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

DATA PACKAGE

METALS

PROJECT NAME : USACE018-44 DOD

FIRST ENVIRONMENT, INC.

10 Park Place, Bldg 1A, Suite 504

Butler, NJ - 07405

Phone No: 973-334-0003

ORDER ID : Q2815

ATTENTION : Al Smith

Laboratory Certification ID # 20012

Table Of Contents for Q2815

1) METALS DATA 2

2) Signature Page 4

3) Case Narrative 5

4) Qualifier Page 7

5) Conformance/Non Conformance 8

6) QA Checklist 10

7) Chronicle 11

8) Hit Summary 12

9) Sample Data 14

- 9.1) TW-705R-S 15
- 9.2) TW-22M-W 16
- 9.3) TW-11M-W 17
- 9.4) TW-11M-W 18
- 9.5) FB 19

10) METALS CALIBRATION DATA 20

- 10.1) Initial and Continuing Calibration Verification 21
- 10.2) CRDL Standard For AA & ICP 37
- 10.3) Initial and Continuing Calibration Blank Summary 39
- 10.4) Preparation Blank Summary 52
- 10.5) Interference Check Sample 54

11) METALS QC DATA 57

- 11.1) Matrix Spike Summary 58
- 11.2) Post Digest Spike Summary 64
- 11.3) Duplicate Sample Summary 65
- 11.4) Laboratory Control Sample Summary 71
- 11.5) ICP Serial Dilutions 74

12) METALS PREPARATION & INSTRUMENT DATA 77

- 12.1) ICP Interelement Correction Factors 78

13) PREPARATION & ANALYTICAL SUMMARY 83

- 13.1) Sample Preparation Summary 84
- 13.2) Analysis Run Log 87

14) METALS RAW DATA 91

- 14.1) METALS RAW DATA - ANALYTICAL 92
- 14.2) LB136837 92
- 14.3) LB136898 276

14.4) LB136788 428
14.5) LB136836 430
14.6) METALS RAW DATA - PREP 432
14.6.1) PB169232 432
14.6.2) PB169202 435
14.6.3) PB169249 438
15) Analytical Runlogs 441
16) Standard Prep Logs 453
17) Shipping Document 634
17.1) Chain Of Custody 635
17.2) ROC 637
17.3) Lab Certificate 640
17.4) Internal COC 641

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

Cover Page

Order ID : Q2815

Project ID : USACE018-44 DOD

Client : First Environment, Inc.

Lab Sample Number	Client Sample Number
Q2815-01	TW-705R-S
Q2815-02	TW-10PC-W
Q2815-03	TW-10P-E
Q2815-04	TW-10P-S
Q2815-05	TW-10P-W
Q2815-06	TW-10P-N
Q2815-07	TW-88H-E
Q2815-08	TW-88H-N
Q2815-09	TW-88H-W
Q2815-10	TW-88H-S
Q2815-11	TW-22M-W
Q2815-12	TW-22M-S
Q2815-13	TW-22M-E
Q2815-14	TW-22M-N
Q2815-15	TW-17M-E
Q2815-16	TW-17M-S
Q2815-17	TW-84SB-S
Q2815-18	TW-84SB-W
Q2815-19	DUP
Q2815-20	TW-11M-W
Q2815-21	TW-11M-E
Q2815-22	TW-11M-S
Q2815-23	TW-11M-N
Q2815-24	TB
Q2815-25	TW-11M-W
Q2815-26	FB

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

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 12:00 pm, Aug 22, 2025

Date: 8/21/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

First Environment, Inc.
Project Name: USACE018-44 DOD
Project # N/A
Order ID # Q2815
Test Name: Dissolved ICP-TAL Metals,Dissolved Mercury,Mercury,Metals ICP-TAL

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

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

C. Analytical Techniques:
The analysis of Dissolved ICP-TAL Metals,Metals ICP-TAL was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of Dissolved Mercury,Mercury was based on method 7470A.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all compounds.
The Duplicate analysis met criteria for all compounds.
The Matrix Spike (TW-WTS-13MS) analysis met criteria for all compounds except for Barium, Beryllium and Zinc due to Chemical interference during Digestion Process.
The Matrix Spike Duplicate (TW-WTS-13MSD) analysis met criteria for all compounds except for Antimony, Beryllium and Zinc 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 criteria for all compounds.

E. Additional Comments:
The Post Digest Spike (TW-WTS-13A) analysis met criteria for all compounds except for Barium, Beryllium and Zinc 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.
Sample Q2815-01, Q2815-11, Q2815-20, Q2815-26 analyzed as Total Metal and Sample Q2815-25 analyzed as Dissolved Metal.

