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Cover Page

Order ID : Q2934

Project ID : Amtrak Sawtooth Bridges 2025

Client : Portal Partners Tri-Venture

Lab Sample Number	Client Sample Number
Q2934-01	ENV-SW01
Q2934-02	ENV-SW02
Q2934-03	ENV-SW03
Q2934-04	ENV-SW04

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 : _____

Date: 8/28/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Portal Partners Tri-Venture
Project Name: Amtrak Sawtooth Bridges 2025
Project # N/A
Order ID # Q2934
Test Name: Mercury,Metals ICP-TAL

A. Number of Samples and Date of Receipt:
4 Water samples were received on 08/21/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: EPH, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-TAL, PCB, SVOC-TCL BNA -20, trivalent Chromium and VOC-TCLVOA-10. This data package contains results for Mercury,Metals ICP-TAL.

C. Analytical Techniques:
The analysis of Metals ICP-TAL was based on method 6010D, 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.
Sample ENV-SW04 was diluted due to high concentrations for Sodium.
The Blank Spike met requirements for all compounds.
The Duplicate (ENV-SW02MSD) analysis met criteria for all compounds except for Silver due to Chemical Interference during Digestion Process.
The Matrix Spike (ENV-SW02MS) analysis met criteria for all compounds except for Silver due to Chemical Interference during Digestion Process.
The Matrix Spike Duplicate (ENV-SW02MSD) analysis met criteria for all compounds except for Silver due to Chemical Interference during Digestion Process.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:
The Post Digest Spike (ENV-SW02A) analysis met criteria for all compounds except for Silver due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.
In analytical sequence LB136940, The % recovery was outside of acceptance limit for Thallium of CCV05 but, no any samples associated under this CCV.

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_____

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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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q2934**

	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: **KETAN PATEL** **Date:** **08/28/2025**

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LAB CHRONICLE

OrderID:	Q2934	**OrderDate:**	8/21/2025 2:34:00 PM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2025
Contact:	Joseph Krupansky	**Location:**	D41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2934-01	**ENV-SW01**	**Water**			**08/21/25**			**08/21/25**
			Mercury	7470A		08/26/25	08/27/25	
			Metals ICP-TAL	6010D		08/22/25	08/22/25	
Q2934-02	**ENV-SW02**	**Water**			**08/21/25**			**08/21/25**
			Mercury	7470A		08/26/25	08/27/25	
			Metals ICP-TAL	6010D		08/22/25	08/25/25	
Q2934-03	**ENV-SW03**	**Water**			**08/21/25**			**08/21/25**
			Mercury	7470A		08/26/25	08/27/25	
			Metals ICP-TAL	6010D		08/22/25	08/22/25	
Q2934-04	**ENV-SW04**	**Water**			**08/21/25**			**08/21/25**
			Mercury	7470A		08/26/25	08/27/25	
			Metals ICP-TAL	6010D		08/22/25	08/22/25	
			Metals ICP-TAL	6010D		08/22/25	08/25/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2934 **Order ID:** Q2934

Client: Portal Partners Tri-Venture **Project ID:** Amtrak Sawtooth Bridges 2025

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : ENV-SW01								
Q2934-01	ENV-SW01	Water	Aluminum	145		5.67	50.0	ug/L
Q2934-01	ENV-SW01	Water	Antimony	5.82	J	3.38	25.0	ug/L
Q2934-01	ENV-SW01	Water	Arsenic	4.22	J	2.56	10.0	ug/L
Q2934-01	ENV-SW01	Water	Barium	148		7.28	50.0	ug/L
Q2934-01	ENV-SW01	Water	Calcium	37200		117	1000	ug/L
Q2934-01	ENV-SW01	Water	Chromium	2.29	J	1.06	5.00	ug/L
Q2934-01	ENV-SW01	Water	Copper	7.23	J	2.30	10.0	ug/L
Q2934-01	ENV-SW01	Water	Iron	2180		11.7	50.0	ug/L
Q2934-01	ENV-SW01	Water	Lead	16.3		1.15	6.00	ug/L
Q2934-01	ENV-SW01	Water	Magnesium	13900		122	1000	ug/L
Q2934-01	ENV-SW01	Water	Manganese	427		2.97	10.0	ug/L
Q2934-01	ENV-SW01	Water	Nickel	7.17	J	1.53	20.0	ug/L
Q2934-01	ENV-SW01	Water	Potassium	24100		459	1000	ug/L
Q2934-01	ENV-SW01	Water	Sodium	54300		434	1000	ug/L
Q2934-01	ENV-SW01	Water	Vanadium	6.01	J	3.13	20.0	ug/L
Q2934-01	ENV-SW01	Water	Zinc	12.9	J	8.33	20.0	ug/L
Client ID : ENV-SW02								
Q2934-02	ENV-SW02	Water	Aluminum	182		5.67	50.0	ug/L
Q2934-02	ENV-SW02	Water	Antimony	6.48	J	3.38	25.0	ug/L
Q2934-02	ENV-SW02	Water	Arsenic	4.50	J	2.56	10.0	ug/L
Q2934-02	ENV-SW02	Water	Barium	169		7.28	50.0	ug/L
Q2934-02	ENV-SW02	Water	Calcium	37200		117	1000	ug/L
Q2934-02	ENV-SW02	Water	Chromium	2.47	J	1.06	5.00	ug/L
Q2934-02	ENV-SW02	Water	Copper	9.63	J	2.30	10.0	ug/L
Q2934-02	ENV-SW02	Water	Iron	2360		11.7	50.0	ug/L
Q2934-02	ENV-SW02	Water	Lead	16.5		1.15	6.00	ug/L
Q2934-02	ENV-SW02	Water	Magnesium	13500		122	1000	ug/L
Q2934-02	ENV-SW02	Water	Manganese	467		2.97	10.0	ug/L
Q2934-02	ENV-SW02	Water	Mercury	0.091	J	0.076	0.20	ug/L
Q2934-02	ENV-SW02	Water	Nickel	7.09	J	1.53	20.0	ug/L
Q2934-02	ENV-SW02	Water	Potassium	23300		459	1000	ug/L
Q2934-02	ENV-SW02	Water	Sodium	52600		434	1000	ug/L
Q2934-02	ENV-SW02	Water	Vanadium	5.44	J	3.13	20.0	ug/L
Q2934-02	ENV-SW02	Water	Zinc	14.9	J	8.33	20.0	ug/L
Client ID : ENV-SW03								
Q2934-03	ENV-SW03	Water	Aluminum	329		5.67	50.0	ug/L

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Hit Summary Sheet
SW-846

SDG No.: Q2934 **Order ID:** Q2934

Client: Portal Partners Tri-Venture **Project ID:** Amtrak Sawtooth Bridges 2025

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2934-03	ENV-SW03	Water	Antimony	6.29	J	3.38	25.0	ug/L
Q2934-03	ENV-SW03	Water	Arsenic	4.40	J	2.56	10.0	ug/L
Q2934-03	ENV-SW03	Water	Barium	234		7.28	50.0	ug/L
Q2934-03	ENV-SW03	Water	Calcium	39300		117	1000	ug/L
Q2934-03	ENV-SW03	Water	Chromium	4.02	J	1.06	5.00	ug/L
Q2934-03	ENV-SW03	Water	Copper	9.65	J	2.30	10.0	ug/L
Q2934-03	ENV-SW03	Water	Iron	2140		11.7	50.0	ug/L
Q2934-03	ENV-SW03	Water	Lead	18.6		1.15	6.00	ug/L
Q2934-03	ENV-SW03	Water	Magnesium	13200		122	1000	ug/L
Q2934-03	ENV-SW03	Water	Manganese	376		2.97	10.0	ug/L
Q2934-03	ENV-SW03	Water	Mercury	0.11	J	0.076	0.20	ug/L
Q2934-03	ENV-SW03	Water	Nickel	7.77	J	1.53	20.0	ug/L
Q2934-03	ENV-SW03	Water	Potassium	22800		459	1000	ug/L
Q2934-03	ENV-SW03	Water	Sodium	50400		434	1000	ug/L
Q2934-03	ENV-SW03	Water	Vanadium	6.10	J	3.13	20.0	ug/L
Q2934-03	ENV-SW03	Water	Zinc	16.6	J	8.33	20.0	ug/L
Client ID :	**ENV-SW04**							
Q2934-04	ENV-SW04	Water	Aluminum	184		5.67	50.0	ug/L
Q2934-04	ENV-SW04	Water	Antimony	3.86	J	3.38	25.0	ug/L
Q2934-04	ENV-SW04	Water	Barium	164		7.28	50.0	ug/L
Q2934-04	ENV-SW04	Water	Calcium	98700		117	1000	ug/L
Q2934-04	ENV-SW04	Water	Chromium	4.89	J	1.06	5.00	ug/L
Q2934-04	ENV-SW04	Water	Copper	2.39	J	2.30	10.0	ug/L
Q2934-04	ENV-SW04	Water	Iron	666		11.7	50.0	ug/L
Q2934-04	ENV-SW04	Water	Lead	3.11	J	1.15	6.00	ug/L
Q2934-04	ENV-SW04	Water	Magnesium	249000		122	1000	ug/L
Q2934-04	ENV-SW04	Water	Manganese	194		2.97	10.0	ug/L
Q2934-04	ENV-SW04	Water	Mercury	0.14	J	0.076	0.20	ug/L
Q2934-04	ENV-SW04	Water	Nickel	4.89	J	1.53	20.0	ug/L
Q2934-04	ENV-SW04	Water	Potassium	145000		459	1000	ug/L
Q2934-04	ENV-SW04	Water	Sodium	2260000	D	868	2000	ug/L
Q2934-04	ENV-SW04	Water	Vanadium	7.19	J	3.13	20.0	ug/L
Q2934-04	ENV-SW04	Water	Zinc	11.9	J	8.33	20.0	ug/L

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SAMPLE DATA

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	08/21/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	08/21/25
Client Sample ID:	ENV-SW01	SDG No.:	Q2934
Lab Sample ID:	Q2934-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	145		1	5.67	50.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-36-0	Antimony	5.82	J	1	3.38	25.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-38-2	Arsenic	4.22	J	1	2.56	10.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-39-3	Barium	148		1	7.28	50.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-41-7	Beryllium	0.28	U	1	0.28	3.00	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-43-9	Cadmium	0.25	U	1	0.25	3.00	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-70-2	Calcium	37200		1	117	1000	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-47-3	Chromium	2.29	J	1	1.06	5.00	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-48-4	Cobalt	1.13	U	1	1.13	15.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-50-8	Copper	7.23	J	1	2.30	10.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7439-89-6	Iron	2180		1	11.7	50.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7439-92-1	Lead	16.3		1	1.15	6.00	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7439-95-4	Magnesium	13900		1	122	1000	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7439-96-5	Manganese	427		1	2.97	10.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	08/26/25 15:05	08/27/25 10:24	7470A	
7440-02-0	Nickel	7.17	J	1	1.53	20.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-09-7	Potassium	24100		1	459	1000	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7782-49-2	Selenium	4.82	U	1	4.82	10.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-22-4	Silver	0.81	UN*	1	0.81	5.00	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-23-5	Sodium	54300		1	434	1000	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-28-0	Thallium	2.19	U	1	2.19	20.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-62-2	Vanadium	6.01	J	1	3.13	20.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010
7440-66-6	Zinc	12.9	J	1	8.33	20.0	ug/L	08/22/25 10:30	08/22/25 15:03	6010D	SW3010

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

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	08/21/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	08/21/25
Client Sample ID:	ENV-SW02	SDG No.:	Q2934
Lab Sample ID:	Q2934-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	182		1	5.67	50.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-36-0	Antimony	6.48	J	1	3.38	25.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-38-2	Arsenic	4.50	J	1	2.56	10.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-39-3	Barium	169		1	7.28	50.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-41-7	Beryllium	0.28	U	1	0.28	3.00	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-43-9	Cadmium	0.25	U	1	0.25	3.00	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-70-2	Calcium	37200		1	117	1000	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-47-3	Chromium	2.47	J	1	1.06	5.00	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-48-4	Cobalt	1.13	U	1	1.13	15.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-50-8	Copper	9.63	J	1	2.30	10.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7439-89-6	Iron	2360		1	11.7	50.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7439-92-1	Lead	16.5		1	1.15	6.00	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7439-95-4	Magnesium	13500		1	122	1000	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7439-96-5	Manganese	467		1	2.97	10.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7439-97-6	Mercury	0.091	J	1	0.076	0.20	ug/L	08/26/25 15:05	08/27/25 10:26	7470A	
7440-02-0	Nickel	7.09	J	1	1.53	20.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-09-7	Potassium	23300		1	459	1000	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7782-49-2	Selenium	4.82	U	1	4.82	10.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-22-4	Silver	0.81	UN*	1	0.81	5.00	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-23-5	Sodium	52600		1	434	1000	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-28-0	Thallium	2.19	U	1	2.19	20.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-62-2	Vanadium	5.44	J	1	3.13	20.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010
7440-66-6	Zinc	14.9	J	1	8.33	20.0	ug/L	08/22/25 10:30	08/25/25 13:22	6010D	SW3010

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

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	08/21/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	08/21/25
Client Sample ID:	ENV-SW03	SDG No.:	Q2934
Lab Sample ID:	Q2934-03	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	329		1	5.67	50.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-36-0	Antimony	6.29	J	1	3.38	25.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-38-2	Arsenic	4.40	J	1	2.56	10.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-39-3	Barium	234		1	7.28	50.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-41-7	Beryllium	0.28	U	1	0.28	3.00	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-43-9	Cadmium	0.25	U	1	0.25	3.00	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-70-2	Calcium	39300		1	117	1000	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-47-3	Chromium	4.02	J	1	1.06	5.00	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-48-4	Cobalt	1.13	U	1	1.13	15.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-50-8	Copper	9.65	J	1	2.30	10.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7439-89-6	Iron	2140		1	11.7	50.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7439-92-1	Lead	18.6		1	1.15	6.00	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7439-95-4	Magnesium	13200		1	122	1000	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7439-96-5	Manganese	376		1	2.97	10.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7439-97-6	Mercury	0.11	J	1	0.076	0.20	ug/L	08/26/25 15:05	08/27/25 10:28	7470A	
7440-02-0	Nickel	7.77	J	1	1.53	20.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-09-7	Potassium	22800		1	459	1000	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7782-49-2	Selenium	4.82	U	1	4.82	10.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-22-4	Silver	0.81	UN*	1	0.81	5.00	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-23-5	Sodium	50400		1	434	1000	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-28-0	Thallium	2.19	U	1	2.19	20.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-62-2	Vanadium	6.10	J	1	3.13	20.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010
7440-66-6	Zinc	16.6	J	1	8.33	20.0	ug/L	08/22/25 10:30	08/22/25 15:07	6010D	SW3010

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:	Portal Partners Tri-Venture	Date Collected:	08/21/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	08/21/25
Client Sample ID:	ENV-SW04	SDG No.:	Q2934
Lab Sample ID:	Q2934-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	184		1	5.67	50.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-36-0	Antimony	3.86	J	1	3.38	25.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-38-2	Arsenic	2.56	U	1	2.56	10.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-39-3	Barium	164		1	7.28	50.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-41-7	Beryllium	0.28	U	1	0.28	3.00	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-43-9	Cadmium	0.25	U	1	0.25	3.00	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-70-2	Calcium	98700		1	117	1000	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-47-3	Chromium	4.89	J	1	1.06	5.00	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-48-4	Cobalt	1.13	U	1	1.13	15.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-50-8	Copper	2.39	J	1	2.30	10.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7439-89-6	Iron	666		1	11.7	50.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7439-92-1	Lead	3.11	J	1	1.15	6.00	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7439-95-4	Magnesium	249000		1	122	1000	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7439-96-5	Manganese	194		1	2.97	10.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7439-97-6	Mercury	0.14	J	1	0.076	0.20	ug/L	08/26/25 15:05	08/27/25 10:30	7470A	
7440-02-0	Nickel	4.89	J	1	1.53	20.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-09-7	Potassium	145000		1	459	1000	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7782-49-2	Selenium	4.82	U	1	4.82	10.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-22-4	Silver	0.81	UN*	1	0.81	5.00	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-23-5	Sodium	2260000	D	2	868	2000	ug/L	08/22/25 10:30	08/25/25 13:17	6010D	SW3010
7440-28-0	Thallium	2.19	U	1	2.19	20.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-62-2	Vanadium	7.19	J	1	3.13	20.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010
7440-66-6	Zinc	11.9	J	1	8.33	20.0	ug/L	08/22/25 10:30	08/22/25 15:26	6010D	SW3010

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

U = Not Detected
LOQ = Limit of Quantitation
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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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Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: **Portal Partners Tri-Venture** **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

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
ICV07	Mercury	4.21	4.0	105	90 - 110	CV	08/27/2025	10:03	LB136975

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture

SDG No.: Q2934

Contract: PORT06

Lab Code: ACE

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
CCV18	Mercury	5.02	5.0	100	90 - 110	CV	08/27/2025	10:07	LB136975
CCV19	Mercury	4.91	5.0	98	90 - 110	CV	08/27/2025	10:35	LB136975
CCV20	Mercury	5.31	5.0	106	90 - 110	CV	08/27/2025	11:33	LB136975

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	7750	8000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Antimony	4040	4000	101	90 - 110	P	08/22/2025	11:37	LB136940
	Arsenic	3880	4000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Barium	7700	8000	96	90 - 110	P	08/22/2025	11:37	LB136940
	Beryllium	199	200	100	90 - 110	P	08/22/2025	11:37	LB136940
	Cadmium	1910	2000	96	90 - 110	P	08/22/2025	11:37	LB136940
	Calcium	19300	20000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Chromium	790	800	99	90 - 110	P	08/22/2025	11:37	LB136940
	Cobalt	1930	2000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Copper	997	1000	100	90 - 110	P	08/22/2025	11:37	LB136940
	Iron	3890	4000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Lead	3920	4000	98	90 - 110	P	08/22/2025	11:37	LB136940
	Magnesium	19400	20000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Manganese	1930	2000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Nickel	1930	2000	97	90 - 110	P	08/22/2025	11:37	LB136940
	Potassium	19200	20000	96	90 - 110	P	08/22/2025	11:37	LB136940
	Selenium	3930	4000	98	90 - 110	P	08/22/2025	11:37	LB136940
	Silver	961	1000	96	90 - 110	P	08/22/2025	11:37	LB136940
	Sodium	18900	20000	95	90 - 110	P	08/22/2025	11:37	LB136940
	Thallium	3790	4000	95	90 - 110	P	08/22/2025	11:37	LB136940
	Vanadium	1970	2000	98	90 - 110	P	08/22/2025	11:37	LB136940
	Zinc	1960	2000	98	90 - 110	P	08/22/2025	11:37	LB136940

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	109	100	109	80 - 120	P	08/22/2025	11:45	LB136940
	Antimony	52.6	50.0	105	80 - 120	P	08/22/2025	11:45	LB136940
	Arsenic	23.3	20.0	116	80 - 120	P	08/22/2025	11:45	LB136940
	Barium	98.3	100	98	80 - 120	P	08/22/2025	11:45	LB136940
	Beryllium	6.33	6.0	106	80 - 120	P	08/22/2025	11:45	LB136940
	Cadmium	5.71	6.0	95	80 - 120	P	08/22/2025	11:45	LB136940
	Calcium	2050	2000	102	80 - 120	P	08/22/2025	11:45	LB136940
	Chromium	10.4	10.0	104	80 - 120	P	08/22/2025	11:45	LB136940
	Cobalt	29.4	30.0	98	80 - 120	P	08/22/2025	11:45	LB136940
	Copper	21.2	20.0	106	80 - 120	P	08/22/2025	11:45	LB136940
	Iron	95.1	100	95	80 - 120	P	08/22/2025	11:45	LB136940
	Lead	13.0	12.0	108	80 - 120	P	08/22/2025	11:45	LB136940
	Magnesium	2160	2000	108	80 - 120	P	08/22/2025	11:45	LB136940
	Manganese	22.1	20.0	110	80 - 120	P	08/22/2025	11:45	LB136940
	Nickel	39.6	40.0	99	80 - 120	P	08/22/2025	11:45	LB136940
	Potassium	1740	2000	87	80 - 120	P	08/22/2025	11:45	LB136940
	Selenium	18.7	20.0	94	80 - 120	P	08/22/2025	11:45	LB136940
	Silver	10.3	10.0	103	80 - 120	P	08/22/2025	11:45	LB136940
	Sodium	1820	2000	91	80 - 120	P	08/22/2025	11:45	LB136940
	Thallium	42.5	40.0	106	80 - 120	P	08/22/2025	11:45	LB136940
	Vanadium	38.5	40.0	96	80 - 120	P	08/22/2025	11:45	LB136940
	Zinc	41.9	40.0	105	80 - 120	P	08/22/2025	11:45	LB136940

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9880	10000	99	90 - 110	P	08/22/2025	12:18	LB136940
	Antimony	5110	5000	102	90 - 110	P	08/22/2025	12:18	LB136940
	Arsenic	5110	5000	102	90 - 110	P	08/22/2025	12:18	LB136940
	Barium	9710	10000	97	90 - 110	P	08/22/2025	12:18	LB136940
	Beryllium	245	250	98	90 - 110	P	08/22/2025	12:18	LB136940
	Cadmium	2510	2500	100	90 - 110	P	08/22/2025	12:18	LB136940
	Calcium	24600	25000	98	90 - 110	P	08/22/2025	12:18	LB136940
	Chromium	1020	1000	102	90 - 110	P	08/22/2025	12:18	LB136940
	Cobalt	2500	2500	100	90 - 110	P	08/22/2025	12:18	LB136940
	Copper	1270	1250	101	90 - 110	P	08/22/2025	12:18	LB136940
	Iron	5060	5000	101	90 - 110	P	08/22/2025	12:18	LB136940
	Lead	4980	5000	100	90 - 110	P	08/22/2025	12:18	LB136940
	Magnesium	24500	25000	98	90 - 110	P	08/22/2025	12:18	LB136940
	Manganese	2420	2500	97	90 - 110	P	08/22/2025	12:18	LB136940
	Nickel	2500	2500	100	90 - 110	P	08/22/2025	12:18	LB136940
	Potassium	24700	25000	99	90 - 110	P	08/22/2025	12:18	LB136940
	Selenium	5170	5000	103	90 - 110	P	08/22/2025	12:18	LB136940
	Silver	1260	1250	101	90 - 110	P	08/22/2025	12:18	LB136940
	Sodium	24100	25000	96	90 - 110	P	08/22/2025	12:18	LB136940
	Thallium	5140	5000	103	90 - 110	P	08/22/2025	12:18	LB136940
	Vanadium	2480	2500	99	90 - 110	P	08/22/2025	12:18	LB136940
	Zinc	2560	2500	102	90 - 110	P	08/22/2025	12:18	LB136940
CCV02	Aluminum	9920	10000	99	90 - 110	P	08/22/2025	13:36	LB136940
	Antimony	5180	5000	104	90 - 110	P	08/22/2025	13:36	LB136940
	Arsenic	5140	5000	103	90 - 110	P	08/22/2025	13:36	LB136940
	Barium	9760	10000	98	90 - 110	P	08/22/2025	13:36	LB136940
	Beryllium	246	250	99	90 - 110	P	08/22/2025	13:36	LB136940
	Cadmium	2500	2500	100	90 - 110	P	08/22/2025	13:36	LB136940
	Calcium	24600	25000	98	90 - 110	P	08/22/2025	13:36	LB136940
	Chromium	1020	1000	102	90 - 110	P	08/22/2025	13:36	LB136940
	Cobalt	2510	2500	100	90 - 110	P	08/22/2025	13:36	LB136940
	Copper	1270	1250	102	90 - 110	P	08/22/2025	13:36	LB136940
	Iron	5090	5000	102	90 - 110	P	08/22/2025	13:36	LB136940
	Lead	4980	5000	100	90 - 110	P	08/22/2025	13:36	LB136940

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24500	25000	98	90 - 110	P	08/22/2025	13:36	LB136940
	Manganese	2440	2500	98	90 - 110	P	08/22/2025	13:36	LB136940
	Nickel	2510	2500	100	90 - 110	P	08/22/2025	13:36	LB136940
	Potassium	24700	25000	99	90 - 110	P	08/22/2025	13:36	LB136940
	Selenium	5200	5000	104	90 - 110	P	08/22/2025	13:36	LB136940
	Silver	1270	1250	102	90 - 110	P	08/22/2025	13:36	LB136940
	Sodium	24400	25000	98	90 - 110	P	08/22/2025	13:36	LB136940
	Thallium	5150	5000	103	90 - 110	P	08/22/2025	13:36	LB136940
	Vanadium	2500	2500	100	90 - 110	P	08/22/2025	13:36	LB136940
	Zinc	2570	2500	103	90 - 110	P	08/22/2025	13:36	LB136940
CCV03	Aluminum	10000	10000	100	90 - 110	P	08/22/2025	14:25	LB136940
	Antimony	5210	5000	104	90 - 110	P	08/22/2025	14:25	LB136940
	Arsenic	5180	5000	104	90 - 110	P	08/22/2025	14:25	LB136940
	Barium	9870	10000	99	90 - 110	P	08/22/2025	14:25	LB136940
	Beryllium	249	250	100	90 - 110	P	08/22/2025	14:25	LB136940
	Cadmium	2530	2500	101	90 - 110	P	08/22/2025	14:25	LB136940
	Calcium	25100	25000	100	90 - 110	P	08/22/2025	14:25	LB136940
	Chromium	1040	1000	104	90 - 110	P	08/22/2025	14:25	LB136940
	Cobalt	2530	2500	101	90 - 110	P	08/22/2025	14:25	LB136940
	Copper	1290	1250	103	90 - 110	P	08/22/2025	14:25	LB136940
	Iron	5200	5000	104	90 - 110	P	08/22/2025	14:25	LB136940
	Lead	5040	5000	101	90 - 110	P	08/22/2025	14:25	LB136940
	Magnesium	24900	25000	100	90 - 110	P	08/22/2025	14:25	LB136940
	Manganese	2490	2500	100	90 - 110	P	08/22/2025	14:25	LB136940
	Nickel	2530	2500	101	90 - 110	P	08/22/2025	14:25	LB136940
	Potassium	25200	25000	101	90 - 110	P	08/22/2025	14:25	LB136940
	Selenium	5250	5000	105	90 - 110	P	08/22/2025	14:25	LB136940
	Silver	1290	1250	103	90 - 110	P	08/22/2025	14:25	LB136940
	Sodium	25000	25000	100	90 - 110	P	08/22/2025	14:25	LB136940
	Thallium	5230	5000	105	90 - 110	P	08/22/2025	14:25	LB136940
	Vanadium	2530	2500	101	90 - 110	P	08/22/2025	14:25	LB136940
	Zinc	2610	2500	104	90 - 110	P	08/22/2025	14:25	LB136940
CCV04	Aluminum	9830	10000	98	90 - 110	P	08/22/2025	15:44	LB136940
	Antimony	5000	5000	100	90 - 110	P	08/22/2025	15:44	LB136940

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	5020	5000	100	90 - 110	P	08/22/2025	15:44	LB136940
	Barium	9470	10000	95	90 - 110	P	08/22/2025	15:44	LB136940
	Beryllium	244	250	98	90 - 110	P	08/22/2025	15:44	LB136940
	Cadmium	2480	2500	99	90 - 110	P	08/22/2025	15:44	LB136940
	Calcium	24300	25000	97	90 - 110	P	08/22/2025	15:44	LB136940
	Chromium	1010	1000	101	90 - 110	P	08/22/2025	15:44	LB136940
	Cobalt	2460	2500	98	90 - 110	P	08/22/2025	15:44	LB136940
	Copper	1240	1250	100	90 - 110	P	08/22/2025	15:44	LB136940
	Iron	4960	5000	99	90 - 110	P	08/22/2025	15:44	LB136940
	Lead	4920	5000	98	90 - 110	P	08/22/2025	15:44	LB136940
	Magnesium	24400	25000	98	90 - 110	P	08/22/2025	15:44	LB136940
	Manganese	2400	2500	96	90 - 110	P	08/22/2025	15:44	LB136940
	Nickel	2460	2500	98	90 - 110	P	08/22/2025	15:44	LB136940
	Potassium	24400	25000	98	90 - 110	P	08/22/2025	15:44	LB136940
	Selenium	5090	5000	102	90 - 110	P	08/22/2025	15:44	LB136940
	Silver	1250	1250	100	90 - 110	P	08/22/2025	15:44	LB136940
	Sodium	23600	25000	94	90 - 110	P	08/22/2025	15:44	LB136940
	Thallium	5290	5000	106	90 - 110	P	08/22/2025	15:44	LB136940
	Vanadium	2470	2500	99	90 - 110	P	08/22/2025	15:44	LB136940
	Zinc	2540	2500	102	90 - 110	P	08/22/2025	15:44	LB136940
CCV05	Aluminum	9520	10000	95	90 - 110	P	08/22/2025	16:30	LB136940
	Antimony	4890	5000	98	90 - 110	P	08/22/2025	16:30	LB136940
	Arsenic	4910	5000	98	90 - 110	P	08/22/2025	16:30	LB136940
	Barium	9050	10000	90	90 - 110	P	08/22/2025	16:30	LB136940
	Beryllium	234	250	93	90 - 110	P	08/22/2025	16:30	LB136940
	Cadmium	2400	2500	96	90 - 110	P	08/22/2025	16:30	LB136940
	Calcium	23500	25000	94	90 - 110	P	08/22/2025	16:30	LB136940
	Chromium	986	1000	99	90 - 110	P	08/22/2025	16:30	LB136940
	Cobalt	2380	2500	95	90 - 110	P	08/22/2025	16:30	LB136940
	Copper	1210	1250	97	90 - 110	P	08/22/2025	16:30	LB136940
	Iron	4870	5000	97	90 - 110	P	08/22/2025	16:30	LB136940
	Lead	4760	5000	95	90 - 110	P	08/22/2025	16:30	LB136940
	Magnesium	23700	25000	95	90 - 110	P	08/22/2025	16:30	LB136940
	Manganese	2310	2500	92	90 - 110	P	08/22/2025	16:30	LB136940

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2390	2500	96	90 - 110	P	08/22/2025	16:30	LB136940
	Potassium	24100	25000	97	90 - 110	P	08/22/2025	16:30	LB136940
	Selenium	5000	5000	100	90 - 110	P	08/22/2025	16:30	LB136940
	Silver	1210	1250	97	90 - 110	P	08/22/2025	16:30	LB136940
	Sodium	23400	25000	94	90 - 110	P	08/22/2025	16:30	LB136940
	Thallium	5600	5000	112	90 - 110	P	08/22/2025	16:30	LB136940
	Vanadium	2380	2500	95	90 - 110	P	08/22/2025	16:30	LB136940
	Zinc	2470	2500	99	90 - 110	P	08/22/2025	16:30	LB136940

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	8020	8000	100	90 - 110	P	08/25/2025	11:44	LB136951
	Antimony	4040	4000	101	90 - 110	P	08/25/2025	11:44	LB136951
	Arsenic	3870	4000	97	90 - 110	P	08/25/2025	11:44	LB136951
	Barium	7970	8000	100	90 - 110	P	08/25/2025	11:44	LB136951
	Beryllium	206	200	103	90 - 110	P	08/25/2025	11:44	LB136951
	Cadmium	1940	2000	97	90 - 110	P	08/25/2025	11:44	LB136951
	Calcium	20000	20000	100	90 - 110	P	08/25/2025	11:44	LB136951
	Chromium	810	800	101	90 - 110	P	08/25/2025	11:44	LB136951
	Cobalt	1970	2000	98	90 - 110	P	08/25/2025	11:44	LB136951
	Copper	1010	1000	101	90 - 110	P	08/25/2025	11:44	LB136951
	Iron	3960	4000	99	90 - 110	P	08/25/2025	11:44	LB136951
	Lead	3980	4000	100	90 - 110	P	08/25/2025	11:44	LB136951
	Magnesium	20100	20000	101	90 - 110	P	08/25/2025	11:44	LB136951
	Manganese	2010	2000	100	90 - 110	P	08/25/2025	11:44	LB136951
	Nickel	1960	2000	98	90 - 110	P	08/25/2025	11:44	LB136951
	Potassium	19600	20000	98	90 - 110	P	08/25/2025	11:44	LB136951
	Selenium	3900	4000	97	90 - 110	P	08/25/2025	11:44	LB136951
	Silver	977	1000	98	90 - 110	P	08/25/2025	11:44	LB136951
	Sodium	19400	20000	97	90 - 110	P	08/25/2025	11:44	LB136951
	Thallium	3930	4000	98	90 - 110	P	08/25/2025	11:44	LB136951
	Vanadium	2030	2000	102	90 - 110	P	08/25/2025	11:44	LB136951
	Zinc	1990	2000	100	90 - 110	P	08/25/2025	11:44	LB136951

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	115	100	115	80 - 120	P	08/25/2025	11:48	LB136951
	Antimony	51.4	50.0	103	80 - 120	P	08/25/2025	11:48	LB136951
	Arsenic	20.0	20.0	100	80 - 120	P	08/25/2025	11:48	LB136951
	Barium	103	100	104	80 - 120	P	08/25/2025	11:48	LB136951
	Beryllium	6.33	6.0	106	80 - 120	P	08/25/2025	11:48	LB136951
	Cadmium	6.02	6.0	100	80 - 120	P	08/25/2025	11:48	LB136951
	Calcium	2110	2000	105	80 - 120	P	08/25/2025	11:48	LB136951
	Chromium	10.3	10.0	103	80 - 120	P	08/25/2025	11:48	LB136951
	Cobalt	30.0	30.0	100	80 - 120	P	08/25/2025	11:48	LB136951
	Copper	21.8	20.0	109	80 - 120	P	08/25/2025	11:48	LB136951
	Iron	102	100	102	80 - 120	P	08/25/2025	11:48	LB136951
	Lead	10.8	12.0	90	80 - 120	P	08/25/2025	11:48	LB136951
	Magnesium	2250	2000	112	80 - 120	P	08/25/2025	11:48	LB136951
	Manganese	22.8	20.0	114	80 - 120	P	08/25/2025	11:48	LB136951
	Nickel	40.5	40.0	101	80 - 120	P	08/25/2025	11:48	LB136951
	Potassium	2190	2000	110	80 - 120	P	08/25/2025	11:48	LB136951
	Selenium	20.5	20.0	103	80 - 120	P	08/25/2025	11:48	LB136951
	Silver	10.4	10.0	104	80 - 120	P	08/25/2025	11:48	LB136951
	Sodium	1960	2000	98	80 - 120	P	08/25/2025	11:48	LB136951
	Thallium	41.7	40.0	104	80 - 120	P	08/25/2025	11:48	LB136951
	Vanadium	37.4	40.0	94	80 - 120	P	08/25/2025	11:48	LB136951
	Zinc	41.6	40.0	104	80 - 120	P	08/25/2025	11:48	LB136951

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9880	10000	99	90 - 110	P	08/25/2025	12:33	LB136951
	Antimony	5000	5000	100	90 - 110	P	08/25/2025	12:33	LB136951
	Arsenic	4940	5000	99	90 - 110	P	08/25/2025	12:33	LB136951
	Barium	10200	10000	102	90 - 110	P	08/25/2025	12:33	LB136951
	Beryllium	241	250	96	90 - 110	P	08/25/2025	12:33	LB136951
	Cadmium	2430	2500	97	90 - 110	P	08/25/2025	12:33	LB136951
	Calcium	25000	25000	100	90 - 110	P	08/25/2025	12:33	LB136951
	Chromium	987	1000	99	90 - 110	P	08/25/2025	12:33	LB136951
	Cobalt	2440	2500	98	90 - 110	P	08/25/2025	12:33	LB136951
	Copper	1240	1250	99	90 - 110	P	08/25/2025	12:33	LB136951
	Iron	5080	5000	102	90 - 110	P	08/25/2025	12:33	LB136951
	Lead	4830	5000	96	90 - 110	P	08/25/2025	12:33	LB136951
	Magnesium	24500	25000	98	90 - 110	P	08/25/2025	12:33	LB136951
	Manganese	2520	2500	101	90 - 110	P	08/25/2025	12:33	LB136951
	Nickel	2440	2500	98	90 - 110	P	08/25/2025	12:33	LB136951
	Potassium	25000	25000	100	90 - 110	P	08/25/2025	12:33	LB136951
	Selenium	4930	5000	99	90 - 110	P	08/25/2025	12:33	LB136951
	Silver	1220	1250	98	90 - 110	P	08/25/2025	12:33	LB136951
	Sodium	25500	25000	102	90 - 110	P	08/25/2025	12:33	LB136951
	Thallium	4800	5000	96	90 - 110	P	08/25/2025	12:33	LB136951
	Vanadium	2500	2500	100	90 - 110	P	08/25/2025	12:33	LB136951
	Zinc	2460	2500	99	90 - 110	P	08/25/2025	12:33	LB136951
CCV02	Aluminum	9800	10000	98	90 - 110	P	08/25/2025	13:44	LB136951
	Antimony	4910	5000	98	90 - 110	P	08/25/2025	13:44	LB136951
	Arsenic	4870	5000	97	90 - 110	P	08/25/2025	13:44	LB136951
	Barium	9920	10000	99	90 - 110	P	08/25/2025	13:44	LB136951
	Beryllium	248	250	99	90 - 110	P	08/25/2025	13:44	LB136951
	Cadmium	2450	2500	98	90 - 110	P	08/25/2025	13:44	LB136951
	Calcium	24700	25000	99	90 - 110	P	08/25/2025	13:44	LB136951
	Chromium	999	1000	100	90 - 110	P	08/25/2025	13:44	LB136951
	Cobalt	2440	2500	98	90 - 110	P	08/25/2025	13:44	LB136951
	Copper	1230	1250	98	90 - 110	P	08/25/2025	13:44	LB136951
	Iron	4910	5000	98	90 - 110	P	08/25/2025	13:44	LB136951
	Lead	4860	5000	97	90 - 110	P	08/25/2025	13:44	LB136951

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24600	25000	98	90 - 110	P	08/25/2025	13:44	LB136951
	Manganese	2470	2500	99	90 - 110	P	08/25/2025	13:44	LB136951
	Nickel	2450	2500	98	90 - 110	P	08/25/2025	13:44	LB136951
	Potassium	24200	25000	97	90 - 110	P	08/25/2025	13:44	LB136951
	Selenium	4860	5000	97	90 - 110	P	08/25/2025	13:44	LB136951
	Silver	1210	1250	97	90 - 110	P	08/25/2025	13:44	LB136951
	Sodium	23900	25000	96	90 - 110	P	08/25/2025	13:44	LB136951
	Thallium	4650	5000	93	90 - 110	P	08/25/2025	13:44	LB136951
	Vanadium	2480	2500	99	90 - 110	P	08/25/2025	13:44	LB136951
	Zinc	2440	2500	98	90 - 110	P	08/25/2025	13:44	LB136951
CCV03	Aluminum	9800	10000	98	90 - 110	P	08/25/2025	14:33	LB136951
	Antimony	4860	5000	97	90 - 110	P	08/25/2025	14:33	LB136951
	Arsenic	4840	5000	97	90 - 110	P	08/25/2025	14:33	LB136951
	Barium	9780	10000	98	90 - 110	P	08/25/2025	14:33	LB136951
	Beryllium	248	250	99	90 - 110	P	08/25/2025	14:33	LB136951
	Cadmium	2420	2500	97	90 - 110	P	08/25/2025	14:33	LB136951
	Calcium	24700	25000	99	90 - 110	P	08/25/2025	14:33	LB136951
	Chromium	994	1000	99	90 - 110	P	08/25/2025	14:33	LB136951
	Cobalt	2410	2500	96	90 - 110	P	08/25/2025	14:33	LB136951
	Copper	1210	1250	97	90 - 110	P	08/25/2025	14:33	LB136951
	Iron	4960	5000	99	90 - 110	P	08/25/2025	14:33	LB136951
	Lead	4790	5000	96	90 - 110	P	08/25/2025	14:33	LB136951
	Magnesium	24600	25000	98	90 - 110	P	08/25/2025	14:33	LB136951
	Manganese	2470	2500	99	90 - 110	P	08/25/2025	14:33	LB136951
	Nickel	2410	2500	97	90 - 110	P	08/25/2025	14:33	LB136951
	Potassium	24600	25000	98	90 - 110	P	08/25/2025	14:33	LB136951
	Selenium	4840	5000	97	90 - 110	P	08/25/2025	14:33	LB136951
	Silver	1220	1250	98	90 - 110	P	08/25/2025	14:33	LB136951
	Sodium	24400	25000	98	90 - 110	P	08/25/2025	14:33	LB136951
	Thallium	5090	5000	102	90 - 110	P	08/25/2025	14:33	LB136951
	Vanadium	2470	2500	99	90 - 110	P	08/25/2025	14:33	LB136951
	Zinc	2470	2500	99	90 - 110	P	08/25/2025	14:33	LB136951
CCV04	Aluminum	9840	10000	98	90 - 110	P	08/25/2025	15:23	LB136951
	Antimony	4890	5000	98	90 - 110	P	08/25/2025	15:23	LB136951

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4890	5000	98	90 - 110	P	08/25/2025	15:23	LB136951
	Barium	9750	10000	98	90 - 110	P	08/25/2025	15:23	LB136951
	Beryllium	246	250	98	90 - 110	P	08/25/2025	15:23	LB136951
	Cadmium	2450	2500	98	90 - 110	P	08/25/2025	15:23	LB136951
	Calcium	24800	25000	99	90 - 110	P	08/25/2025	15:23	LB136951
	Chromium	1000	1000	100	90 - 110	P	08/25/2025	15:23	LB136951
	Cobalt	2430	2500	97	90 - 110	P	08/25/2025	15:23	LB136951
	Copper	1230	1250	98	90 - 110	P	08/25/2025	15:23	LB136951
	Iron	5010	5000	100	90 - 110	P	08/25/2025	15:23	LB136951
	Lead	4850	5000	97	90 - 110	P	08/25/2025	15:23	LB136951
	Magnesium	24700	25000	99	90 - 110	P	08/25/2025	15:23	LB136951
	Manganese	2470	2500	99	90 - 110	P	08/25/2025	15:23	LB136951
	Nickel	2450	2500	98	90 - 110	P	08/25/2025	15:23	LB136951
	Potassium	24900	25000	100	90 - 110	P	08/25/2025	15:23	LB136951
	Selenium	4900	5000	98	90 - 110	P	08/25/2025	15:23	LB136951
	Silver	1220	1250	98	90 - 110	P	08/25/2025	15:23	LB136951
	Sodium	24700	25000	99	90 - 110	P	08/25/2025	15:23	LB136951
	Thallium	5070	5000	101	90 - 110	P	08/25/2025	15:23	LB136951
	Vanadium	2480	2500	99	90 - 110	P	08/25/2025	15:23	LB136951
	Zinc	2480	2500	99	90 - 110	P	08/25/2025	15:23	LB136951
CCV05	Aluminum	9660	10000	97	90 - 110	P	08/25/2025	16:06	LB136951
	Antimony	4850	5000	97	90 - 110	P	08/25/2025	16:06	LB136951
	Arsenic	4820	5000	96	90 - 110	P	08/25/2025	16:06	LB136951
	Barium	9650	10000	96	90 - 110	P	08/25/2025	16:06	LB136951
	Beryllium	240	250	96	90 - 110	P	08/25/2025	16:06	LB136951
	Cadmium	2410	2500	96	90 - 110	P	08/25/2025	16:06	LB136951
	Calcium	24200	25000	97	90 - 110	P	08/25/2025	16:06	LB136951
	Chromium	992	1000	99	90 - 110	P	08/25/2025	16:06	LB136951
	Cobalt	2390	2500	96	90 - 110	P	08/25/2025	16:06	LB136951
	Copper	1210	1250	97	90 - 110	P	08/25/2025	16:06	LB136951
	Iron	4900	5000	98	90 - 110	P	08/25/2025	16:06	LB136951
	Lead	4750	5000	95	90 - 110	P	08/25/2025	16:06	LB136951
	Magnesium	24100	25000	96	90 - 110	P	08/25/2025	16:06	LB136951
	Manganese	2390	2500	96	90 - 110	P	08/25/2025	16:06	LB136951

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2400	2500	96	90 - 110	P	08/25/2025	16:06	LB136951
	Potassium	24700	25000	99	90 - 110	P	08/25/2025	16:06	LB136951
	Selenium	4830	5000	97	90 - 110	P	08/25/2025	16:06	LB136951
	Silver	1200	1250	96	90 - 110	P	08/25/2025	16:06	LB136951
	Sodium	23700	25000	95	90 - 110	P	08/25/2025	16:06	LB136951
	Thallium	5020	5000	100	90 - 110	P	08/25/2025	16:06	LB136951
	Vanadium	2430	2500	97	90 - 110	P	08/25/2025	16:06	LB136951
	Zinc	2450	2500	98	90 - 110	P	08/25/2025	16:06	LB136951

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

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
CRI01	Aluminum	106	100	106	65 - 135	P	08/22/2025	11:56	LB136940
	Antimony	49.5	50.0	99	65 - 135	P	08/22/2025	11:56	LB136940
	Arsenic	20.0	20.0	100	65 - 135	P	08/22/2025	11:56	LB136940
	Barium	96.1	100	96	65 - 135	P	08/22/2025	11:56	LB136940
	Beryllium	6.31	6.0	105	65 - 135	P	08/22/2025	11:56	LB136940
	Cadmium	5.76	6.0	96	65 - 135	P	08/22/2025	11:56	LB136940
	Calcium	2020	2000	101	65 - 135	P	08/22/2025	11:56	LB136940
	Chromium	10.6	10.0	106	65 - 135	P	08/22/2025	11:56	LB136940
	Cobalt	29.5	30.0	98	65 - 135	P	08/22/2025	11:56	LB136940
	Copper	21.0	20.0	105	65 - 135	P	08/22/2025	11:56	LB136940
	Iron	99.1	100	99	65 - 135	P	08/22/2025	11:56	LB136940
	Lead	12.2	12.0	102	65 - 135	P	08/22/2025	11:56	LB136940
	Magnesium	2140	2000	107	65 - 135	P	08/22/2025	11:56	LB136940
	Manganese	21.5	20.0	107	65 - 135	P	08/22/2025	11:56	LB136940
	Nickel	39.6	40.0	99	65 - 135	P	08/22/2025	11:56	LB136940
	Potassium	1690	2000	85	65 - 135	P	08/22/2025	11:56	LB136940
	Selenium	20.0	20.0	100	65 - 135	P	08/22/2025	11:56	LB136940
	Silver	9.94	10.0	99	65 - 135	P	08/22/2025	11:56	LB136940
	Sodium	1740	2000	87	65 - 135	P	08/22/2025	11:56	LB136940
	Thallium	42.6	40.0	106	65 - 135	P	08/22/2025	11:56	LB136940
	Vanadium	37.7	40.0	94	65 - 135	P	08/22/2025	11:56	LB136940
	Zinc	41.4	40.0	104	65 - 135	P	08/22/2025	11:56	LB136940
CRI01	Aluminum	114	100	114	65 - 135	P	08/25/2025	11:57	LB136951
	Antimony	52.1	50.0	104	65 - 135	P	08/25/2025	11:57	LB136951
	Arsenic	19.2	20.0	96	65 - 135	P	08/25/2025	11:57	LB136951
	Barium	100	100	100	65 - 135	P	08/25/2025	11:57	LB136951
	Beryllium	6.19	6.0	103	65 - 135	P	08/25/2025	11:57	LB136951
	Cadmium	5.84	6.0	97	65 - 135	P	08/25/2025	11:57	LB136951
	Calcium	2060	2000	103	65 - 135	P	08/25/2025	11:57	LB136951
	Chromium	10.0	10.0	100	65 - 135	P	08/25/2025	11:57	LB136951
	Cobalt	29.6	30.0	99	65 - 135	P	08/25/2025	11:57	LB136951
	Copper	21.6	20.0	108	65 - 135	P	08/25/2025	11:57	LB136951
	Iron	106	100	106	65 - 135	P	08/25/2025	11:57	LB136951
	Lead	11.4	12.0	95	65 - 135	P	08/25/2025	11:57	LB136951
	Magnesium	2170	2000	109	65 - 135	P	08/25/2025	11:57	LB136951
	Manganese	21.6	20.0	108	65 - 135	P	08/25/2025	11:57	LB136951

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

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
CRI01	Nickel	40.0	40.0	100	65 - 135	P	08/25/2025	11:57	LB136951
	Potassium	2270	2000	114	65 - 135	P	08/25/2025	11:57	LB136951
	Selenium	21.6	20.0	108	65 - 135	P	08/25/2025	11:57	LB136951
	Silver	10.3	10.0	103	65 - 135	P	08/25/2025	11:57	LB136951
	Sodium	1970	2000	98	65 - 135	P	08/25/2025	11:57	LB136951
	Thallium	38.0	40.0	95	65 - 135	P	08/25/2025	11:57	LB136951
	Vanadium	37.8	40.0	94	65 - 135	P	08/25/2025	11:57	LB136951
	Zinc	41.6	40.0	104	65 - 135	P	08/25/2025	11:57	LB136951
CRA	Mercury	0.23	0.2	114	70 - 130	CV	08/27/2025	10:12	LB136975

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB07	Mercury	0.076	+/-0.2	U	0.20	CV	08/27/2025	10:05	LB136975

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB18	Mercury	0.076	+/-0.2	U	0.20	CV	08/27/2025	10:09	LB136975
CCB19	Mercury	0.076	+/-0.2	U	0.20	CV	08/27/2025	10:37	LB136975
CCB20	Mercury	0.076	+/-0.2	U	0.20	CV	08/27/2025	11:35	LB136975

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	11.3	+/-50	U	100	P	08/22/2025	11:50	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	11:50	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	11:50	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	11:50	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	11:50	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	11:50	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	11:50	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	11:50	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	11:50	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	11:50	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	11:50	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	11:50	LB136940
	Magnesium	244	+/-1000	U	2000	P	08/22/2025	11:50	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	11:50	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	11:50	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	11:50	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	11:50	LB136940
	Silver	1.62	+/-5	U	10.0	P	08/22/2025	11:50	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	11:50	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	11:50	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	11:50	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	11:50	LB136940

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	11.3	+/-50	U	100	P	08/22/2025	12:22	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	12:22	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	12:22	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	12:22	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	12:22	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	12:22	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	12:22	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	12:22	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	12:22	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	12:22	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	12:22	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	12:22	LB136940
	Magnesium	244	+/-1000	U	2000	P	08/22/2025	12:22	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	12:22	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	12:22	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	12:22	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	12:22	LB136940
	Silver	1.62	+/-5	U	10.0	P	08/22/2025	12:22	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	12:22	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	12:22	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	12:22	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	12:22	LB136940
CCB02	Aluminum	14.6	+/-50	J	100	P	08/22/2025	13:40	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	13:40	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	13:40	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	13:40	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	13:40	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	13:40	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	13:40	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	13:40	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	13:40	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	13:40	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	13:40	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	13:40	LB136940
	Magnesium	244	+/-1000	U	2000	P	08/22/2025	13:40	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	13:40	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	13:40	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	13:40	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	13:40	LB136940

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.62	+/-5	U	10.0	P	08/22/2025	13:40	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	13:40	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	13:40	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	13:40	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	13:40	LB136940
CCB03	Aluminum	11.3	+/-50	U	100	P	08/22/2025	14:30	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	14:30	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	14:30	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	14:30	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	14:30	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	14:30	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	14:30	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	14:30	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	14:30	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	14:30	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	14:30	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	14:30	LB136940
	Magnesium	244	+/-1000	U	2000	P	08/22/2025	14:30	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	14:30	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	14:30	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	14:30	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	14:30	LB136940
	Silver	1.62	+/-5	U	10.0	P	08/22/2025	14:30	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	14:30	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	14:30	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	14:30	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	14:30	LB136940
CCB04	Aluminum	14.9	+/-50	J	100	P	08/22/2025	15:48	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	15:48	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	15:48	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	15:48	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	15:48	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	15:48	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	15:48	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	15:48	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	15:48	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	15:48	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	15:48	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	15:48	LB136940

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	244	+/-1000	U	2000	P	08/22/2025	15:48	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	15:48	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	15:48	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	15:48	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	15:48	LB136940
	Silver	1.62	+/-5	U	10.0	P	08/22/2025	15:48	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	15:48	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	15:48	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	15:48	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	15:48	LB136940
CCB05	Aluminum	18.3	+/-50	J	100	P	08/22/2025	16:34	LB136940
	Antimony	6.76	+/-25	U	50.0	P	08/22/2025	16:34	LB136940
	Arsenic	5.12	+/-10	U	20.0	P	08/22/2025	16:34	LB136940
	Barium	14.6	+/-50	U	100	P	08/22/2025	16:34	LB136940
	Beryllium	0.56	+/-3	U	6.00	P	08/22/2025	16:34	LB136940
	Cadmium	0.50	+/-3	U	6.00	P	08/22/2025	16:34	LB136940
	Calcium	234	+/-1000	U	2000	P	08/22/2025	16:34	LB136940
	Chromium	2.12	+/-5	U	10.0	P	08/22/2025	16:34	LB136940
	Cobalt	2.26	+/-15	U	30.0	P	08/22/2025	16:34	LB136940
	Copper	4.60	+/-10	U	20.0	P	08/22/2025	16:34	LB136940
	Iron	23.4	+/-50	U	100	P	08/22/2025	16:34	LB136940
	Lead	2.30	+/-6	U	12.0	P	08/22/2025	16:34	LB136940
	Magnesium	244	+/-1000	U	2000	P	08/22/2025	16:34	LB136940
	Manganese	5.94	+/-10	U	20.0	P	08/22/2025	16:34	LB136940
	Nickel	3.06	+/-20	U	40.0	P	08/22/2025	16:34	LB136940
	Potassium	918	+/-1000	U	2000	P	08/22/2025	16:34	LB136940
	Selenium	9.64	+/-10	U	20.0	P	08/22/2025	16:34	LB136940
	Silver	1.62	+/-5	U	10.0	P	08/22/2025	16:34	LB136940
	Sodium	868	+/-1000	U	2000	P	08/22/2025	16:34	LB136940
	Thallium	4.38	+/-20	U	40.0	P	08/22/2025	16:34	LB136940
	Vanadium	6.26	+/-20	U	40.0	P	08/22/2025	16:34	LB136940
	Zinc	16.7	+/-20	U	40.0	P	08/22/2025	16:34	LB136940

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	23.0	+/-50	J	100	P	08/25/2025	11:53	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	11:53	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	11:53	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	11:53	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	11:53	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	11:53	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	11:53	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	11:53	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	11:53	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	11:53	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	11:53	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	11:53	LB136951
	Magnesium	244	+/-1000	U	2000	P	08/25/2025	11:53	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	11:53	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	11:53	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	11:53	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	11:53	LB136951
	Silver	1.62	+/-5	U	10.0	P	08/25/2025	11:53	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	11:53	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	11:53	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	11:53	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	11:53	LB136951

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	11.3	+/-50	U	100	P	08/25/2025	12:42	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	12:42	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	12:42	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	12:42	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	12:42	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	12:42	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	12:42	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	12:42	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	12:42	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	12:42	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	12:42	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	12:42	LB136951
	Magnesium	244	+/-1000	U	2000	P	08/25/2025	12:42	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	12:42	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	12:42	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	12:42	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	12:42	LB136951
	Silver	1.62	+/-5	U	10.0	P	08/25/2025	12:42	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	12:42	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	12:42	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	12:42	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	12:42	LB136951
CCB02	Aluminum	11.3	+/-50	U	100	P	08/25/2025	13:48	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	13:48	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	13:48	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	13:48	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	13:48	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	13:48	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	13:48	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	13:48	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	13:48	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	13:48	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	13:48	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	13:48	LB136951
	Magnesium	244	+/-1000	U	2000	P	08/25/2025	13:48	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	13:48	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	13:48	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	13:48	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	13:48	LB136951

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.62	+/-5	U	10.0	P	08/25/2025	13:48	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	13:48	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	13:48	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	13:48	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	13:48	LB136951
CCB03	Aluminum	11.3	+/-50	U	100	P	08/25/2025	14:37	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	14:37	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	14:37	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	14:37	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	14:37	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	14:37	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	14:37	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	14:37	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	14:37	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	14:37	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	14:37	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	14:37	LB136951
	Magnesium	244	+/-1000	U	2000	P	08/25/2025	14:37	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	14:37	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	14:37	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	14:37	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	14:37	LB136951
	Silver	1.62	+/-5	U	10.0	P	08/25/2025	14:37	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	14:37	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	14:37	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	14:37	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	14:37	LB136951
CCB04	Aluminum	11.3	+/-50	U	100	P	08/25/2025	15:27	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	15:27	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	15:27	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	15:27	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	15:27	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	15:27	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	15:27	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	15:27	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	15:27	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	15:27	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	15:27	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	15:27	LB136951

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	244	+/-1000	U	2000	P	08/25/2025	15:27	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	15:27	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	15:27	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	15:27	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	15:27	LB136951
	Silver	1.62	+/-5	U	10.0	P	08/25/2025	15:27	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	15:27	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	15:27	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	15:27	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	15:27	LB136951
CCB05	Aluminum	11.3	+/-50	U	100	P	08/25/2025	16:10	LB136951
	Antimony	6.76	+/-25	U	50.0	P	08/25/2025	16:10	LB136951
	Arsenic	5.12	+/-10	U	20.0	P	08/25/2025	16:10	LB136951
	Barium	14.6	+/-50	U	100	P	08/25/2025	16:10	LB136951
	Beryllium	0.56	+/-3	U	6.00	P	08/25/2025	16:10	LB136951
	Cadmium	0.50	+/-3	U	6.00	P	08/25/2025	16:10	LB136951
	Calcium	234	+/-1000	U	2000	P	08/25/2025	16:10	LB136951
	Chromium	2.12	+/-5	U	10.0	P	08/25/2025	16:10	LB136951
	Cobalt	2.26	+/-15	U	30.0	P	08/25/2025	16:10	LB136951
	Copper	4.60	+/-10	U	20.0	P	08/25/2025	16:10	LB136951
	Iron	23.4	+/-50	U	100	P	08/25/2025	16:10	LB136951
	Lead	2.30	+/-6	U	12.0	P	08/25/2025	16:10	LB136951
	Magnesium	244	+/-1000	U	2000	P	08/25/2025	16:10	LB136951
	Manganese	5.94	+/-10	U	20.0	P	08/25/2025	16:10	LB136951
	Nickel	3.06	+/-20	U	40.0	P	08/25/2025	16:10	LB136951
	Potassium	918	+/-1000	U	2000	P	08/25/2025	16:10	LB136951
	Selenium	9.64	+/-10	U	20.0	P	08/25/2025	16:10	LB136951
	Silver	1.62	+/-5	U	10.0	P	08/25/2025	16:10	LB136951
	Sodium	868	+/-1000	U	2000	P	08/25/2025	16:10	LB136951
	Thallium	4.38	+/-20	U	40.0	P	08/25/2025	16:10	LB136951
	Vanadium	6.26	+/-20	U	40.0	P	08/25/2025	16:10	LB136951
	Zinc	16.7	+/-20	U	40.0	P	08/25/2025	16:10	LB136951

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169413BL		**WATER**		**Batch Number:**	**PB169413**		**Prep Date:**	**08/26/2025**	
	Mercury	0.076	<0.2	U	0.20	CV	08/27/2025	10:19	LB136975

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169358BL		**WATER**		**Batch Number:**	**PB169358**		**Prep Date:**	**08/22/2025**	
	Aluminum	11.4	<25	J	50.0	P	08/25/2025	13:01	LB136951
	Antimony	3.38	<12.5	U	25.0	P	08/25/2025	13:01	LB136951
	Arsenic	2.56	<5	U	10.0	P	08/25/2025	13:01	LB136951
	Barium	7.28	<25	U	50.0	P	08/25/2025	13:01	LB136951
	Beryllium	0.28	<1.5	U	3.00	P	08/25/2025	13:01	LB136951
	Cadmium	0.25	<1.5	U	3.00	P	08/25/2025	13:01	LB136951
	Calcium	117	<500	U	1000	P	08/25/2025	13:01	LB136951
	Chromium	1.06	<2.5	U	5.00	P	08/25/2025	13:01	LB136951
	Cobalt	1.13	<7.5	U	15.0	P	08/25/2025	13:01	LB136951
	Copper	2.30	<5	U	10.0	P	08/25/2025	13:01	LB136951
	Iron	11.7	<25	U	50.0	P	08/25/2025	13:01	LB136951
	Lead	1.15	<3	U	6.00	P	08/25/2025	13:01	LB136951
	Magnesium	122	<500	U	1000	P	08/25/2025	13:01	LB136951
	Manganese	2.97	<5	U	10.0	P	08/25/2025	13:01	LB136951
	Nickel	1.53	<10	U	20.0	P	08/25/2025	13:01	LB136951
	Potassium	459	<500	U	1000	P	08/25/2025	13:01	LB136951
	Selenium	4.82	<5	U	10.0	P	08/25/2025	13:01	LB136951
	Silver	0.81	<2.5	U	5.00	P	08/25/2025	13:01	LB136951
	Sodium	434	<500	U	1000	P	08/25/2025	13:01	LB136951
	Thallium	2.19	<10	U	20.0	P	08/25/2025	13:01	LB136951
	Vanadium	3.13	<10	U	20.0	P	08/25/2025	13:01	LB136951
	Zinc	8.33	<10	U	20.0	P	08/25/2025	13:01	LB136951

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

ICS Source: EPA **Instrument ID:** P4

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	246000	255000	96	216000	294000	08/22/2025	12:00	LB136940
	Antimony	-2.85			-50	50	08/22/2025	12:00	LB136940
	Arsenic	10.8			-20	20	08/22/2025	12:00	LB136940
	Barium	2.88	6.0	48	-94	106	08/22/2025	12:00	LB136940
	Beryllium	1.60			-6	6	08/22/2025	12:00	LB136940
	Cadmium	2.00	1.0	200	-5	7	08/22/2025	12:00	LB136940
	Calcium	234000	245000	96	208000	282000	08/22/2025	12:00	LB136940
	Chromium	61.9	52.0	119	42	62	08/22/2025	12:00	LB136940
	Cobalt	1.73			-30	30	08/22/2025	12:00	LB136940
	Copper	8.67	2.0	434	-18	22	08/22/2025	12:00	LB136940
	Iron	98800	101000	98	85600	116500	08/22/2025	12:00	LB136940
	Lead	-7.23			-12	12	08/22/2025	12:00	LB136940
	Magnesium	249000	255000	98	216000	294000	08/22/2025	12:00	LB136940
	Manganese	8.61	7.0	123	-13	27	08/22/2025	12:00	LB136940
	Nickel	6.22	2.0	311	-38	42	08/22/2025	12:00	LB136940
	Potassium	310			0	0	08/22/2025	12:00	LB136940
	Selenium	0.73			-20	20	08/22/2025	12:00	LB136940
	Silver	1.38			-10	10	08/22/2025	12:00	LB136940
	Sodium	143			0	0	08/22/2025	12:00	LB136940
	Thallium	-0.94			-40	40	08/22/2025	12:00	LB136940
	Vanadium	2.41			-40	40	08/22/2025	12:00	LB136940
	Zinc	2.57			-40	40	08/22/2025	12:00	LB136940
ICSAB01	Aluminum	249000	247000	101	209000	285000	08/22/2025	12:04	LB136940
	Antimony	602	618	97	525	711	08/22/2025	12:04	LB136940
	Arsenic	110	104	106	88.4	120	08/22/2025	12:04	LB136940
	Barium	489	537	91	437	637	08/22/2025	12:04	LB136940
	Beryllium	500	495	101	420	570	08/22/2025	12:04	LB136940
	Cadmium	989	972	102	826	1120	08/22/2025	12:04	LB136940
	Calcium	237000	235000	101	199000	271000	08/22/2025	12:04	LB136940
	Chromium	565	542	104	460	624	08/22/2025	12:04	LB136940
	Cobalt	498	476	105	404	548	08/22/2025	12:04	LB136940
	Copper	491	511	96	434	588	08/22/2025	12:04	LB136940
	Iron	100000	99300	101	84400	114500	08/22/2025	12:04	LB136940
	Lead	39.7	49.0	81	37	61	08/22/2025	12:04	LB136940
	Magnesium	252000	248000	102	210000	286000	08/22/2025	12:04	LB136940
	Manganese	489	507	96	430	584	08/22/2025	12:04	LB136940
	Nickel	990	954	104	810	1100	08/22/2025	12:04	LB136940
	Potassium	-268			0	0	08/22/2025	12:04	LB136940
	Selenium	52.0	46.0	113	26	66	08/22/2025	12:04	LB136940
	Silver	215	201	107	170	232	08/22/2025	12:04	LB136940
	Sodium	5.71			0	0	08/22/2025	12:04	LB136940
	Thallium	102	108	94	68	148	08/22/2025	12:04	LB136940

Alliance TECHNICAL GROUP
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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

ICS Source: EPA **Instrument ID:** P4

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	486	491	99	417	565	08/22/2025	12:04	LB136940
	Zinc	1040	952	109	809	1095	08/22/2025	12:04	LB136940
ICSA01	Aluminum	258000	255000	101	216000	294000	08/25/2025	12:02	LB136951
	Antimony	0.35			-50	50	08/25/2025	12:02	LB136951
	Arsenic	7.17			-20	20	08/25/2025	12:02	LB136951
	Barium	1.72	6.0	29	-94	106	08/25/2025	12:02	LB136951
	Beryllium	1.50			-6	6	08/25/2025	12:02	LB136951
	Cadmium	2.07	1.0	207	-5	7	08/25/2025	12:02	LB136951
	Calcium	245000	245000	100	208000	282000	08/25/2025	12:02	LB136951
	Chromium	61.9	52.0	119	42	62	08/25/2025	12:02	LB136951
	Cobalt	2.06			-30	30	08/25/2025	12:02	LB136951
	Copper	12.7	2.0	635	-18	22	08/25/2025	12:02	LB136951
	Iron	104000	101000	103	85600	116500	08/25/2025	12:02	LB136951
	Lead	-4.51			-12	12	08/25/2025	12:02	LB136951
	Magnesium	259000	255000	102	216000	294000	08/25/2025	12:02	LB136951
	Manganese	7.98	7.0	114	-13	27	08/25/2025	12:02	LB136951
	Nickel	6.04	2.0	302	-38	42	08/25/2025	12:02	LB136951
	Potassium	1300			0	0	08/25/2025	12:02	LB136951
	Selenium	6.58			-20	20	08/25/2025	12:02	LB136951
	Silver	3.89			-10	10	08/25/2025	12:02	LB136951
	Sodium	360			0	0	08/25/2025	12:02	LB136951
	Thallium	-2.99			-40	40	08/25/2025	12:02	LB136951
	Vanadium	2.17			-40	40	08/25/2025	12:02	LB136951
	Zinc	3.59			-40	40	08/25/2025	12:02	LB136951
ICSAB01	Aluminum	253000	247000	102	209000	285000	08/25/2025	12:15	LB136951
	Antimony	608	618	98	525	711	08/25/2025	12:15	LB136951
	Arsenic	103	104	99	88.4	120	08/25/2025	12:15	LB136951
	Barium	507	537	94	437	637	08/25/2025	12:15	LB136951
	Beryllium	497	495	100	420	570	08/25/2025	12:15	LB136951
	Cadmium	981	972	101	826	1120	08/25/2025	12:15	LB136951
	Calcium	240000	235000	102	199000	271000	08/25/2025	12:15	LB136951
	Chromium	564	542	104	460	624	08/25/2025	12:15	LB136951
	Cobalt	497	476	104	404	548	08/25/2025	12:15	LB136951
	Copper	491	511	96	434	588	08/25/2025	12:15	LB136951
	Iron	101000	99300	102	84400	114500	08/25/2025	12:15	LB136951
	Lead	42.3	49.0	86	37	61	08/25/2025	12:15	LB136951
	Magnesium	254000	248000	102	210000	286000	08/25/2025	12:15	LB136951
	Manganese	502	507	99	430	584	08/25/2025	12:15	LB136951
	Nickel	988	954	104	810	1100	08/25/2025	12:15	LB136951
	Potassium	203			0	0	08/25/2025	12:15	LB136951
	Selenium	53.7	46.0	117	26	66	08/25/2025	12:15	LB136951
	Silver	217	201	108	170	232	08/25/2025	12:15	LB136951

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

ICS Source: EPA **Instrument ID:** P4

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	Sodium	209			0	0	08/25/2025	12:15	LB136951
	Thallium	88.4	108	82	68	148	08/25/2025	12:15	LB136951
	Vanadium	496	491	101	417	565	08/25/2025	12:15	LB136951
	Zinc	1040	952	109	809	1095	08/25/2025	12:15	LB136951

METAL QC DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q2934

contract: PORT06 **lab code:** ACE

matrix: Water **sample id:** Q2934-02 **client id:** ENV-SW02MS

Percent Solids for Sample: NA **Spiked ID:** Q2934-02MS **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	75 - 125	1210		182		1000	102		P
Antimony	ug/L	75 - 125	412		6.48	J	400	101		P
Arsenic	ug/L	75 - 125	406		4.50	J	400	100		P
Barium	ug/L	75 - 125	273		169		100	104		P
Beryllium	ug/L	75 - 125	101		3.00	U	100	101		P
Cadmium	ug/L	75 - 125	98.2		3.00	U	100	98		P
Calcium	ug/L	75 - 125	37700		37200		500	113		P
Chromium	ug/L	75 - 125	213		2.47	J	200	105		P
Cobalt	ug/L	75 - 125	101		15.0	U	100	101		P
Copper	ug/L	75 - 125	160		9.63	J	150	100		P
Iron	ug/L	75 - 125	3830		2360		1500	99		P
Lead	ug/L	75 - 125	485		16.5		500	94		P
Magnesium	ug/L	75 - 125	14500		13500		1000	103		P
Manganese	ug/L	75 - 125	570		467		100	103		P
Nickel	ug/L	75 - 125	257		7.09	J	250	100		P
Potassium	ug/L	75 - 125	28000		23300		5000	94		P
Selenium	ug/L	75 - 125	973		10.0	U	1000	97		P
Silver	ug/L	75 - 125	15.6		5.00	U	37.5	42	N	P
Sodium	ug/L	75 - 125	54400		52600		1500	123		P
Thallium	ug/L	75 - 125	836		20.0	U	1000	84		P
Vanadium	ug/L	75 - 125	163		5.44	J	150	105		P
Zinc	ug/L	75 - 125	120		14.9	J	100	105		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q2934

contract: PORT06 **lab code:** ACE

matrix: Water **sample id:** Q2934-02 **client id:** ENV-SW02MSD

Percent Solids for Sample: NA **Spiked ID:** Q2934-02MSD **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	75 - 125	1120		182		1000	94		P
Antimony	ug/L	75 - 125	393		6.48	J	400	97		P
Arsenic	ug/L	75 - 125	386		4.50	J	400	95		P
Barium	ug/L	75 - 125	257		169		100	89		P
Beryllium	ug/L	75 - 125	94.0		3.00	U	100	94		P
Cadmium	ug/L	75 - 125	92.8		3.00	U	100	93		P
Calcium	ug/L	75 - 125	36100		37200		500	-214		P
Chromium	ug/L	75 - 125	201		2.47	J	200	99		P
Cobalt	ug/L	75 - 125	95.3		15.0	U	100	95		P
Copper	ug/L	75 - 125	151		9.63	J	150	94		P
Iron	ug/L	75 - 125	3710		2360		1500	90		P
Lead	ug/L	75 - 125	460		16.5		500	89		P
Magnesium	ug/L	75 - 125	13900		13500		1000	38		P
Manganese	ug/L	75 - 125	544		467		100	77		P
Nickel	ug/L	75 - 125	243		7.09	J	250	94		P
Potassium	ug/L	75 - 125	26900		23300		5000	73		P
Selenium	ug/L	75 - 125	927		10.0	U	1000	93		P
Silver	ug/L	75 - 125	21.9		5.00	U	37.5	58	N	P
Sodium	ug/L	75 - 125	52000		52600		1500	-37		P
Thallium	ug/L	75 - 125	795		20.0	U	1000	80		P
Vanadium	ug/L	75 - 125	152		5.44	J	150	98		P
Zinc	ug/L	75 - 125	113		14.9	J	100	98		P

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q2934

contract: PORT06 **lab code:** ACE

matrix: Water **sample id:** Q2940-01 **client id:** COMP(1-6)MS

Percent Solids for Sample: NA **Spiked ID:** Q2940-01MS **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	75 - 125	4.19		0.20	U	4.0	105		CV

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q2934

contract: PORT06 **lab code:** ACE

matrix: Water **sample id:** Q2940-01 **client id:** COMP(1-6)MSD

Percent Solids for Sample: NA **Spiked ID:** Q2940-01MSD **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	75 - 125	4.21		0.20	U	4.0	105		CV

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Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Matrix: Water **Level:** LOW **Client ID:** ENV-SW02A

Sample ID: Q2934-02 **Spiked ID:** Q2934-02A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Silver	ug/L	75 - 125	15.3		5.00	U	37.5	41	N	P

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Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2934-02 **Client ID:** ENV-SW02DUP

Percent Solids for Sample: NA **Duplicate ID** Q2934-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	182		173		5		P
Antimony	ug/L	20	6.48	J	6.62	J	2		P
Arsenic	ug/L	20	4.50	J	4.71	J	5		P
Barium	ug/L	20	169		168		1		P
Beryllium	ug/L	20	3.00	U	3.00	U			P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Calcium	ug/L	20	37200		37200		0		P
Chromium	ug/L	20	2.47	J	2.48	J	0		P
Cobalt	ug/L	20	15.0	U	15.0	U			P
Copper	ug/L	20	9.63	J	9.51	J	1		P
Iron	ug/L	20	2360		2380		1		P
Lead	ug/L	20	16.5		17.0		3		P
Magnesium	ug/L	20	13500		13500		0		P
Manganese	ug/L	20	467		467		0		P
Nickel	ug/L	20	7.09	J	7.51	J	6		P
Potassium	ug/L	20	23300		23500		1		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	52600		53400		2		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	5.44	J	5.81	J	7		P
Zinc	ug/L	20	14.9	J	14.6	J	2		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

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2934-02MS **Client ID:** ENV-SW02MSD

Percent Solids for Sample: NA **Duplicate ID** Q2934-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1210		1120		8		P
Antimony	ug/L	20	412		393		5		P
Arsenic	ug/L	20	406		386		5		P
Barium	ug/L	20	273		257		6		P
Beryllium	ug/L	20	101		94.0		7		P
Cadmium	ug/L	20	98.2		92.8		6		P
Calcium	ug/L	20	37700		36100		4		P
Chromium	ug/L	20	213		201		6		P
Cobalt	ug/L	20	101		95.3		6		P
Copper	ug/L	20	160		151		6		P
Iron	ug/L	20	3830		3710		3		P
Lead	ug/L	20	485		460		5		P
Magnesium	ug/L	20	14500		13900		4		P
Manganese	ug/L	20	570		544		5		P
Nickel	ug/L	20	257		243		6		P
Potassium	ug/L	20	28000		26900		4		P
Selenium	ug/L	20	973		927		5		P
Silver	ug/L	20	15.6		21.9		34	*	P
Sodium	ug/L	20	54400		52000		5		P
Thallium	ug/L	20	836		795		5		P
Vanadium	ug/L	20	163		152		7		P
Zinc	ug/L	20	120		113		6		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

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2940-01 **Client ID:** COMP(1-6)DUP

Percent Solids for Sample: NA **Duplicate ID** Q2940-01DUP **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

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2940-01MS **Client ID:** COMP(1-6)MSD

Percent Solids for Sample: NA **Duplicate ID** Q2940-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	4.19		4.21		0		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: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169358BS							
Aluminum	ug/L	1000	1020		102	80 - 120	P
Antimony	ug/L	400	407		102	80 - 120	P
Arsenic	ug/L	400	393		98	80 - 120	P
Barium	ug/L	100	102		102	80 - 120	P
Beryllium	ug/L	100	102		102	80 - 120	P
Cadmium	ug/L	100	96.0		96	80 - 120	P
Calcium	ug/L	500	530	J	106	80 - 120	P
Chromium	ug/L	200	205		102	80 - 120	P
Cobalt	ug/L	100	98.5		98	80 - 120	P
Copper	ug/L	150	156		104	80 - 120	P
Iron	ug/L	1500	1540		103	80 - 120	P
Lead	ug/L	500	478		96	80 - 120	P
Magnesium	ug/L	1000	1030		103	80 - 120	P
Manganese	ug/L	100	105		105	80 - 120	P
Nickel	ug/L	250	248		99	80 - 120	P
Potassium	ug/L	5000	5120		102	80 - 120	P
Selenium	ug/L	1000	986		99	80 - 120	P
Silver	ug/L	37.5	37.9		101	80 - 120	P
Sodium	ug/L	1500	1570		105	80 - 120	P
Thallium	ug/L	1000	889		89	80 - 120	P
Vanadium	ug/L	150	153		102	80 - 120	P
Zinc	ug/L	100	104		104	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169413BS							
Mercury	ug/L	4.0	4.34		108	80 - 120	CV

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Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

ENV-SW02L

Lab Name: Alliance **Contract:** PORT06

Lab Code: ACE **Lb No.:** lb136951 **Lab Sample ID :** Q2934-02L **SDG No.:** Q2934

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	182		206	J	13		P
Antimony	6.48	J	125	U	100.0		P
Arsenic	4.50	J	50.0	U	100.0		P
Barium	169		168	J	1		P
Beryllium	3.00	U	15.0	U			P
Cadmium	3.00	U	15.0	U			P
Calcium	37200		38200		3		P
Chromium	2.47	J	25.0	U	100.0		P
Cobalt	15.0	U	75.0	U			P
Copper	9.63	J	50.0	U	100.0		P
Iron	2360		2270		4		P
Lead	16.5		13.6	J	18		P
Magnesium	13500		13800		2		P
Manganese	467		475		2		P
Nickel	7.09	J	100	U	100.0		P
Potassium	23300		22100		5		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	52600		49500		6		P
Thallium	20.0	U	100	U			P
Vanadium	5.44	J	100	U	100.0		P
Zinc	14.9	J	100	U	100.0		P

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Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

COMP(1-6)L

Lab Name: Alliance **Contract:** PORT06

Lab Code: ACE **Lb No.:** lb136975 **Lab Sample ID :** Q2940-01L **SDG No.:** Q2934

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

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB169358**						
PB169358BL	PB169358BL	MB	WATER	08/22/2025	50.0	25.0	
PB169358BS	PB169358BS	LCS	WATER	08/22/2025	50.0	25.0	
Q2934-01	ENV-SW01	SAM	WATER	08/22/2025	50.0	25.0	
Q2934-02	ENV-SW02	SAM	WATER	08/22/2025	50.0	25.0	
Q2934-02DUP	ENV-SW02DUP	DUP	WATER	08/22/2025	50.0	25.0	
Q2934-02MS	ENV-SW02MS	MS	WATER	08/22/2025	50.0	25.0	
Q2934-02MSD	ENV-SW02MSD	MSD	WATER	08/22/2025	50.0	25.0	
Q2934-03	ENV-SW03	SAM	WATER	08/22/2025	50.0	25.0	
Q2934-04	ENV-SW04	SAM	WATER	08/22/2025	50.0	25.0	

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Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q2934

Contract: PORT06 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB169413**						
PB169413BL	PB169413BL	MB	WATER	08/26/2025	30.0	30.0	
PB169413BS	PB169413BS	LCS	WATER	08/26/2025	30.0	30.0	
Q2934-01	ENV-SW01	SAM	WATER	08/26/2025	30.0	30.0	
Q2934-02	ENV-SW02	SAM	WATER	08/26/2025	30.0	30.0	
Q2934-03	ENV-SW03	SAM	WATER	08/26/2025	30.0	30.0	
Q2934-04	ENV-SW04	SAM	WATER	08/26/2025	30.0	30.0	
Q2940-01DUP	COMP(1-6)DUP	DUP	WATER	08/26/2025	30.0	30.0	
Q2940-01MS	COMP(1-6)MS	MS	WATER	08/26/2025	30.0	30.0	
Q2940-01MSD	COMP(1-6)MSD	MSD	WATER	08/26/2025	30.0	30.0	

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metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: ACE **Sdg no.:** Q2934

Instrument id number: **Method:** **Run number:** LB136940

Start date: 08/22/2025 **End date:** 08/22/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1112	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1116	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	1120	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	1124	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	1128	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	1133	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1137	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1145	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	1150	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1156	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	1200	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	1204	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	1218	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	1222	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1336	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	1340	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	1425	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	1430	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-01	ENV-SW01	1	1503	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-03	ENV-SW03	1	1507	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-04	ENV-SW04	1	1526	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1544	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	1548	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1630	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1634	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: ACE **Sdg no.:** Q2934

Instrument id number: **Method:** **Run number:** LB136951

Start date: 08/25/2025 **End date:** 08/25/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1118	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1123	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	1127	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	1131	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	1135	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	1139	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1144	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1148	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	1153	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1157	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	1202	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	1215	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	1233	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	1242	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB169358BL	PB169358BL	1	1301	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB169358BS	PB169358BS	1	1305	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-04	ENV-SW04	2	1317	Na
Q2934-02	ENV-SW02	1	1322	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-02DUP	ENV-SW02DUP	1	1326	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1344	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	1348	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-02L	ENV-SW02L	5	1352	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-02MS	ENV-SW02MS	1	1357	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-02MSD	ENV-SW02MSD	1	1401	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2934-02A	ENV-SW02A	1	1405	Ag
CCV03	CCV03	1	1433	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	1437	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	1523	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	1527	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1606	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1610	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: ACE **Sdg no.:** Q2934

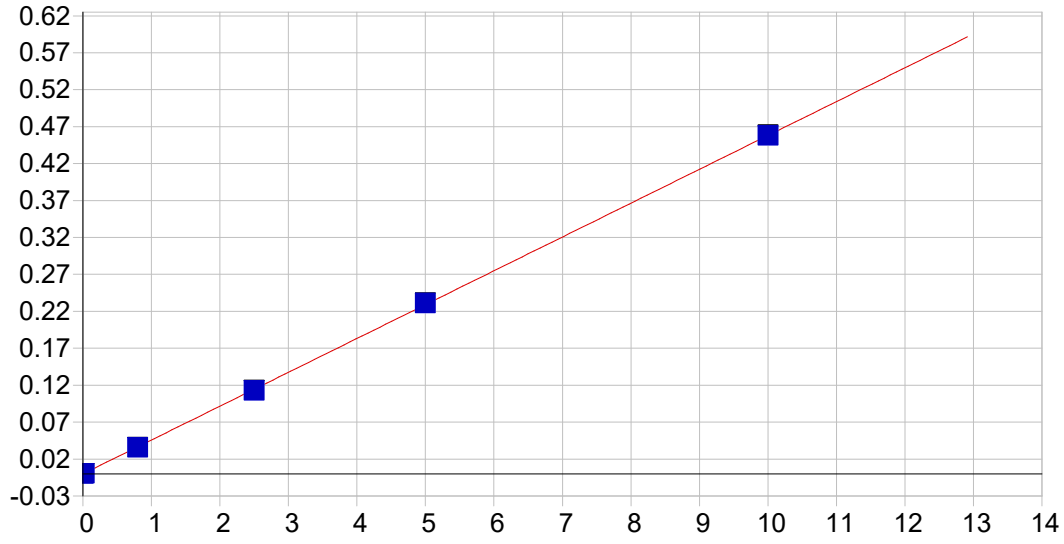
Instrument id number: **Method:** **Run number:** LB136975

Start date: 08/27/2025 **End date:** 08/27/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0943	HG
S0.2	S0.2	1	0945	HG
S2.5	S2.5	1	0947	HG
S5	S5	1	0952	HG
S7.5	S7.5	1	0957	HG
S10	S10	1	1000	HG
ICV07	ICV07	1	1003	HG
ICB07	ICB07	1	1005	HG
CCV18	CCV18	1	1007	HG
CCB18	CCB18	1	1009	HG
CRA	CRA	1	1012	HG
PB169413BL	PB169413BL	1	1019	HG
PB169413BS	PB169413BS	1	1021	HG
Q2934-01	ENV-SW01	1	1024	HG
Q2934-02	ENV-SW02	1	1026	HG
Q2934-03	ENV-SW03	1	1028	HG
Q2934-04	ENV-SW04	1	1030	HG
CCV19	CCV19	1	1035	HG
CCB19	CCB19	1	1037	HG
Q2940-01DUP	COMP(1-6)DUP	1	1039	HG
Q2940-01MS	COMP(1-6)MS	1	1042	HG
Q2940-01MSD	COMP(1-6)MSD	1	1044	HG
Q2940-01L	COMP(1-6)L	5	1126	HG
CCV20	CCV20	1	1133	HG
CCB20	CCB20	1	1135	HG

METAL
RAW DATA

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



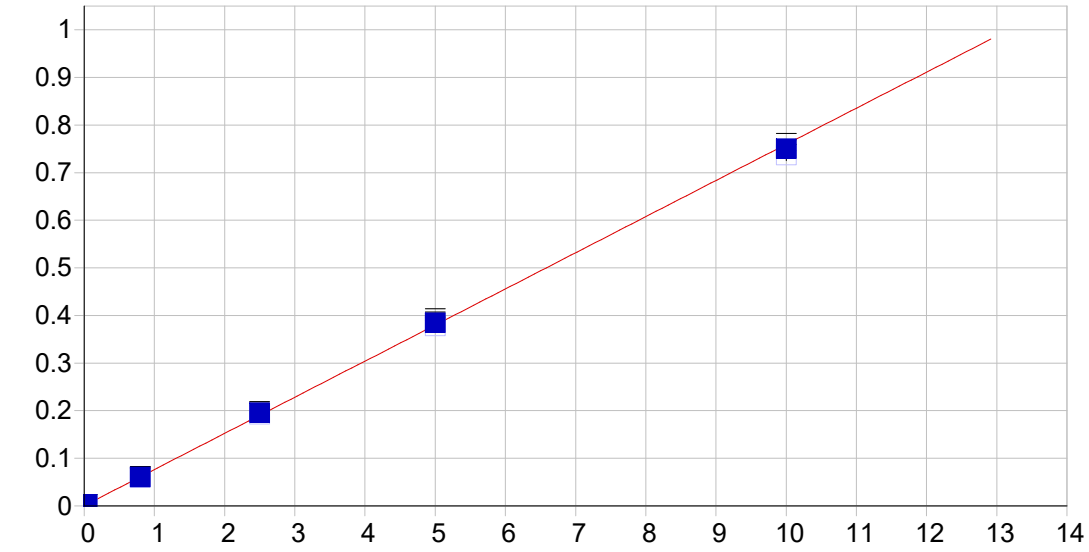
As 189.042 {479}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000066	Re-Slope:	1.000000
A1 (Gain):	0.045813	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.002207		
Predicted MQL:	0.007358		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.02000	.02101	.001	5.07	.00089	.000	1
S3	2.5000	2.4650	-.035	-1.40	.11274	.000	1
S4	5.0000	5.0491	.049	.981	.23100	.000	1
S5	10.000	10.003	.003	.033	.45772	.001	1
S2	.80000	.78164	-.018	-2.30	.03570	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



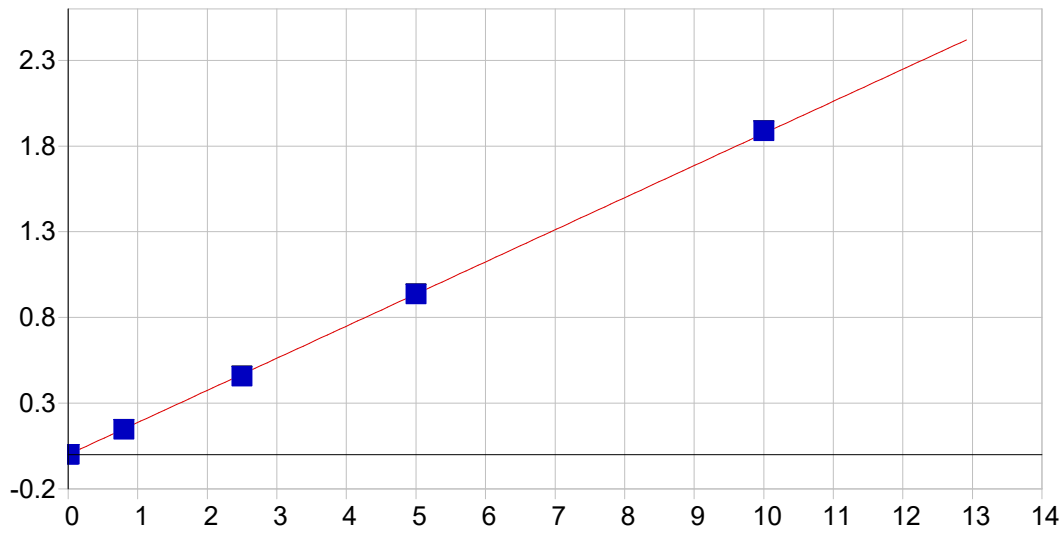
Tl 190.856 {477}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000523	Re-Slope:	1.000000
A1 (Gain):	0.075893	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999882	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.001655		
Predicted MQL:	0.005517		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00052	.000	1
S1	.04000	.04133	.001	3.34	.00347	.000	1
S3	2.5000	2.5694	.069	2.78	.19207	.003	1
S4	5.0000	5.0581	.058	1.16	.37748	.009	1
S5	10.000	9.8802	-.120	-1.20	.73653	.011	1
S2	.80000	.79092	-.009	-1.13	.05944	.002	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



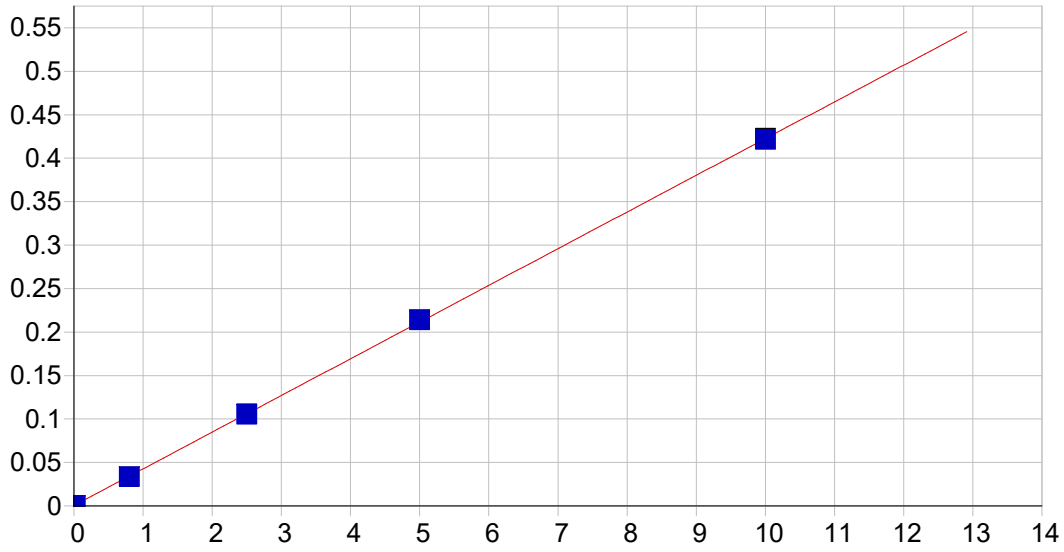
Pb 220.353 {453}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000074	Re-Slope:	1.000000
A1 (Gain):	0.187343	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.001292		
Predicted MQL:	0.004308		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00007	.000	1
S1	.01200	.01172	-.000	-2.36	.00223	.000	1
S3	2.5000	2.4417	-.058	-2.33	.45702	.001	1
S4	5.0000	4.9969	-.003	-.061	.93525	.001	1
S5	10.000	10.079	.079	.794	1.8864	.003	1
S2	.80000	.78234	-.018	-2.21	.14649	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



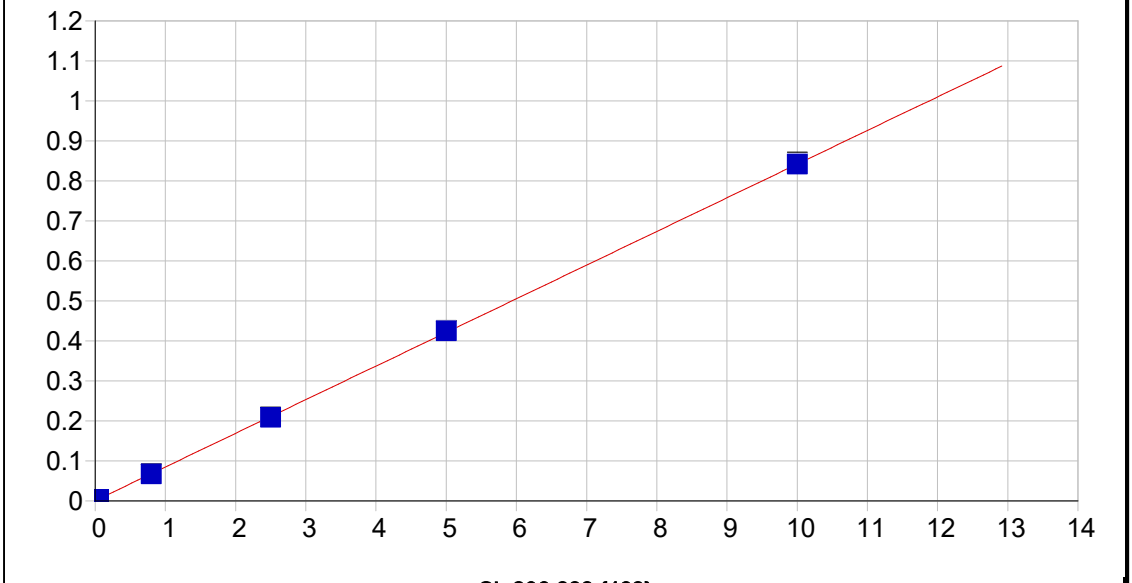
Se 196.090 {472}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000441	Re-Slope:	1.000000
A1 (Gain):	0.042208	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.003023		
Predicted MQL:	0.010076		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00044	.000	1
S1	.02000	.01635	-.004	-18.3	.00113	.000	1
S3	2.5000	2.4868	-.013	-.528	.10537	.000	1
S4	5.0000	5.0580	.058	1.16	.21387	.000	1
S5	10.000	9.9728	-.027	-.272	.42126	.001	1
S2	.80000	.78602	-.014	-1.75	.03361	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



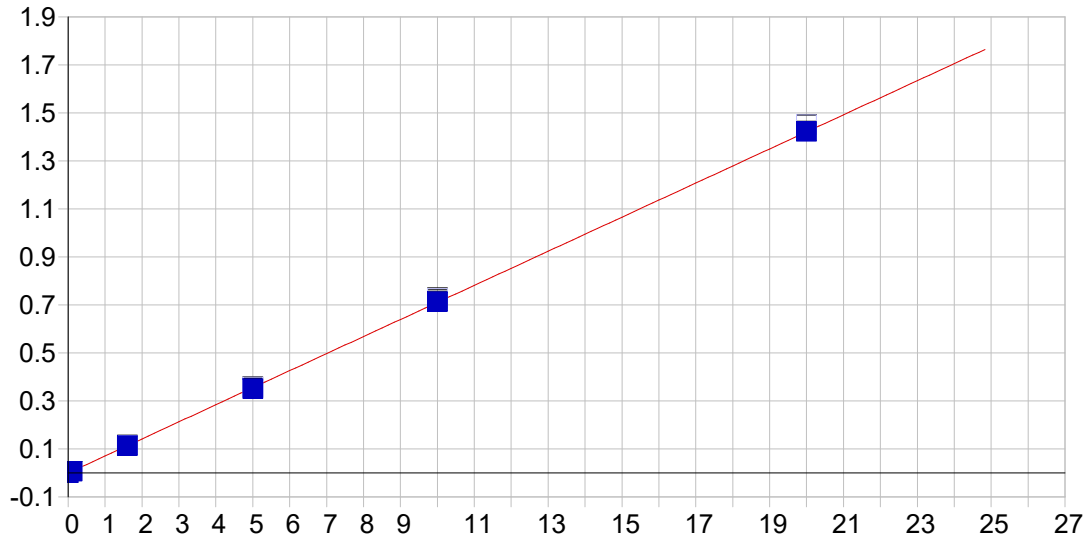
Sb 206.833 {463}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000676	Re-Slope:	1.000000
A1 (Gain):	0.084118	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.001921		
Predicted MQL:	0.006403		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00068	.000	1
S1	.05000	.04820	-.002	-3.60	.00474	.000	1
S3	2.5000	2.4715	-.028	-1.14	.20915	.000	1
S4	5.0000	5.0410	.041	.821	.42586	.000	1
S5	10.000	9.9976	-.002	-.024	.84393	.003	1
S2	.80000	.79166	-.008	-1.04	.06745	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



