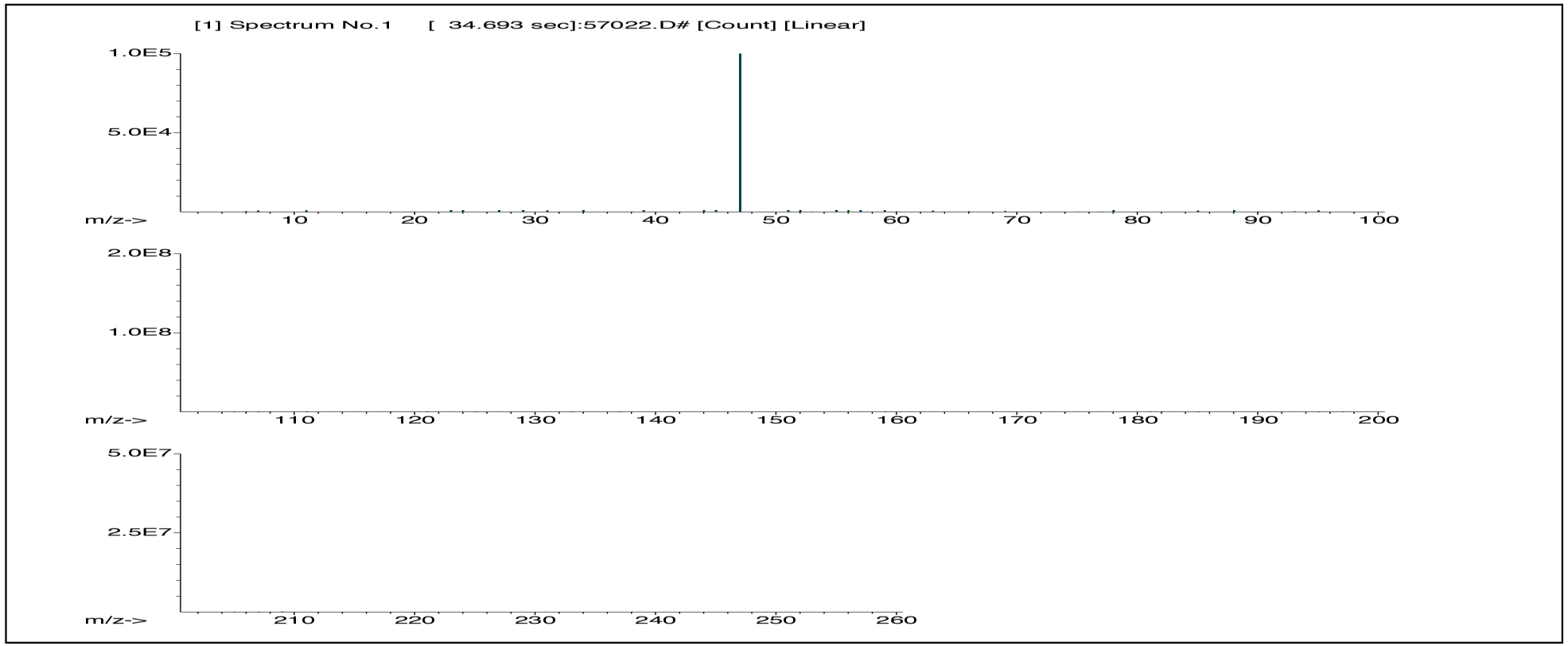
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57022**	20370011	Nitric Acid	
Lot Number:	**070721**			
Description:	**Titanium (Ti)**			
		2.0%	40.0	Nitric Acid
Expiration Date:	070724		(mL)	
Recommended Storage:	Ambient (20 ºC)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	070721
Reviewed By:	Pedro L. Rentas	070721

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorotitanate (Ti)	58122	070120	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	16962-40-6	2.5 (F) mg/m3	NA	3162a



QI539-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	T	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\ (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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)

CRM/RMs 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	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

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 and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
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Certified Reference Material CRM

M5288 R: 07/21/2022

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https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

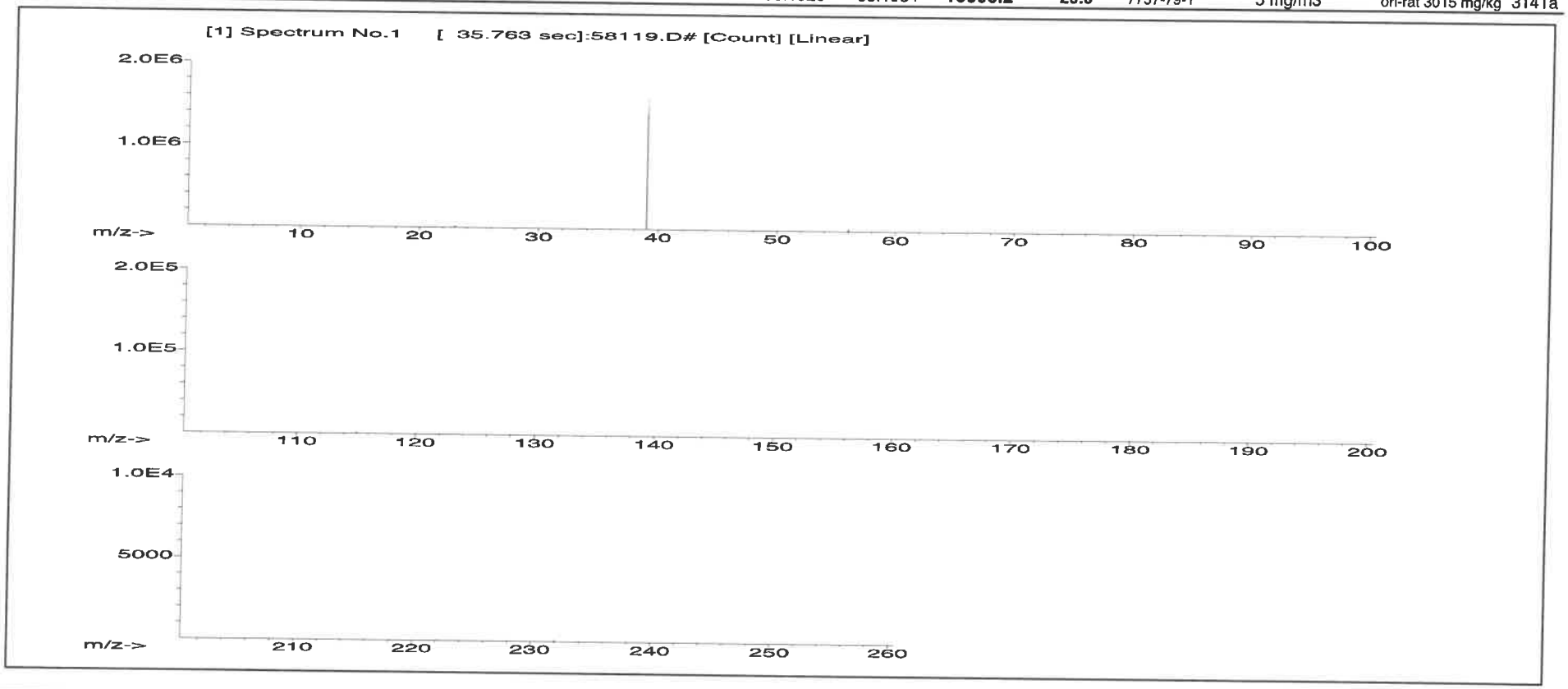
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Part # **58119** Lot # **071122**

Printed: 8/2/2022, 11:20:01 PM

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

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:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver, Aluminum,
Arsenic, Barium,
Beryllium, Calcium,
Cadmium, Cobalt,
Chromium, Copper,
Iron, Potassium,
Magnesium, Manganese,
Sodium, Nickel,
Lead, Antimony,
Selenium, Thallium,
Vanadium, Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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

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 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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5497 - M5498 R: 03/17/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Q1539-METALS

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

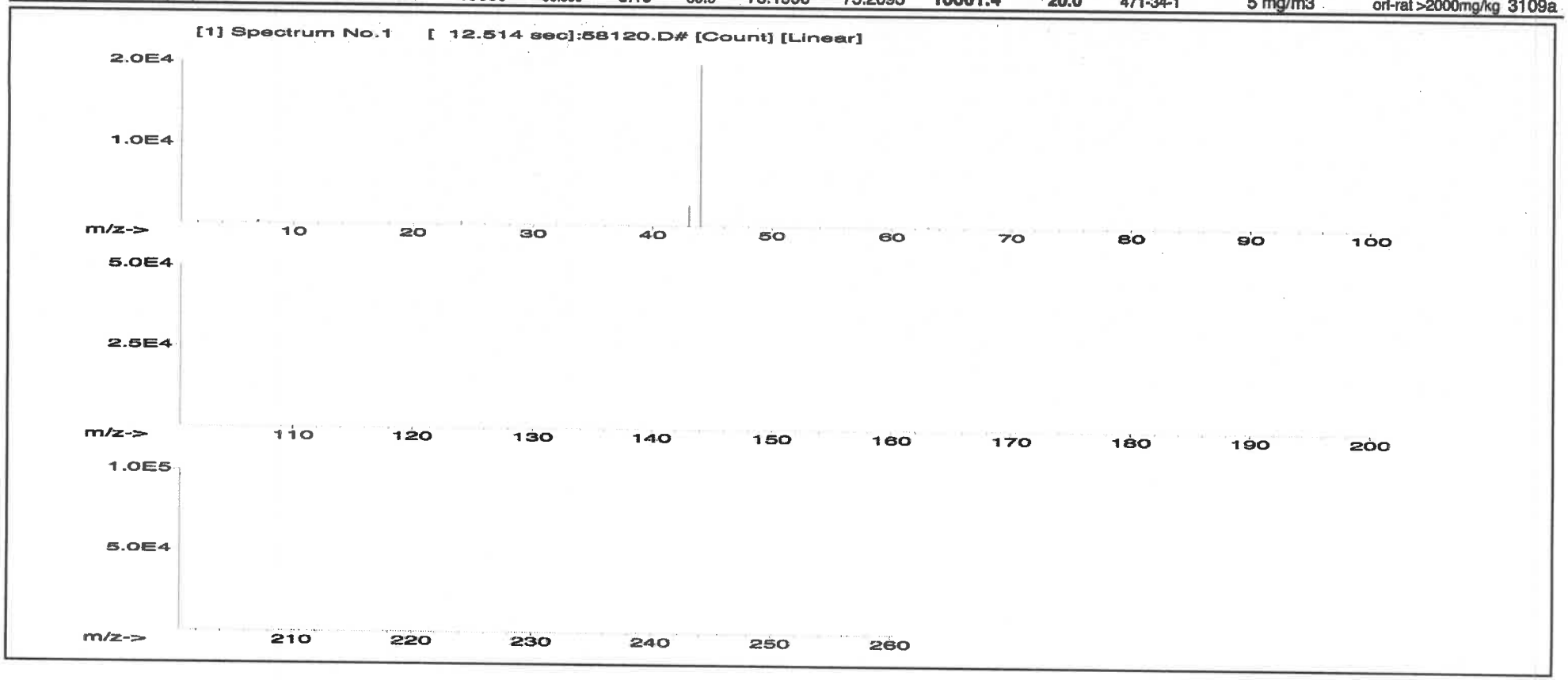
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

Lot #			
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
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B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Certified Reference Material CRM