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___ **APPROVED**

By Nimisha Pandya, QA/QC Supervisor at 12:01 pm, Aug 22, 2025

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q2815 MATRIX: Water

METHOD: 6010D,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
	The Serial Dilution met criteria for all compounds.			
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike (TW-WTS-13MS) analysis met criteria for all compounds except for Barium, Beryllium and Zinc due to Chemical interference during Digestion Process. The Matrix Spike Duplicate (TW-WTS-13MSD) analysis met criteria for all compounds except for Antimony, Beryllium and Zinc due to Chemical Interference during Digestion process.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

The Post Digest Spike (TW-WTS-13A) analysis met criteria for all compounds except for Barium, Beryllium and Zinc 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.

Sample Q2815-01, Q2815-11, Q2815-20, Q2815-26 analyzed as Total Metal and Sample Q2815-25 analyzed as Dissolved Metal.

QA REVIEW

REVIEWED
Sohil Jodhani, QA/QC Director , 8/22/2025, 11:50:23 AM

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2815

	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: SOHIL JODHANI **Date:** 08/21/2025

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

LAB CHRONICLE

OrderID:	Q2815	**OrderDate:**	8/11/2025 10:33:09 AM
Client:	First Environment, Inc.	**Project:**	USACE018-44 DOD
Contact:	Al Smith	**Location:**	D41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2815-01	**TW-705R-S**	**Water**			**08/06/25**			**08/08/25**
			Mercury	7470A		08/12/25	08/12/25	
			Metals ICP-TAL	6010D		08/13/25	08/14/25	
Q2815-11	**TW-22M-W**	**Water**			**08/08/25**			**08/08/25**
			Mercury	7470A		08/12/25	08/12/25	
			Metals ICP-TAL	6010D		08/13/25	08/14/25	
Q2815-20	**TW-11M-W**	**Water**			**08/08/25**			**08/08/25**
			Mercury	7470A		08/12/25	08/12/25	
			Metals ICP-TAL	6010D		08/13/25	08/14/25	
Q2815-25	**TW-11M-W**	**Water**			**08/08/25**			**08/08/25**
			Dissolved ICP-TAL Metals	6010D		08/13/25	08/20/25	
			Dissolved Mercury	7470A		08/14/25	08/15/25	
Q2815-26	**FB**	**Water**			**08/08/25**			**08/08/25**
			Mercury	7470A		08/12/25	08/12/25	
			Metals ICP-TAL	6010D		08/13/25	08/14/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q2815 **Order ID:** Q2815

Client: First Environment, Inc. **Project ID:** USACE018-44 DOD

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : TW-705R-S									
Q2815-01	TW-705R-S	Water	Aluminum	53700		5.67	40.0	50.0	ug/L
Q2815-01	TW-705R-S	Water	Arsenic	28.3		2.56	7.50	10.0	ug/L
Q2815-01	TW-705R-S	Water	Barium	100		7.28	12.5	50.0	ug/L
Q2815-01	TW-705R-S	Water	Beryllium	2.17	J	0.28	0.75	3.00	ug/L
Q2815-01	TW-705R-S	Water	Cadmium	2.53	J	0.25	0.75	3.00	ug/L
Q2815-01	TW-705R-S	Water	Calcium	28600		117	250	1000	ug/L
Q2815-01	TW-705R-S	Water	Chromium	89.7		1.06	2.50	5.00	ug/L
Q2815-01	TW-705R-S	Water	Cobalt	18.3		1.13	3.75	15.0	ug/L
Q2815-01	TW-705R-S	Water	Copper	72.7		2.30	8.00	10.0	ug/L
Q2815-01	TW-705R-S	Water	Iron	58500		11.7	40.0	50.0	ug/L
Q2815-01	TW-705R-S	Water	Lead	177		1.15	4.80	6.00	ug/L
Q2815-01	TW-705R-S	Water	Magnesium	27900		122	250	1000	ug/L
Q2815-01	TW-705R-S	Water	Manganese	255		2.97	7.50	10.0	ug/L
Q2815-01	TW-705R-S	Water	Mercury	0.36		0.076	0.16	0.20	ug/L
Q2815-01	TW-705R-S	Water	Nickel	44.2		1.53	5.00	20.0	ug/L
Q2815-01	TW-705R-S	Water	Potassium	33900		459	800	1000	ug/L
Q2815-01	TW-705R-S	Water	Silver	3.99	J	0.81	2.50	5.00	ug/L
Q2815-01	TW-705R-S	Water	Sodium	352000		434	500	1000	ug/L
Q2815-01	TW-705R-S	Water	Vanadium	115		3.13	10.0	20.0	ug/L
Q2815-01	TW-705R-S	Water	Zinc	337		8.33	7.50	20.0	ug/L
Client ID : TW-22M-W									
Q2815-11	TW-22M-W	Water	Aluminum	28200		5.67	40.0	50.0	ug/L
Q2815-11	TW-22M-W	Water	Arsenic	37.4		2.56	7.50	10.0	ug/L
Q2815-11	TW-22M-W	Water	Barium	113		7.28	12.5	50.0	ug/L
Q2815-11	TW-22M-W	Water	Beryllium	3.10		0.28	0.75	3.00	ug/L
Q2815-11	TW-22M-W	Water	Cadmium	1.31	J	0.25	0.75	3.00	ug/L
Q2815-11	TW-22M-W	Water	Calcium	19300		117	250	1000	ug/L
Q2815-11	TW-22M-W	Water	Chromium	54.8		1.06	2.50	5.00	ug/L
Q2815-11	TW-22M-W	Water	Cobalt	7.37	J	1.13	3.75	15.0	ug/L
Q2815-11	TW-22M-W	Water	Copper	119		2.30	8.00	10.0	ug/L
Q2815-11	TW-22M-W	Water	Iron	31100		11.7	40.0	50.0	ug/L
Q2815-11	TW-22M-W	Water	Lead	99.6		1.15	4.80	6.00	ug/L
Q2815-11	TW-22M-W	Water	Magnesium	13600		122	250	1000	ug/L
Q2815-11	TW-22M-W	Water	Manganese	248		2.97	7.50	10.0	ug/L
Q2815-11	TW-22M-W	Water	Nickel	22.4		1.53	5.00	20.0	ug/L
Q2815-11	TW-22M-W	Water	Potassium	12200		459	800	1000	ug/L
Q2815-11	TW-22M-W	Water	Silver	2.00	J	0.81	2.50	5.00	ug/L