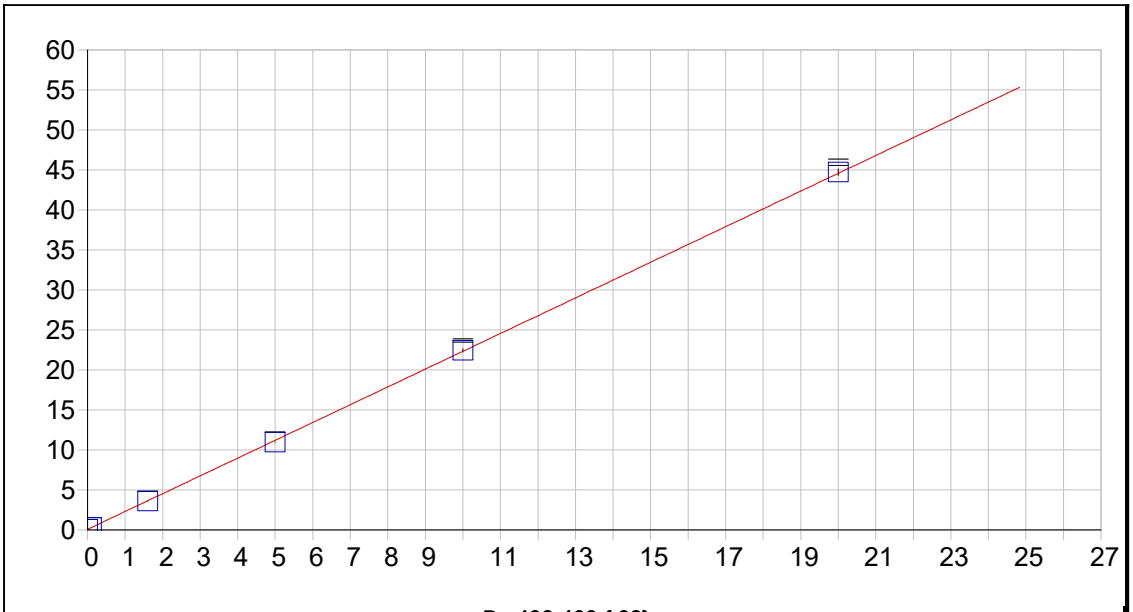
Al 396.152 { 85}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000290	Re-Slope:	1.000000
A1 (Gain):	0.071064	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.010948		
Predicted MQL:	0.036493		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00029	.001	1
S1	.10000	.10015	.000	.148	.00738	.000	1
S3	5.0000	4.9379	-.062	-1.24	.35751	.001	1
S4	10.000	10.040	.040	.398	.72696	.002	1
S5	20.000	20.032	.032	.161	1.4508	.001	1
S2	1.6000	1.5900	-.010	-.623	.11491	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



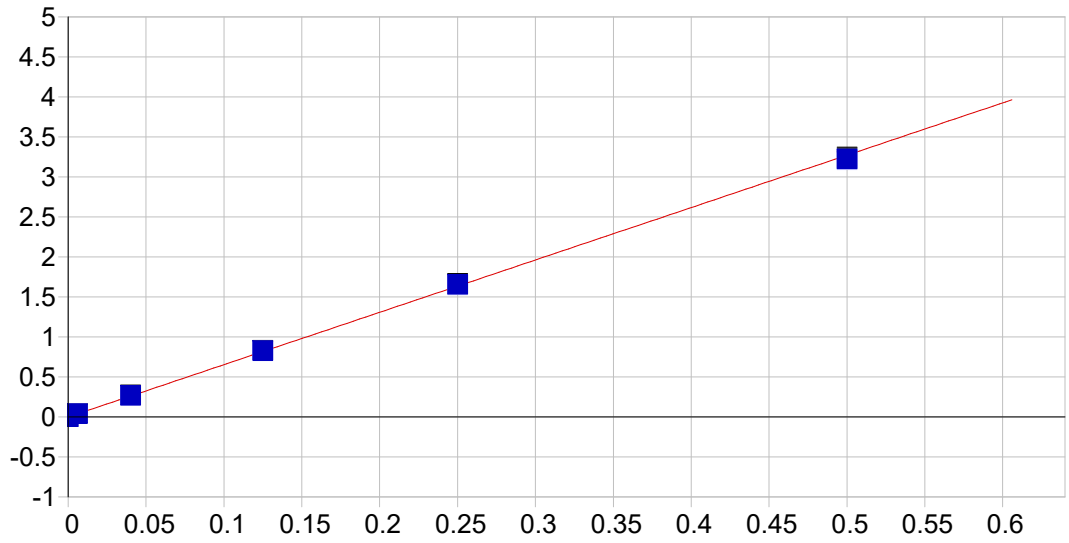
Ba 493.409 { 68}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.076453	Re-Slope:	1.000000
A1 (Gain):	2.224970	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.001450		
Predicted MDL:	0.000977		
Predicted MQL:	0.003256		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.07646	.004	1
S1	.10000	.10079	.001	.790	.30071	.002	1
S3	5.0000	4.8997	-.100	-2.01	10.978	.022	1
S4	10.000	10.051	.051	.507	22.439	.197	1
S5	20.000	20.071	.071	.355	44.734	.395	1
S2	1.6000	1.5778	-.022	-1.39	3.5870	.025	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



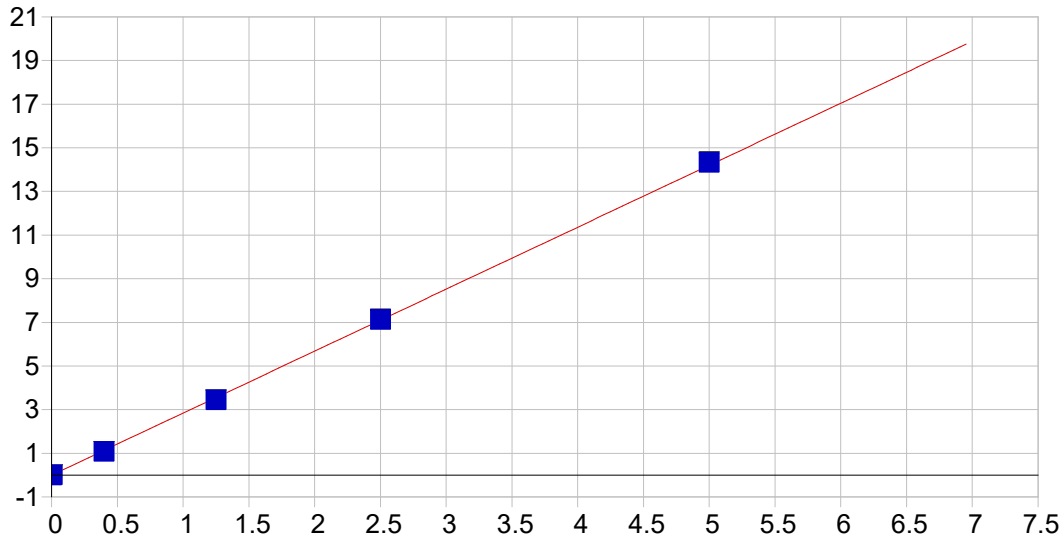
Be 234.861 {144}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001583	Re-Slope:	1.000000
A1 (Gain):	6.545258	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000313		
Predicted MDL:	0.000070		
Predicted MQL:	0.000234		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00159	.001	1
S1	.00600	.00652	.001	8.59	.04077	.000	1
S3	.12500	.12679	.002	1.43	.82460	.004	1
S4	.25000	.25330	.003	1.32	1.6490	.011	1
S5	.50000	.49306	-.007	-1.39	3.2109	.024	1
S2	.04000	.04134	.001	3.35	.26781	.003	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



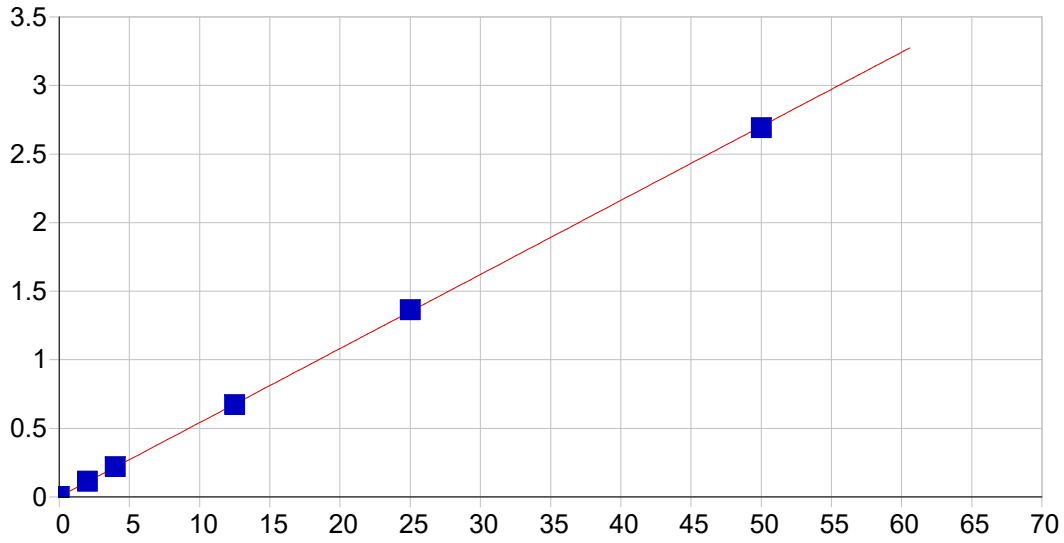
Cd 226.502 {449}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000412	Re-Slope:	1.000000
A1 (Gain):	2.840508	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.000415		
Predicted MDL:	0.000073		
Predicted MQL:	0.000243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00041	.000	1
S1	.00600	.00575	-.000	-4.22	.01597	.000	1
S3	1.2500	1.2134	-.037	-2.93	3.4486	.005	1
S4	2.5000	2.5108	.011	.433	7.1363	.012	1
S5	5.0000	5.0444	.044	.888	14.338	.025	1
S2	.40000	.38160	-.018	-4.60	1.0843	.002	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



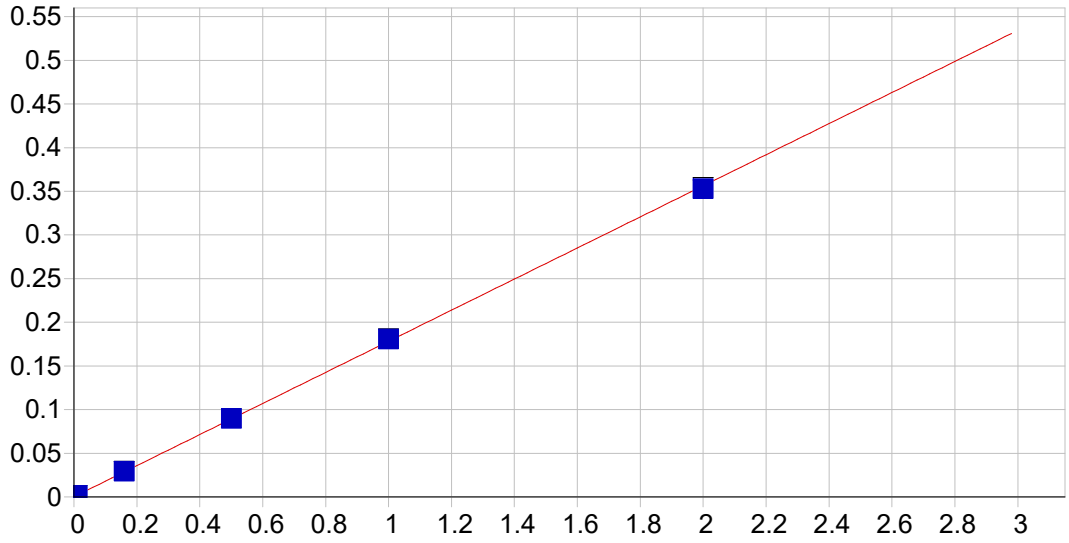
Ca 373.690 { 90}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001602	Re-Slope:	1.000000
A1 (Gain):	0.054010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000221		
Predicted MDL:	0.011354		
Predicted MQL:	0.037848		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00007	-.000	.000	.00160	.000	1
S2	4.0000	4.0261	.026	.653	.21905	.001	1
S3	12.500	12.426	-.074	-.592	.67272	.001	1
S4	25.000	25.222	.222	.886	1.3638	.001	1
S5	50.000	49.764	-.236	-.471	2.6894	.003	1
S1	2.0000	2.0619	.062	3.10	.11297	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



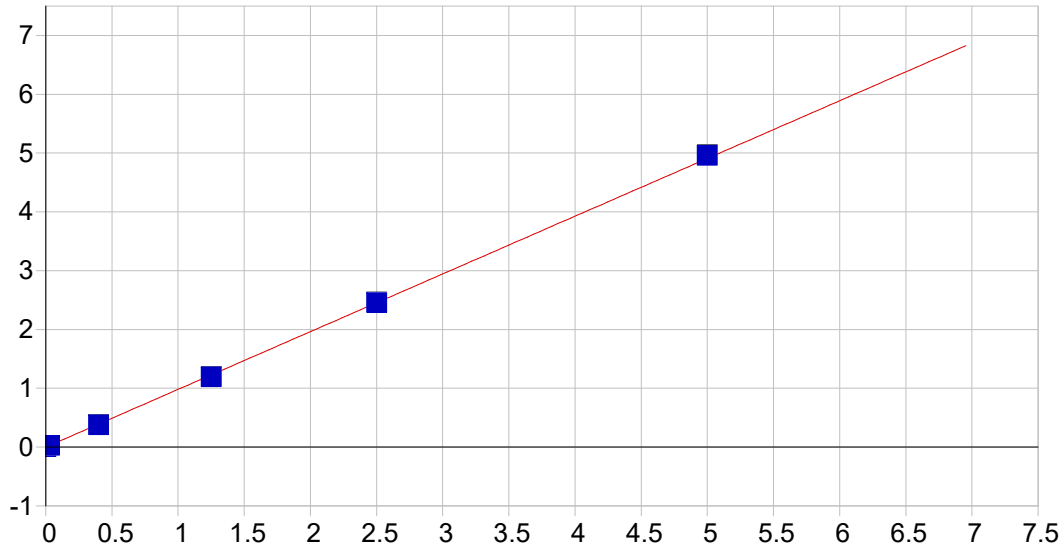
Cr 267.716 {126}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000171	Re-Slope:	1.000000
A1 (Gain):	0.178065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000340		
Predicted MQL:	0.001134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00017	.000	1
S1	.01000	.01036	.000	3.59	.00202	.000	1
S3	.50000	.50245	.002	.491	.08968	.000	1
S4	1.0000	1.0141	.014	1.41	.18081	.000	1
S5	2.0000	1.9804	-.020	-.981	.35295	.001	1
S2	.16000	.16272	.003	1.70	.02916	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



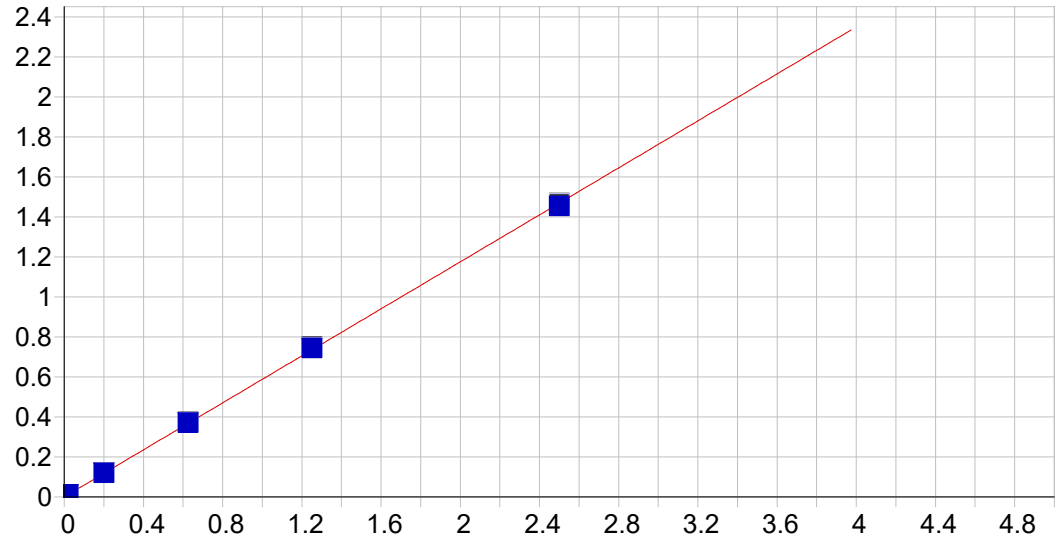
Co 228.616 {448}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.981674	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999886	Status:	OK.
Std Error of Est:	0.000302		
Predicted MDL:	0.000186		
Predicted MQL:	0.000622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00000	.000	1
S1	.03000	.02933	-.001	-2.24	.02867	.000	1
S3	1.2500	1.2136	-.036	-2.91	1.1935	.001	1
S4	2.5000	2.5025	.002	.100	2.4608	.003	1
S5	5.0000	5.0492	.049	.985	4.9650	.003	1
S2	.40000	.38532	-.015	-3.67	.37893	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



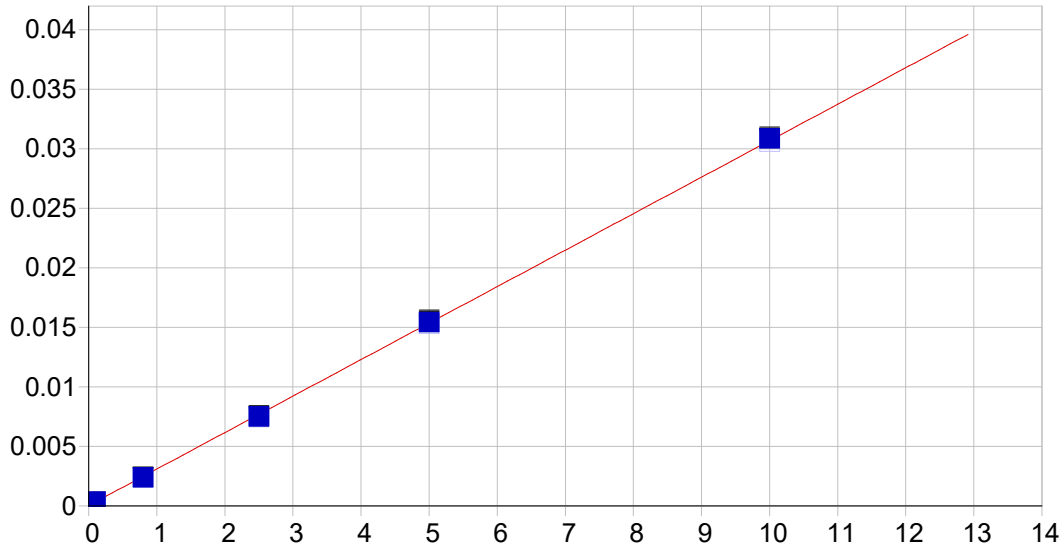
Cu 224.700 {450}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000532	Re-Slope:	1.000000
A1 (Gain):	0.587254	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000079		
Predicted MDL:	0.000417		
Predicted MQL:	0.001390		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00053	.000	1
S1	.02000	.02103	.001	5.13	.01301	.000	1
S3	.62500	.62990	.005	.784	.37350	.000	1
S4	1.2500	1.2646	.015	1.17	.74927	.000	1
S5	2.5000	2.4750	-.025	-.998	1.4662	.002	1
S2	.20000	.20446	.004	2.23	.12158	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



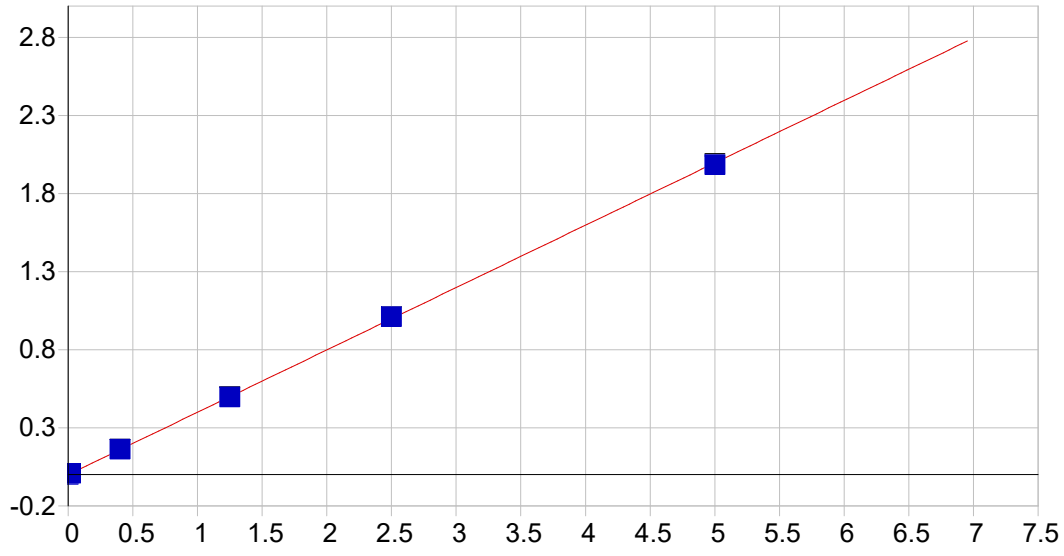
Fe 240.488 {140}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000031	Re-Slope:	1.000000
A1 (Gain):	0.003065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.006501		
Predicted MQL:	0.021669		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00003	.000	1
S1	.10000	.10207	.002	2.07	.00034	.000	1
S3	2.5000	2.4387	-.061	-2.45	.00744	.000	1
S4	5.0000	5.0272	.027	.543	.01531	.000	1
S5	10.000	10.060	.060	.601	.03061	.000	1
S2	.80000	.77203	-.028	-3.50	.00238	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



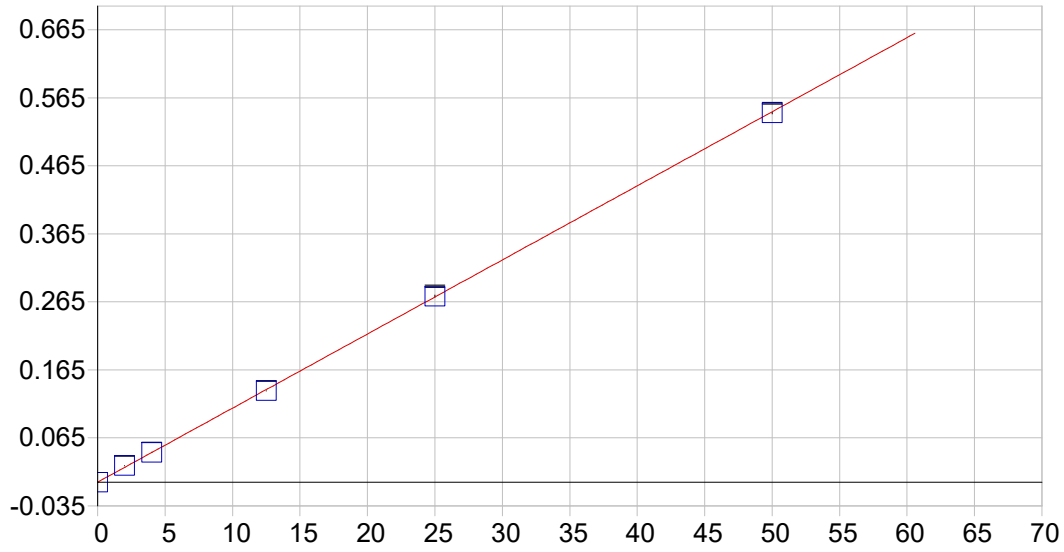
Mn 257.610 {131}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000214	Re-Slope:	1.000000
A1 (Gain):	0.399218	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000065		
Predicted MDL:	0.000571		
Predicted MQL:	0.001905		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00021	.000	1
S1	.02000	.02169	.002	8.47	.00888	.000	1
S3	1.2500	1.2440	-.006	-.482	.49693	.001	1
S4	2.5000	2.5318	.032	1.27	1.0111	.002	1
S5	5.0000	4.9667	-.033	-.666	1.9834	.007	1
S2	.40000	.40581	.006	1.45	.16225	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



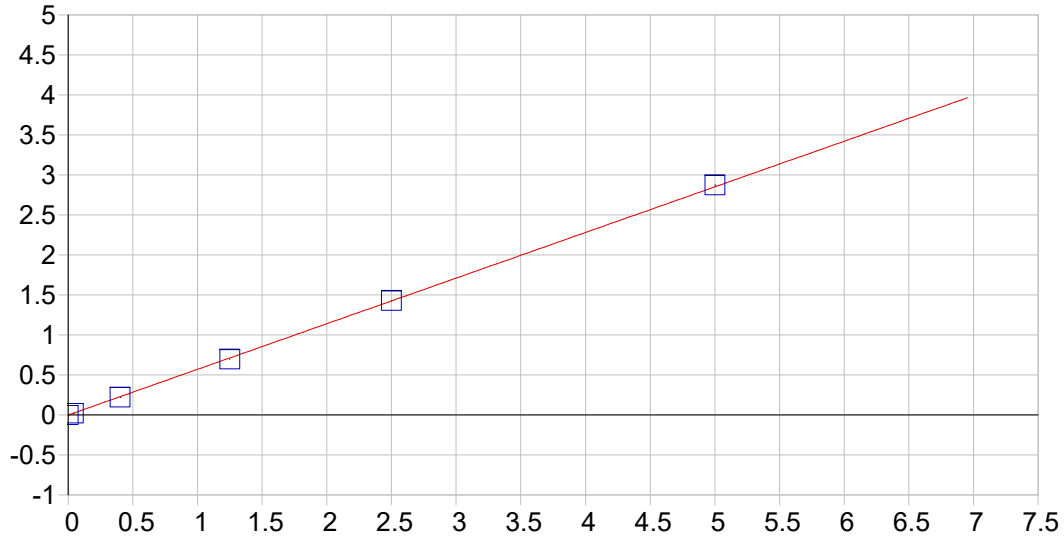
Mg 279.079 {121}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000138	Re-Slope:	1.000000
A1 (Gain):	0.010895	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999850	Status:	OK.
Std Error of Est:	0.000100		
Predicted MDL:	0.026893		
Predicted MQL:	0.089642		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00021	-.000	.000	-.00014	.000	1
S2	4.0000	4.0232	.023	.580	.04370	.000	1
S3	12.500	12.327	-.173	-1.38	.13417	.000	1
S4	25.000	25.100	.100	.401	.27333	.002	1
S5	50.000	49.828	-.172	-.344	.54274	.001	1
S1	2.0000	2.2218	.222	11.1	.02407	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



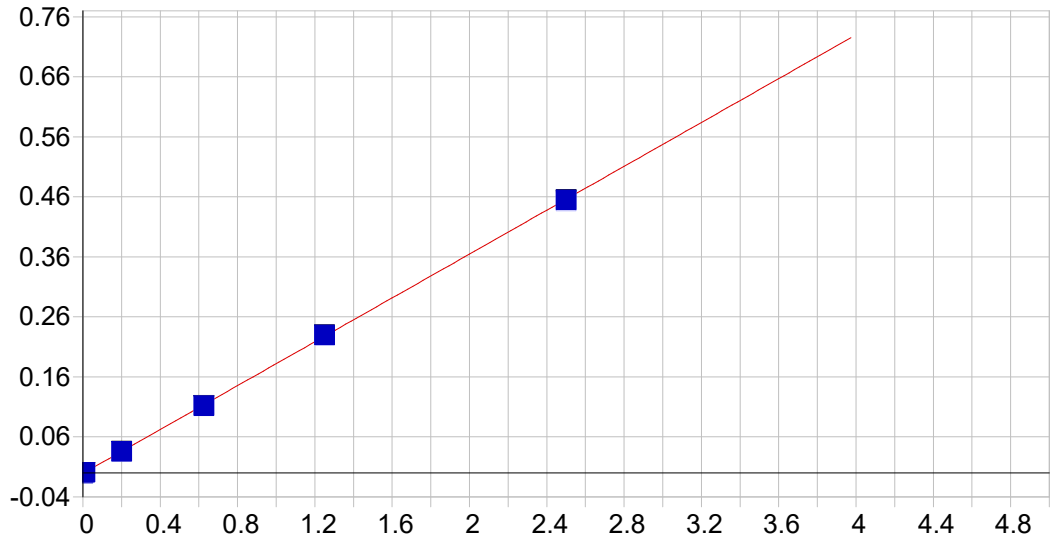
Ni 231.604 {446}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000626	Re-Slope:	1.000000
A1 (Gain):	0.570221	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.000170		
Predicted MDL:	0.000343		
Predicted MQL:	0.001143		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00062	.000	1
S1	.04000	.03922	-.001	-1.96	.02174	.000	1
S3	1.2500	1.2185	-.032	-2.52	.69417	.001	1
S4	2.5000	2.5063	.006	.254	1.4285	.002	1
S5	5.0000	5.0381	.038	.761	2.8722	.002	1
S2	.40000	.38792	-.012	-3.02	.22057	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



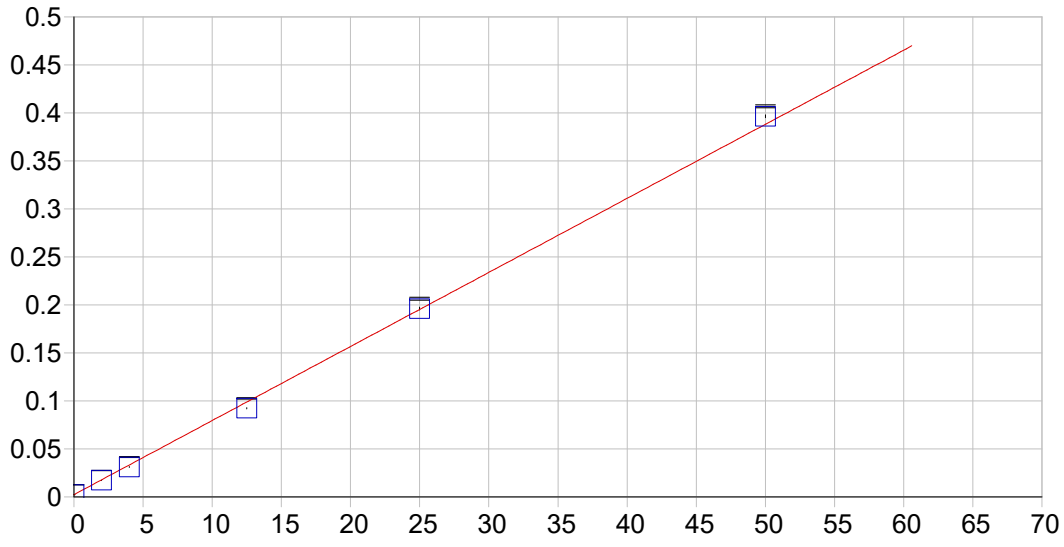
Ag 328.068 {103}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000778	Re-Slope:	1.000000
A1 (Gain):	0.182718	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.000525		
Predicted MQL:	0.001750		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00078	.000	1
S1	.01000	.01050	.000	4.96	.00112	.000	1
S3	.62500	.61851	-.006	-1.04	.11168	.000	1
S4	1.2500	1.2622	.012	.973	.22873	.000	1
S5	2.5000	2.4926	-.007	-.294	.45246	.001	1
S2	.20000	.20120	.001	.598	.03581	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



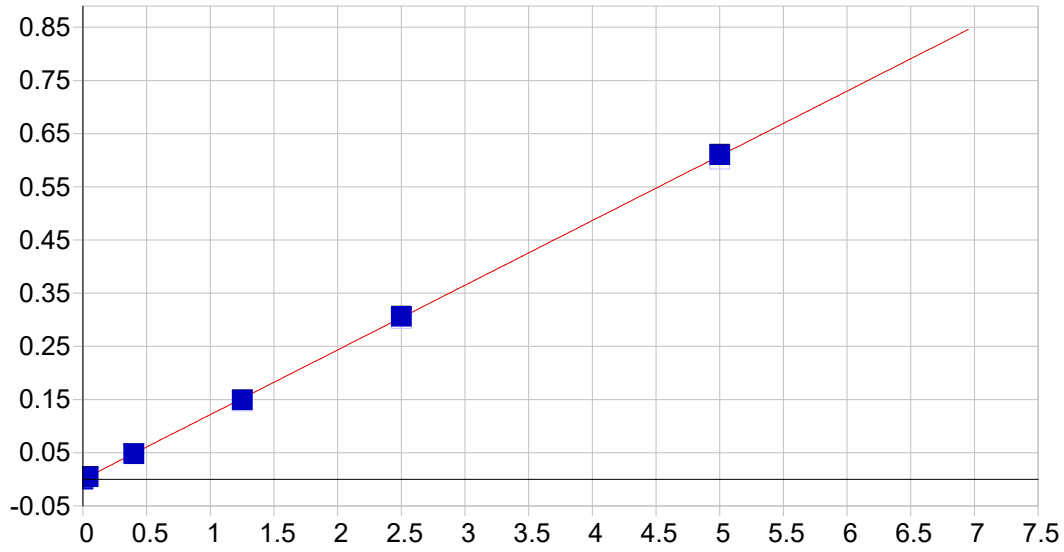
Na 589.592 { 57}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002420	Re-Slope:	1.000000
A1 (Gain):	0.007714	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999453	Status:	OK.
Std Error of Est:	0.000135		
Predicted MDL:	0.017604		
Predicted MQL:	0.058681		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00030	.000	.000	.00242	.000	1
S2	4.0000	3.7169	-.283	-7.08	.03109	.000	1
S3	12.500	11.672	-.828	-6.63	.09246	.001	1
S4	25.000	25.110	.110	.441	.19612	.002	1
S5	50.000	51.083	1.08	2.17	.39648	.002	1
S1	2.0000	1.9178	-.082	-4.11	.01721	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



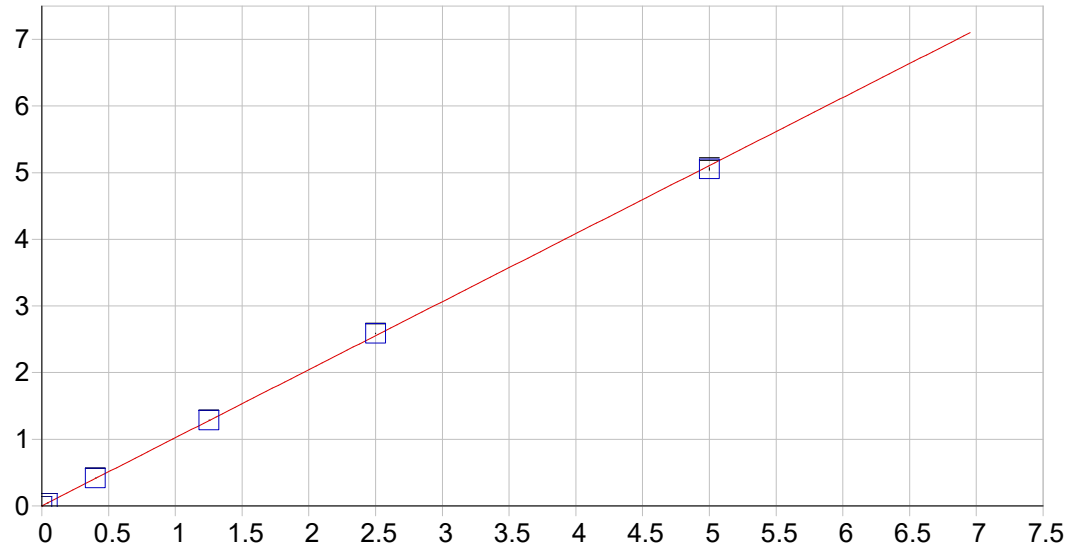
V 292.402 {115}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000048	Re-Slope:	1.000000
A1 (Gain):	0.121692	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.002823		
Predicted MQL:	0.009408		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.04000	.03839	-.002	-4.03	.00444	.000	1
S3	1.2500	1.2242	-.026	-2.07	.14671	.001	1
S4	2.5000	2.5168	.017	.672	.30179	.001	1
S5	5.0000	5.0165	.016	.330	.60154	.001	1
S2	.40000	.39412	-.006	-1.47	.04720	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



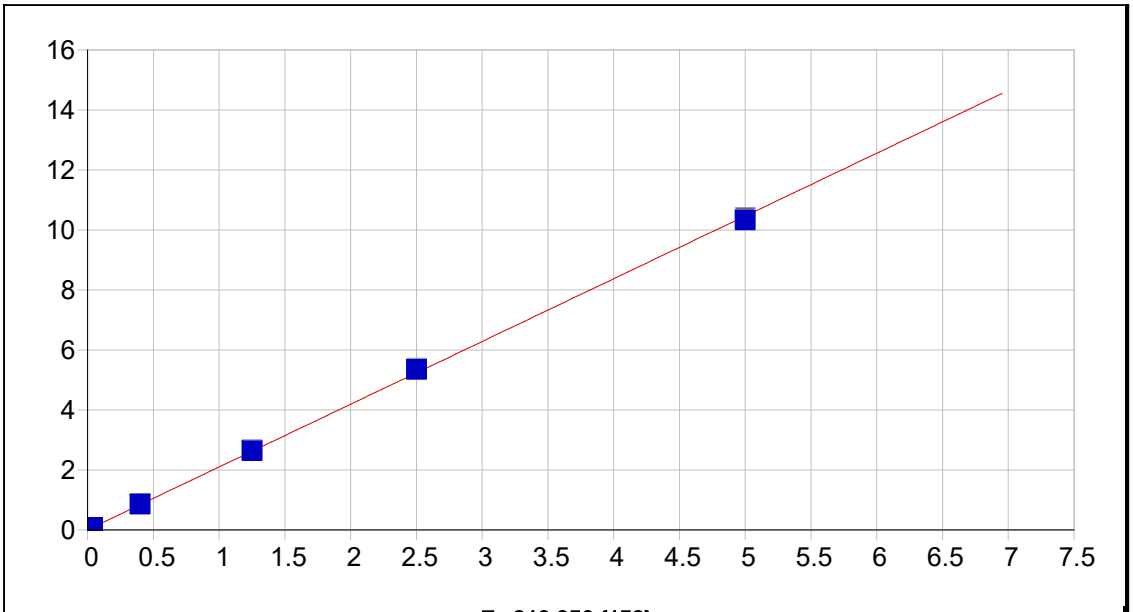
Zn 206.200 {464}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002053	Re-Slope:	1.000000
A1 (Gain):	1.020939	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000270		
Predicted MDL:	0.000144		
Predicted MQL:	0.000479		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00205	.000	1
S1	.04000	.04082	.001	2.06	.04373	.000	1
S3	1.2500	1.2583	.008	.667	1.2867	.001	1
S4	2.5000	2.5339	.034	1.35	2.5890	.004	1
S5	5.0000	4.9498	-.050	-1.00	5.0555	.020	1
S2	.40000	.40715	.007	1.79	.41773	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



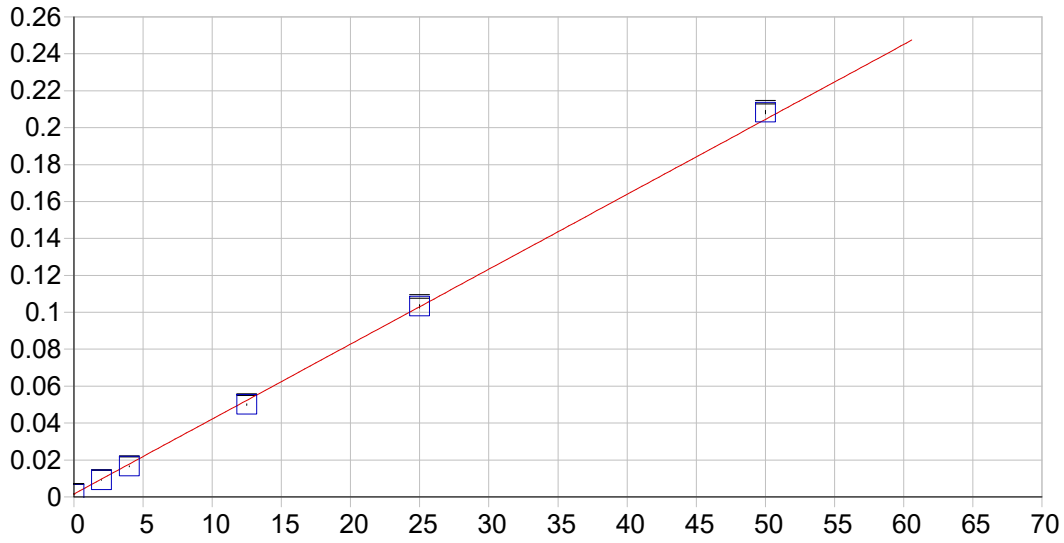
Zn 213.856 {158}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005681	Re-Slope:	1.000000
A1 (Gain):	2.091871	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999885	Status:	OK.
Std Error of Est:	0.000751		
Predicted MDL:	0.000243		
Predicted MQL:	0.000810		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00567	.000	1
S1	.04000	.04150	.002	3.76	.09309	.001	1
S3	1.2500	1.2592	.009	.734	2.6579	.003	1
S4	2.5000	2.5501	.050	2.01	5.3766	.010	1
S5	5.0000	4.9325	-.067	-1.35	10.397	.003	1
S2	.40000	.40667	.007	1.67	.86220	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



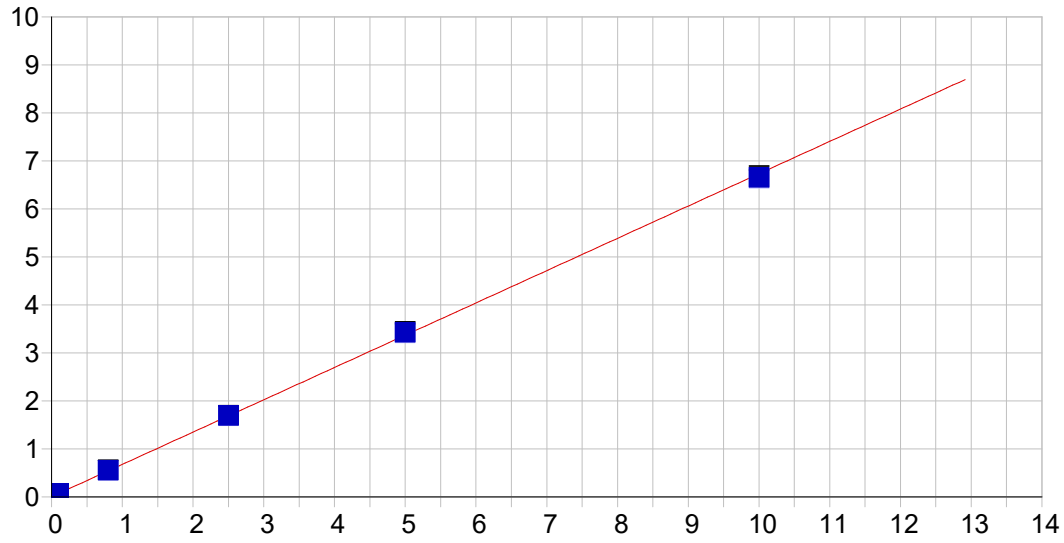
K 766.490 { 44}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001606	Re-Slope:	1.000000
A1 (Gain):	0.004057	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999586	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.040025		
Predicted MQL:	0.133417		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00034	.000	.000	.00161	.000	1
S2	4.0000	3.6889	-.311	-7.78	.01657	.000	1
S3	12.500	11.933	-.567	-4.54	.05002	.000	1
S4	25.000	25.047	.047	.187	.10322	.001	1
S5	50.000	50.964	.964	1.93	.20837	.001	1
S1	2.0000	1.8680	-.132	-6.60	.00918	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



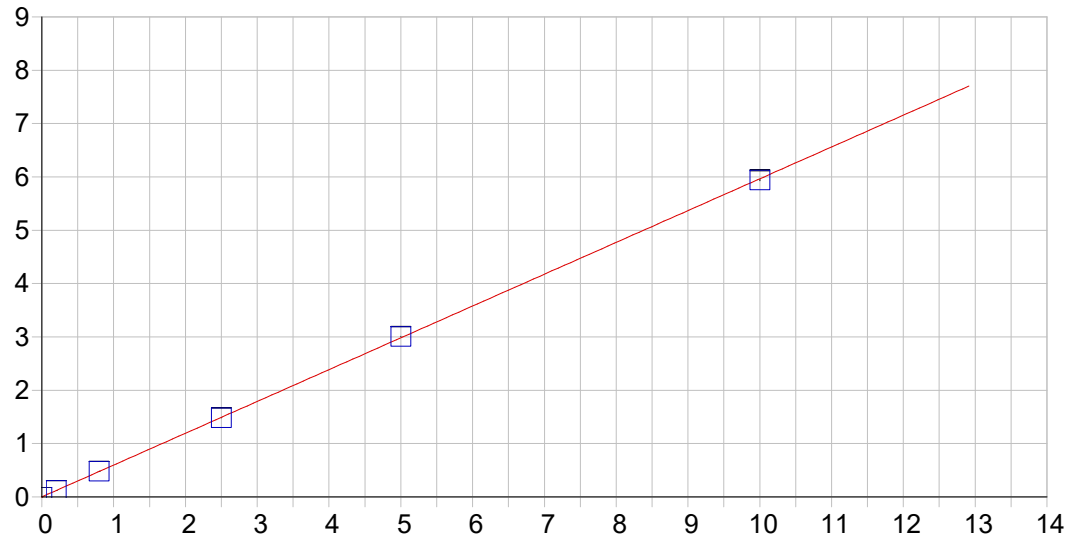
B 249.678 {135}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004186	Re-Slope:	1.000000
A1 (Gain):	0.672917	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000483		
Predicted MDL:	0.000735		
Predicted MQL:	0.002451		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00418	.000	1
S1	.10000	.10493	.005	4.93	.07440	.000	1
S3	2.5000	2.5070	.007	.279	1.6851	.011	1
S4	5.0000	5.0852	.085	1.70	3.4140	.020	1
S5	10.000	9.8850	-.115	-1.15	6.6317	.040	1
S2	.80000	.81791	.018	2.24	.55263	.005	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



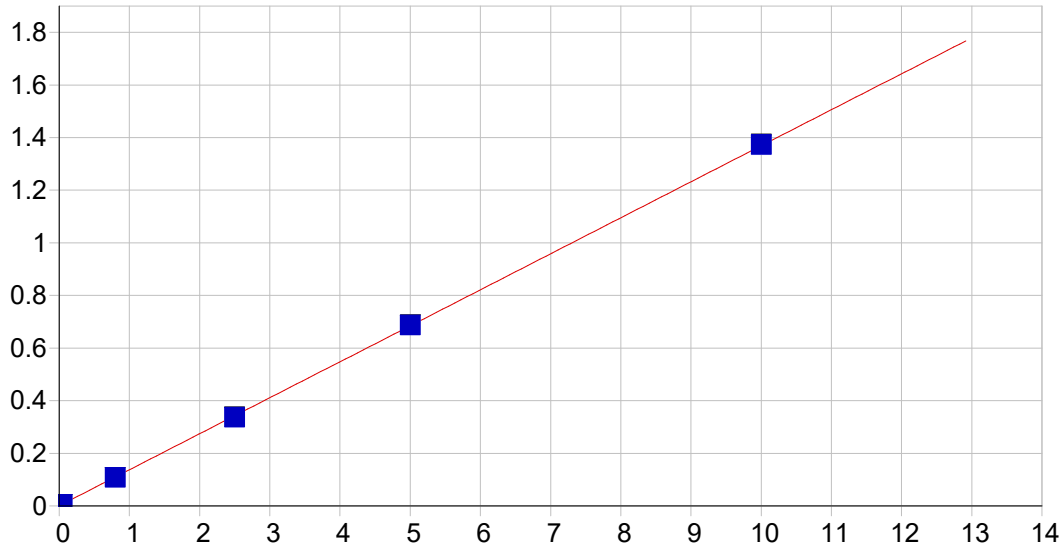
Mo 202.030 {467}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000550	Re-Slope:	1.000000
A1 (Gain):	0.596444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000265		
Predicted MDL:	0.000259		
Predicted MQL:	0.000862		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00055	.000	1
S1	.20000	.20332	.003	1.66	.12182	.000	1
S3	2.5000	2.4886	-.011	-.457	1.4848	.002	1
S4	5.0000	5.0429	.043	.857	3.0083	.002	1
S5	10.000	9.9605	-.039	-.395	5.9414	.011	1
S2	.80000	.80474	.005	.593	.48054	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



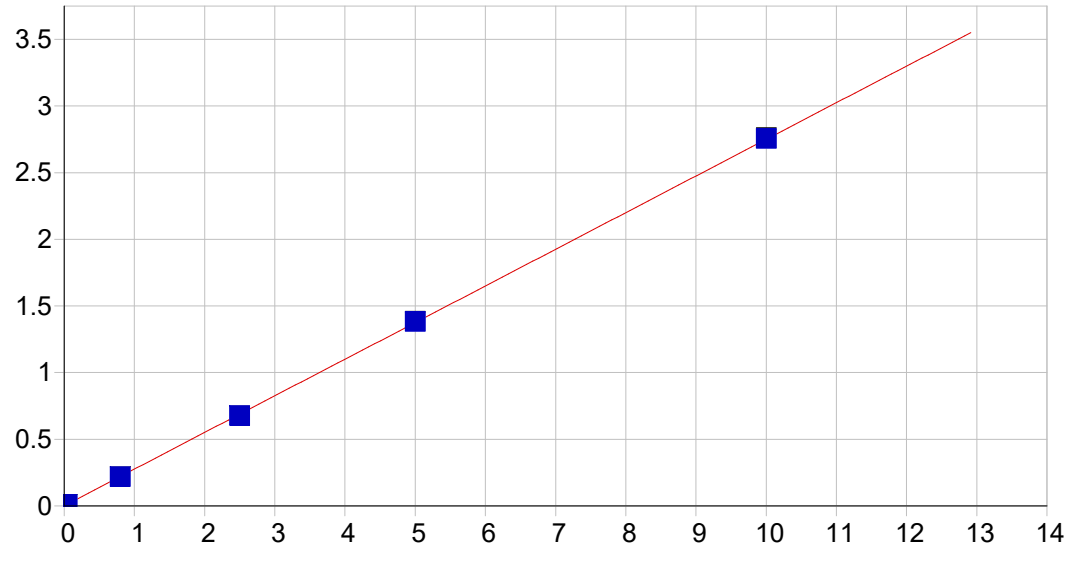
Sn 189.989 {478}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000409	Re-Slope:	1.000000
A1 (Gain):	0.136847	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.000631		
Predicted MQL:	0.002102		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00041	.000	1
S1	.04000	.03846	-.002	-3.85	.00567	.000	1
S3	2.5000	2.4624	-.038	-1.50	.33703	.000	1
S4	5.0000	5.0214	.021	.429	.68688	.001	1
S5	10.000	10.030	.030	.302	1.3716	.002	1
S2	.80000	.78753	-.012	-1.56	.10807	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



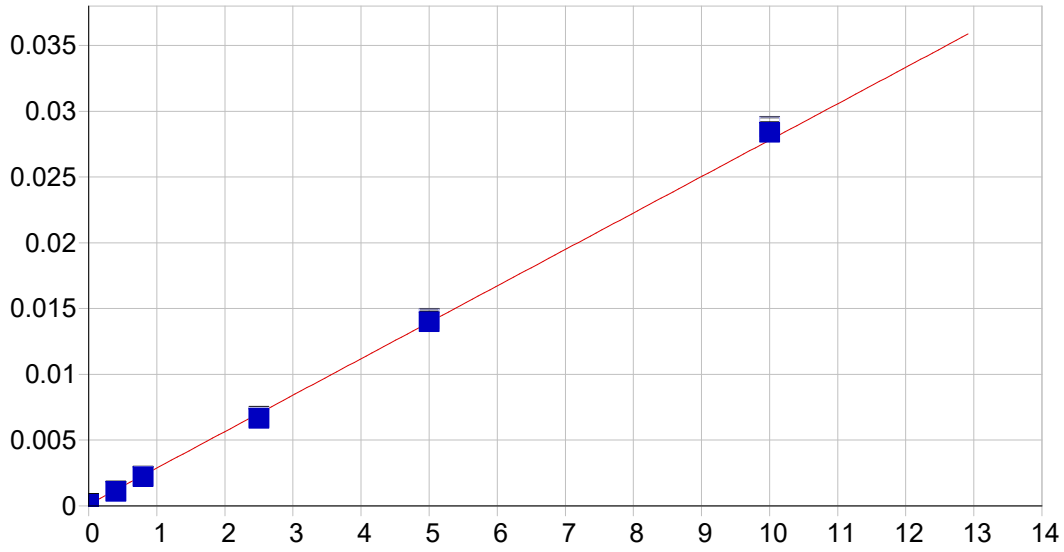
Ti 336.121 {100}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001129	Re-Slope:	1.000000
A1 (Gain):	0.274869	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000069		
Predicted MDL:	0.001625		
Predicted MQL:	0.005416		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00113	.000	1
S1	.04000	.03945	-.001	-1.37	.01197	.000	1
S3	2.5000	2.4559	-.044	-1.76	.67592	.000	1
S4	5.0000	5.0272	.027	.544	1.3824	.002	1
S5	10.000	10.024	.024	.237	2.7553	.004	1
S2	.80000	.79379	-.006	-.777	.21924	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



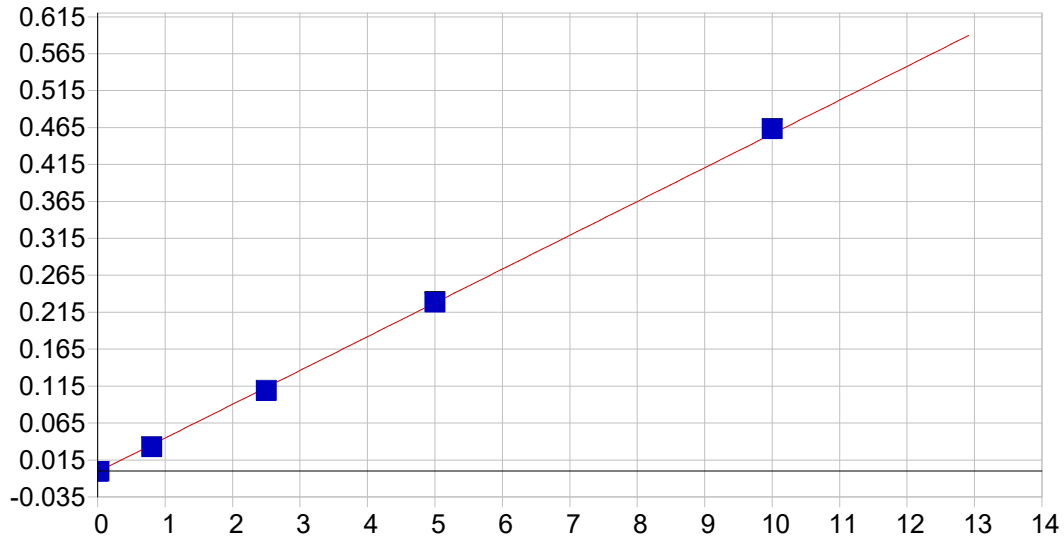
Si 288.158 {117}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000110	Re-Slope:	1.000000
A1 (Gain):	0.002769	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999477	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.012782		
Predicted MQL:	0.042607		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00011	.000	1
S1	.40000	.35350	-.047	-11.6	.00109	.000	1
S3	2.5000	2.3595	-.140	-5.62	.00675	.000	1
S4	5.0000	5.0154	.015	.309	.01421	.000	1
S5	10.000	10.213	.213	2.13	.02881	.000	1
S2	.80000	.75782	-.042	-5.27	.00224	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



P 177.495 {490}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001115	Re-Slope:	1.000000
A1 (Gain):	0.045751	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999686	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.001609		
Predicted MQL:	0.005363		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00111	.000	1
S1	.02000	.01847	-.002	-7.65	-.00027	.000	1
S3	2.5000	2.4066	-.093	-3.74	.10897	.000	1
S4	5.0000	5.0192	.019	.384	.22848	.001	1
S5	10.000	10.144	.144	1.44	.46290	.000	1
S2	.80000	.73206	-.068	-8.49	.03237	.000	1

Reviewed By:jaswal
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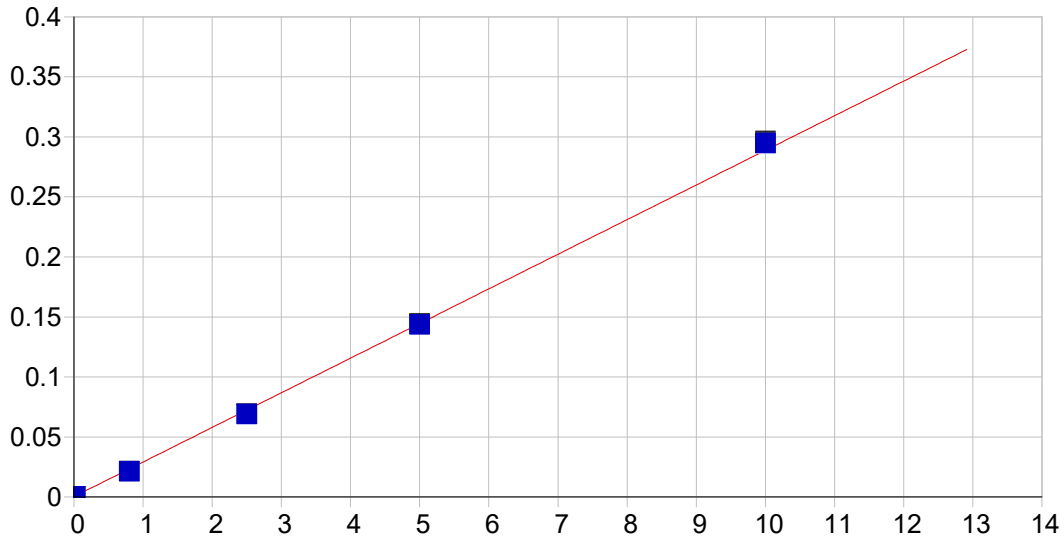
Inst Id :P4
LB :LB136940



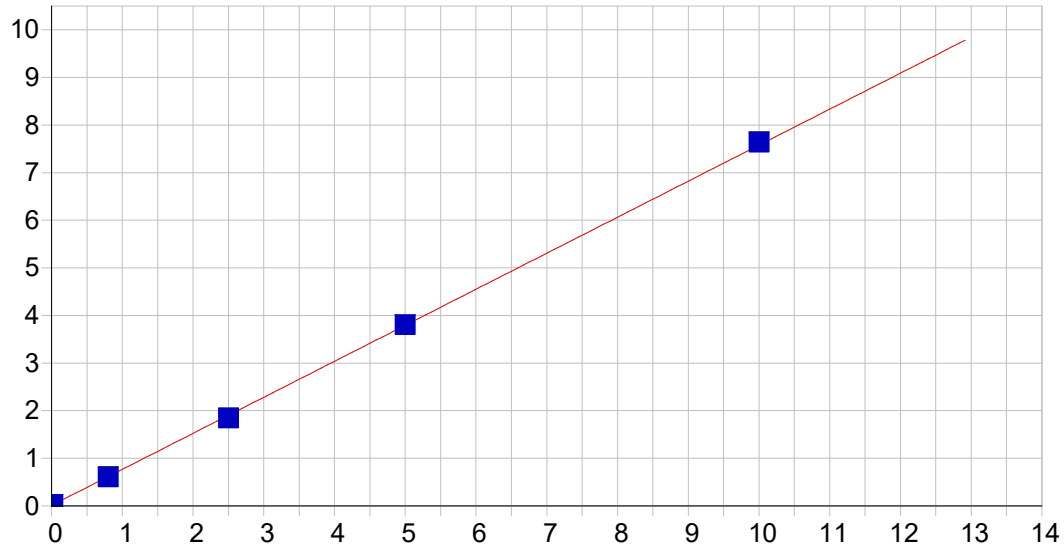
S 182.034 {485}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000217	Re-Slope:	1.000000
A1 (Gain):	0.028855	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999535	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.002770		
Predicted MQL:	0.009232		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00022	.000	1
S1	.02000	.01818	-.002	-9.09	.00072	.000	1
S3	2.5000	2.3817	-.118	-4.73	.06875	.000	1
S4	5.0000	4.9779	-.022	-.442	.14348	.000	1
S5	10.000	10.214	.214	2.14	.29420	.001	1
S2	.80000	.72796	-.072	-9.00	.02116	.000	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



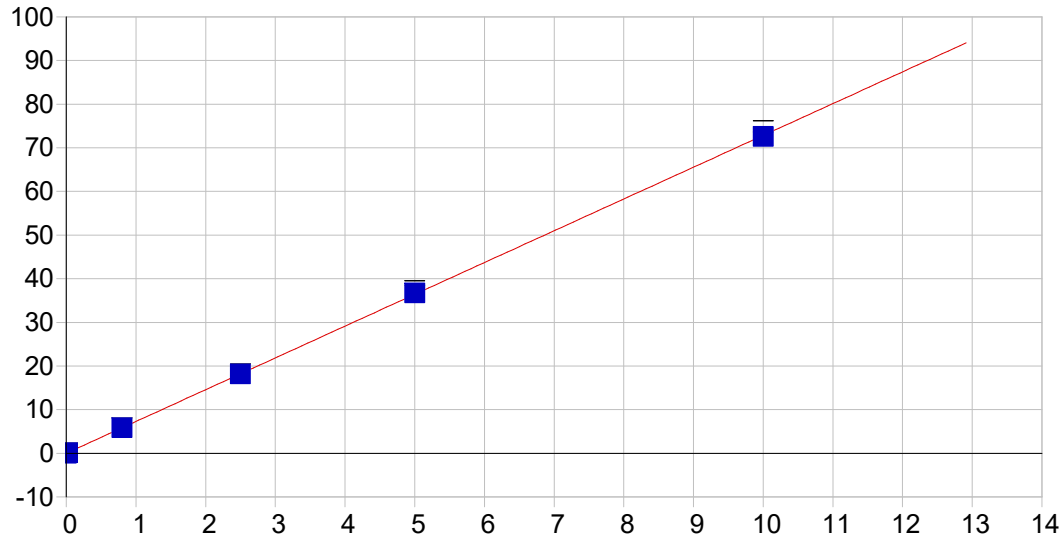
Li 670.784 { 50}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010827	Re-Slope:	1.000000
A1 (Gain):	0.756717	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999914	Status:	OK.
Std Error of Est:	0.000233		
Predicted MDL:	0.001882		
Predicted MQL:	0.006274		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01083	.001	1
S5	10.000	10.076	.076	.755	7.6412	.014	1
S4	5.0000	5.0122	.012	.244	3.8067	.001	1
S3	2.5000	2.4230	-.077	-3.08	1.8458	.004	1
S1	.02000	.02067	.001	3.36	.02673	.001	1
S2	.80000	.78861	-.011	-1.42	.60806	.001	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



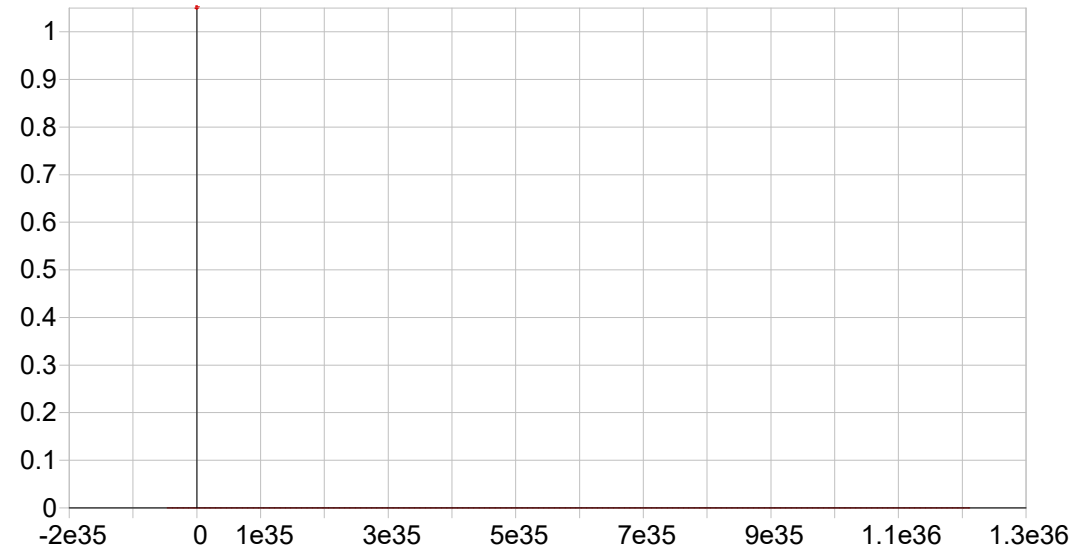
Sr 407.771 { 83}

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000360	Re-Slope:	1.000000
A1 (Gain):	7.284111	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000864		
Predicted MDL:	0.000104		
Predicted MQL:	0.000346		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00036	.001	1
S1	.02000	.02014	.000	.679	.14773	.001	1
S3	2.5000	2.4919	-.008	-.325	18.169	.066	1
S4	5.0000	5.0404	.040	.809	36.750	.545	1
S5	10.000	9.9664	-.034	-.336	72.666	1.28	1
S2	.80000	.80120	.001	.150	5.8420	.031	1

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

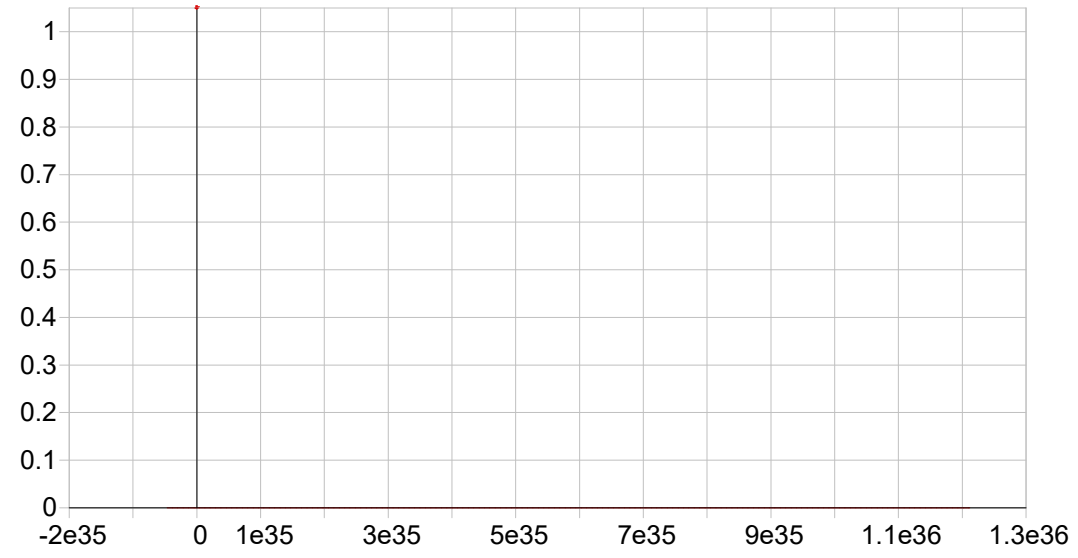


Y 224.306 {450}*

Date of Fit:	8/22/2025 11:35:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

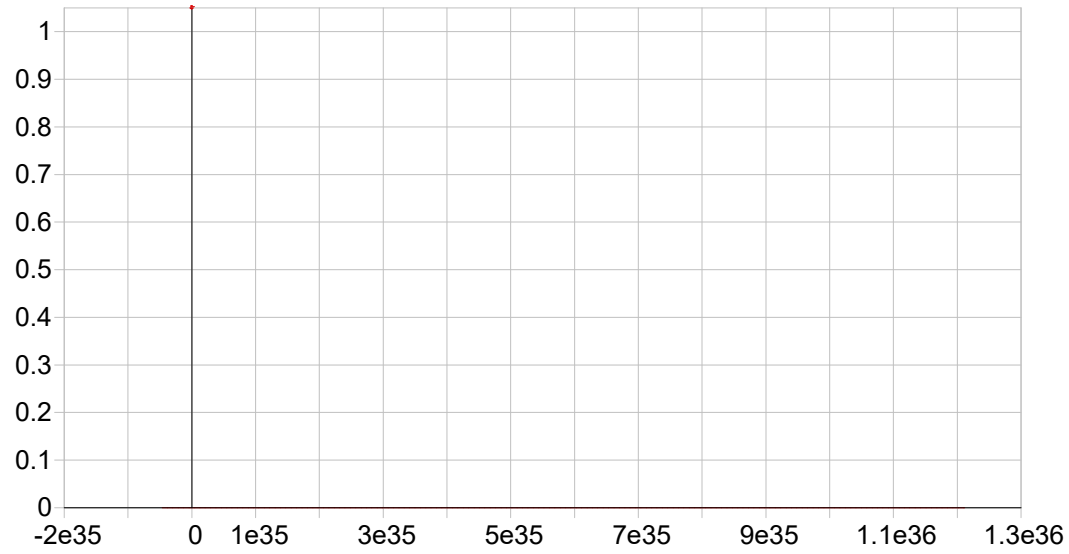
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



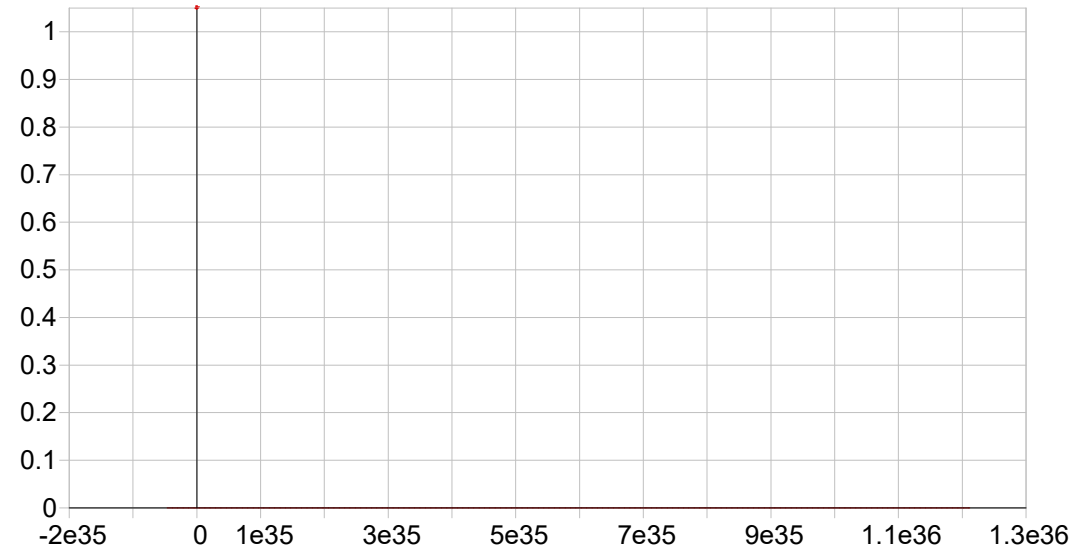
Y 371.030 { 91}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

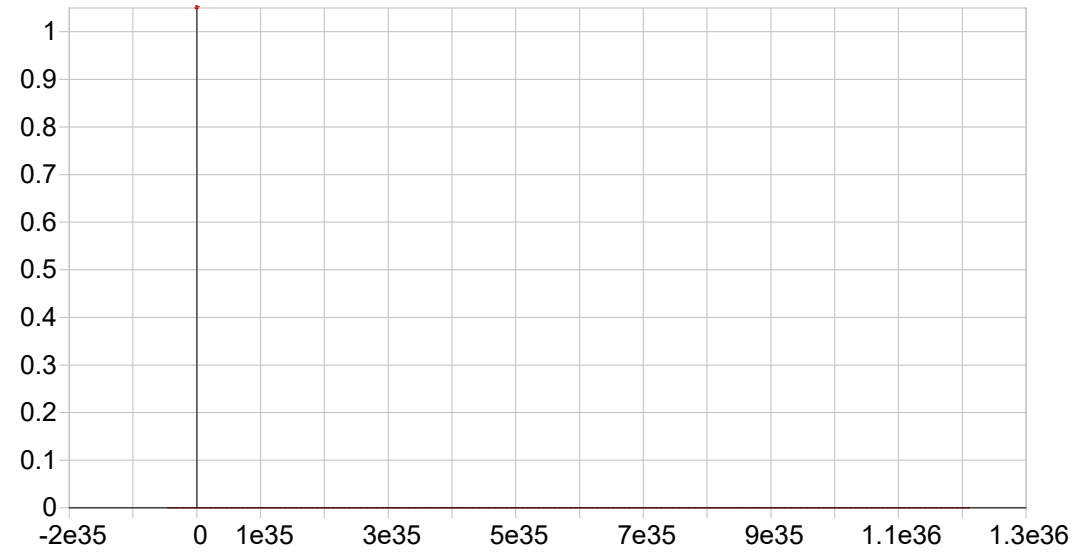
Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S0 Acquired: 8/22/2025 11:12:08 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00007**	**.00052**	**.00007**	**.00044**	**.00068**	**-.00029**	**.07646**	**-.00159**
Stddev	.00011	.00003	.00015	.00013	.00003	.00056	.00411	.00051
%RSD	161.96	5.5067	198.09	30.186	5.0833	193.20	5.3815	31.871
#1	.00003	.00053	-.00002	.00044	.00071	-.00088	.07178	-.00112
#2	-.00005	.00049	-.00000	.00057	.00065	-.00023	.07804	-.00151
#3	-.00018	.00055	.00024	.00031	.00067	.00024	.07954	-.00213

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00041**	**.00160**	**.00017**	**.00000**	**.00053**	**.00003**	**.00021**	**-.00014**
Stddev	.00003	.00035	.00004	.00004	.00012	.00002	.00023	.00030
%RSD	6.8687	21.869	24.503	1240.0	22.449	50.654	108.25	216.11
#1	-.00042	.00121	.00019	.00004	.00066	.00001	.00020	.00021
#2	-.00038	.00170	.00012	-.00003	.00042	.00004	-.00001	-.00030
#3	-.00043	.00188	.00020	.00001	.00051	.00004	.00045	-.00033

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00062**	**-.00078**	**.00242**	**-.00005**	**.00567**	**.00161**	**.00418**	**.00055**
Stddev	.00007	.00004	.00005	.00002	.00039	.00024	.00034	.00002
%RSD	11.627	5.1192	1.8842	34.115	6.9422	15.121	8.2031	4.1337
#1	-.00054	-.00077	.00237	-.00003	.00613	.00135	.00424	.00053
#2	-.00068	-.00074	.00246	-.00006	.00548	.00165	.00381	.00057
#3	-.00065	-.00082	.00244	-.00005	.00542	.00183	.00449	.00054

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00041**	**.00113**	**.00011**	**-.00111**	**.00022**	**.01083**	**.00036**
Stddev	.00002	.00015	.00005	.00003	.00001	.00149	.00095
%RSD	3.7917	13.224	47.362	2.7132	5.3524	13.770	264.57
#1	.00039	.00121	.00008	-.00115	.00021	.01255	-.00031
#2	.00042	.00122	.00008	-.00109	.00023	.00990	-.00005
#3	.00042	.00096	.00017	-.00111	.00022	.01004	.00144

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S0 Acquired: 8/22/2025 11:12:08 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6631.7	113570.	10881.	5311.4	8114.3
Stddev	10.2	154.	5.	22.4	24.4
%RSD	.15448	.13575	.04586	.42218	.30108
#1	6619.9	113560.	10877.	5312.3	8086.3
#2	6638.5	113730.	10878.	5333.4	8131.6
#3	6636.7	113420.	10886.	5288.6	8124.9

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S1 Acquired: 8/22/2025 11:16:31 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00089**	**.00347**	**.00223**	**.00113**	**.00474**	**.00738**	**.30071**	**.04077**
Stddev	.00002	.00004	.00006	.00007	.00009	.00029	.00161	.00037
%RSD	1.8377	1.2079	2.4795	6.4905	1.8686	3.9521	.53659	.89855
#1	.00090	.00345	.00216	.00105	.00483	.00771	.29926	.04119
#2	.00090	.00351	.00225	.00114	.00465	.00725	.30042	.04055
#3	.00087	.00344	.00226	.00120	.00474	.00718	.30245	.04056

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01597**	**.11297**	**.00202**	**.02867**	**.01301**	**.00034**	**.00888**	**.02407**
Stddev	.00020	.00072	.00006	.00006	.00012	.00001	.00020	.00024
%RSD	1.2232	.63426	3.1976	.22153	.93923	2.2962	2.2424	.99307
#1	.01619	.11235	.00200	.02873	.01291	.00035	.00885	.02414
#2	.01585	.11280	.00209	.02868	.01315	.00033	.00909	.02427
#3	.01586	.11375	.00196	.02860	.01297	.00034	.00869	.02380

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02174**	**.00112**	**.01721**	**.00444**	**.09309**	**.00918**	**.07440**	**.12182**
Stddev	.00021	.00004	.00013	.00027	.00054	.00018	.00031	.00030
%RSD	.98435	3.6212	.74379	6.0057	.58168	1.9990	.41359	.24400
#1	.02171	.00108	.01736	.00462	.09370	.00898	.07474	.12161
#2	.02196	.00116	.01714	.00457	.09270	.00934	.07431	.12169
#3	.02154	.00113	.01714	.00414	.09286	.00924	.07414	.12216

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00567**	**.01197**	**.00109**	**-.00027**	**.00072**	**.02673**	**.14773**
Stddev	.00005	.00019	.00002	.00003	.00013	.00128	.00065
%RSD	.85304	1.6047	2.0635	12.985	17.572	4.7890	.44152
#1	.00571	.01217	.00107	-.00030	.00070	.02546	.14848
#2	.00567	.01179	.00112	-.00027	.00085	.02802	.14726
#3	.00562	.01193	.00109	-.00023	.00060	.02673	.14745

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S1 Acquired: 8/22/2025 11:16:31 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6648.1	113110.	10729.	5320.5	7990.6
Stddev	8.6	387.	27.	20.1	11.1
%RSD	.12918	.34238	.24736	.37833	.13928
#1	6657.1	112890.	10716.	5312.2	7986.8
#2	6639.9	112890.	10760.	5305.9	7981.9
#3	6647.3	113560.	10713.	5343.5	8003.2

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S2 Acquired: 8/22/2025 11:20:47 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03570**	**.05944**	**.14649**	**.03361**	**.06745**	**.11491**	**3.5870**	**.26781**
Stddev	.00011	.00157	.00049	.00013	.00010	.00046	.0246	.00261
%RSD	.31407	2.6462	.33504	.37548	.14438	.40464	.68722	.97276
#1	.03567	.05869	.14698	.03357	.06742	.11525	3.5613	.26998
#2	.03583	.05839	.14600	.03350	.06737	.11438	3.5892	.26492
#3	.03561	.06125	.14647	.03375	.06756	.11510	3.6105	.26853

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.0843**	**.21905**	**.02916**	**.37893**	**.12158**	**.00238**	**.16225**	**.04370**
Stddev	.0016	.00060	.00005	.00033	.00031	.00003	.00129	.00024
%RSD	.14367	.27315	.16933	.08666	.25584	1.4492	.79774	.54958
#1	1.0860	.21893	.02911	.37921	.12143	.00234	.16200	.04387
#2	1.0832	.21970	.02915	.37900	.12138	.00241	.16111	.04342
#3	1.0836	.21852	.02921	.37857	.12194	.00238	.16366	.04379

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22057**	**.03581**	**.03109**	**.04720**	**.86220**	**.01657**	**.55263**	**.48054**
Stddev	.00018	.00014	.00045	.00021	.00113	.00029	.00511	.00074
%RSD	.08047	.39673	1.4430	.44202	.13064	1.7408	.92419	.15452
#1	.22076	.03589	.03059	.04703	.86254	.01625	.55730	.47981
#2	.22041	.03564	.03145	.04715	.86094	.01665	.54718	.48051
#3	.22054	.03589	.03124	.04743	.86311	.01682	.55341	.48129

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10807**	**.21924**	**.00224**	**.03237**	**.02116**	**.60806**	**5.8420**
Stddev	.00012	.00132	.00002	.00001	.00016	.00086	.0308
%RSD	.11113	.60005	.81307	.04477	.77688	.14118	.52755
#1	.10793	.21783	.00222	.03236	.02100	.60739	5.8138
#2	.10811	.21945	.00226	.03236	.02116	.60777	5.8372
#3	.10816	.22043	.00225	.03239	.02133	.60903	5.8749

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S2 Acquired: 8/22/2025 11:20:47 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6551.5	112090.	10840.	5263.4	7739.9
Stddev	8.1	398.	51.	12.9	13.8
%RSD	.12415	.35521	.47495	.24550	.17820
#1	6544.3	112470.	10789.	5270.1	7724.5
#2	6560.3	111680.	10892.	5271.6	7751.3
#3	6549.9	112130.	10839.	5248.5	7743.9

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S3 Acquired: 8/22/2025 11:24:51 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11274**	**.19207**	**.45702**	**.10537**	**.20915**	**.35751**	**10.978**	**.82460**
Stddev	.00035	.00273	.00094	.00022	.00017	.00096	.022	.00438
%RSD	.30700	1.4229	.20619	.20825	.08297	.26933	.19695	.53093
#1	.11248	.19494	.45776	.10562	.20911	.35847	10.969	.82908
#2	.11260	.19174	.45596	.10530	.20900	.35750	10.963	.82034
#3	.11313	.18951	.45734	.10520	.20934	.35655	11.003	.82439

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.4486**	**.67272**	**.08968**	**1.1935**	**.37350**	**.00744**	**.49693**	**.13417**
Stddev	.0049	.00051	.00014	.0014	.00047	.00009	.00095	.00042
%RSD	.14060	.07564	.15507	.11609	.12670	1.1749	.19155	.31139
#1	3.4499	.67294	.08966	1.1930	.37367	.00735	.49584	.13456
#2	3.4432	.67214	.08982	1.1924	.37296	.00753	.49737	.13373
#3	3.4526	.67309	.08954	1.1950	.37386	.00744	.49759	.13421

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.69417**	**.11168**	**.09246**	**.14671**	**2.6579**	**.05002**	**1.6851**	**1.4848**
Stddev	.00104	.00017	.00068	.00055	.0033	.00037	.0115	.0022
%RSD	.14914	.15063	.73999	.37704	.12470	.73780	.68158	.14933
#1	.69485	.11183	.09170	.14733	2.6599	.04959	1.6964	1.4859
#2	.69298	.11150	.09302	.14629	2.6541	.05019	1.6734	1.4823
#3	.69468	.11171	.09265	.14649	2.6597	.05027	1.6854	1.4864

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.33703**	**.67592**	**.00675**	**.10897**	**.06875**	**1.8458**	**18.169**
Stddev	.00045	.00041	.00006	.00016	.00025	.0037	.066
%RSD	.13389	.06059	.81816	.14300	.36752	.20019	.36406
#1	.33728	.67607	.00671	.10915	.06901	1.8439	18.233
#2	.33651	.67546	.00681	.10886	.06851	1.8435	18.101
#3	.33729	.67624	.00672	.10891	.06874	1.8501	18.172

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S3 Acquired: 8/22/2025 11:24:51 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6456.0	110720.	10945.	5160.4	7422.2
Stddev	16.4	213.	79.	16.2	16.7
%RSD	.25477	.19200	.71761	.31331	.22502
#1	6444.0	110670.	10859.	5177.7	7408.8
#2	6474.7	110540.	11014.	5145.7	7440.9
#3	6449.3	110960.	10961.	5157.7	7416.9

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S4 Acquired: 8/22/2025 11:28:55 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.23100	.37748	.93525	.21387	.42586	.72696	22.439	1.6490
Stddev	.00018	.00886	.00096	.00037	.00048	.00239	.197	.0106
%RSD	.07753	2.3461	.10286	.17261	.11334	.32839	.87860	.64384
#1	.23086	.38749	.93431	.21370	.42552	.72530	22.315	1.6404
#2	.23120	.37430	.93521	.21429	.42641	.72970	22.666	1.6609
#3	.23093	.37066	.93623	.21362	.42565	.72589	22.336	1.6458

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.1363	1.3638	.18081	2.4608	.74927	.01531	1.0111	.27333
Stddev	.0117	.0011	.00009	.0034	.00037	.00018	.0024	.00157
%RSD	.16415	.08319	.05198	.14034	.04986	1.1479	.23547	.57499
#1	7.1334	1.3636	.18071	2.4589	.74897	.01548	1.0139	.27283
#2	7.1263	1.3650	.18083	2.4587	.74969	.01513	1.0096	.27509
#3	7.1492	1.3628	.18090	2.4648	.74915	.01532	1.0100	.27206

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4285	.22873	.19612	.30179	5.3766	.10322	3.4140	3.0083
Stddev	.0022	.00021	.00153	.00075	.0101	.00092	.0204	.0024
%RSD	.15510	.09110	.78153	.24854	.18817	.89485	.59850	.08123
#1	1.4275	.22895	.19755	.30107	5.3856	.10383	3.3997	3.0072
#2	1.4271	.22853	.19450	.30257	5.3786	.10216	3.4374	3.0111
#3	1.4311	.22872	.19631	.30172	5.3657	.10368	3.4049	3.0067

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.68688	1.3824	.01421	.22848	.14348	3.8067	36.750
Stddev	.00133	.0015	.00004	.00088	.00043	.0009	.545
%RSD	.19392	.11020	.31490	.38330	.30159	.02433	1.4840
#1	.68834	1.3831	.01424	.22936	.14393	3.8062	36.129
#2	.68573	1.3835	.01416	.22847	.14343	3.8061	36.972
#3	.68656	1.3807	.01422	.22761	.14307	3.8077	37.150

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S4 Acquired: 8/22/2025 11:28:55 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6284.2**	**107690.**	**10821.**	**4992.4**	**7058.7**
Stddev	5.9	76.	88.	14.4	6.2
%RSD	.09463	.07038	.81326	.28824	.08797
#1	6290.0	107690.	10893.	4991.1	7057.1
#2	6278.1	107770.	10723.	4978.8	7065.5
#3	6284.3	107620.	10846.	5007.5	7053.4

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S5 Acquired: 8/22/2025 11:33:06 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.45772	.73653	1.8864	.42126	.84393	1.4508	44.734	3.2109
Stddev	.00066	.01148	.0026	.00145	.00334	.0014	.395	.0238
%RSD	.14338	1.5582	.13616	.34398	.39526	.09441	.88272	.74259
#1	.45754	.72453	1.8893	.42010	.84174	1.4521	44.328	3.2035
#2	.45717	.73766	1.8858	.42078	.84229	1.4494	44.758	3.1917
#3	.45845	.74740	1.8842	.42288	.84777	1.4511	45.116	3.2376

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14.338	2.6894	.35295	4.9650	1.4662	.03061	1.9834	.54274
Stddev	.025	.0027	.00144	.0031	.0020	.00013	.0071	.00118
%RSD	.17194	.10075	.40676	.06282	.13773	.42439	.35621	.21795
#1	14.363	2.6925	.35282	4.9686	1.4653	.03054	1.9762	.54162
#2	14.337	2.6875	.35158	4.9635	1.4649	.03076	1.9838	.54261
#3	14.313	2.6882	.35445	4.9630	1.4686	.03052	1.9903	.54398

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.8722	.45246	.39648	.60154	10.397	.20837	6.6317	5.9414
Stddev	.0017	.00078	.00151	.00121	.003	.00095	.0400	.0109
%RSD	.06029	.17346	.37986	.20063	.02770	.45513	.60362	.18330
#1	2.8742	.45287	.39629	.60116	10.399	.20797	6.6228	5.9373
#2	2.8711	.45155	.39807	.60058	10.393	.20946	6.5969	5.9332
#3	2.8712	.45295	.39507	.60290	10.398	.20769	6.6754	5.9538

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3716	2.7553	.02881	.46290	.29420	7.6412	72.666
Stddev	.0023	.0045	.00005	.00044	.00149	.0137	1.277
%RSD	.16661	.16235	.18562	.09582	.50681	.17913	1.7569
#1	1.3738	2.7512	.02877	.46247	.29261	7.6254	71.827
#2	1.3717	2.7548	.02887	.46335	.29441	7.6497	72.036
#3	1.3693	2.7601	.02879	.46287	.29557	7.6485	74.136

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: S5 Acquired: 8/22/2025 11:33:06 Type: Cal
Method: 6010-200.7 NEW(v124) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6248.3**	**107620.**	**10915.**	**4978.2**	**6836.4**
Stddev	23.2	178.	71.	18.7	31.4
%RSD	.37186	.16522	.64641	.37654	.46002
#1	6221.6	107830.	10964.	4998.6	6801.1
#2	6263.4	107530.	10947.	4974.2	6846.7
#3	6259.9	107510.	10834.	4961.8	6861.4

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICV01 Acquired: 8/22/2025 11:37:16 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.879213**	**3.787046**	**3.918583**	**3.926393**	**4.034998**	**7.749909**
Stddev	.012269	.112690	.002473	.013454	.006443	.010804
%RSD	.3162686	2.975661	.0631072	.3426603	.1596658	.1394088
#1	3.893211	3.912540	3.921292	3.939728	4.036341	7.737448
#2	3.870327	3.694509	3.918007	3.912822	4.027989	7.756664
#3	3.874100	3.754089	3.916448	3.926629	4.040662	7.755614

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.701390**	**.1990208**	**1.909015**	**19.33568**	**.7903843**	**1.933825**
Stddev	.187836	.0004415	.001208	.04454	.0031852	.000339
%RSD	2.438993	.2218562	.0632702	.2303333	.4029906	.0175479
#1	7.917400	.1991419	1.910402	19.32193	.7907582	1.933440
#2	7.610333	.1985314	1.908449	19.29964	.7870287	1.933954
#3	7.576438	.1993892	1.908194	19.38547	.7933661	1.934080

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9974281**	**3.891899**	**1.934606**	**19.44320**	**1.931284**	**.9609409**
Stddev	.0017790	.011529	.009087	.03662	.001754	.0009838
%RSD	.1783561	.2962281	.4696860	.1883434	.0907944	.1023742
#1	.9969321	3.879149	1.924747	19.40119	1.933161	.9600680
#2	.9959499	3.894961	1.936425	19.46009	1.931003	.9620069
#3	.9994025	3.901588	1.942645	19.46833	1.929688	.9607480

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.91726**	**1.967455**	**1.961268**	**19.16754**	F **.0129348**	F **.0004008**
Stddev	.09297	.004570	.002018	.04843	.0004808	.0000781
%RSD	.4914708	.2322714	.1028699	.2526849	3.716677	19.49296
#1	18.82343	1.966093	1.961105	19.11365	.0134767	.0003474
#2	18.91901	1.972551	1.963363	19.18155	.0125595	.0003645
#3	19.00935	1.963721	1.959338	19.20743	.0127682	.0004904

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICV01 Acquired: 8/22/2025 11:37:16 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0009268	F -.002296	F -.043148	F .0033692	F .0098641	F -.002374
Stddev	.0004437	.000064	.006717	.0017421	.0012700	.000629
%RSD	47.87288	2.797805	15.56602	51.70576	12.87456	26.48647
#1	.0008086	-.002356	-.048104	.0028507	.0090649	-.001674
#2	.0014176	-.002304	-.035504	.0019452	.0091989	-.002560
#3	.0005541	-.002228	-.045837	.0053117	.0113285	-.002890

Elem	Sr4077
Units	ppm
Avg	F -.003100
Stddev	.000040
%RSD	1.290056
#1	-.003110
#2	-.003134
#3	-.003056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6492.159	111938.4	11334.13	5220.126	7429.141
Stddev	2.293	650.4	76.62	31.470	9.555
%RSD	.0353153	.5809952	.6760423	.6028672	.1286130
#1	6492.384	112044.8	11327.08	5206.491	7421.089
#2	6494.330	112529.1	11414.03	5256.114	7426.635
#3	6489.761	111241.5	11261.27	5197.772	7439.699

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LLICV01 Acquired: 8/22/2025 11:45:34 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0232679	.0425170	.0130198	.0187415	.0526136	.1087921	.0982972
Stddev	.0011101	.0021067	.0002483	.0014561	.0006083	.0092925	.0006717
%RSD	4.770824	4.954930	1.907265	7.769312	1.156218	8.541542	.6833115
#1	.0239458	.0400868	.0132910	.0204214	.0531933	.1002037	.0977829
#2	.0238710	.0436396	.0129649	.0179612	.0526673	.1186568	.0990571
#3	.0219868	.0438247	.0128035	.0178419	.0519802	.1075158	.0980516

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063298	.0057084	2.046662	.0103677	.0294097	.0211875	.0950966
Stddev	.0000557	.0000281	.011865	.0002912	.0002852	.0005992	.0029309
%RSD	.8805185	.4918118	.5797184	2.808311	.9696106	2.827893	3.082078
#1	.0062654	.0056850	2.041568	.0106416	.0290804	.0216509	.0919462
#2	.0063615	.0057005	2.038194	.0100619	.0295752	.0205109	.0977426
#3	.0063624	.0057395	2.060223	.0103996	.0295735	.0214007	.0956010

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0220958	2.163455	.0395564	.0102714	1.819148	.0385148	.0419269
Stddev	.0002289	.019493	.0004024	.0000489	.012787	.0004941	.0003861
%RSD	1.035916	.9010093	1.017301	.4756303	.7029011	1.282816	.9208619
#1	.0218629	2.166358	.0393155	.0103021	1.826121	.0381271	.0423637
#2	.0223205	2.142673	.0393328	.0102971	1.804391	.0383463	.0416312
#3	.0221039	2.181333	.0400210	.0102151	1.826933	.0390711	.0417858

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.739810	.1076887	.2047347	.0408391	.0398098	.3496126	.0179281
Stddev	.013036	.0014834	.0004205	.0002731	.0009771	.0065216	.0014224
%RSD	.7492668	1.377514	.2053639	.6686110	2.454430	1.865382	7.934132
#1	1.733481	.1059902	.2042546	.0411498	.0407350	.3565049	.0195638
#2	1.754802	.1087299	.2050368	.0407302	.0387879	.3487938	.0169809
#3	1.731147	.1083461	.2049128	.0406373	.0399065	.3435391	.0172396

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LLICV01 Acquired: 8/22/2025 11:45:34 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0210894	.0180576	.0199106
Stddev	.0008261	.0008375	.0000584
%RSD	3.916954	4.637891	.2932244
#1	.0220214	.0190234	.0199356
#2	.0204475	.0176180	.0199522
#3	.0207993	.0175314	.0198438

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6608.414	115517.1	11124.58	5306.907	7984.257
Stddev	14.045	291.1	90.41	19.428	19.234
%RSD	.2125340	.2519591	.8127059	.3660837	.2408930
#1	6623.369	115853.2	11219.60	5327.659	7997.301
#2	6606.369	115347.8	11039.62	5303.910	7993.303
#3	6595.503	115350.3	11114.52	5289.151	7962.169

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICB01 Acquired: 8/22/2025 11:50:12 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001201**	**-.000160**	**.0002505**	**-.000640**	**-.000391**	**.0103868**	**.0001923**
Stddev	.002078	.002038	.0006139	.001487	.000598	.0050678	.0006680
%RSD	172.9208	1275.190	245.0991	232.4625	152.7268	48.79151	347.4058
#1	-.003539	-.002422	.0009191	.000893	.000213	.0136574	.0009493
#2	.000434	.000407	.0001200	-.000735	-.000405	.0045490	-.000315
#3	-.000499	.001535	-.000288	-.002076	-.000982	.0129539	-.000058

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**.0000488**	**-.001931**	**.0001970**	**-.000024**	**-.000430**	**.0009052**
Stddev	.000044	.0000300	.001900	.0003341	.000136	.000265	.0026409
%RSD	93.70788	61.34725	98.39285	169.5960	572.7847	61.56888	291.7503
#1	-.000074	.0000347	-.001745	.0002606	-.000171	-.000608	-.001331
#2	.000004	.0000285	-.003918	-.000164	.000097	-.000557	.003819
#3	-.000070	.0000832	-.000131	.000495	.000003	-.000126	.000227

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004454**	**.0243452**	**-.000006**	**.0001215**	**-.062706**	**.0001726**	**-.000203**
Stddev	.0008040	.0252997	.000170	.0000385	.011281	.0016884	.000239
%RSD	180.5137	103.9206	2954.536	31.71127	17.99051	978.0382	117.7864
#1	.0010173	.0305025	.000166	.0000854	-.075344	-.000404	.000023
#2	-.000474	.0459980	-.000010	.0001621	-.053652	.002074	-.000453
#3	.000793	-.003465	-.000173	.0001172	-.059122	-.001152	-.000178

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.156833**	**.0028763**	**-.000209**	**.0136980**	**.0011377**	**.0087568**	**-.000489**
Stddev	.021361	.0006728	.000088	.0000612	.0007130	.0034097	.001297
%RSD	13.62010	23.39157	42.11816	.4467556	62.66568	38.93798	265.1205
#1	-.169461	.0024500	-.000262	.0136294	.0003146	.0097187	-.001976
#2	-.168867	.0025270	-.000257	.0137470	.0015363	.0115822	.000101
#3	-.132170	.0036520	-.000107	.0137176	.0015623	.0049694	.000407

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICB01 Acquired: 8/22/2025 11:50:12 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001218**	**-.003059**	**-.000077**
Stddev	.001616	.000858	.000011
%RSD	132.6299	28.05023	14.92554
#1	-.001509	-.002454	-.000082
#2	-.002669	-.004042	-.000063
#3	.000523	-.002683	-.000084

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6684.105**	**114558.6**	**11159.75**	**5294.200**	**8208.851**
Stddev	4.811	321.0	74.39	20.634	2.847
%RSD	.0719795	.2801906	.6666158	.3897540	.0346835
#1	6685.941	114921.5	11142.41	5317.834	8212.076
#2	6678.647	114311.7	11095.57	5279.765	8207.792
#3	6687.729	114442.7	11241.29	5285.001	8206.685