M519. M520 (BH) R:03/17/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

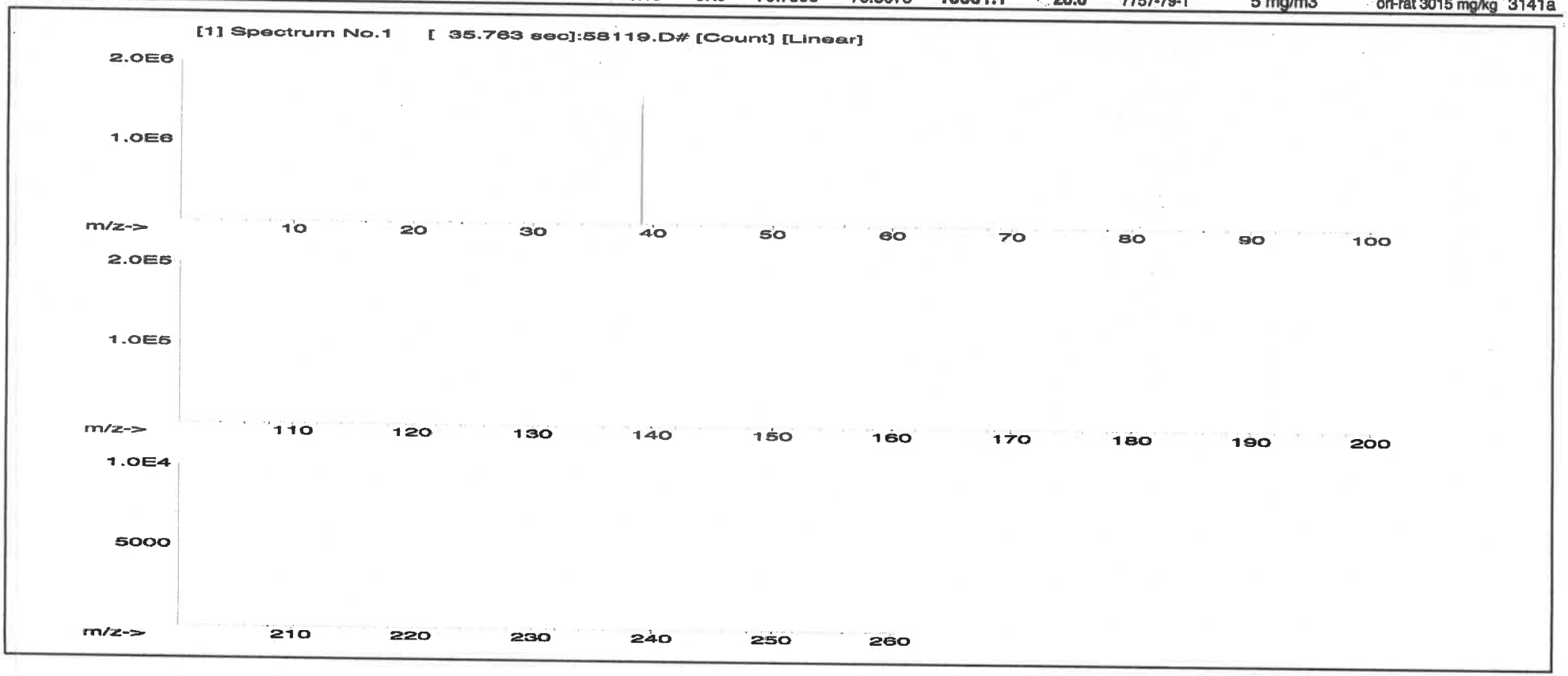
Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 120822
Pedro Rentas
Reviewed By: Pedro L. Rentas 120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28-37
MB

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

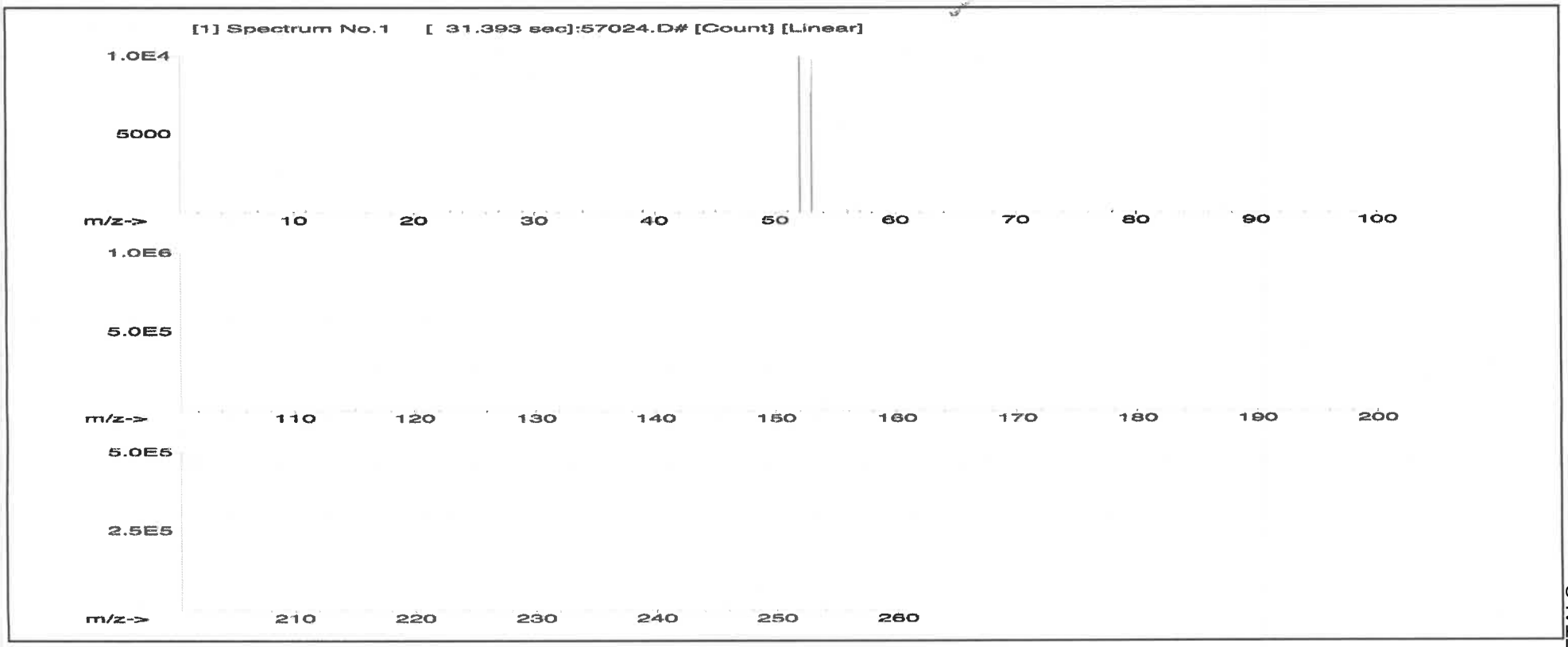
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

R: 8/9/22

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M5744, M5745 M5746

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

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:	6020ISS
Lot Number:	T2-MEB716346
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.05 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	170930
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	Calculated		See Sec. 4.2

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

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

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 09, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 09, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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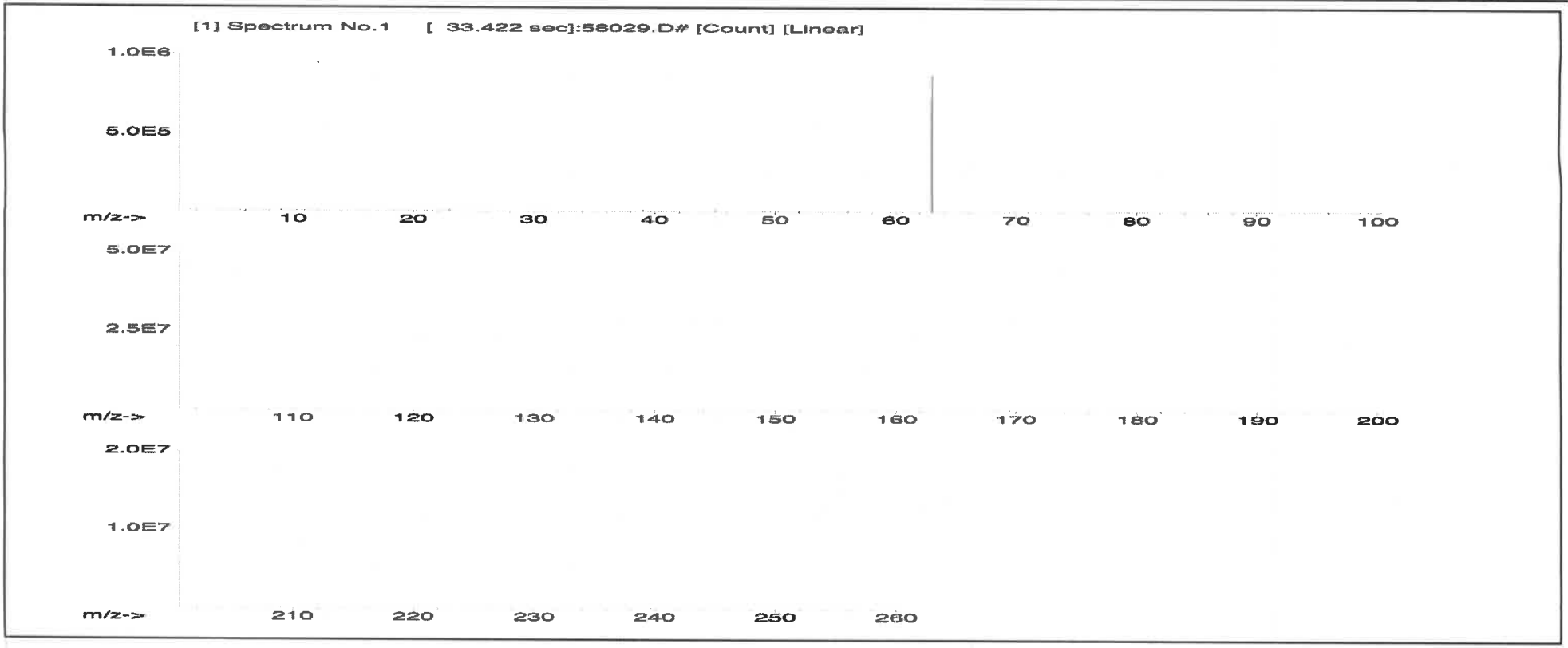
CERTIFIED WEIGHT REPORT:

Part Number:	**58029**			**Lot #**	**Solvent:**	
Lot Number:	**071723**			21110221	Nitric Acid	
Description:	**Copper (Cu)**					
				2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726					
Recommended Storage:	Ambient (20 °C)					
Nominal Concentration (µg/mL):	**1000**					
NIST Test Number:	6UTB	5E-05	Balance Uncertainty			
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty			

Formulated By:	Benson Chan 071723
Reviewed By:	Pedro L. Rentas 071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5798