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

Hit Summary Sheet
SW-846

SDG No.: Q2815 **Order ID:** Q2815

Client: First Environment, Inc. **Project ID:** USACE018-44 DOD

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Q2815-11	TW-22M-W	Water	Sodium	58900		434	500	1000	ug/L
Q2815-11	TW-22M-W	Water	Vanadium	60.4		3.13	10.0	20.0	ug/L
Q2815-11	TW-22M-W	Water	Zinc	329		8.33	7.50	20.0	ug/L
Client ID :	**TW-11M-W**								
Q2815-20	TW-11M-W	Water	Aluminum	12500		5.67	40.0	50.0	ug/L
Q2815-20	TW-11M-W	Water	Arsenic	11.0		2.56	7.50	10.0	ug/L
Q2815-20	TW-11M-W	Water	Barium	54.0		7.28	12.5	50.0	ug/L
Q2815-20	TW-11M-W	Water	Beryllium	2.70	J	0.28	0.75	3.00	ug/L
Q2815-20	TW-11M-W	Water	Cadmium	1.26	J	0.25	0.75	3.00	ug/L
Q2815-20	TW-11M-W	Water	Calcium	38100		117	250	1000	ug/L
Q2815-20	TW-11M-W	Water	Chromium	40.0		1.06	2.50	5.00	ug/L
Q2815-20	TW-11M-W	Water	Cobalt	4.19	J	1.13	3.75	15.0	ug/L
Q2815-20	TW-11M-W	Water	Copper	27.0		2.30	8.00	10.0	ug/L
Q2815-20	TW-11M-W	Water	Iron	14500		11.7	40.0	50.0	ug/L
Q2815-20	TW-11M-W	Water	Lead	41.7		1.15	4.80	6.00	ug/L
Q2815-20	TW-11M-W	Water	Magnesium	5930		122	250	1000	ug/L
Q2815-20	TW-11M-W	Water	Manganese	134		2.97	7.50	10.0	ug/L
Q2815-20	TW-11M-W	Water	Mercury	0.15	J	0.076	0.16	0.20	ug/L
Q2815-20	TW-11M-W	Water	Nickel	16.8	J	1.53	5.00	20.0	ug/L
Q2815-20	TW-11M-W	Water	Potassium	5500		459	800	1000	ug/L
Q2815-20	TW-11M-W	Water	Silver	1.21	J	0.81	2.50	5.00	ug/L
Q2815-20	TW-11M-W	Water	Sodium	14600		434	500	1000	ug/L
Q2815-20	TW-11M-W	Water	Vanadium	31.9		3.13	10.0	20.0	ug/L
Q2815-20	TW-11M-W	Water	Zinc	170		8.33	7.50	20.0	ug/L
Client ID :	**TW-11M-W**								
Q2815-25	TW-11M-W	Water	Aluminum	63.1		5.67	40.0	50.0	ug/L
Q2815-25	TW-11M-W	Water	Arsenic	2.94	J	2.56	7.50	10.0	ug/L
Q2815-25	TW-11M-W	Water	Barium	10.5	J	7.28	12.5	50.0	ug/L
Q2815-25	TW-11M-W	Water	Calcium	33300		117	250	1000	ug/L
Q2815-25	TW-11M-W	Water	Copper	6.95	J	2.30	8.00	10.0	ug/L
Q2815-25	TW-11M-W	Water	Iron	15.0	J	11.7	40.0	50.0	ug/L
Q2815-25	TW-11M-W	Water	Magnesium	4120		122	250	1000	ug/L
Q2815-25	TW-11M-W	Water	Manganese	44.9		2.97	7.50	10.0	ug/L
Q2815-25	TW-11M-W	Water	Mercury	0.18	J	0.076	0.16	0.20	ug/L
Q2815-25	TW-11M-W	Water	Potassium	3480		459	800	1000	ug/L
Q2815-25	TW-11M-W	Water	Sodium	12700		434	500	1000	ug/L
Q2815-25	TW-11M-W	Water	Vanadium	7.88	J	3.13	10.0	20.0	ug/L
Q2815-25	TW-11M-W	Water	Zinc	18.3	J	8.33	7.50	20.0	ug/L