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CRI01 Acquired: 8/22/2025 11:56:17 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0200022	.0425717	.0122454	.0199661	.0495283	.1059014	.0960935
Stddev	.0016633	.0015530	.0002639	.0017154	.0008927	.0100594	.0003344
%RSD	8.315719	3.647937	2.154943	8.591415	1.802319	9.498869	.3480336
#1	.0196455	.0409781	.0125098	.0194609	.0485010	.1108487	.0957741
#2	.0218150	.0426565	.0119820	.0185600	.0501151	.0943264	.0960653
#3	.0185462	.0440806	.0122443	.0218773	.0499688	.1125292	.0964412

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063124	.0057612	2.018788	.0105562	.0294971	.0210161	.0990503
Stddev	.0000171	.0000334	.017917	.0000431	.0000910	.0004680	.0038605
%RSD	.2715449	.5802455	.8875331	.4079476	.3084679	2.226971	3.897508
#1	.0063151	.0057901	2.033536	.0105732	.0295994	.0208552	.0979664
#2	.0063281	.0057689	1.998848	.0105881	.0294250	.0215434	.0958477
#3	.0062941	.0057246	2.023980	.0105072	.0294670	.0206498	.1033369

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214641	2.142497	.0396200	.0099397	1.741142	.0376539	.0414397
Stddev	.0000816	.021678	.0005789	.0001849	.006778	.0004438	.0001970
%RSD	.3799706	1.011808	1.461132	1.860285	.3892956	1.178508	.4753151
#1	.0213705	2.134967	.0391900	.0101184	1.747448	.0380585	.0412123
#2	.0215014	2.166936	.0402783	.0099516	1.742004	.0377238	.0415563
#3	.0215203	2.125588	.0393918	.0097492	1.733974	.0371793	.0415507

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.693976	.1029431	.2044016	.0389799	.0387424	.3556975	.0173952
Stddev	.050371	.0004764	.0001681	.0005708	.0009505	.0043573	.0002821
%RSD	2.973552	.4628031	.0822308	1.464259	2.453404	1.225013	1.621903
#1	1.636714	.1030702	.2043470	.0383732	.0379070	.3526912	.0170829
#2	1.713774	.1024160	.2042677	.0390604	.0397765	.3606947	.0176316
#3	1.731441	.1033431	.2045902	.0395062	.0385436	.3537067	.0174711

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CRI01 Acquired: 8/22/2025 11:56:17 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0197863	.0157131	.0194366
Stddev	.0017894	.0010136	.0000922
%RSD	9.043722	6.450946	.4742683
#1	.0188150	.0163998	.0193876
#2	.0218513	.0145489	.0195429
#3	.0186926	.0161906	.0193793

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6583.659	114390.2	11195.20	5269.004	7949.491
Stddev	2.903	458.7	37.46	6.781	6.671
%RSD	.0440994	.4010113	.3346235	.1286889	.0839226
#1	6580.695	113877.7	11152.56	5263.195	7944.728
#2	6583.785	114762.3	11222.79	5276.455	7957.116
#3	6586.498	114530.6	11210.27	5267.361	7946.629

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSA01 Acquired: 8/22/2025 12:00:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107847	-.000942	-.007227	.0007292	-.002845	246.1617
Stddev	.0028143	.003535	.001228	.0027051	.001539	.6340
%RSD	26.09513	375.4024	16.98969	370.9594	54.07721	.2575588
#1	.0075682	.002126	-.008147	.0014641	-.001317	245.8394
#2	.0127939	-.004807	-.007700	.0029910	-.004394	246.8922
#3	.0119921	-.000143	-.005833	-.002267	-.002826	245.7536

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028840	.0015993	.0019977	233.7191	.0618599	.0017267
Stddev	.0002744	.0000999	.0000454	.5971	.0000708	.0002853
%RSD	9.516157	6.248081	2.270757	.2554627	.1144355	16.52162
#1	.0026850	.0015111	.0020244	233.5248	.0619126	.0017593
#2	.0027698	.0017078	.0019454	234.3891	.0617794	.0019943
#3	.0031971	.0015789	.0020235	233.2434	.0618877	.0014266

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086744	98.84809	.0086146	248.8673	.0062198	.0013839
Stddev	.0005280	.48576	.0005851	1.0278	.0000353	.0004561
%RSD	6.087209	.4914159	6.792021	.4129851	.5677709	32.95373
#1	.0085395	98.82630	.0092580	248.4418	.0062000	.0009760
#2	.0092567	98.37360	.0084711	250.0395	.0062605	.0012995
#3	.0082268	99.34438	.0081145	248.1205	.0061988	.0018763

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1428804	.0024096	.0025681	.3101033	.0480622	.0011258
Stddev	.0077034	.0025181	.0002760	.0400724	.0040904	.0001318
%RSD	5.391514	104.5021	10.74575	12.92228	8.510623	11.70546
#1	.1431664	.0052464	.0022633	.2828235	.0488472	.0010673
#2	.1350380	.0004391	.0028011	.2913757	.0436362	.0012766
#3	.1504369	.0015432	.0026397	.3561108	.0517032	.0010333

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSA01 Acquired: 8/22/2025 12:00:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002460**	**-.003500**	**.0122710**	**.0055243**	**-.006493**	F **-.031185**
Stddev	.000647	.001934	.0052198	.0014380	.003826	.002779
%RSD	26.31794	55.26181	42.53775	26.03000	58.92046	8.910565
#1	-.002616	-.005700	.0065561	.0046208	-.010240	-.033759
#2	-.001749	-.002731	.0134699	.0071826	-.002592	-.031557
#3	-.003015	-.002068	.0167872	.0047697	-.006649	-.028239

Elem	Sr4077
Units	ppm
Avg	**.0011753**
Stddev	.0005842
%RSD	49.70789
#1	.0010234
#2	.0018205
#3	.0006821

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5937.412**	**100813.8**	**10859.53**	**4731.012**	**6437.231**
Stddev	4.184	491.9	38.67	18.995	7.520
%RSD	.0704616	.4878806	.3561131	.4014960	.1168179
#1	5942.053	100649.5	10888.76	4714.952	6443.173
#2	5936.254	101366.8	10815.68	4751.979	6439.743
#3	5933.930	100425.2	10874.16	4726.105	6428.777

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSAB01 Acquired: 8/22/2025 12:04:58 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1096085**	**.1021213**	**.0397354**	**.0519894**	**.6021555**	**249.2616**
Stddev	.0010924	.0034331	.0007407	.0031768	.0021563	.2174
%RSD	.9966574	3.361749	1.864067	6.110424	.3580967	.0872181
#1	.1083479	.1038278	.0405893	.0535812	.6044844	249.4860
#2	.1101993	.0981693	.0392659	.0540557	.6017538	249.0519
#3	.1102783	.1043667	.0393510	.0483315	.6002283	249.2468

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4894703**	**.5004968**	**.9889491**	**236.8765**	**.5654069**	**.4983283**
Stddev	.0020699	.0012450	.0009659	.2108	.0020421	.0006853
%RSD	.4228910	.2487437	.0976695	.0890008	.3611749	.1375197
#1	.4898852	.5007861	.9891906	236.9700	.5631003	.4983685
#2	.4872244	.5015717	.9878854	236.6351	.5669844	.4976237
#3	.4913014	.4991327	.9897714	237.0243	.5661361	.4989926

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4913945**	**99.99844**	**.4892778**	**251.6194**	**.9902883**	**.2149146**
Stddev	.0008396	.44224	.0017659	.3679	.0001830	.0008784
%RSD	.1708539	.4422519	.3609122	.1461995	.0184741	.4087086
#1	.4906917	100.0558	.4912595	251.9997	.9901834	.2159238
#2	.4923242	99.5303	.4878711	251.5932	.9901819	.2143219
#3	.4911675	100.4092	.4887029	251.2653	.9904995	.2144982

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057133**	**.4857533**	**1.041884**	**-.267913**	F **.0550045**	F **.0011793**
Stddev	.0183411	.0028881	.002266	.009474	.0026611	.0000761
%RSD	321.0250	.5945681	.2174868	3.536182	4.838012	6.450166
#1	-.014119	.4880461	1.044275	-.278506	.0565949	.0010936
#2	.009196	.4867043	1.039769	-.260249	.0519324	.0012056
#3	.022064	.4825097	1.041608	-.264985	.0564863	.0012387

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSAB01 Acquired: 8/22/2025 12:04:58 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.002014	F -.006421	F .0139563	F .0084377	F -.003199	F -.033000
Stddev	.000222	.001784	.0085343	.0015852	.002080	.001001
%RSD	11.00179	27.79161	61.14978	18.78722	65.02042	3.032607
#1	-.002178	-.006313	.0215974	.0073649	-.003347	-.034008
#2	-.002101	-.008257	.0155251	.0076897	-.005200	-.032985
#3	-.001762	-.004693	.0047465	.0102585	-.001049	-.032007

Elem	Sr4077
Units	ppm
Avg	F .0015134
Stddev	.0003745
%RSD	24.74522
#1	.0016409
#2	.0018076
#3	.0010918

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5934.303	100971.0	10891.33	4710.336	6448.417
Stddev	6.783	445.6	52.58	15.592	3.765
%RSD	.1143035	.4413162	.4827336	.3310094	.0583879
#1	5941.611	101472.7	10928.84	4728.289	6449.144
#2	5928.209	100621.5	10831.23	4700.188	6444.341
#3	5933.088	100818.7	10913.91	4702.532	6451.765

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSADLX20 Acquired: 8/22/2025 12:09:12 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004029	.0010577	-.000044	-.001823	-.003080	12.26526	-.000272
Stddev	.0018363	.0010270	.001517	.002631	.001418	.03118	.000627
%RSD	455.7569	97.09022	3484.723	144.2980	46.03338	.2541946	230.3117
#1	.0017717	.0008517	.000701	-.000219	-.001992	12.23826	.000166
#2	-.001684	.0021721	.000957	-.000391	-.002564	12.29939	.000008
#3	.001121	.0001495	-.001789	-.004860	-.004683	12.25814	-.000991

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001727	.0000943	12.14487	.0029717	.0000281	.0001808	4.788063
Stddev	.0000193	.0000359	.01557	.0002922	.0001190	.0001863	.027317
%RSD	11.18230	38.09430	.1282245	9.832756	424.3374	103.0607	.5705143
#1	.0001720	.0001255	12.12714	.0026408	.0001506	-.000001	4.814114
#2	.0001538	.0000550	12.15109	.0031944	.0000207	.000371	4.790438
#3	.0001924	.0001023	12.15636	.0030798	-.000087	.000172	4.759636

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008283	12.69587	.0003913	.0002485	-.149622	-.000357	-.000493
Stddev	.0002600	.02772	.0000663	.0004964	.015600	.001952	.000283
%RSD	31.38314	.2183555	16.93416	199.7214	10.42629	547.4027	57.45733
#1	.0010107	12.67367	.0004255	-.000311	-.167586	.000787	-.000779
#2	.0009436	12.72694	.0004335	.000637	-.139479	.000754	-.000487
#3	.0005307	12.68699	.0003149	.000420	-.141802	-.002610	-.000213

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.522933	.0007300	-.000042	-.000809	.0000887	-.000463	-.000724
Stddev	.005403	.0004818	.000275	.000370	.0006986	.010508	.000649
%RSD	1.033220	66.00131	654.6870	45.77390	787.6069	2270.319	89.67341
#1	-.517402	.0012307	-.000266	-.001123	-.000358	-.010667	-.000892
#2	-.523201	.0006897	.000264	-.000401	-.000270	-.001046	-.001272
#3	-.528198	.0002696	-.000124	-.000904	.000894	.010325	-.000007

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSADLX20 Acquired: 8/22/2025 12:09:12 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002393	-.006111	.0001725
Stddev	.001517	.000789	.0000261
%RSD	63.38157	12.90829	15.13447
#1	-.003958	-.005411	.0001761
#2	-.002290	-.005957	.0001967
#3	-.000930	-.006966	.0001448

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6614.242	112578.4	11190.46	5200.649	7891.033
Stddev	14.124	525.3	5.96	25.181	17.501
%RSD	.2135376	.4665820	.0532490	.4841943	.2217885
#1	6626.633	112009.1	11183.70	5206.815	7903.057
#2	6617.230	112681.9	11194.98	5172.958	7899.088
#3	6598.863	113044.3	11192.68	5222.175	7870.955

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSABDLX20 Acquired: 8/22/2025 12:13:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048104	.0043219	.0041046	.0013196	.0295023	12.19088	.0213919
Stddev	.0019617	.0012606	.0013841	.0011762	.0003835	.03164	.0003563
%RSD	40.78050	29.16829	33.72001	89.13302	1.300024	.2595110	1.665577
#1	.0062801	.0039648	.0028438	.0021423	.0295056	12.21600	.0215221
#2	.0055684	.0032784	.0055855	-.000028	.0291171	12.15535	.0209889
#3	.0025828	.0057226	.0038843	.001844	.0298842	12.20128	.0216649

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0252221	.0472120	12.07308	.0282658	.0238039	.0253589	4.866962
Stddev	.0001383	.0000470	.03519	.0001390	.0001120	.0002686	.014796
%RSD	.5484196	.0995006	.2914456	.4917251	.4706083	1.059021	.3040152
#1	.0253787	.0472169	12.11356	.0284074	.0237762	.0251374	4.853117
#2	.0251165	.0472564	12.04980	.0281296	.0239272	.0256576	4.865216
#3	.0251712	.0471628	12.05589	.0282603	.0237084	.0252818	4.882554

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250458	12.59572	.0481107	.0098099	-.168846	.0235848	.0509034
Stddev	.0005218	.00730	.0001513	.0002089	.029148	.0017796	.0007645
%RSD	2.083226	.0579761	.3144709	2.129771	17.26309	7.545484	1.501797
#1	.0256483	12.60367	.0479368	.0096253	-.201106	.0242392	.0500715
#2	.0247416	12.59418	.0481827	.0100367	-.144403	.0249445	.0510639
#3	.0247475	12.58931	.0482125	.0097676	-.161030	.0215706	.0515749

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.528806	-.000545	.0000910	-.000696	-.000739	.0017869	.0013037
Stddev	.013974	.000682	.0001356	.000455	.000771	.0104019	.0013579
%RSD	2.642486	125.1233	148.9756	65.46781	104.3809	582.1112	104.1594
#1	-.522509	-.001332	.0002150	-.000602	-.001623	.0091386	.0028175
#2	-.544820	-.000119	.0001118	-.001191	-.000388	-.010115	.0001928
#3	-.519089	-.000184	-.000054	-.000294	-.000205	.006337	.0009009

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: ICSABDLX20 Acquired: 8/22/2025 12:13:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0010200	-.007814	.0001367
Stddev	.0009393	.001387	.0001005
%RSD	92.08837	17.75222	73.51788
#1	.0008728	-.006482	.0000245
#2	.0001630	-.007711	.0002184
#3	.0020243	-.009251	.0001672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6597.993	113710.6	11469.52	5223.705	7865.795
Stddev	8.533	58.3	61.36	24.951	7.425
%RSD	.1293210	.0512853	.5349997	.4776577	.0943990
#1	6588.574	113757.4	11400.27	5251.756	7857.488
#2	6605.206	113729.3	11491.17	5215.377	7868.109
#3	6600.199	113645.3	11517.13	5203.983	7871.787

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV01 Acquired: 8/22/2025 12:18:18 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.108602**	**5.139843**	**4.976576**	**5.169007**	**5.114420**	**9.876408**
Stddev	.012808	.136052	.007051	.027413	.015380	.030748
%RSD	.2507163	2.647011	.1416773	.5303300	.3007118	.3113232
#1	5.119408	5.280890	4.977688	5.187397	5.131322	9.841074
#2	5.094455	5.009407	4.969035	5.137500	5.101249	9.891067
#3	5.111944	5.129231	4.983004	5.182123	5.110690	9.897083

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.713312**	**.2445273**	**2.506780**	**24.60356**	**1.018236**	**2.497157**
Stddev	.103227	.0006664	.003004	.00968	.002622	.001599
%RSD	1.062735	.2725065	.1198482	.0393288	.2575222	.0640281
#1	9.735252	.2449801	2.505226	24.61360	1.018638	2.497710
#2	9.600879	.2448397	2.504872	24.59429	1.020633	2.495354
#3	9.803806	.2437622	2.510244	24.60278	1.015435	2.498405

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.265888**	**5.061220**	**2.419361**	**24.48239**	**2.500353**	**1.262326**
Stddev	.000377	.012659	.005645	.07213	.002282	.001576
%RSD	.0297711	.2501143	.2333201	.2946065	.0912691	.1248253
#1	1.266151	5.056908	2.419703	24.54499	2.501320	1.262337
#2	1.265457	5.051281	2.413553	24.49865	2.497747	1.263895
#3	1.266057	5.075472	2.424827	24.40351	2.501993	1.260744

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.09874**	**2.476295**	**2.555415**	**24.70066**	**4.860896**	**5.108696**
Stddev	.15692	.001004	.005111	.09559	.010706	.013468
%RSD	.6511560	.0405498	.2000133	.3869756	.2202428	.2636365
#1	24.06228	2.476233	2.555829	24.66476	4.867280	5.113263
#2	23.96327	2.477328	2.560307	24.62822	4.866871	5.093538
#3	24.27069	2.475323	2.550110	24.80900	4.848536	5.119287

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV01 Acquired: 8/22/2025 12:18:18 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.993755**	**4.889214**	**5.065223**	**4.970823**	**5.032966**	F **4.711455**
Stddev	.014924	.010057	.013854	.018846	.039497	.008629
%RSD	.2988518	.2056998	.2735160	.3791365	.7847702	.1831566
#1	5.008183	4.886272	5.049322	4.982476	5.064180	4.709293
#2	4.978380	4.880955	5.074690	4.949080	4.988562	4.704113
#3	4.994704	4.900414	5.071657	4.980913	5.046155	4.720960

Elem	Sr4077
Units	ppm
Avg	**4.857891**
Stddev	.074835
%RSD	1.540474
#1	4.879519
#2	4.774624
#3	4.919529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6420.646**	**111275.8**	**11665.45**	**5042.174**	**7264.628**
Stddev	12.042	218.4	40.08	23.159	11.321
%RSD	.1875548	.1963077	.3435504	.4593148	.1558359
#1	6432.882	111105.6	11627.65	5038.907	7277.529
#2	6420.248	111199.6	11661.23	5020.822	7260.006
#3	6408.807	111522.1	11707.47	5066.794	7256.350

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB01 Acquired: 8/22/2025 12:22:28 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002316**	**-.000306**	**-.000665**	**-.000479**	**-.001361**	**.0108042**	**-.001536**
Stddev	.0023537	.000982	.000519	.002022	.000765	.0014185	.000743
%RSD	1016.464	321.0782	78.01344	422.0746	56.18515	13.12878	48.35348
#1	-.002083	-.001021	-.001150	.000395	-.002244	.0092785	-.000907
#2	.000155	-.000710	-.000118	.000959	-.000939	.0120830	-.001346
#3	.002622	.000814	-.000727	-.002791	-.000901	.0110511	-.002355

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000689**	**.0000606**	**-.005142**	**.0002720**	**-.000013**	**-.000643**	**.0019490**
Stddev	.0000414	.0000760	.013220	.0003080	.000101	.000230	.0063180
%RSD	60.18105	125.5140	257.0728	113.2351	778.8680	35.74744	324.1675
#1	.0000822	.0001479	.009259	-.000032	.000097	-.000882	-.002563
#2	.0001020	.0000241	-.016726	.000263	-.000032	-.000423	.009170
#3	.0000224	.0000097	-.007961	.000584	-.000104	-.000626	-.000760

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000746**	**.0118310**	**.0002667**	**-.000340**	**-.139710**	**-.002973**	**-.000530**
Stddev	.0002325	.0166970	.0001027	.000110	.020191	.001086	.000095
%RSD	311.6866	141.1295	38.48927	32.46918	14.45182	36.51379	17.83032
#1	-.000036	-.001152	.0001702	-.000324	-.159523	-.003616	-.000428
#2	.000342	.030666	.0002553	-.000239	-.140446	-.003584	-.000615
#3	-.000082	.005979	.0003746	-.000458	-.119161	-.001720	-.000548

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.524852**	**.0032208**	**.0002637**	**.0127344**	**.0009980**	**.0077856**	**-.000914**
Stddev	.027109	.0003138	.0001462	.0003577	.0011519	.0084630	.001305
%RSD	5.164991	9.741436	55.41797	2.809165	115.4195	108.7010	142.6781
#1	-.522942	.0032819	.0003763	.0127488	.0002802	.0167583	.000228
#2	-.552865	.0034995	.0003163	.0130847	.0003872	.0066521	-.002336
#3	-.498749	.0028810	.0000986	.0123696	.0023267	-.000054	-.000635

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB01 Acquired: 8/22/2025 12:22:28 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001694**	**-.004016**	**.0001117**
Stddev	.001656	.001194	.0000452
%RSD	97.76321	29.71708	40.44357
#1	-.003434	-.004952	.0001633
#2	-.001510	-.004424	.0000797
#3	-.000138	-.002672	.0000919

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6778.030**	**112992.3**	**11664.24**	**5228.652**	**8344.040**
Stddev	6.876	95.7	18.02	12.548	16.685
%RSD	.1014488	.0846592	.1544484	.2399919	.1999595
#1	6781.712	113102.0	11650.85	5214.453	8359.823
#2	6770.097	112926.1	11657.14	5238.249	8326.581
#3	6782.281	112948.9	11684.72	5233.255	8345.716

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-2 Acquired: 8/22/2025 12:31:24 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2489861	-.337834	-.129865	.0006305	-.158872	1922.782	.0233956
Stddev	.0060611	.006893	.003928	.0200569	.000584	13.800	.0006901
%RSD	2.434322	2.040269	3.025044	3180.935	.3675321	.7177332	2.949514
#1	.2553340	-.334825	-.129244	.0218178	-.158884	1915.833	.0231686
#2	.2432597	-.332958	-.126285	-.018063	-.158282	1938.675	.0228476
#3	.2483646	-.345720	-.134068	-.001863	-.159450	1913.837	.0241705

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0430474	.1105071	^ *****	-.050761	.0866255	.1743277	2811.155
Stddev	.0004266	.0046252	-----	.000736	.0003912	.0227737	40.119
%RSD	.9911094	4.185395	-----	1.449443	.4516163	13.06373	1.427140
#1	.0425689	.1051973	^ -----	-.051290	.0861769	.1480336	2857.182
#2	.0431855	.1126655	11.33650	-.049921	.0868955	.1871528	2783.593
#3	.0433880	.1136585	11.07151	-.051071	.0868042	.1877968	2792.689

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.197372	1.086482	.0593737	^ *****	2.644095	.0484808	.0884515
Stddev	.002965	.026915	.0000793	-----	.027653	.0013172	.0057069
%RSD	1.502367	2.477273	.1335865	-----	1.045842	2.716849	6.451984
#1	-.195198	1.086305	.0593392	^ -----	2.613300	.0470215	.0822996
#2	-.196168	1.113485	.0593176	^ -----	2.666804	.0495815	.0935730
#3	-.200750	1.059655	.0594645	^ -----	2.652179	.0488394	.0894820

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1926.416	^ *****	-.015676	.0375825	.0034861	.5026071	.1089268
Stddev	4.991	-----	.000642	.0011187	.0008653	.0184762	.0025842
%RSD	.2590839	-----	4.096608	2.976728	24.82287	3.676067	2.372380
#1	1920.654	^ -----	-.016282	.0369991	.0043333	.4941312	.1091750
#2	1929.410	^ -----	-.015003	.0368760	.0035213	.5238005	.1062275
#3	1929.183	^ -----	-.015745	.0388723	.0026036	.4898895	.1113779

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-2 Acquired: 8/22/2025 12:31:24 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.419520	k .2791359	-2.69475
Stddev	.018410	.0044829	.03858
%RSD	4.388300	1.606000	1.431664
#1	-.439987	k .2843077	-2.73902
#2	-.404313	.2763612	-2.66832
#3	-.414258	.2767386	-2.67690

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5325.357	88571.49	11096.78	4164.464	4433.101
Stddev	2.348	37.66	97.46	10.814	5.940
%RSD	.0440887	.0425231	.8782823	.2596728	.1339968
#1	5323.370	88590.93	11204.96	4157.478	4438.537
#2	5327.948	88595.46	11015.83	4158.994	4426.761
#3	5324.752	88528.08	11069.55	4176.920	4434.007

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-3 Acquired: 8/22/2025 12:35:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0970375**	**.0164502**	**229.3155**	**.0027130**	**.1308447**	**.1684740**	**-.001008**
Stddev	.0007093	.0017150	.9653	.0011096	.0038820	.0217956	.000566
%RSD	.7309471	10.42567	.4209683	40.90102	2.966898	12.93708	56.17293
#1	.0973081	.0145620	230.3756	.0037537	.1268359	.1849155	-.001662
#2	.0962327	.0168772	229.0839	.0015453	.1311121	.1767549	-.000684
#3	.0975716	.0179114	228.4870	.0028399	.1345861	.1437516	-.000678

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004845**	**-.001722**	**.2283649**	**24.26012**	**.0062344**	**53.34689**	**.1855815**
Stddev	.000058	.000082	.0067843	.12855	.0000802	.01286	.0322232
%RSD	1.192632	4.764698	2.970831	.5298656	1.286754	.0241045	17.36338
#1	-.004885	-.001770	.2351670	24.40795	.0062776	53.33687	.2141412
#2	-.004872	-.001627	.2283291	24.17463	.0062838	53.34240	.1919560
#3	-.004779	-.001769	.2215985	24.19779	.0061419	53.36139	.1506475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.42448**	**-.167059**	**23.86016**	**.0047896**	**.0893849**	**-.038080**	**30.30380**
Stddev	.46862	.013230	.02382	.0002005	.0058330	.001690	.48001
%RSD	.9881426	7.919227	.0998337	4.186694	6.525747	4.438987	1.583993
#1	47.74056	-.178252	23.87403	.0049315	.0958242	-.036477	30.69644
#2	47.64680	-.152459	23.87380	.0045602	.0844548	-.037918	30.44628
#3	46.88608	-.170467	23.83266	.0048772	.0878757	-.039846	29.76868

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1779701**	**.0021664**	**-.015603**	**.0027608**	**-.042283**	**-.121316**	**.1405266**
Stddev	.0074043	.0000938	.000239	.0003505	.001910	.019734	.0015353
%RSD	4.160437	4.328657	1.534295	12.69696	4.516310	16.26645	1.092541
#1	.1861349	.0022546	-.015855	.0030869	-.044231	-.102348	.1415550
#2	.1716907	.0020679	-.015576	.0023901	-.040414	-.141736	.1412630
#3	.1760848	.0021767	-.015378	.0028053	-.042204	-.119863	.1387618

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-3 Acquired: 8/22/2025 12:35:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0704343	-.002921	.0002054
Stddev	.0008423	.000807	.0001060
%RSD	1.195843	27.62960	51.60562
#1	.0694617	-.003406	.0000844
#2	.0709175	-.001989	.0002497
#3	.0709236	-.003367	.0002820

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6220.467	114166.9	11254.78	5035.644	7795.980
Stddev	22.899	861.1	57.33	35.947	34.039
%RSD	.3681158	.7542156	.5094199	.7138566	.4366173
#1	6222.043	113484.7	11230.91	5010.102	7794.470
#2	6196.820	113881.6	11213.25	5020.080	7762.721
#3	6242.536	115134.4	11320.20	5076.751	7830.748

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169324BL Acquired: 8/22/2025 12:45:25 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000279**	**-.001051**	**.0005531**	**-.004067**	**-.001664**	**.0154345**	**-.003359**
Stddev	.000616	.000717	.0005843	.001350	.001372	.0049278	.000435
%RSD	220.4342	68.18351	105.6451	33.18751	82.43458	31.92714	12.95000
#1	-.000235	-.001750	-.000007	-.002653	-.000132	.0194842	-.003538
#2	.000313	-.000318	.001159	-.005342	-.002777	.0099480	-.003675
#3	-.000916	-.001085	.000507	-.004207	-.002084	.0168713	-.002863

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000573**	**-.000056**	**.1333578**	**.0003425**	**-.000038**	**-.000054**	**-.000833**
Stddev	.0000807	.000047	.0110278	.0002218	.000097	.000196	.003624
%RSD	140.9051	84.19992	8.269369	64.74946	256.7887	364.9647	434.7998
#1	.0000464	-.000032	.1459501	.0005951	.000040	.000160	-.003613
#2	-.000017	-.000110	.1287010	.0001800	-.000006	-.000098	-.002152
#3	.000143	-.000026	.1254221	.0002523	-.000147	-.000223	.003265

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006638**	**.1583104**	**.0001918**	**-.000101**	**.6446686**	**-.000954**	**-.000310**
Stddev	.0002013	.0321413	.0000815	.000217	.0208213	.001963	.000291
%RSD	30.31602	20.30275	42.49327	215.6892	3.229763	205.7292	93.69724
#1	.0008702	.1575586	.0001173	.000150	.6687053	-.002594	-.000185
#2	.0006533	.1908210	.0002789	-.000235	.6321969	.001220	-.000643
#3	.0004681	.1265515	.0001793	-.000217	.6331037	-.001488	-.000103

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.114155**	**-.002155**	**.0000948**	**.0119513**	**.0000827**	**.0048851**	**.0010622**
Stddev	.015852	.000134	.0000573	.0003330	.0012310	.0115651	.0020269
%RSD	13.88678	6.241351	60.42260	2.786426	1488.273	236.7393	190.8276
#1	-.131423	-.002000	.0000540	.0117722	-.001303	.0181690	.0008871
#2	-.100261	-.002218	.0001603	.0117463	.000501	-.002942	-.000871
#3	-.110782	-.002245	.0000701	.0123356	.001050	-.000572	.003171

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169324BL Acquired: 8/22/2025 12:45:25 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001039	.0037839	-.000078
Stddev	.000565	.0017405	.000083
%RSD	54.36702	45.99634	106.9960
#1	-.000448	.0045480	-.000008
#2	-.001096	.0017921	-.000055
#3	-.001573	.0050117	-.000169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6666.648	115332.1	11729.70	5198.224	8244.529
Stddev	24.430	296.7	142.57	24.007	24.281
%RSD	.3664537	.2572736	1.215428	.4618354	.2945094
#1	6694.379	115282.8	11861.88	5172.589	8272.474
#2	6648.302	115063.1	11748.58	5220.179	8232.524
#3	6657.263	115650.4	11578.63	5201.903	8228.589

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04 Acquired: 8/22/2025 13:07:02 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000504	-.000544	.0235589	.0006174	.0016621	1.956500
Stddev	.001633	.001179	.0010828	.0026248	.0008475	.027363
%RSD	323.7258	216.7304	4.596021	425.1262	50.99139	1.398559
#1	-.001933	-.001906	.0224254	.0033298	.0009156	1.926143
#2	-.000855	.000145	.0245826	.0004324	.0014874	1.964091
#3	.001275	.000128	.0236689	-.001910	.0025834	1.979265

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1279771	.0001534	.0002786	54.54661	.0068505	.0017939
Stddev	.0011338	.0000536	.0000809	.36495	.0001256	.0001236
%RSD	.8859407	34.91023	29.04520	.6690652	1.833991	6.891816
#1	.1267496	.0001303	.0002861	54.12621	.0068749	.0019177
#2	.1289851	.0001153	.0003555	54.73162	.0067144	.0016705
#3	.1281966	.0002147	.0001942	54.78201	.0069621	.0017936

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0841555	6.199922	.1558212	8.043025	.0059023	.0006127
Stddev	.0004354	.015868	.0011802	.101942	.0000985	.0004896
%RSD	.5174154	.2559308	.7573795	1.267464	1.668158	79.90987
#1	.0841644	6.188474	.1545448	7.925313	.0058271	.0010790
#2	.0837157	6.193257	.1560464	8.102004	.0058662	.0001027
#3	.0845864	6.218035	.1568727	8.101760	.0060138	.0006566

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.52287	.0054031	.2444372	6.711486	.0300408	.0032222
Stddev	.40124	.0009551	.0016782	.043381	.0004068	.0002539
%RSD	1.162249	17.67633	.6865630	.6463707	1.354216	7.880068
#1	34.98455	.0051533	.2427670	6.752187	.0297705	.0035147
#2	34.25843	.0045977	.2444212	6.665847	.0305087	.0030935
#3	34.32561	.0064582	.2461233	6.716425	.0298433	.0030584

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04 Acquired: 8/22/2025 13:07:02 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000763	.0822925	F 11.44911	1.583546	6.515933	-.010983
Stddev	.000174	.0001832	.05092	.011700	.078494	.001169
%RSD	22.83687	.2225647	.4447670	.7388442	1.204641	10.64208
#1	-.000904	.0822192	11.50790	1.570052	6.572662	-.010807
#2	-.000816	.0825010	11.42078	1.590858	6.548786	-.009912
#3	-.000568	.0821574	11.41865	1.589727	6.426351	-.012230

Elem	Sr4077
Units	ppm
Avg	.1651351
Stddev	.0002428
%RSD	.1470557
#1	.1652661
#2	.1648549
#3	.1652843

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6554.175	112623.8	11806.94	5139.305	7682.878
Stddev	9.678	72.9	113.29	10.070	12.210
%RSD	.1476608	.0647451	.9595578	.1959349	.1589269
#1	6563.388	112553.9	11936.59	5146.964	7694.152
#2	6544.091	112618.0	11726.98	5127.899	7669.909
#3	6555.047	112699.4	11757.26	5143.053	7684.575

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04DUP Acquired: 8/22/2025 13:14:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002730**	**-.002215**	**.0019828**	**-.000260**	**.0014147**	**.1648428**
Stddev	.000997	.001723	.0014678	.002368	.0017584	.0040324
%RSD	36.53797	77.77589	74.02510	911.2248	124.2927	2.446238
#1	-.003152	-.004193	.0006257	-.001041	-.000530	.1604449
#2	-.003446	-.001036	.0017822	.002400	.002894	.1657172
#3	-.001591	-.001417	.0035406	-.002139	.001880	.1683663

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1675325**	**.0000349**	**.0000218**	**59.09883**	**.0017979**	**.0004874**
Stddev	.0009577	.0000584	.0000139	.21534	.0001084	.0000716
%RSD	.5716594	167.3937	63.85150	.3643776	6.029473	14.69622
#1	.1686050	.0000169	.0000084	59.34714	.0018252	.0005566
#2	.1667627	.0001001	.0000209	58.96329	.0018901	.0004136
#3	.1672297	-.000012	.0000362	58.98605	.0016785	.0004920

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0894442**	**.2181893**	**.0357039**	**8.746295**	**.0021867**	**.0000150**
Stddev	.0007846	.0039909	.0004629	.062703	.0000848	.0004327
%RSD	.8771873	1.829094	1.296374	.7169058	3.879313	2878.843
#1	.0885452	.2224486	.0355755	8.789794	.0020919	-.000221
#2	.0897963	.2175833	.0362174	8.674420	.0022130	.000514
#3	.0899911	.2145361	.0353188	8.774670	.0022554	-.000248

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.93435**	**-.001588**	**.0337811**	**5.468954**	**.0225981**	**.0010495**
Stddev	.11154	.000888	.0001264	.019203	.0005269	.0002446
%RSD	.2792962	55.90781	.3741879	.3511287	2.331474	23.30533
#1	39.89945	-.000576	.0337728	5.449834	.0230945	.0008578
#2	40.05916	-.001953	.0336590	5.488239	.0220453	.0013249
#3	39.84443	-.002235	.0339114	5.468788	.0226546	.0009657

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04DUP Acquired: 8/22/2025 13:14:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001146	-.000161	F 12.44108	.6320824	F 11.27216	-.015647
Stddev	.000445	.000314	.05396	.0033748	.04046	.000312
%RSD	38.79587	195.7949	.4337322	.5339141	.3589051	1.994349
#1	-.000645	-.000222	12.42232	.6290846	11.28881	-.015983
#2	-.001299	-.000440	12.50192	.6314253	11.22604	-.015592
#3	-.001494	.000180	12.39901	.6357375	11.30164	-.015367

Elem	Sr4077
Units	ppm
Avg	.2026860
Stddev	.0007136
%RSD	.3520792
#1	.2034999
#2	.2023906
#3	.2021675

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6474.849	112414.3	11664.65	5102.686	7597.485
Stddev	9.956	330.4	88.81	13.097	8.557
%RSD	.1537698	.2938798	.7613318	.2566763	.1126288
#1	6484.917	112193.2	11562.87	5094.920	7605.336
#2	6474.622	112255.8	11726.40	5117.808	7598.755
#3	6465.008	112794.1	11704.67	5095.332	7588.364

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-1 Acquired: 8/22/2025 13:19:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002763**	**.0084714**	**.0152389**	**-.021312**	**.0144336**	**.1349672**	**-.013306**
Stddev	.003474	.0026635	.0026467	.006872	.0029647	.0125051	.001027
%RSD	125.7169	31.44100	17.36773	32.24597	20.54064	9.265281	7.718120
#1	.000656	.0114969	.0182484	-.014761	.0123643	.1210778	-.013171
#2	-.006289	.0064805	.0141951	-.028466	.0131064	.1384928	-.012354
#3	-.002656	.0074366	.0132734	-.020708	.0178301	.1453310	-.014394

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002111**	**.0003871**	**2319.109**	**.0190795**	**-.000094**	**.0023475**	**.4636121**
Stddev	.0000526	.0001173	34.307	.0004337	.000420	.0002641	.0048722
%RSD	24.93447	30.28876	1.479309	2.273081	444.3980	11.25156	1.050928
#1	.0002704	.0004801	2344.650	.0190810	-.000214	.0023322	.4689009
#2	.0001697	.0002554	2332.562	.0195125	-.000442	.0026190	.4593064
#3	.0001933	.0004258	2280.114	.0186451	.000372	.0020914	.4626290

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0157711**	**2214.452**	**.0179038**	**-.001898**	**2201.866**	**.0063019**	**.0465321**
Stddev	.0009163	16.962	.0002480	.000238	8.066	.0021472	.0003929
%RSD	5.810020	.7659555	1.385105	12.53299	.3663130	34.07169	.8443999
#1	.0149179	2226.406	.0176206	-.001881	2200.138	.0056508	.0460795
#2	.0167396	2221.911	.0180821	-.001668	2194.804	.0086992	.0467304
#3	.0156557	2195.039	.0180087	-.002143	2210.656	.0045556	.0467863

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.135525**	**.0072194**	**.0031979**	**-.003140**	**-.108266**	**-.039845**	**.0133561**
Stddev	.936397	.0004672	.0002850	.001520	.000244	.021974	.0035848
%RSD	11.50998	6.471359	8.910355	48.42360	.2255296	55.14838	26.84053
#1	7.165932	.0066802	.0032115	-.003592	-.108098	-.016682	.0095623
#2	8.205888	.0074740	.0034758	-.004383	-.108154	-.060396	.0138188
#3	9.034757	.0075040	.0029064	-.001445	-.108546	-.042456	.0166871

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: LR-1 Acquired: 8/22/2025 13:19:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2354581	-.365611	.0607988
Stddev	.0023340	.006474	.0002927
%RSD	.9912767	1.770678	.4814664
#1	.2328071	-.370717	.0609631
#2	.2372042	-.367787	.0609725
#3	.2363630	-.358330	.0604608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4226.776	75571.00	10007.24	3327.777	4348.077
Stddev	12.261	289.53	4.58	17.848	20.374
%RSD	.2900677	.3831291	.0458018	.5363436	.4685821
#1	4240.319	75552.30	10012.53	3345.038	4371.600
#2	4216.433	75869.43	10004.75	3328.899	4336.018
#3	4223.578	75291.27	10004.45	3309.394	4336.611

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04LX5 Acquired: 8/22/2025 13:27:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001695**	**-.001567**	**.0080853**	**-.001986**	**-.001835**	**.7114634**	**.0132387**
Stddev	.000759	.000547	.0007126	.000602	.001235	.0045742	.0002397
%RSD	44.80918	34.92397	8.813612	30.32959	67.30515	.6429326	1.810714
#1	-.001154	-.002121	.0074683	-.002495	-.002966	.7146704	.0134849
#2	-.002563	-.001027	.0079225	-.001321	-.002024	.7134944	.0130060
#3	-.001367	-.001553	.0088653	-.002143	-.000517	.7062253	.0132253

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000495**	**.0000890**	**9.991880**	**.0021951**	**.0004947**	**.0149109**	**2.277726**
Stddev	.0000374	.0000319	.091203	.0003077	.0001442	.0000890	.042433
%RSD	75.40385	35.85498	.9127705	14.01728	29.15015	.5970633	1.862947
#1	.0000844	.0000542	10.08627	.0024110	.0004212	.0149942	2.308064
#2	.0000101	.0001170	9.98513	.0018428	.0006609	.0148171	2.295878
#3	.0000541	.0000958	9.90424	.0023315	.0004021	.0149215	2.229237

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0525188**	**1.474555**	**.0015290**	**.0001861**	**5.743700**	**.0003557**	**.0814195**
Stddev	.0000787	.017506	.0000452	.0002479	.084177	.0016267	.0004274
%RSD	.1498673	1.187209	2.956721	133.2491	1.465554	457.3037	.5249034
#1	.0525923	1.492294	.0015375	.0001252	5.772959	.0005079	.0815416
#2	.0525282	1.457292	.0014802	.0004588	5.809343	-.001342	.0817726
#3	.0524358	1.474079	.0015694	-.000026	5.648797	.001901	.0809444

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.306952**	**.0048844**	**.0007322**	**.0097056**	**.0316364**	**2.076670**	**.4360663**
Stddev	.026021	.0001558	.0001114	.0005385	.0012819	.009630	.0059514
%RSD	1.990939	3.189302	15.22091	5.548318	4.051974	.4637453	1.364797
#1	1.278247	.0049748	.0006170	.0100812	.0314562	2.085777	.4413000
#2	1.328993	.0049738	.0008395	.0099470	.0304541	2.077641	.4373063
#3	1.313615	.0047045	.0007401	.0090887	.0329988	2.066590	.4295925

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04LX5 Acquired: 8/22/2025 13:27:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5369279	-.001511	.0258075
Stddev	.0089433	.000241	.0002409
%RSD	1.665639	15.97639	.9335721
#1	.5439414	-.001442	.0260505
#2	.5399856	-.001312	.0258033
#3	.5268568	-.001780	.0255687

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6711.841	114752.1	12015.19	5239.982	8133.056
Stddev	9.023	355.0	41.55	18.926	8.599
%RSD	.1344349	.3093915	.3458394	.3611915	.1057232
#1	6702.544	114856.5	11971.84	5260.341	8131.892
#2	6720.562	114356.6	12054.68	5222.921	8142.177
#3	6712.419	115043.2	12019.04	5236.684	8125.098

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04MS Acquired: 8/22/2025 13:32:08 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8004026**	**1.869347**	**.9153561**	**1.987445**	**.8206217**	**2.153885**
Stddev	.0029146	.041634	.0045996	.009084	.0015008	.007132
%RSD	.3641390	2.227216	.5024922	.4570508	.1828805	.3311027
#1	.8011963	1.914560	.9135885	1.990933	.8220140	2.146083
#2	.7971734	1.832590	.9119025	1.977134	.8208191	2.155505
#3	.8028381	1.860890	.9205773	1.994268	.8190320	2.160067

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3516261**	**.1864094**	**.1884699**	**56.32331**	**.4148678**	**.1960377**
Stddev	.0020648	.0005267	.0000904	.06676	.0007131	.0003681
%RSD	.5872113	.2825513	.0479477	.1185321	.1718845	.1877479
#1	.3539910	.1859025	.1883981	56.38343	.4156908	.1960590
#2	.3507060	.1863718	.1884401	56.25146	.4144347	.1956595
#3	.3501814	.1869538	.1885714	56.33503	.4144778	.1963947

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3845238**	**3.319015**	**.2208458**	**10.09427**	**.4866913**	**.0219154**
Stddev	.0006409	.009258	.0002950	.02427	.0007839	.0002614
%RSD	.1666772	.2789333	.1335695	.2404704	.1610657	1.192953
#1	.3838471	3.329441	.2211462	10.09278	.4869250	.0216552
#2	.3846027	3.311756	.2205565	10.07078	.4858171	.0221780
#3	.3851216	3.315849	.2208347	10.11926	.4873318	.0219129

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.10490**	**.3007370**	**.2405601**	**15.26334**	**.2753993**	**.4407624**
Stddev	.21642	.0018578	.0010483	.07032	.0012820	.0014918
%RSD	.5265094	.6177587	.4357572	.4606792	.4654953	.3384529
#1	41.31788	.3028716	.2405824	15.33355	.2747997	.4407417
#2	41.11163	.2998535	.2395009	15.19292	.2745269	.4392812
#3	40.88519	.2994857	.2415971	15.26354	.2768712	.4422645

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04MS Acquired: 8/22/2025 13:32:08 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6737733	.1956726	F 12.84349	6.103144	F 10.27394	.1784367
Stddev	.0018079	.0007145	.01595	.026167	.08065	.0015966
%RSD	.2683193	.3651549	.1242046	.4287461	.7849748	.8947822
#1	.6736325	.1961857	12.85969	6.108941	10.31610	.1786346
#2	.6720399	.1959756	12.84299	6.074564	10.18095	.1799251
#3	.6756474	.1948565	12.82780	6.125926	10.32477	.1767503

Elem	Sr4077
Units	ppm
Avg	.3824248
Stddev	.0001964
%RSD	.0513516
#1	.3826393
#2	.3823814
#3	.3822538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6563.881	114523.0	12149.59	5115.108	7716.084
Stddev	12.380	438.6	3.28	19.653	9.205
%RSD	.1886083	.3829502	.0270340	.3842137	.1192941
#1	6558.920	114031.4	12148.66	5103.400	7711.730
#2	6577.972	114663.4	12146.87	5137.797	7726.658
#3	6554.752	114874.1	12153.24	5104.126	7709.864

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV02 Acquired: 8/22/2025 13:36:04 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.135948**	**5.145065**	**4.979100**	**5.203421**	**5.177601**	**9.915406**	**9.763920**
Stddev	.007824	.127358	.012782	.010261	.008454	.017721	.106659
%RSD	.1523414	2.475335	.2567191	.1971894	.1632744	.1787242	1.092382
#1	5.141838	5.112705	4.965848	5.196880	5.187080	9.904794	9.853855
#2	5.138935	5.285481	4.980100	5.215247	5.170843	9.905560	9.646083
#3	5.127070	5.037010	4.991354	5.198135	5.174881	9.935864	9.791821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2464445**	**2.503555**	**24.61205**	**1.015773**	**2.508607**	**1.273593**	**5.085521**
Stddev	.0021509	.006712	.04635	.002498	.005363	.001959	.045769
%RSD	.8727576	.2680837	.1883258	.2458730	.2138003	.1537964	.8999852
#1	.2457349	2.496096	24.56312	1.018464	2.504109	1.271335	5.097821
#2	.2447381	2.505464	24.65530	1.013530	2.507169	1.274612	5.123884
#3	.2488605	2.509106	24.61775	1.015324	2.514543	1.274832	5.034859

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.442605**	**24.52945**	**2.507061**	**1.272894**	**24.39607**	**2.499559**	**2.574169**
Stddev	.004793	.07150	.005400	.001575	.23813	.001349	.004091
%RSD	.1962379	.2914733	.2153960	.1237416	.9760868	.0539635	.1589151
#1	2.437745	24.45188	2.502100	1.274544	24.59553	2.498579	2.574023
#2	2.442742	24.54374	2.506271	1.271407	24.46026	2.501097	2.570154
#3	2.447328	24.59272	2.512813	1.272730	24.13243	2.499001	2.578331

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.72737**	**4.930260**	**5.146774**	**5.011216**	**4.946810**	**5.090376**	**5.070752**
Stddev	.19147	.043857	.003116	.010718	.005907	.032021	.017263
%RSD	.7743402	.8895497	.0605358	.2138732	.1194043	.6290470	.3404483
#1	24.82696	4.913851	5.144621	4.999813	4.949850	5.089973	5.055826
#2	24.84853	4.896974	5.150347	5.021082	4.950579	5.122597	5.089657
#3	24.50663	4.979956	5.145355	5.012755	4.940003	5.058559	5.066772

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV02 Acquired: 8/22/2025 13:36:04 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.057992	4.649160	5.021866
Stddev	.025317	.008873	.042582
%RSD	.5005311	.1908435	.8479331
#1	5.047352	4.659291	5.051582
#2	5.086892	4.642776	4.973082
#3	5.039731	4.645411	5.040933

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6380.116	111062.5	11582.43	5005.820	7227.277
Stddev	5.666	314.4	102.35	20.313	10.722
%RSD	.0887997	.2830540	.8836757	.4057890	.1483582
#1	6386.011	110703.2	11599.85	4988.066	7239.658
#2	6374.712	111287.1	11674.95	5027.972	7221.095
#3	6379.624	111197.0	11472.48	5001.423	7221.078

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB02 Acquired: 8/22/2025 13:40:15 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000378**	**-.000725**	**-.000610**	**-.001801**	**-.002608**	**.0146174**	**-.003134**
Stddev	.000997	.001038	.000612	.000867	.000458	.0097690	.000776
%RSD	263.8632	143.2688	100.4350	48.15064	17.54207	66.83126	24.76812
#1	.000354	.000372	-.000180	-.002480	-.002358	.0258686	-.002244
#2	.000026	-.000854	-.000338	-.000824	-.002331	.0096925	-.003667
#3	-.001514	-.001692	-.001311	-.002098	-.003137	.0082911	-.003492

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000622**	**.0000169**	**.0052664**	**.0001814**	**-.000052**	**-.000332**	**-.002254**
Stddev	.0000780	.0000325	.0042382	.0001956	.000069	.000108	.002126
%RSD	125.3989	191.9903	80.47663	107.8331	133.6013	32.61779	94.29873
#1	.0001438	.0000037	.0023900	.0002854	-.000037	-.000351	-.004315
#2	.0000547	.0000540	.0032757	.0003030	.000009	-.000216	-.000069
#3	-.000012	-.000007	.0101335	-.000044	-.000127	-.000430	-.002379

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011265**	**.0257391**	**.0001118**	**-.000099**	**.2361541**	**.0001121**	**.0005179**
Stddev	.0003019	.0067797	.0002248	.000281	.0307102	.0008669	.0000861
%RSD	26.80121	26.34015	201.0720	283.3361	13.00431	773.5329	16.63482
#1	.0014659	.0279349	-.000076	.000226	.2098525	.0009919	.0004521
#2	.0008880	.0311488	.000361	-.000266	.2287066	.0000856	.0006154
#3	.0010255	.0181337	.000051	-.000258	.2699031	-.000741	.0004862

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.347891**	**.0010878**	**.0003833**	**.0127691**	**.0010135**	**.0047297**	**.0002697**
Stddev	.030881	.0004852	.0000412	.0004720	.0003429	.0100829	.0006744
%RSD	8.876507	44.60306	10.75726	3.696199	33.83127	213.1810	250.0868
#1	-.382015	.0013880	.0003358	.0123506	.0006291	-.000513	.0009902
#2	-.321870	.0013474	.0004102	.0132807	.0011235	.016354	.0001653
#3	-.339788	.0005281	.0004038	.0126759	.0012878	-.001652	-.000346

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB02 Acquired: 8/22/2025 13:40:15 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0094543	-.005715	.0000726
Stddev	.0010590	.001176	.0000528
%RSD	11.20109	20.56802	72.81083
#1	.0103306	-.005703	.0001081
#2	.0082775	-.004546	.0000119
#3	.0097546	-.006897	.0000978

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6723.860	113521.7	11554.61	5232.125	8304.097
Stddev	6.676	1.6	64.14	10.522	17.631
%RSD	.0992864	.0013831	.5550842	.2011071	.2123188
#1	6721.418	113521.1	11538.96	5232.447	8296.301
#2	6731.413	113520.6	11499.74	5221.445	8324.283
#3	6718.749	113523.5	11625.12	5242.482	8291.708

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04MSD Acquired: 8/22/2025 13:44:35 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8277497**	**1.937622**	**.9446327**	**2.048325**	**.8419407**	**2.242273**
Stddev	.0026008	.036030	.0015947	.005777	.0042816	.010962
%RSD	.3142039	1.859472	.1688190	.2820203	.5085416	.4888612
#1	.8250143	1.900806	.9444986	2.049932	.8444079	2.237551
#2	.8280438	1.939248	.9431092	2.041916	.8369967	2.234464
#3	.8301910	1.972810	.9462902	2.053129	.8444175	2.254804

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3741120**	**.1931601**	**.1940239**	**60.58447**	**.4294583**	**.2017061**
Stddev	.0031747	.0004401	.0002920	.10517	.0040589	.0005211
%RSD	.8485960	.2278365	.1505176	.1735950	.9451245	.2583730
#1	.3745607	.1935457	.1938852	60.58618	.4270134	.2015381
#2	.3770385	.1926806	.1938271	60.68878	.4341436	.2012896
#3	.3707369	.1932538	.1943594	60.47845	.4272178	.2022905

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3977393**	**3.467729**	**.2380360**	**10.61748**	**.5017596**	**.0265923**
Stddev	.0008599	.042523	.0007549	.01868	.0006982	.0004192
%RSD	.2161938	1.226254	.3171357	.1758893	.1391465	1.576401
#1	.3976764	3.471156	.2387852	10.60267	.5020235	.0261267
#2	.3969125	3.508435	.2380474	10.61130	.5009680	.0267105
#3	.3986289	3.423596	.2372755	10.63845	.5022874	.0269397

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**43.76111**	**.3095120**	**.2492100**	**15.92703**	**.2895224**	**.4502761**
Stddev	.65716	.0022450	.0020488	.22138	.0006871	.0005423
%RSD	1.501699	.7253358	.8221203	1.389941	.2373086	.1204410
#1	43.56531	.3095843	.2479974	15.81657	.2903158	.4496769
#2	44.49392	.3117200	.2515756	16.18190	.2891247	.4504185
#3	43.22411	.3072317	.2480572	15.78262	.2891268	.4507331

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04MSD Acquired: 8/22/2025 13:44:35 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6956058	.2015377	F 13.54839	6.360423	F 11.73819	.1844231
Stddev	.0018507	.0014029	.12979	.023789	.02400	.0015666
%RSD	.2660578	.6960844	.9579527	.3740129	.2044679	.8494732
#1	.6960946	.1999178	13.45445	6.334635	11.71147	.1848404
#2	.6935598	.2023383	13.69648	6.365124	11.74519	.1857388
#3	.6971631	.2023569	13.49423	6.381510	11.75791	.1826900

Elem	Sr4077
Units	ppm
Avg	.4073709
Stddev	.0022383
%RSD	.5494511
#1	.4080642
#2	.4091806
#3	.4048680

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6463.229	111966.7	11869.86	5066.028	7572.393
Stddev	3.277	767.6	25.81	35.313	4.575
%RSD	.0507049	.6855563	.2174269	.6970484	.0604206
#1	6462.030	112403.9	11842.78	5076.528	7569.217
#2	6466.937	111080.4	11894.17	5026.657	7577.637
#3	6460.720	112415.8	11872.61	5094.901	7570.324

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04A Acquired: 8/22/2025 13:48:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8090886**	**1.987341**	**.9503705**	**2.020752**	**.8132938**	**3.570775**
Stddev	.0014602	.073683	.0028201	.010164	.0011465	.014352
%RSD	.1804725	3.707607	.2967416	.5029681	.1409728	.4019258
#1	.8107366	1.907198	.9517005	2.011507	.8141832	3.554223
#2	.8085734	2.052150	.9522797	2.031636	.8136985	3.579766
#3	.8079559	2.002676	.9471313	2.019115	.8119998	3.578335

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3303028**	**.1938486**	**.1907802**	**55.92283**	**.4176367**	**.1987486**
Stddev	.0023572	.0015479	.0002974	.26860	.0018091	.0003269
%RSD	.7136362	.7985239	.1558700	.4803105	.4331772	.1644761
#1	.3278229	.1924650	.1911209	55.75185	.4184078	.1989465
#2	.3325142	.1955204	.1906464	56.23242	.4189325	.1989281
#3	.3305713	.1935605	.1905732	55.78421	.4155698	.1983713

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3887130**	**7.721700**	**.3239794**	**10.06576**	**.4969833**	**.0507810**
Stddev	.0005468	.032194	.0025098	.08136	.0006682	.0012768
%RSD	.1406589	.4169297	.7746889	.8082554	.1344559	2.514431
#1	.3890698	7.747471	.3222210	9.97647	.4976811	.0496396
#2	.3889857	7.732017	.3268537	10.13570	.4969197	.0521599
#3	.3880835	7.685612	.3228636	10.08511	.4963492	.0505434

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**37.51329**	**.3082790**	**.4008749**	**16.20862**	**.2971979**	**.4284436**
Stddev	.19078	.0015410	.0018857	.11329	.0031500	.0005459
%RSD	.5085606	.4998689	.4703852	.6989584	1.059897	.1274176
#1	37.65082	.3065011	.4006307	16.33811	.2944515	.4284091
#2	37.59356	.3092302	.4028707	16.15993	.3006364	.4290059
#3	37.29549	.3091058	.3991232	16.12780	.2965058	.4279157

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2902-04A Acquired: 8/22/2025 13:48:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6699236	.2606606	F 12.70958	7.013904	7.883129	.1806137
Stddev	.0018925	.0030323	.06715	.035037	.054504	.0021162
%RSD	.2825010	1.163304	.5283448	.4995355	.6914060	1.171656
#1	.6686774	.2585259	12.77331	6.988908	7.836654	.1794706
#2	.6721013	.2641315	12.71597	7.053952	7.943120	.1830556
#3	.6689920	.2593245	12.63946	6.998853	7.869612	.1793150

Elem	Sr4077
Units	ppm
Avg	.3653748
Stddev	.0024062
%RSD	.6585449
#1	.3637785
#2	.3681424
#3	.3642037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6549.356	114057.1	11849.62	5118.194	7648.291
Stddev	9.262	569.5	114.43	27.849	8.905
%RSD	.1414221	.4993491	.9657190	.5441104	.1164306
#1	6549.851	113929.0	11940.92	5109.007	7650.360
#2	6539.856	113562.5	11721.24	5096.100	7638.534
#3	6558.360	114679.7	11886.70	5149.476	7655.980

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2904-01 Acquired: 8/22/2025 13:52:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000113**	**-.003397**	**.0388722**	**-.000085**	**.0007336**	**3.175945**	**.0834586**
Stddev	.001134	.000764	.0003441	.000866	.0005222	.022067	.0004246
%RSD	1001.068	22.50247	.8852121	1015.424	71.19047	.6948087	.5087114
#1	.001115	-.003078	.0384749	.000908	.0009428	3.154544	.0832613
#2	-.000334	-.004269	.0390761	-.000680	.0001392	3.174670	.0831686
#3	-.001120	-.002844	.0390656	-.000484	.0011188	3.198622	.0839459

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002002**	**.0003718**	**47.95235**	**.0107644**	**.0028605**	**.0714209**	**10.67355**
Stddev	.0000108	.0000310	.03461	.0002197	.0002508	.0004004	.07997
%RSD	5.409852	8.329273	.0721724	2.040938	8.769090	.5605568	.7492769
#1	.0001918	.0004075	47.98860	.0108717	.0025725	.0709958	10.75730
#2	.0002125	.0003561	47.94879	.0105117	.0029779	.0717908	10.59798
#3	.0001965	.0003518	47.91966	.0109098	.0030310	.0714762	10.66538

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2473975**	**6.987328**	**.0085470**	**.0006786**	**26.32790**	**.0096175**	**.4024235**
Stddev	.0013272	.005750	.0002253	.0003527	.19556	.0018655	.0011095
%RSD	.5364596	.0822919	2.635454	51.98081	.7427808	19.39723	.2756920
#1	.2473832	6.983013	.0088056	.0009916	26.49783	.0117325	.4011621
#2	.2460776	6.993856	.0084420	.0002964	26.11415	.0082063	.4028604
#3	.2487319	6.985114	.0083934	.0007479	26.37173	.0089135	.4032480

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.076337**	**.0362638**	**.0043321**	**-.000258**	**.1363921**	**9.574709**	**2.254476**
Stddev	.070616	.0005125	.0001468	.000490	.0008744	.040213	.014374
%RSD	.9979125	1.413286	3.389514	189.7591	.6410919	.4199894	.6375597
#1	7.082293	.0357366	.0042239	.000223	.1370584	9.573142	2.242460
#2	7.002932	.0362946	.0042732	-.000757	.1354020	9.535303	2.250568
#3	7.143786	.0367602	.0044992	-.000241	.1367160	9.615682	2.270399

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2904-01 Acquired: 8/22/2025 13:52:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.639557	-.008917	.1226209
Stddev	.016586	.000938	.0003247
%RSD	.6283810	10.51619	.2648282
#1	2.629495	-.007836	.1229252
#2	2.630475	-.009409	.1226585
#3	2.658701	-.009507	.1222790

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6604.604	114334.1	11979.91	5183.650	7735.659
Stddev	11.234	362.9	57.37	23.512	14.375
%RSD	.1700891	.3174313	.4789170	.4535887	.1858262
#1	6614.960	114551.1	12023.23	5182.163	7743.431
#2	6606.190	114536.0	11914.84	5207.871	7744.475
#3	6592.661	113915.1	12001.66	5160.916	7719.071

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2904-02 Acquired: 8/22/2025 13:56:37 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004003**	**-.003629**	**.0009035**	**.0031242**	**.0028524**	**.1631820**
Stddev	.001551	.001021	.0006190	.0004184	.0007620	.0063297
%RSD	38.75075	28.14378	68.50762	13.39314	26.71387	3.878908
#1	-.002851	-.004741	.0014531	.0027427	.0025573	.1647753
#2	-.005767	-.002734	.0010245	.0030581	.0037178	.1685628
#3	-.003391	-.003411	.0002330	.0035717	.0022821	.1562079

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1527084**	**-.000027**	**-.000007**	**55.09024**	**.0016305**	**.0003992**
Stddev	.0003921	.000059	.000025	.06659	.0003970	.0000727
%RSD	.2567802	218.1489	359.0601	.1208682	24.34604	18.20277
#1	.1527911	-.000051	.000016	55.16617	.0011854	.0003707
#2	.1530526	.000040	-.000034	55.06274	.0017584	.0004818
#3	.1522815	-.000070	-.000003	55.04181	.0019479	.0003451

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0854663**	**.1995922**	**.0248332**	**8.213996**	**.0020768**	**-.000446**
Stddev	.0007239	.0020506	.0004424	.013207	.0002500	.000525
%RSD	.8469799	1.027406	1.781490	.1607901	12.03673	117.7085
#1	.0861623	.2018271	.0248796	8.219846	.0018324	-.000632
#2	.0847175	.1977973	.0243694	8.198874	.0020661	-.000852
#3	.0855192	.1991522	.0252505	8.223267	.0023320	.000147

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.78166**	**.0007108**	**.0345311**	**4.936586**	**.0211094**	**.0011695**
Stddev	.20904	.0010043	.0002547	.021035	.0002772	.0002771
%RSD	.5683285	141.3010	.7376540	.4261083	1.313039	23.69164
#1	36.77270	.0008890	.0342449	4.938636	.0213447	.0010361
#2	36.57724	-.000371	.0347331	4.914601	.0211797	.0009843
#3	36.99503	.001614	.0346151	4.956521	.0208039	.0014880

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2904-02 Acquired: 8/22/2025 13:56:37 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002860	.0004554	F 11.61018	.5751215	F 10.32560	-.013191
Stddev	.0001114	.0010297	.06634	.0026204	.07033	.000540
%RSD	38.94477	226.1010	.5714247	.4556322	.6810898	4.093825
#1	.0003238	.0012196	11.64492	.5772571	10.40554	-.012570
#2	.0001607	-.000715	11.53368	.5759102	10.29799	-.013444
#3	.0003736	.000862	11.65194	.5721974	10.27327	-.013557

Elem	Sr4077
Units	ppm
Avg	.1879131
Stddev	.0002415
%RSD	.1285300
#1	.1879396
#2	.1876595
#3	.1881403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6496.094	112908.5	11694.81	5029.645	7673.872
Stddev	41.297	571.3	45.29	25.984	51.630
%RSD	.6357187	.5060265	.3872839	.5166108	.6727964
#1	6449.755	112576.4	11648.41	5048.472	7614.460
#2	6529.009	113568.2	11697.11	5040.463	7707.852
#3	6509.519	112580.8	11738.91	5000.000	7699.304

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169324BS Acquired: 8/22/2025 14:00:49 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8071253**	**2.108834**	**.9738542**	**2.073868**	**.8149629**	**2.041333**
Stddev	.0016362	.013105	.0038252	.006454	.0024593	.011823
%RSD	.2027140	.6214162	.3927878	.3112235	.3017696	.5791613
#1	.8071518	2.093780	.9741495	2.078858	.8136298	2.037823
#2	.8087481	2.117692	.9698900	2.066579	.8134579	2.054514
#3	.8054761	2.115029	.9775232	2.076167	.8178009	2.031664

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1919598**	**.2055779**	**.1938981**	**1.044345**	**.4151313**	**.1989818**
Stddev	.0006892	.0001669	.0002677	.006418	.0015008	.0001680
%RSD	.3590099	.0811659	.1380636	.6145075	.3615200	.0844088
#1	.1923838	.2055323	.1938913	1.051572	.4168542	.1990167
#2	.1923310	.2054386	.1936339	1.039311	.4144315	.1991295
#3	.1911646	.2057629	.1941692	1.042153	.4141083	.1987991

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3171781**	**3.014307**	**.2027640**	**2.039484**	**.4993134**	**.0768474**
Stddev	.0003840	.006040	.0006924	.006907	.0005766	.0004796
%RSD	.1210554	.2003888	.3414910	.3386557	.1154732	.6240465
#1	.3175997	3.013386	.2022798	2.038394	.4998383	.0766529
#2	.3168483	3.008779	.2024551	2.033187	.4986963	.0773936
#3	.3170865	3.020755	.2035571	2.046871	.4994057	.0764956

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.934618**	**.3048173**	**.2144186**	**9.295276**	**.2990114**	**.4105703**
Stddev	.025935	.0011424	.0006280	.020961	.0003497	.0006410
%RSD	.8837579	.3747923	.2928674	.2254994	.1169358	.1561249
#1	2.907008	.3055844	.2142165	9.316861	.2987043	.4110582
#2	2.938377	.3035043	.2139166	9.275001	.2993919	.4098443
#3	2.958468	.3053632	.2151227	9.293966	.2989381	.4108084

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169324BS Acquired: 8/22/2025 14:00:49 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6831835**	**.1918153**	**.8990329**	**5.729791**	F **.0180572**	**.1956967**
Stddev	.0008213	.0007995	.0057403	.007973	.0006862	.0004957
%RSD	.1202099	.4168210	.6384950	.1391436	3.800114	.2533150
#1	.6833433	.1913944	.8998215	5.728299	.0174918	.1954214
#2	.6822941	.1913141	.8929391	5.722670	.0188206	.1953997
#3	.6839131	.1927374	.9043381	5.738405	.0178591	.1962690

Elem	Sr4077
Units	ppm
Avg	**.1936094**
Stddev	.0000832
%RSD	.0429783
#1	.1936996
#2	.1935356
#3	.1935930

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6532.925**	**114140.5**	**11461.73**	**5141.600**	**7848.604**
Stddev	9.786	445.5	11.81	2.366	7.895
%RSD	.1497973	.3903227	.1030059	.0460085	.1005860
#1	6527.635	113836.9	11466.45	5139.154	7845.633
#2	6544.218	113932.6	11448.30	5141.771	7857.552
#3	6526.923	114652.0	11470.45	5143.876	7842.625

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169338BL Acquired: 8/22/2025 14:04:49 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001772**	**-.001374**	**-.000109**	**-.000802**	**-.001473**	**.0000216**	**-.002797**
Stddev	.0020199	.001957	.000232	.002551	.001771	.0059379	.001170
%RSD	1140.033	142.4614	213.6391	318.0649	120.2831	27529.22	41.84766
#1	.0025076	-.000357	-.000155	-.001935	-.000855	-.001054	-.003688
#2	-.001070	-.000134	-.000314	-.002590	-.000093	.006424	-.003230
#3	-.000906	-.003629	.000143	.002119	-.003470	-.005305	-.001471

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000503**	**-.000043**	**-.000447**	**.0000824**	**-.000093**	**-.000629**	**-.003997**
Stddev	.0000518	.000066	.001888	.0002109	.000126	.000349	.004678
%RSD	103.0036	153.0393	422.1824	255.8130	135.3257	55.46042	117.0443
#1	.0000612	-.000119	.001186	.0002501	-.000019	-.000959	-.009398
#2	-.000006	.000004	-.002514	-.000154	-.000238	-.000264	-.001211
#3	.000096	-.000015	-.000013	.000151	-.000022	-.000665	-.001382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000931**	**.0030126**	**-.000000**	**-.000475**	**.0943624**	**-.001420**	**-.000564**
Stddev	.0001341	.0167556	.000209	.000403	.0197562	.001680	.000093
%RSD	144.1185	556.1807	51671.55	84.98132	20.93654	118.3732	16.57194
#1	.0002304	-.015238	.000006	-.000820	.0770122	-.002430	-.000543
#2	.0000863	.006577	-.000212	-.000031	.0902104	.000520	-.000666
#3	-.000038	.017699	.000206	-.000573	.1158647	-.002349	-.000483

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.420762**	**-.002566**	**-.000140**	**-.000196**	**-.000324**	**-.002845**	**.0004060**
Stddev	.033212	.000182	.000118	.000215	.001386	.011911	.0003833
%RSD	7.893236	7.098320	84.24044	109.6000	428.3503	418.6276	94.38882
#1	-.442154	-.002560	-.000004	-.000394	-.001160	.009692	.0003181
#2	-.437631	-.002751	-.000215	.000032	.001277	-.014012	.0008257
#3	-.382502	-.002387	-.000200	-.000227	-.001087	-.004215	.0000744

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169338BL Acquired: 8/22/2025 14:04:49 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0077840	-.004796	-.000029
Stddev	.0001951	.000622	.000023
%RSD	2.506655	12.96301	78.15783
#1	.0075591	-.004287	-.000038
#2	.0079082	-.005489	-.000046
#3	.0078847	-.004611	-.000003

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6591.308	114617.8	11311.03	5189.548	8166.396
Stddev	7.867	425.5	37.11	23.658	6.790
%RSD	.1193606	.3711919	.3280442	.4558806	.0831470
#1	6592.702	114660.3	11335.94	5205.464	8168.961
#2	6582.837	115020.5	11328.77	5200.818	8158.697
#3	6598.385	114172.8	11268.38	5162.362	8171.530

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169338BS Acquired: 8/22/2025 14:09:07 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7812254**	**2.033268**	**.9451424**	**1.999752**	**.8166324**	**1.972940**
Stddev	.0020040	.025072	.0023810	.002209	.0031526	.009568
%RSD	.2565216	1.233106	.2519235	.1104795	.3860457	.4849598
#1	.7790250	2.005879	.9427617	2.000769	.8192167	1.970642
#2	.7829460	2.038840	.9451416	1.997217	.8131199	1.964730
#3	.7817051	2.055086	.9475238	2.001269	.8175605	1.983448

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1880651**	**.2005347**	**.1888059**	**1.009079**	**.4058032**	**.1935826**
Stddev	.0008008	.0008261	.0003110	.006905	.0010642	.0003333
%RSD	.4258092	.4119674	.1646988	.6842890	.2622558	.1721703
#1	.1879962	.2012889	.1884468	1.006184	.4057729	.1932508
#2	.1888981	.1996517	.1889883	1.016960	.4047544	.1939174
#3	.1873010	.2006634	.1889825	1.004093	.4068822	.1935795

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3089376**	**2.946536**	**.1976946**	**2.018032**	**.4867081**	**.0748977**
Stddev	.0007916	.031508	.0010199	.024852	.0002951	.0004966
%RSD	.2562340	1.069332	.5158802	1.231492	.0606275	.6630010
#1	.3093187	2.914736	.1965531	2.027420	.4865680	.0754508
#2	.3080275	2.947127	.1980146	1.989854	.4870471	.0744902
#3	.3094665	2.977745	.1985161	2.036822	.4865091	.0747521

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.792571**	**.2974728**	**.2089085**	**9.144516**	**.2918151**	**.4103598**
Stddev	.032563	.0022866	.0008344	.072148	.0018124	.0002011
%RSD	1.166063	.7686759	.3994040	.7889775	.6210686	.0490117
#1	2.754976	.2972593	.2098426	9.061917	.2916004	.4101285
#2	2.810795	.2953004	.2086459	9.195223	.2901196	.4104935
#3	2.811942	.2998587	.2082370	9.176407	.2937252	.4104574

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169338BS Acquired: 8/22/2025 14:09:07 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6710787	.1923987	.8922016	5.549563	F .0031565	.1867279
Stddev	.0026689	.0007267	.0130212	.029730	.0013834	.0022962
%RSD	.3977003	.3777242	1.459443	.5357131	43.82682	1.229727
#1	.6689519	.1930473	.8777208	5.521131	.0027697	.1867295
#2	.6740735	.1925354	.9029464	5.580440	.0020076	.1890233
#3	.6702106	.1916133	.8959376	5.547118	.0046920	.1844308

Elem	Sr4077
Units	ppm
Avg	.1885957
Stddev	.0004965
%RSD	.2632752
#1	.1882245
#2	.1891597
#3	.1884027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6532.731	113069.5	11407.62	5104.887	7847.733
Stddev	12.558	292.0	11.00	10.053	22.082
%RSD	.1922251	.2582521	.0964331	.1969278	.2813838
#1	6547.056	113392.6	11395.74	5113.656	7873.057
#2	6527.519	112824.6	11409.67	5093.915	7832.490
#3	6523.619	112991.2	11417.45	5107.089	7837.653

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-03 Acquired: 8/22/2025 14:13:07 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039710	-.002548	.0057668	-.000529	.0014183	.1685760	.0083983
Stddev	.0005470	.000284	.0009598	.001415	.0024843	.0008536	.0002960
%RSD	13.77420	11.13093	16.64365	267.2430	175.1578	.5063679	3.524996
#1	.0042574	-.002260	.0059805	-.001949	-.001409	.1691079	.0080642
#2	.0043152	-.002558	.0047182	.000881	.002410	.1675913	.0085028
#3	.0033403	-.002827	.0066018	-.000520	.003254	.1690286	.0086279

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000229	.0001379	10.83020	.0019261	.0002438	.0197933	.8599183
Stddev	.0000502	.0000281	.05077	.0001647	.0001867	.0002472	.0046954
%RSD	219.2216	20.37124	.4687777	8.551940	76.56052	1.248968	.5460327
#1	-.000029	.0001701	10.77287	.0017748	.0004483	.0199165	.8570470
#2	.000025	.0001188	10.86950	.0021016	.0000825	.0199548	.8573709
#3	.000072	.0001247	10.84822	.0019019	.0002007	.0195087	.8653369

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0629221	.5645642	.0019666	-.000185	159.7136	.0003964	.4009646
Stddev	.0004089	.0349906	.0001564	.000299	1.2166	.0002063	.0004016
%RSD	.6498778	6.197801	7.953141	161.3980	.7617407	52.02783	.1001590
#1	.0633740	.6033385	.0021335	-.000296	159.2574	.0001726	.4005849
#2	.0628147	.5353406	.0019428	-.000412	158.7911	.0005788	.4013850
#3	.0625776	.5550134	.0018234	.000153	161.0924	.0004379	.4009238

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.28732	.0175641	.0028109	.0016856	.0061547	2.355552	.2828240
Stddev	.08600	.0002664	.0000696	.0003620	.0007127	.013033	.0008946
%RSD	.4974592	1.516717	2.476001	21.47858	11.57977	.5533035	.3163115
#1	17.26595	.0173099	.0027400	.0020459	.0060682	2.354091	.2835472
#2	17.21402	.0178412	.0028136	.0013218	.0054893	2.343311	.2818236
#3	17.38199	.0175412	.0028791	.0016893	.0069068	2.369255	.2831013

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-03 Acquired: 8/22/2025 14:13:07 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.996168	-.008278	.0361040
Stddev	.014159	.001210	.0002980
%RSD	.7093207	14.61485	.8253854
#1	1.992558	-.007617	.0357600
#2	1.984163	-.009674	.0362702
#3	2.011783	-.007542	.0362818

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6434.278	110871.7	11949.24	5048.115	7346.216
Stddev	5.212	433.5	68.73	14.091	1.683
%RSD	.0810113	.3910118	.5751584	.2791349	.0229118
#1	6432.795	110945.5	12026.30	5064.333	7345.693
#2	6440.071	111263.6	11894.29	5041.132	7348.098
#3	6429.967	110406.1	11927.13	5038.879	7344.856

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04 Acquired: 8/22/2025 14:17:22 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054610	-.001634	.0044390	-.000371	.0016584	.2409746	.0046759
Stddev	.0009727	.000730	.0006663	.000847	.0010040	.0025108	.0007840
%RSD	17.81265	44.67421	15.01083	228.0784	60.53847	1.041938	16.76586
#1	.0050135	-.002027	.0051804	-.000675	.0011665	.2437396	.0041038
#2	.0047926	-.000792	.0042466	.000585	.0028134	.2388370	.0043545
#3	.0065770	-.002083	.0038901	-.001024	.0009952	.2403471	.0055695

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000061	.0000643	8.761525	.0020293	.0000856	.0188635	.4071503
Stddev	.000011	.0000262	.020824	.0003866	.0000823	.0004261	.0047553
%RSD	18.42763	40.76479	.2376794	19.05011	96.14503	2.258818	1.167953
#1	-.000068	.0000850	8.738941	.0016460	.0000778	.0184711	.4061969
#2	-.000048	.0000729	8.779966	.0020229	.0000075	.0193167	.4029439
#3	-.000066	.0000348	8.765669	.0024191	.0001714	.0188027	.4123101

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0221926	.4896048	.0012789	-.000039	82.78363	.0024383	.3031195
Stddev	.0003817	.0070491	.0003602	.000070	.40945	.0009775	.0006876
%RSD	1.720182	1.439749	28.16718	178.7615	.4946076	40.09075	.2268351
#1	.0225547	.4962105	.0014037	-.000066	82.31763	.0035641	.3026611
#2	.0217939	.4821834	.0008728	.000040	82.94748	.0018051	.3039101
#3	.0222293	.4904206	.0015600	-.000091	83.08579	.0019456	.3027873

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.18467	.0142161	.0017122	-.000887	.0084950	2.533579	.2746098
Stddev	.08009	.0006897	.0003197	.000504	.0003356	.003719	.0009320
%RSD	.6074810	4.851330	18.67240	56.84930	3.950095	.1467976	.3393820
#1	13.09334	.0145239	.0015673	-.000992	.0086955	2.532330	.2747645
#2	13.21773	.0146982	.0020787	-.001330	.0081076	2.530646	.2736102
#3	13.24294	.0134261	.0014906	-.000338	.0086819	2.537762	.2754548

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04 Acquired: 8/22/2025 14:17:22 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.625178	-.009195	.0230971
Stddev	.003903	.000777	.0001159
%RSD	.2401816	8.448064	.5018609
#1	1.621232	-.009281	.0231121
#2	1.625265	-.008379	.0229744
#3	1.629038	-.009926	.0232048

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6442.514	112193.9	11826.89	5072.321	7506.137
Stddev	6.163	169.4	79.15	6.499	11.462
%RSD	.0956563	.1509724	.6692451	.1281342	.1526998
#1	6441.086	112085.0	11736.95	5065.687	7501.767
#2	6437.190	112389.0	11885.93	5078.677	7497.502
#3	6449.265	112107.6	11857.78	5072.600	7519.141

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04DUP Acquired: 8/22/2025 14:21:37 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047743	-.002045	.0038007	.0009537	.0014994	.2270758	.0032116
Stddev	.0012548	.000175	.0006805	.0013198	.0010992	.0066910	.0007605
%RSD	26.28159	8.571634	17.90429	138.3850	73.30702	2.946602	23.67902
#1	.0041016	-.002182	.0035735	.0020882	.0009823	.2220264	.0023440
#2	.0062220	-.001847	.0032628	.0012677	.0007542	.2346648	.0035279
#3	.0039993	-.002106	.0045657	-.000495	.0027618	.2245361	.0037629

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000048	.0000578	8.673286	.0021381	.0001051	.0190669	.3896592
Stddev	.000023	.0000290	.049372	.0001768	.0001409	.0000969	.0070404
%RSD	48.63412	50.29226	.5692444	8.268358	133.9657	.5081529	1.806807
#1	-.000065	.0000398	8.616277	.0019343	-.000052	.0191283	.3868937
#2	-.000057	.0000912	8.701558	.0022490	.000147	.0191172	.3844214
#3	-.000021	.0000422	8.702024	.0022312	.000221	.0189552	.3976625

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201997	.4862932	.0014720	.0000763	79.20740	.0023886	.3018189
Stddev	.0001507	.0196831	.0000551	.0002740	.39312	.0031964	.0006763
%RSD	.7462478	4.047588	3.746660	359.0803	.4963189	133.8178	.2240680
#1	.0200365	.4669325	.0015074	.0002132	79.66018	.0014283	.3024655
#2	.0202291	.5062837	.0015003	.0002549	79.00906	-.000218	.3011164
#3	.0203337	.4856633	.0014085	-.000239	78.95296	.005955	.3018749

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.95095	.0140379	.0016620	-.001560	.0076617	2.484023	.2696988
Stddev	.02508	.0006514	.0001889	.000647	.0010294	.005339	.0009517
%RSD	.1936306	4.640175	11.36449	41.50272	13.43503	.2149311	.3528732
#1	12.97913	.0133038	.0017462	-.001251	.0064743	2.486176	.2701680
#2	12.93109	.0142632	.0017941	-.002304	.0082086	2.477943	.2703248
#3	12.94263	.0145468	.0014457	-.001125	.0083021	2.487949	.2686037

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04DUP Acquired: 8/22/2025 14:21:37 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.618578	-.011304	.0230233
Stddev	.009730	.000615	.0001804
%RSD	.6011474	5.440884	.7836174
#1	1.616724	-.010601	.0229404
#2	1.629101	-.011740	.0232303
#3	1.609908	-.011571	.0228993

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6425.168	111830.4	11565.15	5092.289	7472.443
Stddev	1.777	94.0	105.59	8.686	2.723
%RSD	.0276567	.0840660	.9129615	.1705650	.0364428
#1	6423.410	111820.8	11677.17	5098.252	7470.849
#2	6425.132	111928.9	11467.46	5082.324	7475.588
#3	6426.963	111741.6	11550.84	5096.290	7470.893

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV03 Acquired: 8/22/2025 14:25:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.183985**	**5.227584**	**5.042395**	**5.250831**	**5.210043**	**10.03585**	**9.873652**
Stddev	.004201	.063937	.001497	.009946	.012609	.03234	.099324
%RSD	.0810423	1.223061	.0296890	.1894171	.2420048	.3222923	1.005950
#1	5.184611	5.300480	5.042138	5.259747	5.205434	10.07320	9.984053
#2	5.187839	5.201260	5.041043	5.252642	5.224308	10.01736	9.791543
#3	5.179506	5.181012	5.044003	5.240104	5.200388	10.01699	9.845361

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2493353**	**2.534958**	**25.07219**	**1.037210**	**2.534376**	**1.287636**	**5.203930**
Stddev	.0015789	.001893	.04970	.004469	.000726	.000836	.025559
%RSD	.6332611	.0746649	.1982300	.4308240	.0286488	.0648925	.4911547
#1	.2508726	2.536786	25.10823	1.032975	2.535212	1.288261	5.188624
#2	.2494157	2.533007	25.09286	1.036774	2.534004	1.287961	5.189730
#3	.2477178	2.535081	25.01549	1.041881	2.533911	1.286687	5.233437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.489794**	**24.90061**	**2.532733**	**1.285682**	**24.96140**	**2.527927**	**2.607557**
Stddev	.007587	.05689	.003253	.003187	.27632	.010901	.006340
%RSD	.3047214	.2284490	.1284508	.2478791	1.107003	.4312104	.2431426
#1	2.498443	24.92303	2.535909	1.282015	24.75857	2.540301	2.600267
#2	2.484262	24.94287	2.529407	1.287251	24.84952	2.523738	2.611789
#3	2.486676	24.83593	2.532883	1.287780	25.27612	2.519743	2.610614

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.24056**	**4.947025**	**5.208774**	**5.073002**	**5.024673**	**5.123982**	**5.125154**
Stddev	.31795	.042001	.007511	.008009	.006670	.037579	.005230
%RSD	1.259695	.8490065	.1442027	.1578698	.1327439	.7333952	.1020511
#1	24.98051	4.980465	5.214913	5.079843	5.031742	5.095427	5.126105
#2	25.14614	4.960726	5.211009	5.064193	5.023787	5.109963	5.119514
#3	25.59503	4.899885	5.200398	5.074970	5.018490	5.166555	5.129844

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV03 Acquired: 8/22/2025 14:25:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.102414**	**4.738715**	**4.959364**
Stddev	.009967	.005990	.018466
%RSD	.1953382	.1264088	.3723453
#1	5.113884	4.738614	4.948959
#2	5.095867	4.732776	4.980684
#3	5.097490	4.744755	4.948448

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6245.375**	**107468.5**	**11242.85**	**4906.229**	**7081.544**
Stddev	2.247	526.6	62.82	16.687	8.891
%RSD	.0359717	.4900171	.5587141	.3401272	.1255566
#1	6243.169	107916.2	11176.85	4921.094	7073.990
#2	6245.298	107601.1	11249.79	4909.414	7091.343
#3	6247.660	106888.3	11301.90	4888.179	7079.298

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB03 Acquired: 8/22/2025 14:30:03 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003299**	**-.000760**	**.0013797**	**-.000291**	**-.001509**	**.0096697**	**-.002793**
Stddev	.0023067	.000504	.0007325	.002777	.000782	.0067574	.000252
%RSD	699.1543	66.27165	53.08928	953.4280	51.84403	69.88151	9.030781
#1	.0022191	-.001054	.0020215	-.003454	-.001180	.0173270	-.002995
#2	-.002241	-.000178	.0015359	.001745	-.002402	.0045423	-.002510
#3	.001012	-.001047	.0005817	.000836	-.000945	.0071399	-.002875

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000037**	**.0000041**	**.0000507**	**.0001216**	**-.000049**	**-.000194**	**.0005716**
Stddev	.0000338	.0000221	.0066911	.0003965	.000068	.000248	.0024168
%RSD	907.9338	541.3187	13200.53	326.1282	138.2023	127.6689	422.7861
#1	.0000420	.0000136	.0044666	-.000336	-.000121	-.000037	.0005305
#2	-.000009	-.000021	-.007648	.000351	-.000042	-.000066	-.001824
#3	-.000022	.000020	.003333	.000350	.000015	-.000479	.003009

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000046**	**.0076528**	**.0000190**	**.0001105**	**.0373814**	**-.001438**	**.0002754**
Stddev	.000207	.0221737	.0002161	.0004027	.0177730	.002824	.0002019
%RSD	449.8576	289.7448	1137.790	364.3159	47.54497	196.3874	73.30407
#1	.000178	.0314111	-.000220	.0002275	.0179747	.001256	.0004820
#2	-.000231	.0040400	.000078	-.000338	.0413045	-.001194	.0002654
#3	-.000086	-.012493	.000200	.000442	.0528652	-.004376	.0000787

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.347666**	**.0017806**	**.0003619**	**.0126937**	**.0000479**	**.0115947**	**.0003258**
Stddev	.055567	.0002169	.0000707	.0001152	.0006922	.0054971	.0009620
%RSD	15.98276	12.18376	19.53769	.9077213	1443.920	47.41047	295.2470
#1	-.409871	.0019210	.0003199	.0127661	.0006164	.0064128	.0012604
#2	-.302942	.0018901	.0003223	.0127543	-.000723	.0173604	-.000661
#3	-.330184	.0015308	.0004436	.0125609	.000250	.0110110	.000378

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB03 Acquired: 8/22/2025 14:30:03 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0046994	-.004144	-.000000
Stddev	.0011547	.001476	.000130
%RSD	24.57129	35.61025	33812.55
#1	.0037927	-.002455	-.000150
#2	.0043061	-.004793	.000083
#3	.0059993	-.005184	.000066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6608.764	114952.8	11431.27	5192.931	8155.708
Stddev	4.395	146.3	54.47	27.297	4.445
%RSD	.0665032	.1273075	.4764919	.5256545	.0544998
#1	6604.514	114958.6	11479.41	5179.444	8151.172
#2	6613.291	115096.2	11442.25	5224.346	8160.056
#3	6608.488	114803.7	11372.15	5175.003	8155.895

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04LX5 Acquired: 8/22/2025 14:34:21 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001299**	**-.001498**	**.0009083**	**-.002579**	**-.000171**	**.0482745**	**-.002475**
Stddev	.001565	.000987	.0010936	.000447	.002090	.0112718	.000618
%RSD	120.4140	65.86243	120.3962	17.32530	1220.445	23.34943	24.96621
#1	-.001496	-.001212	.0018259	-.002760	-.002103	.0395456	-.003127
#2	.000354	-.002597	.0012008	-.002070	.002047	.0610001	-.002399
#3	-.002757	-.000686	-.000302	-.002907	-.000458	.0442778	-.001898

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000012**	**.0000557**	**1.733946**	**.0003132**	**.0000143**	**.0035897**	**.0783957**
Stddev	.000024	.0000297	.005172	.0002341	.0001110	.0001502	.0058218
%RSD	197.8285	53.31896	.2982944	74.72564	778.6541	4.185286	7.426184
#1	-.000028	.0000253	1.735299	.0003402	-.000111	.0034566	.0814060
#2	-.000023	.0000846	1.728231	.0000669	.000101	.0037526	.0820961
#3	.000015	.0000571	1.738307	.0005327	.000052	.0035600	.0716851

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042894**	**.1117060**	**.0005348**	**.0000639**	**15.38334**	**.0019338**	**.0592269**
Stddev	.0003951	.0152370	.0001164	.0001259	.07553	.0006306	.0003985
%RSD	9.210016	13.64026	21.77135	196.9343	.4909996	32.60979	.6727877
#1	.0046573	.0977716	.0006279	-.000003	15.45727	.0025170	.0587740
#2	.0043391	.1279759	.0004042	-.000015	15.38645	.0012646	.0595235
#3	.0038719	.1093707	.0005722	.000209	15.30631	.0020197	.0593833

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.263669**	**.0019912**	**.0002990**	**-.000164**	**.0024420**	**.4866857**	**.0525353**
Stddev	.018825	.0002467	.0001933	.000444	.0005722	.0052060	.0009079
%RSD	.8316078	12.39113	64.63723	271.7580	23.43156	1.069684	1.728119
#1	2.273759	.0018329	.0001219	.000096	.0025751	.4819345	.0517809
#2	2.275299	.0022755	.0002699	-.000677	.0018150	.4858720	.0535429
#3	2.241950	.0018651	.0005052	.000090	.0029360	.4922507	.0522820

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04LX5 Acquired: 8/22/2025 14:34:21 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3132423	-.006437	.0045492
Stddev	.0017476	.000642	.0000834
%RSD	.5579019	9.979664	1.833115
#1	.3152474	-.005811	.0046020
#2	.3124358	-.007094	.0044531
#3	.3120436	-.006406	.0045925

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6600.467	112958.3	11655.43	5114.744	7931.408
Stddev	6.043	66.1	33.52	29.148	1.301
%RSD	.0915505	.0585025	.2875853	.5698744	.0164026
#1	6603.099	112890.0	11646.22	5124.810	7929.977
#2	6604.747	112962.8	11692.59	5137.525	7931.729
#3	6593.554	113022.0	11627.47	5081.898	7932.519

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04A Acquired: 8/22/2025 14:46:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8294138**	**2.295486**	**.9608402**	**2.087815**	**.8432149**	**2.231249**	**.1973741**
Stddev	.0001014	.002196	.0023337	.006843	.0028354	.006917	.0005818
%RSD	.0122236	.0956869	.2428796	.3277655	.3362626	.3100015	.2947750
#1	.8294471	2.294396	.9584886	2.095716	.8419978	2.235747	.1976167
#2	.8294944	2.298015	.9631555	2.083816	.8411912	2.234716	.1977953
#3	.8293000	2.294048	.9608766	2.083912	.8464557	2.223284	.1967102

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1934715**	**.1952788**	**9.504894**	**.4185333**	**.2003307**	**.3252948**	**3.535532**
Stddev	.0006254	.0001299	.017119	.0003085	.0000978	.0004291	.017022
%RSD	.3232654	.0664967	.1801072	.0737055	.0488349	.1319160	.4814624
#1	.1941935	.1951345	9.502908	.4188437	.2003643	.3248244	3.523554
#2	.1931204	.1953862	9.522920	.4182268	.2004074	.3253950	3.555017
#3	.1931004	.1953158	9.488855	.4185293	.2002206	.3256650	3.528025

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2151388**	**2.430656**	**.5006048**	**.0733000**	**84.06752**	**.3075539**	**.5097045**
Stddev	.0009317	.011490	.0002167	.0007836	.56323	.0020911	.0001656
%RSD	.4330441	.4727298	.0432903	1.069096	.6699774	.6799068	.0324884
#1	.2160830	2.423253	.5006218	.0736292	83.60461	.3052239	.5098896
#2	.2151132	2.424822	.5003801	.0738653	84.69460	.3081700	.5095703
#3	.2142202	2.443893	.5008125	.0724054	83.90334	.3092676	.5096536

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.16024**	**.2871831**	**.4396930**	**.7072402**	**.2046895**	**3.511827**	**6.028747**
Stddev	.12606	.0013964	.0004010	.0025017	.0009175	.016498	.014205
%RSD	.5443062	.4862463	.0912027	.3537237	.4482509	.4697822	.2356292
#1	23.02785	.2882796	.4400710	.7053774	.2036951	3.493255	6.012821
#2	23.27884	.2856110	.4392724	.7062597	.2055033	3.517443	6.033308
#3	23.17403	.2876586	.4397358	.7100836	.2048702	3.524784	6.040112

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04A Acquired: 8/22/2025 14:46:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.588433	.1858121	.2141232
Stddev	.006199	.0018978	.0007711
%RSD	.3902598	1.021346	.3601086
#1	1.593308	.1852717	.2139257
#2	1.581457	.1879215	.2149739
#3	1.590535	.1842432	.2134702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6468.817	110704.9	11818.51	5017.492	7485.002
Stddev	8.926	173.8	33.70	3.194	6.490
%RSD	.1379829	.1569864	.2851694	.0636505	.0867058
#1	6458.732	110905.0	11780.00	5018.983	7481.690
#2	6472.016	110590.9	11832.91	5019.667	7480.835
#3	6475.702	110619.0	11842.62	5013.825	7492.479

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169332BL Acquired: 8/22/2025 14:50:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005666	-.002109	.0002557	-.005614	-.001011	.0169258	-.003180
Stddev	.0016973	.001801	.0012048	.002042	.000662	.0080613	.000433
%RSD	299.5422	85.40344	471.2510	36.37752	65.52600	47.62752	13.62162
#1	.0013832	-.000432	.0006880	-.005260	-.001105	.0229998	-.003672
#2	.0017013	-.004013	.0011847	-.007810	-.001621	.0077802	-.003014
#3	-.001385	-.001881	-.001106	-.003772	-.000306	.0199974	-.002855

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000970	-.000057	.0009668	.0000155	-.000058	-.000338	.0037650
Stddev	.0000361	.000055	.0055623	.0000401	.000077	.000336	.0028167
%RSD	37.18379	97.35310	575.3578	259.1021	131.7520	99.26967	74.81327
#1	.0000611	.000000	-.002586	.0000602	-.000137	-.000712	.0018730
#2	.0001332	-.000060	.007377	.0000038	.000017	-.000062	.0070022
#3	.0000967	-.000110	-.001890	-.000018	-.000056	-.000240	.0024200

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000298	.0191333	.0001643	-.000162	.0536457	-.001791	-.000417
Stddev	.0004094	.0287758	.0001386	.000500	.0135102	.002213	.000130
%RSD	1374.074	150.3962	84.34379	309.0141	25.18418	123.5923	31.20575
#1	.0002185	-.012959	.0001638	-.000691	.0656964	.000731	-.000432
#2	.0003109	.042637	.0000260	-.000097	.0390406	-.003411	-.000539
#3	-.000440	.027722	.0003031	.000303	.0562003	-.002691	-.000280

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.374606	-.001935	-.000165	.0124662	.0006044	.0054823	.0003140
Stddev	.029602	.000172	.000173	.0004421	.0013209	.0025082	.0011069
%RSD	7.902047	8.885369	104.6021	3.546180	218.5488	45.74986	352.5349
#1	-.402120	-.001943	-.000164	.0122202	-.000602	.0057398	-.000102
#2	-.343285	-.002103	-.000339	.0122018	.002016	.0078518	.001569
#3	-.378412	-.001759	.000007	.0129765	.000399	.0028554	-.000524