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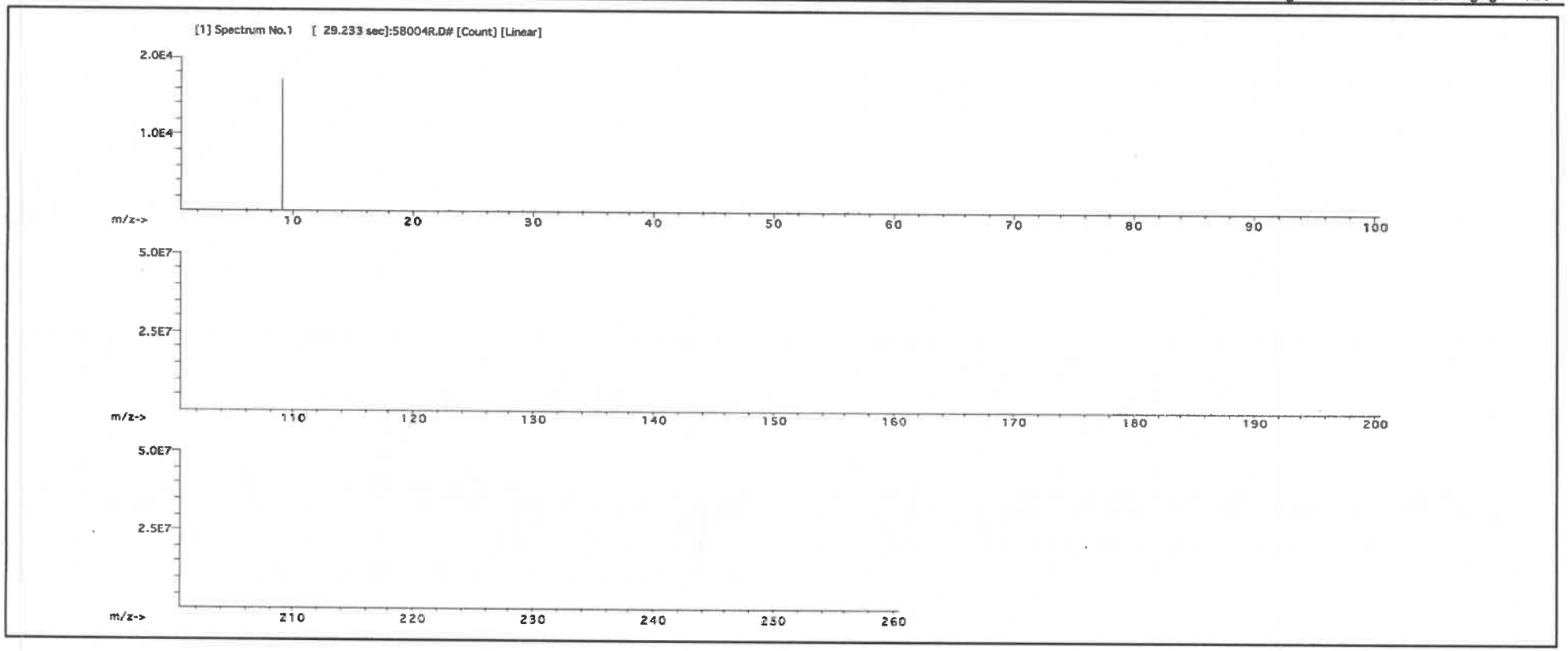
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Q1539-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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Certified Reference Material CRM

R? 02/09/24 IV15799

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

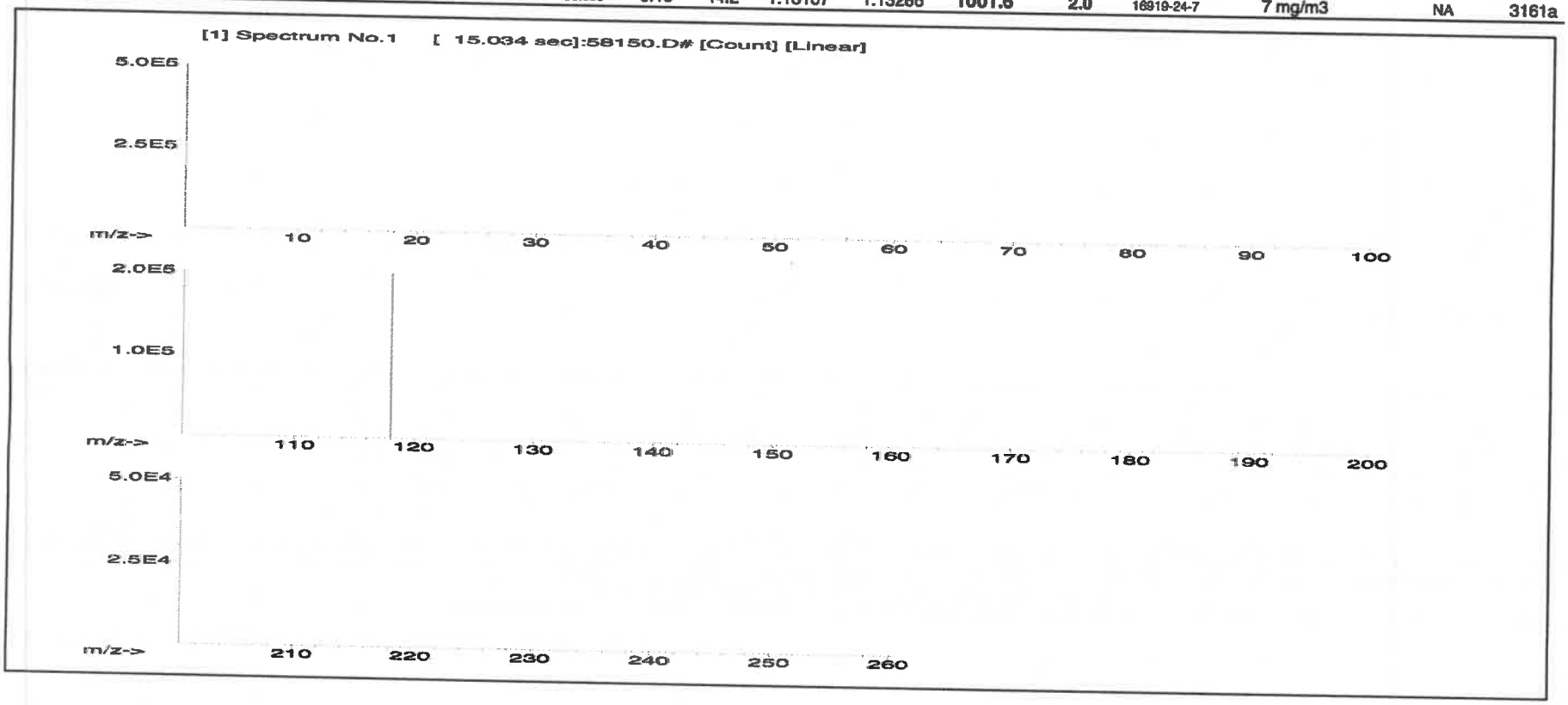
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

Solvents:	Lot #	
	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 IM5800 BH

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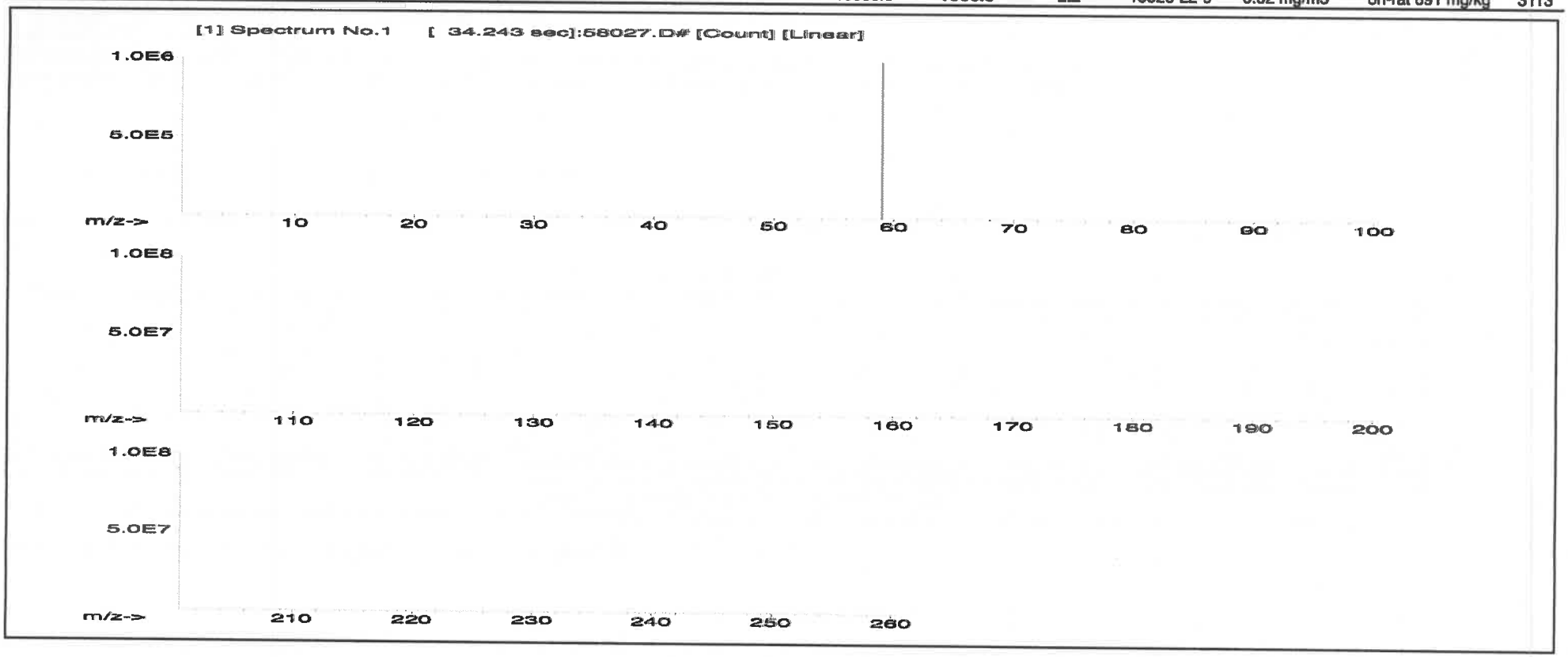
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By: Lawrence Barry 091923

Reviewed By: Pedro L. Rentas 091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	2.2	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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R: 02/09/24 M5801 BH

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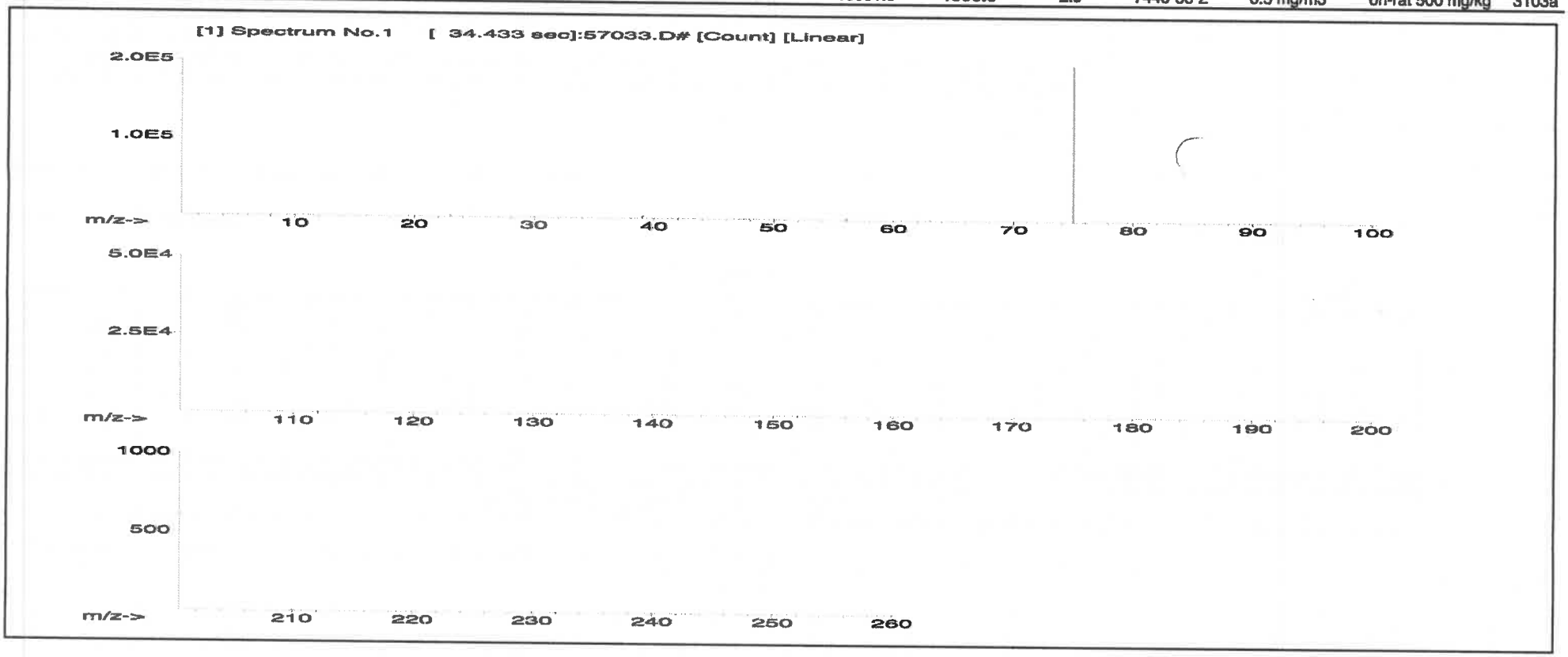
CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
Description:	**Arsenic (As)**				
		2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	2.0	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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Certified Reference Material CRM