SAMPLE DATA

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

Report of Analysis

Client:	First Environment, Inc.	Date Collected:	08/06/25
Project:	USACE018-44 DOD	Date Received:	08/08/25
Client Sample ID:	TW-705R-S	SDG No.:	Q2815
Lab Sample ID:	Q2815-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	53700		1	5.67	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-36-0	Antimony	6.25	UN	1	3.38	6.25	25.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-38-2	Arsenic	28.3		1	2.56	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-39-3	Barium	100	N	1	7.28	12.5	50.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-41-7	Beryllium	2.17	JN	1	0.28	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-43-9	Cadmium	2.53	J	1	0.25	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-70-2	Calcium	28600		1	117	250	1000	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-47-3	Chromium	89.7		1	1.06	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-48-4	Cobalt	18.3		1	1.13	3.75	15.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-50-8	Copper	72.7		1	2.30	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7439-89-6	Iron	58500		1	11.7	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7439-92-1	Lead	177		1	1.15	4.80	6.00	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7439-95-4	Magnesium	27900		1	122	250	1000	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7439-96-5	Manganese	255		1	2.97	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7439-97-6	Mercury	0.36		1	0.076	0.16	0.20	ug/L	08/12/25 11:30	08/12/25 15:03	7470A	
7440-02-0	Nickel	44.2		1	1.53	5.00	20.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-09-7	Potassium	33900		1	459	800	1000	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-22-4	Silver	3.99	J	1	0.81	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-23-5	Sodium	352000		1	434	500	1000	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-62-2	Vanadium	115		1	3.13	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 15:27	6010D	SW3010
7440-66-6	Zinc	337	N	1	8.33	7.50	20.0	ug/L	08/13/25 10:30	08/14/25 15:27	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:	First Environment, Inc.	Date Collected:	08/08/25
Project:	USACE018-44 DOD	Date Received:	08/08/25
Client Sample ID:	TW-22M-W	SDG No.:	Q2815
Lab Sample ID:	Q2815-11	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28200		1	5.67	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-36-0	Antimony	6.25	UN	1	3.38	6.25	25.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-38-2	Arsenic	37.4		1	2.56	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-39-3	Barium	113	N	1	7.28	12.5	50.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-41-7	Beryllium	3.10	N	1	0.28	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-43-9	Cadmium	1.31	J	1	0.25	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-70-2	Calcium	19300		1	117	250	1000	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-47-3	Chromium	54.8		1	1.06	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-48-4	Cobalt	7.37	J	1	1.13	3.75	15.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-50-8	Copper	119		1	2.30	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7439-89-6	Iron	31100		1	11.7	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7439-92-1	Lead	99.6		1	1.15	4.80	6.00	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7439-95-4	Magnesium	13600		1	122	250	1000	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7439-96-5	Manganese	248		1	2.97	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7439-97-6	Mercury	0.16	U	1	0.076	0.16	0.20	ug/L	08/12/25 11:30	08/12/25 15:06	7470A	
7440-02-0	Nickel	22.4		1	1.53	5.00	20.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-09-7	Potassium	12200		1	459	800	1000	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-22-4	Silver	2.00	J	1	0.81	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-23-5	Sodium	58900		1	434	500	1000	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-62-2	Vanadium	60.4		1	3.13	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:06	6010D	SW3010
7440-66-6	Zinc	329	N	1	8.33	7.50	20.0	ug/L	08/13/25 10:30	08/14/25 16:06	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:	First Environment, Inc.	Date Collected:	08/08/25
Project:	USACE018-44 DOD	Date Received:	08/08/25
Client Sample ID:	TW-11M-W	SDG No.:	Q2815
Lab Sample ID:	Q2815-20	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	12500		1	5.67	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-36-0	Antimony	6.25	UN	1	3.38	6.25	25.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-38-2	Arsenic	11.0		1	2.56	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-39-3	Barium	54.0	N	1	7.28	12.5	50.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-41-7	Beryllium	2.70	JN	1	0.28	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-43-9	Cadmium	1.26	J	1	0.25	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-70-2	Calcium	38100		1	117	250	1000	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-47-3	Chromium	40.0		1	1.06	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-48-4	Cobalt	4.19	J	1	1.13	3.75	15.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-50-8	Copper	27.0		1	2.30	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7439-89-6	Iron	14500		1	11.7	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7439-92-1	Lead	41.7		1	1.15	4.80	6.00	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7439-95-4	Magnesium	5930		1	122	250	1000	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7439-96-5	Manganese	134		1	2.97	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7439-97-6	Mercury	0.15	J	1	0.076	0.16	0.20	ug/L	08/12/25 11:30	08/12/25 15:08	7470A	