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169332BL Acquired: 8/22/2025 14:50:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006566	-.000767	-.000150
Stddev	.0016985	.001033	.000067
%RSD	258.6692	134.6040	44.19896
#1	.0002205	-.000961	-.000226
#2	-.000781	-.001690	-.000102
#3	.002531	.000349	-.000123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6567.325	114010.4	11166.54	5091.488	8108.405
Stddev	.995	248.7	78.38	16.285	5.260
%RSD	.0151555	.2181160	.7018972	.3198564	.0648759
#1	6566.737	114294.4	11205.12	5073.912	8107.747
#2	6568.474	113831.6	11218.15	5094.486	8103.504
#3	6566.764	113905.2	11076.35	5106.067	8113.963

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169332BS Acquired: 8/22/2025 14:55:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7908603**	**2.311460**	**.9513201**	**2.036979**	**.8181864**	**1.989193**
Stddev	.0012706	.025714	.0016091	.004581	.0033325	.009676
%RSD	.1606538	1.112443	.1691446	.2248862	.4073077	.4864410
#1	.7910489	2.331165	.9494649	2.032559	.8207445	1.978920
#2	.7895060	2.320844	.9521584	2.041705	.8144178	1.990523
#3	.7920260	2.282373	.9523370	2.036675	.8193969	1.998135

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1909014**	**.2024886**	**.1898698**	**1.017750**	**.4061048**	**.1944104**
Stddev	.0003785	.0007513	.0002508	.006410	.0010673	.0003085
%RSD	.1982422	.3710297	.1320649	.6297914	.2628051	.1587061
#1	.1909816	.2022418	.1898236	1.010926	.4073371	.1941960
#2	.1912333	.2033323	.1901404	1.023644	.4054817	.1947640
#3	.1904893	.2018918	.1896453	1.018679	.4054955	.1942713

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3094245**	**2.922263**	**.1981316**	**2.021170**	**.4868603**	**.0751803**
Stddev	.0007049	.007124	.0002623	.005928	.0004792	.0003215
%RSD	.2278036	.2437705	.1323788	.2932781	.0984258	.4276149
#1	.3097357	2.915100	.1983500	2.021842	.4866636	.0748108
#2	.3099203	2.922342	.1978407	2.026732	.4874065	.0753336
#3	.3086176	2.929347	.1982042	2.014934	.4865108	.0753964

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.822291**	**.2998961**	**.2093135**	**9.145242**	**.2951807**	**.4132296**
Stddev	.018411	.0028279	.0003600	.054075	.0020715	.0004935
%RSD	.6523300	.9429719	.1720078	.5912944	.7017796	.1194231
#1	2.821586	.2991351	.2090248	9.140841	.2951047	.4134676
#2	2.804244	.3030266	.2097170	9.093502	.2972891	.4135589
#3	2.841045	.2975265	.2091988	9.201383	.2931482	.4126622

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169332BS Acquired: 8/22/2025 14:55:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6776035**	**.1946048**	**.8942856**	**5.550233**	F **-.000381**	**.1957047**
Stddev	.0007994	.0012611	.0097789	.009828	.001139	.0020116
%RSD	.1179805	.6480221	1.093488	.1770655	298.9524	1.027854
#1	.6778328	.1958499	.8877395	5.542478	.000862	.1944665
#2	.6782633	.1946362	.8895907	5.546936	-.001376	.1946218
#3	.6767145	.1933283	.9055266	5.561285	-.000629	.1980257

Elem	Sr4077
Units	ppm
Avg	**.1915137**
Stddev	.0005030
%RSD	.2626497
#1	.1919688
#2	.1909736
#3	.1915987

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6498.723**	**112761.8**	**11281.54**	**5097.197**	**7786.509**
Stddev	5.027	284.9	36.52	12.078	6.406
%RSD	.0773494	.2526432	.3237028	.2369495	.0822709
#1	6496.533	112433.3	11284.00	5090.030	7783.290
#2	6495.162	112940.5	11243.85	5111.141	7782.350
#3	6504.473	112911.6	11316.76	5090.419	7793.886

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2927-01 Acquired: 8/22/2025 14:59:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0143752**	**-.002066**	**.0453618**	**-.001203**	**.0021913**	**31.52080**
Stddev	.0014779	.000913	.0015483	.000402	.0017661	.11592
%RSD	10.28080	44.17372	3.413213	33.42193	80.59418	.3677693
#1	.0160779	-.001886	.0451360	-.000829	.0035400	31.64507
#2	.0134250	-.001257	.0470107	-.001152	.0001923	31.41558
#3	.0136226	-.003055	.0439389	-.001628	.0028416	31.50174

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1479315**	**.0015120**	**.0004060**	**110.4878**	**.0425230**	**.0112583**
Stddev	.0017050	.0000533	.0000046	.2008	.0014168	.0001050
%RSD	1.152550	3.524798	1.122911	.1817509	3.331819	.9322868
#1	.1482816	.0015527	.0004082	110.6145	.0421731	.0113764
#2	.1460786	.0014517	.0004091	110.2563	.0413139	.0112226
#3	.1494342	.0015316	.0004008	110.5927	.0440819	.0111758

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0449878**	**31.16237**	**.7948584**	**25.40531**	**.0229689**	**.0005340**
Stddev	.0006617	.25339	.0030132	.02932	.0003498	.0004486
%RSD	1.470864	.8131412	.3790873	.1154054	1.522706	84.01170
#1	.0452021	31.19686	.7977399	25.40519	.0231252	.0000237
#2	.0442455	31.39675	.7917288	25.43469	.0232133	.0008664
#3	.0455157	30.89349	.7951064	25.37605	.0225683	.0007118

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.08946**	**.0593540**	**.2266441**	**14.02665**	**.3437271**	**.0105074**
Stddev	.15854	.0012536	.0009512	.05076	.0010459	.0001722
%RSD	.8305233	2.112107	.4196965	.3618955	.3042840	1.638970
#1	19.27025	.0589770	.2270948	14.08034	.3438910	.0103403
#2	18.97413	.0607529	.2272862	13.97944	.3446814	.0104977
#3	19.02399	.0583322	.2255513	14.02018	.3426089	.0106843

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2927-01 Acquired: 8/22/2025 14:59:00 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192235	1.345574	F 92.41479	.6058978	F 27.24383	.0062828
Stddev	.0006858	.001174	.52774	.0022336	.17361	.0005090
%RSD	3.567374	.0872554	.5710557	.3686439	.6372375	8.101009
#1	.0199154	1.344698	93.01101	.6075398	27.43480	.0068601
#2	.0185440	1.346908	92.22577	.6067993	27.20115	.0060892
#3	.0192110	1.345118	92.00759	.6033544	27.09554	.0058991

Elem	Sr4077
Units	ppm
Avg	.5120752
Stddev	.0028587
%RSD	.5582660
#1	.5145917
#2	.5089669
#3	.5126671

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6405.957	110231.3	11972.81	4979.229	7328.220
Stddev	9.158	383.2	41.54	8.085	12.881
%RSD	.1429667	.3475907	.3469257	.1623819	.1757754
#1	6395.424	109826.8	11942.32	4970.772	7313.585
#2	6410.400	110278.4	12020.12	4980.031	7337.839
#3	6412.045	110588.8	11956.00	4986.883	7333.235

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-01 Acquired: 8/22/2025 15:03:06 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084472	-.004021	.0326482	.0008534	.0116460	.2891797
Stddev	.0007984	.001305	.0010860	.0010235	.0016534	.0028113
%RSD	9.451979	32.46395	3.326385	119.9417	14.19749	.9721518
#1	.0078697	-.005480	.0325854	.0019021	.0122882	.2861871
#2	.0081135	-.003620	.0337643	.0008011	.0128819	.2895869
#3	.0093583	-.002963	.0315950	-.000143	.0097678	.2917652

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2955531	-.000020	.0000098	74.41638	.0045737	.0008500
Stddev	.0009560	.000068	.0000770	.16864	.0001929	.0000190
%RSD	.3234453	341.1074	789.3191	.2266152	4.217941	2.234966
#1	.2960351	-.000074	.0000893	74.25761	.0045366	.0008418
#2	.2944521	-.000043	-.000065	74.59340	.0047824	.0008365
#3	.2961722	.000057	.000005	74.39814	.0044020	.0008717

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0144502	4.368737	.8544538	27.80203	.0143427	-.000283
Stddev	.0003584	.028923	.0011167	.10135	.0002553	.000505
%RSD	2.479905	.6620337	.1306924	.3645493	1.780103	178.1439
#1	.0148598	4.365087	.8557132	27.70474	.0141343	-.000712
#2	.0141948	4.399312	.8540636	27.90701	.0146275	-.000411
#3	.0142959	4.341813	.8535845	27.79433	.0142662	.000273

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	108.6880	.0120105	.0257050	48.24094	1.789288	.0241728
Stddev	.6537	.0006182	.0001132	.37854	.003345	.0001457
%RSD	.6014441	5.147013	.4401957	.7846791	.1869356	.6028536
#1	108.5099	.0125200	.0258349	48.07319	1.792498	.0242719
#2	109.4123	.0113228	.0256275	48.67437	1.785823	.0242409
#3	108.1419	.0121887	.0256527	47.97526	1.789542	.0240055

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-01 Acquired: 8/22/2025 15:03:06 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037874	.0113994	4.302522	.4941729	F 25.22553	.0142164
Stddev	.0006750	.0016860	.095264	.0031195	.16077	.0012289
%RSD	17.82264	14.79076	2.214145	.6312473	.6373174	8.644064
#1	.0044887	.0116395	4.226350	.4945620	25.14605	.0141719
#2	.0037314	.0129525	4.409336	.4970796	25.41056	.0130103
#3	.0031421	.0096061	4.271879	.4908772	25.11999	.0154669

Elem	Sr4077
Units	ppm
Avg	.7396264
Stddev	.0019242
%RSD	.2601525
#1	.7382979
#2	.7387484
#3	.7418330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6244.855	108109.3	11466.31	4837.609	7153.901
Stddev	52.230	964.9	37.74	56.623	63.753
%RSD	.8363726	.8925306	.3291073	1.170475	.8911641
#1	6241.848	107808.1	11423.46	4787.162	7155.225
#2	6194.193	107330.9	11480.88	4826.813	7089.496
#3	6298.524	109188.8	11494.60	4898.853	7216.981

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-03 Acquired: 8/22/2025 15:07:17 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087926**	**-.003385**	**.0372053**	**.0007592**	**.0125866**	**.6589823**
Stddev	.0016359	.001346	.0013303	.0004880	.0012212	.0071889
%RSD	18.60611	39.75639	3.575454	64.27293	9.702585	1.090910
#1	.0098324	-.004257	.0358837	.0002207	.0119467	.6519930
#2	.0069068	-.001835	.0371880	.0008848	.0118183	.6663554
#3	.0096385	-.004063	.0385441	.0011720	.0139948	.6585985

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4683169**	**.0000018**	**.0000604**	**78.50560**	**.0080313**	**.0010685**
Stddev	.0006755	.0000344	.0000136	.07209	.0002587	.0000897
%RSD	.1442473	1892.179	22.58674	.0918287	3.220731	8.398575
#1	.4676598	-.000038	.0000460	78.57715	.0077330	.0011243
#2	.4690094	.000019	.0000622	78.50666	.0081936	.0011162
#3	.4682813	.000024	.0000731	78.43298	.0081672	.0009650

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0193014**	**4.278046**	**.7529108**	**26.33018**	**.0155327**	**.0001487**
Stddev	.0003998	.039980	.0026430	.03908	.0001607	.0008749
%RSD	2.071158	.9345493	.3510432	.1484074	1.034654	588.5139
#1	.0195968	4.241576	.7505623	26.31794	.0156937	.0009494
#2	.0188465	4.320794	.7523971	26.37391	.0153723	-.000785
#3	.0194610	4.271768	.7557730	26.29868	.0155320	.000282

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.8410**	**.0122090**	**.0332321**	**45.51601**	**1.668609**	**.0263636**
Stddev	.8191	.0036014	.0004148	.33567	.012695	.0002366
%RSD	.8122845	29.49771	1.248067	.7374788	.7608128	.8976019
#1	99.9366	.0086573	.0330737	45.14339	1.683247	.0262333
#2	101.5331	.0158581	.0337027	45.79475	1.661966	.0266368
#3	101.0533	.0121117	.0329199	45.60988	1.660614	.0262207

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-03 Acquired: 8/22/2025 15:07:17 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017972	.0285243	5.032982	.4919538	F 24.64485	.0105137
Stddev	.0003824	.0021253	.072611	.0026843	.15527	.0005126
%RSD	21.27526	7.450912	1.442700	.5456391	.6300132	4.875327
#1	.0018201	.0261545	4.953563	.4889466	24.46962	.0099878
#2	.0021676	.0291567	5.095968	.4941077	24.76530	.0105415
#3	.0014039	.0302616	5.049415	.4928071	24.69962	.0110118

Elem	Sr4077
Units	ppm
Avg	.7366301
Stddev	.0020304
%RSD	.2756372
#1	.7343640
#2	.7382839
#3	.7372424

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6317.760	110200.8	11641.91	4932.273	7243.011
Stddev	6.216	329.7	92.24	26.929	8.092
%RSD	.0983940	.2991432	.7923187	.5459716	.1117279
#1	6319.759	110169.4	11544.50	4928.182	7246.441
#2	6322.730	109887.9	11653.31	4907.624	7248.824
#3	6310.790	110545.0	11727.92	4961.014	7233.769

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04MS Acquired: 8/22/2025 15:12:54 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8184708**	**2.224945**	**.9431418**	**2.057130**	**.8292558**	**2.180333**	**.1926871**
Stddev	.0025707	.009748	.0025796	.001669	.0025317	.006773	.0008147
%RSD	.3140870	.4381443	.2735150	.0811150	.3053016	.3106373	.4228044
#1	.8198475	2.218034	.9428599	2.055459	.8293274	2.181413	.1925585
#2	.8200600	2.236096	.9407147	2.058796	.8266891	2.186501	.1919443
#3	.8155050	2.220707	.9458508	2.057133	.8317510	2.173085	.1935584

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1877826**	**.1916110**	**9.297954**	**.4072815**	**.1966937**	**.3194378**	**3.457545**
Stddev	.0001214	.0002802	.017740	.0014918	.0004866	.0005239	.007114
%RSD	.0646437	.1462169	.1907940	.3662698	.2474128	.1639965	.2057615
#1	.1876772	.1915212	9.282512	.4056914	.1966854	.3195645	3.464931
#2	.1877554	.1913867	9.317331	.4075030	.1962112	.3188622	3.450738
#3	.1879154	.1919250	9.294019	.4086501	.1971844	.3198867	3.456968

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2093685**	**2.389839**	**.4918933**	**.0707401**	**82.06724**	**.3017938**	**.4985614**
Stddev	.0017169	.012491	.0001119	.0007924	.23834	.0019595	.0002899
%RSD	.8200563	.5226671	.0227538	1.120103	.2904148	.6492985	.0581570
#1	.2113370	2.396207	.4917678	.0699963	81.95423	.2997590	.4987917
#2	.2081802	2.397864	.4919292	.0706505	81.90644	.3019541	.4982358
#3	.2085883	2.375448	.4919829	.0715734	82.34106	.3036683	.4986566

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.61847**	**.2808002**	**.4314718**	**.6933951**	**.1987480**	**3.414580**	**5.987508**
Stddev	.07836	.0002836	.0006938	.0013294	.0013836	.008276	.007428
%RSD	.3464595	.1009900	.1608049	.1917184	.6961325	.2423669	.1240537
#1	22.55800	.2804780	.4312982	.6922064	.1978747	3.405189	5.994020
#2	22.59041	.2809109	.4308812	.6931482	.2003432	3.417743	5.989086
#3	22.70700	.2810119	.4322359	.6948305	.1980261	3.420807	5.979418

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04MS Acquired: 8/22/2025 15:12:54 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.569559	.1814077	.2095247
Stddev	.002029	.0010425	.0002505
%RSD	.1292772	.5746643	.1195432
#1	1.570844	.1803328	.2092354
#2	1.567220	.1824144	.2096705
#3	1.570613	.1814760	.2096680

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6580.485	114149.5	12183.81	5148.045	7613.230
Stddev	2.749	319.7	33.21	11.948	5.050
%RSD	.0417746	.2800597	.2725438	.2320816	.0663379
#1	6583.509	114518.2	12215.99	5155.655	7617.842
#2	6579.808	113950.2	12149.67	5154.204	7614.015
#3	6578.138	113980.0	12185.76	5134.274	7607.833

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04MSD Acquired: 8/22/2025 15:22:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8060861	2.117454	.9290904	2.033405	.8169815	2.142636	.1883419
Stddev	.0013382	.029126	.0019323	.003722	.0010253	.003244	.0011704
%RSD	.1660114	1.375521	.2079771	.1830414	.1254966	.1513864	.6214309
#1	.8068344	2.133676	.9275009	2.034195	.8181467	2.146336	.1895810
#2	.8068827	2.083829	.9285291	2.029352	.8162172	2.141291	.1881896
#3	.8045411	2.134857	.9312412	2.036669	.8165808	2.140281	.1872551

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1854454	.1889618	9.316775	.4016609	.1933449	.3149796	3.381662
Stddev	.0007202	.0001671	.008233	.0010171	.0000431	.0007744	.027418
%RSD	.3883841	.0884351	.0883621	.2532328	.0223161	.2458731	.8107954
#1	.1854693	.1887804	9.309162	.4026959	.1933866	.3142174	3.384987
#2	.1847135	.1891095	9.325511	.4016242	.1933005	.3149555	3.407266
#3	.1861534	.1889954	9.315650	.4006626	.1933476	.3157658	3.352732

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2093312	2.356713	.4847266	.0724875	81.01051	.2950521	.4991926
Stddev	.0009218	.016898	.0007815	.0003449	.63322	.0012997	.0014722
%RSD	.4403585	.7170318	.1612230	.4757587	.7816561	.4404924	.2949155
#1	.2092382	2.338583	.4838981	.0720898	81.65804	.2938798	.4986159
#2	.2084595	2.372025	.4854506	.0726704	80.98085	.2964497	.4980961
#3	.2102960	2.359530	.4848311	.0727025	80.39264	.2948268	.5008658

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.33357	.2755044	.4224402	.6799452	.1959084	3.376624	5.881926
Stddev	.10437	.0013203	.0012616	.0013032	.0005860	.023540	.010809
%RSD	.4673191	.4792389	.2986502	.1916605	.2991042	.6971358	.1837630
#1	22.44458	.2754732	.4219775	.6807638	.1964739	3.379505	5.884733
#2	22.31868	.2742000	.4214752	.6784424	.1953039	3.398591	5.869991
#3	22.23744	.2768401	.4238678	.6806295	.1959476	3.351776	5.891055

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2909-04MSD Acquired: 8/22/2025 15:22:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.592118	.1759448	.2059641
Stddev	.006526	.0024334	.0012843
%RSD	.4098934	1.383035	.6235505
#1	1.592267	.1780363	.2074422
#2	1.585519	.1732741	.2051215
#3	1.598568	.1765239	.2053285

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6531.501	114025.4	12136.07	5110.447	7563.348
Stddev	21.656	203.6	29.71	12.133	18.264
%RSD	.3315662	.1785728	.2448063	.2374239	.2414741
#1	6545.971	114103.1	12142.99	5105.891	7578.354
#2	6541.929	113794.4	12161.71	5124.199	7568.679
#3	6506.604	114178.8	12103.51	5101.252	7543.013

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-04 Acquired: 8/22/2025 15:26:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045497	-.002862	.0062180	.0066836	.0077123	.3675381
Stddev	.0011204	.001884	.0014397	.0010531	.0023683	.0221409
%RSD	24.62565	65.83737	23.15334	15.75644	30.70751	6.024114
#1	.0057229	-.000718	.0063147	.0056154	.0088650	.3503043
#2	.0044353	-.003610	.0076070	.0067146	.0049883	.3925094
#3	.0034909	-.004256	.0047325	.0077209	.0092835	.3598007

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3272500	-.000015	-.000127	197.4672	.0097728	.0004271
Stddev	.0015435	.000091	.000139	.7778	.0003426	.0004047
%RSD	.4716495	611.5290	109.5333	.3939009	3.505635	94.75834
#1	.3285085	-.000113	.000010	197.4227	.0101087	.0000780
#2	.3277137	.000067	-.000268	198.2663	.0094239	.0008707
#3	.3255278	.000002	-.000123	196.7125	.0097859	.0003326

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047730	1.331663	.3872192	498.3759	.0097868	-.000141
Stddev	.0004305	.008889	.0009189	2.4535	.0006000	.000696
%RSD	9.019332	.6675271	.2372979	.4922903	6.130587	492.0854
#1	.0049612	1.327011	.3879928	496.7739	.0096169	-.000567
#2	.0050773	1.326065	.3874614	501.2005	.0104535	-.000519
#3	.0042804	1.341913	.3862035	497.1535	.0092902	.000662

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 3633.631	.0143727	.0237547	290.3383	1.580837	.0061764
Stddev	52.436	.0012394	.0003825	2.1038	.014982	.0004121
%RSD	1.443070	8.623064	1.610263	.7245932	.9477394	6.672536
#1	3689.234	.0154912	.0233742	289.8776	1.584179	.0066489
#2	3585.075	.0145865	.0241393	288.5030	1.593866	.0059892
#3	3626.584	.0130403	.0237507	292.6342	1.564466	.0058911

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-04 Acquired: 8/22/2025 15:26:42 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040460	.0108408	8.914451	1.937157	F 396.9296	.0611708
Stddev	.0008627	.0024060	.062652	.013258	2.7324	.0014259
%RSD	21.32344	22.19422	.7028107	.6844077	.6883752	2.331082
#1	.0030805	.0081388	8.910916	1.945530	399.8266	.0609096
#2	.0047412	.0116320	8.853642	1.921871	394.3988	.0598934
#3	.0043163	.0127515	8.978796	1.944071	396.5633	.0627092

Elem	Sr4077
Units	ppm
Avg	3.390302
Stddev	.031718
%RSD	.9355538
#1	3.354700
#2	3.400662
#3	3.415545

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4335.316	77917.69	11104.44	3367.888	4531.517
Stddev	9.285	247.56	119.97	14.013	10.741
%RSD	.2141647	.3177161	1.080408	.4160704	.2370208
#1	4330.748	77757.93	11076.38	3357.248	4522.075
#2	4329.200	77792.30	11000.99	3362.650	4529.274
#3	4346.000	78202.86	11235.96	3383.765	4543.202

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV04 Acquired: 8/22/2025 15:44:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.019662**	**5.289629**	**4.917708**	**5.094855**	**5.001258**	**9.829050**	**9.471256**
Stddev	.007498	.057350	.005606	.007514	.011698	.041763	.129757
%RSD	.1493636	1.084204	.1139953	.1474789	.2339035	.4248921	1.370008
#1	5.024403	5.251653	4.911310	5.098888	5.014765	9.846726	9.591525
#2	5.011018	5.261634	4.920059	5.086186	4.994634	9.859069	9.333737
#3	5.023566	5.355600	4.921757	5.099492	4.994375	9.781356	9.488507

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2439933**	**2.478409**	**24.30678**	**1.005657**	**2.458478**	**1.244498**	**4.959546**
Stddev	.0029358	.002251	.07761	.004025	.001313	.002079	.077548
%RSD	1.203212	.0908229	.3192824	.4002522	.0533915	.1670754	1.563613
#1	.2463343	2.476030	24.36748	1.001443	2.458567	1.246734	4.889891
#2	.2449462	2.480505	24.33351	1.009463	2.459743	1.244136	4.945642
#3	.2406995	2.478693	24.21934	1.006063	2.457123	1.242623	5.043106

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.395692**	**24.39243**	**2.460364**	**1.250806**	**23.57702**	**2.467309**	**2.536278**
Stddev	.001307	.16598	.001640	.000813	.27149	.009235	.007004
%RSD	.0545414	.6804664	.0666755	.0649710	1.151504	.3743041	.2761631
#1	2.396870	24.55604	2.458659	1.250055	23.32333	2.467877	2.528427
#2	2.395919	24.39706	2.460503	1.250695	23.54438	2.476248	2.538523
#3	2.394286	24.22417	2.461931	1.251669	23.86335	2.457803	2.541885

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.38243**	**4.861201**	**5.079201**	**4.972976**	**4.887211**	**5.014956**	**4.993218**
Stddev	.35020	.058473	.007808	.012077	.009484	.069384	.012401
%RSD	1.436289	1.202847	.1537167	.2428530	.1940510	1.383540	.2483486
#1	24.03691	4.912417	5.087849	4.962174	4.896643	4.953581	4.981954
#2	24.37325	4.873694	5.077082	4.970739	4.887314	5.001045	4.991195
#3	24.73713	4.797491	5.072671	4.986016	4.877676	5.090241	5.006506

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV04 Acquired: 8/22/2025 15:44:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.030613**	**4.589108**	**4.852314**
Stddev	.017982	.007860	.002967
%RSD	.3574475	.1712831	.0611372
#1	5.029140	4.587965	4.854205
#2	5.013413	4.597478	4.853841
#3	5.049286	4.581882	4.848895

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6307.940**	**108756.4**	**11297.10**	**4919.274**	**7127.562**
Stddev	5.184	86.3	141.98	24.826	15.351
%RSD	.0821814	.0793734	1.256825	.5046585	.2153745
#1	6313.148	108841.0	11164.92	4947.518	7145.119
#2	6302.781	108759.9	11279.21	4909.394	7120.902
#3	6307.892	108668.4	11447.19	4900.909	7116.667

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB04 Acquired: 8/22/2025 15:48:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008270**	**-.001559**	**-.000202**	**-.003731**	**-.002466**	**.0149250**	**-.003442**
Stddev	.0016725	.001261	.000268	.000377	.001557	.0089688	.000673
%RSD	202.2518	80.89865	133.1783	10.09396	63.14553	60.09263	19.53975
#1	.0027028	-.002903	.000094	-.003299	-.001136	.0207255	-.003997
#2	.0002869	-.000401	-.000431	-.003991	-.004178	.0194548	-.002694
#3	-.000509	-.001374	-.000268	-.003903	-.002083	.0045947	-.003637

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000666**	**.0000412**	**.0044368**	**.0001968**	**.0000135**	**-.000169**	**-.002777**
Stddev	.0000643	.0000445	.0044927	.0002762	.0001383	.000274	.001683
%RSD	96.56312	107.9576	101.2609	140.3582	1025.619	162.0167	60.61249
#1	.0001408	.0000463	.0090755	.0003998	.0000901	.000060	-.001179
#2	.0000284	.0000830	.0001059	.0003082	-.000146	-.000095	-.002619
#3	.0000305	-.000006	.0041288	-.000118	.000097	-.000473	-.004535

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004266**	**.0167445**	**-.000121**	**.0004139**	**.2191197**	**-.000995**	**-.000063**
Stddev	.0004549	.0155201	.000209	.0006467	.0262129	.001183	.000132
%RSD	106.6495	92.68770	173.6149	156.2575	11.96284	118.9542	209.7316
#1	.0000032	.0021457	-.000321	.0011280	.1914460	-.001931	.000055
#2	.0009076	.0150423	.000097	.0002460	.2223387	.000335	-.000206
#3	.0003690	.0330456	-.000138	-.000132	.2435745	-.001389	-.000038

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0602007**	**.0059362**	**.0003816**	**.0123649**	**.0007186**	**.0110196**	**-.000468**
Stddev	.0652719	.0003452	.0002877	.0004751	.0005939	.0036321	.000831
%RSD	108.4239	5.815491	75.41110	3.842006	82.64427	32.96063	177.4750
#1	.0004544	.0063023	.0006623	.0118177	.0005162	.0141736	.000307
#2	.0502842	.0056165	.0003951	.0126057	.0013872	.0118368	-.000366
#3	.1298633	.0058898	.0000873	.0126714	.0002523	.0070485	-.001346

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB04 Acquired: 8/22/2025 15:48:52 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0062943	-.002654	.0001512
Stddev	.0015685	.001403	.0000689
%RSD	24.91889	52.84498	45.53773
#1	.0080363	-.001289	.0000804
#2	.0058522	-.002582	.0001554
#3	.0049943	-.004092	.0002179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6660.576	115136.2	11349.28	5174.566	8210.865
Stddev	.743	408.3	40.64	24.954	17.211
%RSD	.0111556	.3545874	.3580530	.4822449	.2096124
#1	6659.768	115481.6	11354.83	5188.097	8207.662
#2	6661.231	115241.4	11386.86	5189.832	8229.452
#3	6660.730	114685.7	11306.16	5145.769	8195.480

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02 Acquired: 8/22/2025 15:53:02 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081889**	**-.004127**	**.0353163**	**-.000024**	**.0084768**	**.3637669**
Stddev	.0012613	.002641	.0010599	.001346	.0013198	.0197048
%RSD	15.40302	63.98754	3.001078	5539.169	15.56946	5.416865
#1	.0082451	-.007133	.0361689	-.001376	.0069528	.3669302
#2	.0094211	-.003065	.0341296	-.000012	.0092433	.3426718
#3	.0069004	-.002182	.0356502	.001315	.0092342	.3816986

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3260658**	**.0000131**	**.0000598**	**73.18235**	**.0048925**	**.0008778**
Stddev	.0017230	.0000253	.0000094	.16545	.0002626	.0001486
%RSD	.5284079	193.0474	15.63286	.2260751	5.366718	16.93441
#1	.3265381	-.000005	.0000590	73.31900	.0046098	.0007739
#2	.3241559	.000002	.0000509	72.99841	.0049391	.0008114
#3	.3275033	.000042	.0000696	73.22966	.0051287	.0010480

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0189602**	**4.744787**	**.9078830**	**26.81356**	**.0145680**	**.0003639**
Stddev	.0003064	.038221	.0049824	.11616	.0000821	.0002321
%RSD	1.616121	.8055319	.5487943	.4332032	.5633516	63.75991
#1	.0186065	4.703994	.9082826	26.87226	.0144772	.0001003
#2	.0191439	4.750597	.9027129	26.67976	.0146369	.0005373
#3	.0191303	4.779770	.9126536	26.88864	.0145899	.0004542

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**105.1245**	**.0138630**	**.0298182**	**46.86390**	**1.729462**	**.0242038**
Stddev	.5268	.0039042	.0001223	.29923	.011415	.0001914
%RSD	.5011036	28.16260	.4100057	.6385133	.6600327	.7908772
#1	104.5281	.0097294	.0297016	46.52281	1.739679	.0240066
#2	105.3191	.0143717	.0298075	46.98665	1.717142	.0243889
#3	105.5264	.0174879	.0299454	47.08223	1.731566	.0242160

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02 Acquired: 8/22/2025 15:53:02 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032251	.0136547	4.634128	.4979598	F 23.97752	.0125105
Stddev	.0004235	.0003561	.112772	.0011547	.03759	.0010929
%RSD	13.13279	2.607736	2.433513	.2318926	.1567595	8.735633
#1	.0037140	.0136730	4.521948	.4983200	23.98475	.0130607
#2	.0029912	.0140012	4.632951	.4966680	24.01097	.0112518
#3	.0029700	.0132897	4.747483	.4988916	23.93685	.0132189

Elem	Sr4077
Units	ppm
Avg	.7208364
Stddev	.0031117
%RSD	.4316795
#1	.7214071
#2	.7174789
#3	.7236233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6282.312	108631.3	11587.14	4885.653	7205.856
Stddev	1.404	209.8	97.43	15.945	5.808
%RSD	.0223471	.1930942	.8408665	.3263601	.0805984
#1	6282.928	108707.8	11500.19	4899.040	7205.539
#2	6283.303	108792.1	11692.44	4868.013	7200.213
#3	6280.706	108394.0	11568.78	4889.905	7211.816

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02DUP Acquired: 8/22/2025 15:57:15 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0083228**	**-.004151**	**.0355746**	**-.000122**	**.0116327**	**.3730066**
Stddev	.0002191	.001906	.0004905	.005984	.0013998	.0097441
%RSD	2.633016	45.91501	1.378843	4913.345	12.03320	2.612303
#1	.0080742	-.002896	.0361380	-.006800	.0102125	.3799078
#2	.0084880	-.003213	.0352424	.001682	.0116744	.3772519
#3	.0084063	-.006344	.0353434	.004752	.0130112	.3618601

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3210508**	**-.000052**	**.0000346**	**72.36732**	**.0045962**	**.0007796**
Stddev	.0009059	.000002	.0000448	.25479	.0001385	.0000679
%RSD	.2821730	4.615047	129.2178	.3520751	3.012286	8.714051
#1	.3200121	-.000054	.0000502	72.07565	.0045871	.0007072
#2	.3214632	-.000049	-.000016	72.47980	.0044626	.0007899
#3	.3216772	-.000052	.000070	72.54652	.0047390	.0008419

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0187852**	**4.703222**	**.8985186**	**26.54359**	**.0156123**	**.0000875**
Stddev	.0004437	.043768	.0040134	.11577	.0003647	.0004787
%RSD	2.361982	.9305952	.4466639	.4361562	2.335978	547.2940
#1	.0189114	4.653437	.8941264	26.40994	.0151969	-.000457
#2	.0191521	4.720583	.8994349	26.60808	.0157603	.000276
#3	.0182920	4.735646	.9019947	26.61276	.0158797	.000443

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**104.6172**	**.0142569**	**.0291629**	**46.40797**	**1.700257**	**.0237485**
Stddev	.5045	.0004360	.0001112	.23761	.002757	.0001015
%RSD	.4822679	3.057816	.3814385	.5119970	.1621617	.4271901
#1	104.0828	.0145712	.0291197	46.13925	1.702419	.0236317
#2	105.0854	.0137592	.0292892	46.49439	1.697152	.0237990
#3	104.6833	.0144403	.0290797	46.59028	1.701201	.0238147

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02DUP Acquired: 8/22/2025 15:57:15 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043093	.0142141	4.594324	.4980102	F 24.09448	.0117165
Stddev	.0002037	.0002556	.093746	.0021313	.01970	.0008070
%RSD	4.726585	1.798120	2.040484	.4279669	.0817634	6.887564
#1	.0041475	.0145073	4.510682	.4959111	24.11452	.0125385
#2	.0042423	.0140963	4.695655	.4979474	24.07514	.0116854
#3	.0045380	.0140385	4.576637	.5001723	24.09379	.0109255

Elem	Sr4077
Units	ppm
Avg	.7126976
Stddev	.0025247
%RSD	.3542430
#1	.7103837
#2	.7123188
#3	.7153903

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6254.723	109338.2	11697.12	4896.312	7165.131
Stddev	4.047	356.1	54.59	41.974	.798
%RSD	.0646970	.3256805	.4667177	.8572490	.0111316
#1	6254.036	109162.5	11636.00	4870.608	7166.046
#2	6259.069	109104.2	11714.31	4873.578	7164.579
#3	6251.064	109748.0	11741.05	4944.748	7164.769

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02LX5 Acquired: 8/22/2025 16:01:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007922**	**-.001543**	**.0081714**	**-.000620**	**.0014420**	**.0906130**	**.0710821**
Stddev	.0005107	.000573	.0013019	.002168	.0010712	.0017202	.0012611
%RSD	64.47097	37.13029	15.93223	349.4382	74.28571	1.898392	1.774123
#1	.0005693	-.001216	.0091101	.000801	.0014291	.0921943	.0712209
#2	.0013764	-.002205	.0066851	.000454	.0003773	.0887814	.0722681
#3	.0004308	-.001209	.0087188	-.003116	.0025196	.0908635	.0697574

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000403**	**.0000094**	**16.70330**	**.0012077**	**.0002918**	**.0041147**	**1.030104**
Stddev	.0000261	.0000478	.04461	.0001769	.0001428	.0003082	.023577
%RSD	64.81445	507.6388	.2670976	14.64566	48.91921	7.491134	2.288780
#1	.0000144	.0000252	16.70122	.0011662	.0003412	.0043692	1.005131
#2	.0000666	-.000044	16.74892	.0014017	.0004033	.0037720	1.051978
#3	.0000398	.000047	16.65976	.0010553	.0001309	.0042029	1.033201

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2055326**	**6.156286**	**.0032534**	**.0000758**	**22.06943**	**.0020635**	**.0061182**
Stddev	.0015308	.032165	.0000321	.0003913	.37478	.0012496	.0002491
%RSD	.7447731	.5224821	.9873298	516.4116	1.698196	60.55973	4.071276
#1	.2072685	6.173617	.0032831	.0003259	21.64002	.0034136	.0058312
#2	.2043760	6.176069	.0032193	-.000375	22.33072	.0009474	.0062777
#3	.2049535	6.119171	.0032579	.000277	22.23753	.0018294	.0062458

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.867851**	**.4325338**	**.0050184**	**.0002882**	**.0043762**	**.9978864**	**.1096724**
Stddev	.185798	.0005491	.0002736	.0006835	.0009182	.0159943	.0027104
%RSD	1.882862	.1269439	5.452101	237.1423	20.98082	1.602820	2.471327
#1	9.653739	.4328140	.0047861	-.000500	.0038046	.9811835	.1126453
#2	9.963170	.4319012	.0053200	.000644	.0038887	.9994130	.1090330
#3	9.986645	.4328862	.0049491	.000720	.0054353	1.013063	.1073389

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02LX5 Acquired: 8/22/2025 16:01:27 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.412754	.0032724	.1610489
Stddev	.040197	.0011894	.0004281
%RSD	.7426270	36.34742	.2658157
#1	5.451216	.0020998	.1613532
#2	5.416024	.0044780	.1605594
#3	5.371023	.0032394	.1612341

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6475.473	113676.2	11679.52	5071.004	7631.408
Stddev	5.820	1623.6	49.24	84.444	11.135
%RSD	.0898784	1.428272	.4215636	1.665236	.1459075
#1	6469.809	115502.1	11623.76	5166.673	7620.406
#2	6475.171	112394.8	11697.78	5006.846	7642.671
#3	6481.438	113131.7	11717.02	5039.494	7631.149

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02MS Acquired: 8/22/2025 16:05:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8410671	2.160155	.9784670	2.066429	.8386339	2.359967
Stddev	.0014444	.002253	.0015438	.006413	.0016126	.008891
%RSD	.1717406	.1042897	.1577785	.3103214	.1922935	.3767598
#1	.8399442	2.157734	.9771582	2.073484	.8400618	2.351419
#2	.8405604	2.162189	.9780733	2.060954	.8389552	2.369166
#3	.8426966	2.160541	.9801696	2.064849	.8368849	2.359316

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5025329	.1933764	.1972272	71.73849	.4270035	.2020530
Stddev	.0026196	.0004196	.0001567	.14549	.0021242	.0003261
%RSD	.5212748	.2169991	.0794299	.2028086	.4974706	.1613927
#1	.4996894	.1928955	.1971648	71.59544	.4294527	.2022167
#2	.5048481	.1935658	.1971114	71.88631	.4256632	.2022649
#3	.5030612	.1936679	.1974054	71.73373	.4258946	.2016775

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3218243	7.682982	1.062556	28.02944	.5150323	.0759831
Stddev	.0004839	.034542	.007500	.12445	.0009941	.0005542
%RSD	.1503753	.4495852	.7058015	.4439885	.1930208	.7293692
#1	.3222228	7.689974	1.054211	27.88713	.5153509	.0755205
#2	.3212858	7.713493	1.068731	28.11784	.5158280	.0758315
#3	.3219644	7.645480	1.064727	28.08335	.5139179	.0765973

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	102.5338	.3158891	.2438391	54.92122	1.940904	.4659863
Stddev	.2010	.0005573	.0004031	.11941	.011180	.0004614
%RSD	.1960262	.1764378	.1653124	.2174281	.5760383	.0990073
#1	102.3995	.3157450	.2436463	54.93619	1.929514	.4656358
#2	102.7649	.3165043	.2443024	55.03245	1.941336	.4658140
#3	102.4371	.3154179	.2435686	54.79503	1.951862	.4665090

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02MS Acquired: 8/22/2025 16:05:41 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7013082	.2108188	5.336565	6.502998	F 23.78302	.2021088
Stddev	.0010194	.0017246	.041258	.003564	.03487	.0003212
%RSD	.1453550	.8180546	.7731118	.0548070	.1466031	.1589030
#1	.7006166	.2107603	5.381178	6.506811	23.82245	.2021506
#2	.7008292	.2125719	5.328729	6.502433	23.77040	.2024071
#3	.7024789	.2091241	5.299787	6.499750	23.75623	.2017688

Elem	Sr4077
Units	ppm
Avg	.8864469
Stddev	.0043933
%RSD	.4956100
#1	.8819312
#2	.8907066
#3	.8867028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6270.426	108885.3	11632.40	4867.608	7143.644
Stddev	7.600	378.0	40.24	10.382	3.688
%RSD	.1212069	.3471742	.3458987	.2132870	.0516247
#1	6264.379	108573.3	11658.13	4857.342	7141.818
#2	6278.957	109305.7	11653.05	4867.380	7141.226
#3	6267.941	108777.0	11586.04	4878.102	7147.889

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02MSD Acquired: 8/22/2025 16:09:38 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7902656	2.001692	.9213282	1.947742	.7973031	2.238136
Stddev	.0018379	.004210	.0006219	.006112	.0034567	.030109
%RSD	.2325690	.2103040	.0675007	.3137815	.4335527	1.345251
#1	.7902560	1.997311	.9220431	1.941407	.7933158	2.250350
#2	.7884324	2.005706	.9209120	1.948217	.7994543	2.260219
#3	.7921082	2.002061	.9210295	1.953602	.7991394	2.203840

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4825672	.1817073	.1850875	69.40272	.4004816	.1898283
Stddev	.0047010	.0020271	.0003522	.30407	.0019110	.0004430
%RSD	.9741737	1.115605	.1903083	.4381168	.4771665	.2333894
#1	.4863217	.1830760	.1852571	69.59833	.3988702	.1900551
#2	.4840851	.1826674	.1846826	69.55743	.3999819	.1893178
#3	.4772947	.1793785	.1853229	69.05241	.4025928	.1901121

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3030866	7.363854	1.027011	27.00436	.4838120	.0713858
Stddev	.0002413	.021446	.008011	.07205	.0009062	.0005751
%RSD	.0796178	.2912346	.7800368	.2667958	.1873083	.8055915
#1	.3028258	7.340213	1.031064	27.04427	.4837564	.0710407
#2	.3033020	7.382058	1.032186	27.04762	.4829349	.0720496
#3	.3031320	7.369292	1.017783	26.92119	.4847448	.0710670

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.2677	.2965022	.2292563	53.19868	1.870396	.4419080
Stddev	.2795	.0009266	.0010085	.28351	.013024	.0006139
%RSD	.2787250	.3125159	.4399148	.5329298	.6963389	.1389198
#1	100.0195	.2967946	.2293174	52.99396	1.876783	.4414491
#2	100.2132	.2954647	.2282186	53.07980	1.878994	.4416696
#3	100.5705	.2972474	.2302328	53.52228	1.855411	.4426054

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02MSD Acquired: 8/22/2025 16:09:38 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6624528	.1997263	5.189428	6.104638	F 22.96725	.1918085
Stddev	.0019005	.0025482	.035802	.019195	.08666	.0014279
%RSD	.2868847	1.275847	.6898944	.3144399	.3773123	.7444403
#1	.6603036	.2006051	5.181408	6.091649	22.94911	.1903079
#2	.6631429	.2017188	5.228559	6.095578	22.89110	.1931505
#3	.6639117	.1968550	5.158316	6.126686	23.06154	.1919672

Elem	Sr4077
Units	ppm
Avg	.8550951
Stddev	.0053026
%RSD	.6201241
#1	.8592023
#2	.8569741
#3	.8491088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6302.313	109477.9	11707.12	4915.518	7186.809
Stddev	9.095	196.6	111.92	7.755	1.889
%RSD	.1443061	.1795795	.9559761	.1577751	.0262844
#1	6312.806	109526.6	11608.96	4912.461	7186.617
#2	6296.708	109645.5	11683.40	4924.336	7188.786
#3	6297.425	109261.5	11828.99	4909.757	7185.023

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02A Acquired: 8/22/2025 16:13:35 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8198487**	**2.160406**	**.9531529**	**2.032198**	**.8195378**	**2.326932**
Stddev	.0026384	.025064	.0023523	.003876	.0006893	.011424
%RSD	.3218197	1.160152	.2467860	.1907140	.0841122	.4909447
#1	.8168114	2.167483	.9504458	2.033534	.8194419	2.320486
#2	.8211618	2.181172	.9543152	2.027831	.8202700	2.340122
#3	.8215730	2.132565	.9546978	2.035229	.8189014	2.320187

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4989525**	**.1868234**	**.1922243**	**71.74156**	**.4119021**	**.1964290**
Stddev	.0027815	.0012780	.0002381	.08160	.0008917	.0004631
%RSD	.5574578	.6840567	.1238646	.1137456	.2164798	.2357488
#1	.5019293	.1882858	.1920018	71.82008	.4111189	.1958968
#2	.4985082	.1859209	.1924754	71.65719	.4117148	.1967399
#3	.4964199	.1862635	.1921959	71.74743	.4128726	.1966503

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3146029**	**7.687992**	**1.065237**	**27.86338**	**.5036054**	**.0730314**
Stddev	.0007512	.018206	.002130	.03333	.0005438	.0009824
%RSD	.2387649	.2368098	.1999361	.1196230	.1079849	1.345238
#1	.3149009	7.669320	1.067686	27.84177	.5029997	.0732611
#2	.3137485	7.705693	1.063815	27.84660	.5037645	.0719544
#3	.3151594	7.688962	1.064210	27.90176	.5040519	.0738786

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**103.7053**	**.3091102**	**.2397380**	**55.35041**	**1.923935**	**.4518089**
Stddev	.3176	.0030167	.0013028	.12011	.007966	.0005649
%RSD	.3062554	.9759406	.5434412	.2170044	.4140705	.1250338
#1	103.7474	.3083874	.2411541	55.27018	1.933031	.4519299
#2	103.9998	.3065206	.2394695	55.48850	1.918198	.4511932
#3	103.3687	.3124227	.2385903	55.29254	1.920576	.4523035

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-02A Acquired: 8/22/2025 16:13:35 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6878752	.2055496	5.583594	6.375755	F 23.97425	.1982789
Stddev	.0017198	.0017489	.045562	.009947	.07120	.0008090
%RSD	.2500165	.8508236	.8160004	.1560075	.2969981	.4080165
#1	.6864120	.2071700	5.531610	6.365708	23.91552	.1983794
#2	.6897695	.2036957	5.616598	6.385598	24.05345	.1974243
#3	.6874440	.2057829	5.602574	6.375958	23.95379	.1990329

Elem	Sr4077
Units	ppm
Avg	.8874169
Stddev	.0024509
%RSD	.2761879
#1	.8902363
#2	.8862199
#3	.8857945

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6281.907	109764.4	11809.73	4904.899	7159.496
Stddev	7.920	371.3	57.28	16.556	13.169
%RSD	.1260814	.3383078	.4850135	.3375474	.1839360
#1	6288.046	109698.7	11748.07	4886.896	7173.385
#2	6284.707	109430.3	11819.86	4908.330	7147.191
#3	6272.966	110164.2	11861.28	4919.472	7157.912

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169358BL Acquired: 8/22/2025 16:17:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001009**	**-.002435**	**-.000055**	**-.004440**	**-.002886**	**-.001947**
Stddev	.001249	.001077	.000776	.002514	.000798	.007972
%RSD	123.7625	44.22107	1404.019	56.62443	27.64338	409.3557
#1	.000137	-.003376	-.000930	-.007170	-.002200	.006630
#2	-.002339	-.001260	.000215	-.003929	-.003761	-.003342
#3	-.000824	-.002670	.000550	-.002220	-.002696	-.009130

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002584**	**.0000912**	**-.000044**	**.0035051**	**-.000072**	**.0000476**
Stddev	.000359	.0000329	.000067	.0031425	.000217	.0001786
%RSD	13.91166	36.11247	153.6300	89.65369	301.7495	374.8980
#1	-.002873	.0001213	-.000121	.0008405	.000109	.0002453
#2	-.002697	.0000560	.000001	.0069705	-.000012	-.000000
#3	-.002181	.0000963	-.000011	.0027044	-.000313	-.000102

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000441**	**-.001470**	**-.000148**	**.0098671**	**.0000419**	**.0003565**
Stddev	.000438	.002330	.000490	.0073712	.0001558	.0002702
%RSD	99.18419	158.5008	330.5661	74.70445	371.8958	75.78480
#1	-.000381	.001156	.000054	.0086614	.0002211	.0002413
#2	-.000037	-.002278	.000208	.0177668	-.000034	.0006652
#3	-.000906	-.003289	-.000708	.0031731	-.000062	.0001631

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2065403**	**-.003044**	**-.000688**	**-.234750**	**.0031059**	**-.000264**
Stddev	.0435964	.002639	.000109	.053927	.0003896	.000273
%RSD	21.10796	86.66678	15.83820	22.97214	12.54471	103.3949
#1	.1628569	-.005381	-.000729	-.288593	.0032708	-.000544
#2	.2067150	-.003570	-.000565	-.234918	.0033860	.000001
#3	.2500492	-.000183	-.000771	-.180739	.0026610	-.000248

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169358BL Acquired: 8/22/2025 16:17:31 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000489**	**.0015405**	**.0009766**	**.0003396**	F **.0161715**	**.0009880**
Stddev	.000376	.0001507	.0029274	.0009962	.0025338	.0008697
%RSD	77.02042	9.782760	299.7459	293.3530	15.66862	88.03171
#1	-.000916	.0017035	.0035990	-.000193	.0190967	.0019715
#2	-.000204	.0015115	.0015126	.001489	.0146560	.0003203
#3	-.000346	.0014063	-.002182	-.000277	.0147618	.0006722

Elem	Sr4077
Units	ppm
Avg	**-.000064**
Stddev	.000092
%RSD	143.3162
#1	-.000170
#2	-.000010
#3	-.000012

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6615.861**	**113468.0**	**11592.01**	**5140.901**	**8158.839**
Stddev	6.255	474.9	31.32	25.334	6.920
%RSD	.0945524	.4185431	.2702218	.4927970	.0848183
#1	6611.529	113839.5	11562.49	5163.598	8164.548
#2	6623.033	113631.6	11588.68	5145.536	8160.825
#3	6613.021	112932.9	11624.87	5113.570	8151.143

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169358BS Acquired: 8/22/2025 16:21:50 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7820137**	**2.228144**	**.9408875**	**2.005012**	**.7907733**	**1.966432**
Stddev	.0050489	.011101	.0017825	.006442	.0015948	.002822
%RSD	.6456317	.4982116	.1894539	.3212806	.2016799	.1435300
#1	.7827643	2.238053	.9394898	2.002674	.7922927	1.969462
#2	.7766315	2.216147	.9402777	2.000067	.7891124	1.965958
#3	.7866453	2.230232	.9428949	2.012297	.7909149	1.963877

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1849399**	**.1982198**	**.1879566**	**1.000194**	**.4050058**	**.1914746**
Stddev	.0011013	.0011321	.0000785	.010880	.0006869	.0001494
%RSD	.5954785	.5711139	.0417926	1.087799	.1695984	.0780214
#1	.1858472	.1986571	.1879121	1.006310	.4055759	.1914241
#2	.1837146	.1990680	.1880473	.987632	.4051982	.1916427
#3	.1852580	.1969343	.1879104	1.006640	.4042432	.1913569

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3050224**	**2.911112**	**.1940018**	**1.968635**	**.4818069**	**.0745131**
Stddev	.0001758	.007725	.0015461	.029035	.0005300	.0007014
%RSD	.0576387	.2653677	.7969730	1.474863	.1100015	.9412944
#1	.3049465	2.919969	.1954924	1.976862	.4812138	.0737647
#2	.3052234	2.907602	.1941073	1.992669	.4819728	.0751554
#3	.3048973	2.905766	.1924056	1.936375	.4822341	.0746193

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.813130**	**.2958859**	**.2072580**	**9.181403**	**.2906569**	**.4023486**
Stddev	.019882	.0031128	.0012796	.053223	.0007266	.0007627
%RSD	.7067648	1.052014	.6174051	.5796793	.2499986	.1895743
#1	2.790173	.2990258	.2086658	9.122468	.2898742	.4031968
#2	2.824385	.2958308	.2061655	9.225958	.2913100	.4017192
#3	2.824831	.2928010	.2069426	9.195783	.2907864	.4021297

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: PB169358BS Acquired: 8/22/2025 16:21:50 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6577411	.1865747	.8823574	5.527431	F .0082851	.1895921
Stddev	.0020965	.0011936	.0103123	.006574	.0010135	.0018498
%RSD	.3187401	.6397505	1.168717	.1189336	12.23339	.9756620
#1	.6557775	.1862424	.8906991	5.519852	.0092694	.1917212
#2	.6574967	.1878992	.8708275	5.531580	.0083412	.1883797
#3	.6599491	.1855824	.8855454	5.530862	.0072446	.1886754

Elem	Sr4077
Units	ppm
Avg	.1872854
Stddev	.0014861
%RSD	.7934757
#1	.1880659
#2	.1882187
#3	.1855718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6577.744	113259.1	11478.18	5115.339	7883.037
Stddev	14.487	127.1	50.34	15.280	7.851
%RSD	.2202445	.1121782	.4386128	.2987046	.0995890
#1	6561.171	113298.9	11466.02	5101.546	7874.644
#2	6587.998	113117.0	11435.03	5131.764	7884.269
#3	6584.063	113361.5	11533.49	5112.706	7890.199

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-04DLX3 Acquired: 8/22/2025 16:25:50 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040922**	**-.002650**	**.0027614**	**-.001894**	**.0008149**	**.1728159**
Stddev	.0010044	.003163	.0006206	.001936	.0002787	.0050129
%RSD	24.54368	119.3485	22.47369	102.1843	34.20049	2.900694
#1	.0046166	-.006199	.0027279	-.000201	.0011359	.1751173
#2	.0029341	-.000126	.0021582	-.001477	.0006741	.1670656
#3	.0047258	-.001626	.0033980	-.004004	.0006347	.1762648

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1530917**	**.0000202**	**-.000102**	**99.74882**	**.0049291**	**.0004635**
Stddev	.0012851	.0000287	.000046	.71064	.0000835	.0002905
%RSD	.8394463	142.0335	45.33929	.7124292	1.693246	62.66634
#1	.1530268	.0000531	-.000155	99.24279	.0049405	.0004239
#2	.1544081	.0000004	-.000069	100.5613	.0048405	.0001948
#3	.1518403	.0000071	-.000082	99.4424	.0050063	.0007717

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017953**	**.5927974**	**.1922432**	**251.5756**	**.0051092**	**.0003147**
Stddev	.0001857	.0041405	.0017785	2.3407	.0001491	.0002071
%RSD	10.34529	.6984657	.9251174	.9304336	2.918239	65.79686
#1	.0015915	.5901071	.1910512	249.7602	.0052411	.0002204
#2	.0018394	.5907199	.1942875	254.2175	.0049474	.0001716
#3	.0019550	.5975653	.1913911	250.7492	.0051390	.0005522

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2092.470**	**.0100485**	**.0104983**	**118.3745**	**.8798102**	**.0031913**
Stddev	11.793	.0015816	.0003012	.4223	.0058967	.0003673
%RSD	.5635985	15.73937	2.869024	.3567615	.6702267	11.51001
#1	2104.611	.0083234	.0107730	118.2123	.8746377	.0032206
#2	2091.739	.0103918	.0101762	118.0573	.8862312	.0028102
#3	2081.059	.0114302	.0105457	118.8538	.8785616	.0035431

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: Q2934-04DLX3 Acquired: 8/22/2025 16:25:50 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010116	.0034278	3.872756	.9288378	F 198.3079	.0303266
Stddev	.0005938	.0012498	.006459	.0056354	1.5669	.0018355
%RSD	58.69966	36.46074	.1667716	.6067180	.7901327	6.052439
#1	.0003587	.0048612	3.865929	.9264896	198.2560	.0289533
#2	.0015194	.0028558	3.878770	.9247563	196.7676	.0296153
#3	.0011567	.0025664	3.873568	.9352677	199.9001	.0324113

Elem	Sr4077
Units	ppm
Avg	1.636308
Stddev	.008940
%RSD	.5463556
#1	1.626814
#2	1.644566
#3	1.637542

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5099.813	89267.34	11343.86	3967.223	5384.866
Stddev	12.418	282.57	93.80	7.020	25.591
%RSD	.2434982	.3165446	.8268415	.1769518	.4752309
#1	5105.647	89042.81	11372.26	3960.430	5403.427
#2	5108.240	89174.57	11239.14	3966.791	5395.499
#3	5085.552	89584.63	11420.17	3974.450	5355.674

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV05 Acquired: 8/22/2025 16:30:13 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.910652**	F **5.599485**	**4.764201**	**4.995752**	**4.885807**	**9.518932**
Stddev	.009030	.019961	.012858	.015621	.011773	.001978
%RSD	.1838764	.3564860	.2698903	.3126880	.2409578	.0207749
#1	4.901147	5.600335	4.759194	4.982692	4.873556	9.516705
#2	4.911691	5.579113	4.754599	4.991507	4.886828	9.519610
#3	4.919116	5.619008	4.778809	5.013057	4.897035	9.520481

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.047070**	**.2335527**	**2.402003**	**23.47350**	**.9864479**	**2.381286**
Stddev	.066954	.0011842	.002964	.01054	.0021185	.004200
%RSD	.7400610	.5070453	.1233813	.0449041	.2147602	.1763792
#1	9.124381	.2347751	2.399883	23.48462	.9872862	2.378523
#2	9.008682	.2334722	2.400737	23.47224	.9880189	2.379216
#3	9.008147	.2324107	2.405390	23.46365	.9840385	2.386119

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.213033**	**4.871337**	**2.305116**	**23.68220**	**2.386607**	**1.213926**
Stddev	.002693	.038384	.004970	.01640	.001611	.002196
%RSD	.2220011	.7879653	.2155989	.0692701	.0674807	.1808778
#1	1.210566	4.851563	2.303538	23.69500	2.386171	1.216149
#2	1.212627	4.846871	2.301127	23.68788	2.385259	1.211759
#3	1.215906	4.915577	2.310683	23.66371	2.388390	1.213869

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.42647**	**2.382732**	**2.466287**	**24.14606**	**4.619873**	**4.957898**
Stddev	.20839	.001068	.000706	.21257	.020982	.013084
%RSD	.8895411	.0448424	.0286386	.8803581	.4541678	.2639070
#1	23.27959	2.381533	2.466983	23.94562	4.644085	4.946994
#2	23.33485	2.383079	2.466307	24.12358	4.607012	4.954294
#3	23.66497	2.383584	2.465571	24.36897	4.608521	4.972407

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCV05 Acquired: 8/22/2025 16:30:13 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.811624**	**4.722723**	**4.923626**	**4.853260**	**4.921946**	F **4.440477**
Stddev	.002869	.008190	.019249	.012693	.010763	.016636
%RSD	.0596203	.1734112	.3909499	.2615399	.2186800	.3746539
#1	4.812397	4.715649	4.902021	4.852448	4.926971	4.431459
#2	4.808448	4.720824	4.938949	4.840993	4.909590	4.430296
#3	4.814027	4.731695	4.929909	4.866340	4.929278	4.459675

Elem	Sr4077
Units	ppm
Avg	**4.695651**
Stddev	.013895
%RSD	.2959125
#1	4.687709
#2	4.687550
#3	4.711696

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6268.708**	**108290.5**	**11455.74**	**4876.445**	**7117.427**
Stddev	25.518	142.4	49.30	15.143	20.841
%RSD	.4070677	.1315266	.4303675	.3105416	.2928107
#1	6284.075	108382.9	11399.16	4864.097	7124.104
#2	6282.798	108362.0	11478.55	4871.896	7134.110
#3	6239.252	108126.4	11489.50	4893.341	7094.066

Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB05 Acquired: 8/22/2025 16:34:24 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005045	-.001190	.0006254	-.001889	-.001966	.0183388	-.000829
Stddev	.0015963	.000979	.0001793	.002548	.001292	.0055029	.001218
%RSD	316.4533	82.22717	28.67140	134.8776	65.70988	30.00703	146.9062
#1	-.001317	-.001881	.0008284	.000951	-.000865	.0245853	.000575
#2	.001658	-.001619	.0004887	-.002644	-.003389	.0162244	-.001599
#3	.001173	-.000070	.0005590	-.003975	-.001646	.0142067	-.001464

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001088	-.000001	.0040486	.0000769	.0000676	-.000111	-.001529
Stddev	.0000042	.000057	.0048687	.0003117	.0000930	.000243	.004428
%RSD	3.826923	6029.495	120.2571	405.3577	137.6671	219.0000	289.5240
#1	.0001062	.000020	-.000491	.0004333	.0001229	.000170	-.006412
#2	.0001065	.000043	.009191	-.000057	.0001196	-.000245	-.000400
#3	.0001136	-.000066	.003446	-.000145	-.000040	-.000259	.002225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000132	.0153631	.0002248	.0002714	.3497331	-.002254	-.000585
Stddev	.0001709	.0146893	.0001325	.0005745	.0475880	.001313	.000398
%RSD	1295.101	95.61434	58.94989	211.6762	13.60696	58.24127	68.13675
#1	.0001144	.0323178	.0003015	.0004987	.2975665	-.001147	-.000130
#2	.0001093	.0064617	.0000718	.0006974	.3608632	-.003704	-.000871
#3	-.000184	.0073098	.0003011	-.000382	.3907697	-.001911	-.000753

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.020788	.0053257	.0001671	.0128077	.0000384	.0070254	-.000821
Stddev	.049037	.0001858	.0001338	.0005586	.0004281	.0045348	.000718
%RSD	235.8929	3.487938	80.08515	4.361273	1114.767	64.54910	87.40776
#1	-.069519	.0054636	.0001817	.0134522	.0001148	.0107651	.000007
#2	-.021395	.0053990	.0002930	.0125079	-.000423	.0019813	-.001205
#3	.028550	.0051144	.0000266	.0124630	.000423	.0083299	-.001265

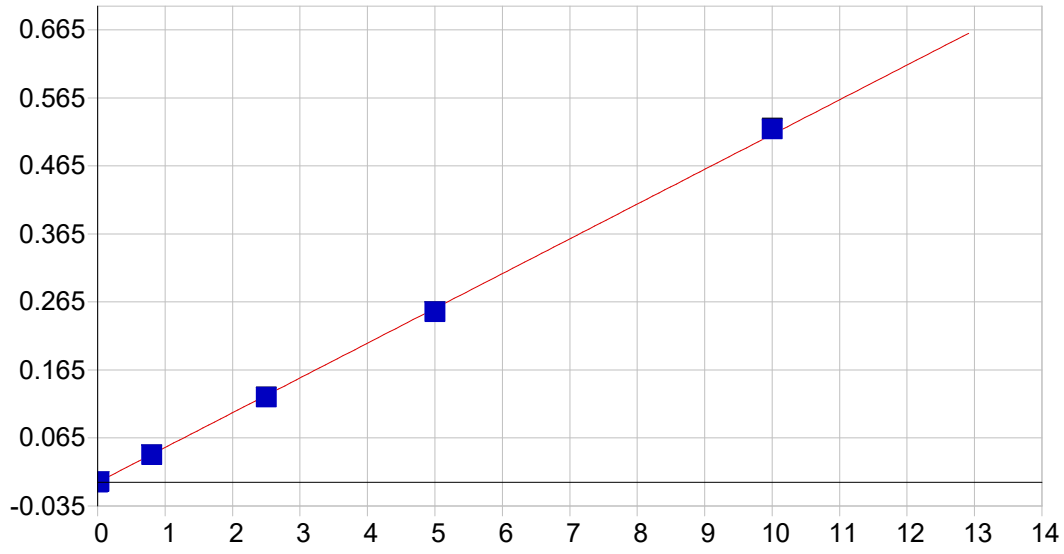
Reviewed By:jaswal
On:8/25/2025 10:05:20 PM
Inst Id :P4
LB :LB136940

Sample Name: CCB05 Acquired: 8/22/2025 16:34:24 Type: Unk
Method: 6010-200.7 NEW(v124) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0079269	-.001368	.0001820
Stddev	.0022117	.002082	.0000460
%RSD	27.90104	152.2483	25.28155
#1	.0064317	-.000976	.0002351
#2	.0104674	.000491	.0001562
#3	.0068815	-.003618	.0001546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6494.683	111181.2	11126.28	5009.180	8004.071
Stddev	4.129	332.1	75.23	19.860	12.651
%RSD	.0635809	.2986721	.6761140	.3964688	.1580546
#1	6499.445	111497.7	11045.21	5001.437	7990.660
#2	6492.520	111210.4	11139.78	5031.745	8015.791
#3	6492.085	110835.5	11193.84	4994.358	8005.762

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



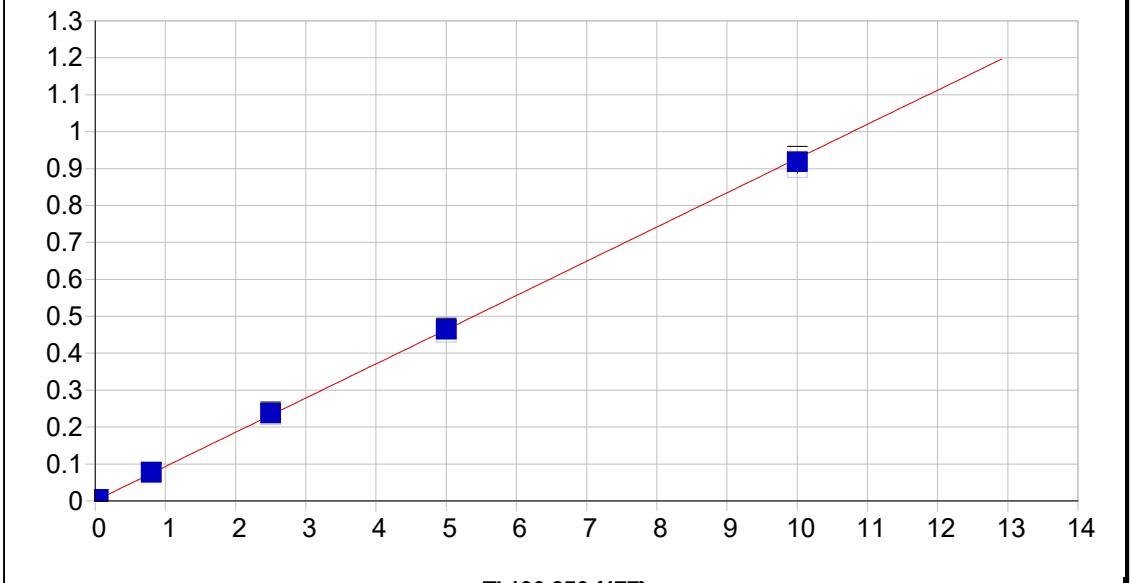
As 189.042 {479}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000122	Re-Slope:	1.000000
A1 (Gain):	0.051130	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999839	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.002245		
Predicted MQL:	0.007483		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00012	.000	1
S1	.02000	.02014	.000	.682	.00090	.000	1
S3	2.5000	2.4479	-.052	-2.08	.12491	.000	1
S4	5.0000	4.9022	-.098	-1.96	.25026	.000	1
S5	10.000	10.163	.163	1.63	.51899	.001	1
S2	.80000	.78667	-.013	-1.67	.04006	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



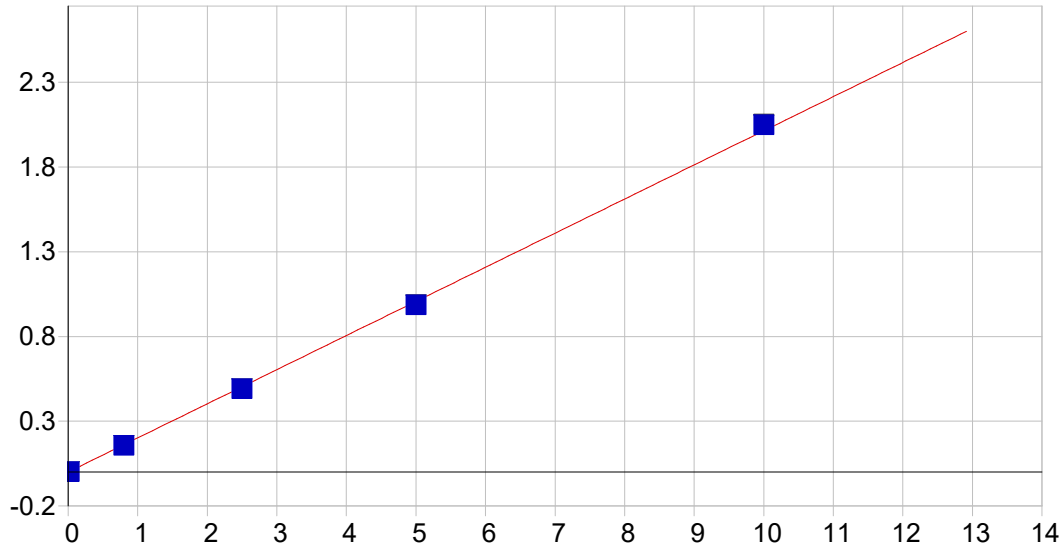
Tl 190.856 {477}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000503	Re-Slope:	1.000000
A1 (Gain):	0.092651	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999918	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.001584		
Predicted MQL:	0.005281		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00050	.000	1
S1	.04000	.04048	.000	1.19	.00402	.000	1
S3	2.5000	2.5582	.058	2.33	.23330	.004	1
S4	5.0000	5.0065	.007	.131	.45591	.003	1
S5	10.000	9.9105	-.090	-.895	.90182	.014	1
S2	.80000	.82430	.024	3.04	.07552	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



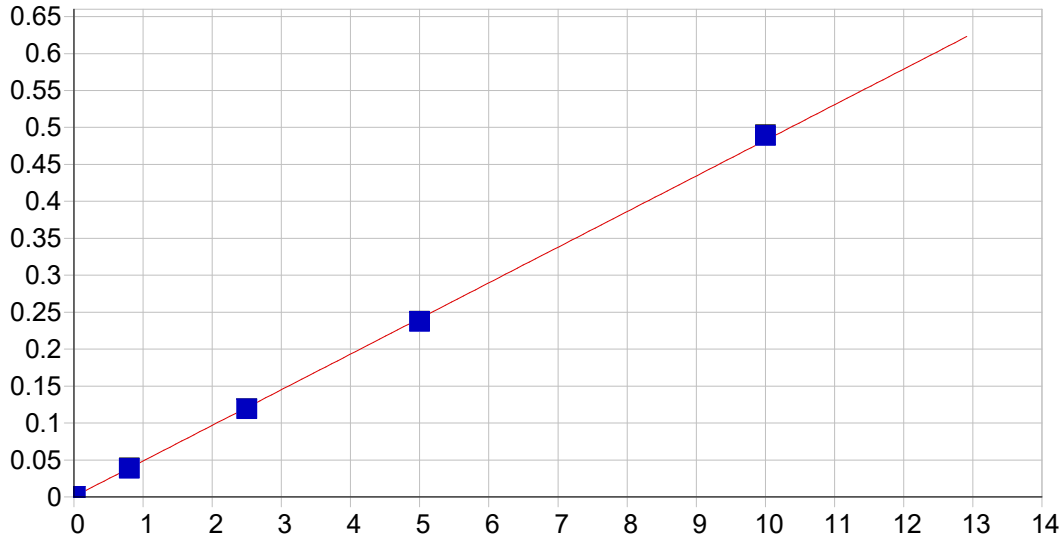
Pb 220.353 {453}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000045	Re-Slope:	1.000000
A1 (Gain):	0.201402	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999803	Status:	OK.
Std Error of Est:	0.000073		
Predicted MDL:	0.001348		
Predicted MQL:	0.004494		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.000	1
S1	.01200	.01046	-.002	-12.8	.00201	.000	1
S3	2.5000	2.4426	-.057	-2.29	.49135	.000	1
S4	5.0000	4.8983	-.102	-2.03	.98538	.001	1
S5	10.000	10.179	.179	1.79	2.0478	.002	1
S2	.80000	.78151	-.018	-2.31	.15717	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



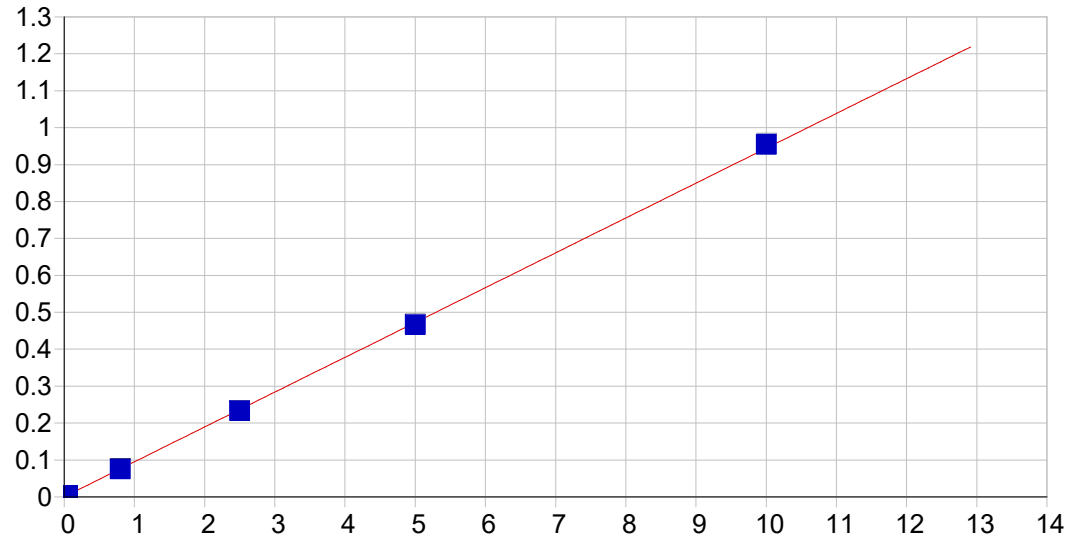
Se 196.090 {472}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000408	Re-Slope:	1.000000
A1 (Gain):	0.048212	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.002960		
Predicted MQL:	0.009868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00041	.000	1
S1	.02000	.02003	.000	.174	.00137	.000	1
S3	2.5000	2.4630	-.037	-1.48	.11912	.000	1
S4	5.0000	4.9097	-.090	-1.81	.23705	.000	1
S5	10.000	10.135	.135	1.35	.48892	.001	1
S2	.80000	.79182	-.008	-1.02	.03857	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



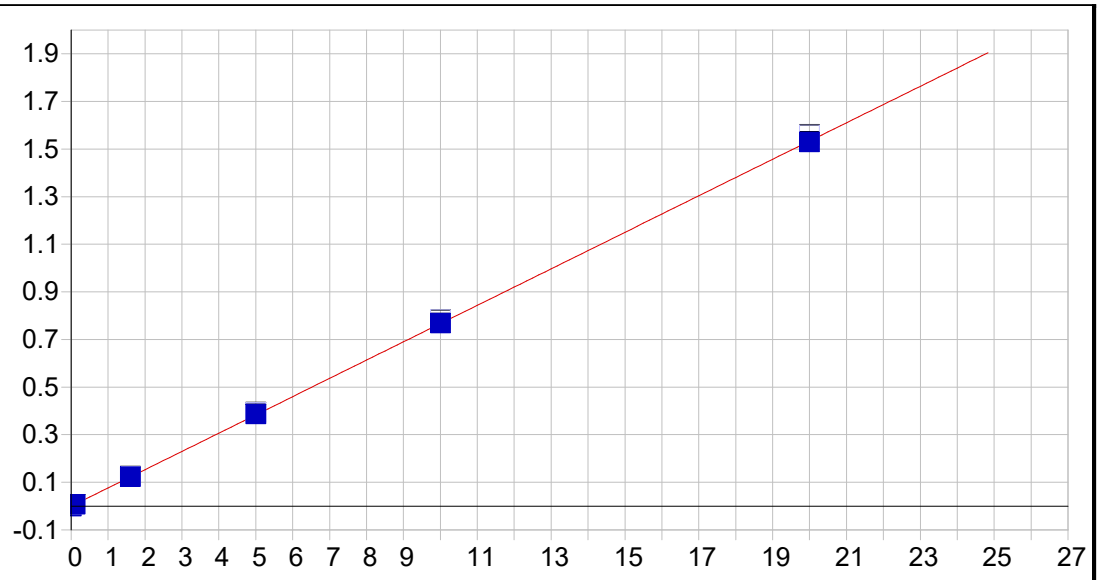
Sb 206.833 {463}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000638	Re-Slope:	1.000000
A1 (Gain):	0.094343	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.001903		
Predicted MQL:	0.006342		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00064	.000	1
S1	.05000	.04969	-.000	-.617	.00534	.000	1
S3	2.5000	2.4607	-.039	-1.57	.23343	.001	1
S4	5.0000	4.9354	-.065	-1.29	.46754	.001	1
S5	10.000	10.111	.111	1.11	.95714	.001	1
S2	.80000	.79286	-.007	-.892	.07564	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



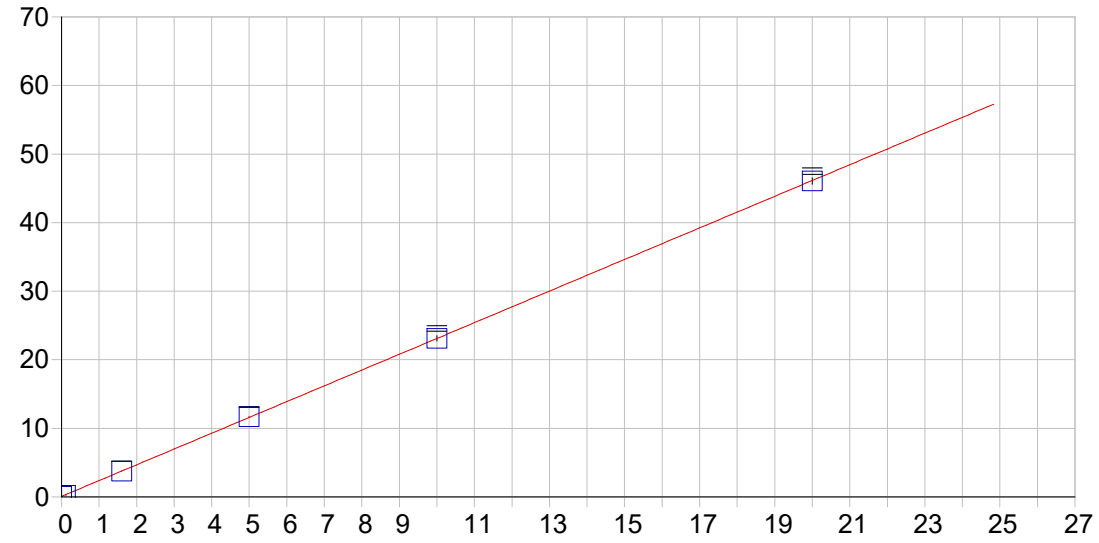
Al 396.152 { 85}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000292	Re-Slope:	1.000000
A1 (Gain):	0.076707	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.010307		
Predicted MQL:	0.034356		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00029	.000	1
S1	.10000	.09543	-.005	-4.57	.00762	.000	1
S3	5.0000	5.0397	.040	.794	.39373	.001	1
S4	10.000	10.016	.016	.160	.78288	.001	1
S5	20.000	19.948	-.052	-.260	1.5596	.002	1
S2	1.6000	1.6011	.001	.068	.12490	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



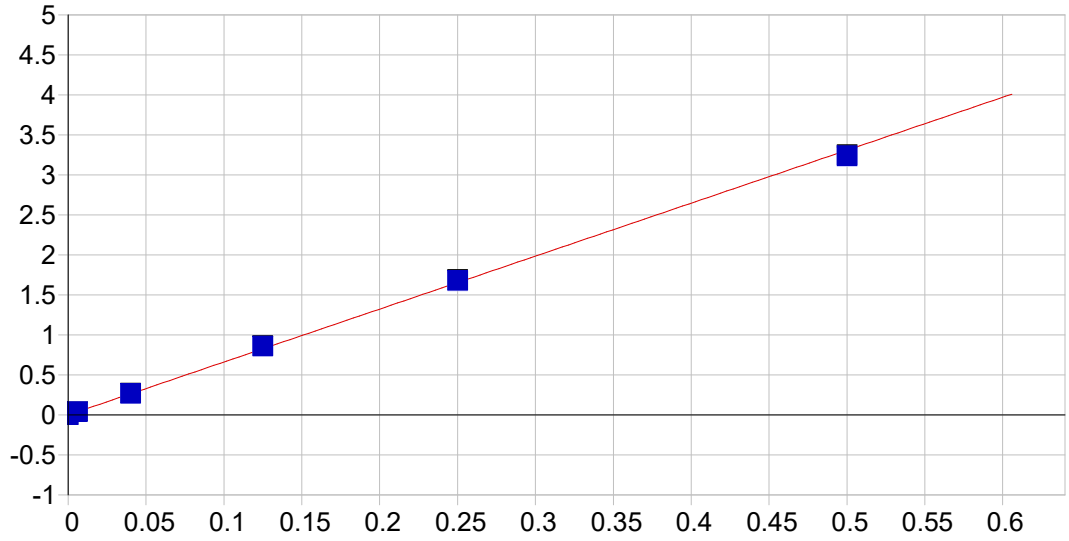
Ba 493.409 { 68}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.074678	Re-Slope:	1.000000
A1 (Gain):	2.303325	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000557		
Predicted MDL:	0.000987		
Predicted MQL:	0.003290		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.07468	.001	1
S1	.10000	.09871	-.001	-1.29	.30203	.001	1
S3	5.0000	5.0391	.039	.783	11.681	.053	1
S4	10.000	10.000	.000	.001	23.108	.401	1
S5	20.000	19.966	-.034	-.171	46.062	.472	1
S2	1.6000	1.5962	-.004	-.235	3.7513	.021	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



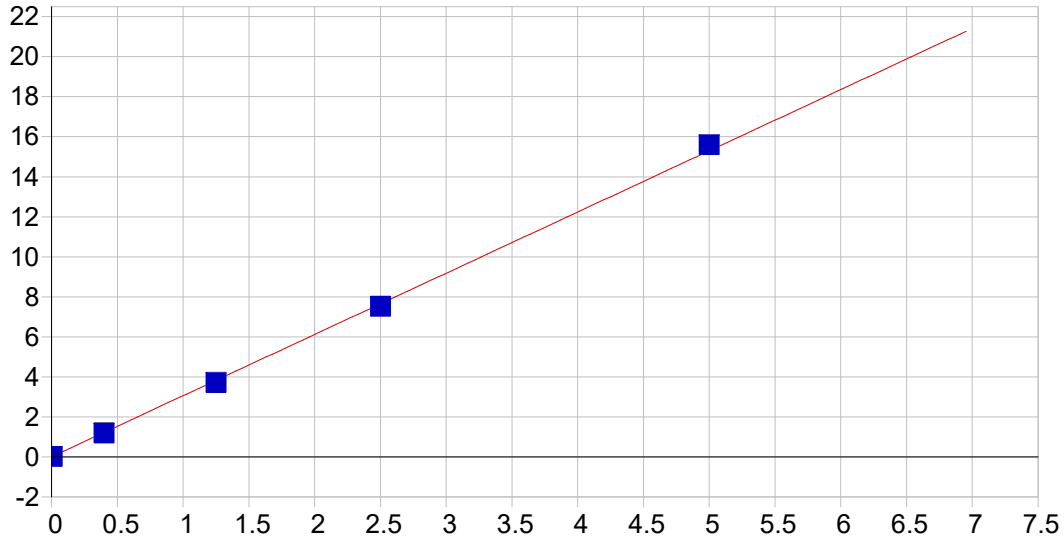
Be 234.861 {144}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001070	Re-Slope:	1.000000
A1 (Gain):	6.619297	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999721	Status:	OK.
Std Error of Est:	0.000448		
Predicted MDL:	0.000069		
Predicted MQL:	0.000230		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00107	.000	1
S1	.00600	.00624	.000	4.02	.03995	.000	1
S3	.12500	.13016	.005	4.13	.85678	.004	1
S4	.25000	.25392	.004	1.57	1.6723	.011	1
S5	.50000	.48982	-.010	-2.04	3.2264	.012	1
S2	.04000	.04086	.001	2.16	.26823	.002	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



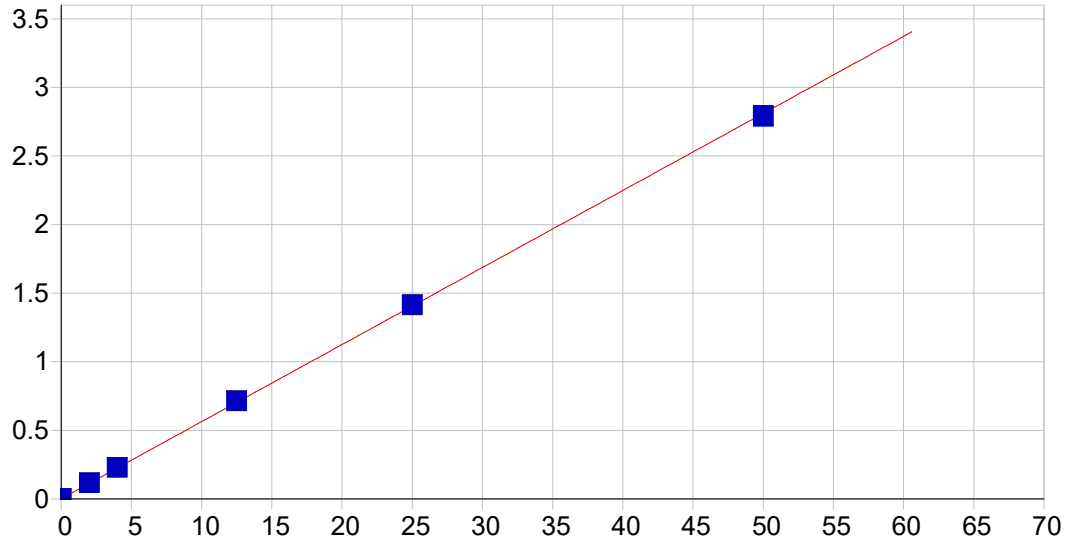
Cd 226.502 {449}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000673	Re-Slope:	1.000000
A1 (Gain):	3.059643	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999767	Status:	OK.
Std Error of Est:	0.000600		
Predicted MDL:	0.000076		
Predicted MQL:	0.000253		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00067	.000	1
S1	.00600	.00578	-.000	-3.61	.01708	.000	1
S3	1.2500	1.2149	-.035	-2.81	3.7190	.002	1
S4	2.5000	2.4547	-.045	-1.81	7.5148	.010	1
S5	5.0000	5.0962	.096	1.92	15.602	.012	1
S2	.40000	.38441	-.016	-3.90	1.1763	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



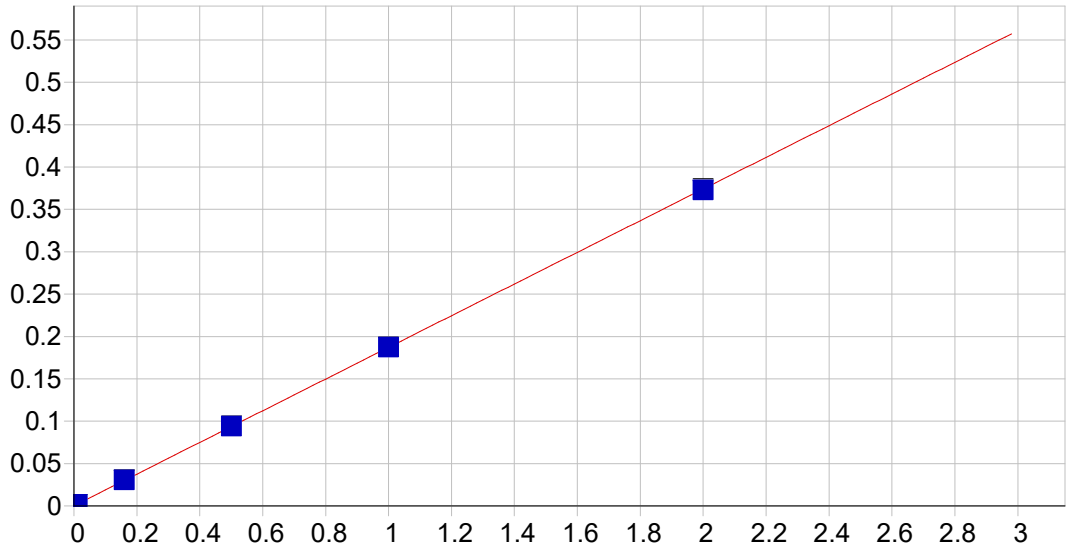
Ca 373.690 { 90}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001937	Re-Slope:	1.000000
A1 (Gain):	0.056168	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000258		
Predicted MDL:	0.011048		
Predicted MQL:	0.036826		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00007	-.000	.000	.00193	.001	1
S2	4.0000	4.0294	.029	.734	.22826	.001	1
S3	12.500	12.688	.188	1.51	.71462	.003	1
S4	25.000	25.132	.132	.530	1.4136	.004	1
S5	50.000	49.621	-.379	-.758	2.7890	.003	1
S1	2.0000	2.0288	.029	1.44	.11589	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



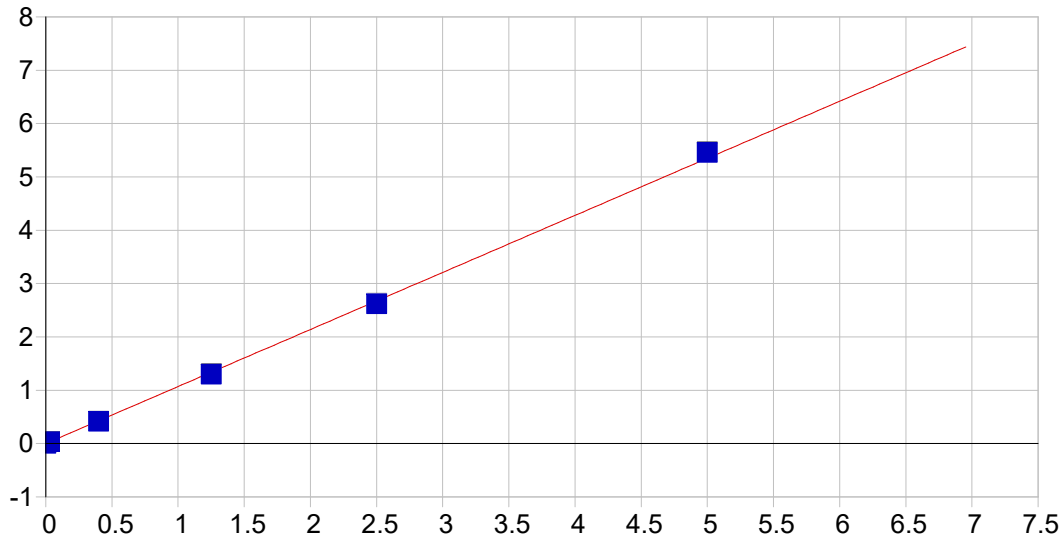
Cr 267.716 {126}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000197	Re-Slope:	1.000000
A1 (Gain):	0.186932	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.000330		
Predicted MQL:	0.001101		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00020	.000	1
S1	.01000	.01007	.000	.668	.00208	.000	1
S3	.50000	.50301	.003	.602	.09426	.000	1
S4	1.0000	1.0002	.000	.022	.18724	.000	1
S5	2.0000	1.9941	-.006	-.297	.37310	.001	1
S2	.16000	.16265	.003	1.65	.03061	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



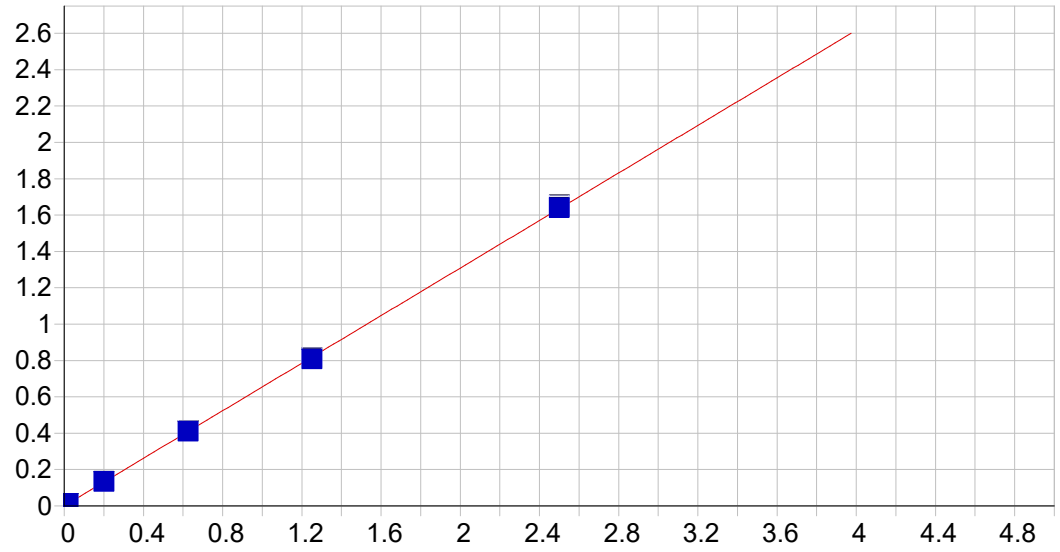
Co 228.616 {448}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000082	Re-Slope:	1.000000
A1 (Gain):	1.069642	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999764	Status:	OK.
Std Error of Est:	0.000472		
Predicted MDL:	0.000191		
Predicted MQL:	0.000638		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.03000	.02916	-.001	-2.80	.03114	.000	1
S3	1.2500	1.2151	-.035	-2.79	1.3021	.002	1
S4	2.5000	2.4491	-.051	-2.04	2.6243	.004	1
S5	5.0000	5.0986	.099	1.97	5.4629	.005	1
S2	.40000	.38800	-.012	-3.00	.41583	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



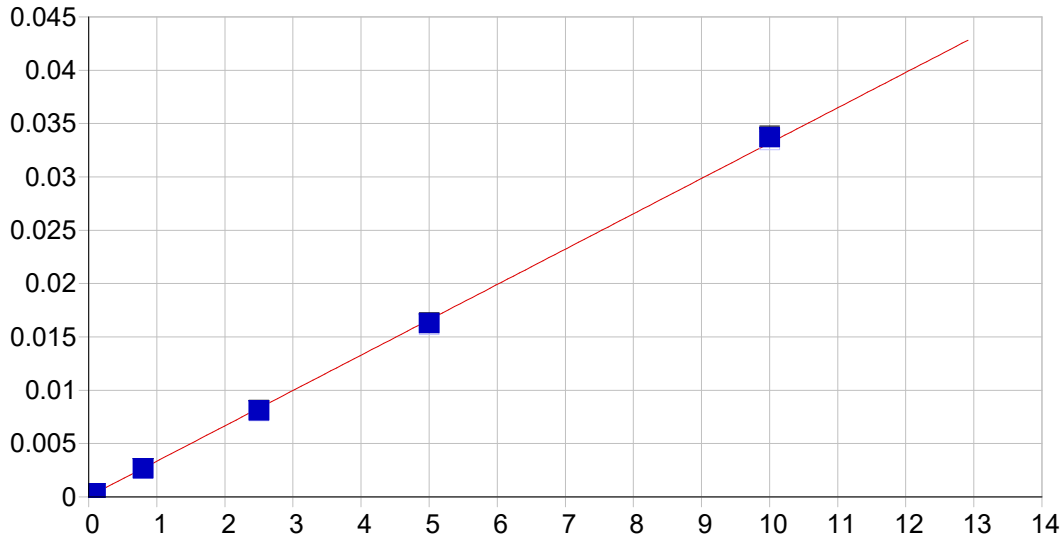
Cu 224.700 {450}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000519	Re-Slope:	1.000000
A1 (Gain):	0.654101	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.000064		
Predicted MDL:	0.000416		
Predicted MQL:	0.001385		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00052	.000	1
S1	.02000	.02088	.001	4.40	.01432	.000	1
S3	.62500	.62672	.002	.275	.41386	.001	1
S4	1.2500	1.2351	-.015	-1.19	.81520	.002	1
S5	2.5000	2.5085	.009	.342	1.6550	.002	1
S2	.20000	.20377	.004	1.89	.13490	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