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Certified Reference Material CRM

R1 02/09/24. M58165

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

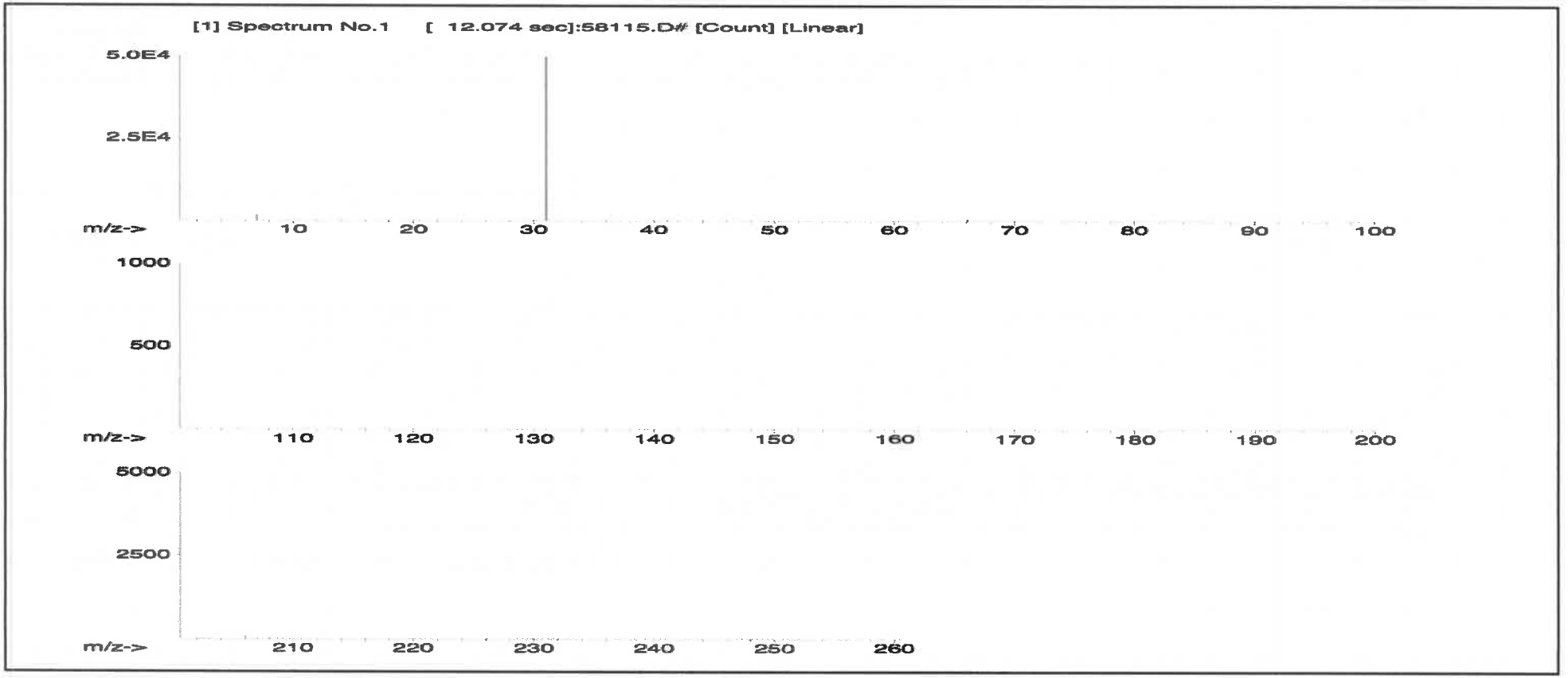
Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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Certified Reference Material CRM

R: 02/09/24 M5817

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

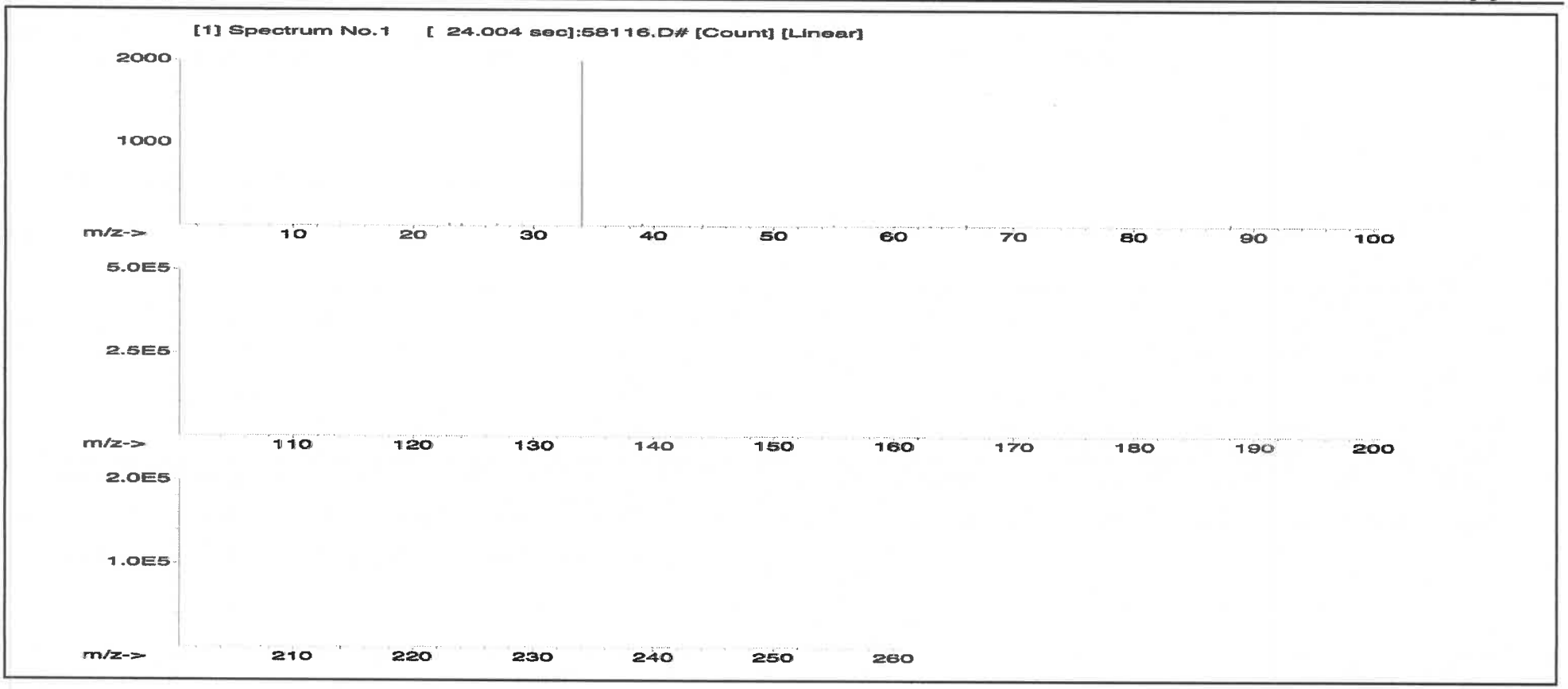
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48

Lot #
Solvent: 071123 ASTM Type 1 Water

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	ori-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MF884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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Certificate of Analysis

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inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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)

CRM/RMs 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.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

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 and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5961 R: 6/11/24

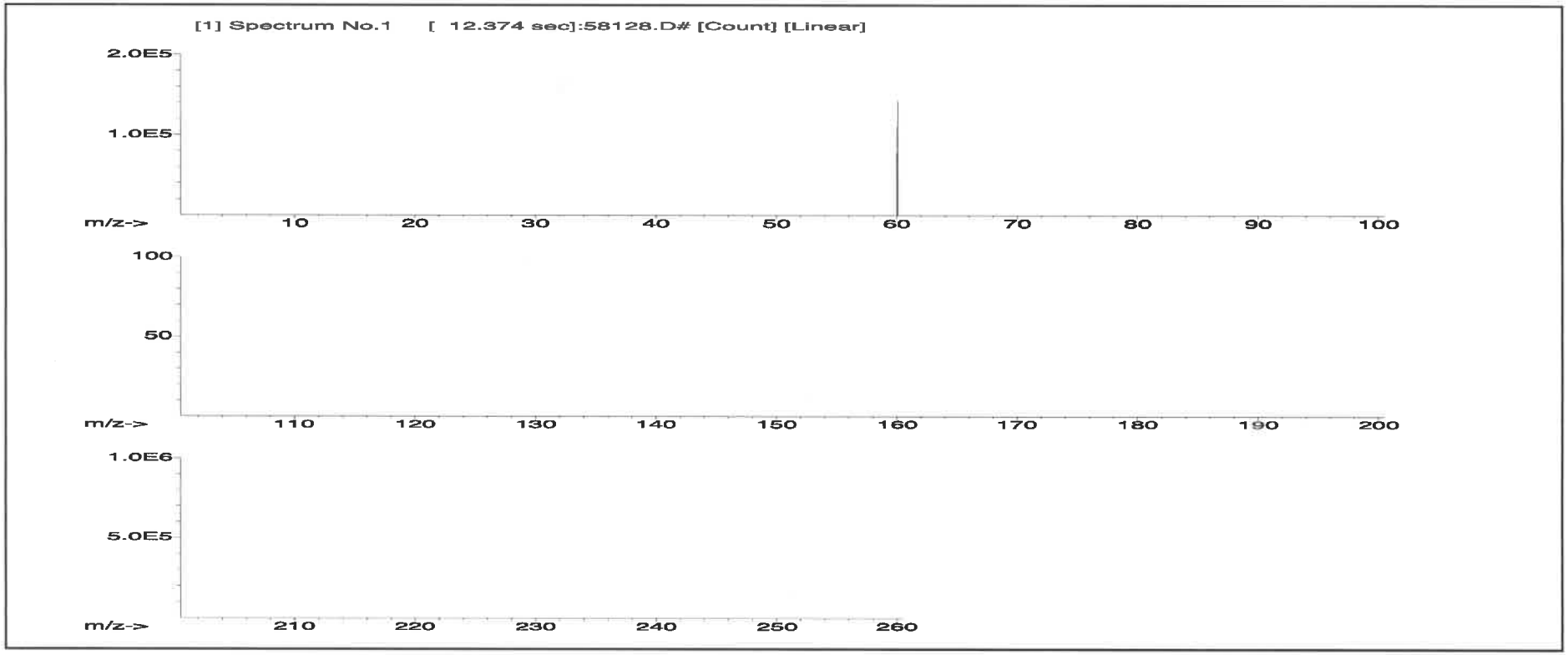
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57028**		**Lot #**		
Lot Number:	**041124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Nickel (Ni)**		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty		