7440-02-0	Nickel	16.8	J	1	1.53	5.00	20.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-09-7	Potassium	5500		1	459	800	1000	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-22-4	Silver	1.21	J	1	0.81	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-23-5	Sodium	14600		1	434	500	1000	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-62-2	Vanadium	31.9		1	3.13	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:10	6010D	SW3010
7440-66-6	Zinc	170	N	1	8.33	7.50	20.0	ug/L	08/13/25 10:30	08/14/25 16:10	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:	First Environment, Inc.	Date Collected:	08/08/25
Project:	USACE018-44 DOD	Date Received:	08/08/25
Client Sample ID:	TW-11M-W	SDG No.:	Q2815
Lab Sample ID:	Q2815-25	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	63.1		1	5.67	40.0	50.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-36-0	Antimony	6.25	UN	1	3.38	6.25	25.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-38-2	Arsenic	2.94	J	1	2.56	7.50	10.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-39-3	Barium	10.5	JN	1	7.28	12.5	50.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-41-7	Beryllium	0.75	UN	1	0.28	0.75	3.00	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-43-9	Cadmium	0.75	U	1	0.25	0.75	3.00	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-70-2	Calcium	33300		1	117	250	1000	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-47-3	Chromium	2.50	U	1	1.06	2.50	5.00	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-48-4	Cobalt	3.75	U	1	1.13	3.75	15.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-50-8	Copper	6.95	J	1	2.30	8.00	10.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7439-89-6	Iron	15.0	J	1	11.7	40.0	50.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7439-92-1	Lead	4.80	U	1	1.15	4.80	6.00	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7439-95-4	Magnesium	4120		1	122	250	1000	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7439-96-5	Manganese	44.9		1	2.97	7.50	10.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7439-97-6	Mercury	0.18	J	1	0.076	0.16	0.20	ug/L	08/14/25 10:30	08/15/25 12:32	7470A	
7440-02-0	Nickel	5.00	U	1	1.53	5.00	20.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-09-7	Potassium	3480		1	459	800	1000	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-22-4	Silver	2.50	U	1	0.81	2.50	5.00	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-23-5	Sodium	12700		1	434	500	1000	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-62-2	Vanadium	7.88	J	1	3.13	10.0	20.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010
7440-66-6	Zinc	18.3	JN	1	8.33	7.50	20.0	ug/L	08/13/25 10:30	08/20/25 17:00	6010D	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	DISSOLVED 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:	First Environment, Inc.	Date Collected:	08/08/25
Project:	USACE018-44 DOD	Date Received:	08/08/25
Client Sample ID:	FB	SDG No.:	Q2815
Lab Sample ID:	Q2815-26	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	40.0	U	1	5.67	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-36-0	Antimony	6.25	UN	1	3.38	6.25	25.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-38-2	Arsenic	7.50	U	1	2.56	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-39-3	Barium	12.5	UN	1	7.28	12.5	50.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-41-7	Beryllium	0.75	UN	1	0.28	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-43-9	Cadmium	0.75	U	1	0.25	0.75	3.00	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-70-2	Calcium	250	U	1	117	250	1000	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-47-3	Chromium	2.50	U	1	1.06	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-48-4	Cobalt	3.75	U	1	1.13	3.75	15.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-50-8	Copper	8.00	U	1	2.30	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7439-89-6	Iron	40.0	U	1	11.7	40.0	50.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7439-92-1	Lead	4.80	U	1	1.15	4.80	6.00	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7439-95-4	Magnesium	250	U	1	122	250	1000	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7439-96-5	Manganese	7.50	U	1	2.97	7.50	10.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7439-97-6	Mercury	0.16	U	1	0.076	0.16	0.20	ug/L	08/12/25 11:30	08/12/25 15:10	7470A	
7440-02-0	Nickel	5.00	U	1	1.53	5.00	20.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-09-7	Potassium	800	U	1	459	800	1000	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7782-49-2	Selenium	8.00	U	1	4.82	8.00	10.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-22-4	Silver	2.50	U	1	0.81	2.50	5.00	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-23-5	Sodium	500	U	1	434	500	1000	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-28-0	Thallium	10.0	U	1	2.19	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-62-2	Vanadium	10.0	U	1	3.13	10.0	20.0	ug/L	08/13/25 10:30	08/14/25 16:18	6010D	SW3010
7440-66-6	Zinc	7.50	UN	1	8.33	7.50	20.0	ug/L	08/13/25 10:30	08/14/25 16:18	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