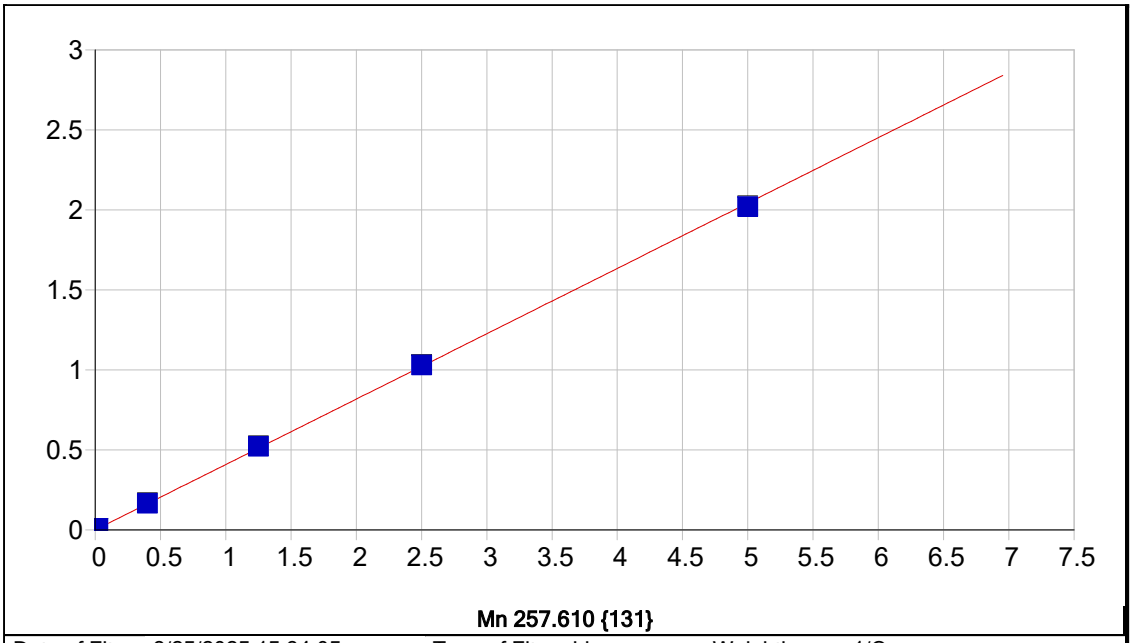
Fe 240.488 {140}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000037	Re-Slope:	1.000000
A1 (Gain):	0.003313	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.006185		
Predicted MQL:	0.020615		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00004	.000	1
S1	.10000	.09749	-.003	-2.51	.00036	.000	1
S3	2.5000	2.4350	-.065	-2.60	.00803	.000	1
S4	5.0000	4.9071	-.093	-1.86	.01615	.000	1
S5	10.000	10.167	.167	1.67	.03344	.000	1
S2	.80000	.79349	-.007	-.814	.00264	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



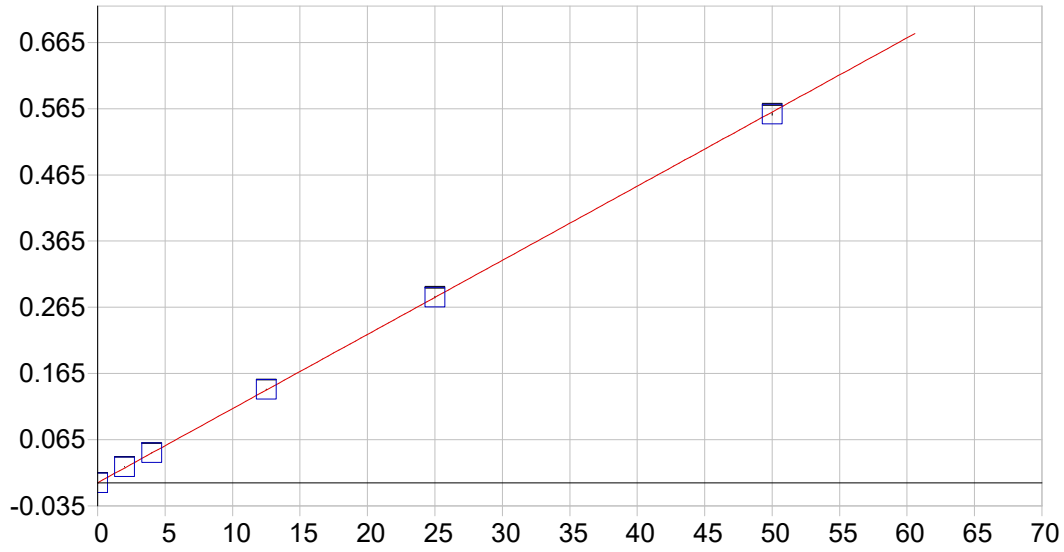
Mn 257.610 {131}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000158	Re-Slope:	1.000000
A1 (Gain):	0.408547	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	0.000571		
Predicted MQL:	0.001903		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.02000	.02167	.002	8.33	.00901	.000	1
S3	1.2500	1.2771	.027	2.17	.52202	.001	1
S4	2.5000	2.5205	.021	.821	1.0301	.004	1
S5	5.0000	4.9427	-.057	-1.15	2.0199	.004	1
S2	.40000	.40798	.008	2.00	.16687	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



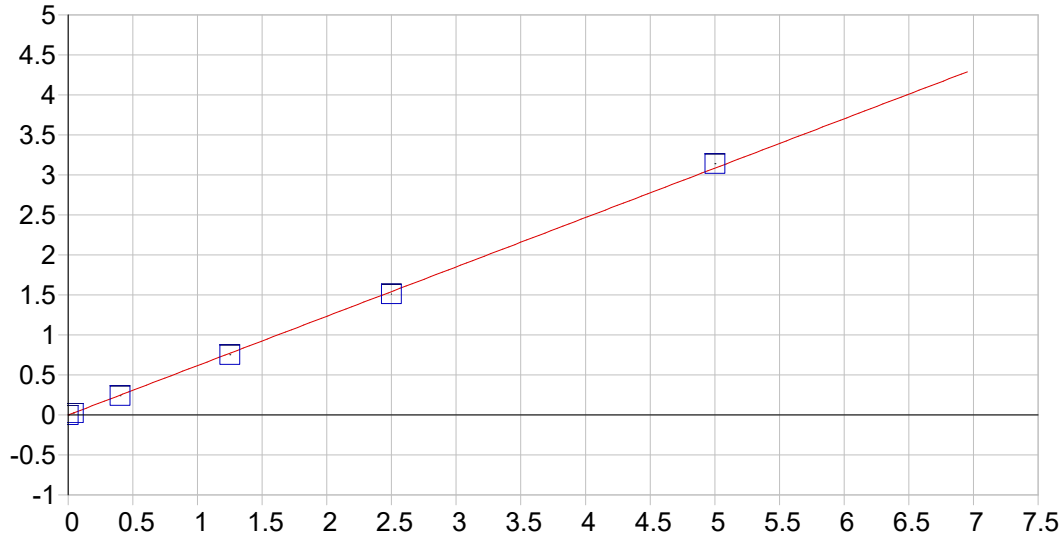
Mg 279.079 {121}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000068	Re-Slope:	1.000000
A1 (Gain):	0.011201	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000074		
Predicted MDL:	0.026378		
Predicted MQL:	0.087926		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00017	-.000	.000	-.00007	.000	1
S2	4.0000	4.0250	.025	.625	.04502	.000	1
S3	12.500	12.595	.095	.759	.14101	.001	1
S4	25.000	25.029	.029	.116	.28028	.001	1
S5	50.000	49.698	-.302	-.604	.55661	.001	1
S1	2.0000	2.1529	.153	7.65	.02405	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



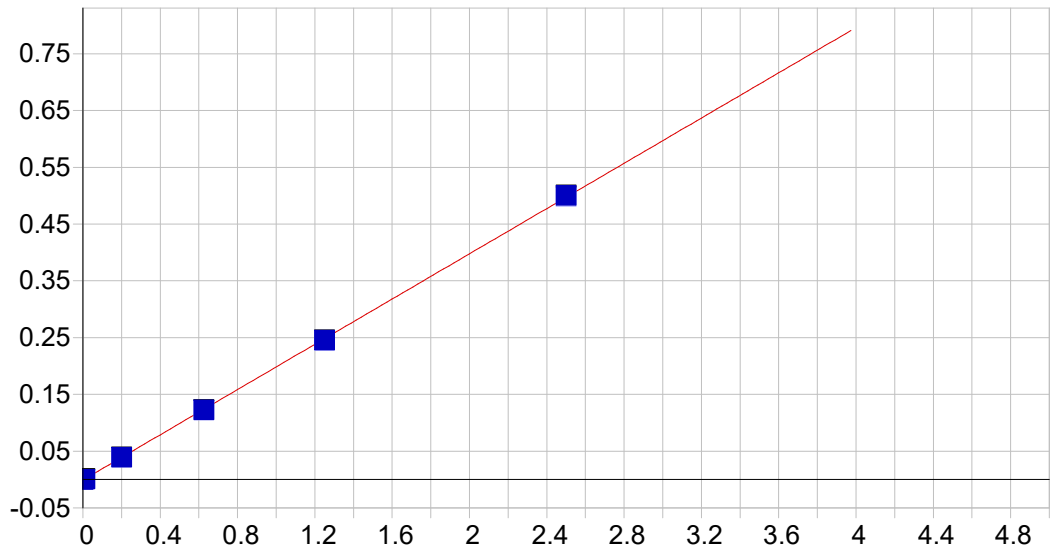
Ni 231.604 {446}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000707	Re-Slope:	1.000000
A1 (Gain):	0.616942	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999801	Status:	OK.
Std Error of Est:	0.000289		
Predicted MDL:	0.000354		
Predicted MQL:	0.001181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00071	.000	1
S1	.04000	.03959	-.000	-1.02	.02372	.000	1
S3	1.2500	1.2194	-.031	-2.44	.75162	.000	1
S4	2.5000	2.4494	-.051	-2.02	1.5104	.002	1
S5	5.0000	5.0911	.091	1.82	3.1402	.001	1
S2	.40000	.39048	-.010	-2.38	.24020	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



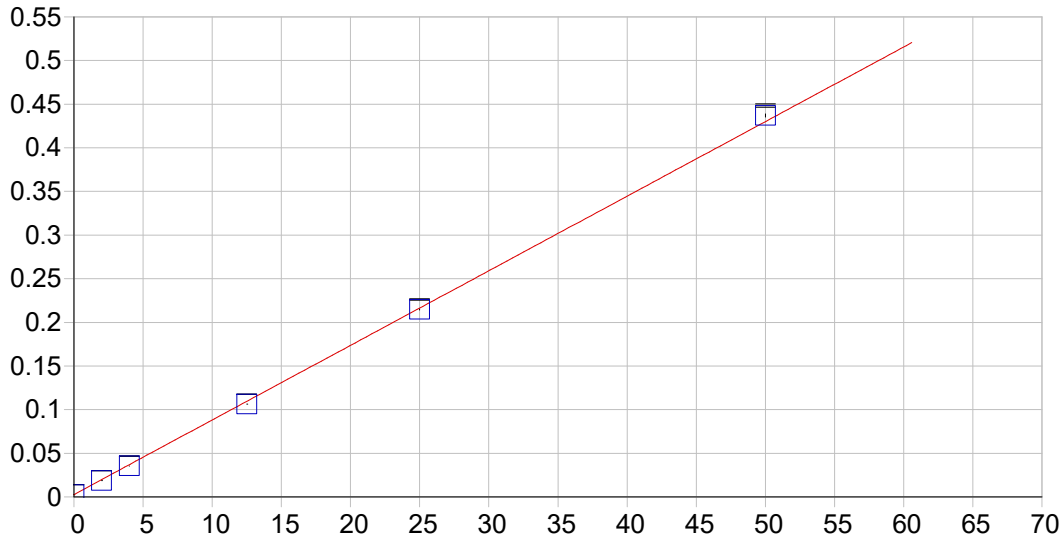
Ag 328.068 {103}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000976	Re-Slope:	1.000000
A1 (Gain):	0.199311	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.000493		
Predicted MQL:	0.001643		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00098	.000	1
S1	.01000	.01000	-.000	-.016	.00100	.000	1
S3	.62500	.62039	-.005	-.738	.12207	.000	1
S4	1.2500	1.2364	-.014	-1.09	.24425	.000	1
S5	2.5000	2.5160	.016	.638	.49807	.001	1
S2	.20000	.20223	.002	1.11	.03914	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



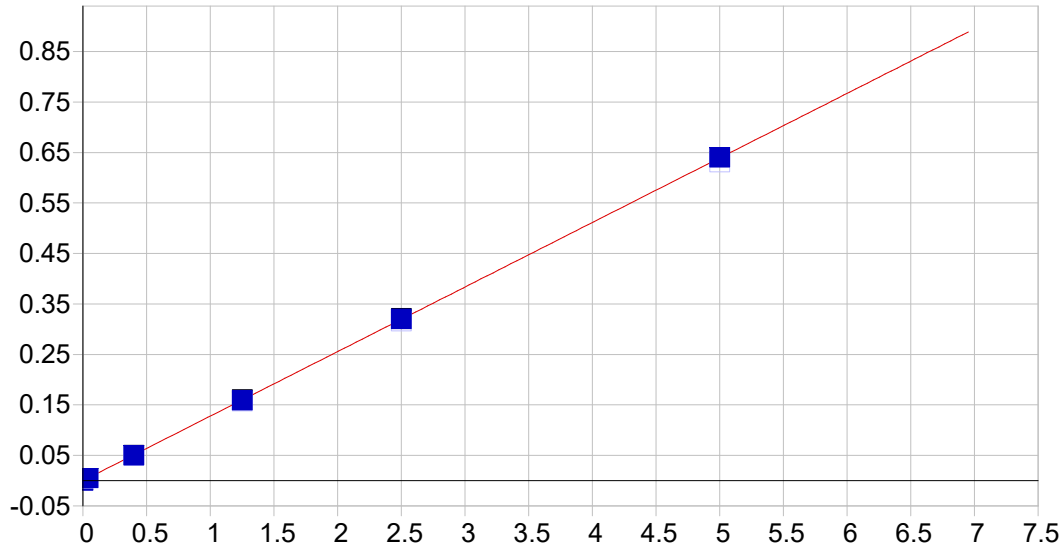
Na 589.592 { 57}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002719	Re-Slope:	1.000000
A1 (Gain):	0.008546	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	0.000095		
Predicted MDL:	0.016570		
Predicted MQL:	0.055233		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00025	.000	.000	.00272	.000	1
S2	4.0000	3.8300	-.170	-4.25	.03545	.000	1
S3	12.500	12.134	-.366	-2.93	.10642	.000	1
S4	25.000	24.825	-.175	-.701	.21487	.001	1
S5	50.000	50.840	.840	1.68	.43720	.002	1
S1	2.0000	1.8712	-.129	-6.44	.01871	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



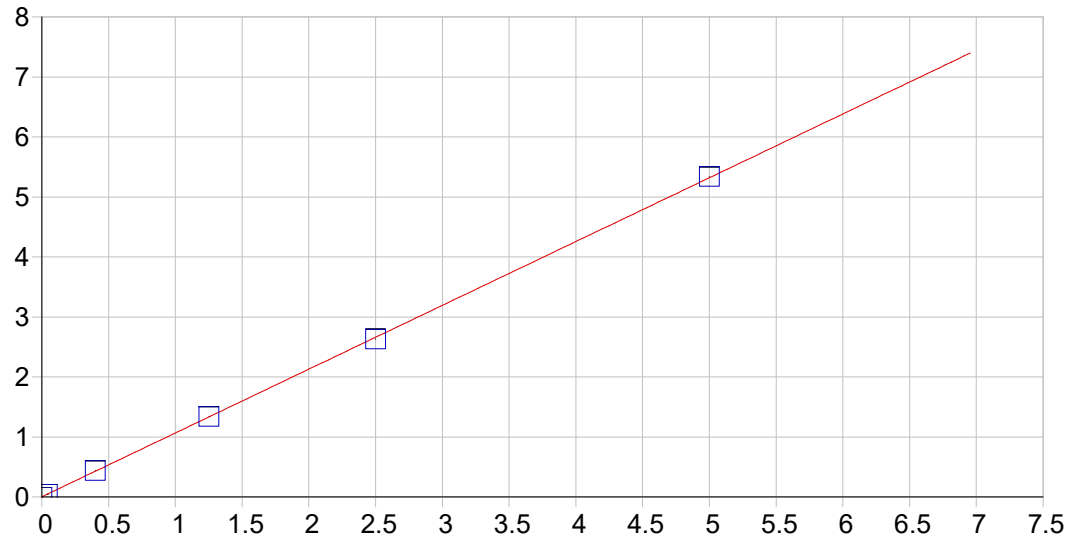
V 292.402 {115}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000022	Re-Slope:	1.000000
A1 (Gain):	0.127844	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.002723		
Predicted MQL:	0.009078		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.04000	.03868	-.001	-3.30	.00473	.000	1
S3	1.2500	1.2465	-.003	-.278	.15701	.001	1
S4	2.5000	2.5051	.005	.203	.31558	.001	1
S5	5.0000	5.0067	.007	.135	.63074	.000	1
S2	.40000	.39296	-.007	-1.76	.04947	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



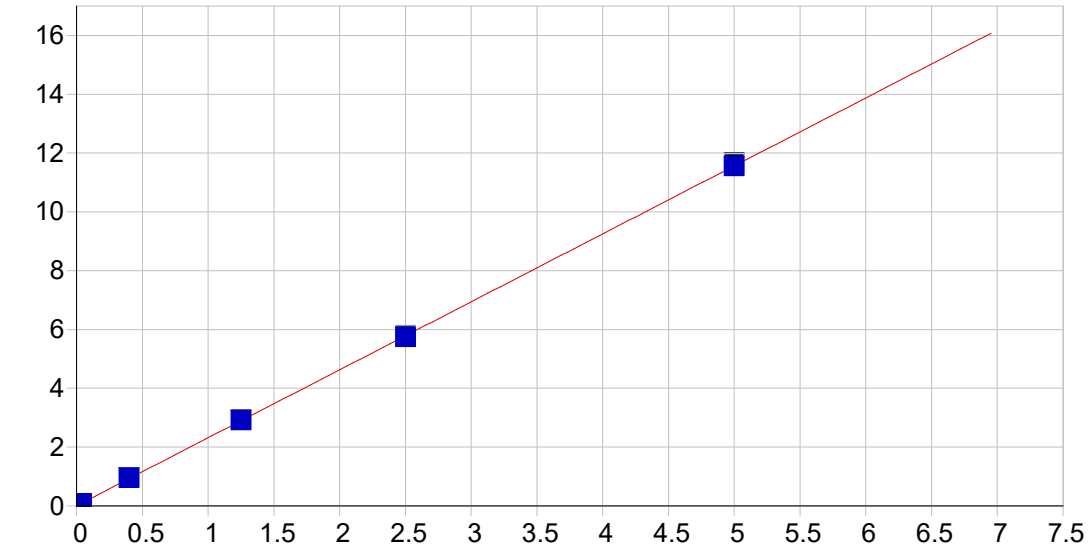
Zn 206.200 {464}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002142	Re-Slope:	1.000000
A1 (Gain):	1.063406	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000191		
Predicted MDL:	0.000153		
Predicted MQL:	0.000511		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00214	.000	1
S1	.04000	.04043	.000	1.08	.04514	.000	1
S3	1.2500	1.2550	.005	.400	1.3367	.001	1
S4	2.5000	2.4713	-.029	-1.15	2.6302	.003	1
S5	5.0000	5.0159	.016	.318	5.3361	.001	1
S2	.40000	.40734	.007	1.83	.43531	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



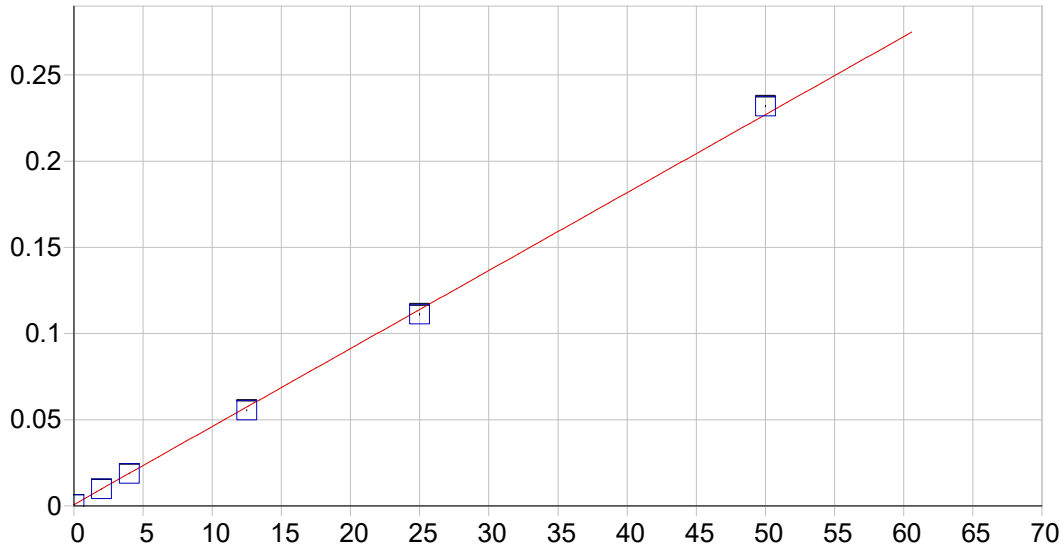
Zn 213.856 {158}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006173	Re-Slope:	1.000000
A1 (Gain):	2.311483	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000356		
Predicted MDL:	0.000236		
Predicted MQL:	0.000786		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00617	.000	1
S1	.04000	.04066	.001	1.64	.10080	.001	1
S3	1.2500	1.2572	.007	.574	2.9322	.003	1
S4	2.5000	2.4834	-.017	-.665	5.7866	.012	1
S5	5.0000	4.9992	-.001	-.017	11.642	.021	1
S2	.40000	.40964	.010	2.41	.95947	.004	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



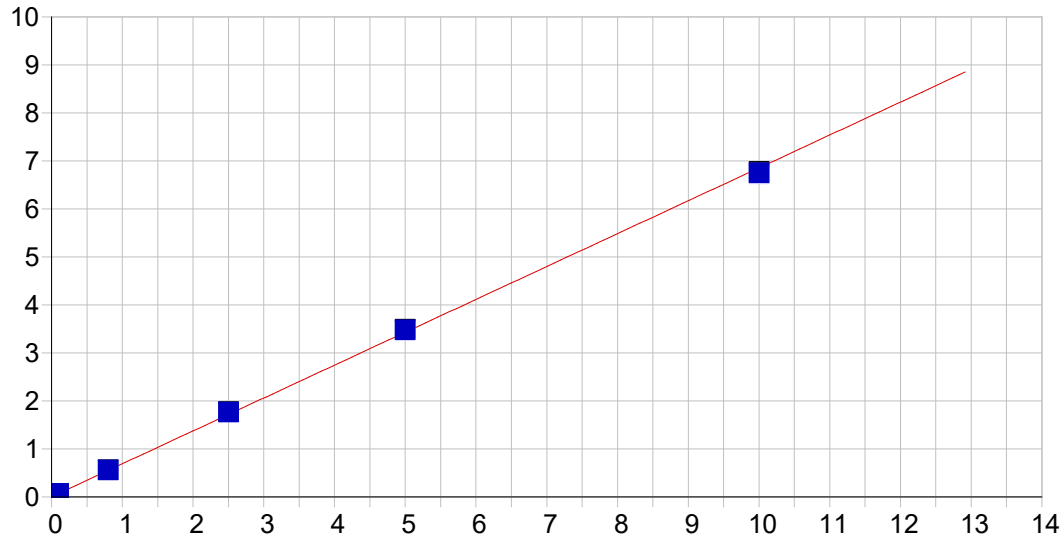
K 766.490 { 44}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000833	Re-Slope:	1.000000
A1 (Gain):	0.004523	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999720	Status:	OK.
Std Error of Est:	0.000057		
Predicted MDL:	0.037714		
Predicted MQL:	0.125715		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00012	.000	.000	.00083	.000	1
S2	4.0000	3.9512	-.049	-1.22	.01871	.000	1
S3	12.500	12.090	-.410	-3.28	.05552	.000	1
S4	25.000	24.402	-.598	-2.39	.11121	.001	1
S5	50.000	51.084	1.08	2.17	.23191	.000	1
S1	2.0000	1.9729	-.027	-1.36	.00976	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



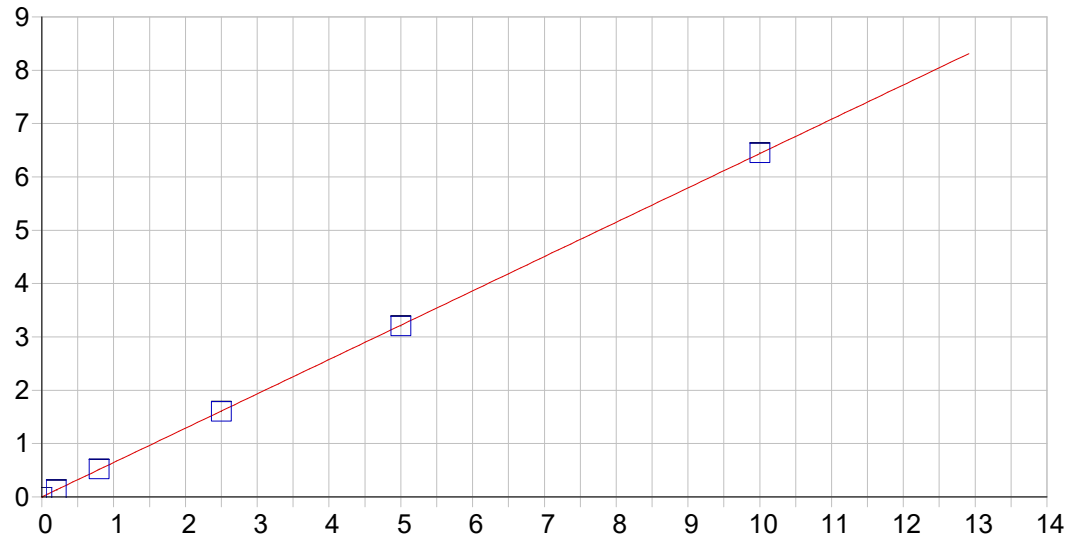
B 249.678 {135}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005121	Re-Slope:	1.000000
A1 (Gain):	0.684951	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000624		
Predicted MDL:	0.000717		
Predicted MQL:	0.002391		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00512	.000	1
S1	.10000	.10040	.000	.398	.07348	.001	1
S3	2.5000	2.5737	.074	2.95	1.7618	.007	1
S4	5.0000	5.0706	.071	1.41	3.4659	.013	1
S5	10.000	9.8484	-.152	-1.52	6.7261	.027	1
S2	.80000	.80693	.007	.866	.55585	.003	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



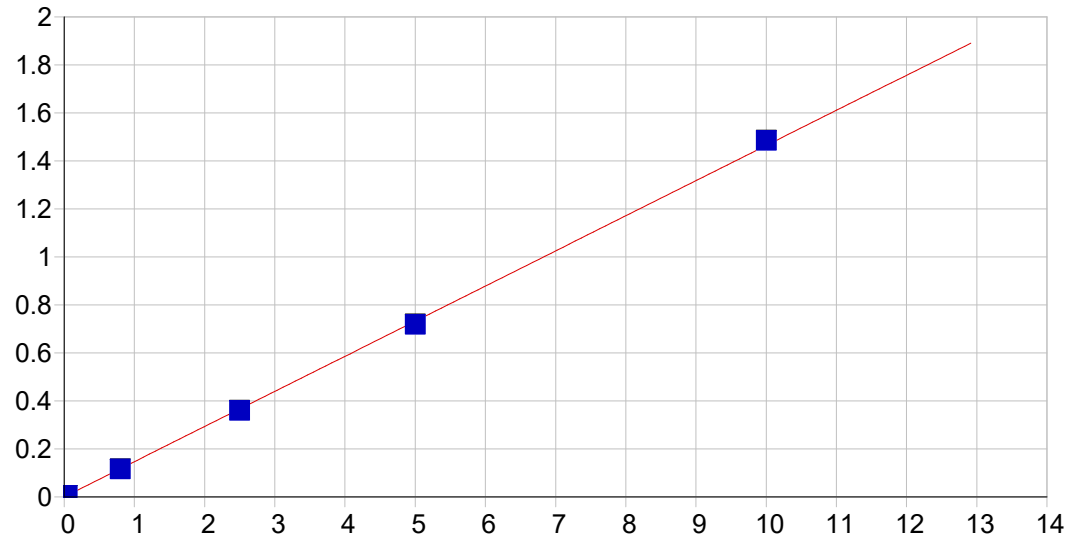
Mo 202.030 {467}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000555	Re-Slope:	1.000000
A1 (Gain):	0.643699	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000161		
Predicted MDL:	0.000267		
Predicted MQL:	0.000889		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00055	.000	1
S1	.20000	.20084	.001	.421	.12984	.000	1
S3	2.5000	2.4913	-.009	-.348	1.6042	.004	1
S4	5.0000	4.9801	-.020	-.399	3.2062	.003	1
S5	10.000	10.022	.022	.215	6.4514	.004	1
S2	.80000	.80628	.006	.786	.51956	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



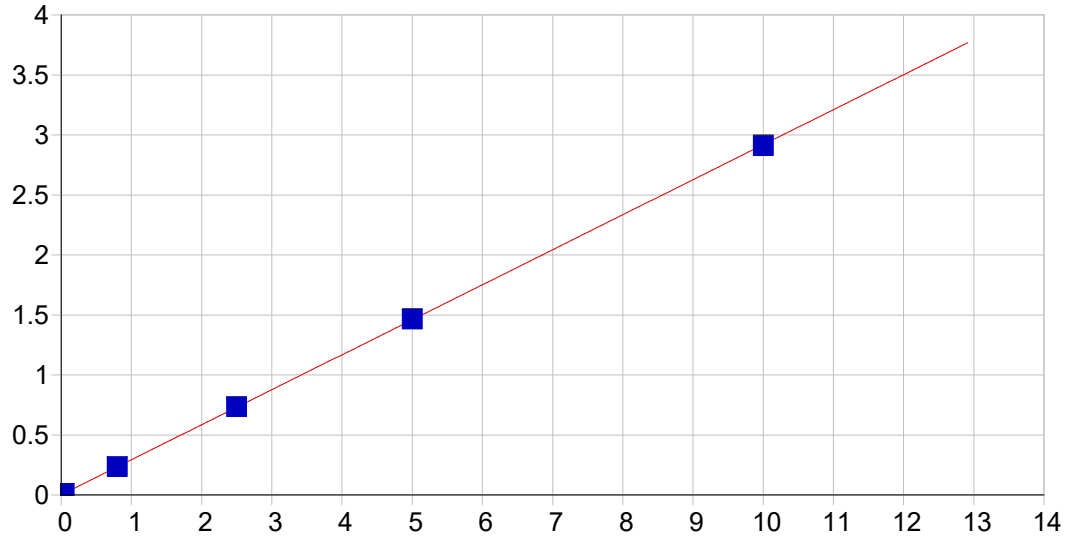
Sn 189.989 {478}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000422	Re-Slope:	1.000000
A1 (Gain):	0.146373	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999876	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.000672		
Predicted MQL:	0.002240		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00042	.000	1
S1	.04000	.03814	-.002	-4.64	.00600	.000	1
S3	2.5000	2.4593	-.041	-1.63	.36002	.000	1
S4	5.0000	4.9091	-.091	-1.82	.71824	.001	1
S5	10.000	10.143	.143	1.43	1.4835	.001	1
S2	.80000	.79086	-.009	-1.14	.11606	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



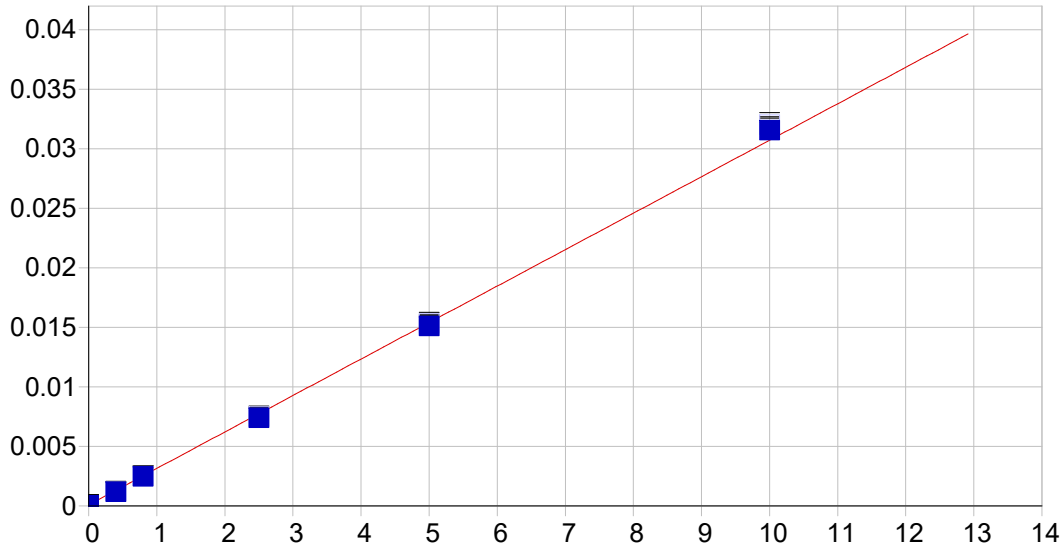
Ti 336.121 {100}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001011	Re-Slope:	1.000000
A1 (Gain):	0.291709	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.001557		
Predicted MQL:	0.005190		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00101	.000	1
S1	.04000	.04040	.000	.997	.01279	.000	1
S3	2.5000	2.5149	.015	.597	.73437	.002	1
S4	5.0000	5.0195	.020	.390	1.4647	.002	1
S5	10.000	9.9682	-.032	-.318	2.9078	.007	1
S2	.80000	.79700	-.003	-.375	.23342	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



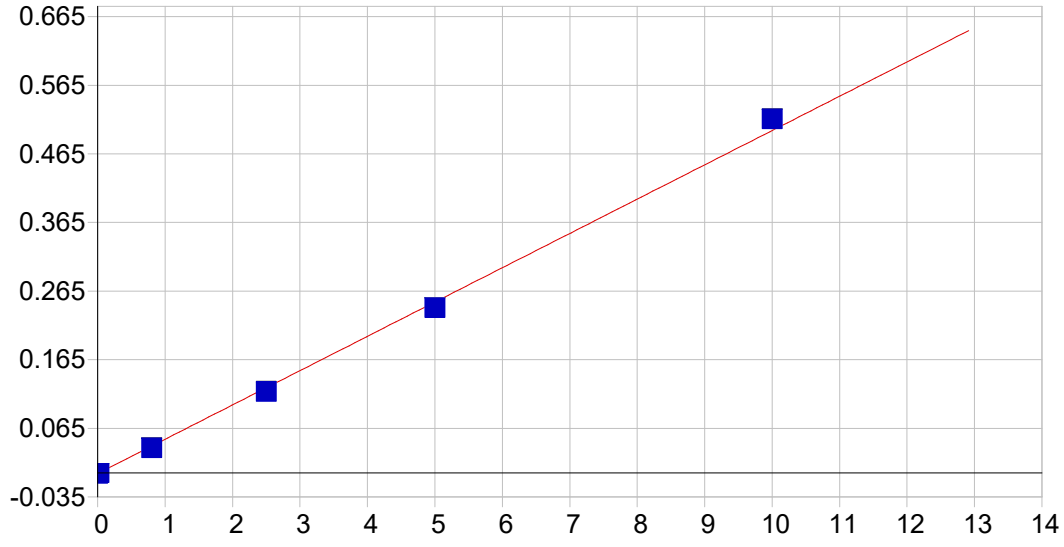
Si 288.158 {117}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000085	Re-Slope:	1.000000
A1 (Gain):	0.003064	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999492	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.011978		
Predicted MQL:	0.039928		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00007	.000	.000	.00008	.000	1
S1	.40000	.36040	-.040	-9.90	.00119	.000	1
S3	2.5000	2.3851	-.115	-4.60	.00751	.000	1
S4	5.0000	4.9002	-.100	-2.00	.01533	.000	1
S5	10.000	10.277	.277	2.77	.03204	.000	1
S2	.80000	.77660	-.023	-2.92	.00250	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



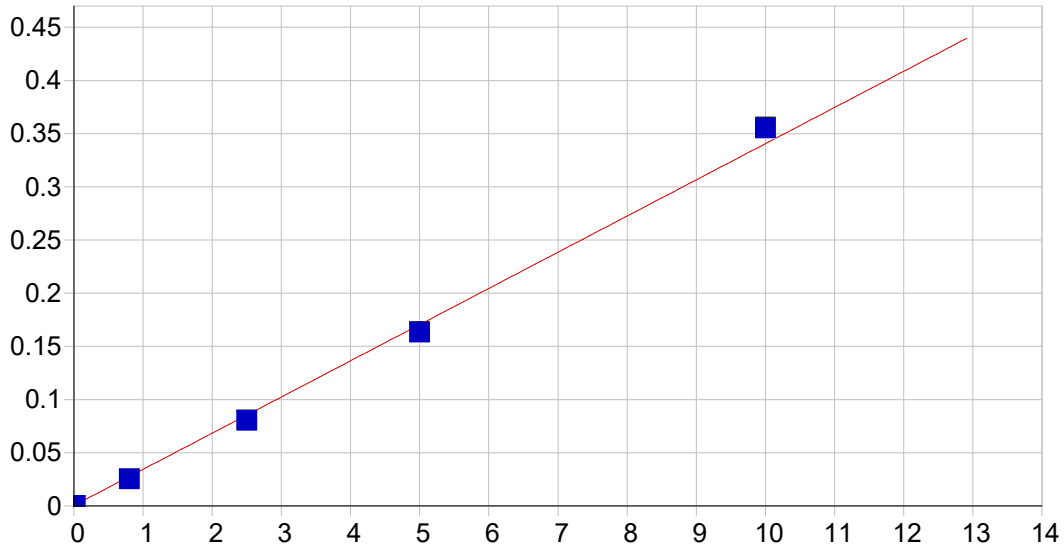
P 177.495 {490}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000944	Re-Slope:	1.000000
A1 (Gain):	0.049994	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999292	Status:	OK.
Std Error of Est:	0.000044		
Predicted MDL:	0.001657		
Predicted MQL:	0.005522		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00094	.000	1
S1	.02000	.01726	-.003	-13.7	-.00008	.000	1
S3	2.5000	2.3856	-.114	-4.58	.11830	.001	1
S4	5.0000	4.8370	-.163	-3.26	.24084	.000	1
S5	10.000	10.335	.335	3.35	.51568	.000	1
S2	.80000	.74486	-.055	-6.89	.03629	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



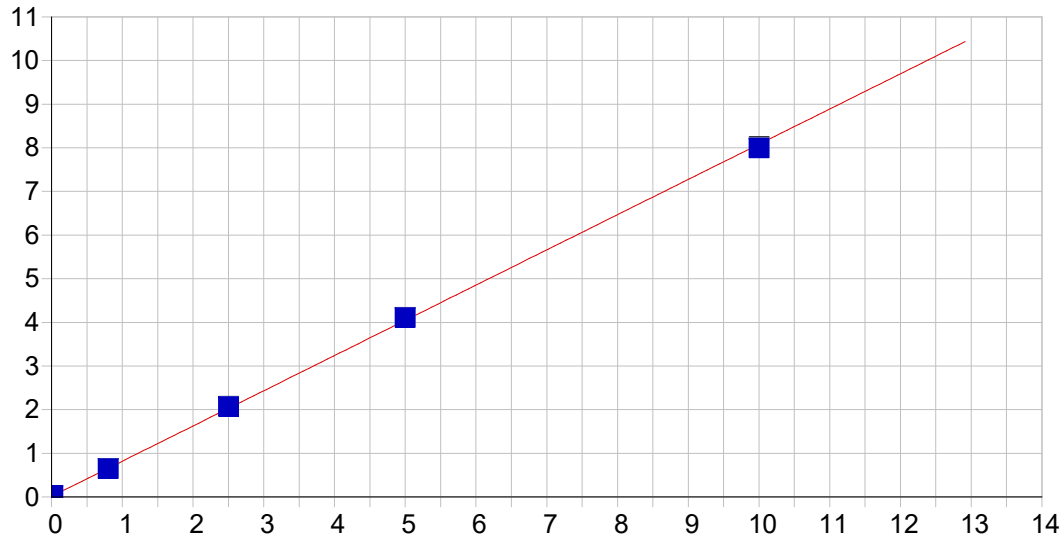
S 182.034 {485}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000386	Re-Slope:	1.000000
A1 (Gain):	0.034025	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998792	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.002697		
Predicted MQL:	0.008991		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00039	.000	1
S1	.02000	.01490	-.005	-25.5	.00086	.000	1
S3	2.5000	2.3523	-.148	-5.91	.08020	.000	1
S4	5.0000	4.7881	-.212	-4.24	.16286	.000	1
S5	10.000	10.435	.435	4.35	.35454	.001	1
S2	.80000	.72967	-.070	-8.79	.02514	.000	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



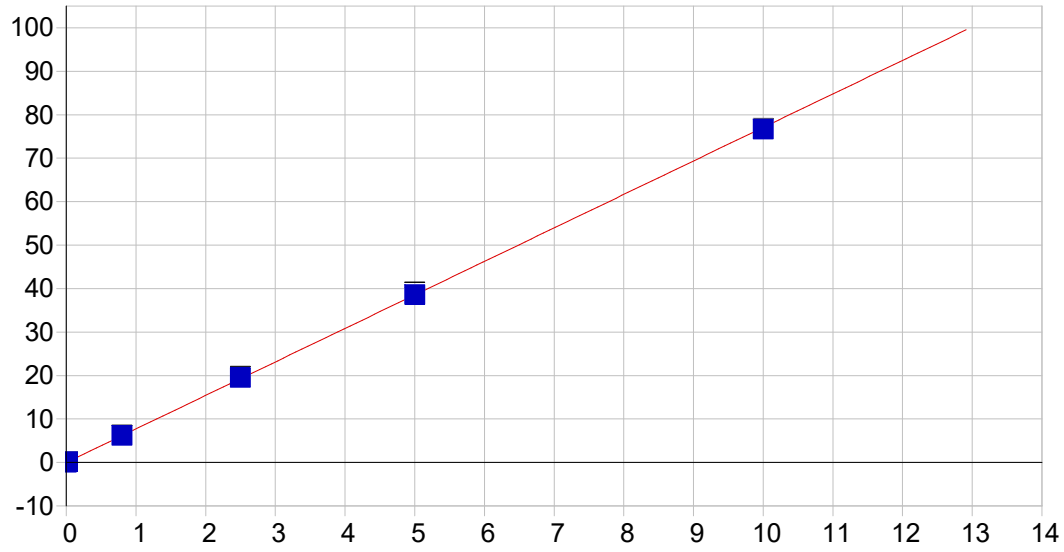
Li 670.784 { 50}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011236	Re-Slope:	1.000000
A1 (Gain):	0.807085	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000258		
Predicted MDL:	0.001807		
Predicted MQL:	0.006024		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01124	.001	1
S5	10.000	9.8924	-.108	-1.08	8.0017	.022	1
S4	5.0000	5.0703	.070	1.41	4.1066	.008	1
S3	2.5000	2.5501	.050	2.00	2.0710	.004	1
S1	.02000	.01849	-.002	-7.53	.02644	.001	1
S2	.80000	.78884	-.011	-1.39	.64842	.001	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



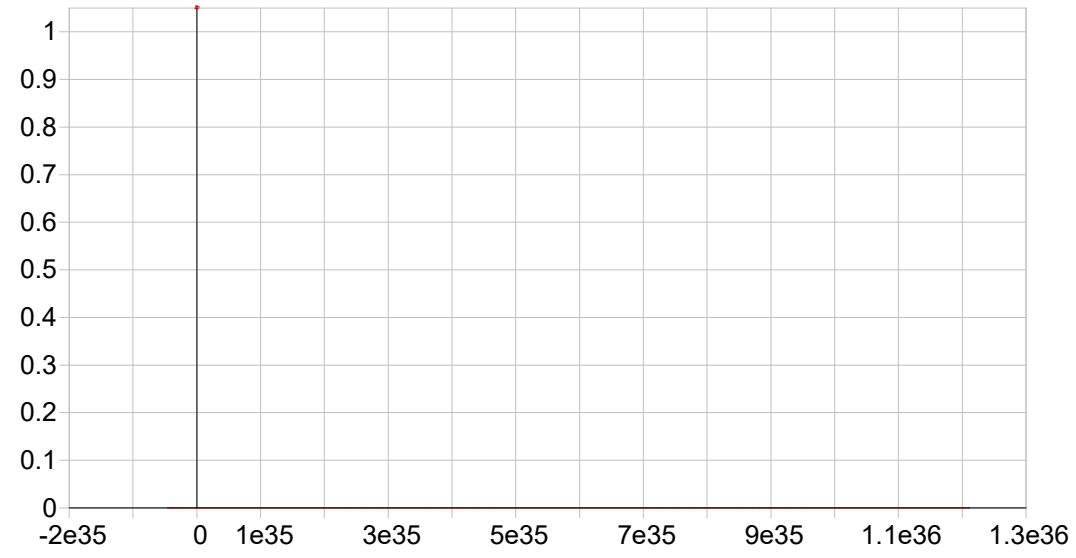
Sr 407.771 { 83}

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000157	Re-Slope:	1.000000
A1 (Gain):	7.707626	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.001240		
Predicted MDL:	0.000100		
Predicted MQL:	0.000333		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00016	.000	1
S1	.02000	.01996	-.000	-.222	.15439	.001	1
S3	2.5000	2.5357	.036	1.43	19.563	.265	1
S4	5.0000	5.0084	.008	.167	38.639	.576	1
S5	10.000	9.9484	-.052	-.516	76.752	.091	1
S2	.80000	.80758	.008	.948	6.2303	.030	1

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

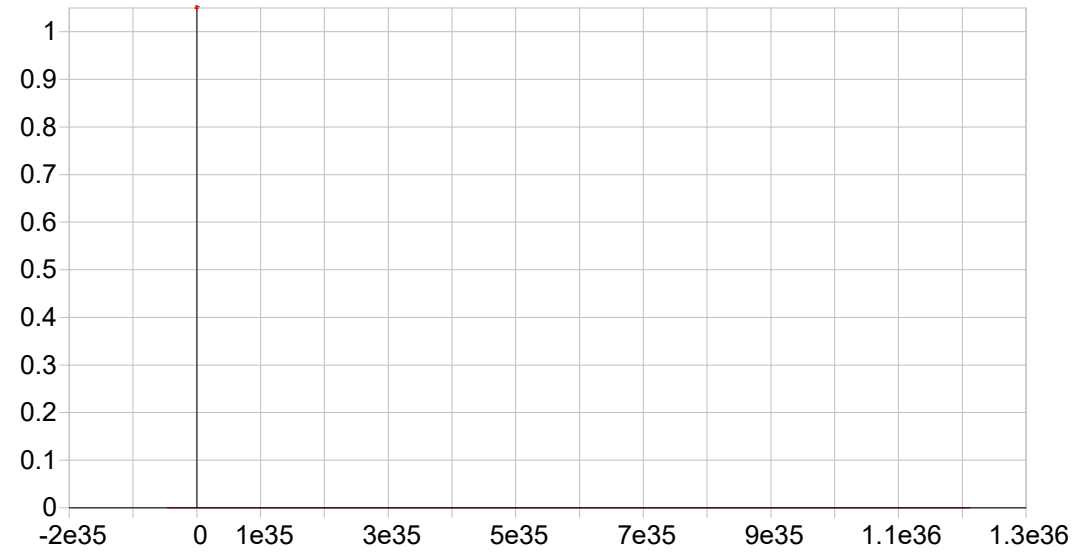


Y 224.306 {450}*

Date of Fit:	8/25/2025 15:34:05	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

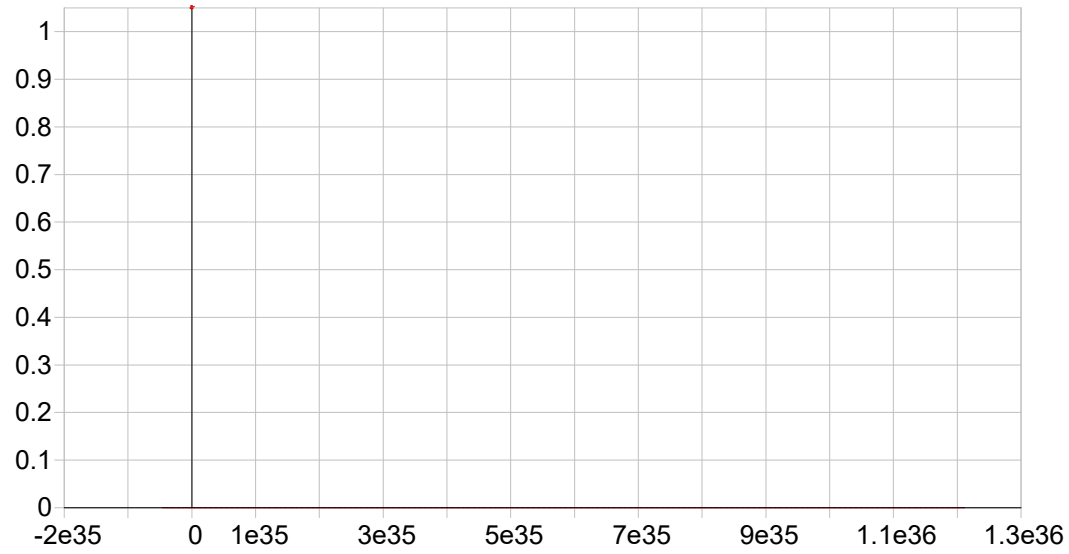
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



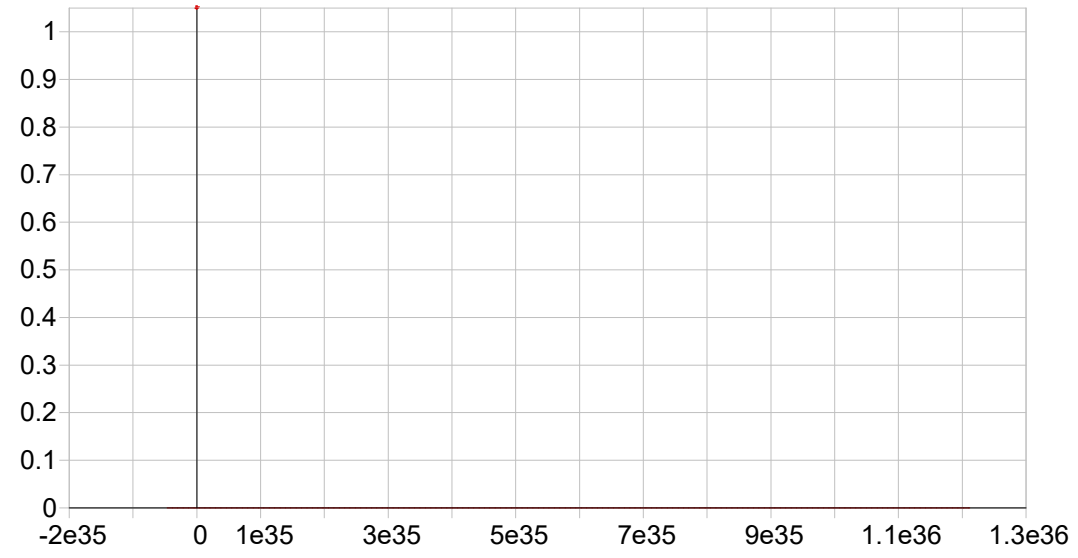
Y 371.030 { 91}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

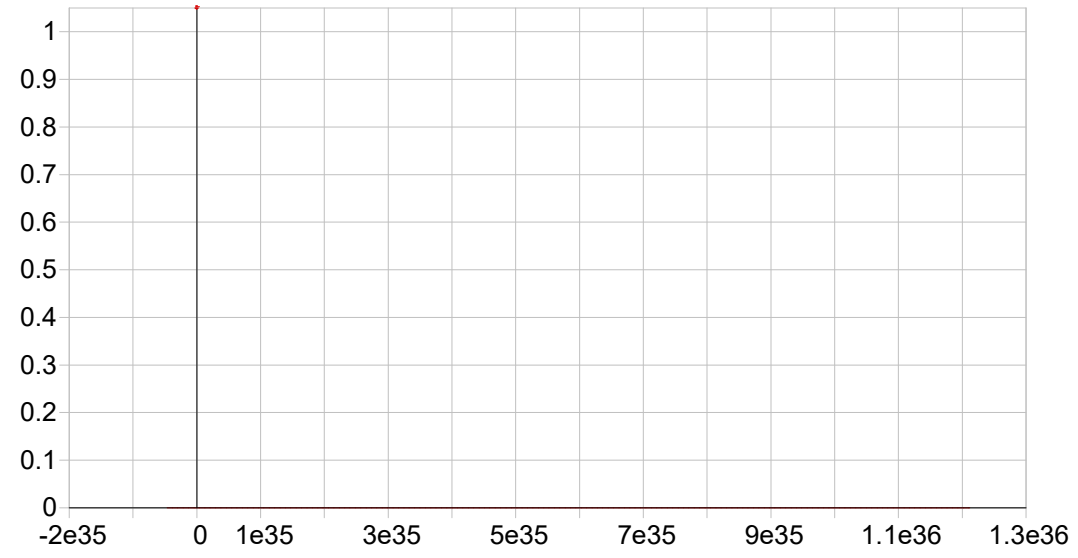
Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S0 Acquired: 8/25/2025 11:18:54 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00012**	**.00050**	**-.00004**	**.00041**	**.00064**	**-.00029**	**.07468**	**-.00107**
Stddev	.00010	.00007	.00012	.00013	.00007	.00011	.00077	.00004
%RSD	80.101	14.132	274.02	31.651	11.067	38.320	1.0279	3.6517
#1	-.00018	.00058	-.00012	.00047	.00065	-.00019	.07471	-.00112
#2	-.00018	.00050	-.00010	.00026	.00070	-.00028	.07390	-.00105
#3	-.00001	.00044	.00010	.00050	.00056	-.00041	.07543	-.00105

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00067**	**.00193**	**.00020**	**.00009**	**.00052**	**.00004**	**.00016**	**-.00007**
Stddev	.00008	.00057	.00004	.00012	.00026	.00001	.00012	.00013
%RSD	12.095	29.478	22.676	144.72	49.943	27.928	74.051	189.24
#1	-.00067	.00229	.00021	-.00005	.00036	.00003	.00028	-.00020
#2	-.00075	.00223	.00023	.00011	.00082	.00005	.00005	-.00006
#3	-.00059	.00128	.00015	.00020	.00038	.00003	.00015	.00006

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00071**	**-.00098**	**.00272**	**-.00002**	**.00617**	**.00083**	**.00512**	**.00055**
Stddev	.00006	.00003	.00022	.00008	.00013	.00018	.00019	.00001
%RSD	8.7643	3.3909	8.1703	375.02	2.1002	21.034	3.7388	1.2901
#1	-.00064	-.00094	.00248	-.00012	.00620	.00063	.00491	.00055
#2	-.00072	-.00099	.00276	.00003	.00628	.00094	.00515	.00056
#3	-.00076	-.00100	.00292	.00002	.00603	.00093	.00529	.00056

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00042**	**.00101**	**.00008**	**-.00094**	**.00039**	**.01124**	**-.00016**
Stddev	.00004	.00018	.00001	.00005	.00005	.00110	.00031
%RSD	8.9384	17.495	15.631	5.1053	13.706	9.7833	194.75
#1	.00039	.00105	.00009	-.00089	.00042	.01220	-.00015
#2	.00041	.00082	.00007	-.00099	.00033	.01148	-.00048
#3	.00046	.00117	.00009	-.00095	.00042	.01004	.00014

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S0 Acquired: 8/25/2025 11:18:54 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5575.8	104540.	10243.	4628.0	6757.4
Stddev	8.2	215.	40.	4.3	6.2
%RSD	.14761	.20560	.38749	.09329	.09146
#1	5569.4	104620.	10258.	4632.7	6756.2
#2	5585.1	104290.	10272.	4624.2	6764.1
#3	5573.0	104700.	10198.	4627.1	6751.9

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S1 Acquired: 8/25/2025 11:23:18 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00090**	**.00402**	**.00201**	**.00137**	**.00534**	**.00762**	**.30203**	**.03995**
Stddev	.00006	.00001	.00014	.00002	.00028	.00036	.00119	.00031
%RSD	6.2471	.21003	7.1783	1.6368	5.2608	4.7641	.39329	.77381
#1	.00085	.00402	.00200	.00135	.00514	.00793	.30072	.03998
#2	.00097	.00401	.00188	.00140	.00566	.00772	.30233	.04024
#3	.00089	.00403	.00216	.00138	.00521	.00722	.30304	.03962

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01708**	**.11589**	**.00208**	**.03114**	**.01432**	**.00036**	**.00901**	**.02405**
Stddev	.00026	.00048	.00001	.00024	.00016	.00001	.00015	.00023
%RSD	1.5275	.41189	.71393	.75560	1.1165	2.6427	1.6737	.93734
#1	.01679	.11553	.00208	.03138	.01447	.00035	.00891	.02382
#2	.01730	.11643	.00209	.03092	.01415	.00035	.00895	.02405
#3	.01716	.11571	.00206	.03111	.01435	.00037	.00919	.02427

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02372**	**.00100**	**.01871**	**.00473**	**.10080**	**.00976**	**.07348**	**.12984**
Stddev	.00007	.00005	.00015	.00040	.00083	.00005	.00054	.00041
%RSD	.30119	5.3464	.82363	8.4006	.81978	.46435	.73976	.31786
#1	.02379	.00106	.01887	.00504	.10135	.00972	.07292	.12972
#2	.02364	.00099	.01870	.00428	.09985	.00975	.07353	.12949
#3	.02373	.00095	.01856	.00487	.10120	.00981	.07400	.13029

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00600**	**.01279**	**.00119**	**-.00008**	**.00086**	**.02644**	**.15439**
Stddev	.00009	.00044	.00003	.00005	.00005	.00072	.00066
%RSD	1.5682	3.4307	2.7389	66.635	5.3340	2.7204	.42666
#1	.00611	.01239	.00121	-.00014	.00087	.02601	.15472
#2	.00596	.01272	.00115	-.00004	.00091	.02605	.15482
#3	.00593	.01326	.00121	-.00006	.00082	.02727	.15363

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S1 Acquired: 8/25/2025 11:23:18 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5614.4	104360.	10623.	4611.0	6705.7
Stddev	11.2	116.	44.	16.4	19.9
%RSD	.19881	.11090	.41036	.35560	.29619
#1	5619.2	104390.	10670.	4593.5	6708.5
#2	5622.2	104450.	10583.	4626.0	6723.9
#3	5601.6	104230.	10617.	4613.6	6684.5

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S2 Acquired: 8/25/2025 11:27:40 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04006**	**.07552**	**.15717**	**.03857**	**.07564**	**.12490**	**3.7513**	**.26823**
Stddev	.00010	.00149	.00043	.00024	.00025	.00084	.0208	.00156
%RSD	.23779	1.9686	.27080	.63445	.32417	.66984	.55318	.58196
#1	.04000	.07432	.15713	.03844	.07544	.12465	3.7742	.26726
#2	.04000	.07506	.15677	.03843	.07558	.12422	3.7337	.26740
#3	.04017	.07719	.15762	.03886	.07591	.12584	3.7462	.27003

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.1763**	**.22826**	**.03061**	**.41583**	**.13490**	**.00264**	**.16687**	**.04502**
Stddev	.0006	.00089	.00008	.00046	.00031	.00002	.00035	.00027
%RSD	.04644	.39022	.26010	.11177	.22840	.63155	.21156	.60240
#1	1.1758	.22906	.03064	.41538	.13471	.00262	.16728	.04499
#2	1.1762	.22730	.03068	.41630	.13525	.00266	.16667	.04476
#3	1.1769	.22841	.03052	.41581	.13473	.00265	.16666	.04530

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.24020**	**.03914**	**.03545**	**.04947**	**.95947**	**.01871**	**.55585**	**.51956**
Stddev	.00021	.00007	.00016	.00005	.00397	.00008	.00257	.00115
%RSD	.08900	.19049	.45383	.10330	.41326	.41232	.46179	.22054
#1	.24032	.03917	.03557	.04952	.96153	.01862	.55336	.51890
#2	.23995	.03919	.03551	.04947	.96199	.01874	.55569	.51890
#3	.24032	.03905	.03527	.04942	.95490	.01876	.55849	.52088

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11606**	**.23342**	**.00250**	**.03629**	**.02514**	**.64842**	**6.2303**
Stddev	.00008	.00109	.00005	.00003	.00007	.00095	.0298
%RSD	.07154	.46721	2.1143	.07259	.27681	.14660	.47792
#1	.11609	.23436	.00255	.03631	.02516	.64913	6.2642
#2	.11597	.23223	.00251	.03626	.02506	.64878	6.2085
#3	.11613	.23367	.00244	.03630	.02520	.64734	6.2181

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S2 Acquired: 8/25/2025 11:27:40 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5499.4	100640.	10561.	4494.5	6472.8
Stddev	3.7	121.	42.	22.5	7.3
%RSD	.06704	.12062	.39686	.50120	.11289
#1	5499.9	100740.	10578.	4493.9	6474.6
#2	5495.5	100510.	10592.	4472.2	6464.7
#3	5502.8	100690.	10514.	4517.3	6479.0

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S3 Acquired: 8/25/2025 11:31:43 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.12491	.23330	.49135	.11912	.23343	.39373	11.681	.85678
Stddev	.00018	.00360	.00018	.00048	.00072	.00057	.053	.00423
%RSD	.14110	1.5448	.03669	.40019	.30729	.14365	.45573	.49321
#1	.12482	.22971	.49128	.11860	.23260	.39316	11.714	.85659
#2	.12479	.23692	.49122	.11954	.23389	.39372	11.620	.85265
#3	.12511	.23328	.49155	.11923	.23380	.39430	11.710	.86110

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7190	.71462	.09426	1.3021	.41386	.00803	.52202	.14101
Stddev	.0025	.00250	.00031	.0016	.00058	.00004	.00121	.00057
%RSD	.06665	.35014	.33109	.12069	.13925	.45049	.23230	.40527
#1	3.7186	.71279	.09412	1.3006	.41329	.00801	.52310	.14044
#2	3.7168	.71359	.09462	1.3019	.41386	.00801	.52071	.14101
#3	3.7217	.71747	.09404	1.3037	.41444	.00807	.52225	.14158

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.75162	.12207	.10642	.15701	2.9322	.05552	1.7618	1.6042
Stddev	.00037	.00012	.00009	.00083	.0026	.00033	.0069	.0042
%RSD	.04905	.09714	.08110	.52914	.08959	.59277	.39241	.25921
#1	.75191	.12197	.10637	.15796	2.9305	.05518	1.7610	1.5994
#2	.75121	.12220	.10652	.15662	2.9352	.05584	1.7553	1.6069
#3	.75174	.12204	.10637	.15644	2.9309	.05554	1.7691	1.6063

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.36002	.73437	.00751	.11830	.08020	2.0710	19.563
Stddev	.00042	.00158	.00005	.00069	.00033	.0035	.265
%RSD	.11751	.21449	.60287	.58745	.41395	.16939	1.3565
#1	.35961	.73518	.00748	.11761	.07987	2.0727	19.786
#2	.36046	.73256	.00756	.11900	.08053	2.0669	19.269
#3	.35999	.73538	.00749	.11829	.08020	2.0732	19.634

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S3 Acquired: 8/25/2025 11:31:43 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5438.8**	**99998.**	**10241.**	**4436.3**	**6260.9**
Stddev	6.2	189.	49.	10.7	4.4
%RSD	.11434	.18874	.47429	.24110	.07045
#1	5443.9	100140.	10223.	4431.5	6260.5
#2	5431.8	99783.	10296.	4428.8	6256.8
#3	5440.6	100070.	10203.	4448.5	6265.6

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S4 Acquired: 8/25/2025 11:35:48 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.25026**	**.45591**	**.98538**	**.23705**	**.46754**	**.78288**	**23.108**	**1.6723**
Stddev	.00036	.00347	.00090	.00043	.00081	.00079	.401	.0106
%RSD	.14543	.76161	.09135	.18077	.17240	.10138	1.7357	.63222
#1	.24986	.45887	.98473	.23670	.46675	.78328	23.416	1.6807
#2	.25037	.45209	.98499	.23692	.46750	.78340	23.254	1.6758
#3	.25056	.45678	.98640	.23753	.46836	.78197	22.655	1.6604

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.5148**	**1.4136**	**.18724**	**2.6243**	**.81520**	**.01615**	**1.0301**	**.28028**
Stddev	.0103	.0037	.00007	.0042	.00205	.00002	.0043	.00134
%RSD	.13730	.26290	.03729	.15799	.25131	.11717	.41259	.47772
#1	7.5106	1.4137	.18720	2.6209	.81331	.01613	1.0333	.27968
#2	7.5072	1.4172	.18732	2.6229	.81490	.01616	1.0317	.28182
#3	7.5265	1.4098	.18720	2.6289	.81738	.01617	1.0253	.27935

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.5104**	**.24425**	**.21487**	**.31558**	**5.7866**	**.11121**	**3.4659**	**3.2062**
Stddev	.0021	.00032	.00062	.00121	.0122	.00058	.0132	.0032
%RSD	.14183	.13061	.29051	.38256	.21068	.51703	.38070	.09999
#1	1.5086	.24461	.21464	.31492	5.7961	.11083	3.4720	3.2030
#2	1.5098	.24399	.21440	.31697	5.7909	.11093	3.4749	3.2061
#3	1.5128	.24415	.21558	.31484	5.7729	.11187	3.4507	3.2095

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.71824**	**1.4647**	**.01533**	**.24084**	**.16286**	**4.1066**	**38.639**
Stddev	.00122	.0022	.00010	.00028	.00042	.0075	.576
%RSD	.17042	.14966	.65341	.11768	.25921	.18294	1.4904
#1	.71725	1.4650	.01521	.24111	.16278	4.1152	38.811
#2	.71785	1.4668	.01538	.24055	.16248	4.1028	39.110
#3	.71961	1.4624	.01539	.24085	.16331	4.1017	37.997

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S4 Acquired: 8/25/2025 11:35:48 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5416.9**	**99164.**	**10354.**	**4354.2**	**6127.6**
Stddev	4.2	154.	62.	29.3	3.4
%RSD	.07771	.15521	.59490	.67179	.05515
#1	5417.9	99329.	10321.	4332.9	6123.7
#2	5412.2	99024.	10316.	4342.0	6129.0
#3	5420.5	99140.	10425.	4387.5	6130.0

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S5 Acquired: 8/25/2025 11:39:59 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.51899	.90182	2.0478	.48892	.95714	1.5596	46.062	3.2264
Stddev	.00126	.01427	.0024	.00090	.00091	.0022	.472	.0117
%RSD	.24230	1.5821	.11775	.18359	.09493	.13908	1.0244	.36180
#1	.51843	.91368	2.0486	.48928	.95723	1.5573	45.640	3.2363
#2	.52043	.90579	2.0451	.48959	.95800	1.5616	46.572	3.2293
#3	.51811	.88598	2.0497	.48790	.95619	1.5600	45.976	3.2135

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	15.602	2.7890	.37310	5.4629	1.6550	.03344	2.0199	.55661
Stddev	.012	.0032	.00105	.0050	.0016	.00011	.0041	.00146
%RSD	.07738	.11595	.28173	.09169	.09685	.34018	.20488	.26319
#1	15.598	2.7888	.37282	5.4608	1.6533	.03351	2.0245	.55565
#2	15.592	2.7859	.37426	5.4593	1.6564	.03349	2.0186	.55588
#3	15.616	2.7924	.37221	5.4686	1.6553	.03330	2.0166	.55829

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.1402	.49807	.43720	.63074	11.642	.23191	6.7261	6.4514
Stddev	.0014	.00102	.00181	.00020	.021	.00047	.0275	.0039
%RSD	.04615	.20558	.41407	.03213	.18422	.20452	.40844	.06088
#1	3.1401	.49893	.43916	.63064	11.655	.23246	6.7479	6.4526
#2	3.1388	.49834	.43687	.63097	11.654	.23165	6.7351	6.4546
#3	3.1417	.49693	.43558	.63061	11.617	.23163	6.6952	6.4470

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4835	2.9078	.03204	.51568	.35454	8.0017	76.752
Stddev	.0012	.0069	.00018	.00012	.00090	.0218	.091
%RSD	.08101	.23715	.54761	.02298	.25364	.27276	.11806
#1	1.4849	2.9157	.03189	.51554	.35457	8.0263	76.774
#2	1.4828	2.9031	.03199	.51573	.35543	7.9940	76.653
#3	1.4829	2.9045	.03223	.51576	.35363	7.9847	76.830

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: S5 Acquired: 8/25/2025 11:39:59 Type: Cal
Method: 6010-200.7 NEW(v127) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5084.4	95666.	10491.	4153.0	5580.3
Stddev	11.3	377.	36.	23.9	13.3
%RSD	.22197	.39418	.33861	.57456	.23857
#1	5096.4	96045.	10525.	4180.0	5591.3
#2	5082.8	95291.	10454.	4134.6	5584.0
#3	5074.0	95662.	10493.	4144.5	5565.5

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICV01 Acquired: 8/25/2025 11:44:10 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.869799**	**3.930357**	**3.983528**	**3.897640**	**4.044569**	**8.022713**
Stddev	.008132	.112036	.004759	.015757	.004976	.013966
%RSD	.2101404	2.850520	.1194750	.4042741	.1230280	.1740748
#1	3.878373	4.058142	3.979296	3.915638	4.049247	8.032189
#2	3.862196	3.848997	3.988680	3.886329	4.039341	8.029275
#3	3.868829	3.883930	3.982609	3.890953	4.045119	8.006675

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.968687**	**.2060242**	**1.942037**	**20.00139**	**.8100926**	**1.967428**
Stddev	.072509	.0004034	.001715	.04636	.0014438	.001694
%RSD	.9099242	.1957879	.0882971	.2317928	.1782256	.0861258
#1	8.020667	.2064774	1.940141	20.05360	.8086865	1.966032
#2	7.999541	.2058903	1.942491	19.98553	.8115713	1.966938
#3	7.885854	.2057047	1.943480	19.96503	.8100201	1.969314

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.005953**	**3.961867**	**2.009568**	**20.14510**	**1.963241**	**.9774030**
Stddev	.001095	.007599	.006270	.06977	.002152	.0011340
%RSD	.1088752	.1918116	.3119978	.3463181	.1096160	.1160273
#1	1.005009	3.969529	2.015981	20.22548	1.961487	.9781021
#2	1.005696	3.954332	2.009271	20.10022	1.962593	.9760946
#3	1.007154	3.961738	2.003452	20.10960	1.965642	.9780125

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.42286**	**2.034098**	**1.991562**	**19.57040**	F **.0182850**	F **.0007637**
Stddev	.02205	.008678	.006319	.09480	.0015277	.0000829
%RSD	.1135130	.4266334	.3172676	.4843992	8.355030	10.85556
#1	19.43028	2.040870	1.998850	19.46758	.0186372	.0007768
#2	19.44024	2.037109	1.987621	19.65433	.0196059	.0008392
#3	19.39806	2.024316	1.988215	19.58929	.0166120	.0006750

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICV01 Acquired: 8/25/2025 11:44:10 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000087	F -.002718	F -.037339	F .0064532	F .0054382	F -.005007
Stddev	.000360	.000547	.000786	.0001956	.0017016	.001356
%RSD	416.0167	20.13823	2.106128	3.030570	31.28953	27.09125
#1	-.000295	-.002632	-.038046	.0066644	.0036634	-.003476
#2	-.000294	-.003303	-.036492	.0062783	.0055956	-.005488
#3	.000329	-.002218	-.037480	.0064169	.0070557	-.006057

Elem	Sr4077
Units	ppm
Avg	F -.003425
Stddev	.000034
%RSD	.9832331
#1	-.003455
#2	-.003389
#3	-.003430

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5542.822	100097.9	10544.43	4415.278	6365.207
Stddev	3.213	60.0	20.79	22.529	2.083
%RSD	.0579666	.0599187	.1971217	.5102595	.0327189
#1	5539.293	100042.1	10521.49	4389.883	6362.881
#2	5543.595	100161.3	10562.02	4423.091	6365.842
#3	5545.578	100090.3	10549.77	4432.862	6366.899

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LLICV01 Acquired: 8/25/2025 11:48:52 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0199800**	**.0417145**	**.0108311**	**.0205472**	**.0514477**	**.1151019**
Stddev	.0013057	.0021554	.0009641	.0010891	.0011642	.0060318
%RSD	6.534927	5.166991	8.900995	5.300630	2.262825	5.240390
#1	.0186678	.0434655	.0104833	.0210620	.0517805	.1173709
#2	.0199931	.0393073	.0100892	.0212836	.0524093	.1082647
#3	.0212790	.0423706	.0119208	.0192961	.0501534	.1196702

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1034552**	**.0063305**	**.0060205**	**2.107283**	**.0102942**	**.0300101**
Stddev	.0004810	.0000177	.0000633	.011102	.0002855	.0000347
%RSD	.4649728	.2794552	1.052149	.5268342	2.773031	.1154794
#1	.1030665	.0063109	.0060430	2.111838	.0104631	.0299918
#2	.1033060	.0063352	.0060694	2.115383	.0104549	.0300501
#3	.1039932	.0063453	.0059489	2.094628	.0099647	.0299885

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0218392**	**.1020713**	**.0227546**	**2.250289**	**.0404690**	**.0103723**
Stddev	.0001744	.0024370	.0002928	.012384	.0003527	.0002375
%RSD	.7987272	2.387555	1.286938	.5503494	.8716026	2.289507
#1	.0220360	.1043330	.0225972	2.255909	.0402342	.0101217
#2	.0217777	.0994904	.0225741	2.236091	.0402981	.0105941
#3	.0217038	.1023906	.0230925	2.258867	.0408746	.0104011

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961978**	**.0374456**	**.0415800**	**2.192985**	**.1125940**	**.2078310**
Stddev	.011195	.0023437	.0003062	.042043	.0007585	.0005190
%RSD	.5706062	6.259014	.7363788	1.917157	.6736772	.2497346
#1	1.967639	.0349896	.0417420	2.163842	.1118500	.2074935
#2	1.949082	.0376891	.0417711	2.173932	.1133663	.2075708
#3	1.969211	.0396580	.0412268	2.241181	.1125658	.2084286

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LLICV01 Acquired: 8/25/2025 11:48:52 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0398450	.0402074	.3720116	.0195643	F .0159088	.0190680
Stddev	.0002448	.0007016	.0073120	.0006276	.0018170	.0006184
%RSD	.6144216	1.745009	1.965526	3.207986	11.42139	3.243338
#1	.0395837	.0404531	.3786973	.0196687	.0173426	.0192832
#2	.0400691	.0394160	.3731343	.0188910	.0165183	.0183707
#3	.0398822	.0407531	.3642032	.0201332	.0138654	.0195501

Elem	Sr4077
Units	ppm
Avg	.0205460
Stddev	.0000452
%RSD	.2199031
#1	.0205103
#2	.0205968
#3	.0205309

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5495.524	104640.6	10597.60	4564.070	6582.907
Stddev	3.397	246.4	64.53	30.491	6.014
%RSD	.0618053	.2354951	.6088665	.6680613	.0913578
#1	5494.820	104505.8	10591.45	4540.580	6582.321
#2	5499.217	104491.0	10536.37	4553.103	6589.192
#3	5492.534	104925.0	10664.98	4598.527	6577.207

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICB01 Acquired: 8/25/2025 11:53:27 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000565**	**-.001282**	**-.002194**	**.0014191**	**.0014212**	**.0229608**	**-.002452**
Stddev	.002365	.001433	.000422	.0018291	.0018851	.0031556	.000793
%RSD	418.5615	111.7358	19.22719	128.8947	132.6432	13.74360	32.32095
#1	-.002263	-.002663	-.002248	.0035020	-.000250	.0232147	-.001624
#2	.002136	.000197	-.001747	.0000747	.003465	.0196859	-.002528
#3	-.001568	-.001381	-.002585	.0006805	.001049	.0259819	-.003204

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000036**	**.0000959**	**-.003074**	**.0003673**	**-.000029**	**.0002514**	**.0048714**
Stddev	.000028	.0000697	.005537	.0000369	.000044	.0003107	.0045953
%RSD	76.63084	72.70315	180.1256	10.04934	150.6581	123.5754	94.33289
#1	-.000061	.0001034	-.007498	.0003762	-.000047	.0003092	.0048098
#2	-.000006	.0001616	-.004859	.0003990	.000021	.0005292	.0094971
#3	-.000041	.0000227	.003136	.0003268	-.000062	-.000084	.0003072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006000**	**.0027154**	**-.000014**	**-.000036**	**.0207226**	**-.000454**	**-.000257**
Stddev	.0001927	.0274193	.000161	.000030	.0140038	.001002	.000119
%RSD	32.11949	1009.755	1183.290	83.20842	67.57715	220.8508	46.44327
#1	.0005188	-.025301	-.000165	-.000018	.0045829	.000643	-.000240
#2	.0004611	.029496	.000156	-.000071	.0279342	-.000683	-.000147
#3	.0008200	.003952	-.000031	-.000019	.0296508	-.001321	-.000384

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3611087**	**.0053555**	**.0000080**	**.0135439**	**.0013487**	**.0162533**	**.0009457**
Stddev	.0875511	.0001510	.0002321	.0009212	.0007970	.0040440	.0022476
%RSD	24.24509	2.820116	2891.628	6.801862	59.09299	24.88130	237.6786
#1	.2730134	.0054709	.0002067	.0145762	.0020930	.0195660	.0035048
#2	.3622074	.0051845	.0000644	.0132500	.0005078	.0174471	.0000401
#3	.4481053	.0054109	-.000247	.0128054	.0014454	.0117467	-.000708

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICB01 Acquired: 8/25/2025 11:53:27 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.004852**	**-.002651**	**-.000061**
Stddev	.000713	.000895	.000064
%RSD	14.69414	33.78065	104.2694
#1	-.004420	-.003631	.000010
#2	-.005675	-.001876	-.000082
#3	-.004461	-.002446	-.000113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5479.047**	**103088.1**	**10673.18**	**4514.917**	**6639.899**
Stddev	6.609	123.0	53.99	17.035	15.061
%RSD	.1206251	.1193583	.5058607	.3773017	.2268242
#1	5477.656	103023.4	10654.24	4495.555	6638.741
#2	5486.241	103010.9	10734.09	4521.592	6655.506
#3	5473.244	103230.0	10631.22	4527.603	6625.451

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CRI01 Acquired: 8/25/2025 11:57:46 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192103	.0380176	.0113808	.0215540	.0520597	.1142817	.1000269
Stddev	.0006679	.0012974	.0006480	.0001113	.0006829	.0085553	.0009809
%RSD	3.476514	3.412605	5.693391	.5164242	1.311831	7.486149	.9806334
#1	.0191428	.0369068	.0106531	.0214876	.0516493	.1161018	.1007709
#2	.0199093	.0377024	.0118954	.0214919	.0516817	.1217805	.1003944
#3	.0185787	.0394435	.0115938	.0216825	.0528481	.1049628	.0989153

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061921	.0058390	2.061790	.0100101	.0295650	.0215913	.1062433
Stddev	.0000491	.0000131	.005344	.0002424	.0001896	.0003634	.0033726
%RSD	.7933513	.2244670	.2591767	2.421836	.6411834	1.683258	3.174394
#1	.0061390	.0058256	2.067194	.0099929	.0293720	.0211866	.1032188
#2	.0062014	.0058397	2.061667	.0102606	.0297510	.0216974	.1098801
#3	.0062360	.0058518	2.056508	.0097767	.0295720	.0218899	.1056312

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216107	2.174252	.0399789	.0102954	1.967998	.0377504	.0415697
Stddev	.0002362	.008617	.0002185	.0002104	.003060	.0011810	.0002039
%RSD	1.093091	.3963020	.5465801	2.043370	.1554880	3.128311	.4905005
#1	.0218609	2.184108	.0397425	.0104722	1.965774	.0386005	.0413371
#2	.0215797	2.170507	.0401734	.0103514	1.971487	.0382488	.0417176
#3	.0213915	2.168142	.0400209	.0100627	1.966731	.0364020	.0416543

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.273219	.1018546	.2067545	.0384246	.0395341	.3693197	.0185928
Stddev	.043855	.0006637	.0001993	.0005186	.0003544	.0084442	.0011942
%RSD	1.929203	.6515744	.0963809	1.349671	.8963350	2.286412	6.422864
#1	2.234006	.1011483	.2069846	.0379572	.0399075	.3647083	.0196834
#2	2.265077	.1024652	.2066421	.0383341	.0394922	.3790655	.0187783
#3	2.320575	.1019504	.2066368	.0389825	.0392025	.3641852	.0173167

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CRI01 Acquired: 8/25/2025 11:57:46 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0145674	.0188455	.0202621
Stddev	.0012465	.0015928	.0000587
%RSD	8.557020	8.451667	.2897412
#1	.0132341	.0171822	.0202864
#2	.0147643	.0203568	.0203048
#3	.0157037	.0189976	.0201952

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5585.522	104817.9	11002.15	4517.226	6738.127
Stddev	3.277	121.5	21.59	13.378	10.741
%RSD	.0586624	.1158695	.1962758	.2961592	.1594024
#1	5582.650	104685.0	10988.73	4505.137	6743.225
#2	5589.091	104845.5	10990.66	4531.599	6745.369
#3	5584.824	104923.2	11027.06	4514.943	6725.786

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSA01 Acquired: 8/25/2025 12:02:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071661	-.002986	-.004509	.0065753	.0003498	257.5601
Stddev	.0026262	.001087	.001017	.0046531	.0012297	.5061
%RSD	36.64816	36.42431	22.55858	70.76656	351.5087	.1964903
#1	.0059808	-.003828	-.004404	.0013494	-.000143	257.0521
#2	.0053414	-.003370	-.003548	.0102692	.001750	258.0643
#3	.0101761	-.001758	-.005574	.0081073	-.000557	257.5638

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017214	.0014977	.0020708	245.2828	.0619379	.0020616
Stddev	.0004304	.0000832	.0001775	.6642	.0004831	.0001176
%RSD	25.00121	5.556725	8.573649	.2707912	.7799484	5.703651
#1	.0015043	.0014826	.0022757	244.5574	.0620980	.0020327
#2	.0022171	.0015875	.0019737	245.8611	.0623207	.0021909
#3	.0014429	.0014231	.0019629	245.4298	.0613951	.0019611

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0127213	103.9314	.0079843	259.1783	.0060425	.0038918
Stddev	.0004443	.3226	.0001756	.5992	.0000844	.0003510
%RSD	3.492328	.3104248	2.199605	.2311861	1.396873	9.018229
#1	.0123296	103.8099	.0077984	258.5079	.0059904	.0042731
#2	.0132040	104.2971	.0081474	259.3654	.0061398	.0038199
#3	.0126303	103.6871	.0080070	259.6617	.0059972	.0035823

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3597763	.0021686	.0035935	1.295580	.0923107	.0011239
Stddev	.0357704	.0015493	.0000650	.091914	.0011562	.0004564
%RSD	9.942389	71.44216	1.810111	7.094416	1.252500	40.60724
#1	.3227891	.0016553	.0036187	1.212317	.0928093	.0015330
#2	.3623487	.0039094	.0036421	1.280215	.0931339	.0006317
#3	.3941910	.0009411	.0035196	1.394208	.0909889	.0012070

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSA01 Acquired: 8/25/2025 12:02:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001625**	**-.003465**	**.0210474**	**.0075841**	**-.012792**	F **-.033278**
Stddev	.000135	.001876	.0148421	.0014965	.001813	.000804
%RSD	8.283599	54.14172	70.51753	19.73176	14.17061	2.415269
#1	-.001519	-.005598	.0378186	.0092427	-.014519	-.033439
#2	-.001776	-.002071	.0096067	.0063350	-.010904	-.033989
#3	-.001579	-.002726	.0157169	.0071745	-.012952	-.032406

Elem	Sr4077
Units	ppm
Avg	**.0021387**
Stddev	.0001455
%RSD	6.804869
#1	.0020031
#2	.0022925
#3	.0021205

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5061.508**	**92423.25**	**10619.42**	**4058.596**	**5503.325**
Stddev	7.010	130.85	9.27	7.580	7.497
%RSD	.1384914	.1415751	.0872572	.1867726	.1362328
#1	5069.546	92333.35	10626.12	4053.959	5508.488
#2	5058.309	92363.03	10608.84	4054.486	5506.761
#3	5056.668	92573.36	10623.30	4067.344	5494.725

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSAB01 Acquired: 8/25/2025 12:15:21 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1032031	.0884333	.0422811	.0537365	.6081298	252.5603
Stddev	.0012464	.0017805	.0006762	.0028484	.0025142	.2930
%RSD	1.207682	2.013376	1.599336	5.300651	.4134255	.1159928
#1	.1023700	.0904599	.0418270	.0561312	.6098913	252.8431
#2	.1026032	.0877197	.0430582	.0505866	.6092475	252.5795
#3	.1046359	.0871203	.0419581	.0544918	.6052506	252.2581

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5066789	.4972506	.9811374	240.4701	.5640109	.4971764
Stddev	.0009163	.0027117	.0015120	.2543	.0011657	.0004166
%RSD	.1808525	.5453392	.1541095	.1057639	.2066890	.0838010
#1	.5056457	.4982297	.9814449	240.7577	.5651854	.4972229
#2	.5073929	.4941853	.9794953	240.2749	.5628541	.4967385
#3	.5069983	.4993368	.9824721	240.3778	.5639931	.4975679

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4914094	101.3492	.5022313	254.1622	.9875546	.2167412
Stddev	.0005818	.3777	.0015243	.2364	.0012178	.0007498
%RSD	.1183976	.3727209	.3035085	.0930024	.1233152	.3459549
#1	.4909151	101.2955	.5039792	254.3355	.9878235	.2159947
#2	.4912626	101.7509	.5015372	253.8930	.9862248	.2174944
#3	.4920506	101.0011	.5011777	254.2582	.9886154	.2167344

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2091158	.4964576	1.039701	.2030137	F .0824381	F .0012636
Stddev	.0215899	.0014521	.001323	.0445798	.0023363	.0003300
%RSD	10.32437	.2924954	.1272020	21.95901	2.833963	26.11579
#1	.1883284	.4967966	1.039765	.1523422	.0812423	.0014194
#2	.2314274	.4977102	1.040990	.2204975	.0851302	.0008846
#3	.2075917	.4948659	1.038348	.2362015	.0809419	.0014869

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSAB01 Acquired: 8/25/2025 12:15:21 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.001281	F -.006697	F .0170959	F .0071200	F -.006543	F -.033478
Stddev	.000621	.000762	.0106701	.0010104	.003368	.001976
%RSD	48.44732	11.37294	62.41330	14.19059	51.47084	5.902334
#1	-.001154	-.005820	.0179538	.0081569	-.003022	-.032945
#2	-.000733	-.007082	.0060227	.0070647	-.009733	-.031822
#3	-.001955	-.007190	.0273111	.0061384	-.006873	-.035665

Elem	Sr4077
Units	ppm
Avg	F .0020198
Stddev	.0001245
%RSD	6.162775
#1	.0019100
#2	.0019944
#3	.0021551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5042.389	91974.21	10515.07	4047.403	5502.698
Stddev	5.087	117.67	47.43	10.377	3.653
%RSD	.1008892	.1279384	.4510934	.2563810	.0663769
#1	5040.103	91845.05	10495.17	4058.651	5498.488
#2	5038.846	92075.34	10569.21	4038.204	5505.026
#3	5048.218	92002.23	10480.83	4045.352	5504.580

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSADLX20 Acquired: 8/25/2025 12:19:22 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003461	-.000720	-.001279	.0008959	-.000381	12.56928	-.002720
Stddev	.0004515	.002632	.000720	.0025222	.000580	.02803	.000731
%RSD	130.4389	365.3894	56.25411	281.5068	152.1526	.2230278	26.86720
#1	-.000037	.001556	-.000691	.0008091	.000110	12.54058	-.003543
#2	.000231	-.003603	-.002082	.0034604	-.001021	12.59659	-.002147
#3	.000844	-.000114	-.001065	-.001582	-.000232	12.57067	-.002470

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001220	.0000918	12.52554	.0031263	.0000500	.0007498	5.071594
Stddev	.0000174	.0000471	.02993	.0001054	.0000918	.0001836	.045429
%RSD	14.23259	51.34977	.2389757	3.372615	183.6141	24.48553	.8957463
#1	.0001034	.0000377	12.51430	.0032457	-.000054	.0007411	5.123812
#2	.0001248	.0001134	12.55947	.0030461	.000119	.0005707	5.049811
#3	.0001378	.0001242	12.50286	.0030871	.000085	.0009376	5.041159

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006766	12.86664	.0001505	.0000659	.0625066	-.002133	.0019110
Stddev	.0002244	.06634	.0001782	.0004667	.0144277	.001602	.0000518
%RSD	33.17051	.5156346	118.4227	708.4889	23.08188	75.12960	2.711102
#1	.0008607	12.82022	.0003406	-.000118	.0496715	-.000409	.0019707
#2	.0007424	12.94263	.0001235	.000596	.0597262	-.003576	.0018853
#3	.0004266	12.83708	-.000013	-.000281	.0781222	-.002414	.0018771

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.181337	.0052380	-.000112	-.000953	.0006909	.0114312	.0003492
Stddev	.005484	.0006945	.000038	.000201	.0006716	.0086314	.0006303
%RSD	3.023997	13.25880	33.67348	21.11959	97.21227	75.50715	180.4881
#1	-.183296	.0059619	-.000080	-.001112	.0004331	.0081011	.0010512
#2	-.175143	.0051750	-.000101	-.001019	.0001863	.0212316	.0001647
#3	-.185572	.0045772	-.000153	-.000727	.0014532	.0049610	-.000168

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSADLX20 Acquired: 8/25/2025 12:19:22 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.004443**	**-.005846**	**.0001475**
Stddev	.002205	.000506	.0000236
%RSD	49.61407	8.661256	16.00320
#1	-.004126	-.006348	.0001520
#2	-.006790	-.005854	.0001686
#3	-.002415	-.005336	.0001220

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5516.336**	**101828.8**	**10917.19**	**4422.031**	**6552.319**
Stddev	12.753	408.4	81.84	15.733	19.026
%RSD	.2311950	.4010820	.7496192	.3557915	.2903777
#1	5501.674	101360.1	11009.25	4404.228	6530.387
#2	5524.858	102108.3	10852.68	4427.801	6562.178
#3	5522.477	102018.2	10889.65	4434.066	6564.393

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSABDLX20 Acquired: 8/25/2025 12:23:39 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051697	.0054368	.0028017	.0056607	.0291251	12.77813	.0217039
Stddev	.0032542	.0010562	.0011998	.0011608	.0015153	.02990	.0010108
%RSD	62.94721	19.42672	42.82650	20.50543	5.202635	.2339642	4.657434
#1	.0046022	.0061714	.0017381	.0069975	.0277264	12.77776	.0219272
#2	.0022366	.0042264	.0025645	.0050762	.0289141	12.80820	.0206001
#3	.0086704	.0059126	.0041024	.0049084	.0307348	12.74842	.0225844

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0255635	.0482779	12.62900	.0293912	.0244070	.0264357	5.145694
Stddev	.0001382	.0001785	.00679	.0002460	.0001457	.0001127	.036989
%RSD	.5406237	.3697211	.0537542	.8371350	.5967816	.4263272	.7188394
#1	.0254770	.0484830	12.62616	.0296751	.0245575	.0263234	5.169301
#2	.0257229	.0481929	12.63675	.0292419	.0242667	.0264349	5.103065
#3	.0254906	.0481578	12.62409	.0292564	.0243968	.0265488	5.164717

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0273083	12.93049	.0492800	.0107333	.1881274	.0260305	.0549755
Stddev	.0002319	.11210	.0002483	.0002808	.0154049	.0003337	.0002821
%RSD	.8491317	.8669128	.5038890	2.615950	8.188563	1.282117	.5130835
#1	.0275131	12.80178	.0495572	.0107125	.1714388	.0257660	.0546566
#2	.0273553	12.98292	.0490781	.0110239	.1911398	.0259199	.0551925
#3	.0270565	13.00676	.0492046	.0104635	.2018037	.0264054	.0550773

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.149092	.0014033	.0004278	-.000017	.0017846	.0202579	.0067573
Stddev	.027070	.0003105	.0001539	.000628	.0004390	.0089372	.0006008
%RSD	18.15661	22.12397	35.97835	3697.747	24.60069	44.11715	8.891584
#1	-.174618	.0017617	.0003643	-.000710	.0022755	.0191463	.0062849
#2	-.151953	.0012183	.0003158	.000145	.0016487	.0296989	.0074335
#3	-.120705	.0012298	.0006033	.000514	.0014296	.0119285	.0065535

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: ICSABDLX20 Acquired: 8/25/2025 12:23:39 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0057799	-.005650	.0003687
Stddev	.0013760	.000328	.0000437
%RSD	23.80680	5.809829	11.86212
#1	.0046450	-.005991	.0003391
#2	.0073104	-.005622	.0004190
#3	.0053843	-.005337	.0003481

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5525.371	101516.7	11002.34	4427.304	6574.585
Stddev	9.333	271.7	48.50	13.924	9.468
%RSD	.1689128	.2676536	.4408384	.3144933	.1440118
#1	5521.675	101422.7	11045.75	4442.031	6568.080
#2	5518.452	101823.0	10949.99	4414.354	6570.227
#3	5535.986	101304.5	11011.27	4425.527	6585.447

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV01 Acquired: 8/25/2025 12:33:39 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.936362**	**4.803416**	**4.826345**	**4.928676**	**4.996450**	**9.876411**
Stddev	.003006	.014507	.003488	.003317	.010670	.024622
%RSD	.0608875	.3020082	.0722788	.0672983	.2135430	.2493045
#1	4.936730	4.820018	4.830060	4.931373	4.985056	9.848483
#2	4.933189	4.793183	4.825836	4.924972	4.998089	9.894986
#3	4.939166	4.797049	4.823138	4.929682	5.006206	9.885765

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.22538**	**.2413264**	**2.432889**	**24.95694**	**.9874683**	**2.438810**
Stddev	.10504	.0009727	.000535	.04495	.0010242	.000410
%RSD	1.027276	.4030566	.0219867	.1801222	.1037240	.0168182
#1	10.22533	.2414485	2.433317	24.92427	.9865125	2.438679
#2	10.33045	.2422322	2.433060	25.00821	.9873429	2.438482
#3	10.12037	.2402984	2.432289	24.93835	.9885494	2.439270

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.237040**	**5.084785**	**2.517633**	**24.47898**	**2.441713**	**1.219682**
Stddev	.001099	.020111	.010801	.02270	.001737	.001528
%RSD	.0888233	.3955199	.4290184	.0927270	.0711325	.1253084
#1	1.236717	5.081538	2.511915	24.45921	2.443528	1.221083
#2	1.236140	5.106322	2.530091	24.50377	2.440066	1.219911
#3	1.238264	5.066495	2.510893	24.47398	2.441546	1.218052

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.47220**	**2.500746**	**2.464274**	**24.95362**	**4.825906**	**5.005005**
Stddev	.11851	.001316	.005345	.09526	.025400	.006059
%RSD	.4652514	.0526325	.2169189	.3817321	.5263183	.1210527
#1	25.41060	2.502007	2.470442	24.84595	4.832233	5.000514
#2	25.60883	2.499381	2.460996	24.98798	4.847544	5.002605
#3	25.39719	2.500850	2.461384	25.02693	4.797941	5.011896

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV01 Acquired: 8/25/2025 12:33:39 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.842688**	**4.994715**	**4.998883**	**4.883091**	F **4.719464**	**5.008514**
Stddev	.008978	.021441	.015718	.006844	.007829	.013090
%RSD	.1853859	.4292650	.3144296	.1401585	.1658931	.2613585
#1	4.851358	4.980630	4.991386	4.882020	4.728293	4.999035
#2	4.843275	5.019390	4.988317	4.890408	4.713364	5.023450
#3	4.833431	4.984124	5.016946	4.876846	4.716736	5.003058

Elem	Sr4077
Units	ppm
Avg	**5.067750**
Stddev	.053133
%RSD	1.048455
#1	5.049205
#2	5.127670
#3	5.026375

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5443.933**	**101475.9**	**10954.07**	**4421.912**	**6189.040**
Stddev	10.684	47.1	34.73	8.764	18.392
%RSD	.1962608	.0464323	.3170728	.1981849	.2971735
#1	5434.417	101492.7	10953.43	4411.819	6173.708
#2	5441.891	101512.3	10919.66	4426.334	6183.980
#3	5455.490	101422.7	10989.12	4427.584	6209.433

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB01 Acquired: 8/25/2025 12:42:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001968**	**-.001358**	**-.000543**	**-.000501**	**-.000049**	**-.004924**	**-.005572**
Stddev	.001416	.000563	.000335	.001447	.001618	.008512	.000704
%RSD	71.95870	41.46226	61.66175	288.9068	3307.690	172.8785	12.63411
#1	-.002252	-.001217	-.000918	-.002071	-.001132	.003294	-.005049
#2	-.003221	-.000878	-.000442	-.000211	-.000826	-.013702	-.005294
#3	-.000431	-.001978	-.000271	.000779	.001811	-.004363	-.006372

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000036**	**.0000405**	**-.008280**	**-.000007**	**-.000089**	**-.000441**	**-.003039**
Stddev	.000034	.0000584	.005750	.000129	.000037	.000181	.004629
%RSD	94.18574	144.3685	69.44430	1880.286	41.34268	40.96908	152.3286
#1	-.000007	.0000456	-.012885	.000118	-.000077	-.000471	-.004759
#2	-.000028	.0000962	-.010121	.000002	-.000060	-.000247	.002204
#3	-.000073	-.000020	-.001835	-.000140	-.000130	-.000605	-.006561

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000712**	**.0067280**	**-.000289**	**.0003668**	**-.059264**	**-.002500**	**-.000853**
Stddev	.0003020	.0165241	.000277	.0002481	.003799	.001824	.000142
%RSD	424.3532	245.6010	96.01725	67.65747	6.409518	72.96101	16.63757
#1	.0000180	-.002520	-.000224	.0001543	-.063646	-.004228	-.000758
#2	.0003962	.025806	-.000592	.0006395	-.057232	-.000593	-.000785
#3	-.000201	-.003101	-.000050	.0003065	-.056913	-.002680	-.001016