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

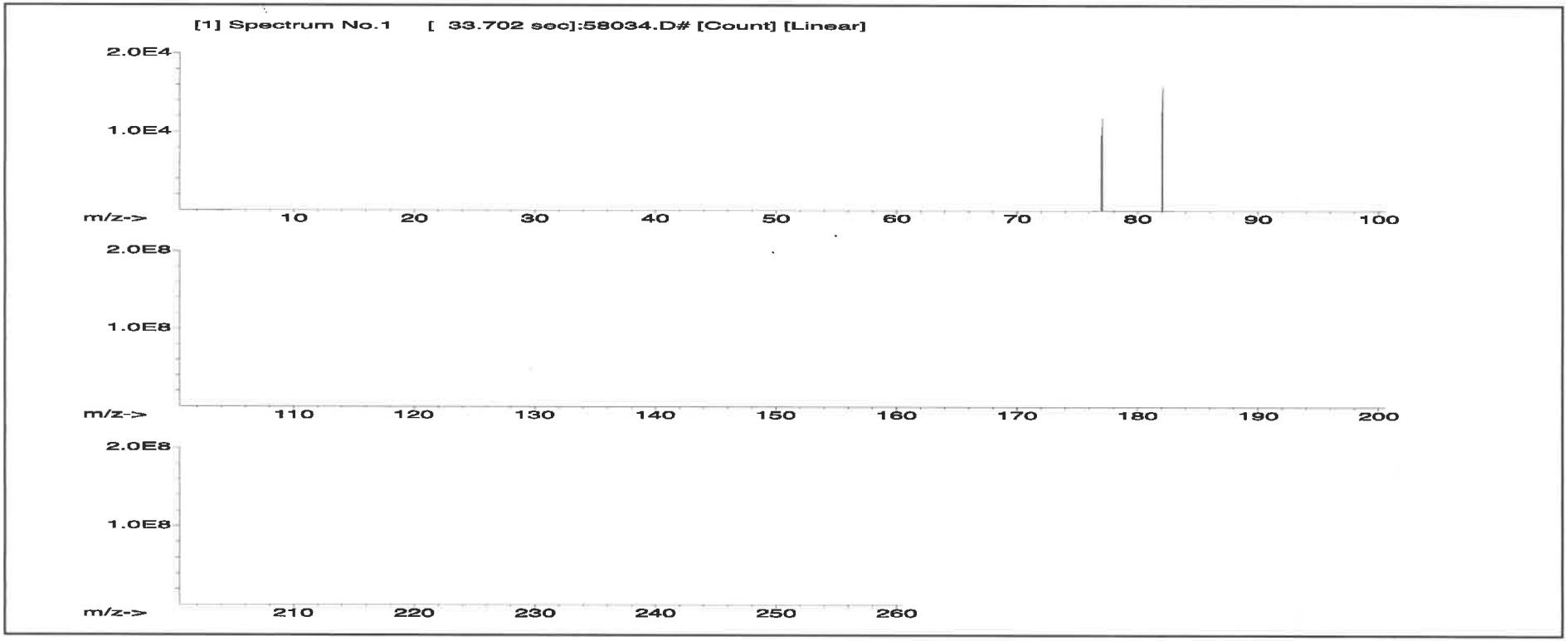
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5976, M5977
R: 02/22/24

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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)

CRM/RMs 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.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

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 and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

H5981 R:6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57092**	24002546	Nitric Acid		
Lot Number:	**060724**				
Description:	**Uranium (U)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	060727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

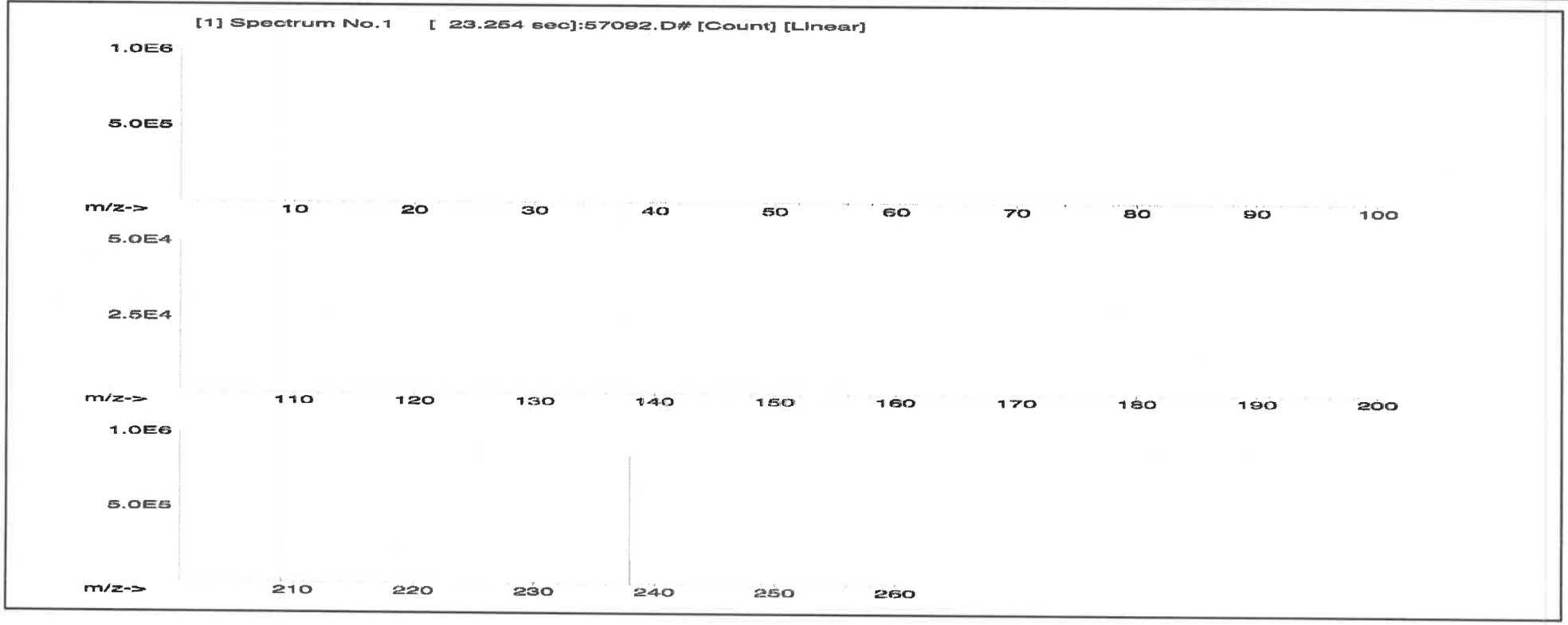
Giovanni Esposito

Formulated By:	Giovanni Esposito	060724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	060724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Uranyl nitrate hexahydrate (U)	58192	041524	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13520-83-7	0.05 mg/m3	orl-rat 1040 mg/kg	3164



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	T
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Part # **57092** Lot # **060724**

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MG

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R 18/19/24, M60055

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

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:	IV-STOCK-12
Lot Number:	U2-MEB734294
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6079 R: 9/30/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

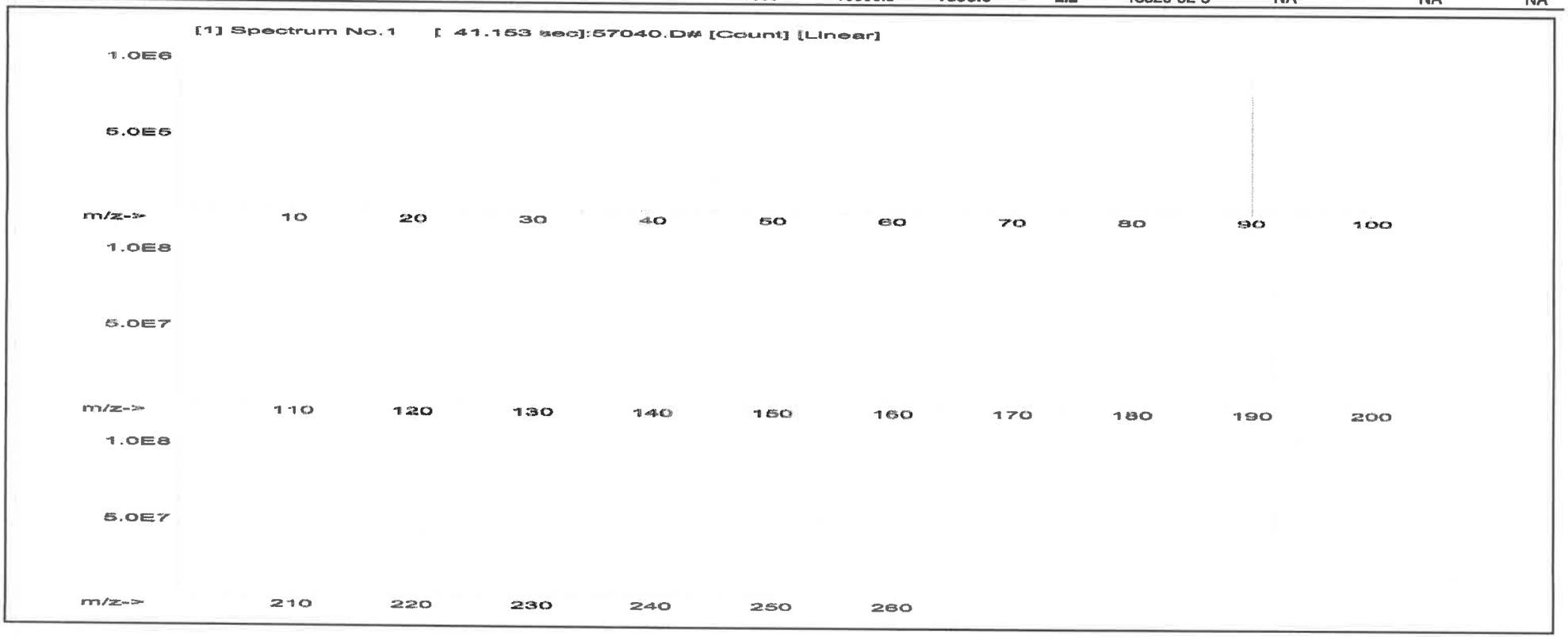
CERTIFIED WEIGHT REPORT:

Part Number:	**57040**
Lot Number:	**071423**
Description:	**Zirconium (Zr)**
Expiration Date:	071426
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	**1000**
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	2000.02

Lot #	Solvent:		
21110221	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Rentas	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	NA



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

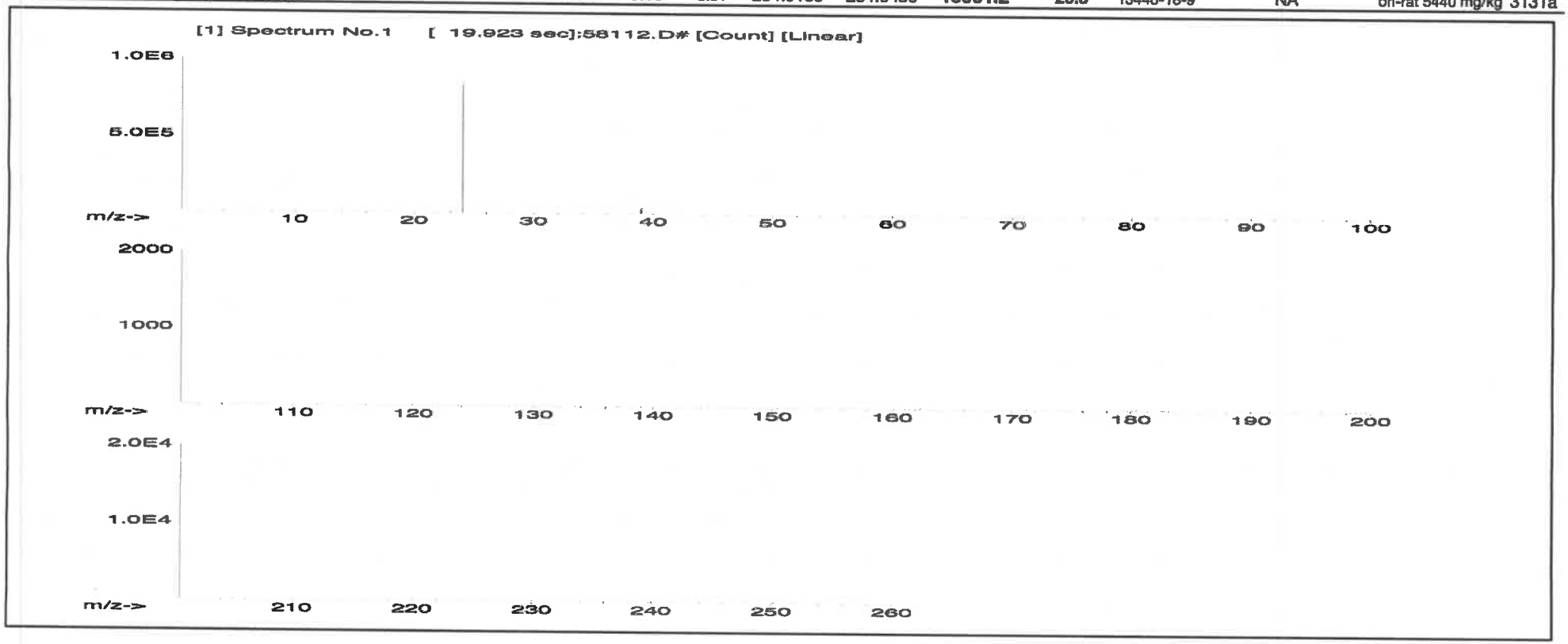
R -> 1/13/25
M 6127

Part Number:	**58112**		**Lot #**	
Lot Number:	**112124**	**Solvent:**	24012496	Nitric Acid
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R->1/13/25
M6128