METAL CALIBRATION DATA

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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
ICV10	Mercury	4.14	4.0	104	90 - 110	CV	08/12/2025	14:21	LB136788

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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
CCV29	Mercury	4.93	5.0	99	90 - 110	CV	08/12/2025	14:26	LB136788
CCV30	Mercury	4.98	5.0	100	90 - 110	CV	08/12/2025	14:56	LB136788
CCV31	Mercury	4.91	5.0	98	90 - 110	CV	08/12/2025	15:24	LB136788
CCV32	Mercury	4.78	5.0	96	90 - 110	CV	08/12/2025	15:35	LB136788

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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
ICV18	Mercury	4.08	4.0	102	90 - 110	CV	08/15/2025	11:40	LB136836

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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
CCV54	Mercury	5.24	5.0	105	90 - 110	CV	08/15/2025	12:11	LB136836
CCV55	Mercury	4.83	5.0	96	90 - 110	CV	08/15/2025	12:38	LB136836
CCV56	Mercury	5.09	5.0	102	90 - 110	CV	08/15/2025	13:09	LB136836
CCV57	Mercury	5.18	5.0	104	90 - 110	CV	08/15/2025	13:15	LB136836

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	8030	8000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Antimony	4100	4000	102	90 - 110	P	08/14/2025	12:05	LB136837
	Arsenic	3980	4000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Barium	8040	8000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Beryllium	202	200	101	90 - 110	P	08/14/2025	12:05	LB136837
	Cadmium	1980	2000	99	90 - 110	P	08/14/2025	12:05	LB136837
	Calcium	20100	20000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Chromium	820	800	102	90 - 110	P	08/14/2025	12:05	LB136837
	Cobalt	2010	2000	101	90 - 110	P	08/14/2025	12:05	LB136837
	Copper	1030	1000	102	90 - 110	P	08/14/2025	12:05	LB136837
	Iron	4050	4000	101	90 - 110	P	08/14/2025	12:05	LB136837
	Lead	3890	4000	97	90 - 110	P	08/14/2025	12:05	LB136837
	Magnesium	20100	20000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Manganese	2020	2000	101	90 - 110	P	08/14/2025	12:05	LB136837
	Nickel	2010	2000	100	90 - 110	P	08/14/2025	12:05	LB136837
	Potassium	19800	20000	99	90 - 110	P	08/14/2025	12:05	LB136837
	Selenium	3970	4000	99	90 - 110	P	08/14/2025	12:05	LB136837
	Silver	1070	1000	107	90 - 110	P	08/14/2025	12:05	LB136837
	Sodium	19700	20000	98	90 - 110	P	08/14/2025	12:05	LB136837
	Thallium	3830	4000	96	90 - 110	P	08/14/2025	12:05	LB136837
	Vanadium	2020	2000	101	90 - 110	P	08/14/2025	12:05	LB136837
	Zinc	2000	2000	100	90 - 110	P	08/14/2025	12:05	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	90.2	100	90	80 - 120	P	08/14/2025	12:09	LB136837
	Antimony	53.2	50.0	106	80 - 120	P	08/14/2025	12:09	LB136837
	Arsenic	21.4	20.0	107	80 - 120	P	08/14/2025	12:09	LB136837
	Barium	97.9	100	98	80 - 120	P	08/14/2025	12:09	LB136837
	Beryllium	6.22	6.0	104	80 - 120	P	08/14/2025	12:09	LB136837
	Cadmium	5.85	6.0	97	80 - 120	P	08/14/2025	12:09	LB136837
	Calcium	2090	2000	105	80 - 120	P	08/14/2025	12:09	LB136837