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.171149**	**.0004129**	**-.000138**	**-.000109**	**.0002570**	**.0103895**	**.0005024**
Stddev	.027571	.0005137	.000188	.000261	.0005653	.0062482	.0007892
%RSD	16.10912	124.4133	135.7271	240.4302	219.9563	60.13947	157.1087
#1	-.169944	-.000169	-.000068	.000128	-.000309	.0128457	.0007365
#2	-.199302	.000606	-.000351	-.000389	.000821	.0032864	.0011480
#3	-.144201	.000802	.000004	-.000066	.000259	.0150363	-.000377

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB01 Acquired: 8/25/2025 12:42:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005540	-.005601	.0000417
Stddev	.001710	.000935	.0000799
%RSD	30.87513	16.69783	191.5475
#1	-.003983	-.005086	-.000026
#2	-.007370	-.006680	.000130
#3	-.005265	-.005036	.000022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5679.262	106652.9	11179.05	4588.531	6977.424
Stddev	4.388	215.6	35.29	15.629	12.379
%RSD	.0772705	.2021387	.3156422	.3406158	.1774125
#1	5674.579	106714.7	11197.90	4588.007	6963.166
#2	5679.929	106413.1	11138.34	4573.171	6985.424
#3	5683.279	106830.8	11200.90	4604.416	6983.683

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-1 Acquired: 8/25/2025 12:47:04 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002209**	**.0085231**	**-.010182**	**-.019573**	**.0187097**	**.1979695**	**-.013130**
Stddev	.004968	.0008513	.002950	.001050	.0048327	.0066019	.000392
%RSD	224.9448	9.988335	28.97601	5.365902	25.82987	3.334789	2.985762
#1	-.007752	.0089880	-.012576	-.020737	.0242836	.1926691	-.013120
#2	.001844	.0090408	-.006886	-.018697	.0161541	.1958748	-.012742
#3	-.000718	.0075406	-.011086	-.019284	.0156913	.2053646	-.013526

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001096**	**.0004021**	**2405.597**	**.0189351**	**.0001257**	**.0034968**	**.4655259**
Stddev	.0000643	.0002629	25.507	.0002949	.0001466	.0007105	.0059254
%RSD	58.69676	65.38717	1.060328	1.557715	116.6178	20.31828	1.272847
#1	.0001799	.0003213	2433.791	.0192723	.0002544	.0033343	.4668393
#2	.0000953	.0006959	2398.878	.0188082	-.000034	.0042745	.4590539
#3	.0000536	.0001890	2384.121	.0187249	.000157	.0028817	.4706844

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0164035**	**2271.985**	**.0168369**	**-.002388**	**2408.764**	**.0031672**	**.0470417**
Stddev	.0000129	12.780	.0007889	.000584	9.949	.0028463	.0002893
%RSD	.0788451	.5625115	4.685342	24.46351	.4130281	89.86744	.6149050
#1	.0164010	2282.833	.0177411	-.001717	2420.249	.0059337	.0471485
#2	.0163919	2275.227	.0162892	-.002664	2403.251	.0002473	.0472625
#3	.0164174	2257.897	.0164804	-.002782	2402.793	.0033206	.0467143

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.937119**	**.0086174**	**.0036094**	**-.007422**	**-.106857**	**-.003561**	**.0147987**
Stddev	.264044	.0003618	.0001273	.000608	.000398	.026500	.0002075
%RSD	3.326694	4.198465	3.526978	8.189572	.3726509	744.1528	1.402280
#1	7.643436	.0089082	.0035883	-.007323	-.106950	-.033850	.0145724
#2	8.013025	.0087317	.0034940	-.006870	-.107201	.015355	.0149800
#3	8.154895	.0082123	.0037460	-.008074	-.106421	.007811	.0148439

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-1 Acquired: 8/25/2025 12:47:04 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1998519	-.380771	.0631815
Stddev	.0083277	.005501	.0001304
%RSD	4.166916	1.444772	.2064448
#1	.2037277	-.386672	.0630968
#2	.1902928	-.379857	.0633317
#3	.2055353	-.375784	.0631161

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3646.245	70104.35	9578.702	2950.726	3777.974
Stddev	5.337	180.95	66.268	6.674	8.346
%RSD	.1463572	.2581093	.6918262	.2261897	.2209026
#1	3652.271	70146.70	9545.327	2957.983	3786.057
#2	3644.347	70260.36	9535.757	2944.851	3778.478
#3	3642.117	69905.98	9655.022	2949.346	3769.388

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-2 Acquired: 8/25/2025 12:51:44 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1214399	-.363613	.0588809	.0616052	-.174665	1956.108	.0237658
Stddev	.0016237	.003452	.0053529	.0224304	.006305	26.884	.0007622
%RSD	1.337054	.9494413	9.091105	36.40984	3.609958	1.374380	3.206979
#1	.1233076	-.360156	.0634709	.0380608	-.167507	1984.743	.0245806
#2	.1203644	-.367060	.0601710	.0640303	-.179399	1931.409	.0230703
#3	.1206476	-.363623	.0530009	.0827245	-.177089	1952.170	.0236465

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0434046	.0958929	^ *****	-.044696	.0926304	.2825968	2906.377
Stddev	.0003776	.0018620	-----	.000917	.0007724	.0063205	19.123
%RSD	.8700368	1.941755	-----	2.050870	.8338732	2.236592	.6579740
#1	.0438383	.0980075	^ -----	-.043681	.0925334	.2822878	2890.015
#2	.0431484	.0951720	^ -----	-.044943	.0919110	.2890662	2901.717
#3	.0432270	.0944991	8.853961	-.045463	.0934467	.2764364	2927.400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.234232	1.064143	.0569618	^ *****	3.207327	.0574151	.0875803
Stddev	.000499	.019953	.0005692	-----	.088350	.0007997	.0010805
%RSD	.2130551	1.875005	.9992526	-----	2.754644	1.392765	1.233747
#1	-.234117	1.047343	.0563951	^ -----	3.105772	.0580149	.0868939
#2	-.233801	1.086197	.0569568	^ -----	3.266511	.0577232	.0888258
#3	-.234779	1.058890	.0575335	^ -----	3.249699	.0565072	.0870212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1978.705	^ *****	-.016281	.0410120	.0042696	.5412951	.1114895
Stddev	26.102	-----	.001586	.0014014	.0005672	.0169211	.0062206
%RSD	1.319152	-----	9.743508	3.417106	13.28347	3.126049	5.579525
#1	1992.229	^ -----	-.016551	.0418795	.0048737	.5405846	.1160732
#2	1948.616	^ -----	-.014577	.0417614	.0037485	.5247403	.1044083
#3	1995.270	^ -----	-.017716	.0393953	.0041868	.5585602	.1139872

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-2 Acquired: 8/25/2025 12:51:44 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.490638	k .2883092	-2.78618
Stddev	.009205	.0013725	.01837
%RSD	1.876103	.4760352	.6593774
#1	-.482671	k .2867258	-2.77040
#2	-.488528	k .2890446	-2.78179
#3	-.500715	.2891573	-2.80635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4452.264	78412.50	10318.74	3493.680	3819.542
Stddev	6.934	117.44	72.03	7.266	13.065
%RSD	.1557432	.1497741	.6980059	.2079703	.3420492
#1	4452.590	78353.84	10235.91	3499.828	3812.547
#2	4459.030	78547.72	10366.63	3485.662	3834.615
#3	4445.173	78335.94	10353.68	3495.550	3811.464

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-3 Acquired: 8/25/2025 12:56:12 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0935633	.0057969	228.9223	-.001323	.1040709	.0757222	-.003786
Stddev	.0010737	.0020274	1.0899	.005023	.0015421	.0050576	.000863
%RSD	1.147603	34.97372	.4760856	379.6695	1.481742	6.679141	22.80655
#1	.0933825	.0036143	228.5701	-.007091	.1023149	.0807335	-.002977
#2	.0925914	.0076214	230.1447	.002092	.1046932	.0758135	-.003686
#3	.0947159	.0061550	228.0521	.001029	.1052045	.0706195	-.004695

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005183	-.001373	.2145168	23.97391	.0057046	53.87329	.0472868
Stddev	.000106	.000080	.0068390	.09451	.0000873	.01699	.0118087
%RSD	2.048324	5.807764	3.188103	.3942117	1.530877	.0315404	24.97253
#1	-.005298	-.001463	.2121588	23.90403	.0056202	53.86977	.0606396
#2	-.005164	-.001312	.2091687	24.08144	.0057946	53.89176	.0430028
#3	-.005088	-.001344	.2222228	23.93627	.0056989	53.85833	.0382180

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.29417	-.202945	24.01159	.0042851	.1818695	-.036955	28.60821
Stddev	.31473	.007936	.04651	.0002295	.0113696	.000917	.34188
%RSD	.6257773	3.910187	.1936933	5.354948	6.251516	2.480586	1.195052
#1	50.58570	-.194086	24.02450	.0043153	.1706704	-.037145	29.00123
#2	50.33634	-.205347	24.05029	.0044979	.1815356	-.035958	28.37946
#3	49.96049	-.209402	23.96000	.0040419	.1934023	-.037761	28.44395

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4676668	.0000034	-.014910	.0042066	-.041090	-.136919	.1793867
Stddev	.0284195	.0007241	.000567	.0001811	.000273	.001970	.0033811
%RSD	6.076874	21129.58	3.805323	4.305689	.6632020	1.438692	1.884820
#1	.4354341	.0000726	-.015497	.0040725	-.041224	-.136948	.1775990
#2	.4784481	-.000753	-.014868	.0044126	-.040777	-.134935	.1832864
#3	.4891181	.000690	-.014365	.0041346	-.041270	-.138875	.1772748

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: LR-3 Acquired: 8/25/2025 12:56:12 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0322216	-.002964	.0004228
Stddev	.0014832	.001213	.0000187
%RSD	4.603201	40.92388	4.435272
#1	.0306111	-.003551	.0004099
#2	.0335316	-.001569	.0004443
#3	.0325222	-.003772	.0004142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5221.251	105473.7	11008.21	4389.400	6597.972
Stddev	12.467	87.1	50.13	10.449	19.921
%RSD	.2387699	.0826176	.4553476	.2380569	.3019200
#1	5231.551	105393.7	10987.62	4381.656	6605.563
#2	5207.392	105460.7	10971.67	4385.258	6575.371
#3	5224.811	105566.6	11065.36	4401.285	6612.980

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169358BL Acquired: 8/25/2025 13:01:06 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010176	.0001669	.0001298	.0004347	-.001930	.0227124	-.004606
Stddev	.0024887	.0004635	.0015717	.0015372	.001054	.0043397	.000155
%RSD	244.5580	277.6912	1211.199	353.6208	54.60588	19.10741	3.360459
#1	-.000625	.0004806	.0016853	-.000882	-.000748	.0274431	-.004781
#2	-.000203	-.000365	-.001458	.000062	-.002273	.0189157	-.004487
#3	.003881	.000386	.000161	.002124	-.002770	.0217784	-.004551

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000027	.0000230	-.003506	.0002898	-.000083	.0002725	.0149640
Stddev	.000012	.0000476	.005800	.0002157	.000108	.0001144	.0051497
%RSD	44.87828	206.7780	165.4317	74.43027	129.2558	41.96305	34.41419
#1	-.000014	.0000721	-.001262	.0005198	-.000002	.0003906	.0166628
#2	-.000029	.0000198	-.010092	.0002575	-.000042	.0002648	.0091795
#3	-.000038	-.000023	.000837	.0000921	-.000205	.0001622	.0190496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007975	-.005305	.0002344	.0004634	.2474426	-.002850	-.000053
Stddev	.0004016	.013028	.0001997	.0001352	.0388880	.000402	.000283
%RSD	50.35574	245.5586	85.19728	29.17662	15.71595	14.10222	536.0360
#1	.0012611	.006650	.0000179	.0005570	.2046799	-.002434	-.000115
#2	.0005561	-.019191	.0004114	.0005248	.2569586	-.002880	-.000299
#3	.0005754	-.003375	.0002738	.0003084	.2806893	-.003236	.000256

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5823391	-.003065	-.000196	.0128802	.0006128	.0149794	-.000281
Stddev	.0889676	.000285	.000246	.0001479	.0008741	.0051413	.000550
%RSD	15.27762	9.295164	125.6180	1.148080	142.6481	34.32246	195.5956
#1	.4838362	-.002797	-.000453	.0129553	.0016088	.0205086	.000297
#2	.6063296	-.003364	.000037	.0129756	.0002559	.0140867	-.000797
#3	.6568515	-.003035	-.000172	.0127099	-.000026	.0103429	-.000343

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169358BL Acquired: 8/25/2025 13:01:06 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.006704	.0000531	-.000096
Stddev	.001903	.0018111	.000060
%RSD	28.39275	3413.033	62.32396
#1	-.005503	-.001649	-.000149
#2	-.008898	.001956	-.000107
#3	-.005711	-.000148	-.000031

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5706.900	107446.0	11125.26	4621.537	7026.823
Stddev	6.595	392.9	55.80	15.778	4.773
%RSD	.1155703	.3656611	.5015473	.3413908	.0679275
#1	5707.239	107117.5	11077.82	4611.553	7022.709
#2	5713.319	107881.3	11186.74	4639.727	7032.057
#3	5700.141	107339.3	11111.23	4613.332	7025.704

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169358BS Acquired: 8/25/2025 13:05:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7862629**	**1.778056**	**.9552133**	**1.971107**	**.8133463**	**2.044527**
Stddev	.0016681	.052751	.0024261	.003221	.0009507	.000487
%RSD	.2121592	2.966754	.2539896	.1634255	.1168847	.0238357
#1	.7844699	1.730526	.9579396	1.969116	.8131967	2.044535
#2	.7865500	1.768833	.9532918	1.969383	.8124794	2.045010
#3	.7877689	1.834810	.9544085	1.974824	.8143630	2.044035

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2033781**	**.2030689**	**.1920313**	**1.060515**	**.4099038**	**.1970643**
Stddev	.0016648	.0006260	.0001096	.002479	.0013996	.0002715
%RSD	.8185717	.3082962	.0570515	.2337112	.3414518	.1377628
#1	.2019809	.2023687	.1920957	1.057817	.4104062	.1969225
#2	.2052201	.2035747	.1919048	1.061037	.4083223	.1968929
#3	.2029332	.2032633	.1920934	1.062691	.4109829	.1973773

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3124799**	**3.088933**	**.2098007**	**2.063649**	**.4959946**	**.0758170**
Stddev	.0003977	.004481	.0011737	.014450	.0004706	.0003924
%RSD	.1272732	.1450579	.5594244	.7002386	.0948909	.5174960
#1	.3124867	3.091692	.2100974	2.054271	.4963923	.0760673
#2	.3120789	3.083763	.2107975	2.080290	.4954750	.0753648
#3	.3128742	3.091343	.2085071	2.056386	.4961166	.0760188

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.149658**	**.3065497**	**.2087207**	**10.24781**	**.2961320**	**.4133632**
Stddev	.009431	.0028932	.0007660	.04035	.0013689	.0008047
%RSD	.2994217	.9437926	.3669774	.3937453	.4622536	.1946703
#1	3.139420	.3041182	.2079754	10.20742	.2949912	.4124364
#2	3.151564	.3057814	.2086808	10.24789	.2976499	.4137700
#3	3.157991	.3097495	.2095057	10.28812	.2957549	.4138834

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169358BS Acquired: 8/25/2025 13:05:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6744669**	**.1995433**	**.9088103**	**5.559420**	F **-.001906**	**.2109560**
Stddev	.0006803	.0020123	.0094821	.028634	.000891	.0007341
%RSD	.1008645	1.008467	1.043349	.5150503	46.76106	.3479834
#1	.6738499	.2012853	.9172016	5.526608	-.000877	.2117744
#2	.6751965	.2000039	.9107055	5.572301	-.002396	.2107379
#3	.6743544	.1973406	.8985237	5.579351	-.002445	.2103557

Elem	Sr4077
Units	ppm
Avg	**.2009276**
Stddev	.0011205
%RSD	.5576439
#1	.2006606
#2	.2021574
#3	.1999647

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5733.744**	**106046.2**	**11201.29**	**4582.485**	**6876.308**
Stddev	5.602	157.2	52.84	11.782	9.488
%RSD	.0977060	.1482307	.4716901	.2570993	.1379762
#1	5732.157	106225.8	11252.96	4570.796	6872.142
#2	5739.969	105979.1	11147.36	4594.357	6887.166
#3	5729.108	105933.6	11203.54	4582.304	6869.616

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169357BL Acquired: 8/25/2025 13:09:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000843**	**-.000694**	**.0005639**	**-.000245**	**-.000235**	**.0051014**	**-.004136**
Stddev	.000617	.000148	.0012322	.003035	.000891	.0066564	.000948
%RSD	73.17800	21.32854	218.5278	1237.338	379.7867	130.4834	22.91061
#1	-.001128	-.000783	.0004922	.001070	.000794	-.000263	-.003701
#2	-.000135	-.000776	-.000631	.001910	-.000770	.012551	-.005223
#3	-.001265	-.000523	.001830	-.003716	-.000729	.003016	-.003484

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000033**	**.0000661**	**-.003602**	**-.000028**	**-.000205**	**.0000170**	**.0067094**
Stddev	.000034	.0000883	.002879	.000308	.000171	.0002193	.0031193
%RSD	104.4054	133.7330	79.92736	1112.957	83.60610	1288.848	46.49113
#1	-.000062	.0001194	-.005638	-.000383	-.000054	-.000152	.0067063
#2	.000004	-.000036	-.004858	.000149	-.000170	-.000061	.0098301
#3	-.000040	.000115	-.000308	.000151	-.000391	.000265	.0035916

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004351**	**.0045028**	**-.000108**	**.0000174**	**.1174649**	**-.000448**	**-.000488**
Stddev	.0003761	.0174453	.000202	.0003814	.0194834	.002201	.000295
%RSD	86.44181	387.4297	186.1893	2191.859	16.58655	491.1132	60.50414
#1	.0008687	.0243966	-.000277	.0004559	.0985066	.001129	-.000149
#2	.0002406	-.002702	.000115	-.000238	.1164541	-.002962	-.000622
#3	.0001961	-.008186	-.000164	-.000166	.1374340	.000489	-.000692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3320856**	**-.002966**	**-.000112**	**-.000236**	**.0014841**	**.0026137**	**.0009730**
Stddev	.0909187	.000252	.000173	.000299	.0007189	.0096379	.0007496
%RSD	27.37810	8.510304	155.1296	126.7514	48.44267	368.7430	77.03542
#1	.2357990	-.002985	-.000268	-.000398	.0020523	-.002803	.0017780
#2	.3439952	-.003209	-.000141	-.000419	.0017240	-.003097	.0002950
#3	.4164627	-.002705	.000074	.000109	.0006758	.013741	.0008460

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169357BL Acquired: 8/25/2025 13:09:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.006152	-.003207	-.000072
Stddev	.002268	.000863	.000058
%RSD	36.85820	26.91908	80.68413
#1	-.008749	-.003858	-.000092
#2	-.004562	-.003536	-.000007
#3	-.005145	-.002228	-.000119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5713.681	107375.1	11118.60	4627.208	7038.394
Stddev	1.161	195.0	58.32	14.402	7.911
%RSD	.0203212	.1816080	.5244937	.3112357	.1123932
#1	5712.341	107475.3	11064.04	4617.248	7043.875
#2	5714.307	107150.3	11180.06	4620.655	7029.325
#3	5714.395	107499.6	11111.71	4643.720	7041.981

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169357BS Acquired: 8/25/2025 13:13:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7689664	1.742910	.9383724	1.940577	.7924311	1.988363
Stddev	.0028417	.025320	.0035670	.002649	.0018600	.005210
%RSD	.3695465	1.452716	.3801213	.1365158	.2347240	.2620345
#1	.7677440	1.734379	.9424324	1.939853	.7927017	1.993681
#2	.7669405	1.722958	.9369428	1.938365	.7904506	1.988139
#3	.7722147	1.771394	.9357420	1.943513	.7941410	1.983268

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1984861	.1993080	.1883502	1.027162	.4004526	.1931629
Stddev	.0007563	.0020235	.0000426	.000766	.0012982	.0004657
%RSD	.3810417	1.015267	.0226298	.0745632	.3241709	.2410693
#1	.1992136	.1996705	.1883013	1.027320	.4006750	.1934291
#2	.1985408	.2011258	.1883698	1.026329	.3990576	.1926252
#3	.1977039	.1971277	.1883796	1.027836	.4016251	.1934344

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3052491	3.003548	.2056400	2.000643	.4857423	.0734764
Stddev	.0003765	.045707	.0006321	.020654	.0001171	.0001969
%RSD	.1233531	1.521763	.3074001	1.032361	.0241160	.2680054
#1	.3054248	2.989787	.2061252	2.014633	.4858376	.0736238
#2	.3055057	2.966302	.2058698	2.010376	.4857778	.0735526
#3	.3048169	3.054554	.2049251	1.976921	.4856116	.0732527

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.981665	.3011088	.2048596	9.845968	.2893126	.4009713
Stddev	.031301	.0021491	.0003072	.088986	.0035384	.0002188
%RSD	1.049767	.7137252	.1499348	.9037791	1.223043	.0545603
#1	2.984868	.3035757	.2045591	9.866931	.2906653	.4007343
#2	2.948886	.2996423	.2051730	9.748372	.2919752	.4010140
#3	3.011241	.3001085	.2048466	9.922601	.2852974	.4011656

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169357BS Acquired: 8/25/2025 13:13:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6502074	.1943271	.8829935	5.456665	F -.004814	.2033941
Stddev	.0016470	.0007677	.0007287	.016112	.001821	.0010555
%RSD	.2533118	.3950665	.0825290	.2952780	37.81689	.5189293
#1	.6505964	.1934842	.8826154	5.459142	-.002839	.2043999
#2	.6484007	.1945108	.8838335	5.439457	-.005178	.2034872
#3	.6516251	.1949864	.8825315	5.471395	-.006425	.2022952

Elem	Sr4077
Units	ppm
Avg	.1959066
Stddev	.0010719
%RSD	.5471616
#1	.1966782
#2	.1946827
#3	.1963590

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5707.098	106230.2	11169.15	4614.883	6841.477
Stddev	11.836	490.8	80.79	22.484	10.765
%RSD	.2073928	.4620236	.7232913	.4872057	.1573531
#1	5711.655	106158.1	11149.66	4634.867	6836.247
#2	5693.660	106753.1	11099.89	4619.243	6834.327
#3	5715.978	105779.5	11257.90	4590.538	6853.858

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-04DLX2 Acquired: 8/25/2025 13:17:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031358	-.000362	-.000089	.0044684	.0029065	.1768854
Stddev	.0028543	.000969	.000786	.0024926	.0010424	.0027256
%RSD	91.02156	267.3622	884.9393	55.78225	35.86256	1.540889
#1	.0048040	-.000404	-.000281	.0020519	.0017059	.1745477
#2	-.000160	-.001310	.000775	.0070306	.0035798	.1798792
#3	.004763	.000627	-.000761	.0043225	.0034339	.1762294

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1676371	-.000059	.0000325	105.0075	.0051621	.0000687
Stddev	.0008965	.000044	.0000749	.1821	.0003175	.0001447
%RSD	.5348068	74.82447	230.5945	.1734188	6.149791	210.5981
#1	.1668373	-.000107	.0000523	104.9788	.0055286	.0000395
#2	.1686062	-.000052	.0000955	105.2022	.0049713	-.000059
#3	.1674678	-.000019	-.000050	104.8414	.0049864	.000226

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025944	.6066031	.2069606	262.8073	.0048268	.0001867
Stddev	.0002520	.0022657	.0008299	.7256	.0002290	.0001835
%RSD	9.712669	.3734989	.4010147	.2760898	4.743806	98.29857
#1	.0023090	.6082851	.2060055	262.6062	.0049139	.0001071
#2	.0027860	.6040268	.2073705	263.6123	.0049994	.0003966
#3	.0026884	.6074974	.2075059	262.2035	.0045671	.0000565

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2259.766	.0089291	.0104256	121.3725	.9093159	.0031852
Stddev	17.003	.0006647	.0001681	.8135	.0083260	.0001956
%RSD	.7524054	7.444142	1.612513	.6702392	.9156301	6.141609
#1	2253.400	.0083546	.0104591	121.7357	.9018405	.0034057
#2	2279.033	.0096571	.0105744	120.4406	.9182891	.0030325
#3	2246.865	.0087757	.0102432	121.9410	.9078182	.0031175

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-04DLX2 Acquired: 8/25/2025 13:17:45 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000227	.0069577	3.753255	.8867568	F 176.1921	.0341291
Stddev	.000154	.0038255	.033860	.0018177	1.0199	.0014583
%RSD	67.76068	54.98254	.9021400	.2049814	.5788816	4.273000
#1	-.000312	.0051652	3.755264	.8872543	175.6944	.0325013
#2	-.000050	.0043576	3.718436	.8882739	177.3654	.0345699
#3	-.000321	.0113504	3.786066	.8847422	175.5166	.0353163

Elem	Sr4077
Units	ppm
Avg	1.712129
Stddev	.004076
%RSD	.2380471
#1	1.710198
#2	1.709378
#3	1.716812

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4556.257	81583.19	10355.14	3555.123	4832.267
Stddev	7.454	409.33	68.93	3.768	14.627
%RSD	.1635916	.5017355	.6656762	.1059927	.3026937
#1	4548.324	81134.28	10375.81	3552.786	4817.019
#2	4557.330	81679.53	10278.24	3559.470	4833.602
#3	4563.115	81935.75	10411.37	3553.114	4846.181

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02 Acquired: 8/25/2025 13:22:07 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090087**	**-.002521**	**.0330090**	**.0043732**	**.0129534**	**.3635747**
Stddev	.0003394	.000726	.0003013	.0033633	.0021335	.0137407
%RSD	3.767177	28.81151	.9127632	76.90727	16.47031	3.779336
#1	.0086260	-.001854	.0327278	.0004902	.0152270	.3679538
#2	.0092731	-.003295	.0329723	.0063741	.0126379	.3481782
#3	.0091269	-.002414	.0333270	.0062552	.0109952	.3745922

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3372704**	**-.000174**	**.0000771**	**74.34590**	**.0049480**	**.0009365**
Stddev	.0015513	.000062	.0000527	.14880	.0001359	.0001733
%RSD	.4599528	35.62322	68.36128	.2001494	2.745782	18.50411
#1	.3367121	-.000109	.0000514	74.49633	.0047918	.0009950
#2	.3390236	-.000180	.0000421	74.34259	.0050134	.0007415
#3	.3360756	-.000232	.0001376	74.19878	.0050389	.0010730

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0192630**	**4.710283**	**.9338619**	**26.99642**	**.0141828**	**.0004894**
Stddev	.0002001	.028030	.0032247	.06927	.0003039	.0005402
%RSD	1.038568	.5950884	.3453039	.2565897	2.143040	110.3768
#1	.0194322	4.680567	.9318438	26.96240	.0139163	.0000676
#2	.0193145	4.736250	.9375809	26.95075	.0145139	.0010982
#3	.0190422	4.714031	.9321609	27.07613	.0141183	.0003024

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**105.2134**	**.0108854**	**.0298568**	**46.54055**	**1.741876**	**.0233866**
Stddev	.2818	.0040876	.0001036	.09932	.012054	.0003378
%RSD	.2678688	37.55090	.3468606	.2134146	.6920034	1.444574
#1	104.9586	.0062417	.0297672	46.46847	1.750893	.0230019
#2	105.5161	.0139389	.0298329	46.49934	1.746550	.0235230
#3	105.1653	.0124756	.0299701	46.65385	1.728185	.0236349

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02 Acquired: 8/25/2025 13:22:07 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039571	.0152281	4.372765	.4814439	F 21.65094	.0148582
Stddev	.0003557	.0024154	.039953	.0012657	.07997	.0009912
%RSD	8.989595	15.86151	.9136712	.2628990	.3693530	6.670907
#1	.0035793	.0172624	4.351430	.4805424	21.55868	.0137148
#2	.0040063	.0158632	4.418856	.4808984	21.69374	.0154735
#3	.0042856	.0125586	4.348009	.4828909	21.70040	.0153863

Elem	Sr4077
Units	ppm
Avg	.7263673
Stddev	.0023679
%RSD	.3259937
#1	.7271544
#2	.7282414
#3	.7237060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5477.454	100035.5	10899.87	4327.607	6297.352
Stddev	3.046	337.6	25.75	33.698	4.588
%RSD	.0556187	.3374950	.2362460	.7786819	.0728602
#1	5480.770	99999.3	10870.42	4342.763	6300.343
#2	5474.778	100389.8	10918.16	4351.067	6292.070
#3	5476.815	99717.5	10911.02	4288.992	6299.644

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02DUP Acquired: 8/25/2025 13:26:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094224**	**-.000675**	**.0339303**	**.0044950**	**.0132466**	**.3456316**
Stddev	.0008898	.000784	.0007207	.0011140	.0004017	.0079219
%RSD	9.443108	116.1060	2.124183	24.78399	3.032650	2.292002
#1	.0092342	-.000064	.0338973	.0057541	.0134918	.3511738
#2	.0103913	-.000403	.0332266	.0040936	.0127830	.3365582
#3	.0086419	-.001559	.0346669	.0036372	.0134650	.3491629

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3360693**	**-.000148**	**.0001117**	**74.35002**	**.0049531**	**.0007949**
Stddev	.0008836	.000039	.0000877	.07300	.0000477	.0001698
%RSD	.2629256	26.23542	78.49235	.0981861	.9624619	21.35407
#1	.3363339	-.000189	.0000211	74.31062	.0049010	.0009109
#2	.3367904	-.000141	.0001962	74.43426	.0049639	.0008738
#3	.3350837	-.000113	.0001178	74.30518	.0049945	.0006001

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0190286**	**4.762716**	**.9332407**	**27.02292**	**.0150126**	**.0001971**
Stddev	.0000830	.029779	.0040252	.02220	.0001891	.0003135
%RSD	.4364708	.6252582	.4313122	.0821688	1.259799	159.0205
#1	.0189464	4.763389	.9295782	26.99957	.0152275	-.000159
#2	.0190268	4.732607	.9375502	27.04376	.0148714	.000317
#3	.0191125	4.792154	.9325938	27.02544	.0149390	.000433

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**106.8401**	**.0116236**	**.0292239**	**47.08734**	**1.732628**	**.0238059**
Stddev	.6248	.0021798	.0003024	.27965	.015114	.0003767
%RSD	.5847704	18.75365	1.034775	.5939059	.8723245	1.582251
#1	107.1312	.0136189	.0295531	47.24607	1.727340	.0234077
#2	106.1229	.0092971	.0291604	46.76444	1.749676	.0238535
#3	107.2661	.0119546	.0289584	47.25152	1.720868	.0241565

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02DUP Acquired: 8/25/2025 13:26:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045604	.0133983	4.368683	.4858362	F 21.91013	.0130929
Stddev	.0015419	.0008465	.102928	.0016697	.10608	.0015584
%RSD	33.81015	6.317948	2.356046	.3436704	.4841415	11.90255
#1	.0063399	.0124466	4.485612	.4841907	21.85114	.0123573
#2	.0036227	.0136810	4.291781	.4857889	21.84665	.0120384
#3	.0037185	.0140672	4.328656	.4875290	22.03258	.0148829

Elem	Sr4077
Units	ppm
Avg	.7227240
Stddev	.0022157
%RSD	.3065777
#1	.7218835
#2	.7252370
#3	.7210515

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5423.963	97718.88	10831.87	4256.316	6222.547
Stddev	14.309	370.64	55.24	15.846	13.665
%RSD	.2638018	.3792917	.5099981	.3722978	.2196081
#1	5439.934	97433.35	10846.59	4239.247	6238.060
#2	5412.313	98137.74	10770.76	4259.142	6212.289
#3	5419.643	97585.55	10878.27	4270.559	6217.294

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV02 Acquired: 8/25/2025 13:44:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.872226**	**4.651423**	**4.860999**	**4.857737**	**4.909320**	**9.802030**	**9.921917**
Stddev	.010825	.160493	.007692	.016192	.007073	.013913	.078737
%RSD	.2221699	3.450396	.1582390	.3333160	.1440750	.1419423	.7935682
#1	4.877160	4.760844	4.855047	4.864111	4.901493	9.797623	9.996371
#2	4.879705	4.726243	4.869684	4.869772	4.911215	9.817614	9.839501
#3	4.859814	4.467182	4.858265	4.839329	4.915253	9.790855	9.929878

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2483605**	**2.451712**	**24.74844**	**.9994737**	**2.439701**	**1.227547**	**4.905958**
Stddev	.0016263	.001330	.06364	.0026622	.000980	.002057	.032261
%RSD	.6548003	.0542562	.2571539	.2663608	.0401876	.1675524	.6575900
#1	.2474651	2.452090	24.67909	1.001931	2.439957	1.225935	4.910582
#2	.2473788	2.452812	24.76207	.999844	2.440528	1.229863	4.935657
#3	.2502377	2.450234	24.80416	.996646	2.438618	1.226842	4.871634

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.474990**	**24.58647**	**2.445533**	**1.214006**	**23.87648**	**2.476022**	**2.439281**
Stddev	.006282	.14741	.001762	.002343	.23143	.005268	.004557
%RSD	.2538046	.5995724	.0720386	.1930187	.9692890	.2127702	.1868133
#1	2.482241	24.42157	2.444811	1.211353	24.08645	2.470558	2.442810
#2	2.471198	24.63237	2.447541	1.214868	23.91465	2.476439	2.434136
#3	2.471531	24.70547	2.444246	1.215796	23.62833	2.481070	2.440897

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.15886**	**4.921663**	**4.989908**	**4.868207**	**4.911199**	**4.828584**	**4.940923**
Stddev	.12152	.035008	.005068	.011696	.012021	.029201	.031711
%RSD	.5030074	.7112980	.1015699	.2402581	.2447608	.6047567	.6418114
#1	24.22136	4.896877	4.990420	4.875643	4.924988	4.835930	4.972777
#2	24.23642	4.906401	4.994701	4.874254	4.902926	4.853412	4.940637
#3	24.01881	4.961710	4.984604	4.854725	4.905684	4.796412	4.909356

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV02 Acquired: 8/25/2025 13:44:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.649606**	**4.819326**	**5.016776**
Stddev	.033392	.010548	.028576
%RSD	.7181647	.2188653	.5696164
#1	4.685077	4.830747	5.049343
#2	4.644961	4.809951	4.995891
#3	4.618780	4.817280	5.005095

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5448.352**	**100972.0**	**10640.62**	**4458.700**	**6159.656**
Stddev	6.981	347.1	38.13	19.408	8.967
%RSD	.1281337	.3437360	.3583807	.4352774	.1455693
#1	5450.371	100664.9	10658.79	4436.291	6158.723
#2	5440.584	100902.5	10666.27	4469.703	6151.193
#3	5454.102	101348.6	10596.80	4470.106	6169.053

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB02 Acquired: 8/25/2025 13:48:32 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000391**	**-.000590**	**.0002658**	**.0015315**	**.0015069**	**-.003460**	**-.001762**
Stddev	.000938	.001179	.0004227	.0008287	.0006887	.002240	.000710
%RSD	239.6960	199.8801	159.0247	54.11130	45.70585	64.72543	40.31866
#1	.000630	.000296	.0000281	.0005753	.0020221	-.001507	-.002342
#2	-.001215	-.001927	.0000155	.0019765	.0007246	-.005905	-.000970
#3	-.000588	-.000137	.0007538	.0020427	.0017739	-.002969	-.001974

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000141**	**.0000707**	**-.005021**	**-.000122**	**-.000176**	**-.000135**	**-.003380**
Stddev	.0000642	.0000351	.007045	.000257	.000127	.000429	.003577
%RSD	455.9263	49.61545	140.3052	210.0777	71.92390	317.5083	105.8220
#1	.0000882	.0000640	.002771	-.000124	-.000108	-.000201	-.004054
#2	-.000024	.0001086	-.006893	-.000379	-.000098	.000323	-.006572
#3	-.000022	.0000394	-.010941	.000136	-.000323	-.000527	.000486

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000749**	**.0022503**	**.0000286**	**.0004446**	**.0604538**	**-.001213**	**-.000590**
Stddev	.0000156	.0333118	.0001420	.0001607	.0153956	.002317	.000097
%RSD	20.85486	1480.322	497.0055	36.14825	25.46678	191.0432	16.44607
#1	.0000749	-.027386	.0000729	.0003020	.0432565	-.000009	-.000699
#2	.0000593	-.004167	.0001431	.0006188	.0651516	-.003884	-.000560
#3	.0000905	.038304	-.000130	.0004132	.0729532	.000255	-.000512

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1217951**	**.0039826**	**.0003872**	**.0000986**	**.0010826**	**.0156330**	**-.002104**
Stddev	.0594948	.0009889	.0002141	.0001032	.0006196	.0142396	.001183
%RSD	48.84825	24.83018	55.29574	104.6670	57.23452	91.08629	56.21515
#1	.0583317	.0050802	.0001605	.0001193	.0008452	.0124470	-.000953
#2	.1307468	.0031612	.0005859	-.000013	.0017858	.0032564	-.002043
#3	.1763068	.0037063	.0004150	.000190	.0006167	.0311958	-.003317

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB02 Acquired: 8/25/2025 13:48:32 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002924	-.002221	.0001207
Stddev	.001359	.001433	.0000363
%RSD	46.47241	64.50204	30.09858
#1	-.004157	-.002335	.0001598
#2	-.003149	-.000735	.0000879
#3	-.001467	-.003594	.0001146

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5587.133	103187.2	10673.83	4507.599	6802.612
Stddev	2.626	377.5	44.76	11.948	5.493
%RSD	.0470033	.3658330	.4193293	.2650722	.0807455
#1	5588.513	102980.9	10722.39	4497.994	6808.717
#2	5584.105	103622.8	10664.86	4520.979	6798.071
#3	5588.782	102957.8	10634.23	4503.824	6801.046

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02LX5 Acquired: 8/25/2025 13:52:51 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033330**	**-.000469**	**.0054349**	**-.000865**	**.0017240**	**.0823097**	**.0670306**
Stddev	.0037042	.002089	.0011780	.001618	.0011351	.0070485	.0003189
%RSD	111.1369	445.5537	21.67442	187.0146	65.84063	8.563442	.4758074
#1	.0072879	-.002126	.0049140	-.000118	.0017910	.0797542	.0668012
#2	-.000055	-.001159	.0067835	-.002721	.0005569	.0768954	.0668959
#3	.002766	.001878	.0046072	.000244	.0028240	.0902795	.0673948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000052**	**.0000475**	**15.26137**	**.0010440**	**.0000075**	**.0038592**	**.9062019**
Stddev	.000084	.0000316	.01884	.0005144	.0000871	.0000810	.0024523
%RSD	162.4889	66.39649	.1234510	49.27504	1161.413	2.098720	.2706134
#1	-.000115	.0000801	15.27477	.0012296	.0000121	.0037924	.9085640
#2	-.000085	.0000454	15.26951	.0004625	.0000922	.0039493	.9063733
#3	.000044	.0000171	15.23983	.0014398	-.000082	.0038358	.9036684

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1899558**	**5.533754**	**.0030317**	**.0003685**	**19.81374**	**-.000023**	**.0060284**
Stddev	.0012296	.015527	.0002065	.0001708	.12615	.001051	.0002047
%RSD	.6472937	.2805838	6.810304	46.34571	.6366763	4621.541	3.396100
#1	.1908779	5.539633	.0030811	.0003117	19.95906	.001166	.0059744
#2	.1904298	5.516147	.0032090	.0005605	19.74976	-.000826	.0058561
#3	.1885598	5.545484	.0028050	.0002334	19.73241	-.000408	.0062547

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.836057**	**.3934700**	**.0046132**	**.0006618**	**.0044758**	**.9036529**	**.0939855**
Stddev	.042152	.0002854	.0002158	.0001674	.0016328	.0324892	.0017279
%RSD	.4770436	.0725321	4.678321	25.28948	36.48127	3.595320	1.838450
#1	8.869423	.3937897	.0043702	.0005355	.0028323	.8817274	.0944217
#2	8.850064	.3932410	.0046868	.0008517	.0060977	.8882527	.0920813
#3	8.788685	.3933794	.0047826	.0005983	.0044975	.9409785	.0954534

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02LX5 Acquired: 8/25/2025 13:52:51 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.379424**	**.0004597**	**.1455497**
Stddev	.015786	.0016814	.0007601
%RSD	.3604487	365.7562	.5222177
#1	4.364676	.0004092	.1462994
#2	4.396075	-.001196	.1455700
#3	4.377521	.002166	.1447797

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5616.956**	**103626.9**	**10703.78**	**4492.781**	**6643.075**
Stddev	8.182	147.6	29.76	8.423	12.922
%RSD	.1456628	.1424002	.2779919	.1874682	.1945140
#1	5619.376	103626.8	10724.24	4502.462	6636.857
#2	5623.655	103479.4	10669.65	4487.132	6657.931
#3	5607.837	103774.5	10717.46	4488.749	6634.438

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02MS Acquired: 8/25/2025 13:57:07 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8111382**	**1.672389**	**.9703359**	**1.946211**	**.8246656**	**2.411630**
Stddev	.0023372	.052087	.0015633	.008787	.0002924	.015743
%RSD	.2881348	3.114535	.1611093	.4514866	.0354611	.6527836
#1	.8131163	1.621706	.9687465	1.936720	.8249517	2.401408
#2	.8117391	1.669687	.9703893	1.947850	.8243672	2.429759
#3	.8085593	1.725775	.9718717	1.954063	.8246780	2.403722

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5453922**	**.2027411**	**.1964372**	**75.47248**	**.4256538**	**.2017652**
Stddev	.0028896	.0011905	.0003715	.19760	.0015744	.0001965
%RSD	.5298272	.5872173	.1891104	.2618198	.3698773	.0973654
#1	.5443566	.2032673	.1962555	75.36765	.4272359	.2017584
#2	.5431632	.2013781	.1961915	75.34937	.4256384	.2015723
#3	.5486570	.2035778	.1968646	75.70040	.4240872	.2019650

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3191839**	**7.665508**	**1.139137**	**29.06032**	**.5136896**	**.0311386**
Stddev	.0005910	.033406	.006662	.07495	.0005995	.0021446
%RSD	.1851476	.4357989	.5848418	.2578983	.1167028	6.887291
#1	.3193778	7.629307	1.137188	29.00475	.5139824	.0292005
#2	.3185204	7.695145	1.133667	29.03066	.5129999	.0307726
#3	.3196536	7.672071	1.146556	29.14556	.5140863	.0334426

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**108.8933**	**.3259769**	**.2391496**	**55.98786**	**2.024557**	**.4618223**
Stddev	.4970	.0013300	.0008518	.27089	.017027	.0013274
%RSD	.4564235	.4079916	.3561933	.4838298	.8410350	.2874254
#1	108.4469	.3271646	.2388836	55.84862	2.025507	.4603586
#2	109.4289	.3245400	.2384626	56.30005	2.007074	.4621602
#3	108.8042	.3262261	.2401027	55.81492	2.041089	.4629481

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02MS Acquired: 8/25/2025 13:57:07 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6864438	.2175603	4.996594	6.405032	F 21.75684	.2302966
Stddev	.0014382	.0027210	.026695	.029170	.20282	.0020376
%RSD	.2095198	1.250665	.5342666	.4554276	.9322153	.8847801
#1	.6850448	.2144678	5.002885	6.375697	21.57495	.2295007
#2	.6863683	.2186257	5.019582	6.405365	21.72003	.2326121
#3	.6879183	.2195873	4.967315	6.434035	21.97555	.2287771

Elem	Sr4077
Units	ppm
Avg	.9300938
Stddev	.0040702
%RSD	.4376076
#1	.9294002
#2	.9264150
#3	.9344662

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5414.258	99485.75	10600.18	4318.161	6173.422
Stddev	3.434	477.89	21.85	26.241	8.376
%RSD	.0634159	.4803637	.2060983	.6076977	.1356812
#1	5418.016	99534.84	10601.03	4335.976	6182.092
#2	5413.470	98985.21	10621.60	4288.027	6172.798
#3	5411.286	99937.21	10577.93	4330.480	6165.375

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02MSD Acquired: 8/25/2025 14:01:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7715646**	**1.590361**	**.9192376**	**1.854073**	**.7857261**	**2.239181**
Stddev	.0012791	.025082	.0009897	.004431	.0009536	.018036
%RSD	.1657768	1.577135	.1076678	.2389887	.1213676	.8054934
#1	.7720573	1.615663	.9182324	1.859148	.7847814	2.223181
#2	.7701125	1.565505	.9192693	1.852098	.7866884	2.235636
#3	.7725241	1.589915	.9202111	1.850973	.7857084	2.258728

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5146542**	**.1880566**	**.1855724**	**72.20963**	**.4010781**	**.1905043**
Stddev	.0019135	.0015977	.0000907	.07452	.0013771	.0000369
%RSD	.3718106	.8496032	.0488539	.1032046	.3433534	.0193422
#1	.5130817	.1881017	.1856675	72.28630	.3999785	.1904735
#2	.5140961	.1864368	.1855630	72.13745	.4006332	.1904942
#3	.5167847	.1896313	.1854869	72.20515	.4026227	.1905451

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3026851**	**7.412621**	**1.087029**	**27.75771**	**.4853721**	**.0437173**
Stddev	.0006416	.050783	.004025	.10246	.0003753	.0008551
%RSD	.2119624	.6850822	.3702555	.3691338	.0773199	1.956020
#1	.3024056	7.404510	1.083982	27.75934	.4853477	.0433219
#2	.3022307	7.466971	1.085514	27.65444	.4850096	.0431313
#3	.3034190	7.366383	1.091592	27.85935	.4857590	.0446985

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**104.0887**	**.3045283**	**.2257406**	**53.85986**	**1.929555**	**.4372023**
Stddev	.7646	.0023408	.0004071	.43538	.018490	.0010785
%RSD	.7346010	.7686762	.1803529	.8083557	.9582602	.2466781
#1	103.7174	.3068126	.2256544	53.70077	1.930082	.4384345
#2	104.9681	.3046375	.2261839	54.35242	1.910808	.4364298
#3	103.5806	.3021347	.2253835	53.52641	1.947777	.4367427

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02MSD Acquired: 8/25/2025 14:01:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6566689	.2027044	4.835215	6.112764	F 21.39811	.2098154
Stddev	.0010749	.0012191	.027090	.014177	.11714	.0006845
%RSD	.1636883	.6014262	.5602569	.2319208	.5474495	.3262319
#1	.6563340	.2035081	4.810211	6.129016	21.53315	.2099343
#2	.6558014	.2013016	4.863994	6.102940	21.33739	.2104327
#3	.6578714	.2033033	4.831439	6.106336	21.32380	.2090793

Elem	Sr4077
Units	ppm
Avg	.8833284
Stddev	.0017735
%RSD	.2007763
#1	.8814269
#2	.8836208
#3	.8849376

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5360.063	99123.41	10763.14	4307.332	6102.630
Stddev	10.444	204.71	68.42	17.448	10.696
%RSD	.1948437	.2065238	.6356442	.4050856	.1752701
#1	5363.979	99264.80	10772.29	4324.457	6104.921
#2	5367.982	98888.66	10826.52	4289.577	6111.994
#3	5348.227	99216.77	10690.61	4307.962	6090.974

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02A Acquired: 8/25/2025 14:05:00 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7970132	1.671225	.9571389	1.917450	.8054832	2.272972
Stddev	.0003213	.037381	.0019926	.010788	.0037320	.012203
%RSD	.0403179	2.236772	.2081848	.5626054	.4633282	.5368719
#1	.7966711	1.640165	.9560619	1.910944	.8086200	2.273391
#2	.7970597	1.660797	.9559166	1.911503	.8013558	2.284960
#3	.7973087	1.712713	.9594383	1.929902	.8064739	2.260565

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5224963	.1965092	.1931604	74.37238	.4173201	.1978045
Stddev	.0027962	.0005912	.0004117	.21642	.0009790	.0000687
%RSD	.5351672	.3008591	.2131336	.2909992	.2346047	.0347126
#1	.5243703	.1969229	.1930377	74.33604	.4166576	.1978719
#2	.5238364	.1967726	.1928240	74.60467	.4184447	.1978068
#3	.5192822	.1958321	.1936195	74.17642	.4168581	.1977347

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3128955	7.597355	1.111526	28.65701	.5065641	.0305095
Stddev	.0003337	.016597	.002782	.10143	.0004392	.0038009
%RSD	.1066459	.2184542	.2502436	.3539430	.0867002	12.45792
#1	.3132759	7.579844	1.110662	28.55669	.5065876	.0295366
#2	.3127582	7.612854	1.114637	28.75951	.5061136	.0347022
#3	.3126524	7.599367	1.109279	28.65484	.5069911	.0272896

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	104.4701	.3170347	.2378814	55.15580	2.011675	.4486408
Stddev	.2200	.0023431	.0008033	.05247	.006089	.0010479
%RSD	.2105630	.7390596	.3377047	.0951358	.3026716	.2335654
#1	104.7184	.3186870	.2386204	55.17478	2.016506	.4490727
#2	104.3924	.3180639	.2379974	55.19615	2.013682	.4474460
#3	104.2995	.3143532	.2370264	55.09648	2.004836	.4494037

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2934-02A Acquired: 8/25/2025 14:05:00 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6816659	.2026912	4.830383	6.357284	F 22.06135	.2107183
Stddev	.0016832	.0010902	.025680	.038635	.18011	.0007832
%RSD	.2469283	.5378637	.5316373	.6077296	.8164238	.3716803
#1	.6797282	.2030018	4.804128	6.312675	21.85339	.2098785
#2	.6827658	.2014794	4.831575	6.380009	22.16785	.2108477
#3	.6825039	.2035924	4.855447	6.379169	22.16280	.2114288

Elem	Sr4077
Units	ppm
Avg	.9065853
Stddev	.0027842
%RSD	.3071115
#1	.9079473
#2	.9084264
#3	.9033823

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5383.039	98647.18	10705.25	4301.761	6122.574
Stddev	5.539	170.95	14.43	11.496	2.208
%RSD	.1029008	.1732927	.1348298	.2672344	.0360696
#1	5376.673	98605.93	10689.41	4300.439	6124.747
#2	5386.753	98834.97	10708.67	4290.983	6120.332
#3	5385.692	98500.62	10717.66	4313.861	6122.644

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2923-01 Acquired: 8/25/2025 14:08:56 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1045453	-.018233	.4533775	.0096821	-.013084	181.1335	.6323414
Stddev	.0012558	.001390	.0014857	.0022378	.000820	.0740	.0011621
%RSD	1.201215	7.624636	.3276898	23.11303	6.263756	.0408522	.1837692
#1	.1051450	-.018181	.4529866	.0073247	-.013333	181.0528	.6314682
#2	.1031020	-.019648	.4521263	.0099443	-.012168	181.1493	.6336603
#3	.1053888	-.016869	.4550195	.0117772	-.013750	181.1982	.6318957

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112562	.0097669	89.00672	.3474991	.1353051	.2920821	283.7317
Stddev	.0000469	.0000212	.04835	.0004539	.0000477	.0004278	.8238
%RSD	.4161824	.2169069	.0543167	.1306135	.0352814	.1464489	.2903565
#1	.0113098	.0097585	89.03060	.3475163	.1352848	.2916176	283.0419
#2	.0112358	.0097910	89.03848	.3470369	.1353597	.2924598	284.6439
#3	.0112230	.0097512	88.95108	.3479442	.1352709	.2921687	283.5093

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.955276	86.04164	.2654358	.0107906	21.31917	.6175038	.6606955
Stddev	.005818	.07260	.0007508	.0000716	.10039	.0018626	.0013288
%RSD	.1471038	.0843793	.2828581	.6639363	.4708906	.3016399	.2011204
#1	3.957620	86.12047	.2646318	.0107778	21.20582	.6155455	.6594876
#2	3.948651	86.02692	.2661187	.0107263	21.39686	.6177127	.6621188
#3	3.959556	85.97753	.2655570	.0108678	21.35483	.6192531	.6604800

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.36104	.2658866	.0038720	.0294226	5.613812	5.255063	5.051224
Stddev	.23005	.0001883	.0003135	.0008695	.009017	.017418	.021526
%RSD	.5185890	.0708104	8.095870	2.955075	.1606228	.3314606	.4261531
#1	44.11823	.2659792	.0037768	.0303985	5.603413	5.249067	5.036578
#2	44.57575	.2656699	.0036172	.0287307	5.619465	5.274688	5.075939
#3	44.38914	.2660106	.0042221	.0291385	5.618558	5.241435	5.041155

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2923-01 Acquired: 8/25/2025 14:08:56 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.923459	.2846961	.3711745
Stddev	.025816	.0015396	.0008241
%RSD	.5243504	.5407758	.2220371
#1	4.920922	.2831978	.3702586
#2	4.950450	.2846167	.3714087
#3	4.899005	.2862739	.3718562

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6011.667	110142.0	12374.78	4820.673	5727.353
Stddev	16.800	179.5	30.55	17.265	14.469
%RSD	.2794501	.1629641	.2469099	.3581387	.2526242
#1	6031.019	110233.0	12340.67	4826.615	5742.305
#2	6003.164	109935.2	12399.66	4801.222	5713.422
#3	6000.819	110257.7	12384.00	4834.182	5726.332

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2928-01 Acquired: 8/25/2025 14:12:58 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1105630**	**-.024636**	**9.303100**	**.0109260**	**-.001512**	**154.8882**
Stddev	.0011167	.002258	.011396	.0035380	.002064	.1026
%RSD	1.010009	9.165724	.1225014	32.38142	136.5334	.0662427
#1	.1098199	-.026335	9.290054	.0077526	-.002430	154.8218
#2	.1118472	-.022074	9.311116	.0147408	.000852	155.0063
#3	.1100219	-.025500	9.308130	.0102846	-.002957	154.8364

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.666051**	**.0109605**	**.0457969**	**41.70357**	**.2696605**	**.1061448**
Stddev	.001220	.0000836	.0003252	.00568	.0023885	.0002223
%RSD	.0457443	.7628316	.7099996	.0136129	.8857305	.2094384
#1	2.664685	.0109404	.0461521	41.69714	.2669144	.1059706
#2	2.667031	.0108888	.0455140	41.70564	.2712548	.1063952
#3	2.666436	.0110523	.0457246	41.70792	.2708123	.1060685

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9285568**	**271.9656**	**7.414340**	**25.46396**	**.2763526**	**.0140177**
Stddev	.0012348	2.3922	.017089	.08464	.0005734	.0003714
%RSD	.1329782	.8795890	.2304914	.3323917	.2074987	2.649414
#1	.9297238	269.2820	7.403545	25.41663	.2758345	.0135946
#2	.9272639	273.8744	7.405432	25.41358	.2762546	.0142899
#3	.9286828	272.7403	7.434043	25.56168	.2769688	.0141686

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.803973**	**.3584735**	**4.021401**	**7.616128**	**.2025865**	**.0112763**
Stddev	.027070	.0027791	.039190	.074425	.0069471	.0002741
%RSD	1.500575	.7752656	.9745393	.9772056	3.429191	2.430823
#1	1.777923	.3556985	3.976307	7.535645	.1970987	.0114640
#2	1.831959	.3584653	4.047229	7.682465	.2103975	.0114030
#3	1.802037	.3612568	4.040667	7.630275	.2002634	.0109617

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2928-01 Acquired: 8/25/2025 14:12:58 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2764292	2.120057	4.985467	F 18.89645	2.291557	.1607762
Stddev	.0009609	.001729	.074943	.08636	.020414	.0001975
%RSD	.3476080	.0815720	1.503230	.4570341	.8908370	.1228353
#1	.2771580	2.118251	4.915504	18.97246	2.302063	.1606650
#2	.2767893	2.121698	5.064554	18.80254	2.268030	.1610042
#3	.2753403	2.120222	4.976343	18.91435	2.304579	.1606593

Elem	Sr4077
Units	ppm
Avg	.1146077
Stddev	.0020560
%RSD	1.793964
#1	.1169157
#2	.1129720
#3	.1139354

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6327.713	115477.3	12865.56	5079.847	6040.492
Stddev	12.943	656.7	49.58	35.776	14.979
%RSD	.2045469	.5687065	.3853739	.7042751	.2479759
#1	6322.550	116226.4	12847.20	5119.642	6036.161
#2	6318.149	115000.5	12921.70	5050.349	6028.155
#3	6342.441	115205.1	12827.78	5069.549	6057.159

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-01 Acquired: 8/25/2025 14:16:59 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1499960**	**-.026283**	**.3200177**	**.0070102**	**-.013792**	**98.01366**	**.4073583**
Stddev	.0024562	.001588	.0010407	.0037250	.001478	.38382	.0025826
%RSD	1.637523	6.042155	.3252003	53.13722	10.71366	.3915961	.6339888
#1	.1473023	-.024452	.3205316	.0032421	-.015237	97.57730	.4048096
#2	.1521115	-.027283	.3207015	.0070979	-.013855	98.16471	.4099735
#3	.1505743	-.027115	.3188200	.0106906	-.012284	98.29898	.4072918

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107477**	**.0070319**	**37.39963**	**.2705119**	**.0699762**	**.1604472**	**255.0026**
Stddev	.0000253	.0000786	.17346	.0008417	.0003135	.0002472	.9410
%RSD	.2353046	1.117255	.4637976	.3111554	.4479937	.1540631	.3690259
#1	.0107327	.0070481	37.20848	.2711117	.0703361	.1606145	254.3276
#2	.0107334	.0069464	37.44336	.2708743	.0697627	.1601632	256.0775
#3	.0107769	.0071010	37.54703	.2695497	.0698298	.1605637	254.6026

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.722649**	**21.52376**	**.1093749**	**.0103794**	**2.762678**	**.3803936**	**.5500997**
Stddev	.013271	.07964	.0004738	.0002962	.014922	.0035116	.0012329
%RSD	.7704038	.3699892	.4331732	2.854035	.5401385	.9231556	.2241234
#1	1.707343	21.43231	.1099202	.0102494	2.747618	.3763682	.5496087
#2	1.730946	21.56114	.1091403	.0101704	2.762959	.3819837	.5491879
#3	1.729659	21.57783	.1090642	.0107184	2.777458	.3828289	.5515024

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.34832**	**.2339889**	**.0060177**	**.0200172**	**1.304309**	**5.536339**	**5.078747**
Stddev	.08280	.0036975	.0005268	.0014332	.008609	.028402	.003270
%RSD	.4772808	1.580206	8.753855	7.159680	.6600675	.5130179	.0643825
#1	17.28894	.2347738	.0057622	.0216653	1.294686	5.548293	5.082045
#2	17.44291	.2372310	.0066236	.0190634	1.306959	5.503913	5.075506
#3	17.31312	.2299620	.0056675	.0193229	1.311281	5.556810	5.078689

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-01 Acquired: 8/25/2025 14:16:59 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.543349**	**.1093784**	**-.072185**
Stddev	.005217	.0007080	.000526
%RSD	.2051208	.6472448	.7289632
#1	2.548464	.1086021	-.072630
#2	2.543549	.1095449	-.072321
#3	2.538036	.1099883	-.071604

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6059.595**	**111262.2**	**12220.06**	**4881.454**	**6183.359**
Stddev	3.765	306.6	66.53	3.385	7.435
%RSD	.0621321	.2755971	.5444638	.0693493	.1202420
#1	6063.928	111361.3	12296.88	4879.115	6190.310
#2	6057.744	110918.2	12180.92	4879.912	6184.249
#3	6057.115	111507.0	12182.37	4885.336	6175.520

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-03 Acquired: 8/25/2025 14:21:01 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2627180	-.044606	2.124279	.0147368	-.017329	174.9866	.6971482
Stddev	.0017003	.001238	.002754	.0035957	.005761	.1697	.0028408
%RSD	.6471979	2.776181	.1296416	24.39955	33.24384	.0969994	.4074849
#1	.2632074	-.044588	2.121110	.0116247	-.017625	175.1772	.7001332
#2	.2608266	-.045854	2.125631	.0139127	-.011426	174.9309	.6944779
#3	.2641199	-.043377	2.126095	.0186730	-.022936	174.8518	.6968336

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172349	.0250199	31.06282	.4044228	.0729297	.3480874	394.2346
Stddev	.0001150	.0004831	.01534	.0016326	.0002427	.0008744	1.8894
%RSD	.6674104	1.930890	.0493970	.4036862	.3327444	.2512129	.4792494
#1	.0171117	.0245447	31.07419	.4059437	.0732086	.3474450	395.8755
#2	.0172535	.0250045	31.04537	.4046271	.0727668	.3477340	394.6591
#3	.0173395	.0255106	31.06891	.4026977	.0728136	.3490833	392.1690

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.786708	33.58446	.1642896	.0150951	1.777372	.5688885	1.440246
Stddev	.004506	.01177	.0006720	.0002958	.006978	.0011622	.009003
%RSD	.2522075	.0350352	.4090463	1.959816	.3926185	.2042986	.6251366
#1	1.791786	33.59031	.1635267	.0153740	1.783394	.5686963	1.448500
#2	1.783185	33.59215	.1645482	.0147849	1.778998	.5678344	1.441593
#3	1.785153	33.57091	.1647939	.0151264	1.769724	.5701348	1.430645

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.51200	.3530754	.0070724	.0554060	1.753679	6.790974	6.171350
Stddev	.24968	.0081230	.0001322	.0019062	.006507	.020169	.012322
%RSD	.7450579	2.300630	1.869863	3.440347	.3710386	.2970039	.1996577
#1	33.76234	.3612239	.0069762	.0532054	1.760263	6.812566	6.184724
#2	33.51067	.3530241	.0072232	.0565456	1.753522	6.787736	6.168866
#3	33.26298	.3449782	.0070177	.0564670	1.747252	6.772619	6.160460

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-03 Acquired: 8/25/2025 14:21:01 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.650781	.2257933	-.199766
Stddev	.007771	.0021015	.001442
%RSD	.2128470	.9307162	.7216894
#1	3.647304	.2260564	-.200509
#2	3.659683	.2277508	-.200684
#3	3.645357	.2235726	-.198104

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6194.489	114642.8	12940.72	4972.230	5950.738
Stddev	7.661	555.8	10.11	14.124	6.316
%RSD	.1236738	.4847906	.0781143	.2840622	.1061426
#1	6189.017	114259.8	12929.30	4959.049	5943.586
#2	6203.245	114388.4	12944.34	4970.504	5953.074
#3	6191.206	115280.2	12948.51	4987.139	5955.553

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-05 Acquired: 8/25/2025 14:25:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0959809	-.000076	.1795055	-.011317	.0068929	194.8502
Stddev	.0016481	.002364	.0027791	.003523	.0027987	.1880
%RSD	1.717062	3124.020	1.548191	31.12589	40.60209	.0964692
#1	.0968351	-.002576	.1821337	-.013800	.0092013	195.0121
#2	.0970265	.000227	.1797860	-.012866	.0037801	194.8945
#3	.0940811	.002122	.1765968	-.007286	.0076972	194.6440

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.082164	.0124065	.0071789	1997.086	.3041510	.0785772
Stddev	.005276	.0000492	.0004315	6.477	.0011324	.0005234
%RSD	.4875009	.3961640	6.010498	.3243088	.3723077	.6660884
#1	1.086532	.0124536	.0069423	1999.474	.3030516	.0781152
#2	1.076303	.0123555	.0076769	1989.755	.3040877	.0791456
#3	1.083657	.0124104	.0069174	2002.030	.3053137	.0784708

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1269159	187.7978	2.223025	99.81235	.1755431	.0033228
Stddev	.0010130	1.2333	.011469	.13106	.0005430	.0006647
%RSD	.7981831	.6567134	.5159317	.1313074	.3093218	20.00496
#1	.1269728	188.5197	2.225602	99.96198	.1754993	.0038430
#2	.1278992	186.3737	2.210486	99.71793	.1750233	.0025739
#3	.1258756	188.4998	2.232986	99.75713	.1761067	.0035514

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.994482	.2650068	.4775964	16.92853	.4205227	.0185853
Stddev	.066020	.0025273	.0001386	.12274	.0047815	.0004680
%RSD	2.204734	.9536547	.0290152	.7250371	1.137028	2.518061
#1	2.937965	.2621260	.4775610	16.86300	.4239783	.0181341
#2	2.978434	.2660437	.4777493	16.85246	.4150658	.0185534
#3	3.067047	.2668506	.4774791	17.07012	.4225241	.0190684

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-05 Acquired: 8/25/2025 14:25:03 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0260991	7.136453	6.676897	5.102140	F 78.65100	-.119283
Stddev	.0021485	.026847	.023950	.003883	.13325	.000556
%RSD	8.231973	.3761887	.3587018	.0761095	.1694205	.4658405
#1	.0285531	7.151809	6.701103	5.100572	78.72988	-.118937
#2	.0251874	7.105454	6.676377	5.106562	78.72597	-.118988
#3	.0245568	7.152097	6.653212	5.099286	78.49715	-.119924

Elem	Sr4077
Units	ppm
Avg	8.250574
Stddev	.010791
%RSD	.1307869
#1	8.250704
#2	8.239719
#3	8.261299

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5077.993	91736.18	11201.36	4085.871	4715.588
Stddev	9.340	240.16	10.72	22.036	8.512
%RSD	.1839368	.2617994	.0957165	.5393214	.1805163
#1	5088.770	91640.44	11211.71	4085.130	4718.346
#2	5072.962	92009.45	11202.07	4108.269	4722.380
#3	5072.245	91558.65	11190.30	4064.216	4706.039

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-02 Acquired: 8/25/2025 14:29:22 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2092447	-.066013	.1227352	.0137723	-.032425	108.3435
Stddev	.0027059	.000925	.0012074	.0032337	.000734	.0818
%RSD	1.293162	1.400906	.9837100	23.47982	2.263249	.0755161
#1	.2084658	-.065684	.1223184	.0171747	-.033037	108.2491
#2	.2070137	-.067058	.1217915	.0134034	-.031611	108.3921
#3	.2122546	-.065299	.1240957	.0107389	-.032627	108.3895

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1883481	.0248818	.0114409	16.28479	1.251747	.0624841
Stddev	.0014633	.0002580	.0004591	.07732	.001339	.0001856
%RSD	.7769334	1.037025	4.013089	.4747860	.1069528	.2969976
#1	.1870538	.0247901	.0112371	16.20112	1.252771	.0626714
#2	.1899360	.0251731	.0119667	16.35359	1.250232	.0623003
#3	.1880545	.0246821	.0111190	16.29966	1.252237	.0624806

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1403598	547.3572	.9815730	31.61622	.1141417	.0161848
Stddev	.0015628	3.3654	.0066514	.00381	.0005778	.0012738
%RSD	1.113436	.6148432	.6776236	.0120477	.5061864	7.870591
#1	.1413043	548.5201	.9753064	31.61620	.1136323	.0160724
#2	.1412193	543.5646	.9885518	31.62005	.1147695	.0149708
#3	.1385559	549.9870	.9808607	31.61243	.1140234	.0175111

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7237778	.6405214	.7424367	80.31108	.7951202	.0055191
Stddev	.0341419	.0040625	.0017389	.33352	.0178485	.0003428
%RSD	4.717176	.6342432	.2342116	.4152874	2.244757	6.211200
#1	.6846234	.6363005	.7440271	80.06645	.7928173	.0053996
#2	.7393711	.6408595	.7405800	80.17580	.7785349	.0059056
#3	.7473387	.6444043	.7427029	80.69099	.8140084	.0052520

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-02 Acquired: 8/25/2025 14:29:22 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0173032	1.349967	5.141172	F 15.01758	2.549913	.1044014
Stddev	.0009058	.006405	.040041	.04005	.014915	.0014983
%RSD	5.234786	.4744531	.7788296	.2666720	.5849378	1.435096
#1	.0172800	1.343778	5.178524	15.05691	2.560422	.1031819
#2	.0164092	1.356568	5.098898	14.97685	2.532841	.1039486
#3	.0182204	1.349555	5.146096	15.01898	2.556475	.1060739

Elem	Sr4077
Units	ppm
Avg	-.437000
Stddev	.003629
%RSD	.8304081
#1	-.439054
#2	-.432810
#3	-.439136

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5970.590	108307.4	11998.55	4745.699	5959.620
Stddev	7.358	440.2	49.82	19.704	1.538
%RSD	.1232437	.4064394	.4152083	.4151903	.0258068
#1	5975.350	107799.1	11993.37	4737.368	5961.171
#2	5962.115	108555.7	11951.53	4768.199	5959.595
#3	5974.305	108567.3	12050.76	4731.529	5958.095

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV03 Acquired: 8/25/2025 14:33:31 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.840091**	**5.093307**	**4.791805**	**4.835809**	**4.855280**	**9.800492**
Stddev	.027020	.073553	.023644	.029379	.018464	.017303
%RSD	.5582446	1.444116	.4934254	.6075310	.3802926	.1765565
#1	4.849178	5.101664	4.802010	4.847650	4.865446	9.781588
#2	4.861396	5.162324	4.808632	4.857420	4.866428	9.815547
#3	4.809699	5.015932	4.764772	4.802358	4.833967	9.804340

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.781178**	**.2475968**	**2.418230**	**24.69234**	**.9935645**	**2.405612**
Stddev	.032495	.0008279	.013837	.02376	.0025358	.012382
%RSD	.3322152	.3343778	.5721761	.0962219	.2552267	.5147029
#1	9.818694	.2481768	2.422263	24.66576	.9963974	2.408789
#2	9.761855	.2479649	2.429603	24.69973	.9915066	2.416096
#3	9.762986	.2466487	2.402826	24.71152	.9927896	2.391951

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.213666**	**4.959153**	**2.468057**	**24.61463**	**2.414179**	**1.224033**
Stddev	.004890	.029730	.005961	.07268	.013689	.001013
%RSD	.4029106	.5995054	.2415132	.2952712	.5670194	.0827784
#1	1.216894	4.965290	2.469534	24.53560	2.417947	1.222926
#2	1.216064	4.926833	2.461497	24.62969	2.425589	1.224256
#3	1.208040	4.985336	2.473140	24.67860	2.399001	1.224915

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.43689**	**2.471812**	**2.469427**	**24.59805**	**4.943243**	**4.938987**
Stddev	.15227	.005886	.003559	.17846	.017390	.025995
%RSD	.6231073	.2381058	.1441375	.7254864	.3517966	.5263129
#1	24.37897	2.471522	2.469883	24.42668	4.948149	4.951685
#2	24.32208	2.466076	2.472736	24.58465	4.957653	4.956192
#3	24.60962	2.477837	2.465661	24.78283	4.923927	4.909084

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV03 Acquired: 8/25/2025 14:33:31 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.819716**	**4.896458**	**4.908778**	**4.946140**	F **4.669430**	**4.831050**
Stddev	.028842	.011742	.027018	.045631	.031346	.012699
%RSD	.5984175	.2398068	.5504004	.9225602	.6713003	.2628566
#1	4.822790	4.894426	4.882789	4.955646	4.679854	4.819815
#2	4.846898	4.885864	4.906825	4.986270	4.694236	4.828507
#3	4.789460	4.909083	4.936719	4.896505	4.634200	4.844827

Elem	Sr4077
Units	ppm
Avg	**4.960901**
Stddev	.019054
%RSD	.3840818
#1	4.973079
#2	4.970680
#3	4.938943

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5526.134**	**98927.16**	**10616.22**	**4363.680**	**6245.147**
Stddev	23.435	225.93	62.52	12.452	29.456
%RSD	.4240818	.2283777	.5889560	.2853522	.4716609
#1	5510.545	98669.78	10567.94	4350.971	6230.830
#2	5514.772	99019.00	10593.87	4364.211	6225.586
#3	5553.084	99092.71	10686.85	4375.858	6279.025

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB03 Acquired: 8/25/2025 14:37:42 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000661	-.000737	-.000830	-.000216	.0004633	.0020916	-.001834
Stddev	.0016895	.000595	.000779	.000962	.0011223	.0071784	.000508
%RSD	2554.457	80.72893	93.85076	445.1905	242.2681	343.2091	27.70751
#1	-.000833	-.001153	-.000488	.000861	-.000551	-.006007	-.002414
#2	-.000984	-.000055	-.001722	-.000519	.001669	.004610	-.001624
#3	.002015	-.001003	-.000281	-.000989	.000272	.007671	-.001465

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000020	.0000641	-.007884	.0001849	-.000055	-.000071	.0010516
Stddev	.000084	.0000706	.007123	.0003695	.000204	.000407	.0026507
%RSD	417.5935	110.1402	90.34417	199.8487	370.1287	575.3944	252.0624
#1	-.000084	.0000915	-.002566	.0002741	-.000286	-.000541	.0040678
#2	.000076	.0001169	-.015977	.0005017	.000098	.000173	-.000907
#3	-.000052	-.000016	-.005109	-.000221	.000024	.000156	-.000006

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003061	.0139639	-.000034	.0003834	.0789430	-.001331	-.000657
Stddev	.0000449	.0330546	.000186	.0000993	.0135267	.001024	.000197
%RSD	14.65320	236.7149	551.4611	25.89558	17.13481	76.97481	30.01002
#1	.0003579	-.015247	.000120	.0002897	.0636363	-.001162	-.000873
#2	.0002804	.007294	.000018	.0003731	.0839036	-.002428	-.000612
#3	.0002800	.049845	-.000240	.0004875	.0892890	-.000401	-.000486

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2079765	.0031522	.0001353	-.000357	.0013907	.0083158	-.001614
Stddev	.0669036	.0008746	.0000655	.000242	.0011417	.0042880	.000638
%RSD	32.16882	27.74404	48.43673	67.80191	82.09874	51.56478	39.51763
#1	.1410531	.0041620	.0000635	-.000482	.0000723	.0036794	-.000882
#2	.2080162	.0026344	.0001506	-.000078	.0020500	.0121390	-.002048
#3	.2748603	.0026603	.0001919	-.000510	.0020498	.0091290	-.001913

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB03 Acquired: 8/25/2025 14:37:42 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001310**	**-.001569**	**.0000660**
Stddev	.001076	.001180	.0000830
%RSD	82.16839	75.20536	125.8575
#1	-.000067	-.000664	.0001281
#2	-.001943	-.001139	-.000028
#3	-.001919	-.002903	.000098

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5708.827**	**104939.8**	**10662.79**	**4576.406**	**6967.325**
Stddev	19.358	647.6	53.41	29.101	24.342
%RSD	.3390905	.6170800	.5009027	.6358919	.3493766
#1	5692.274	105076.8	10665.49	4556.491	6950.590
#2	5704.094	104234.6	10714.80	4562.925	6956.136
#3	5730.112	105507.8	10608.08	4609.803	6995.250

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04 Acquired: 8/25/2025 14:41:59 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2394510	-.079069	.1893424	.0179396	-.036277	126.9079
Stddev	.0014549	.002301	.0021195	.0044750	.003022	.0550
%RSD	.6075994	2.909803	1.119407	24.94466	8.329576	.0433401
#1	.2408968	-.077566	.1886199	.0140754	-.039732	126.9519
#2	.2394690	-.077923	.1876787	.0228426	-.034128	126.9256
#3	.2379871	-.081717	.1917288	.0169009	-.034971	126.8463

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2755358	.0280446	.0120704	12.40487	1.423454	.0538151
Stddev	.0006633	.0001714	.0002708	.02616	.002027	.0002091
%RSD	.2407464	.6111721	2.243169	.2108539	.1424006	.3884753
#1	.2760691	.0279149	.0118170	12.41987	1.422660	.0536380
#2	.2747930	.0282389	.0123557	12.37467	1.421944	.0537617
#3	.2757454	.0279800	.0120384	12.42008	1.425757	.0540457

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1657589	640.1044	.7666650	32.05323	.1128975	.0219185
Stddev	.0026853	3.8457	.0020088	.03916	.0003742	.0010862
%RSD	1.619996	.6007908	.2620175	.1221725	.3314806	4.955732
#1	.1630659	643.0002	.7686020	32.01234	.1126949	.0230996
#2	.1684364	635.7410	.7645914	32.09039	.1133293	.0209623
#3	.1657744	641.5720	.7668015	32.05696	.1126682	.0216936

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.056696	.7592044	.8961721	91.07470	^ *****	.0057988
Stddev	.024169	.0007726	.0007037	.50190	-----	.0001695
%RSD	2.287218	.1017630	.0785263	.5510884	-----	2.922792
#1	1.049277	.7583371	.8957080	91.59840	^ -----	.0059874
#2	1.037107	.7594573	.8969819	90.59788	^ -----	.0057499
#3	1.083705	.7598189	.8958266	91.02783	^ -----	.0056591

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04 Acquired: 8/25/2025 14:41:59 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0454073	1.455661	5.521931	F 22.25767	2.226693	.1226012
Stddev	.0008505	.003676	.009029	.04425	.012129	.0006803
%RSD	1.873115	.2525446	.1635104	.1988090	.5447081	.5548835
#1	.0452209	1.459308	5.528601	22.25661	2.227649	.1232629
#2	.0446655	1.451956	5.511657	22.21397	2.214114	.1226369
#3	.0463356	1.455720	5.525537	22.30245	2.238315	.1219037

Elem	Sr4077
Units	ppm
Avg	-.558703
Stddev	.003646
%RSD	.6525598
#1	-.561474
#2	-.554573
#3	-.560062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5813.735	105623.9	11964.09	4611.319	5852.647
Stddev	5.165	150.7	30.67	12.658	12.187
%RSD	.0888438	.1426459	.2563722	.2744990	.2082293
#1	5815.764	105550.8	11999.49	4618.054	5855.983
#2	5817.578	105797.2	11945.40	4619.185	5862.819
#3	5807.864	105523.8	11947.37	4596.717	5839.140

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04DUP Acquired: 8/25/2025 14:46:09 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2489892	-.078183	.2006736	.0136052	-.035477	122.8161
Stddev	.0032354	.001369	.0009401	.0041886	.001208	.1500
%RSD	1.299429	1.750990	.4684739	30.78668	3.404773	.1221487
#1	.2453977	-.077191	.2002327	.0176537	-.035246	122.8524
#2	.2498940	-.077613	.2000350	.0138727	-.036784	122.9446
#3	.2516759	-.079745	.2017531	.0092893	-.034401	122.6512

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2820527	.0274818	.0133005	12.04264	1.409712	.0525656
Stddev	.0011350	.0001407	.0002397	.03143	.004369	.0002764
%RSD	.4024225	.5120396	1.802004	.2610064	.3098870	.5258860
#1	.2807784	.0276373	.0134733	12.01775	1.407566	.0523460
#2	.2829553	.0274449	.0134013	12.07796	1.414738	.0524746
#3	.2824243	.0273632	.0130269	12.03221	1.406831	.0528760

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1516824	626.1725	.7566122	30.95883	.1076515	.0177864
Stddev	.0004869	3.0810	.0034971	.05566	.0007248	.0022707
%RSD	.3210013	.4920401	.4622041	.1797731	.6732920	12.76653
#1	.1512263	626.2690	.7526983	30.89541	.1068280	.0178212
#2	.1516259	623.0444	.7577084	30.98150	.1079337	.0154985
#3	.1521951	629.2042	.7594299	30.99956	.1081927	.0200395

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.002578	.7417113	.8766489	88.76873	^ *****	.0061870
Stddev	.027564	.0024772	.0005929	.55904	-----	.0001850
%RSD	2.749338	.3339897	.0676301	.6297689	-----	2.989399
#1	.972064	.7399598	.8765217	88.25767	^ -----	.0060244
#2	1.009995	.7445456	.8761300	88.68274	^ -----	.0061484
#3	1.025675	.7406284	.8772951	89.36578	^ -----	.0063882

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04DUP Acquired: 8/25/2025 14:46:09 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0640338**	**1.397642**	**5.628037**	F **21.24146**	**2.142628**	**.1155894**
Stddev	.0010141	.004617	.021703	.05617	.011651	.0002408
%RSD	1.583691	.3303364	.3856183	.2644242	.5437724	.2082835
#1	.0649192	1.392976	5.602995	21.24588	2.142809	.1157939
#2	.0642549	1.402208	5.641382	21.18321	2.130888	.1156503
#3	.0629274	1.397743	5.639733	21.29528	2.154188	.1153241

Elem	Sr4077
Units	ppm
Avg	**-.543130**
Stddev	.002762
%RSD	.5084416
#1	-.543209
#2	-.540329
#3	-.545851

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5737.085**	**105399.4**	**11939.54**	**4590.840**	**5816.423**
Stddev	8.060	240.9	72.47	12.515	9.964
%RSD	.1404874	.2285716	.6069414	.2725983	.1713018
#1	5734.852	105602.2	11902.11	4600.524	5812.598
#2	5746.026	105133.1	11893.44	4576.709	5827.733
#3	5730.377	105462.8	12023.06	4595.286	5808.939

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04LX5 Acquired: 8/25/2025 14:50:18 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0516740**	**-.014177**	**.0378300**	**.0046876**	**-.007815**	**27.74488**	**.0589204**
Stddev	.0009952	.000257	.0007519	.0007694	.001380	.05667	.0018294
%RSD	1.925872	1.816208	1.987503	16.41373	17.65755	.2042451	3.104859
#1	.0505712	-.014423	.0379954	.0040077	-.009268	27.68413	.0586407
#2	.0525050	-.014200	.0384854	.0045324	-.007655	27.79632	.0572469
#3	.0519458	-.013909	.0370092	.0055229	-.006522	27.75418	.0608735

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065179**	**.0018102**	**2.700454**	**.3162137**	**.0103243**	**.0400813**	**137.5550**
Stddev	.0001261	.0001434	.007718	.0017699	.0000668	.0006487	1.6397
%RSD	1.934366	7.923242	.2858016	.5597296	.6469300	1.618521	1.192012
#1	.0063910	.0017046	2.693046	.3176172	.0102670	.0394550	139.0549
#2	.0065195	.0017525	2.699868	.3167986	.0103083	.0400384	137.8056
#3	.0066432	.0019735	2.708449	.3142253	.0103977	.0407504	135.8044

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1704036**	**7.175369**	**.0222953**	**.0044166**	**.2277138**	**.1672935**	**.1953190**
Stddev	.0008246	.029529	.0003783	.0008778	.0189811	.0001248	.0005827
%RSD	.4839235	.4115315	1.696549	19.87508	8.335515	.0745891	.2983118
#1	.1694828	7.142120	.0218667	.0053407	.2152733	.1672299	.1958653
#2	.1710741	7.198537	.0224371	.0043152	.2183068	.1674372	.1953861
#3	.1706540	7.185450	.0225822	.0035939	.2495612	.1672132	.1947058

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.57503**	**.1979517**	**.0009281**	**.0081473**	**.3193492**	**1.148637**	**4.513839**
Stddev	.22369	.0065564	.0000819	.0002766	.0017706	.017595	.013333
%RSD	1.204256	3.312135	8.826077	3.395269	.5544558	1.531774	.2953740
#1	18.76789	.2024505	.0008336	.0084663	.3202030	1.168560	4.525543
#2	18.62740	.2009756	.0009796	.0079742	.3205311	1.142122	4.499326
#3	18.32980	.1904290	.0009710	.0080013	.3173134	1.135230	4.516650

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04LX5 Acquired: 8/25/2025 14:50:18 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4248267	.0240928	-.119868
Stddev	.0022200	.0007290	.001535
%RSD	.5225607	3.025807	1.280937
#1	.4254556	.0241596	-.121292
#2	.4223601	.0233327	-.120072
#3	.4266644	.0247861	-.118241

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5775.618	105849.3	11214.84	4633.532	6550.262
Stddev	12.522	695.3	69.26	22.889	12.506
%RSD	.2168011	.6568320	.6176064	.4939833	.1909172
#1	5761.549	105318.5	11287.17	4623.856	6536.014
#2	5779.764	105593.1	11208.23	4617.069	6555.355
#3	5785.541	106636.3	11149.12	4659.669	6559.417

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04MS Acquired: 8/25/2025 14:54:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9567086	1.576894	1.132176	1.657920	.4448342	141.7895
Stddev	.0021675	.017078	.003551	.007288	.0012381	.2362
%RSD	.2265625	1.083036	.3136396	.4395814	.2783277	.1665552
#1	.9576023	1.581274	1.133644	1.664997	.4444853	141.5477
#2	.9542371	1.591355	1.128127	1.650438	.4462093	142.0196
#3	.9582864	1.558052	1.134758	1.658326	.4438080	141.8011

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4386895	.2025623	.2129691	12.94195	1.933503	.2577681
Stddev	.0033170	.0009244	.0008908	.02866	.001833	.0007437
%RSD	.7561122	.4563667	.4182590	.2214720	.0947806	.2885141
#1	.4348598	.2026151	.2138982	12.90901	1.932628	.2586158
#2	.4405565	.2034592	.2121224	12.96123	1.932271	.2574631
#3	.4406523	.2016126	.2128866	12.95560	1.935609	.2572254

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4214120	720.4801	.9460827	39.20047	.6182911	.0928184
Stddev	.0015542	2.5634	.0035371	.11049	.0008100	.0014201
%RSD	.3688167	.3557950	.3738665	.2818678	.1310031	1.529963
#1	.4212763	722.7834	.9424169	39.09124	.6192111	.0937107
#2	.4199302	720.9385	.9494752	39.31218	.6176851	.0935637
#3	.4230297	717.7184	.9463561	39.19799	.6179772	.0911808

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.800429	1.098667	1.144347	119.2180	^ *****	.3467306
Stddev	.036007	.004920	.002018	.7246	-----	.0008342
%RSD	.9474564	.4478198	.1763619	.6077794	-----	.2405848
#1	3.758857	1.098059	1.143354	118.5623	^ -----	.3476786
#2	3.820606	1.103863	1.146669	119.0958	^ -----	.3464042
#3	3.821823	1.094080	1.143018	119.9959	^ -----	.3461090

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04MS Acquired: 8/25/2025 14:54:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6984742**	**1.708541**	**6.347715**	F **27.60224**	**2.198698**	**.3243308**
Stddev	.0024802	.008307	.020104	.04485	.006177	.0011218
%RSD	.3550856	.4862041	.3167169	.1624979	.2809509	.3458706
#1	.7012856	1.698965	6.327069	27.64909	2.203923	.3247258
#2	.6975416	1.713808	6.348848	27.59793	2.191880	.3252017
#3	.6965956	1.712851	6.367230	27.55969	2.200292	.3230650

Elem	Sr4077
Units	ppm
Avg	**-.463063**
Stddev	.003502
%RSD	.7562609
#1	-.466793
#2	-.462549
#3	-.459846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5638.432**	**103115.9**	**11854.22**	**4468.896**	**5619.975**
Stddev	16.844	92.5	69.85	11.044	22.342
%RSD	.2987428	.0897223	.5892460	.2471326	.3975541
#1	5619.780	103175.7	11830.63	4475.744	5594.183
#2	5642.981	103009.4	11799.21	4456.155	5633.364
#3	5652.535	103162.7	11932.81	4474.788	5632.379

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04MSD Acquired: 8/25/2025 14:58:29 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9343377**	**1.507568**	**1.109541**	**1.621531**	**.4285259**	**136.4417**
Stddev	.0018037	.035509	.001180	.010280	.0025132	.1712
%RSD	.1930468	2.355396	.1063340	.6339527	.5864676	.1254541
#1	.9363510	1.547470	1.108218	1.629317	.4265034	136.4756
#2	.9328692	1.495790	1.110484	1.625399	.4277350	136.2561
#3	.9337929	1.479444	1.109921	1.609879	.4313394	136.5934

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4269264**	**.1990846**	**.2078158**	**12.62130**	**1.823753**	**.2503814**
Stddev	.0004376	.0003285	.0002141	.01029	.003710	.0007562
%RSD	.1024929	.1650221	.1030293	.0815588	.2034106	.3020062
#1	.4270089	.1989115	.2075774	12.60946	1.824732	.2501171
#2	.4264534	.1988787	.2078784	12.62811	1.819651	.2497929
#3	.4273168	.1994635	.2079916	12.62633	1.826874	.2512342

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4029203**	**672.9954**	**.8711448**	**37.59760**	**.6028585**	**.0907272**
Stddev	.0009761	2.6717	.0013217	.08379	.0008023	.0010450
%RSD	.2422642	.3969810	.1517158	.2228592	.1330872	1.151839
#1	.4019675	675.9093	.8718022	37.66949	.6028559	.0918975
#2	.4039182	672.4156	.8720088	37.50558	.6020574	.0903972
#3	.4028752	670.6612	.8696233	37.61773	.6036621	.0898871

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.620755**	**1.037281**	**1.082763**	**112.1551**	**^ *****	**.3374029**
Stddev	.010772	.003875	.004159	.1226	-----	.0009936
%RSD	.2974992	.3736080	.3841218	.1093555	-----	.2944766
#1	3.608336	1.033110	1.080943	112.1887	^ -----	.3385495
#2	3.626355	1.037964	1.079824	112.2574	^ -----	.3368629
#3	3.627572	1.040770	1.087522	112.0191	^ -----	.3367963

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04MSD Acquired: 8/25/2025 14:58:29 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6748400	1.596597	6.837980	F 26.01798	2.018570	.3100765
Stddev	.0005387	.002957	.025002	.16448	.016510	.0001784
%RSD	.0798241	.1852067	.3656387	.6321605	.8178901	.0575456
#1	.6743690	1.596967	6.864957	26.20790	2.036859	.3100593
#2	.6747236	1.593473	6.833397	25.92214	2.014085	.3099073
#3	.6754274	1.599352	6.815586	25.92391	2.004766	.3102629

Elem	Sr4077
Units	ppm
Avg	-.421500
Stddev	.002243
%RSD	.5322507
#1	-.424028
#2	-.420723
#3	-.419748

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5694.584	104904.3	11934.75	4537.642	5733.348
Stddev	10.573	305.0	31.52	9.051	14.498
%RSD	.1856653	.2907815	.2641443	.1994609	.2528781
#1	5701.967	104556.2	11898.44	4545.802	5745.465
#2	5699.313	105124.7	11955.08	4539.216	5737.295
#3	5682.472	105032.1	11950.75	4527.907	5717.285

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04A Acquired: 8/25/2025 15:02:32 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9196694	1.542672	1.084090	1.686065	.6553684	127.0939
Stddev	.0016261	.027271	.003331	.003195	.0006692	.2087
%RSD	.1768119	1.767758	.3073006	.1894724	.1021081	.1642171
#1	.9211221	1.518349	1.085063	1.688970	.6560590	127.2268
#2	.9179128	1.537513	1.080381	1.682643	.6547229	127.2016
#3	.9199732	1.572154	1.086827	1.686582	.6553233	126.8534

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4451904	.1965953	.2021148	13.11516	1.757206	.2445767
Stddev	.0020087	.0003296	.0001157	.02559	.006022	.0000554
%RSD	.4512028	.1676556	.0572260	.1951558	.3426937	.0226419
#1	.4430062	.1968273	.2022372	13.14378	1.758550	.2446054
#2	.4456064	.1962180	.2020999	13.10722	1.750625	.2445128
#3	.4469585	.1967407	.2020073	13.09448	1.762442	.2446118

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4071097	640.3140	.9307035	33.39359	.5881446	.0894096
Stddev	.0002668	2.3657	.0017120	.09414	.0013269	.0010476
%RSD	.0655350	.3694560	.1839524	.2819166	.2256013	1.171717
#1	.4069930	642.6382	.9298329	33.46684	.5896607	.0905439
#2	.4074150	637.9089	.9296017	33.42654	.5875779	.0884784
#3	.4069212	640.3949	.9326759	33.28741	.5871952	.0892064

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.699590	1.020962	1.073893	99.81148	^ *****	.3647989
Stddev	.017354	.003991	.004119	.17320	-----	.0006316
%RSD	.4690738	.3908855	.3835416	.1735317	-----	.1731437
#1	3.681446	1.023544	1.069181	99.65041	^ -----	.3643711
#2	3.701296	1.022978	1.075688	99.78934	^ -----	.3645014
#3	3.716027	1.016366	1.076809	99.99469	^ -----	.3655244

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2933-04A Acquired: 8/25/2025 15:02:32 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6922392	1.631549	7.568548	F 27.03029	2.192901	.3015069
Stddev	.0026930	.004535	.032272	.09966	.011526	.0000724
%RSD	.3890326	.2779790	.4263921	.3687139	.5256001	.0240225
#1	.6896628	1.626327	7.590160	27.04988	2.187564	.3014349
#2	.6920194	1.634496	7.531453	26.92229	2.185011	.3015798
#3	.6950354	1.633825	7.584033	27.11871	2.206129	.3015060

Elem	Sr4077
Units	ppm
Avg	-.388236
Stddev	.002312
%RSD	.5954379
#1	-.390700
#2	-.386116
#3	-.387891

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5771.321	104215.2	11896.55	4545.791	5821.290
Stddev	4.817	345.3	42.75	5.740	5.520
%RSD	.0834660	.3313049	.3593680	.1262636	.0948298
#1	5770.467	103819.1	11849.77	4550.916	5819.304
#2	5776.509	104373.8	11906.30	4546.867	5827.528
#3	5766.989	104452.7	11933.59	4539.589	5817.037

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169378BL Acquired: 8/25/2025 15:06:37 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001424**	**.0005523**	**.0003226**	**-.001165**	**-.000746**	**.0064597**	**-.002935**
Stddev	.000792	.0008841	.0003544	.000882	.001177	.0041929	.000421
%RSD	55.62567	160.0847	109.8662	75.69798	157.8010	64.90881	14.35332
#1	-.002310	.0007309	-.000086	-.001999	-.001950	.0094452	-.002959
#2	-.001176	-.000408	.000549	-.000242	.000403	.0082677	-.002502
#3	-.000786	.001333	.000505	-.001254	-.000691	.0016661	-.003343

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000021**	**.0000728**	**-.010616**	**.0001598**	**-.000173**	**-.000457**	**.0056303**
Stddev	.000075	.0000870	.005591	.0001184	.000066	.000575	.0054792
%RSD	363.7107	119.4568	52.66890	74.08468	38.34984	125.6708	97.31608
#1	-.000081	.0000689	-.010158	.0000503	-.000115	-.001119	.0091287
#2	-.000044	-.000012	-.016423	.0002854	-.000245	-.000086	.0084466
#3	.000063	.000162	-.005268	.0001437	-.000158	-.000166	-.000684

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002448**	**-.005399**	**.0001536**	**.0008484**	**.0168635**	**-.001262**	**-.000566**
Stddev	.0002929	.004415	.0003784	.0000505	.0208538	.001704	.000024
%RSD	119.6518	81.76530	246.3290	5.947861	123.6622	134.9490	4.166425
#1	.0004721	-.004181	.0005854	.0008063	-.002913	-.003084	-.000539
#2	.0003479	-.001722	-.000005	.0008346	.014854	.000292	-.000583
#3	-.000086	-.010295	-.000120	.0009043	.038649	-.000995	-.000577

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3049762**	**-.000758**	**-.000087**	**-.000383**	**.0007472**	**.0048474**	**-.001889**
Stddev	.1010810	.000830	.000046	.000284	.0014146	.0064213	.000157
%RSD	33.14391	109.4518	53.08817	74.10349	189.3223	132.4671	8.299325
#1	.2008971	.000060	-.000134	-.000190	.0005300	.0055256	-.002050
#2	.3112661	-.001599	-.000085	-.000250	.0022579	.0109027	-.001737
#3	.4027653	-.000736	-.000042	-.000708	-.000546	-.001886	-.001881

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169378BL Acquired: 8/25/2025 15:06:37 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004437	-.003211	-.000120
Stddev	.000756	.000126	.000042
%RSD	17.04604	3.908710	35.05596
#1	-.004263	-.003107	-.000074
#2	-.003782	-.003351	-.000156
#3	-.005265	-.003177	-.000130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5743.154	104788.2	10856.99	4581.687	7029.803
Stddev	6.828	207.2	77.19	21.484	6.072
%RSD	.1188873	.1976928	.7109533	.4689045	.0863736
#1	5748.811	104552.5	10907.09	4605.915	7035.228
#2	5735.569	104941.4	10895.77	4574.186	7023.244
#3	5745.080	104870.7	10768.10	4564.959	7030.937

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169378BS Acquired: 8/25/2025 15:10:57 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7401419**	**1.754647**	**.9141744**	**1.860541**	**.7527352**	**1.938452**
Stddev	.0018286	.012557	.0011821	.003766	.0015754	.010537
%RSD	.2470651	.7156458	.1293037	.2023933	.2092917	.5435748
#1	.7380303	1.749526	.9128586	1.864050	.7537769	1.926984
#2	.7412006	1.745459	.9151467	1.856563	.7509228	1.947705
#3	.7411946	1.768955	.9145178	1.861010	.7535059	1.940669

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1909874**	**.1985683**	**.1839876**	**.9945332**	**.3954648**	**.1872572**
Stddev	.0016155	.0001562	.0003559	.0053982	.0021365	.0003460
%RSD	.8458431	.0786720	.1934161	.5427869	.5402576	.1847540
#1	.1926798	.1983888	.1835771	.9967687	.3957877	.1868779
#2	.1908206	.1986736	.1841774	.9984545	.3974215	.1873381
#3	.1894618	.1986425	.1842084	.9883763	.3931852	.1875555