			Lot #	
Part Number:	**58025**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

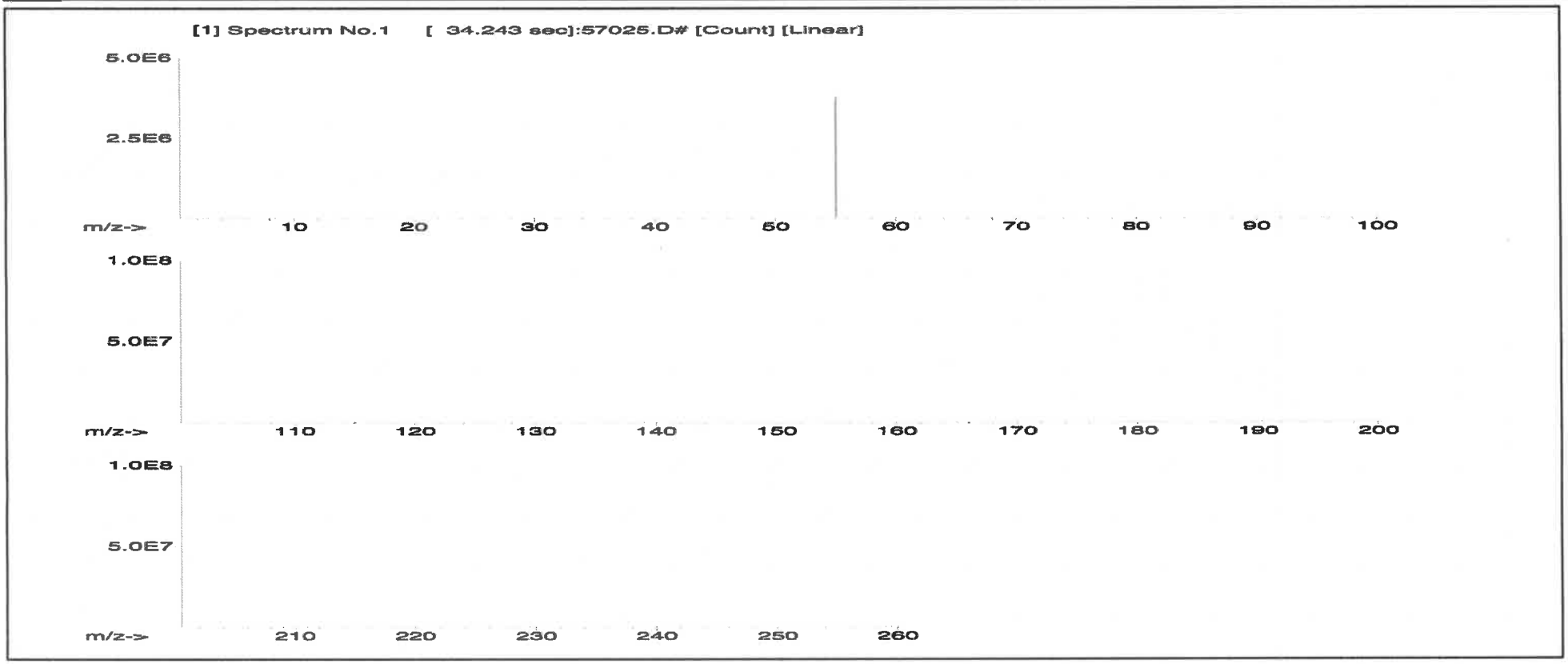
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 58111
Lot Number: 072424
Description: Sodium (Na)

MG144

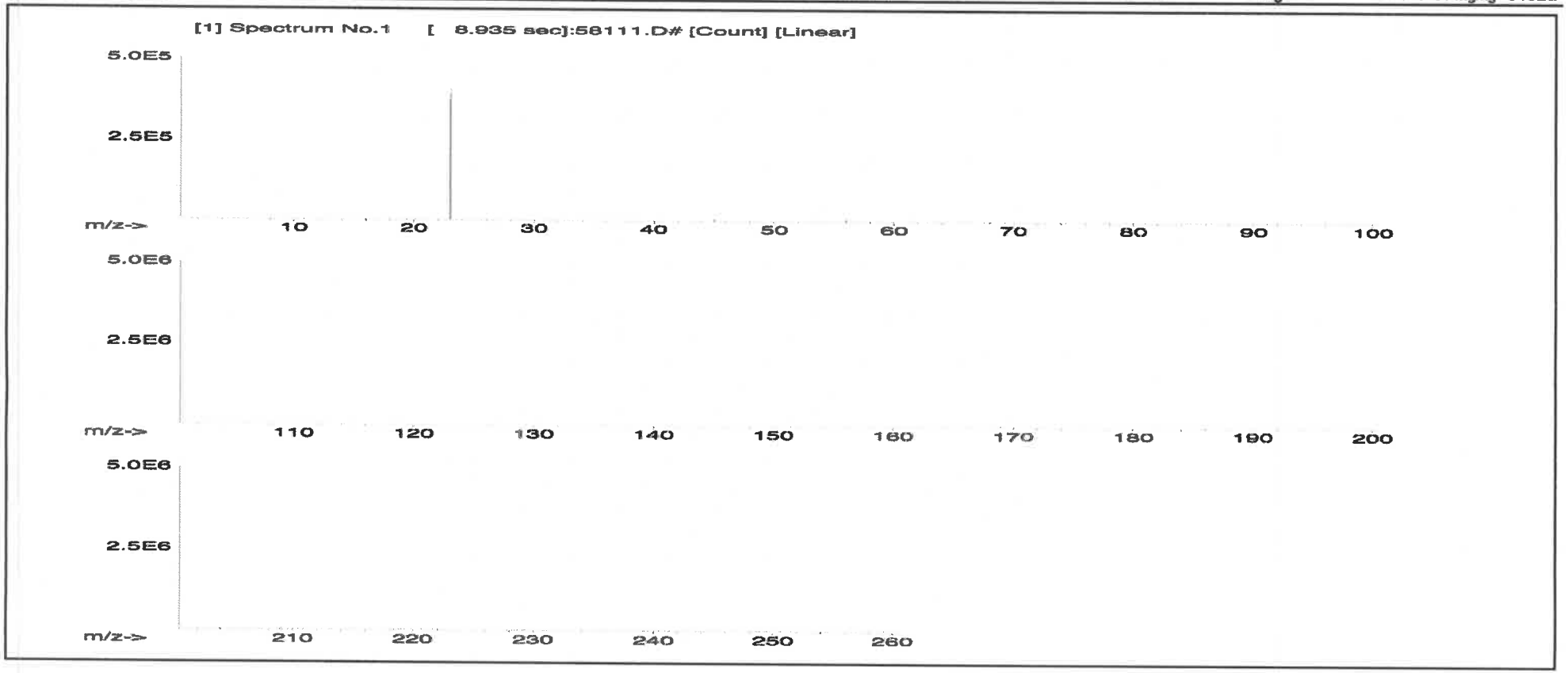
Expiration Date: 072427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
5E-05	Balance Uncertainty		
0.10	Flask Uncertainty		

Formulated By: Benson Chan 072424

Reviewed By: Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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Certified Reference Material CRM

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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

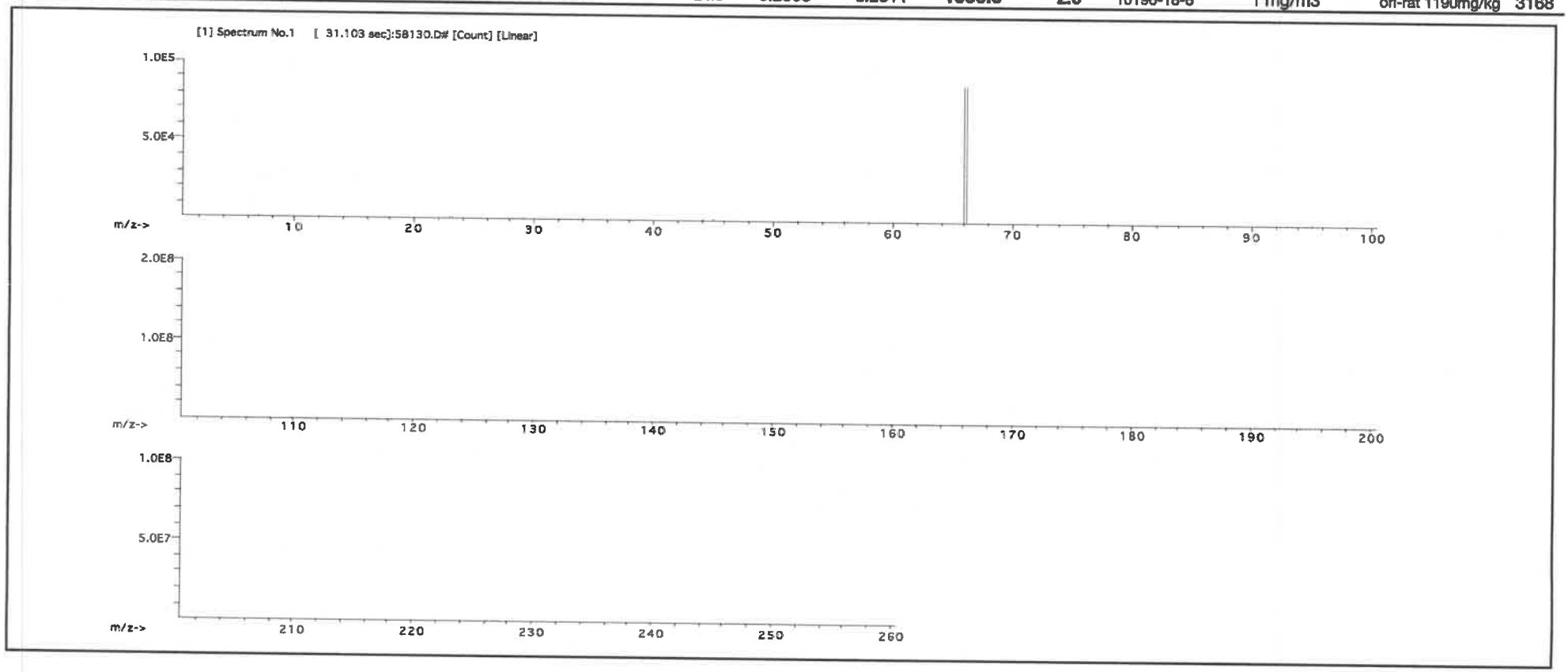
M6145

Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

			Lot #	
Solvent:	24012496	Nitric Acid		
	2%	40.0 (mL)	Nitric Acid	
		5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty	

Aleah O'Brady
Formulated By: Aleah O'Brady 121724
Reviewed By: Pedro L. Rentas 121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

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R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) ***CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS***

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	CN^-	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R→ 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Biosciences Production

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix**. For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, return the chain of custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix**. For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

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Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, return the chain of custody record with appropriate annotations and signatures to the address provided below.