	Chromium	10.7	10.0	107	80 - 120	P	08/14/2025	12:09	LB136837
	Cobalt	29.9	30.0	100	80 - 120	P	08/14/2025	12:09	LB136837
	Copper	21.6	20.0	108	80 - 120	P	08/14/2025	12:09	LB136837
	Iron	112	100	112	80 - 120	P	08/14/2025	12:09	LB136837
	Lead	12.2	12.0	101	80 - 120	P	08/14/2025	12:09	LB136837
	Magnesium	2200	2000	110	80 - 120	P	08/14/2025	12:09	LB136837
	Manganese	21.6	20.0	108	80 - 120	P	08/14/2025	12:09	LB136837
	Nickel	40.2	40.0	100	80 - 120	P	08/14/2025	12:09	LB136837
	Potassium	2030	2000	101	80 - 120	P	08/14/2025	12:09	LB136837
	Selenium	19.6	20.0	98	80 - 120	P	08/14/2025	12:09	LB136837
	Silver	10.5	10.0	105	80 - 120	P	08/14/2025	12:09	LB136837
	Sodium	1920	2000	96	80 - 120	P	08/14/2025	12:09	LB136837
	Thallium	41.7	40.0	104	80 - 120	P	08/14/2025	12:09	LB136837
	Vanadium	39.4	40.0	99	80 - 120	P	08/14/2025	12:09	LB136837
	Zinc	42.9	40.0	107	80 - 120	P	08/14/2025	12:09	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	10100	10000	101	90 - 110	P	08/14/2025	12:50	LB136837
	Antimony	5100	5000	102	90 - 110	P	08/14/2025	12:50	LB136837
	Arsenic	5070	5000	102	90 - 110	P	08/14/2025	12:50	LB136837
	Barium	9910	10000	99	90 - 110	P	08/14/2025	12:50	LB136837
	Beryllium	250	250	100	90 - 110	P	08/14/2025	12:50	LB136837
	Cadmium	2490	2500	100	90 - 110	P	08/14/2025	12:50	LB136837
	Calcium	25000	25000	100	90 - 110	P	08/14/2025	12:50	LB136837
	Chromium	1020	1000	102	90 - 110	P	08/14/2025	12:50	LB136837
	Cobalt	2490	2500	100	90 - 110	P	08/14/2025	12:50	LB136837
	Copper	1270	1250	101	90 - 110	P	08/14/2025	12:50	LB136837
	Iron	5010	5000	100	90 - 110	P	08/14/2025	12:50	LB136837
	Lead	4960	5000	99	90 - 110	P	08/14/2025	12:50	LB136837
	Magnesium	24900	25000	100	90 - 110	P	08/14/2025	12:50	LB136837
	Manganese	2470	2500	99	90 - 110	P	08/14/2025	12:50	LB136837
	Nickel	2490	2500	100	90 - 110	P	08/14/2025	12:50	LB136837
	Potassium	25100	25000	100	90 - 110	P	08/14/2025	12:50	LB136837
	Selenium	5140	5000	103	90 - 110	P	08/14/2025	12:50	LB136837
	Silver	1270	1250	102	90 - 110	P	08/14/2025	12:50	LB136837
	Sodium	24900	25000	100	90 - 110	P	08/14/2025	12:50	LB136837
	Thallium	5280	5000	106	90 - 110	P	08/14/2025	12:50	LB136837
	Vanadium	2510	2500	101	90 - 110	P	08/14/2025	12:50	LB136837
	Zinc	2550	2500	102	90 - 110	P	08/14/2025	12:50	LB136837
CCV02	Aluminum	9980	10000	100	90 - 110	P	08/14/2025	13:42	LB136837
	Antimony	5140	5000	103	90 - 110	P	08/14/2025	13:42	LB136837
	Arsenic	5090	5000	102	90 - 110	P	08/14/2025	13:42	LB136837
	Barium	9920	10000	99	90 - 110	P	08/14/2025	13:42	LB136837
	Beryllium	233	250	93	90 - 110	P	08/14/2025	13:42	LB136837
	Cadmium	2460	2500	98	90 - 110	P	08/14/2025	13:42	LB136837
	Calcium	24600	25000	99	90 - 110	P	08/14/2025	13:42	LB136837
	Chromium	1020	1000	102	90 - 110	P	08/14/2025	13:42	LB136837
	Cobalt	2480	2500	99	90 - 110	P	08/14/2025	13:42	LB136837
	Copper	1260	1250	101	90 - 110	P	08/14/2025	13:42	LB136837
	Iron	5260	5000	105	90 - 110	P	08/14/2025	13:42	LB136837