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2949431**	**2.898099**	**.1985518**	**1.983689**	**.4722660**	**.0726217**
Stddev	.0005338	.019131	.0012186	.019930	.0009715	.0006669
%RSD	.1809843	.6601084	.6137525	1.004691	.2057096	.9183784
#1	.2955560	2.911914	.1999451	2.006285	.4711642	.0733045
#2	.2946934	2.906120	.1976848	1.976169	.4726343	.0725888
#3	.2945799	2.876264	.1980255	1.968613	.4729995	.0719718

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.740038**	**.2924937**	**.2006774**	**9.407721**	**.2886956**	**.3892881**
Stddev	.004598	.0010899	.0016474	.042613	.0007157	.0009076
%RSD	.1678154	.3726082	.8209024	.4529531	.2479000	.2331451
#1	2.743527	.2930064	.2010229	9.375414	.2886436	.3894409
#2	2.741761	.2912420	.2021247	9.456015	.2880074	.3883138
#3	2.734828	.2932327	.1988848	9.391734	.2894359	.3901096

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169378BS Acquired: 8/25/2025 15:10:57 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6339904**	**.1875437**	**.8623902**	**5.358748**	F **-.002132**	**.1950694**
Stddev	.0008538	.0001650	.0074186	.007814	.001300	.0014719
%RSD	.1346650	.0879694	.8602374	.1458108	61.00352	.7545557
#1	.6330111	.1874731	.8653299	5.351231	-.001208	.1966246
#2	.6345783	.1877322	.8678885	5.358184	-.003619	.1936980
#3	.6343817	.1874256	.8539523	5.366828	-.001568	.1948856

Elem	Sr4077
Units	ppm
Avg	**.1890257**
Stddev	.0007154
%RSD	.3784798
#1	.1895910
#2	.1882214
#3	.1892647

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5788.893**	**104266.0**	**10904.76**	**4570.037**	**6917.378**
Stddev	4.362	551.2	20.06	38.165	14.476
%RSD	.0753477	.5286074	.1839861	.8351203	.2092726
#1	5793.806	104144.5	10927.05	4583.906	6934.065
#2	5785.477	103785.8	10888.15	4526.877	6908.185
#3	5787.397	104867.8	10899.07	4599.329	6909.884

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-02 Acquired: 8/25/2025 15:14:57 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002625**	**-.001864**	**-.001382**	**.0035029**	**.0024896**	**.0644529**	**.1853089**
Stddev	.002797	.001295	.000437	.0007635	.0006833	.0114408	.0019784
%RSD	106.5301	69.44073	31.64058	21.79655	27.44473	17.75062	1.067636
#1	-.001441	-.000382	-.001171	.0028296	.0028598	.0530972	.1873720
#2	-.005820	-.002773	-.001090	.0033466	.0017012	.0642846	.1851271
#3	-.000616	-.002439	-.001885	.0043324	.0029079	.0759769	.1834277

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000113**	**.0003053**	**25.02708**	**.0004315**	**.0008824**	**.0021859**	**.0419692**
Stddev	.000066	.0000098	.01071	.0003422	.0002124	.0002459	.0077545
%RSD	57.94684	3.209321	.0427861	79.31131	24.07053	11.24824	18.47656
#1	-.000128	.0003081	25.02807	.0000630	.0008753	.0020003	.0334007
#2	-.000042	.0003133	25.01591	.0007393	.0006736	.0020927	.0440024
#3	-.000171	.0002944	25.03726	.0004922	.0010982	.0024648	.0485046

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2731876**	**5.803376**	**.0015520**	**.0006023**	**321.8066**	**.0007079**	**.1148185**
Stddev	.0002674	.031754	.0005894	.0002195	3.4388	.0004104	.0008213
%RSD	.0978870	.5471713	37.97519	36.44353	1.068602	57.96824	.7153154
#1	.2734963	5.837295	.0010065	.0005632	325.5254	.0008905	.1145781
#2	.2730348	5.798476	.0021771	.0004050	318.7416	.0009953	.1157332
#3	.2730315	5.774356	.0014722	.0008387	321.1527	.0002380	.1141442

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.528071**	**.0363249**	**.0004704**	**-.002643**	**.0008953**	**1.325260**	**.0120355**
Stddev	.018655	.0005500	.0001787	.000254	.0012523	.010190	.0002839
%RSD	1.220807	1.514180	37.98315	9.608789	139.8785	.7689001	2.358933
#1	1.544243	.0368947	.0004614	-.002896	.0001487	1.325615	.0117158
#2	1.532306	.0357970	.0002964	-.002388	.0023410	1.314897	.0121321
#3	1.507662	.0362830	.0006535	-.002647	.0001961	1.335268	.0122584

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-02 Acquired: 8/25/2025 15:14:57 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8178709	-.012166	.0860298
Stddev	.0056711	.000703	.0002326
%RSD	.6933947	5.775733	.2703525
#1	.8172500	-.012120	.0862459
#2	.8125357	-.011487	.0860599
#3	.8238268	-.012890	.0857837

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5352.821	97817.06	10904.55	4323.036	6000.246
Stddev	9.335	332.79	37.25	26.465	17.016
%RSD	.1744011	.3402133	.3416359	.6121857	.2835873
#1	5345.075	97763.10	10861.54	4321.714	5988.667
#2	5363.186	97514.54	10926.26	4297.257	6019.783
#3	5350.202	98173.52	10925.86	4350.138	5992.289

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-04 Acquired: 8/25/2025 15:19:21 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003929**	**-.003057**	**.0182489**	**.0042327**	**.0024143**	**.2535098**	**.2436760**
Stddev	.001895	.000818	.0014225	.0010980	.0013068	.0035733	.0013614
%RSD	48.23218	26.75932	7.795215	25.94094	54.12724	1.409534	.5587034
#1	-.003202	-.002653	.0196091	.0054371	.0030893	.2565187	.2421656
#2	-.006080	-.002520	.0183664	.0032873	.0032457	.2544505	.2448086
#3	-.002505	-.003999	.0167713	.0039739	.0009081	.2495603	.2440539

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000016**	**.0024482**	**11.08163**	**.0005253**	**.0015518**	**.0022770**	**.0181413**
Stddev	.000016	.0000199	.02777	.0001324	.0000335	.0002959	.0034988
%RSD	100.6586	.8131435	.2506299	25.19514	2.159498	12.99559	19.28623
#1	-.000001	.0024252	11.06358	.0006442	.0015538	.0021916	.0144591
#2	-.000034	.0024597	11.06770	.0005491	.0015174	.0020332	.0214221
#3	-.000014	.0024597	11.11361	.0003827	.0015843	.0026062	.0185426

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1482797**	**3.258049**	**.0070707**	**.0004146**	**243.7188**	**-.000465**	**.2341280**
Stddev	.0009584	.027366	.0001300	.0004057	1.8594	.001823	.0022432
%RSD	.6463169	.8399453	1.838377	97.86157	.7629487	391.9119	.9580864
#1	.1471978	3.273478	.0070226	.0005967	241.5851	-.001217	.2343662
#2	.1486187	3.226453	.0069716	.0006973	244.5787	-.001792	.2362425
#3	.1490224	3.274217	.0072179	-.000050	244.9927	.001613	.2317752

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.439267**	**.0378878**	**.0003278**	**-.002149**	**.0010527**	**.5227103**	**.0068566**
Stddev	.059309	.0005622	.0002787	.000790	.0006655	.0049027	.0005452
%RSD	4.120764	1.483954	85.02716	36.78524	63.21991	.9379344	7.951652
#1	1.394840	.0373229	.0000524	-.002247	.0012206	.5186185	.0063684
#2	1.506616	.0384474	.0006097	-.002885	.0016182	.5281443	.0074449
#3	1.416344	.0378930	.0003213	-.001314	.0003193	.5213681	.0067564

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2932-04 Acquired: 8/25/2025 15:19:21 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9369950	-.010159	.0530492
Stddev	.0034332	.001584	.0000908
%RSD	.3664087	15.59369	.1711069
#1	.9401019	-.010152	.0530007
#2	.9333091	-.011747	.0531539
#3	.9375741	-.008579	.0529930

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5460.110	99568.25	11030.74	4358.872	6186.491
Stddev	3.276	267.13	78.57	19.138	2.427
%RSD	.0599978	.2682878	.7122613	.4390593	.0392294
#1	5461.488	99860.37	11053.92	4350.592	6186.140
#2	5456.370	99507.94	11095.11	4345.268	6184.259
#3	5462.472	99336.42	10943.19	4380.756	6189.074

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV04 Acquired: 8/25/2025 15:23:47 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.893924**	**5.065414**	**4.853286**	**4.896609**	**4.887210**	**9.835962**
Stddev	.012851	.180597	.008405	.020169	.004147	.035580
%RSD	.2625951	3.565301	.1731812	.4118956	.0848554	.3617295
#1	4.895864	5.161038	4.846031	4.892416	4.882500	9.870528
#2	4.905695	5.178093	4.851331	4.918544	4.888814	9.799449
#3	4.880214	4.857111	4.862496	4.878865	4.890315	9.837910

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.748603**	**.2462178**	**2.454215**	**24.77397**	**1.001412**	**2.431103**
Stddev	.103792	.0015698	.002353	.05610	.001436	.002637
%RSD	1.064682	.6375704	.0958589	.2264310	.1434171	.1084614
#1	9.632321	.2464512	2.451995	24.81437	1.001179	2.428844
#2	9.781613	.2445443	2.453969	24.70992	1.000107	2.430466
#3	9.831875	.2476578	2.456681	24.79762	1.002951	2.434001

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.227072**	**5.008761**	**2.469920**	**24.69335**	**2.445389**	**1.224428**
Stddev	.001405	.036635	.003505	.08342	.003366	.002228
%RSD	.1144895	.7314234	.1419233	.3378091	.1376290	.1819418
#1	1.226495	5.007663	2.468447	24.66603	2.442876	1.226919
#2	1.226048	5.045933	2.467392	24.62702	2.444080	1.222626
#3	1.228674	4.972687	2.473922	24.78700	2.449213	1.223739

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.68790**	**2.482078**	**2.479436**	**24.91748**	**4.890039**	**4.990369**
Stddev	.16379	.008460	.001146	.17053	.025399	.004800
%RSD	.6634275	.3408387	.0462021	.6843827	.5194022	.0961788
#1	24.71542	2.481482	2.480390	24.91834	4.890038	4.991273
#2	24.83618	2.473932	2.478165	25.08757	4.864641	4.994653
#3	24.51209	2.490821	2.479753	24.74651	4.915439	4.985182

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV04 Acquired: 8/25/2025 15:23:47 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.879334**	**4.920952**	**4.949651**	**5.015726**	F **4.715003**	**4.848926**
Stddev	.008226	.004091	.034898	.028653	.029281	.001457
%RSD	.1685904	.0831247	.7050619	.5712662	.6210244	.0300438
#1	4.875250	4.925017	4.948532	5.014514	4.720763	4.849972
#2	4.888803	4.916837	4.985095	5.044966	4.740976	4.847262
#3	4.873948	4.921002	4.915326	4.987698	4.683269	4.849544

Elem	Sr4077
Units	ppm
Avg	**4.933065**
Stddev	.080644
%RSD	1.634764
#1	4.958258
#2	4.842832
#3	4.998105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5426.896**	**99133.25**	**10724.35**	**4357.387**	**6119.388**
Stddev	8.201	186.62	98.52	23.374	11.710
%RSD	.1511175	.1882513	.9186272	.5364318	.1913575
#1	5436.261	99047.86	10727.69	4340.121	6132.592
#2	5423.432	99347.29	10821.15	4383.986	6115.310
#3	5420.996	99004.60	10624.20	4348.053	6110.263

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB04 Acquired: 8/25/2025 15:27:58 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008993**	**.0005148**	**-.001022**	**-.000745**	**-.000231**	**-.001155**	**-.000948**
Stddev	.0015194	.0014420	.000355	.000700	.000864	.002292	.000583
%RSD	168.9593	280.1129	34.75651	93.95495	373.9366	198.4290	61.46731
#1	.0001934	.0018002	-.001345	-.000767	.000519	-.000725	-.000277
#2	-.000139	.0007886	-.000641	-.001433	-.000036	.000892	-.001247
#3	.002643	-.001044	-.001081	-.000034	-.001175	-.003632	-.001322

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000028**	**.0000627**	**-.001729**	**-.000065**	**-.000105**	**.0001340**	**.0021633**
Stddev	.000050	.0000655	.001492	.000214	.000032	.0001120	.0039028
%RSD	180.6901	104.4145	86.29268	327.6763	30.08727	83.63462	180.4057
#1	-.000065	.0000460	-.001082	-.000134	-.000088	.0000401	-.002285
#2	.000029	.0000072	-.003436	.000174	-.000086	.0002580	.005013
#3	-.000047	.0001350	-.000670	-.000236	-.000142	.0001038	.003762

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002831**	**.0054407**	**-.000125**	**.0005921**	**.0539353**	**-.000746**	**-.000739**
Stddev	.0003597	.0108084	.000154	.0004559	.0310252	.000677	.000142
%RSD	127.0724	198.6588	123.4043	77.00337	57.52299	90.68657	19.20973
#1	.0003772	-.003095	.000006	.0005670	.0204638	-.000051	-.000903
#2	-.000114	.001823	-.000294	.0010600	.0596117	-.000784	-.000667
#3	.000586	.017594	-.000086	.0001492	.0817303	-.001404	-.000648

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2951278**	**.0031174**	**.0002458**	**.0003143**	**.0015967**	**.0065682**	**-.002029**
Stddev	.0974619	.0008634	.0002710	.0004086	.0017364	.0034777	.000625
%RSD	33.02363	27.69608	110.2556	130.0125	108.7515	52.94728	30.79856
#1	.1834392	.0041003	.0005074	.0005483	.0008995	.0098966	-.002609
#2	.3390111	.0024815	.0002639	.0005521	.0003172	.0068499	-.001367
#3	.3629331	.0027704	-.000034	-.000158	.0035733	.0029583	-.002112

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB04 Acquired: 8/25/2025 15:27:58 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.007014**	**-.001051**	**-.000017**
Stddev	.001999	.001190	.000010
%RSD	28.49769	113.2234	60.41490
#1	-.008174	-.002342	-.000005
#2	-.008163	-.000812	-.000023
#3	-.004706	.000002	-.000024

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5752.460**	**105588.4**	**10543.37**	**4623.022**	**7043.429**
Stddev	6.292	297.1	68.21	12.809	6.551
%RSD	.1093864	.2813574	.6469095	.2770633	.0930144
#1	5745.873	105689.9	10473.38	4630.493	7036.971
#2	5758.410	105821.4	10547.10	4630.342	7050.070
#3	5753.096	105253.9	10609.64	4608.233	7043.245

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02 Acquired: 8/25/2025 15:36:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002002**	**-.001563**	**.0015005**	**.0027504**	**.0022341**	**.1115832**	**.1795597**
Stddev	.002433	.000505	.0009154	.0013478	.0024203	.0087663	.0020276
%RSD	121.5135	32.31094	61.01074	49.00170	108.3312	7.856327	1.129218
#1	-.003630	-.002145	.0025520	.0032416	.0021404	.1138545	.1812853
#2	-.003172	-.001242	.0008813	.0012260	-.000138	.1189904	.1800674
#3	.000795	-.001302	.0010681	.0037837	.004700	.1019048	.1773265

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000130**	**.0003724**	**27.66896**	**.0011642**	**.0127439**	**.0101068**	**.1478733**
Stddev	.000052	.0000421	.09016	.0004531	.0000379	.0001405	.0054875
%RSD	39.87515	11.29386	.3258667	38.91752	.2971878	1.390356	3.710919
#1	-.000074	.0003858	27.77068	.0008578	.0127324	.0102638	.1538133
#2	-.000175	.0003253	27.63732	.0016847	.0127131	.0100636	.1468136
#3	-.000140	.0004061	27.59889	.0009502	.0127862	.0099929	.1429929

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.103243**	**4.732158**	**.0043287**	**.0004022**	**307.0718**	**-.003138**	**.1787883**
Stddev	.004046	.016263	.0005118	.0002862	2.3258	.001541	.0000760
%RSD	.3667387	.3436761	11.82411	71.15797	.7574251	49.10411	.0425320
#1	1.107808	4.745019	.0042939	.0000767	309.4649	-.002233	.1787007
#2	1.100101	4.737580	.0048570	.0006143	306.9310	-.004916	.1788273
#3	1.101820	4.713877	.0038351	.0005156	304.8196	-.002263	.1788370

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.420178**	**.0190337**	**.0009028**	**-.002345**	**.0005538**	**.8012040**	**.0118253**
Stddev	.033237	.0010945	.0001874	.000092	.0012473	.0072225	.0012867
%RSD	2.340365	5.750455	20.75766	3.927695	225.2217	.9014538	10.88082
#1	1.385926	.0188611	.0009928	-.002345	-.000886	.8078381	.0113816
#2	1.452298	.0202043	.0006874	-.002437	.001243	.7935102	.0108193
#3	1.422309	.0180358	.0010282	-.002253	.001305	.8022638	.0132752

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02 Acquired: 8/25/2025 15:36:25 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3688037	-.010828	.1184920
Stddev	.0042482	.001506	.0001747
%RSD	1.151877	13.91129	.1474792
#1	.3639337	-.009092	.1186805
#2	.3707292	-.011790	.1183354
#3	.3717481	-.011602	.1184600

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5305.107	95509.59	10453.01	4193.997	5923.698
Stddev	9.730	285.44	133.48	8.482	6.089
%RSD	.1834029	.2988588	1.276907	.2022463	.1027871
#1	5294.610	95182.38	10319.85	4186.798	5921.637
#2	5306.887	95707.48	10452.37	4203.348	5918.907
#3	5313.824	95638.91	10586.80	4191.846	5930.550

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02DUP Acquired: 8/25/2025 15:40:49 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000783**	**-.002234**	**.0011470**	**.0056546**	**.0024611**	**.1126880**	**.1808434**
Stddev	.001277	.001617	.0018788	.0014161	.0012579	.0029515	.0006308
%RSD	163.1751	72.38479	163.7995	25.04238	51.10886	2.619227	.3488101
#1	-.001903	-.002452	.0032566	.0044044	.0024877	.1140651	.1801544
#2	-.001053	-.000519	-.000346	.0053671	.0011902	.1146993	.1813925
#3	.000608	-.003730	.000531	.0071923	.0037055	.1092995	.1809835

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000101**	**.0003363**	**28.04793**	**.0011091**	**.0126937**	**.0100827**	**.1128973**
Stddev	.000044	.0000926	.06769	.0003181	.0000831	.0002339	.0094746
%RSD	43.11904	27.53946	.2413236	28.68196	.6549929	2.319945	8.392263
#1	-.000107	.0004303	27.97449	.0010994	.0126697	.0101310	.1065091
#2	-.000142	.0003336	28.06149	.0007960	.0126252	.0102887	.1237831
#3	-.000055	.0002451	28.10781	.0014320	.0127862	.0098284	.1083998

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.123029**	**4.766149**	**.0050946**	**.0003439**	**312.2906**	**-.001855**	**.1823807**
Stddev	.002652	.008718	.0001497	.0005143	1.1670	.001175	.0010050
%RSD	.2361682	.1829130	2.937997	149.5613	.3736754	63.34015	.5510497
#1	1.122617	4.756220	.0051204	.0005767	313.2166	-.000499	.1813659
#2	1.125863	4.769675	.0052297	-.000246	312.6754	-.002513	.1824004
#3	1.120607	4.772551	.0049337	.000701	310.9799	-.002554	.1833757

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.486194**	**.0187040**	**.0007478**	**-.002426**	**.0009795**	**.8433950**	**.0107272**
Stddev	.006196	.0008504	.0001778	.000510	.0004596	.0080567	.0022837
%RSD	.4168758	4.546756	23.77354	21.00944	46.92610	.9552697	21.28855
#1	1.490556	.0178877	.0008643	-.002987	.0005167	.8368050	.0082821
#2	1.488925	.0186394	.0008359	-.001992	.0009859	.8523768	.0110947
#3	1.479103	.0195849	.0005432	-.002298	.0014359	.8410032	.0128049

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02DUP Acquired: 8/25/2025 15:40:49 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3692176	-.013028	.1203396
Stddev	.0012124	.001774	.0001093
%RSD	.3283736	13.62023	.0908414
#1	.3679693	-.011001	.1202487
#2	.3703906	-.013781	.1204609
#3	.3692928	-.014301	.1203092

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5325.674	96361.30	10661.53	4232.993	5953.495
Stddev	10.737	68.78	42.59	15.796	7.661
%RSD	.2016102	.0713815	.3994476	.3731610	.1286777
#1	5323.728	96294.85	10696.29	4222.083	5946.158
#2	5337.251	96356.85	10674.28	4225.789	5961.443
#3	5316.043	96432.20	10614.03	4251.106	5952.883

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02LX5 Acquired: 8/25/2025 15:45:12 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002252**	**-.000145**	**-.000310**	**-.001265**	**-.000645**	**.0284208**	**.0388502**
Stddev	.0005271	.000995	.000960	.000402	.001321	.0054385	.0012285
%RSD	234.1023	684.4202	310.1532	31.75435	204.8588	19.13553	3.162156
#1	.0007430	-.001276	.000134	-.000828	-.000300	.0311026	.0380649
#2	-.000311	.000596	-.001411	-.001618	.000469	.0319976	.0382198
#3	.000243	.000244	.000348	-.001349	-.002104	.0221623	.0402659

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000077**	**.0000973**	**6.337797**	**.0010406**	**.0026351**	**.0020711**	**.0399253**
Stddev	.000050	.0000338	.017839	.0001468	.0000455	.0001086	.0110463
%RSD	65.05418	34.75994	.2814713	14.10699	1.725772	5.240960	27.66735
#1	-.000112	.0000980	6.332802	.0009858	.0026628	.0020972	.0280673
#2	-.000020	.0000631	6.357601	.0012070	.0025826	.0021643	.0499238
#3	-.000099	.0001307	6.322988	.0009292	.0026600	.0019519	.0417847

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2512279**	**1.075585**	**.0007975**	**.0010687**	**65.70073**	**-.002047**	**.0392776**
Stddev	.0003874	.012933	.0001966	.0002677	.50285	.001051	.0002907
%RSD	.1541953	1.202461	24.64477	25.04790	.7653678	51.33943	.7400195
#1	.2510222	1.067120	.0009251	.0013635	66.00230	-.000852	.0390807
#2	.2516748	1.069163	.0005712	.0010020	65.97966	-.002463	.0391408
#3	.2509868	1.090473	.0008964	.0008407	65.12023	-.002826	.0396115

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6422568**	**.0027140**	**.0000628**	**-.000742**	**.0010422**	**.1857828**	**-.000879**
Stddev	.1082140	.0005676	.0001754	.000185	.0003687	.0023893	.000344
%RSD	16.84902	20.91583	279.2217	24.91705	35.37244	1.286062	39.12738
#1	.5267412	.0026472	.0000616	-.000810	.0008094	.1834056	-.001225
#2	.6587549	.0021826	-.000112	-.000883	.0014673	.1881840	-.000538
#3	.7412745	.0033120	.000239	-.000532	.0008500	.1857587	-.000873

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02LX5 Acquired: 8/25/2025 15:45:12 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0766958	.0019421	.0270577
Stddev	.0016396	.0003937	.0002057
%RSD	2.137751	20.27266	.7601413
#1	.0785737	.0016196	.0269207
#2	.0755487	.0023808	.0272942
#3	.0759651	.0018257	.0269582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5521.820	100141.1	10557.52	4408.610	6377.298
Stddev	5.288	106.4	79.60	8.592	10.976
%RSD	.0957691	.1062764	.7539247	.1948896	.1721056
#1	5516.424	100137.3	10571.87	4404.086	6371.089
#2	5526.993	100036.6	10628.96	4403.225	6389.971
#3	5522.043	100249.4	10471.72	4418.519	6370.834

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02MS Acquired: 8/25/2025 15:49:29 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7581549**	**1.604460**	**.8874989**	**1.877965**	**.7489122**	**1.979277**	**.3732192**
Stddev	.0008421	.059940	.0016040	.006184	.0025508	.015720	.0015949
%RSD	.1110774	3.735845	.1807353	.3292698	.3405988	.7942319	.4273304
#1	.7575694	1.649525	.8864660	1.880861	.7459766	1.985738	.3714908
#2	.7591200	1.627422	.8893468	1.882169	.7501723	1.990738	.3746340
#3	.7577751	1.536434	.8866838	1.870865	.7505877	1.961356	.3735328

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1846721**	**.1889447**	**30.21116**	**.3965500**	**.2020584**	**.2869616**	**3.073849**
Stddev	.0007140	.0004107	.01516	.0012085	.0006116	.0003826	.003743
%RSD	.3866446	.2173673	.0501802	.3047505	.3026709	.1333229	.1217713
#1	.1850989	.1892396	30.21884	.3956944	.2025000	.2872689	3.070534
#2	.1850696	.1891190	30.22095	.3979324	.2023147	.2870827	3.073104
#3	.1838478	.1884756	30.19370	.3960231	.2013603	.2865331	3.077908

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.358349**	**6.785500**	**.4765705**	**.0715646**	**327.2285**	**.2850779**	**.3914692**
Stddev	.003090	.015199	.0007752	.0001806	2.2643	.0016527	.0007703
%RSD	.2274882	.2239897	.1626587	.2523292	.6919717	.5797241	.1967771
#1	1.354978	6.794120	.4770024	.0717255	327.1774	.2845609	.3914561
#2	1.359021	6.794429	.4770336	.0715991	329.5179	.2869273	.3907056
#3	1.361048	6.767951	.4756756	.0713693	324.9901	.2837456	.3922461

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.43769**	**.2672845**	**.4047226**	**.6544955**	**.1866520**	**1.739420**	**5.802064**
Stddev	.08248	.0020245	.0010066	.0028844	.0006327	.011971	.041081
%RSD	.7211685	.7574424	.2487177	.4407122	.3389501	.6881927	.7080430
#1	11.34327	.2690609	.4046009	.6569259	.1873470	1.746574	5.832787
#2	11.47400	.2677124	.4057846	.6552526	.1861097	1.746085	5.818004
#3	11.49578	.2650802	.4037824	.6513080	.1864993	1.725600	5.755402

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02MS Acquired: 8/25/2025 15:49:29 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3985146	.1746730	.3050278
Stddev	.0047340	.0011611	.0013195
%RSD	1.187905	.6647238	.4325944
#1	.3999246	.1736521	.3035046
#2	.4023834	.1744307	.3057596
#3	.3932359	.1759361	.3058194

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5309.525	95756.26	10689.16	4210.283	5909.476
Stddev	8.226	239.84	31.83	6.611	17.449
%RSD	.1549212	.2504734	.2978246	.1570137	.2952675
#1	5302.239	96016.85	10678.12	4210.989	5891.336
#2	5307.890	95544.76	10664.32	4216.512	5910.953
#3	5318.445	95707.16	10725.05	4203.348	5926.139

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02MSD Acquired: 8/25/2025 15:53:36 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8024249	1.671289	.9263073	1.994834	.8004577	2.072940	.3947784
Stddev	.0009052	.016789	.0027398	.008977	.0009339	.005238	.0017416
%RSD	.1128026	1.004564	.2957787	.4500336	.1166672	.2526957	.4411613
#1	.8021222	1.686681	.9232027	2.002538	.8001016	2.077511	.3962687
#2	.8034426	1.673802	.9273329	1.984976	.7997543	2.074085	.3952027
#3	.8017098	1.653385	.9283864	1.996989	.8015172	2.067224	.3928639

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1881031	.1976439	31.88423	.4111749	.2117450	.3011838	3.281499
Stddev	.0016191	.0000975	.04659	.0006724	.0002064	.0005904	.011903
%RSD	.8607532	.0493297	.1461202	.1635334	.0974568	.1960271	.3627258
#1	.1888275	.1975344	31.90674	.4112213	.2115106	.3018652	3.288010
#2	.1892335	.1976762	31.91529	.4104805	.2118991	.3008242	3.267761
#3	.1862483	.1977212	31.83066	.4118230	.2118254	.3008620	3.288726

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.431765	7.086017	.4988086	.0751124	353.1549	.3003815	.4135536
Stddev	.004988	.018702	.0006909	.0002830	1.3415	.0016574	.0010135
%RSD	.3484044	.2639329	.1385126	.3767454	.3798662	.5517541	.2450808
#1	1.430782	7.091586	.4991175	.0751962	354.3534	.3008845	.4129308
#2	1.437172	7.101303	.4992912	.0747969	351.7057	.3017290	.4147231
#3	1.427341	7.065163	.4980171	.0753440	353.4056	.2985308	.4130069

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.36181	.2735912	.4269356	.6876286	.1952937	1.876080	6.095588
Stddev	.11579	.0024933	.0017637	.0009304	.0006387	.018965	.024397
%RSD	.9366933	.9113316	.4131148	.1353097	.3270710	1.010867	.4002385
#1	12.31514	.2740811	.4285979	.6883693	.1945609	1.864059	6.112553
#2	12.27665	.2758032	.4250854	.6865843	.1957325	1.866239	6.106583
#3	12.49366	.2708893	.4271235	.6879322	.1955877	1.897942	6.067629

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02MSD Acquired: 8/25/2025 15:53:36 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4231818	.1851504	.3227507
Stddev	.0020654	.0009233	.0004735
%RSD	.4880731	.4986970	.1467210
#1	.4215924	.1854603	.3226526
#2	.4255164	.1858790	.3232656
#3	.4224365	.1841120	.3223338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5313.596	97621.90	11164.64	4256.389	5914.985
Stddev	5.666	223.56	80.10	5.086	2.484
%RSD	.1066271	.2290070	.7174125	.1194838	.0420022
#1	5310.905	97383.61	11108.28	4254.584	5913.250
#2	5320.106	97827.03	11129.31	4252.452	5913.874
#3	5309.777	97655.05	11256.33	4262.131	5917.831

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02A Acquired: 8/25/2025 15:57:44 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7732891**	**1.639031**	**.9020313**	**1.926763**	**.7734703**	**2.033615**	**.3673482**
Stddev	.0030743	.039806	.0024590	.009452	.0015474	.017287	.0020632
%RSD	.3975645	2.428616	.2726036	.4905418	.2000559	.8500761	.5616373
#1	.7750647	1.593071	.9029201	1.925158	.7749899	2.014825	.3650177
#2	.7697392	1.661500	.8992515	1.918216	.7718966	2.048845	.3689413
#3	.7750635	1.662523	.9039223	1.936914	.7735245	2.037175	.3680858

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1872539**	**.1916314**	**28.10407**	**.4021206**	**.2047233**	**.2926737**	**3.168220**
Stddev	.0013859	.0002317	.04182	.0006707	.0000985	.0005996	.018537
%RSD	.7401058	.1209284	.1488030	.1667994	.0481148	.2048826	.5850781
#1	.1864850	.1914314	28.10883	.4019522	.2046357	.2930443	3.165354
#2	.1888537	.1915774	28.14330	.4028595	.2047042	.2929950	3.151283
#3	.1864229	.1918854	28.06007	.4015501	.2048299	.2919819	3.188022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.282600**	**6.478767**	**.4870885**	**.0712320**	**304.2744**	**.2997108**	**.3785566**
Stddev	.003272	.017936	.0005105	.0002079	1.4897	.0044832	.0007582
%RSD	.2550793	.2768413	.1048088	.2919171	.4895758	1.495825	.2002818
#1	1.278924	6.489107	.4865394	.0710568	305.9659	.3035948	.3777413
#2	1.285191	6.489139	.4871770	.0714617	303.6989	.3007327	.3786880
#3	1.283687	6.458057	.4875489	.0711774	303.1583	.2948050	.3792406

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.63380**	**.2695065**	**.4147186**	**.6615095**	**.1904030**	**1.758321**	**5.826872**
Stddev	.08930	.0004949	.0006215	.0009508	.0018833	.007513	.030943
%RSD	.7676046	.1836264	.1498647	.1437300	.9891164	.4272601	.5310379
#1	11.59606	.2689529	.4148348	.6604607	.1894444	1.765420	5.791505
#2	11.56956	.2696608	.4140471	.6617530	.1925728	1.750454	5.840153
#3	11.73577	.2699059	.4152738	.6623149	.1891918	1.759088	5.848956

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: Q2941-02A Acquired: 8/25/2025 15:57:44 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3551421	.1866096	.3044100
Stddev	.0047744	.0011466	.0014891
%RSD	1.344350	.6144253	.4891703
#1	.3505941	.1854285	.3028048
#2	.3601144	.1877183	.3046788
#3	.3547178	.1866820	.3057463

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5432.191	99129.22	11035.80	4323.791	6095.810
Stddev	1.954	173.27	70.47	14.386	8.240
%RSD	.0359683	.1747878	.6386015	.3327219	.1351727
#1	5432.857	99019.34	11053.64	4329.714	6105.000
#2	5433.724	99039.36	10958.12	4307.388	6093.351
#3	5429.991	99328.95	11095.65	4334.269	6089.080

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169355TB Acquired: 8/25/2025 16:01:52 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000325**	**-.001821**	**-.002061**	**.0046200**	**.0019191**	**.0077937**	**-.005919**
Stddev	.001832	.000288	.000805	.0023786	.0018977	.0032459	.001081
%RSD	563.7971	15.79032	39.06418	51.48547	98.88179	41.64805	18.25606
#1	-.001507	-.002008	-.001154	.0020611	-.000165	.0047373	-.004775
#2	-.001253	-.001490	-.002692	.0067638	.002376	.0112008	-.006922
#3	.001785	-.001966	-.002336	.0050351	.003547	.0074431	-.006059

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000160**	**-.000020**	**.0311281**	**.0004508**	**-.000218**	**.0001708**	**.0136875**
Stddev	.000020	.000006	.0026655	.0000975	.000183	.0002141	.0023310
%RSD	12.25822	31.01709	8.562837	21.62274	83.76221	125.3711	17.03049
#1	-.000162	-.000026	.0283058	.0004195	-.000234	.0002677	.0127571
#2	-.000179	-.000021	.0314760	.0005601	-.000028	.0003193	.0119654
#3	-.000140	-.000014	.0336025	.0003728	-.000392	-.000075	.0163401

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054876**	**.0100051**	**.0021447**	**.0006193**	**316.3918**	**-.001330**	**.0041004**
Stddev	.0001000	.0072256	.0001935	.0005801	.6496	.001022	.0003283
%RSD	1.822883	72.21876	9.022246	93.67391	.2053196	76.84327	8.006582
#1	.0055466	.0064438	.0021412	.0001362	315.6676	-.002469	.0042766
#2	.0055441	.0052515	.0023400	.0012627	316.5850	-.000493	.0037216
#3	.0053721	.0183201	.0019530	.0004590	316.9229	-.001028	.0043030

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.134682**	**-.003192**	**.0003635**	**-.000975**	**.0008012**	**.0237253**	**.0090097**
Stddev	.018013	.000177	.0001039	.000320	.0004644	.0089987	.0008791
%RSD	13.37457	5.553704	28.59328	32.79835	57.95859	37.92851	9.757786
#1	-.141567	-.002994	.0003733	-.001308	.0002679	.0157190	.0098948
#2	-.148237	-.003334	.0002550	-.000671	.0010194	.0219927	.0081366
#3	-.114242	-.003249	.0004622	-.000945	.0011164	.0334643	.0089978

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: PB169355TB Acquired: 8/25/2025 16:01:52 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0695041	-.008308	.0000420
Stddev	.0042582	.000626	.0001100
%RSD	6.126565	7.541040	261.7317
#1	.0673214	-.008604	-.000082
#2	.0744111	-.007588	.000129
#3	.0667797	-.008731	.000079

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5437.237	99084.28	11231.92	4301.546	6183.310
Stddev	2.795	158.16	24.81	6.259	4.804
%RSD	.0513984	.1596186	.2209146	.1455058	.0776917
#1	5436.516	99028.87	11242.08	4306.339	6188.081
#2	5440.322	98961.29	11203.64	4294.465	6178.474
#3	5434.874	99262.69	11250.04	4303.833	6183.376

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV05 Acquired: 8/25/2025 16:06:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.820250**	**5.021997**	**4.752544**	**4.831505**	**4.848100**	**9.655661**	**9.647980**
Stddev	.017236	.086024	.002436	.011120	.014213	.015938	.039169
%RSD	.3575693	1.712941	.0512586	.2301613	.2931754	.1650626	.4059860
#1	4.819044	4.960830	4.750927	4.822886	4.840194	9.670409	9.602760
#2	4.803649	4.984800	4.755345	4.827572	4.839597	9.638754	9.669825
#3	4.838057	5.120360	4.751358	4.844057	4.864508	9.657821	9.671355

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2403275**	**2.407626**	**24.18373**	**.9920218**	**2.392175**	**1.207373**	**4.900491**
Stddev	.0012754	.002742	.07201	.0012974	.001921	.001415	.023683
%RSD	.5306956	.1138986	.2977461	.1307791	.0803053	.1171844	.4832845
#1	.2396087	2.410780	24.16104	.9932459	2.393421	1.207427	4.908144
#2	.2395737	2.406287	24.12580	.9921576	2.389962	1.205931	4.919402
#3	.2418000	2.405810	24.26434	.9906619	2.393141	1.208760	4.873928

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.394181**	**24.13064**	**2.401968**	**1.203941**	**23.72726**	**2.434559**	**2.449134**
Stddev	.006580	.09697	.001806	.001563	.14075	.001870	.008265
%RSD	.2748168	.4018607	.0751784	.1298444	.5932103	.0767998	.3374585
#1	2.390985	24.09078	2.402312	1.205596	23.84383	2.435945	2.458677
#2	2.389810	24.05996	2.400016	1.203737	23.76706	2.432433	2.444322
#3	2.401748	24.24119	2.403578	1.202489	23.57090	2.435300	2.444403

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.68668**	**4.770183**	**4.987531**	**4.769837**	**4.804396**	**4.875457**	**4.863693**
Stddev	.08275	.020873	.012406	.010902	.012844	.020201	.022697
%RSD	.3352065	.4375795	.2487407	.2285567	.2673466	.4143338	.4666606
#1	24.78114	4.754641	4.983225	4.768474	4.808677	4.886613	4.841145
#2	24.65191	4.762000	4.977852	4.759681	4.789957	4.887619	4.863399
#3	24.62698	4.793908	5.001516	4.781356	4.814553	4.852138	4.886536

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCV05 Acquired: 8/25/2025 16:06:20 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.585677**	**4.656152**	**4.833463**
Stddev	.025978	.015796	.047685
%RSD	.5665003	.3392458	.9865635
#1	4.585152	4.651508	4.795121
#2	4.559965	4.643199	4.818409
#3	4.611913	4.673750	4.886858

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5610.686**	**101824.3**	**11050.30**	**4408.961**	**6370.950**
Stddev	12.211	60.1	71.11	20.440	16.900
%RSD	.2176438	.0590309	.6435295	.4636119	.2652681
#1	5597.033	101755.3	11094.68	4390.061	6353.972
#2	5614.460	101853.1	11087.94	4430.655	6371.105
#3	5620.565	101864.6	10968.28	4406.166	6387.772

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB05 Acquired: 8/25/2025 16:10:31 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017592**	**-.000671**	**-.001400**	**.0001760**	**-.000740**	**.0055092**	**-.003891**
Stddev	.0012141	.000428	.000404	.0005897	.001084	.0079784	.001213
%RSD	69.01585	63.80156	28.82548	334.9992	146.4241	144.8202	31.17889
#1	.0029685	-.000562	-.001865	.0008499	-.001443	.0033638	-.005089
#2	.0017687	-.001144	-.001188	-.000076	-.001285	-.001177	-.003921
#3	.0005403	-.000308	-.001147	-.000246	.000508	.014341	-.002663

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000003**	**.0000445**	**-.009570**	**-.000131**	**-.000197**	**-.000161**	**-.000644**
Stddev	.000043	.0000458	.002672	.000036	.000082	.000226	.004330
%RSD	1328.958	102.8394	27.91743	27.53856	41.52454	140.7160	671.8152
#1	-.000003	-.000000	-.012466	-.000137	-.000260	.000097	-.005287
#2	-.000046	.000091	-.009046	-.000164	-.000105	-.000327	.003283
#3	.000040	.000043	-.007200	-.000092	-.000226	-.000251	.000071

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001860**	**-.000225**	**.0000328**	**.0012503**	**.2701673**	**-.001934**	**-.000545**
Stddev	.0001033	.020485	.0001267	.0004742	.0208381	.001216	.000179
%RSD	55.56184	9107.245	386.3301	37.92803	7.713022	62.87931	32.78381
#1	.0002332	-.018304	-.000095	.0007334	.2472489	-.001331	-.000726
#2	.0002573	.022025	.000035	.0016653	.2752795	-.001137	-.000369
#3	.0000675	-.004396	.000158	.0013524	.2879736	-.003333	-.000540

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6601378**	**.0016294**	**.0004199**	**-.000155**	**.0007206**	**.0036274**	**-.001382**
Stddev	.0792743	.0006360	.0001847	.000332	.0007180	.0084797	.001006
%RSD	12.00875	39.03003	43.99362	213.4135	99.64081	233.7671	72.76315
#1	.5724685	.0016950	.0005719	-.000411	.0001225	.0038619	-.000456
#2	.6811693	.0022300	.0002143	.000219	.0005224	-.004967	-.002452
#3	.7267756	.0009632	.0004735	-.000274	.0015168	.011987	-.001240

Reviewed By:jaswal
On:8/27/2025 10:19:36 PM
Inst Id :P4
LB :LB136951

Sample Name: CCB05 Acquired: 8/25/2025 16:10:31 Type: Unk
Method: 6010-200.7 NEW(v127) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.006136	.0021795	-.000075
Stddev	.002022	.0011162	.000047
%RSD	32.95902	51.21360	62.45384
#1	-.004714	.0010634	-.000066
#2	-.008451	.0032958	-.000126
#3	-.005243	.0021793	-.000034

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5825.895	106079.8	11334.91	4531.003	7177.025
Stddev	8.046	337.2	84.03	17.882	10.279
%RSD	.1381160	.3178417	.7413418	.3946604	.1432143
#1	5816.649	105869.2	11429.71	4535.785	7167.614
#2	5831.318	106468.7	11269.57	4546.007	7175.468
#3	5829.717	105901.5	11305.47	4511.216	7187.993

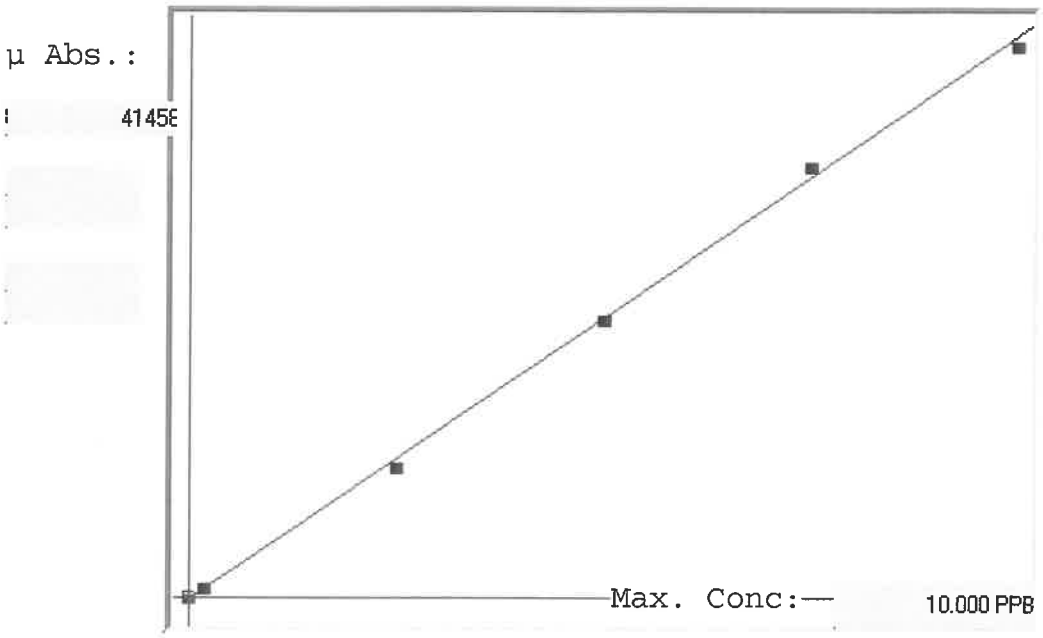
Reviewed By:jaswal
On:8/28/2025 5:31:56 PM
Inst Id :CV1
LB :LB136975

LB136975

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.3723e-004

C= 3.8862e-002

Rho= 0.9995391

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	0.037	0.037	-8	0.000	-8	0				-
0.2	0.200	0.219	0.019	759	0.0 %	759					10
2.5	2.500	2.369	-0.131	9823	0.0 %	9823	0				-5
5.0	5.000	5.000	-0.000	20911	0.0 %	20911					0
7.5	7.500	7.701	0.201	32300	0.0 %	32300					2
10.0	10.000	9.874	-0.126	41458	0.0 %	41458					-1

Reviewed By:jaswal
On:8/28/2025 5:31:56 PM
Inst Id :CV1
LB :LB136975

LB136975 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 27 Aug 2025 09:03:07

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	50	-	-8	PPB	Std	0.0000	7470A	27 Aug 2025 09:43:09
S	0.2 - 1	50.2	-	759	PPB	Std	0.2000	7470A	27 Aug 2025 09:45:34
S	2.5 - 1	52.5	-	9823	PPB	Std	2.5000	7470A	27 Aug 2025 09:47:51
S	5.0 - 1	55	-	20911	PPB	Std	5.0000	7470A	27 Aug 2025 09:52:51
S	7.5 - 1	57.5	-	32300	PPB	Std	7.5000	7470A	27 Aug 2025 09:57:44
S	10.0 - 1	510	-	41458	PPB	Std	10.0000	7470A	27 Aug 2025 10:00:00
U	ICV07 - 1	ICV07	4.2144	17601	PPB	SMPL		7470A	27 Aug 2025 10:03:11
U	ICB07 - 1	ICB07	0.0578	80	PPB	SMPL		7470A	27 Aug 2025 10:05:25
U	CCV18 - 1	CCV18	5.0183	20990	PPB	SMPL		7470A	27 Aug 2025 10:07:42
U	CCB18 - 1	CCB18	0.0737	147	PPB	SMPL		7470A	27 Aug 2025 10:09:57
U	CRA - 1	CRA	0.2272	794	PPB	SMPL		7470A	27 Aug 2025 10:12:13
U	HighStd - 1	HighStd	9.8804	41485	PPB	SMPL		7470A	27 Aug 2025 10:14:38
U	ChkStd - 1	ChkStd	7.0818	29688	PPB	SMPL		7470A	27 Aug 2025 10:17:10
U	PB169413BL - 1	PBW	-0.0389	-328	PPB	SMPL		7470A	27 Aug 2025 10:19:28
U	PB169413BS - 1	LCSW	4.3361	18114	PPB	SMPL		7470A	27 Aug 2025 10:21:46
U	Q2934-01 - 1	ENV-SW01	0.0272	-49	PPB	SMPL		7470A	27 Aug 2025 10:24:02
U	Q2934-02 - 1	ENV-SW02	0.0906	218	PPB	SMPL		7470A	27 Aug 2025 10:26:20
U	Q2934-03 - 1	ENV-SW03	0.1129	312	PPB	SMPL		7470A	27 Aug 2025 10:28:37
U	Q2934-04 - 1	ENV-SW04	0.1409	430	PPB	SMPL		7470A	27 Aug 2025 10:30:54
U	Q2940-01 - 1	COMP(1-6)	0.0296	-39	PPB	SMPL		7470A	27 Aug 2025 10:33:09
U	CCV19 - 1	CCV19	4.9056	20515	PPB	SMPL		7470A	27 Aug 2025 10:35:24
U	CCB19 - 1	CCB19	0.0386	-1	PPB	SMPL		7470A	27 Aug 2025 10:37:39
U	Q2940-01DUP - 1	COMP(1-6)DUP	0.0488	42	PPB	SMPL		7470A	27 Aug 2025 10:39:55
U	Q2940-01MS - 1	COMP(1-6)MS	4.1918	17506	PPB	SMPL		7470A	27 Aug 2025 10:42:11
U	Q2940-01MSD - 1	COMP(1-6)MSD	4.2072	17571	PPB	SMPL		7470A	27 Aug 2025 10:44:26
U	Q2954-11 - 1	BRIDGE	0.8699	3503	PPB	SMPL		7470A	27 Aug 2025 10:46:43
U	Q2961-01 - 1	4075	0.4671	1805	PPB	SMPL		7470A	27 Aug 2025 10:49:00
U	Q2940-01LX5 - 1		0.0538	63	PPB	SMPL		7470A	27 Aug 2025 11:26:18
U	Q2940-01A - 1		3.2424	13504	PPB	SMPL		7470A	27 Aug 2025 11:28:34
U	CCV20 - 1	CCV20	5.3077	22210	PPB	SMPL		7470A	27 Aug 2025 11:33:32
U	CCB20 - 1	CCB20	0.0389	0	PPB	SMPL		7470A	27 Aug 2025 11:35:49

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169358

SOP ID : M3010A-Digestion-17

SDG No : N/A

Start Digest Date: 08/22/2025 **Time :** 10:30 **Temp :** 97 °C

Matrix : WATER

End Digest Date: 08/22/2025 **Time :** 13:32 **Temp :** 98 °C

Pippete ID: ICP A

Digestion tube ID: M5595

Balance ID : N/A

Block thermometer ID: MET-DIG. #1

Filter paper ID : N/A

Dig Technician Signature: SKS,

pH Strip ID : M6069

Supervisor Signature:

Hood ID : #3

Temp : 1. 96°C 2. N/A

Block ID: 1. HOT BLOCK #1 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6180
LFS-2	0.25	M6181
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
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 97C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
08/22/25 14:32	SKS metals	Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169358

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB169358BL	PBW358	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	1
PB169358BS	LCS358	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	2
Q2927-01	A6121M	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	3
Q2934-01	ENV-SW01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	4
Q2934-02	ENV-SW02	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	5
Q2934-02MS	ENV-SW02MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	7
Q2934-02MSD	ENV-SW02MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	8
Q2934-02DUP	ENV-SW02DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	6
Q2934-03	ENV-SW03	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	9
Q2934-04	ENV-SW04	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169358 **WorkList ID :** 191418 **Department :** Digestion **Date :** 08-22-2025 09:58:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2927-01	A6121M	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D31	08/21/2025	6010D
Q2934-01	ENV-SW01	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	6010D
Q2934-02	ENV-SW02	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	6010D
Q2934-03	ENV-SW03	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	6010D
Q2934-04	ENV-SW04	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	6010D

Date/Time 08/22/25 10:26
Raw Sample Received by: SLS metdio
Raw Sample Relinquished by: CP cam

Date/Time 08/22/25 11:20
Raw Sample Received by: CP cam
Raw Sample Relinquished by: SLS. metdio

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169413

SOP ID : M7470A-Mercury-20

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: 08/26/2025 **Time :** 15:05 **Temp :** 94 °C

End Digest Date: 08/26/2025 **Time :** 17:05 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: 9L

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP86927
CCV	30mL	MP86929
CRA	30mL	MP86932
Blank Spike	0.48mL	MP86919
Matrix Spike	0.48mL	MP86919

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.25mL	MP85892
KMnO4 (5%)	4.5mL	MP85893
K2S2O8 (5%)	2.4mL	MP85894
Hydroxylamine HCL (12%)	1.8mL	MP85895
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	MP86920
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30Ml	MP86922
2.5 ppb	S2.5	30Ml	MP86923
5.0 ppb	S5.0	30Ml	MP86924
7.5 ppb	S7.5	30Ml	MP86925
10.0 ppb	S10.0	30Ml	MP86926
ICV	ICV	30Ml	MP86927
ICB	ICB	30Ml	MP86928
CCV	CCV	30Ml	MP86929
CCB	CCB	30Ml	MP86930
CRI	CRI	30Ml	MP86932
CHK STD	CHK STD	30Ml	MP86931

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
8/26/2025 17:40	MB - Dig. Lab	MB - Orchard Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169413

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB169413BL	PBW413	30	30	<2	N/A	3-1
PB169413BS	LCS413	30	30	<2	MP86919	2
Q2934-01	ENV-SW01	30	30	<2	N/A	3
Q2934-02	ENV-SW02	30	30	<2	N/A	4
Q2934-03	ENV-SW03	30	30	<2	N/A	5
Q2934-04	ENV-SW04	30	30	<2	N/A	6
Q2940-01	COMP(1-6)	30	30	<2	N/A	7
Q2940-01DUP	COMP(1-6)DUP	30	30	<2	N/A	8
Q2940-01MS	COMP(1-6)MS	30	30	<2	MP86919	9
Q2940-01MSD	COMP(1-6)MSD	30	30	<2	MP86919	10
Q2954-11	BRIDGE	30	30	<2	N/A	11
Q2961-01	4075	30	30	<2	N/A	12

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 082625_7470 **WorkList ID :** 191469 **Department :** Digestion **Date :** 08-26-2025 08:46:27

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2934-01	ENV-SW01	Water	Mercury	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	7470A
Q2934-02	ENV-SW02	Water	Mercury	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	7470A
Q2934-03	ENV-SW03	Water	Mercury	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	7470A
Q2934-04	ENV-SW04	Water	Mercury	1:1 HNO3 to pH < 2	PORT06	D41	08/21/2025	7470A
Q2940-01	COMP(1-6)	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D21	08/22/2025	7470A
Q2954-11	BRIDGE	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D41	08/25/2025	7470A
Q2961-01	4075	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/26/2025	7470A

Date/Time 8/27/25 @ 14:50

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 8/26/25 @ 15:36

Raw Sample Received by:

Raw Sample Relinquished by:

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136940

Review By	Janvi	Review On	8/25/2025 10:18:24 AM
Supervise By	jaswal	Supervise On	8/25/2025 10:05:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86652
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/22/25 11:12		Jaswal	OK
2	S1	S1	CAL2	08/22/25 11:16		Jaswal	OK
3	S2	S2	CAL3	08/22/25 11:20		Jaswal	OK
4	S3	S3	CAL4	08/22/25 11:24		Jaswal	OK
5	S4	S4	CAL5	08/22/25 11:28		Jaswal	OK
6	S5	S5	CAL6	08/22/25 11:33		Jaswal	OK
7	ICV01	ICV01	ICV	08/22/25 11:37		Jaswal	OK
8	LLICV01	LLICV01	LLICV	08/22/25 11:45		Jaswal	OK
9	ICB01	ICB01	ICB	08/22/25 11:50		Jaswal	OK
10	CRI01	CRI01	CRDL	08/22/25 11:56		Jaswal	OK
11	ICSA01	ICSA01	ICSA	08/22/25 12:00		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	08/22/25 12:04		Jaswal	OK
13	ICSADL	ICSADL	ICSA	08/22/25 12:09		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	08/22/25 12:13		Jaswal	OK
15	CCV01	CCV01	CCV	08/22/25 12:18		Jaswal	OK
16	CCB01	CCB01	CCB	08/22/25 12:22		Jaswal	OK
17	LR-2	LR-2	HIGH STD	08/22/25 12:31		Jaswal	OK
18	LR-3	LR-3	HIGH STD	08/22/25 12:35		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136940

Review By	Janvi	Review On	8/25/2025 10:18:24 AM
Supervise By	jaswal	Supervise On	8/25/2025 10:05:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86652
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

19	PB169324BL	PB169324BL	MB	08/22/25 12:45		Jaswal	OK
20	Q2902-04	OUTFALL-DSN-002	SAM	08/22/25 13:07		Jaswal	OK
21	Q2902-04DUP	OUTFALL-DSN-002D	DUP	08/22/25 13:14		Jaswal	OK
22	LR-1	LR-1	HIGH STD	08/22/25 13:19		Jaswal	OK
23	Q2902-04L	OUTFALL-DSN-002L	SD	08/22/25 13:27		Jaswal	OK
24	Q2902-04MS	OUTFALL-DSN-002M	MS	08/22/25 13:32		Jaswal	OK
25	CCV02	CCV02	CCV	08/22/25 13:36		Jaswal	OK
26	CCB02	CCB02	CCB	08/22/25 13:40		Jaswal	OK
27	Q2902-04MSD	OUTFALL-DSN-002M	MSD	08/22/25 13:44		Jaswal	OK
28	Q2902-04A	OUTFALL-DSN-002A	PS	08/22/25 13:48	0.1ML OF M6004 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
29	Q2904-01	001 willets Pt Blvd(july	SAM	08/22/25 13:52		Jaswal	OK
30	Q2904-02	002 35th Ave (JULY)	SAM	08/22/25 13:56		Jaswal	OK
31	PB169324BS	PB169324BS	LCS	08/22/25 14:00		Jaswal	OK
32	PB169338BL	PB169338BL	MB	08/22/25 14:04		Jaswal	OK
33	PB169338BS	PB169338BS	LCS	08/22/25 14:09		Jaswal	OK
34	Q2909-03	4066	SAM	08/22/25 14:13		Jaswal	OK
35	Q2909-04	4067	SAM	08/22/25 14:17		Jaswal	OK
36	Q2909-04DUP	4067DUP	DUP	08/22/25 14:21		Jaswal	OK
37	CCV03	CCV03	CCV	08/22/25 14:25		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136940

Review By	Janvi	Review On	8/25/2025 10:18:24 AM
Supervise By	jaswal	Supervise On	8/25/2025 10:05:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86652
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

38	CCB03	CCB03	CCB	08/22/25 14:30		Jaswal	OK
39	Q2909-04L	4067L	SD	08/22/25 14:34		Jaswal	OK
40	Q2909-04A	4067A	PS	08/22/25 14:46	0.1ML OF M6004 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
41	PB169332BL	PB169332BL	MB	08/22/25 14:50		Jaswal	OK
42	PB169332BS	PB169332BS	LCS	08/22/25 14:55		Jaswal	OK
43	Q2927-01	A6121M	SAM	08/22/25 14:59		Jaswal	OK
44	Q2934-01	ENV-SW01	SAM	08/22/25 15:03		Jaswal	OK
45	Q2934-03	ENV-SW03	SAM	08/22/25 15:07		Jaswal	OK
46	Q2909-04MS	4067MS	MS	08/22/25 15:12		Jaswal	OK
47	Q2909-04MSD	4067MSD	MSD	08/22/25 15:22		Jaswal	OK
48	Q2934-04	ENV-SW04	SAM	08/22/25 15:26	Na high	Jaswal	Dilution
49	CCV04	CCV04	CCV	08/22/25 15:44		Jaswal	OK
50	CCB04	CCB04	CCB	08/22/25 15:48		Jaswal	OK
51	Q2934-02	ENV-SW02	SAM	08/22/25 15:53	NOT USE	Jaswal	Not Ok
52	Q2934-02DUP	ENV-SW02DUP	DUP	08/22/25 15:57	NOT USE	Jaswal	Not Ok
53	Q2934-02L	ENV-SW02L	SD	08/22/25 16:01	NOT USE	Jaswal	Not Ok
54	Q2934-02MS	ENV-SW02MS	MS	08/22/25 16:05	NOT USE	Jaswal	Not Ok
55	Q2934-02MSD	ENV-SW02MSD	MSD	08/22/25 16:09	NOT USE	Jaswal	Not Ok
56	Q2934-02A	ENV-SW02A	PS	08/22/25 16:13	NOT USE	Jaswal	Not Ok

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136940

Review By	Janvi	Review On	8/25/2025 10:18:24 AM
Supervise By	jaswal	Supervise On	8/25/2025 10:05:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86652
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

57	PB169358BL	PB169358BL	MB	08/22/25 16:17	NOT USE	Jaswal	Not Ok
58	PB169358BS	PB169358BS	LCS	08/22/25 16:21	NOT USE	Jaswal	Not Ok
59	Q2934-04DL	ENV-SW04DL	SAM	08/22/25 16:25	NOT USE	Jaswal	Not Ok
60	CCV05	CCV05	CCV	08/22/25 16:30	CCV fail for TI	Jaswal	OK
61	CCB05	CCB05	CCB	08/22/25 16:34		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136951

Review By	Janvi	Review On	8/26/2025 1:00:45 PM
Supervise By	jaswal	Supervise On	8/27/2025 10:19:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86752
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/25/25 11:18		Jaswal	OK
2	S1	S1	CAL2	08/25/25 11:23		Jaswal	OK
3	S2	S2	CAL3	08/25/25 11:27		Jaswal	OK
4	S3	S3	CAL4	08/25/25 11:31		Jaswal	OK
5	S4	S4	CAL5	08/25/25 11:35		Jaswal	OK
6	S5	S5	CAL6	08/25/25 11:39		Jaswal	OK
7	ICV01	ICV01	ICV	08/25/25 11:44		Jaswal	OK
8	LLICV01	LLICV01	LLICV	08/25/25 11:48		Jaswal	OK
9	ICB01	ICB01	ICB	08/25/25 11:53		Jaswal	OK
10	CRI01	CRI01	CRDL	08/25/25 11:57		Jaswal	OK
11	ICSA01	ICSA01	ICSA	08/25/25 12:02		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	08/25/25 12:15		Jaswal	OK
13	ICSADL	ICSADL	ICSA	08/25/25 12:19		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	08/25/25 12:23		Jaswal	OK
15	CCV01	CCV01	CCV	08/25/25 12:33		Jaswal	OK
16	CCB01	CCB01	CCB	08/25/25 12:42		Jaswal	OK
17	LR-1	LR-1	HIGH STD	08/25/25 12:47		Jaswal	OK
18	LR-2	LR-2	HIGH STD	08/25/25 12:51		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136951

Review By	Janvi	Review On	8/26/2025 1:00:45 PM
Supervise By	jaswal	Supervise On	8/27/2025 10:19:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86752
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

19	LR-3	LR-3	HIGH STD	08/25/25 12:56		Jaswal	OK
20	PB169358BL	PB169358BL	MB	08/25/25 13:01		Jaswal	OK
21	PB169358BS	PB169358BS	LCS	08/25/25 13:05		Jaswal	OK
22	PB169357BL	PB169357BL	MB	08/25/25 13:09		Jaswal	OK
23	PB169357BS	PB169357BS	LCS	08/25/25 13:13		Jaswal	OK
24	Q2934-04DL	ENV-SW04DL	SAM	08/25/25 13:17	2x for Na	Jaswal	Confirms
25	Q2934-02	ENV-SW02	SAM	08/25/25 13:22		Jaswal	OK
26	Q2934-02DUP	ENV-SW02DUP	DUP	08/25/25 13:26		Jaswal	OK
27	CCV02	CCV02	CCV	08/25/25 13:44		Jaswal	OK
28	CCB02	CCB02	CCB	08/25/25 13:48		Jaswal	OK
29	Q2934-02L	ENV-SW02L	SD	08/25/25 13:52		Jaswal	OK
30	Q2934-02MS	ENV-SW02MS	MS	08/25/25 13:57		Jaswal	OK
31	Q2934-02MSD	ENV-SW02MSD	MSD	08/25/25 14:01		Jaswal	OK
32	Q2934-02A	ENV-SW02A	PS	08/25/25 14:05	0.1 ML OF M6004 AND M6017 EACH IN 10ML SAMPLE.	Jaswal	OK
33	Q2926-01	TR-04-08212025	SAM	08/25/25 14:08		Jaswal	OK
34	Q2928-01	27-BELL	SAM	08/25/25 14:12		Jaswal	OK
35	Q2932-01	ARS20-0009	SAM	08/25/25 14:16		Jaswal	OK
36	Q2932-03	ARS20-0002-SOIL	SAM	08/25/25 14:21		Jaswal	OK
37	Q2932-05	ARS20-0002-CONCR	SAM	08/25/25 14:25		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136951

Review By	Janvi	Review On	8/26/2025 1:00:45 PM
Supervise By	jaswal	Supervise On	8/27/2025 10:19:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86752
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

38	Q2933-02	25-SEPTIC	SAM	08/25/25 14:29		Jaswal	OK
39	CCV03	CCV03	CCV	08/25/25 14:33		Jaswal	OK
40	CCB03	CCB03	CCB	08/25/25 14:37		Jaswal	OK
41	Q2933-04	29-SEPTIC	SAM	08/25/25 14:41		Jaswal	OK
42	Q2933-04DUP	29-SEPTICDUP	DUP	08/25/25 14:46		Jaswal	OK
43	Q2933-04L	29-SEPTICL	SD	08/25/25 14:50		Jaswal	OK
44	Q2933-04MS	29-SEPTICMS	MS	08/25/25 14:54		Jaswal	OK
45	Q2933-04MSD	29-SEPTICMSD	MSD	08/25/25 14:58		Jaswal	OK
46	Q2933-04A	29-SEPTICA	PS	08/25/25 15:02	0.1 ML OF M6004 AND M6017 EACH IN 10ML SAMPLE.	Jaswal	OK
47	PB169378BL	PB169378BL	MB	08/25/25 15:06		Jaswal	OK
48	PB169378BS	PB169378BS	LCS	08/25/25 15:10		Jaswal	OK
49	Q2932-02	ARS20-0009	SAM	08/25/25 15:14		Jaswal	OK
50	Q2932-04	ARS20-0002-SOIL	SAM	08/25/25 15:19		Jaswal	OK
51	CCV04	CCV04	CCV	08/25/25 15:23		Jaswal	OK
52	CCB04	CCB04	CCB	08/25/25 15:27		Jaswal	OK
53	Q2941-02	SOIL-COMP(1-2)	SAM	08/25/25 15:36		Jaswal	OK
54	Q2941-02DUP	SOIL-COMP(1-2)DUP	DUP	08/25/25 15:40		Jaswal	OK
55	Q2941-02L	SOIL-COMP(1-2)L	SD	08/25/25 15:45		Jaswal	OK
56	Q2941-02MS	SOIL-COMP(1-2)MS	MS	08/25/25 15:49		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136951

Review By	Janvi	Review On	8/26/2025 1:00:45 PM
Supervise By	jaswal	Supervise On	8/27/2025 10:19:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86645,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86752
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

57	Q2941-02MSD	SOIL-COMP(1-2)MSD	MSD	08/25/25 15:53		Jaswal	OK
58	Q2941-02A	SOIL-COMP(1-2)A	PS	08/25/25 15:57	0.1 ML OF M6004 AND M6017 EACH IN 10ML SAMPLE.	Jaswal	OK
59	PB169355TB	PB169355TB	MB	08/25/25 16:01		Jaswal	OK
60	CCV05	CCV05	CCV	08/25/25 16:06		Jaswal	OK
61	CCB05	CCB05	CCB	08/25/25 16:10		Jaswal	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136975

Review By	Sagar	Review On	8/28/2025 11:01:29 AM
Supervise By	jaswal	Supervise On	8/28/2025 5:31:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP86920,MP86922,MP86923,MP86924,MP86925,MP86926
ICV Standard	MP86927
CCV Standard	MP869029
ICSA Standard	
CRI Standard	MP86932
LCS Standard	
Chk Standard	MP86928,MP86930,MP86931,MP86940

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/27/25 09:43		mohan	OK
2	S0.2	S0.2	CAL2	08/27/25 09:45		mohan	OK
3	S2.5	S2.5	CAL3	08/27/25 09:47		mohan	OK
4	S5	S5	CAL4	08/27/25 09:52		mohan	OK
5	S7.5	S7.5	CAL5	08/27/25 09:57		mohan	OK
6	S10	S10	CAL6	08/27/25 10:00		mohan	OK
7	ICV07	ICV07	ICV	08/27/25 10:03		mohan	OK
8	ICB07	ICB07	ICB	08/27/25 10:05		mohan	OK
9	CCV18	CCV18	CCV	08/27/25 10:07		mohan	OK
10	CCB18	CCB18	CCB	08/27/25 10:09		mohan	OK
11	CRA	CRA	CRDL	08/27/25 10:12		mohan	OK
12	HighStd	HighStd	HIGH STD	08/27/25 10:14		mohan	OK
13	ChkStd	ChkStd	SAM	08/27/25 10:17		mohan	OK
14	PB169413BL	PB169413BL	MB	08/27/25 10:19		mohan	OK
15	PB169413BS	PB169413BS	LCS	08/27/25 10:21		mohan	OK
16	Q2934-01	ENV-SW01	SAM	08/27/25 10:24		mohan	OK
17	Q2934-02	ENV-SW02	SAM	08/27/25 10:26		mohan	OK
18	Q2934-03	ENV-SW03	SAM	08/27/25 10:28		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136975

Review By	Sagar	Review On	8/28/2025 11:01:29 AM
Supervise By	jaswal	Supervise On	8/28/2025 5:31:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP86920,MP86922,MP86923,MP86924,MP86925,MP86926
ICV Standard	MP86927
CCV Standard	MP869029
ICSA Standard	
CRI Standard	MP86932
LCS Standard	
Chk Standard	MP86928,MP86930,MP86931,MP86940

19	Q2934-04	ENV-SW04	SAM	08/27/25 10:30		mohan	OK
20	Q2940-01	COMP(1-6)	SAM	08/27/25 10:33		mohan	OK
21	CCV19	CCV19	CCV	08/27/25 10:35		mohan	OK
22	CCB19	CCB19	CCB	08/27/25 10:37		mohan	OK
23	Q2940-01DUP	COMP(1-6)DUP	DUP	08/27/25 10:39		mohan	OK
24	Q2940-01MS	COMP(1-6)MS	MS	08/27/25 10:42		mohan	OK
25	Q2940-01MSD	COMP(1-6)MSD	MSD	08/27/25 10:44		mohan	OK
26	Q2954-11	BRIDGE	SAM	08/27/25 10:46		mohan	OK
27	Q2961-01	4075	SAM	08/27/25 10:49		mohan	OK
28	Q2940-01L	COMP(1-6)L	SD	08/27/25 11:26		mohan	OK
29	Q2940-01A	COMP(1-6)A	PS	08/27/25 11:28		mohan	OK
30	CCV20	CCV20	CCV	08/27/25 11:33		mohan	OK
31	CCB20	CCB20	CCB	08/27/25 11:35		mohan	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q2934

Test : Mercury,Metals ICP-TAL

Prepbatch ID : PB169358,PB169413,

Sequence ID/Qc Batch ID: LB136940,LB136951,LB136975,

Standard ID :
MP85156,MP85892,MP85893,MP85894,MP85895,MP86640,MP86641,MP86642,MP86643,MP86645,MP86646,MP866
47,MP86648,MP86651,MP86652,MP86653,MP86655,MP86656,MP86752,MP869029,MP86919,MP86920,MP86922,M
P86923,MP86924,MP86925,MP86926,MP86927,MP86928,MP86929,MP86930,MP86931,MP86932,MP86940,

Chemical ID :
M4371,M4465,M4916,M5062,M5467,M5658,M5697,M5748,M5798,M5799,M5800,M5801,M5805,M5814,M5816,M5820
,M5882,M5884,M5962,M5969,M5970,M5979,M5985,M5998,M6021,M6023,M6027,M6028,M6030,M6032,M6041,M605
8,M6077,M6086,M6128,M6137,M6140,M6142,M6144,M6145,M6146,M6151,M6158,M6159,M6161,M6162,M6163,M61
64,M6165,M6171,M6174,M6176,M6177,M6178,M6179,M6180,M6181,M6182,M6184,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	09/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP85892	06/05/2025	11/27/2025	Mohan Bera	None	None	Sarabjit Jaswal 06/14/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6162 = Final Quantity: 3200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85893	06/05/2025	12/05/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP85894	06/05/2025	08/31/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 100.00000ml of M4465 + 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
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85895	06/05/2025	08/31/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 06/14/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP86640	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6162 = 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
907	ICP AES STD S (S5)	MP86641	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5970 + 5.00000ml of M5998 + 5.00000ml of M6077 + 5.00000ml of M6146 + 5.00000ml of M6174 + 5.00000ml of M6176 + 455.00000ml of MP86640 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP86642	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 50.00000ml of MP86640 + 50.00000ml of MP86641 = 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
909	ICP AES STD S3	MP86643	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 25.00000ml of MP86641 + 75.00000ml of MP86640 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP86645	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.80000ml of MP86640 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP86646	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 50.00000ml of MP86640 + 50.00000ml of MP86641 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP86647	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 1.00000ml of M6179 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6162 = 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
903	ICP AES RINSE SOLN	MP86648	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 200.00000ml of M6162 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP86651	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 5.00000ml of M6182 + 45.00000ml of MP86640 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP86652	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 5.00000ml of M6182 + 5.00000ml of M6184 + 40.00000ml of MP86640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP86653	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 4.00000ml of MP86641 + 46.00000ml of MP86640 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP86655	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 0.00000ml of M5748 + 0.00000ml of M5805 + 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6140 + 0.05000ml of M6159 + 0.06000ml of M6177 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5816 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.10000ml of M6176 + 0.15000ml of M5800 + 0.20000ml of M5799 + 0.20000ml of M5979 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6027 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6086 + 1.00000ml of M6142 + 1.00000ml of M6144 + 1.00000ml of M6171 + 1.00000ml of M6178 + 2.00000ml of M6137 + 89.03000ml of MP86640 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP86656	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 08/07/2025

FROM 1.00000ml of MP86655 + 49.00000ml of MP86640 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP86752	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICPA)	Sarabjit Jaswal 08/14/2025

FROM 0.20000ml of M6058 + 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.60000ml of MP86640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP86919	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 1.00000ml of M6162 + 2.50000ml of M5062 + 96.50000ml of W3112 = 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
1340	Hg 0.00 PPB STD	MP86920	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP86922	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86919 = 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
1342	Hg 2.5 PPB STD	MP86923	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 245.00000ml of W3112 + 2.50000ml of MP86919 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP86924	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 242.50000ml of W3112 + 5.00000ml of MP86919 = 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
1344	Hg 7.5 PPB STD	MP86925	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 240.00000ml of W3112 + 7.50000ml of MP86919 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP86926	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 237.50000ml of W3112 + 10.00000ml of MP86919 = 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
1346	Hg ICV SOLUTION	MP86927	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6162 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP86928	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 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
1358	CCV (Hg 5.0 PPB SOLUTION)	MP86929	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6162 + 10.00000ml of MP86919 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP86930	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6162 = 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
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP86931	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 240.50000ml of W3112 + 7.00000ml of MP86919 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP86932	08/26/2025	08/27/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/27/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86919 = 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
68	STANNOUS CHLORIDE SOLUTION	MP86940	08/27/2025	08/28/2025	Mohan Bera	None	None	Sarabjit Jaswal 08/27/2025

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 /	07/25/2019 / manojkumar	M4465

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

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

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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.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

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

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

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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.	58120 / Ca, 10000 PPM, 500 ml	122223	12/22/2026	04/17/2025 / Janvi	01/03/2024 / jaswal	M5805

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

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

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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.	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 #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	07/30/2026	07/30/2025 / Janvi	02/22/2024 / kareem	M5998

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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.	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

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	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

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

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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-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

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 #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

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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.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

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	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

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

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 /	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 #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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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-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	09/09/2025	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 #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	12/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

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)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

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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	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

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	011525	01/15/2028	07/15/2025 /	02/13/2025 / Janvi	M6171

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	V2-MEB742428	07/31/2026	07/31/2025 / Janvi	05/05/2025 / Janvi	M6174

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	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	031525	03/15/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6177

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

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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	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	08/05/2026	08/06/2025 / Janvi	06/02/2024 / Janvi	M6179

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	W2-MEB752149	02/05/2026	08/06/2025 / Janvi	07/22/2025 / Janvi	M6180

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	V2-MEB7433480	02/05/2026	08/06/2025 / Janvi	07/22/2025 / Janvi	M6181

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6182

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6184

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

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

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 – 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.

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Certified Reference Material CRM

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		

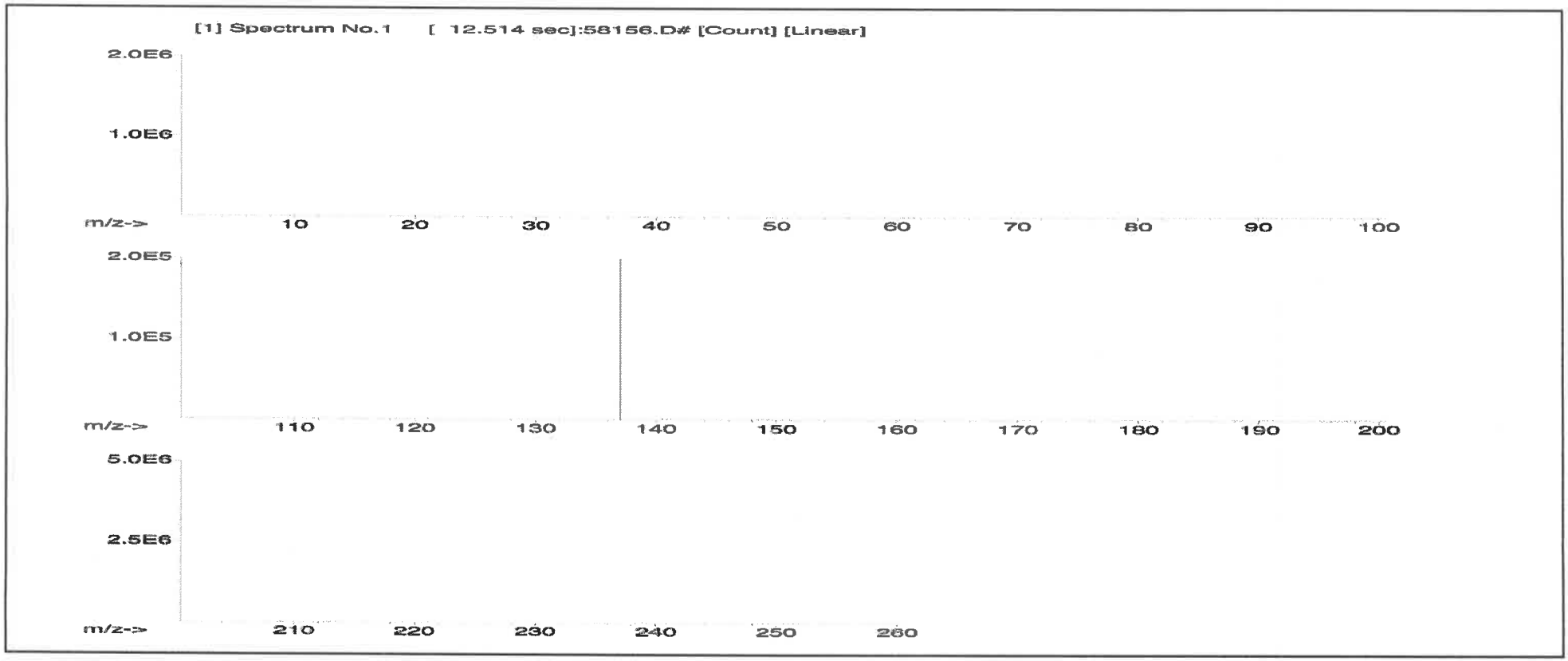
Giovanni Esposito

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



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:

* 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).
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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: 01/03/24 M5804, M5805

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 122223
Description: Calcium (Ca)

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 4000.0 0.06 Flask Uncertainty

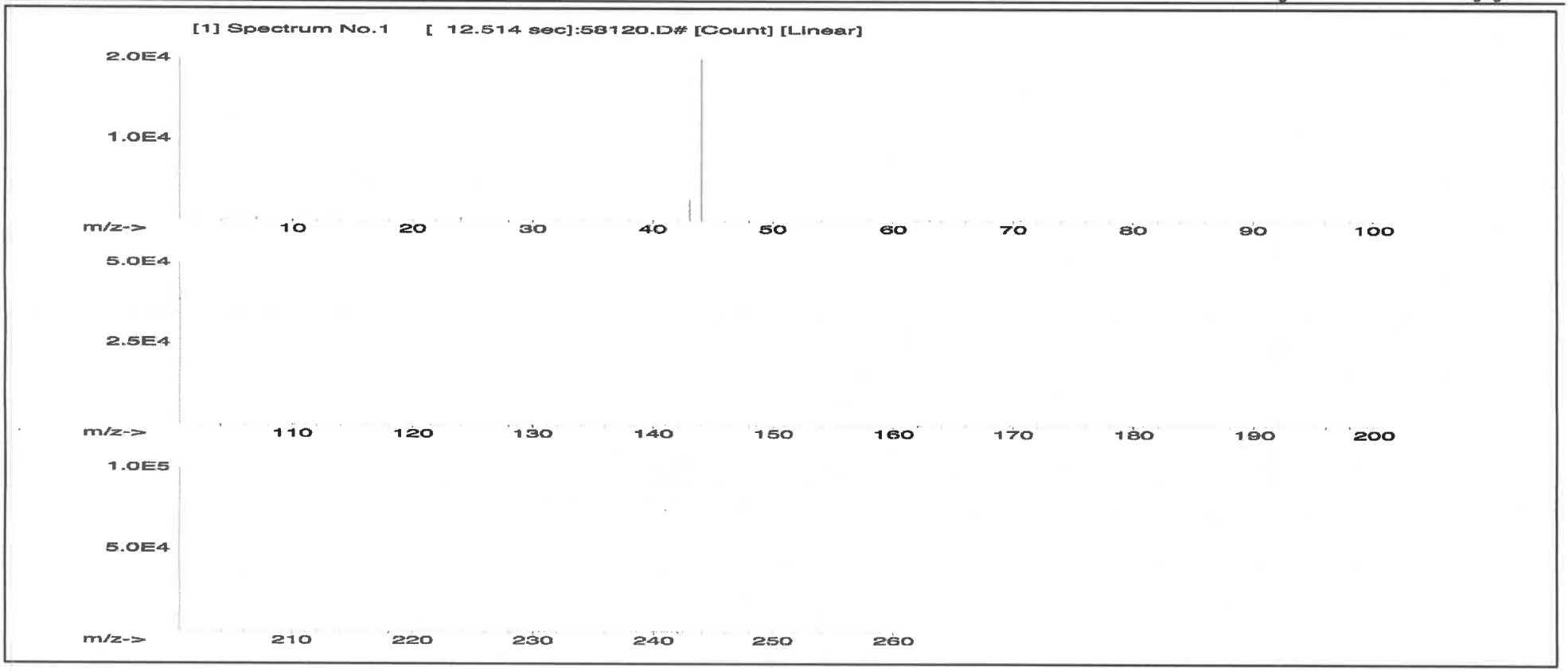
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	122223
Reviewed By:	Pedro L. Rentas	122223

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	CAD03202383	10000	99.999	0.10	39.9	100.2525	100.2670	**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)

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	T	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	30	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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* 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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Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

Part Number:	**58120**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**082324**				
Description:	**Calcium (Ca)**		2%	80.0 (mL)	Nitric Acid
Expiration Date:	082327				
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):	4000.1	0.15 Flask Uncertainty			

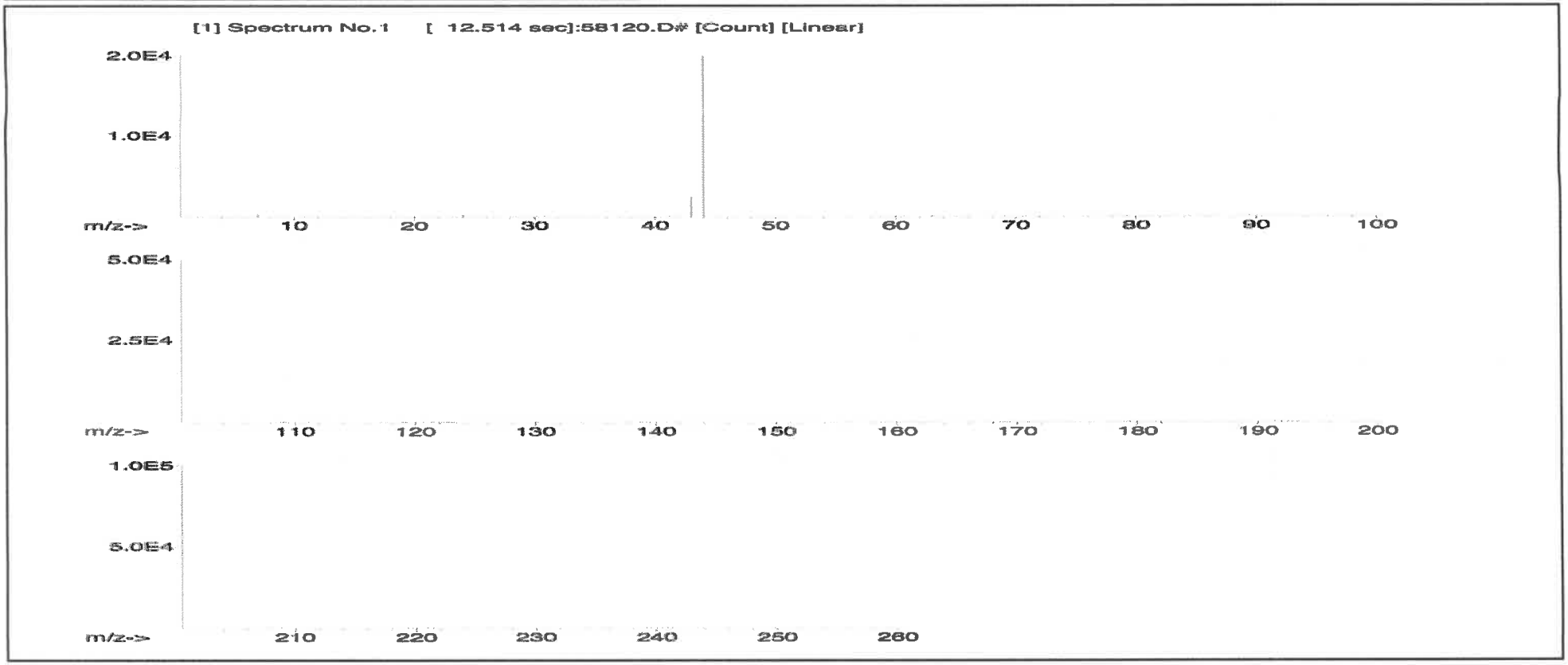
Giovanni Esposito

Formulated By:	Giovanni Esposito	082324

Pedro Rentas

Reviewed By:	Pedro L. Rentas	082324

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	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2656	**10001.2**	**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)																	
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	T	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	30	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:

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M6028

R 8/5/24

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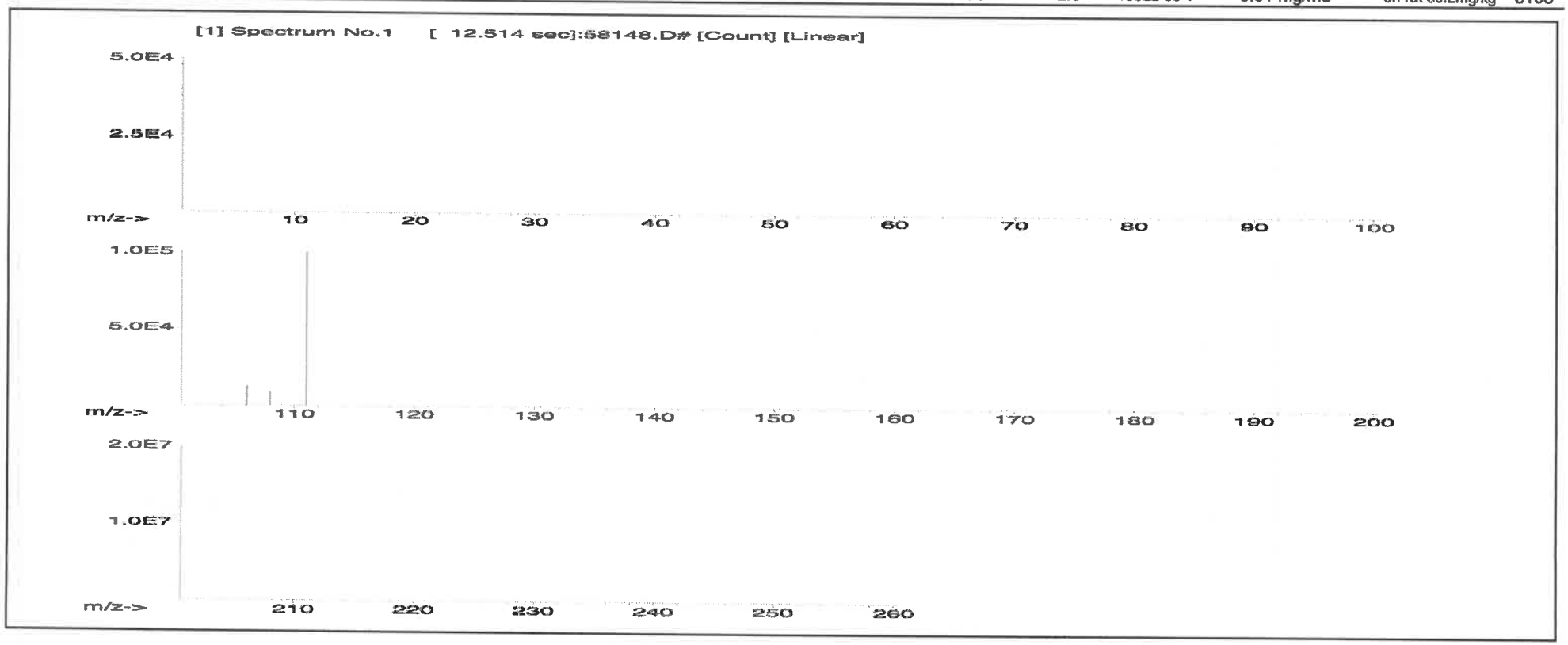
CERTIFIED WEIGHT REPORT:

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
Pedro Rentas		
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



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:

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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

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

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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

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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.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 HNO_3. 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% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); 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

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

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Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

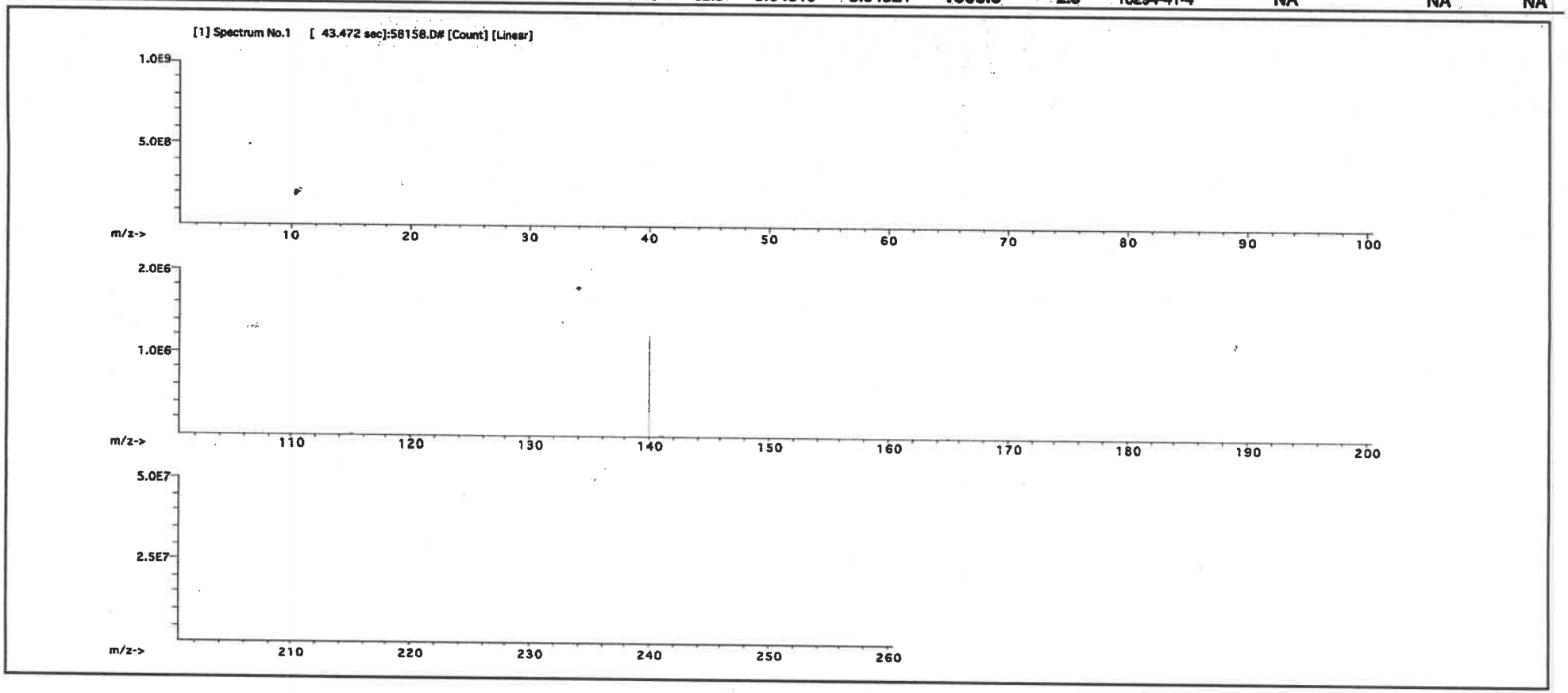
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

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. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



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	T	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

M5658 R! 8/25/23

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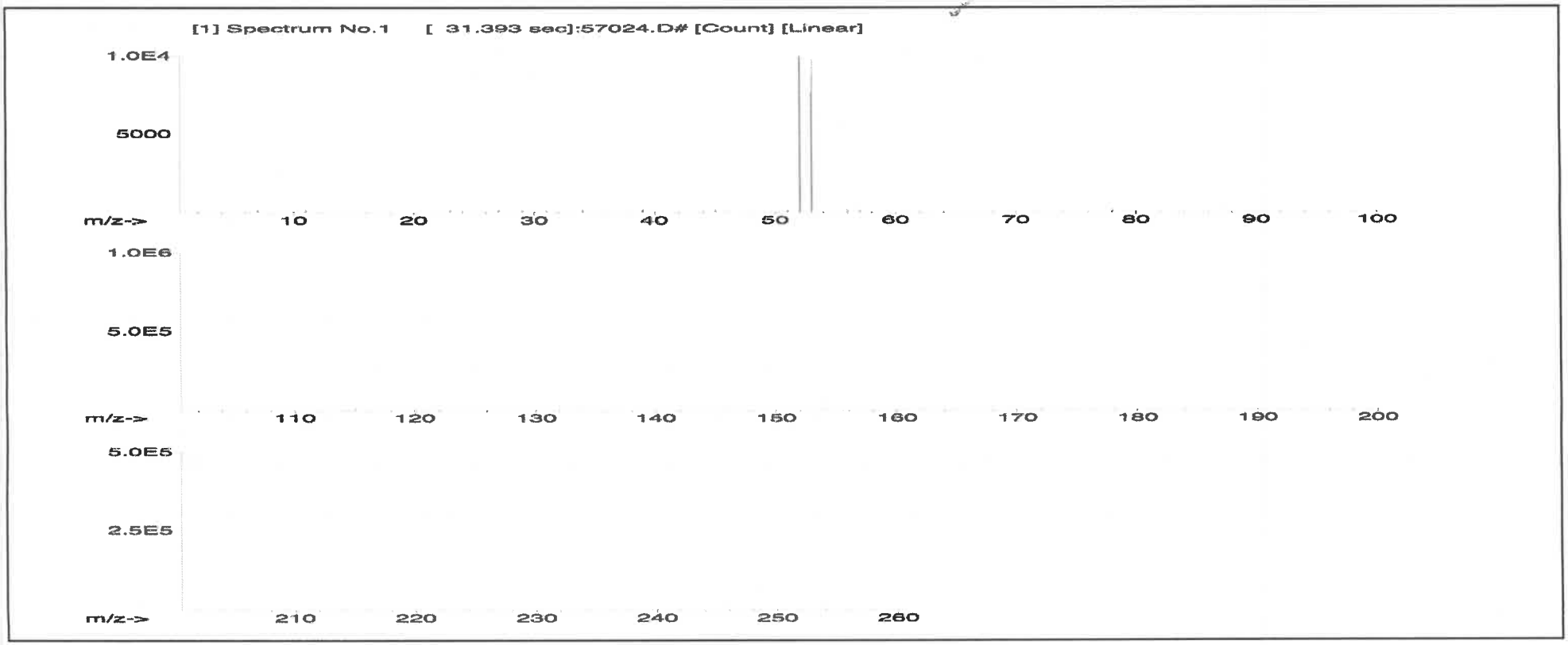
CERTIFIED WEIGHT REPORT:

		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



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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Certified Reference Material CRM

M5697 R: 10/27/23

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AR-1539 Certificate Number
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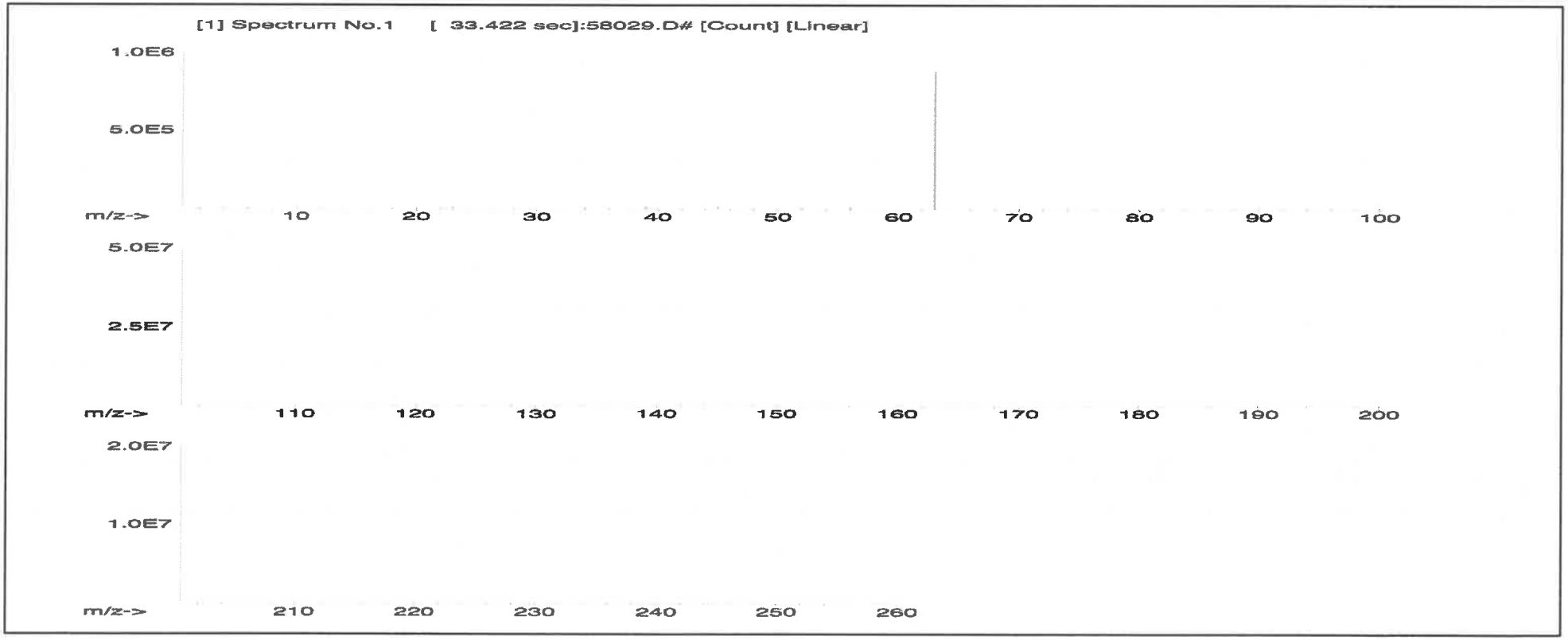
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		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. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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.
* 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: 12/20/23 M5748

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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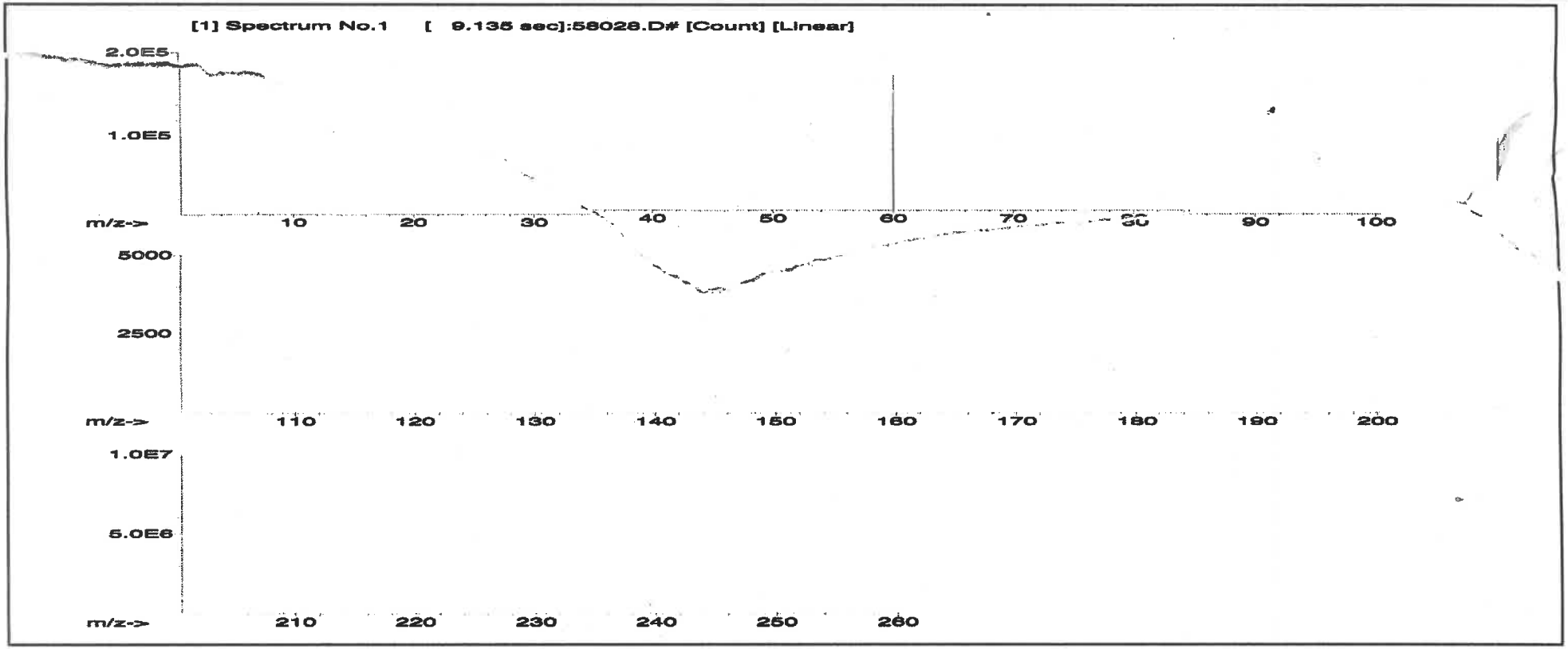
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
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	091223
Reviewed By:	Pedro L. Rentas	091223

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. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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	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.