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APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
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This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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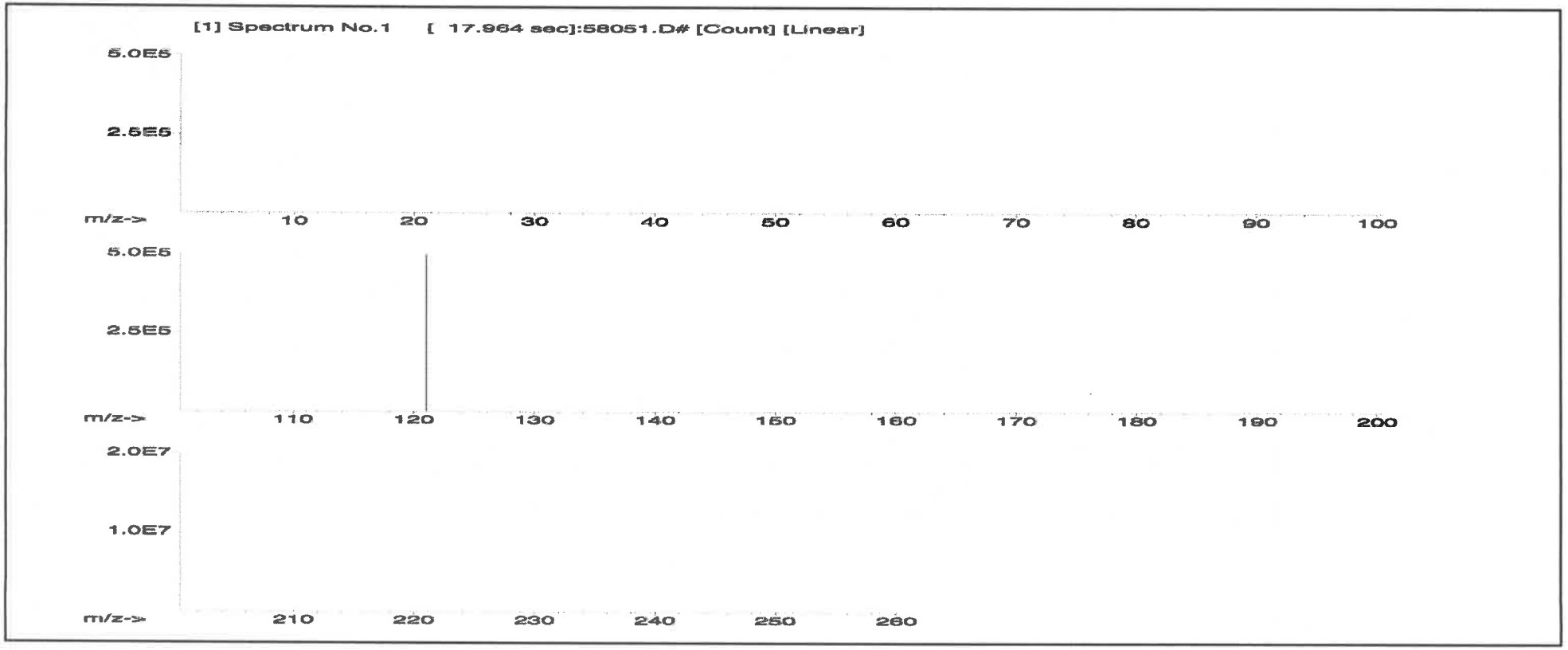
R: 01/03/24 M5802, M5803

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

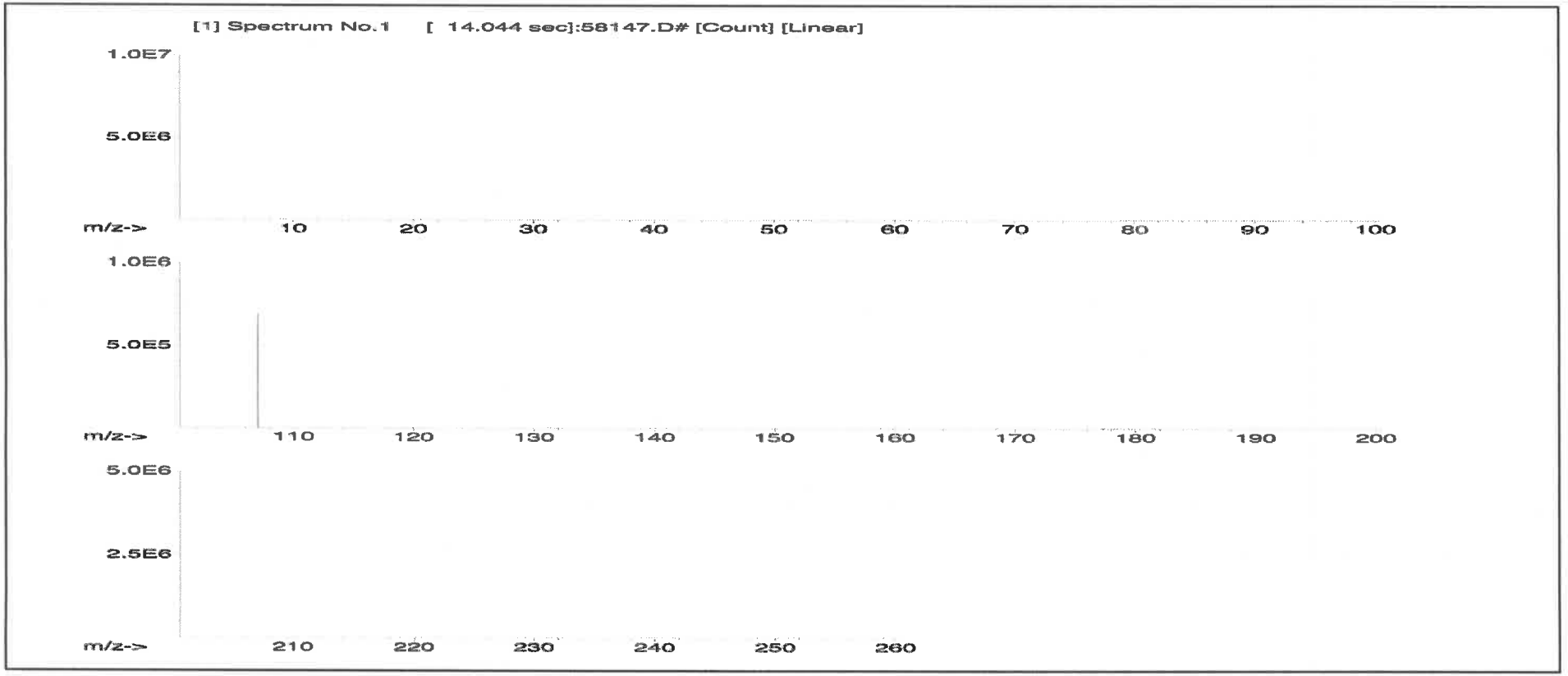
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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Certified Reference Material CRM

R: 10/18/24

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

MG146

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

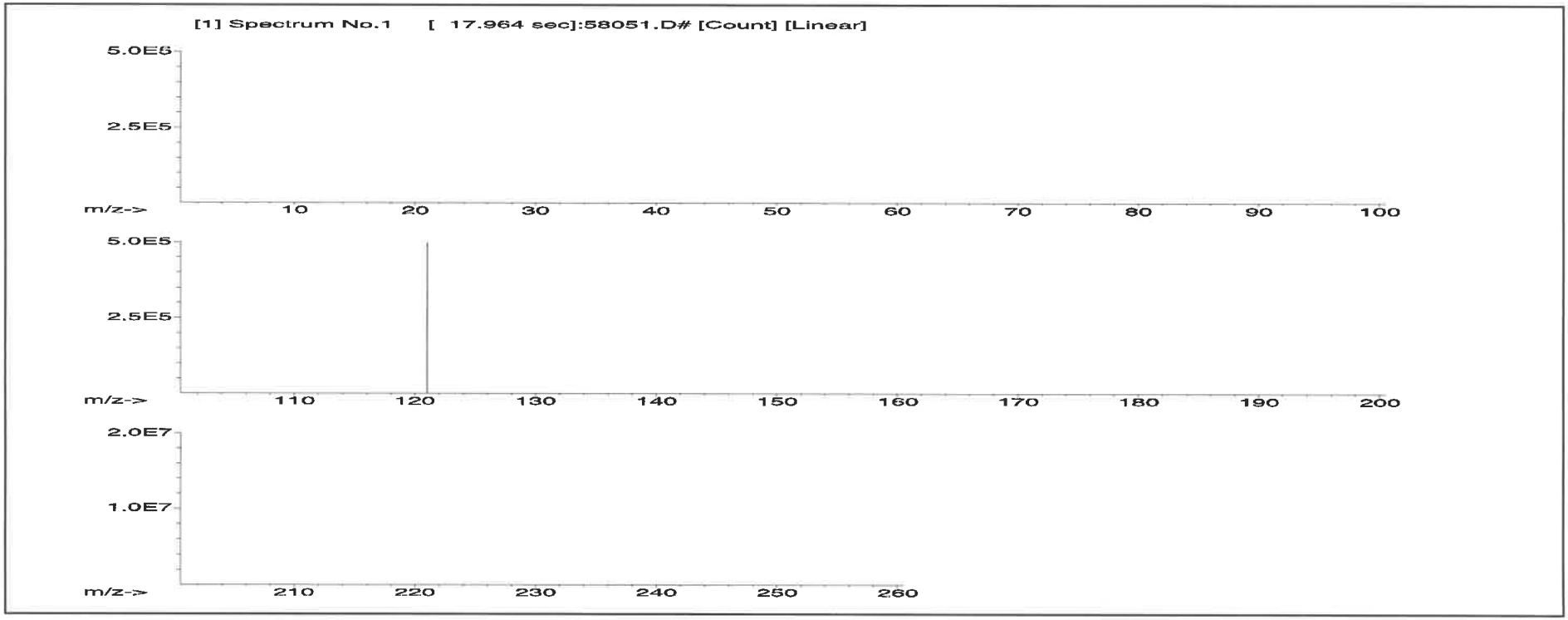
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 8/5/24 M6019

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "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 (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 885.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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)

CRM/RMs 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.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

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 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

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CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

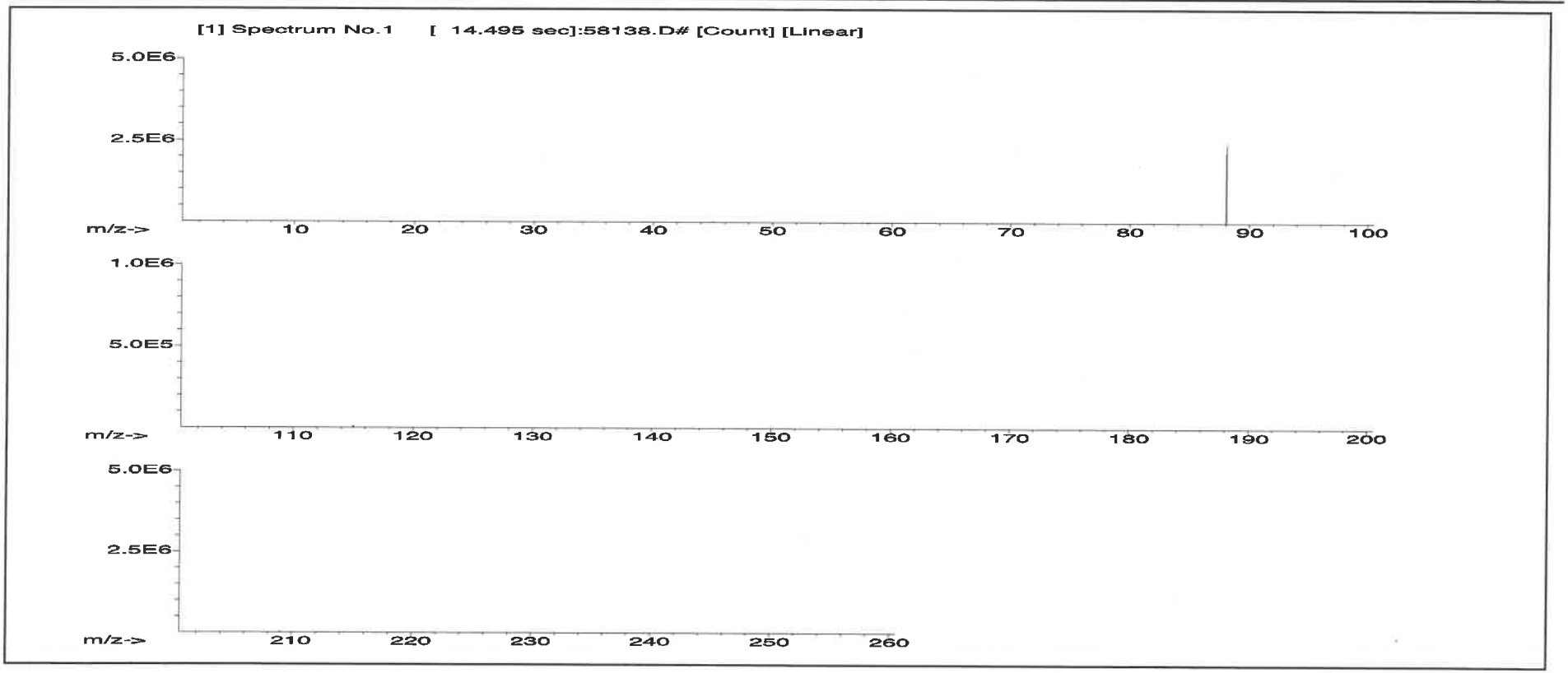
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
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Certified Reference Material CRM