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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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* 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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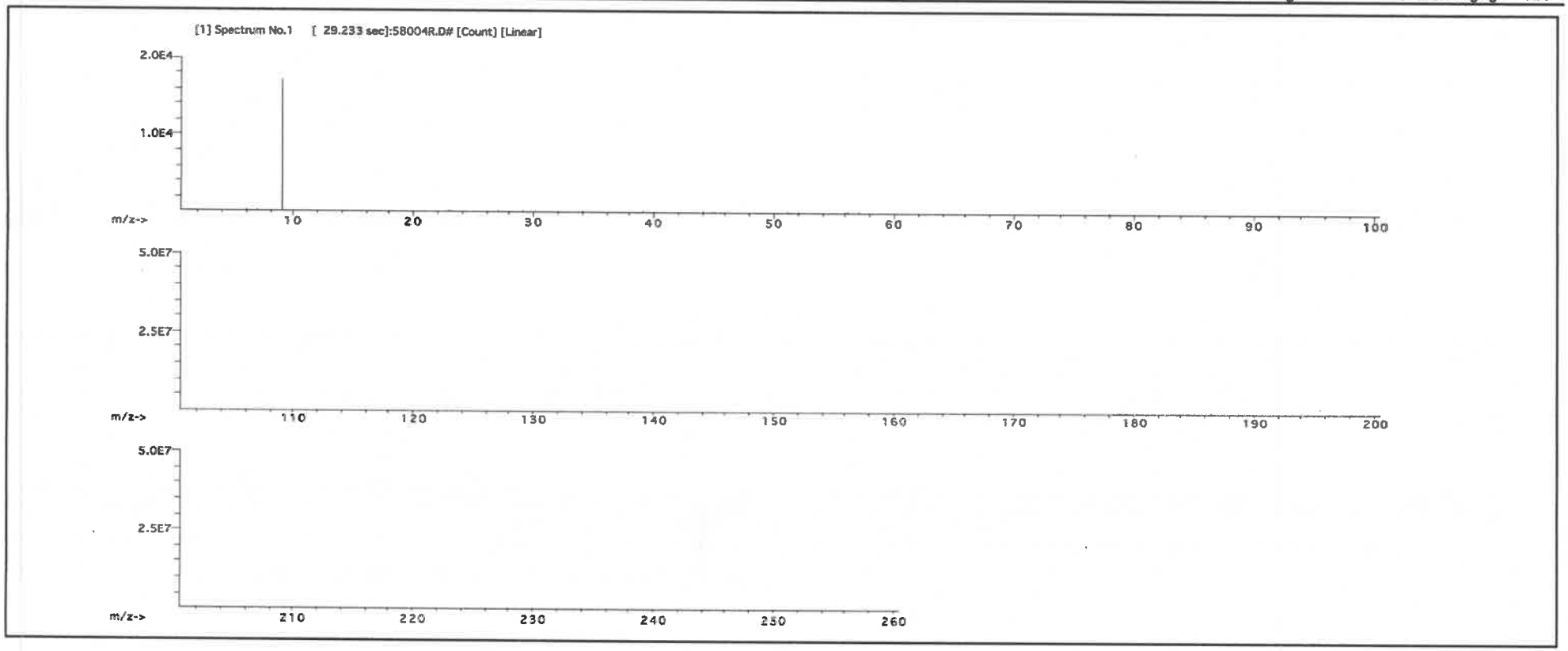
CERTIFIED WEIGHT REPORT:

		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



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.

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

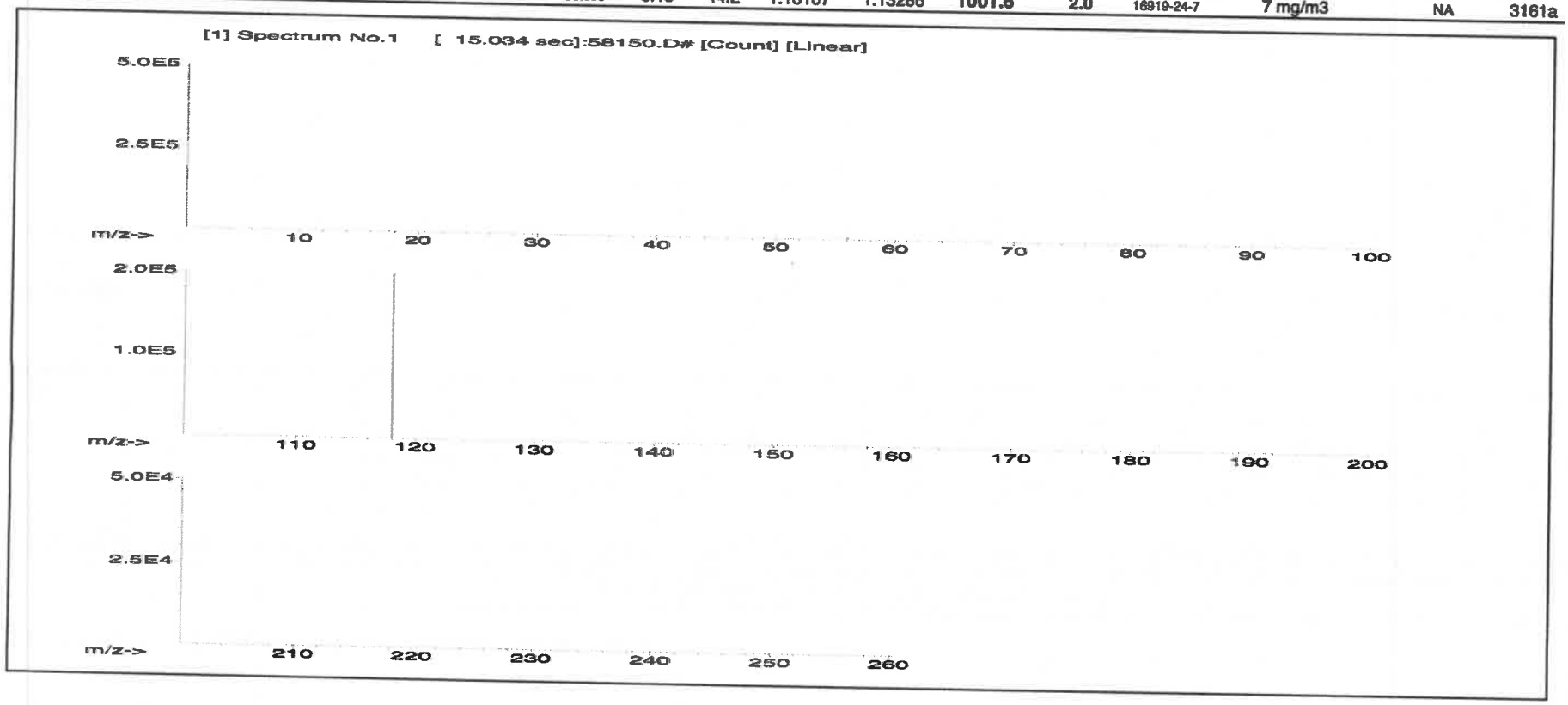
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	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



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:

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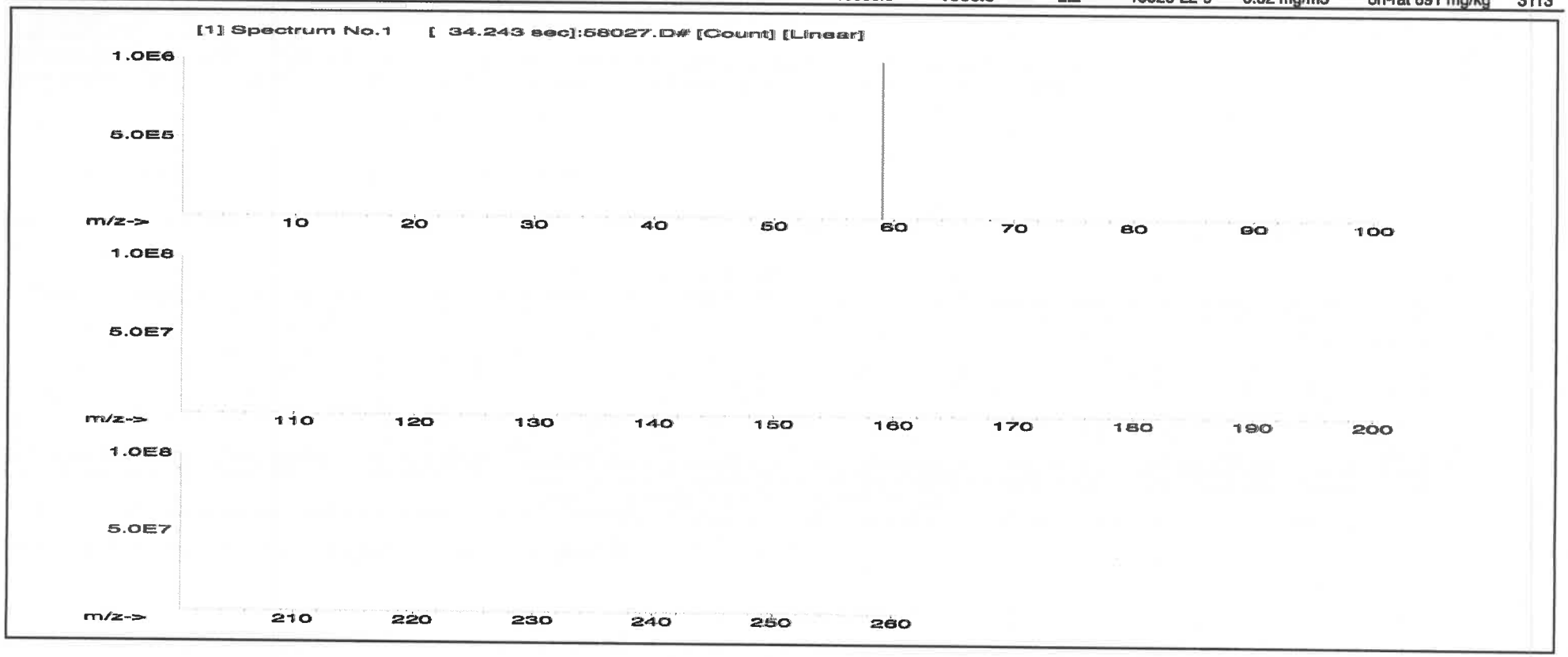
CERTIFIED WEIGHT REPORT:

		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



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.

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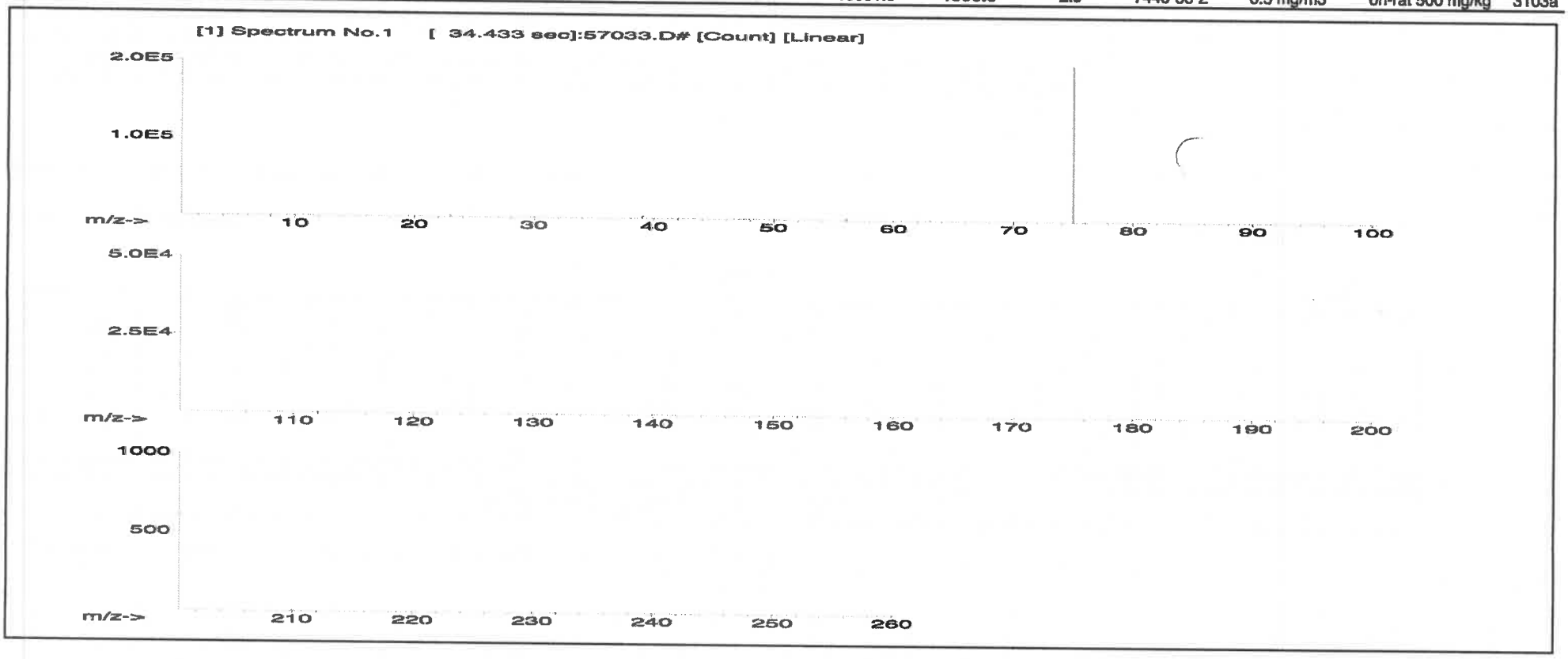
CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
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



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:

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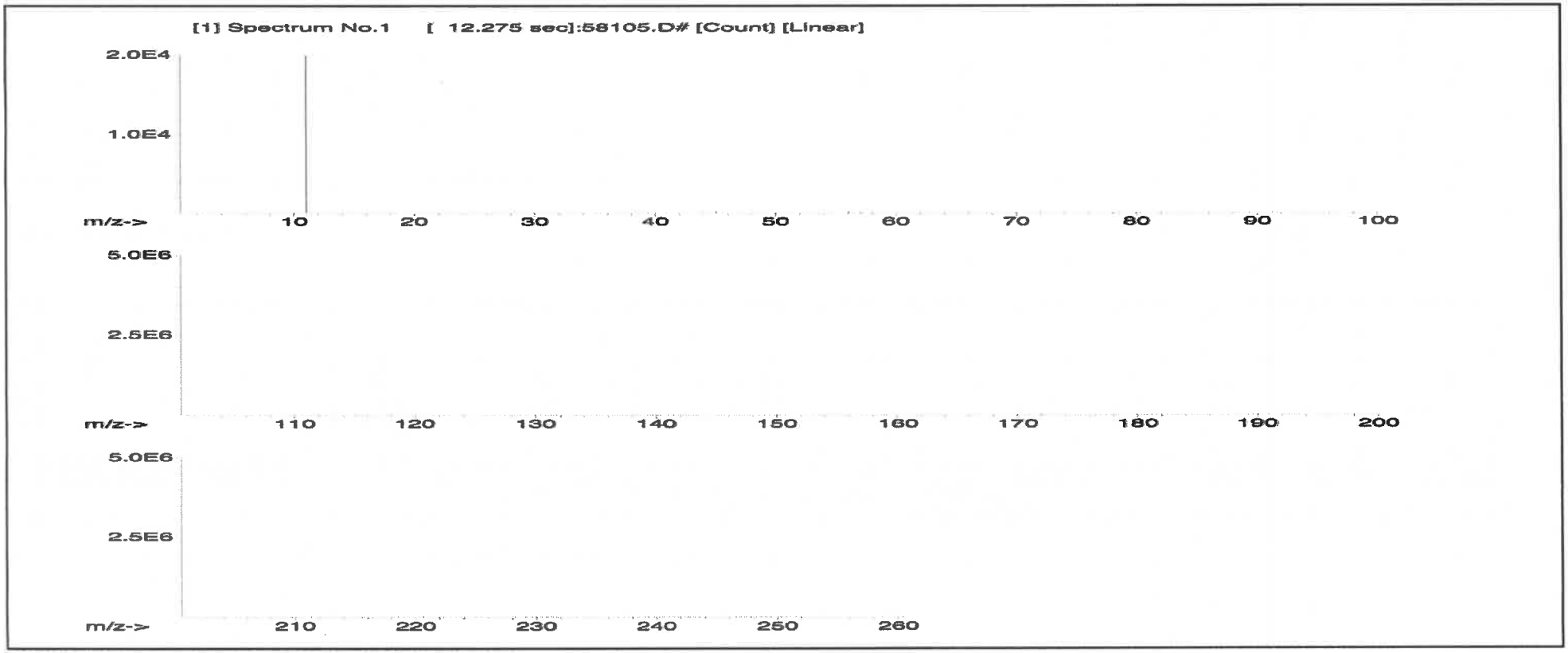
CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
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):	1999.48	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. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



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	T	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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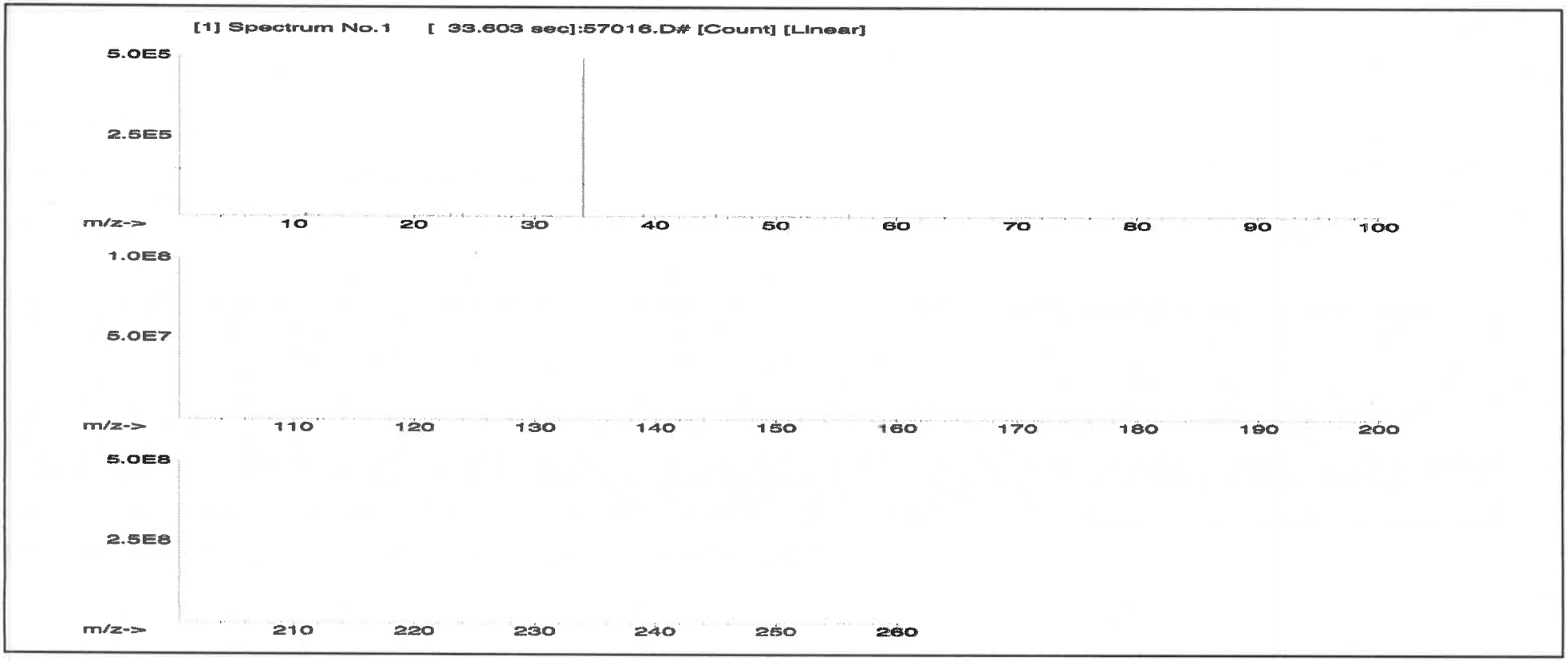
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
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):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
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. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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:

* 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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* 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: 02/09/24 M5820

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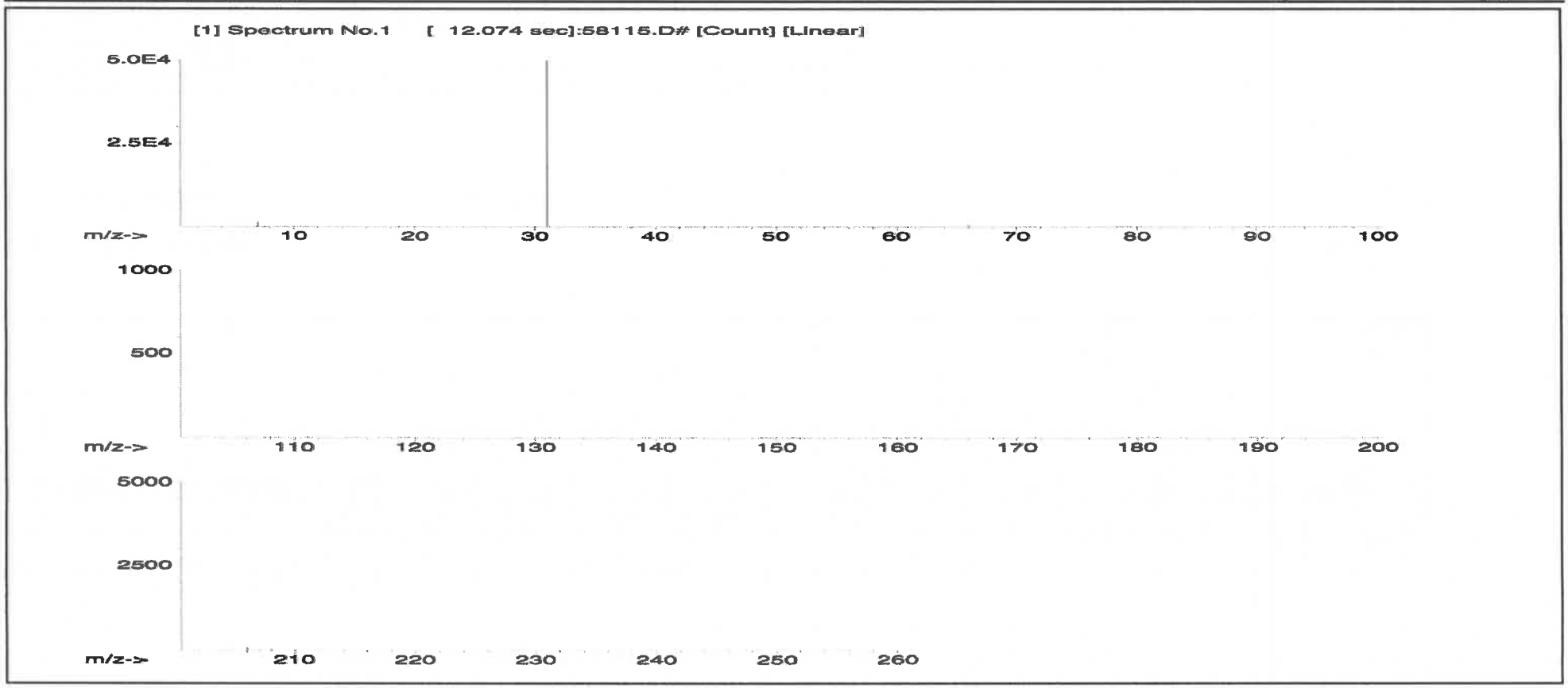
CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
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		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

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	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



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	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:

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).
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* 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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
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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M5962 R! 06/14/24.

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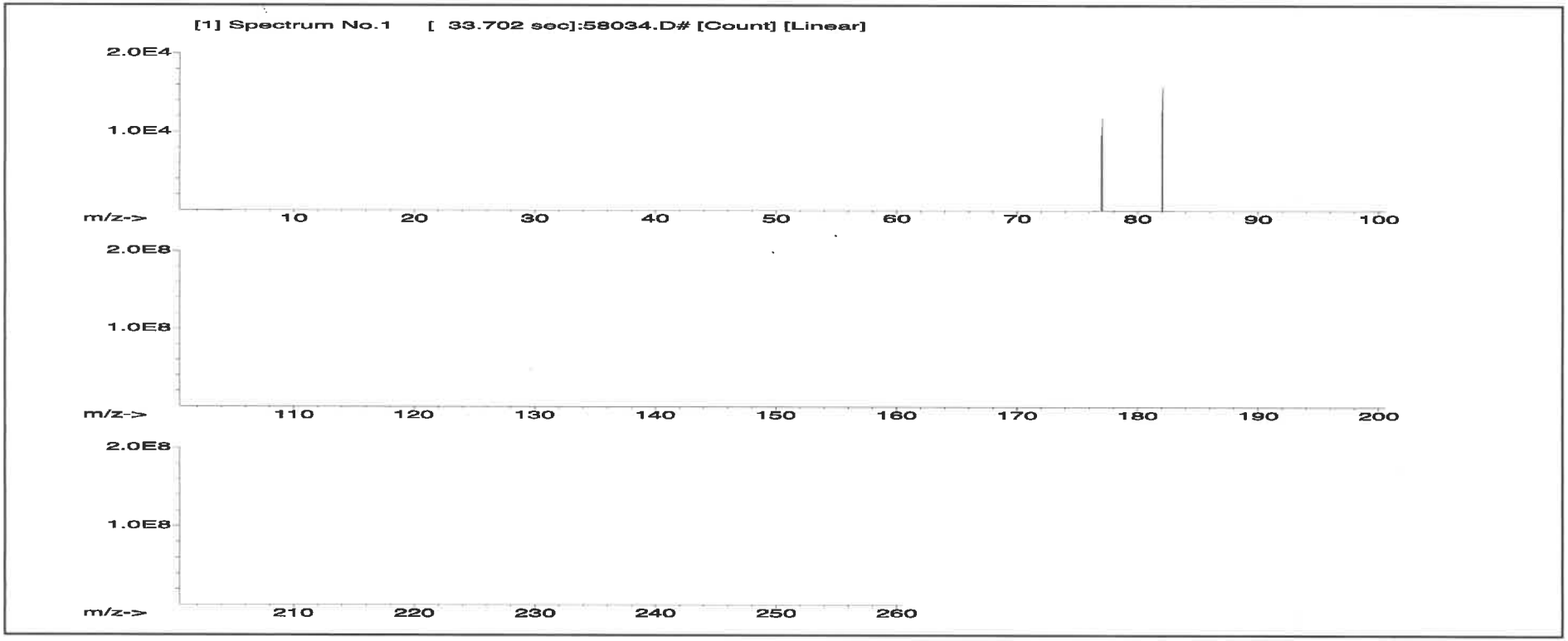
CERTIFIED WEIGHT REPORT:

		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



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.
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M5969 R: 06/11/24

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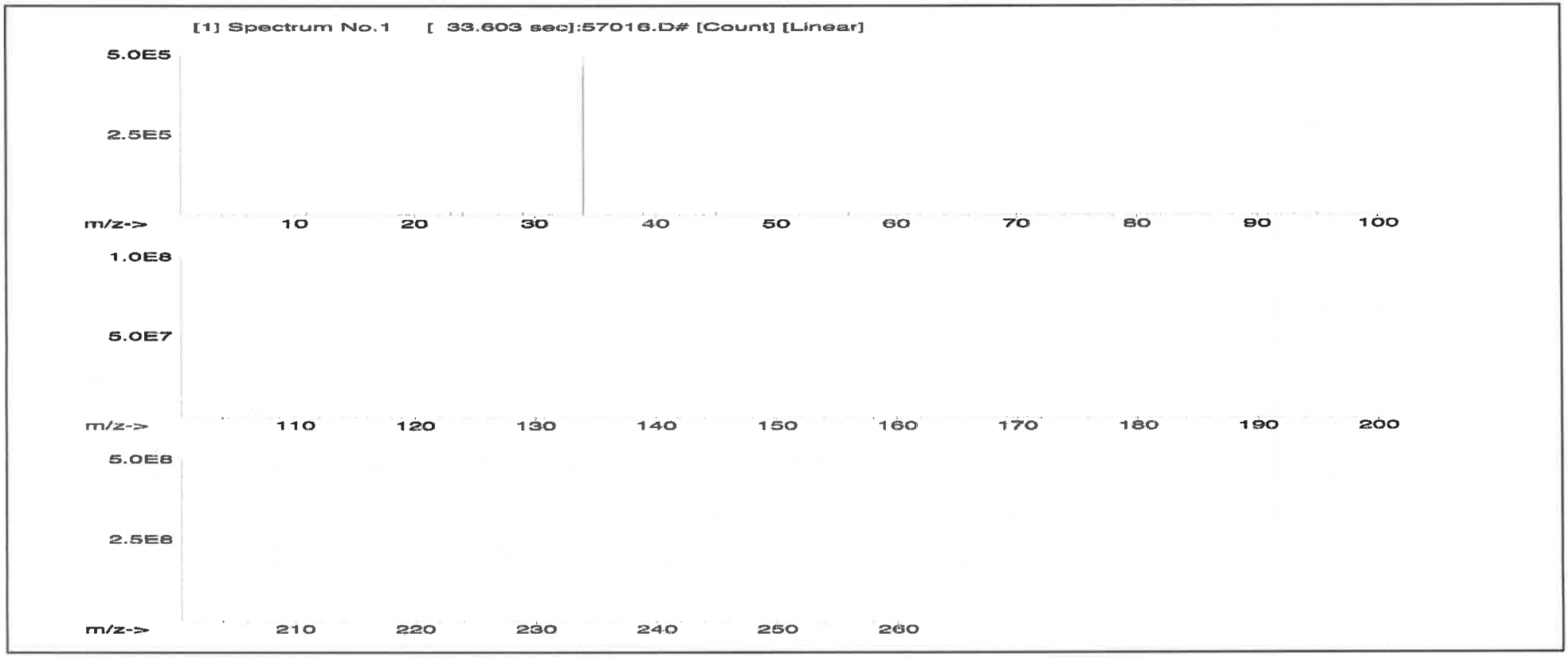
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
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):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
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. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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M5970, M5971 R: 7/01/24

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CERTIFIED WEIGHT REPORT:

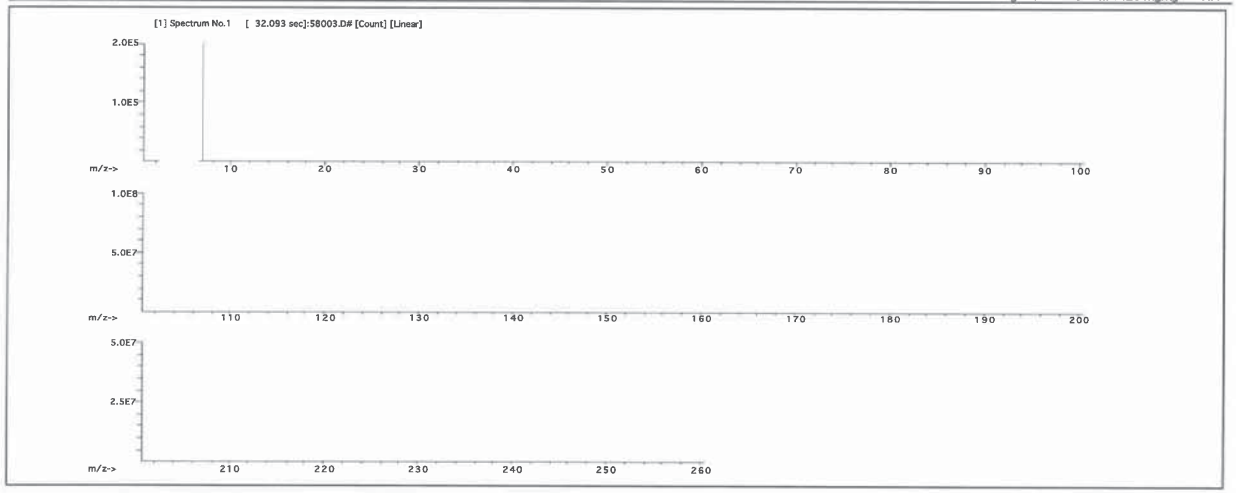
		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito

Formulated By: Giovanni Esposito 062124

Reviewed By: Pedro L. Rentas 062124

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. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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	T	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
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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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M5978, M5979

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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) HNO_3 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:

$X_{CRM/RM} = \Sigma(w_i)(\bar{x}_i)$

$\bar{x}_i$ = 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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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:

$X_{CRM/RM} = (\bar{x}_a)\ (u_{char\ a})$

$\bar{x}_a$ = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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.

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

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Refine your results. Redefine your industry.

Certificate of Analysis

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MS985
R: 6/14/24

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 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 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	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

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 - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or 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 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 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

- February 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

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Certificate of Analysis

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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)

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 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

- December 21, 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

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

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

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Certificate of Analysis

R! 08/22/24 M6058, M6059

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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)

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- 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

- August 12, 2029

- 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:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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EXP.: 9/6/2029

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:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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)

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- 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 06, 2029

- 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:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 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	

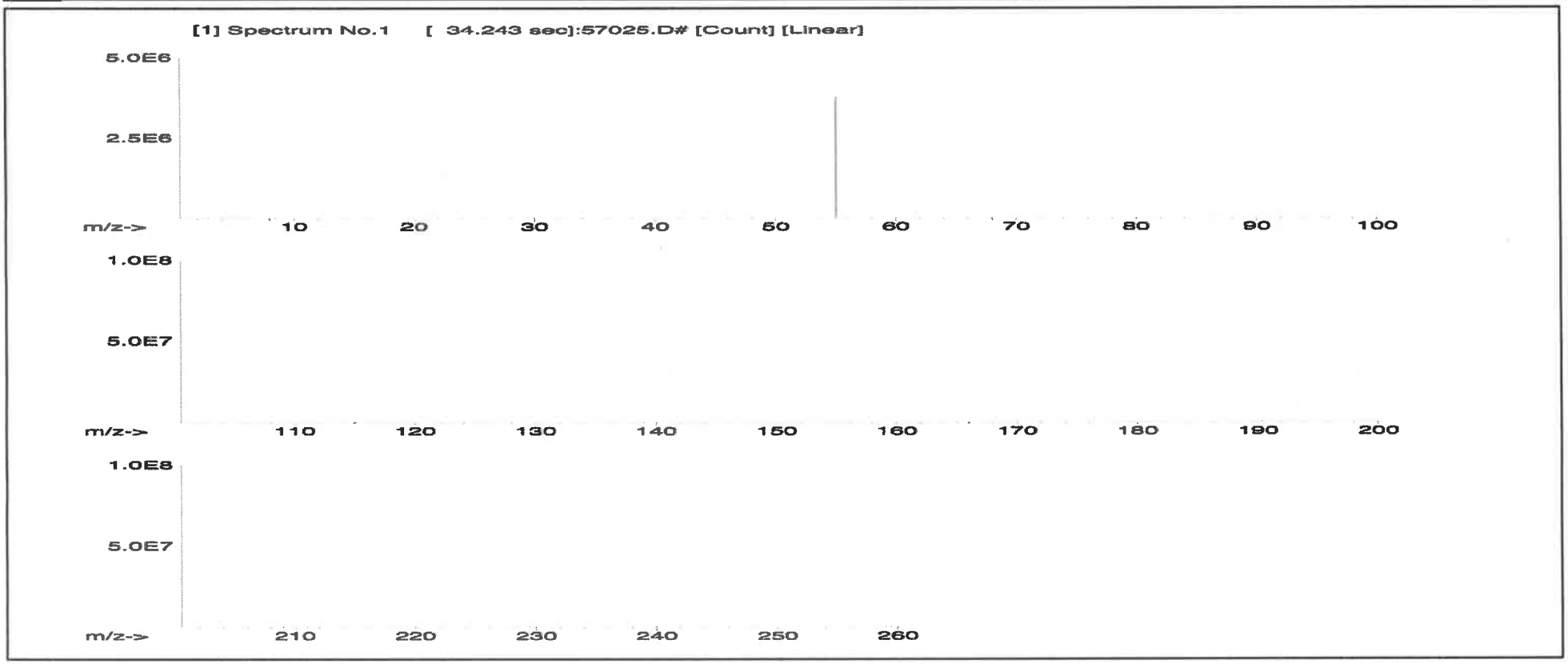
Giovanni Esposito

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



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.
* 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

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M6137 R→10/3/24

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:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

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 - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. 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 silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

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 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

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

July 10, 2024

- 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 10, 2029**

- 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
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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CERTIFIED WEIGHT REPORT:

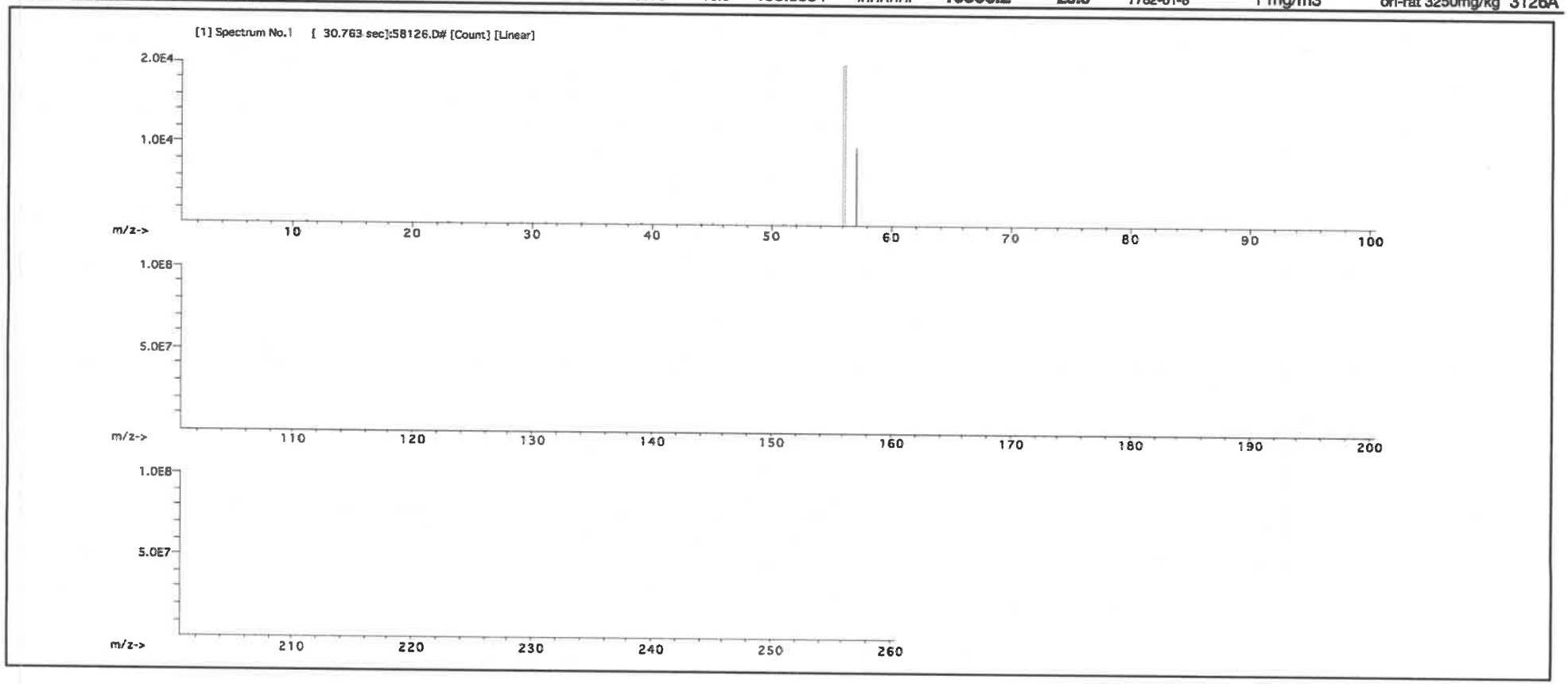
Part Number: 58126 R->1|B|2S
Lot Number: 011025
Description: Iron (Fe) M6140
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Formulated By:	Benson Chan	011025
Reviewed By:	Pedro L. Rentas	011025

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(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



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	T	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 WEIGHT REPORT:

R-> 1/13/25

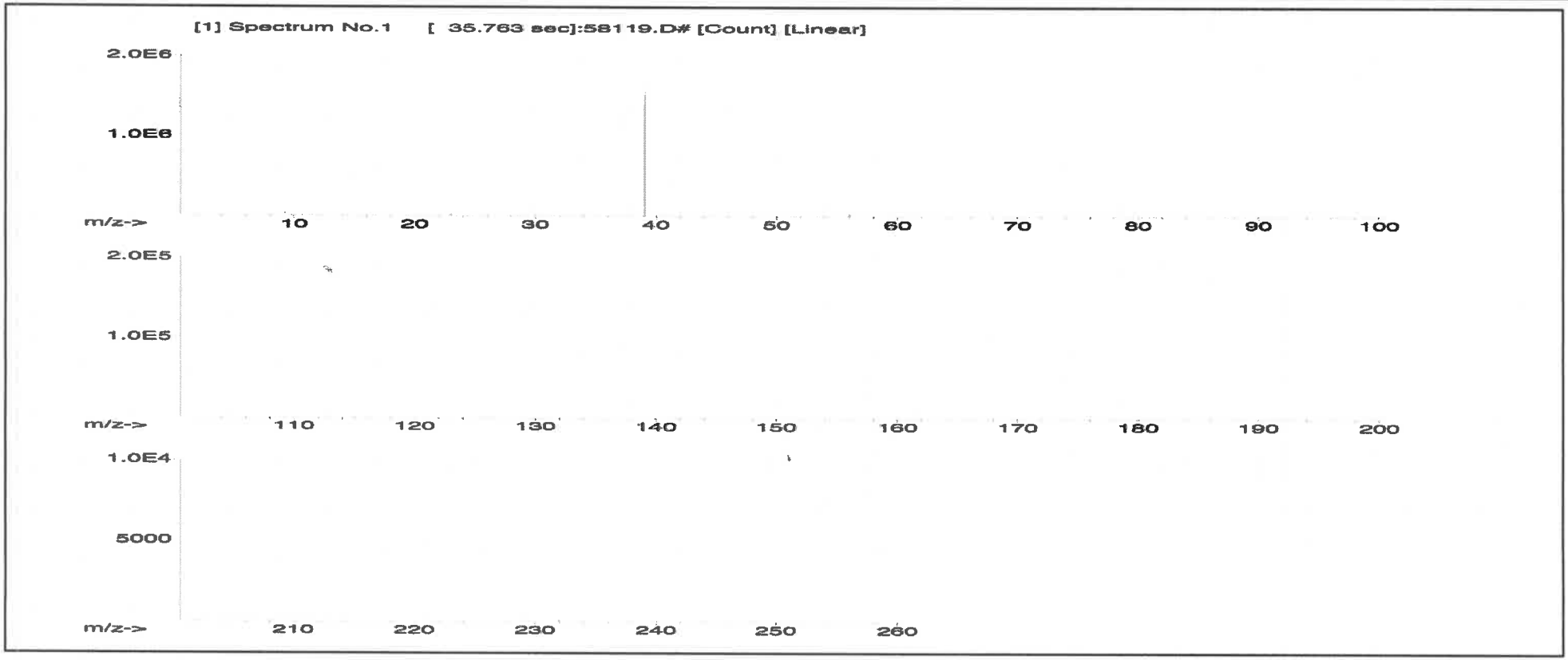
Part Number:	**57119**		**Lot #**		
Lot Number:	**103024**	**Solvent:**	24002546	Nitric Acid	
Description:	**Potassium (K)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	103027				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

M6141
M6142
M6143

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

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	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



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:

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 WEIGHT REPORT:

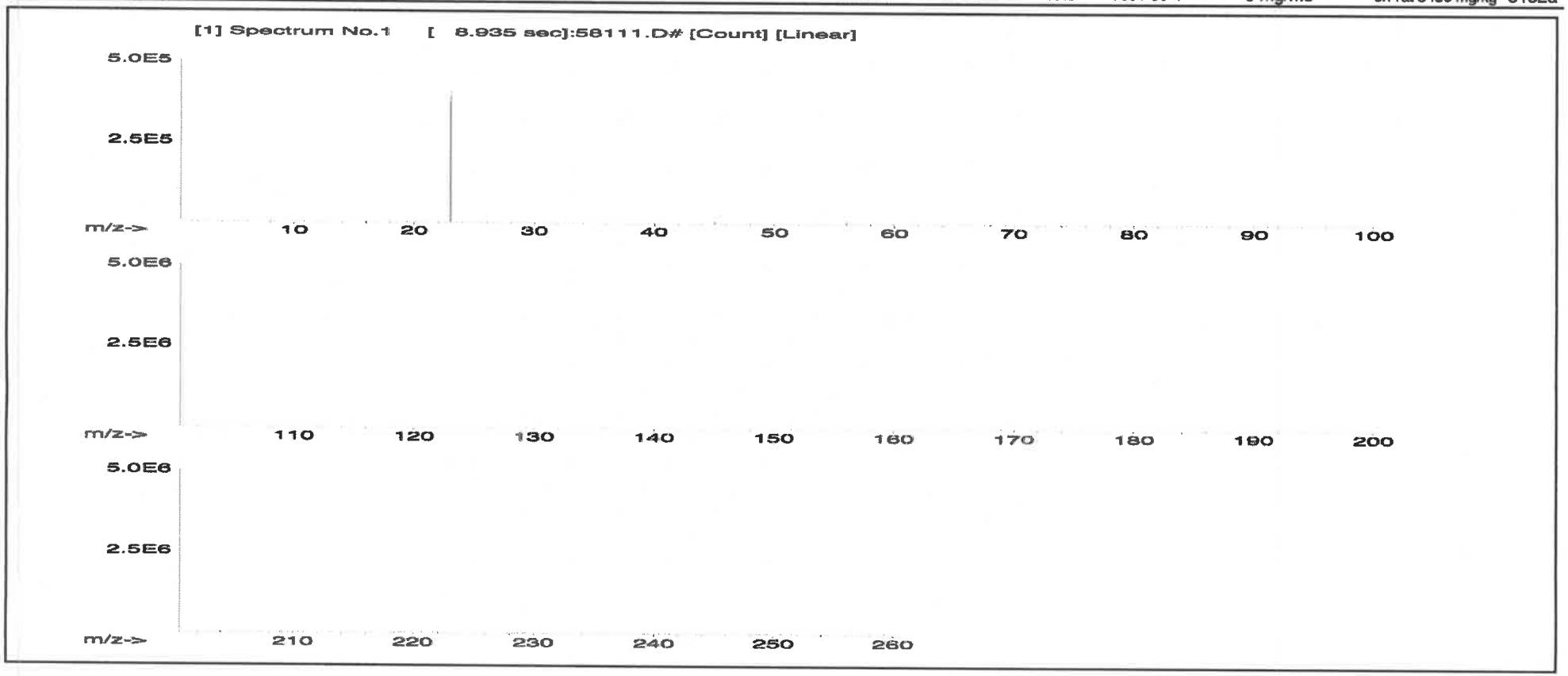
R->1/13/25

M6144

			Lot #	
Part Number:	**58111**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**072424**			
Description:	**Sodium (Na)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	072427			
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):	4000.2	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



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.

* 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:

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

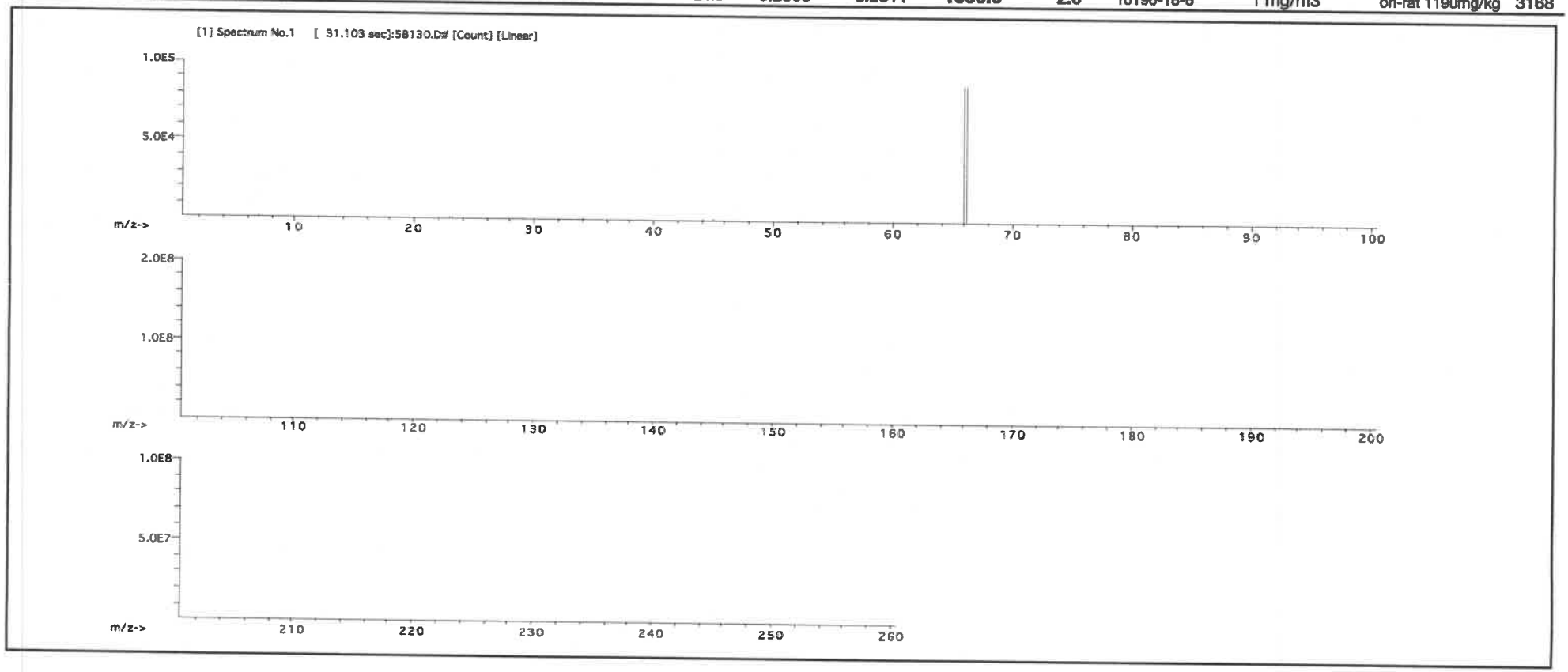
		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

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



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:

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).

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, Bioscience Production

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

m-6162

R. Date :- 04/27/2025

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
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	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 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	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 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	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 1.0 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	13 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Aluminum, Barium, 500 µg/mL ea: Iron, 250 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 125 µg/mL ea: Silver, Copper, 100 µg/mL ea: Chromium, 25 µg/mL ea: Beryllium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**1 000 ± 4 µg/mL**	**Barium, Ba**	**1 000 ± 6 µg/mL**
Beryllium, Be	**24.98 ± 0.12 µg/mL**	**Calcium, Ca**	**2 500 ± 8 µg/mL**
Chromium, Cr	**99.9 ± 0.6 µg/mL**	**Cobalt, Co**	**250.2 ± 1.2 µg/mL**
Copper, Cu	**125.0 ± 0.5 µg/mL**	**Iron, Fe**	**500.0 ± 2.2 µg/mL**
Magnesium, Mg	**2 500 ± 11 µg/mL**	**Manganese, Mn**	**249.9 ± 1.1 µg/mL**
Nickel, Ni	**250.0 ± 1.2 µg/mL**	**Potassium, K**	**2 500 ± 11 µg/mL**
Silver, Ag	**125.0 ± 0.6 µg/mL**	**Sodium, Na**	**2 500 ± 11 µg/mL**
Vanadium, V	**250.0 ± 1.1 µg/mL**	**Zinc, Zn**	**249.9 ± 1.1 µg/mL**

Density: 1.081 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
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
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	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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)

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**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

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

May 22, 2024

- 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

- **May 22, 2029**

- 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.

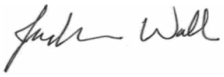
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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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:	QCP-CICV-2
Lot Number:	U2-MEB733713
Matrix:	3% (w/v) Tartaric acid 1% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**500.0 ± 2.8 µg/mL**		

Density: 1.017 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

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)

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 01, 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 01, 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

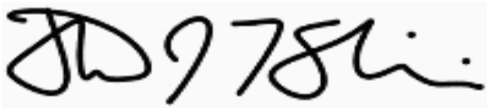
- Sealed TCT Bag Open Date: _____

- 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

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:	QCP-CICV-3
Lot Number:	V2-MEB749572
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 250 µg/mL ea: Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**500.0 ± 3.1 µg/mL**	**Cadmium, Cd**	**250.1 ± 1.1 µg/mL**
Lead, Pb	**500.0 ± 2.3 µg/mL**	**Selenium, Se**	**500.0 ± 3.2 µg/mL**
Thallium, Tl	**500.0 ± 3.0 µg/mL**		

Density: 1.040 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

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

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u_{ts} = transport stability standard uncertainty

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

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X_a = mean of Assay Method A with

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N/A

6.0 INTENDED USE

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- 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

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- 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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 02, 2025

- 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

- **January 02, 2030**

- 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.

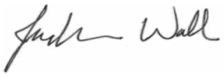
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

R -> 2/13/25

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:

M 6171

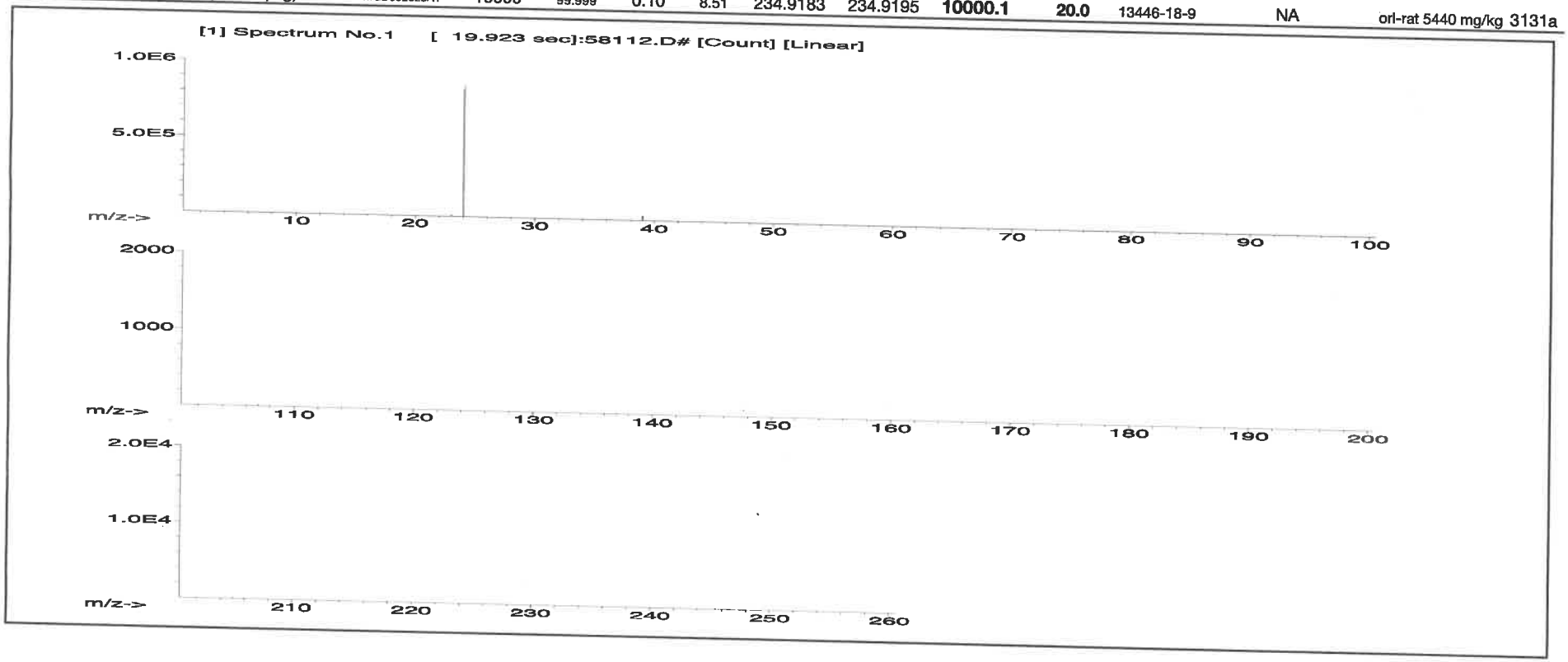
Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	011525
Reviewed By:	Pedro L. Rentas	011525

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	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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.
* 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

300 Technology Drive
Christiansburg, VA 24073 USA
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P: 800-669-6799/540-585-3030
F: 540-585-3012
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M6174
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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:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	V2-MEB742428
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea:
	Calcium, Potassium,
	Magnesium, Sodium,
	2 000 µg/mL ea:
	Aluminum, Barium,
	1 000 µg/mL ea:
	Iron,
	500 µg/mL ea:
	Nickel, Vanadium,
	Zinc, Cobalt,
	Manganese,
	250 µg/mL ea:
	Silver, Copper,
	200 µg/mL ea:
	Chromium,
	50 µg/mL ea:
	Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.03 ± 0.30 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Chromium, Cr	200.0 ± 1.1 µg/mL	Cobalt, Co	500.0 ± 2.3 µg/mL
Copper, Cu	250.0 ± 1.1 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 22 µg/mL	Manganese, Mn	499.9 ± 2.2 µg/mL
Nickel, Ni	500.1 ± 2.3 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.117 g/mL (measured at 20 ± 4 °C)

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
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
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
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	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

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- 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

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7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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- 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**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

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 22, 2024

- 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 22, 2029

- 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
Custom Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

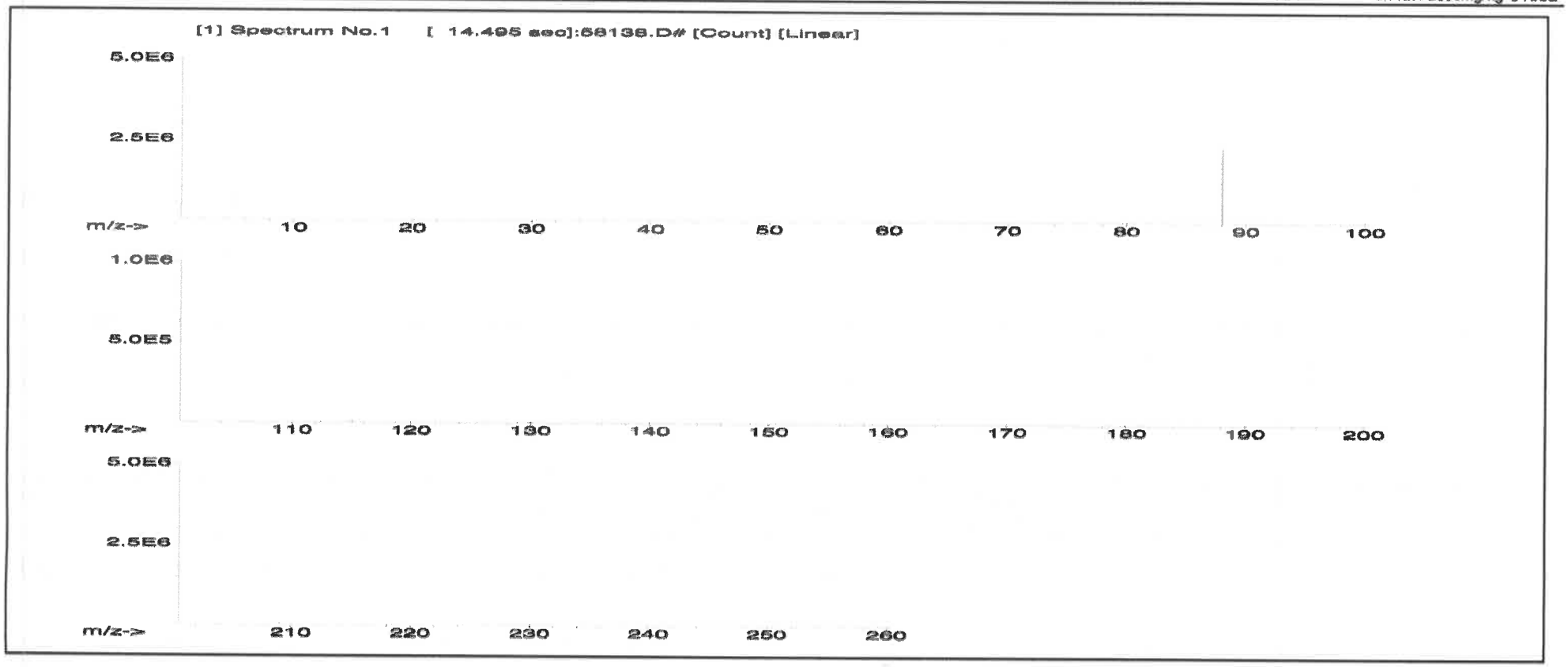
CERTIFIED WEIGHT REPORT:

R->8/6/29

Part Number:	57038		**Solvent:**	Lot # 24002546	Nitric Acid
Lot Number:	092724				
Description:	Strontium (Sr)		2%	40.0 (mL)	Nitric Acid
Expiration Date:	092727	M6176			
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		

Formulated By:	Benson Chan	092724
Reviewed By:	Pedro L. Rentas	092724

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	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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	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.
* 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

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

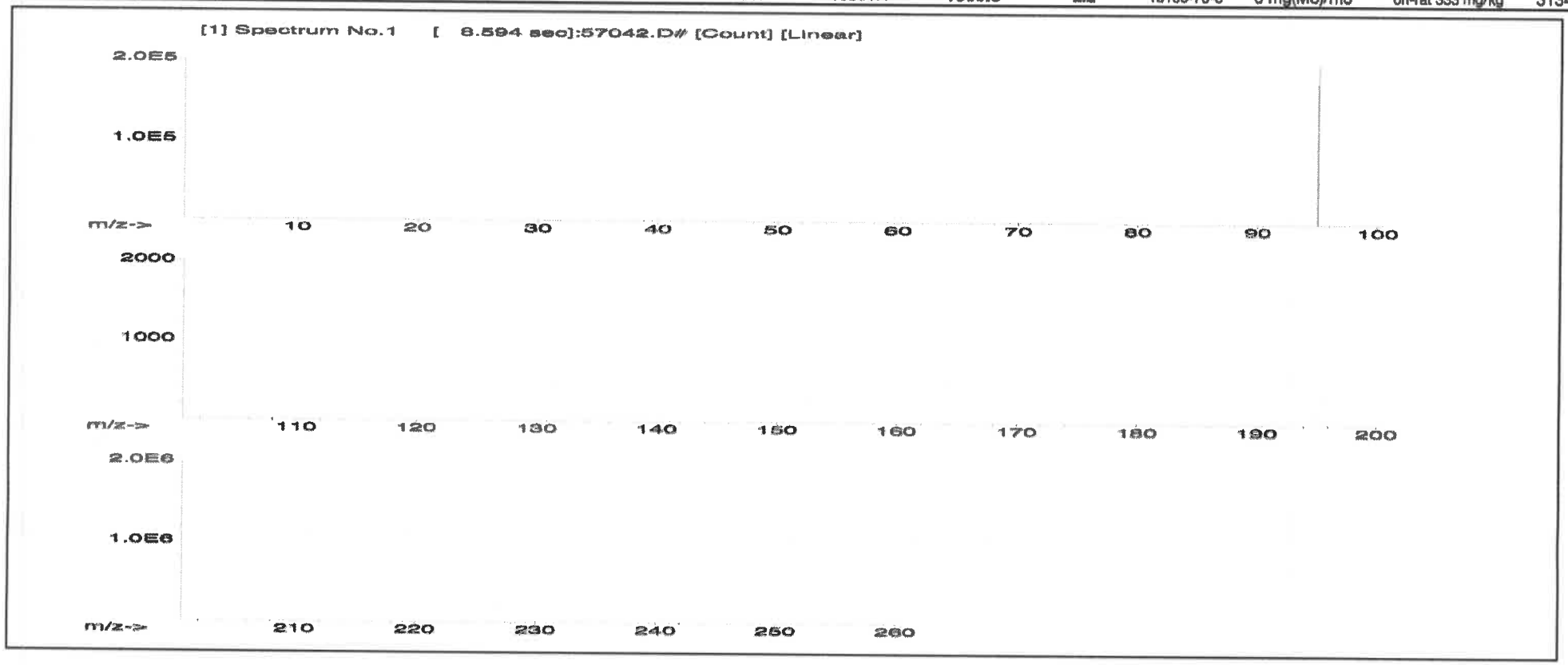
CERTIFIED WEIGHT REPORT:

R→ 8/6/25
M6177

		Lot #	Solvent:		
Part Number:	57042	MKBQ8597V	Ammonium hydroxide		
Lot Number:	080525	080525	ASTM Type 1 Water		
Description:	Molybdenum (Mo)	0.5%	10.0 (mL)	Ammonium hydroxide	
Expiration Date:	080528				
Recommended Storage:	Ambient (15 - 30 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	1999.41	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	080525
Reviewed By:	Pedro L. Rentas	080525

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 molybdate (Mo)	58142	112322	0.1000	200.0	0.084	1000	10001.4	**1000.5**	**2.2**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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	T	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 by an ISO17025 certified organization with weights traceable through NIST to the SI kilogram (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).
Rev 1.0, 2/25/2025

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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R>8/6/28
M6178

Part Number:	57082		**Solvent:**	Lot # 24014457	Nitric Acid
Lot Number:	031525				
Description:	Lead (Pb)		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
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	0.10 Flask Uncertainty			

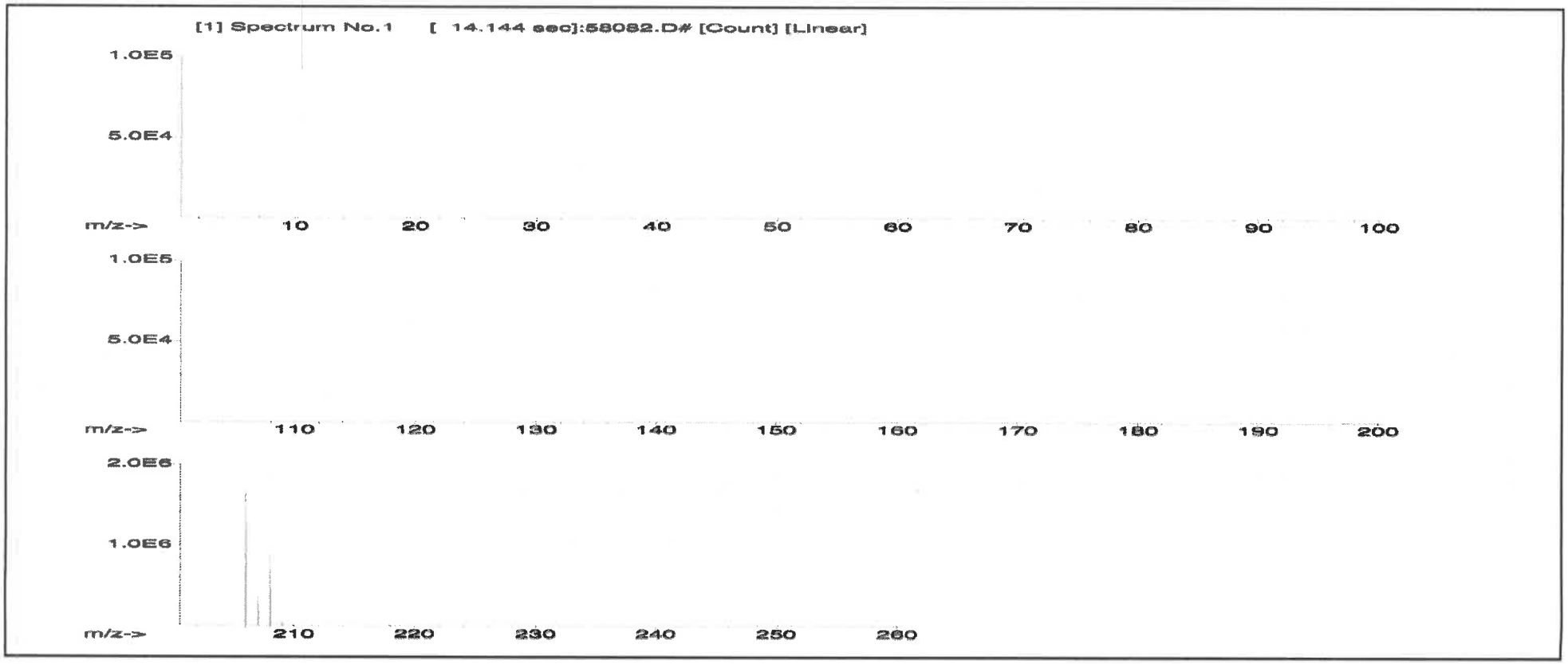
Giovanni Esposito

Formulated By:	Giovanni Esposito	031525

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031525

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	1000	99.999	0.10	62.5	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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	<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.

* 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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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
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Certificate of Analysis

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info@inorganicventures.com

M6179
R -> 6/2/24

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:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 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	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

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 - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

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 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- 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

- February 20, 2029

- 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
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Refine your results. Redefine your industry.

Certificate of Analysis

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	W2-MEB752149
Matrix:	5% (v/v) HNO3

M6180
R-7/22/23

Value / Analyte(s):	1 000 µg/mL ea:	
	Potassium,	
	600 µg/mL ea:	
	Phosphorus,	
	300 µg/mL ea:	
	Sodium,	Iron,
	200 µg/mL ea:	
	Magnesium,	Aluminum,
	Cerium,	Selenium,
	Thallium,	
	100 µg/mL ea:	
	Lead,	Calcium,
	80 µg/mL ea:	
	Arsenic,	
	70 µg/mL ea:	
	Mercury,	
	50 µg/mL ea:	
	Nickel,	
	40 µg/mL ea:	
	Chromium,	
	30 µg/mL ea:	
	Copper,	Boron,
	Vanadium,	
	20 µg/mL ea:	
	Zinc,	Strontium,
	Barium,	Beryllium,
	Cadmium,	Cobalt,
	Manganese,	Lithium,
	7.5 µg/mL ea:	
	Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.2 ± 0.7 µg/mL	Arsenic, As	80.1 ± 0.5 µg/mL
Barium, Ba	20.02 ± 0.12 µg/mL	Beryllium, Be	20.02 ± 0.11 µg/mL
Boron, B	30.02 ± 0.15 µg/mL	Cadmium, Cd	20.04 ± 0.09 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	200.2 ± 1.0 µg/mL
Chromium, Cr	40.02 ± 0.26 µg/mL	Cobalt, Co	20.03 ± 0.09 µg/mL
Copper, Cu	30.03 ± 0.13 µg/mL	Iron, Fe	300.3 ± 1.3 µg/mL
Lead, Pb	100.1 ± 0.5 µg/mL	Lithium, Li	20.03 ± 0.09 µg/mL
Magnesium, Mg	200.2 ± 0.9 µg/mL	Manganese, Mn	19.99 ± 0.09 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.05 ± 0.22 µg/mL
Phosphorus, P	600.5 ± 2.9 µg/mL	Potassium, K	1 001 ± 4 µg/mL
Selenium, Se	200.2 ± 1.1 µg/mL	Silver, Ag	7.52 ± 0.03 µg/mL
Sodium, Na	300.3 ± 1.3 µg/mL	Strontium, Sr	20.02 ± 0.10 µg/mL
Thallium, Tl	200.2 ± 1.0 µg/mL	Vanadium, V	30.02 ± 0.13 µg/mL
Zinc, Zn	20.05 ± 0.09 µg/mL		

Density: 1.037 g/mL (measured at 20 ± 5 °C)

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
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
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
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	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	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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)

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° - 25° C to minimize the effects of transpiration. Use at 20° ± 5° 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**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

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

April 08, 2025

- 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

- April 08, 2029

- 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:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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M6181
R -> 7/22/28

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:	WW-LFS-2
Lot Number:	V2-MEB743480
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.5 µg/mL	Molybdenum, Mo	40.05 ± 0.22 µg/mL
Silica, SiO2	200.3 ± 1.4 µg/mL	Tin, Sn	70.1 ± 0.4 µg/mL
Titanium, Ti	20.03 ± 0.12 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
SiO2	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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)

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 07, 2024

- 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

- May 07, 2029

- 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:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

R→03/06/24

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (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.

M6182

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 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-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

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 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 interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES 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-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, 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 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES 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-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 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.

R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (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

M6184

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of 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-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

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 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 interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. 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 ICP-AES 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-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, 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 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES 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-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 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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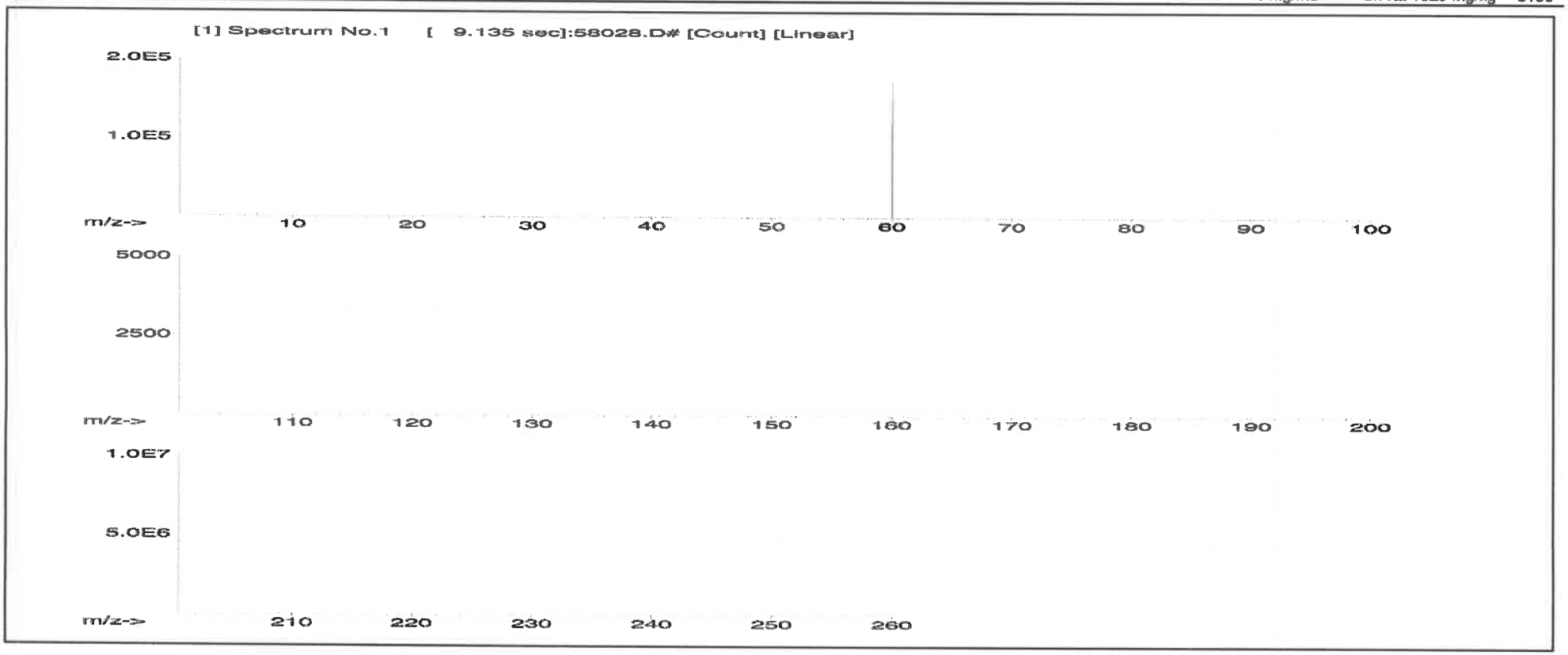
R 8/05/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**062024**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062027			
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	062024
Reviewed By:	Pedro L. Rentas	062024

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. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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).

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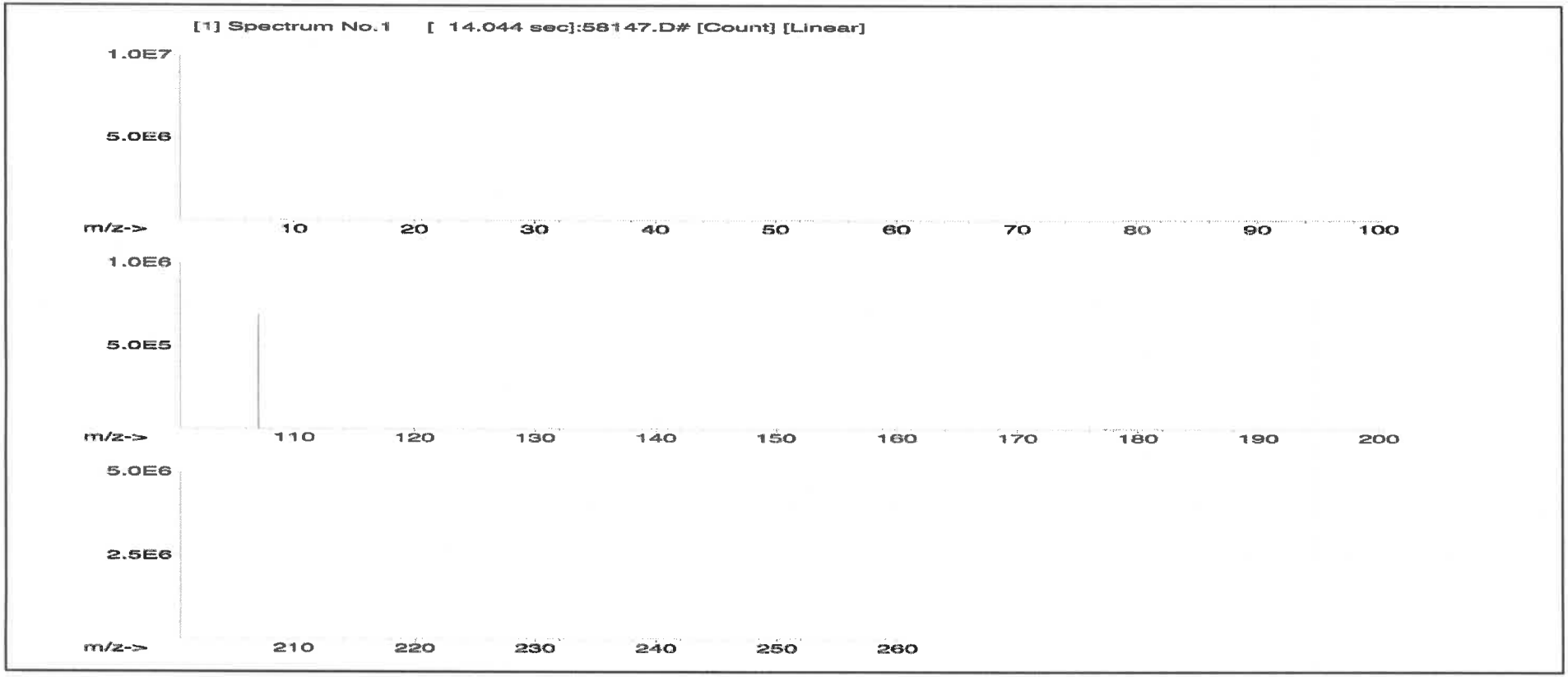
CERTIFIED WEIGHT REPORT:

Part Number:	**57047**			**Lot #**	
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
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):	4000.30	0.058	Flask 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



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:

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 WEIGHT REPORT:

MG146

		Lot #	Solvent:		
Part Number:	**57051**	24002546	Nitric Acid		
Lot Number:	**071724**				
Description:	**Antimony (Sb)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	071727				
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):	2000.26	0.058	Flask Uncertainty		

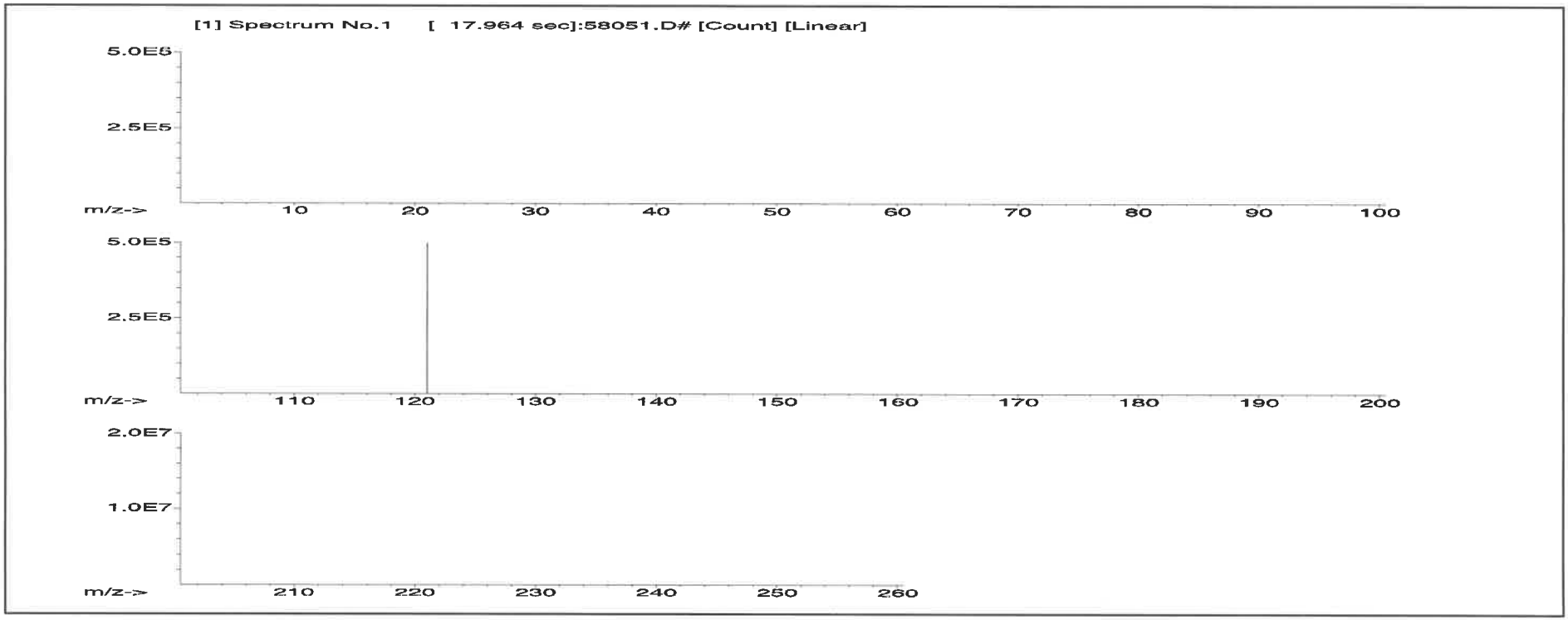
Giovanni Esposito

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



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.
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R ! 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
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):	2000.1	0.10	Flask Uncertainty		

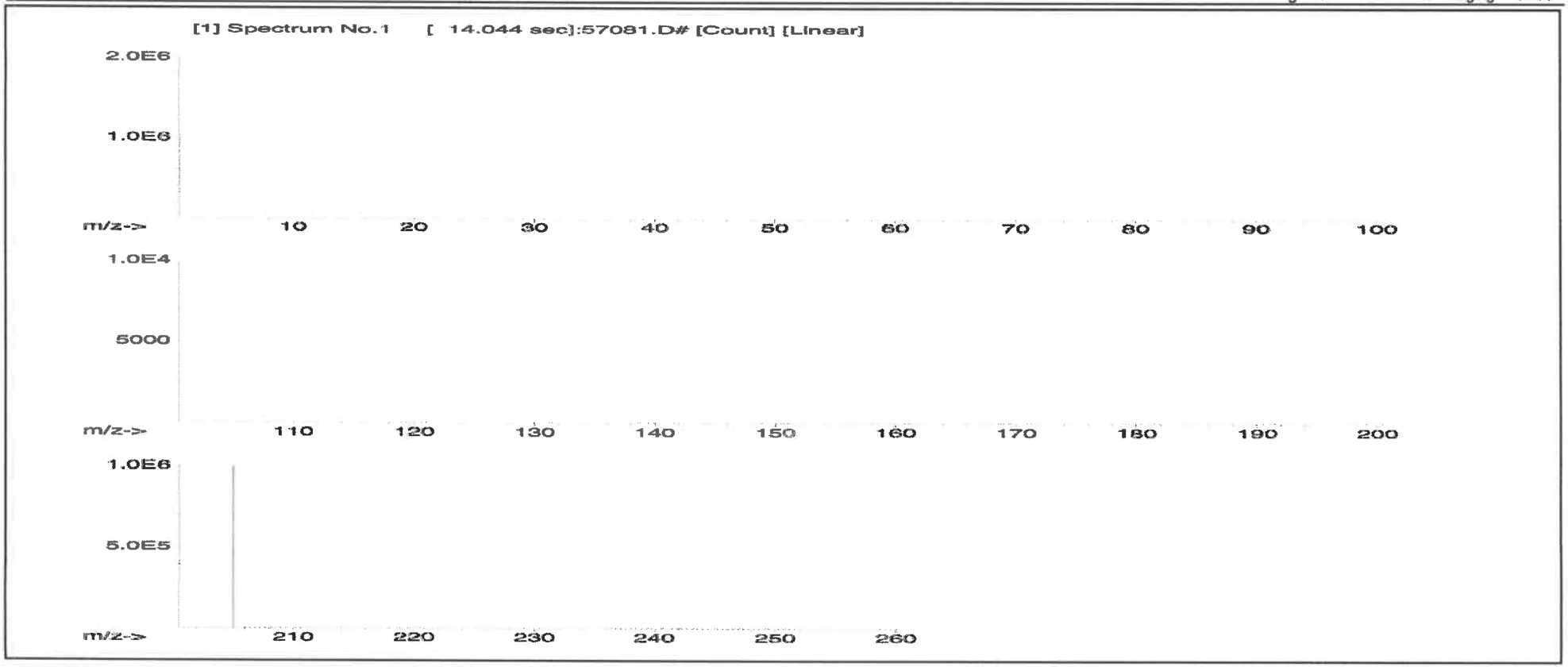
Aleah O'Brady

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



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.
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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**			
Description:	**Vanadium (V)**	24002546	Nitric Acid	
		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	

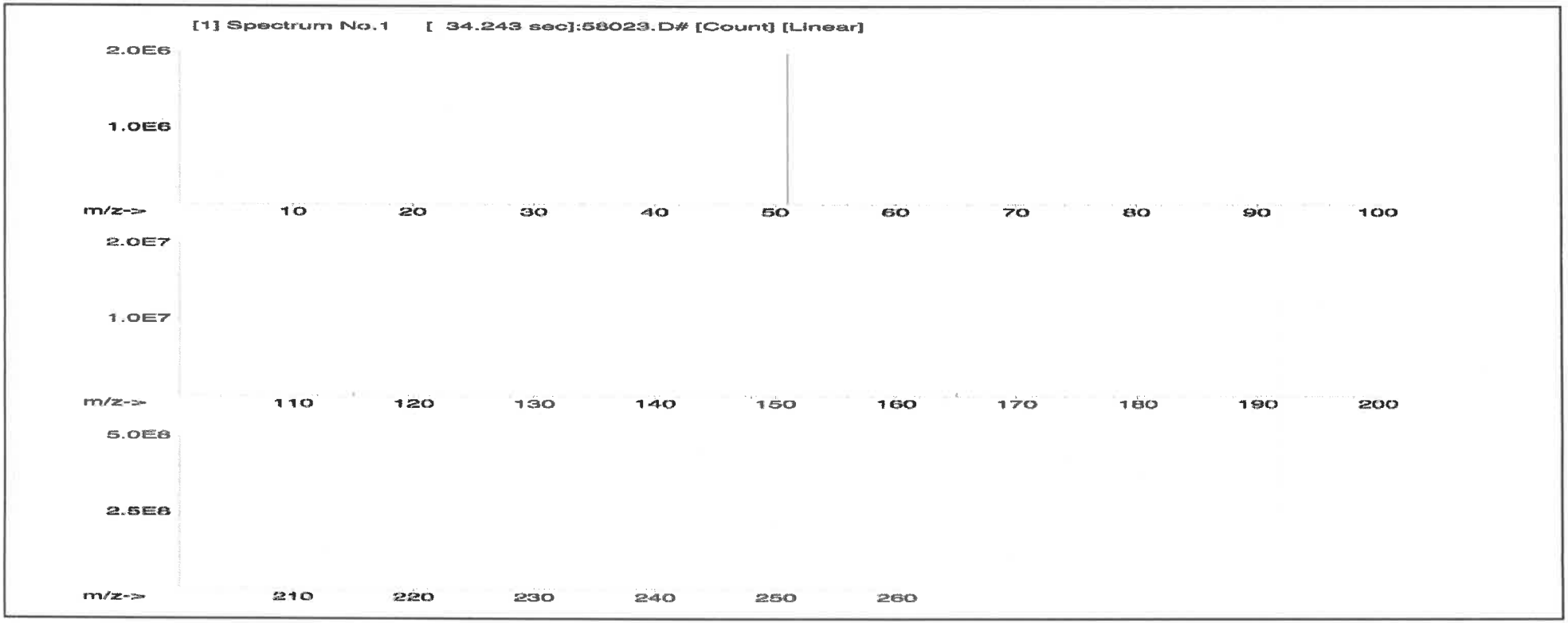
Aleah O'Brady

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



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

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 · Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q2934
COC Number 2045010

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Gannett Fleming
ADDRESS: 1010 Abrams Ave
CITY Audubon STATE: PA ZIP: 19403
ATTENTION: Joe Krupansky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak Replacement of Sawtooth Bridges
PROJECT NO.: LOCATION: Kearny, NJ
PROJECT MANAGER: Joe Krupansky
e-mail: QAQC@bemsys.com
PHONE: 610-301-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: Alliance PO#:
ADDRESS: 284 Sheffield St
CITY Mountainside STATE: NJ ZIP: 07092
ATTENTION: Yazmeen Gomez PHONE: 908-718-3198

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☒ NJ Reduced
- ☐ US EPA CLP
- ☐ NYS ASP A
- ☐ NYS ASP B
- ☐ Other _____
- ☐ EDD FORMAT BEM

ANALYSIS

1. TCL-SVOCs+20
2. TCL-VOCs+10
3. PCBs
4. EPH
5. TAL Metals
6. Cr(VI)/Cr(III)
7.
8.
9.

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRES 1 (E)	PRES 2 (A)	PRES 3 (E)	PRES 4 (A)	PRES 5 (B)	PRES 6 (C)	PRES 7	PRES 8	PRES 9
1.	ENV-SW01	WS		G	8/21/25	940	8	X	X	X	X	X	X			
2.	ENV-SW02	WS		G	↓	1015	8	↓	↓	↓	↓	↓	↓			
3.	ENV-SW03	WS		G	↓	1100	8	↓	↓	↓	↓	↓	↓			
4.	ENV-SW04	WS		G	↓	1130	8	↓	↓	↓	↓	↓	↓			
5.																
6.																
7.																
8.																
9.																
10.																

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Nathalie Zucco	8/21/25 1435	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.3 °C
Comments: IR Gun #1

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other _____

Shipment Complete ☐ YES ☐ NO

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WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

Alliance TECHNICAL GROUP
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	TX-C25-00189
Virginia	460312

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2934 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 8/21/2025 2:34:00 PM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 8/21/2025 2:35:00 PM
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2934-01	ENV-SW01	Water	08/21/2025	09:40					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2934-02	ENV-SW02	Water	08/21/2025	10:15					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2934-03	ENV-SW03	Water	08/21/2025	11:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2934-04	ENV-SW04	Water	08/21/2025	11:30					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

Relinguished By : [signature]
Date / Time : 8/21/25 1455

Received By : [signature]
Date / Time : 8/21/25 1455

Storage Area : VOA Refridgerator Room