M6023

B ! 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (Tl)

Expiration Date: 062727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.1

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.10	Flask Uncertainty	

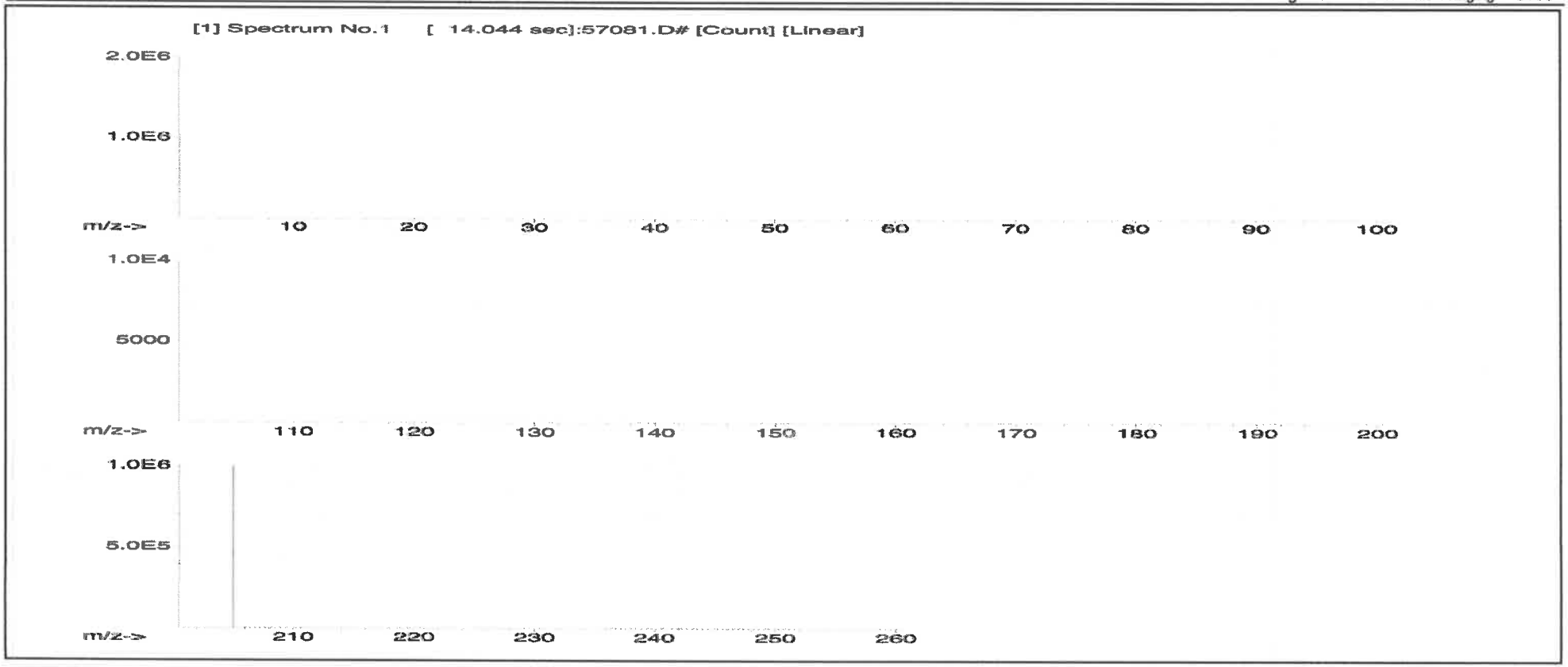
Aleah O'Brady

Formulated By: Aleah O'Brady 062724

Pedro Rentas

Reviewed By: Pedro L. Rentas 062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

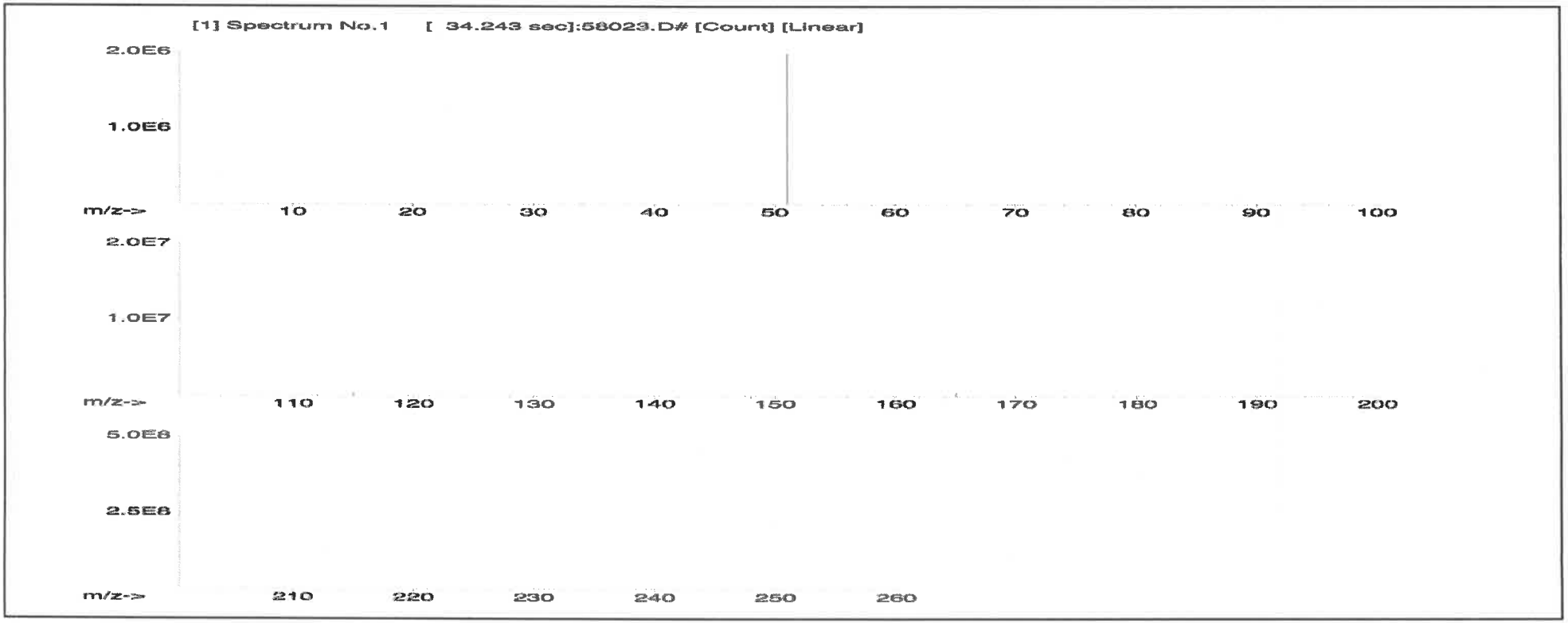
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Q1539

Weston COC ID
Weston_20250310_1451

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	**Project POC:**	Nathan Fretz
PO Number	0111169	**Phone:**	484-524-5665
W.O. #:		**POC e-mail:**	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	**Lab POC:**	Jordan Hedvat
TAT (days):	21	**Lab Phone:**	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes
SS - Soil
SE - Sediment
SO - Solid
SL - Sludge
GW - Groundwater
W - Water
SB - Soil Boring
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected	DRO by EPA 8015D	Pesticides by EPA 8081B	SVOCs by EPA 8270E	O&G by EPA 1664A	Hardness by EPA 200.7 & SM2340B	Anions by EPA 9056A	TOC by EPA 9060A/Lloyd Kahn	GRO by EPA 8015D	VOCs by EPA 8260D	Hex Cr by EPA 7196A	Ammonia by SM4500-NH3 B P	Metals w Hg by EPA 6020B/7470A	Special Instructions/Comments
	Container Type:							Amber	Amber	Amber	Glass	Plastic	Plastic	Vial	Vial	Vial	Plastic	Plastic	Plastic	
	Container Size:							1 L	1 L	1 L	1 L	1 L	1 L	40 mL	40 mL	40 mL	500 mL	500 mL	500 mL	
	Preservative:							Ice to 0-6 deg C	Ice to 0-6 deg C	Ice to 0-6 deg	H2SO4 to < 2	HNO3 to pH	Ice to 0-6	H2SO4 to < 2	HCL to PH < 2	HCL to Ph < 2	Ammonium	H2SO4; Ice to 0-6	HNO3 to pH <	
1	TAPIAL3-MW03D-031025-00-T1	g	GW	19	no	3/10/2025	11:50	X	X	X	X	X	X	X	X	X	X	X	X	pH 1.9
2	TAPFTA-MW01I-031025-00-T2	g	GW	19	no	3/10/2025	15:10	X	X	X	X	X	X	X	X	X	X	X	X	pH 1.9
3	TAP-TB-03-~~031025-T1~~ 031025	g	W	2	no	3/10/2025	11:50									X				
4	TAP-TB-04-031025-T2	g	W	2	no	3/10/25	16:55									X				Air in VOAs
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Shipping Airbill Number: 7726 1351 3156

Cooler Number: 1 of 2

	Relinquished By	Date	Time	Received By	Date	Time
1.)	[signature]	3/10/25	1700	FedEx		
2.)				[signature]	3-11-25	9:56
3.)						

Additional Comments

QSM 6.0 Compliant

Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD

3.1°C IR-Gun #1

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1539 WEST04
Client Name : Weston Solutions
Client Contact : Nathan Fretz
Invoice Name : Weston Solutions
Invoice Contact : Nathan Fretz

Order Date : 3/11/2025 10:36:00 AM
Project Name : Ft Meade Tipton Airfield Pa
Receive DateTime : 3/11/2025 9:56:00 AM
Purchase Order :

Project Mgr : YAZMEEN
Report Type : Level 4
EDD Type : SEDD 2A
Hard Copy Date :
Date Signoff : 3/11/2025 11:38:51 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1539-01	TAPIAL3-MW03D-031025-00-T1	Water	03/10/2025	11:50					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	03/10/2025	15:10					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-03	TAP-TB-03-031025	Water	03/10/2025	11:50					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-04	TAP-TB-04-031025-T2	Water	03/10/2025	16:55					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By :
Date / Time : 3/12/25

Received By :
Date / Time : 3/12/25

Storage Area : VOA Refridgerator Room