	Lead	4890	5000	98	90 - 110	P	08/14/2025	13:42	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	24400	25000	98	90 - 110	P	08/14/2025	13:42	LB136837
	Manganese	2430	2500	97	90 - 110	P	08/14/2025	13:42	LB136837
	Nickel	2480	2500	99	90 - 110	P	08/14/2025	13:42	LB136837
	Potassium	26700	25000	107	90 - 110	P	08/14/2025	13:42	LB136837
	Selenium	5140	5000	103	90 - 110	P	08/14/2025	13:42	LB136837
	Silver	1260	1250	101	90 - 110	P	08/14/2025	13:42	LB136837
	Sodium	25000	25000	100	90 - 110	P	08/14/2025	13:42	LB136837
	Thallium	5040	5000	101	90 - 110	P	08/14/2025	13:42	LB136837
	Vanadium	2500	2500	100	90 - 110	P	08/14/2025	13:42	LB136837
	Zinc	2580	2500	103	90 - 110	P	08/14/2025	13:42	LB136837
CCV03	Aluminum	9770	10000	98	90 - 110	P	08/14/2025	14:41	LB136837
	Antimony	5050	5000	101	90 - 110	P	08/14/2025	14:41	LB136837
	Arsenic	4980	5000	100	90 - 110	P	08/14/2025	14:41	LB136837
	Barium	9880	10000	99	90 - 110	P	08/14/2025	14:41	LB136837
	Beryllium	237	250	95	90 - 110	P	08/14/2025	14:41	LB136837
	Cadmium	2400	2500	96	90 - 110	P	08/14/2025	14:41	LB136837
	Calcium	24200	25000	97	90 - 110	P	08/14/2025	14:41	LB136837
	Chromium	984	1000	98	90 - 110	P	08/14/2025	14:41	LB136837
	Cobalt	2410	2500	96	90 - 110	P	08/14/2025	14:41	LB136837
	Copper	1240	1250	99	90 - 110	P	08/14/2025	14:41	LB136837
	Iron	5010	5000	100	90 - 110	P	08/14/2025	14:41	LB136837
	Lead	4790	5000	96	90 - 110	P	08/14/2025	14:41	LB136837
	Magnesium	24000	25000	96	90 - 110	P	08/14/2025	14:41	LB136837
	Manganese	2410	2500	96	90 - 110	P	08/14/2025	14:41	LB136837
	Nickel	2420	2500	97	90 - 110	P	08/14/2025	14:41	LB136837
	Potassium	25400	25000	102	90 - 110	P	08/14/2025	14:41	LB136837
	Selenium	5000	5000	100	90 - 110	P	08/14/2025	14:41	LB136837
	Silver	1240	1250	99	90 - 110	P	08/14/2025	14:41	LB136837
	Sodium	24300	25000	97	90 - 110	P	08/14/2025	14:41	LB136837
	Thallium	4710	5000	94	90 - 110	P	08/14/2025	14:41	LB136837
	Vanadium	2460	2500	98	90 - 110	P	08/14/2025	14:41	LB136837
	Zinc	2520	2500	101	90 - 110	P	08/14/2025	14:41	LB136837
CCV04	Aluminum	9870	10000	99	90 - 110	P	08/14/2025	15:58	LB136837
	Antimony	5180	5000	104	90 - 110	P	08/14/2025	15:58	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	5090	5000	102	90 - 110	P	08/14/2025	15:58	LB136837
	Barium	9790	10000	98	90 - 110	P	08/14/2025	15:58	LB136837
	Beryllium	232	250	93	90 - 110	P	08/14/2025	15:58	LB136837
	Cadmium	2410	2500	96	90 - 110	P	08/14/2025	15:58	LB136837
	Calcium	24200	25000	97	90 - 110	P	08/14/2025	15:58	LB136837
	Chromium	1000	1000	100	90 - 110	P	08/14/2025	15:58	LB136837
	Cobalt	2430	2500	97	90 - 110	P	08/14/2025	15:58	LB136837
	Copper	1260	1250	100	90 - 110	P	08/14/2025	15:58	LB136837
	Iron	5210	5000	104	90 - 110	P	08/14/2025	15:58	LB136837
	Lead	4810	5000	96	90 - 110	P	08/14/2025	15:58	LB136837
	Magnesium	24000	25000	96	90 - 110	P	08/14/2025	15:58	LB136837
	Manganese	2410	2500	96	90 - 110	P	08/14/2025	15:58	LB136837
	Nickel	2440	2500	98	90 - 110	P	08/14/2025	15:58	LB136837
	Potassium	26500	25000	106	90 - 110	P	08/14/2025	15:58	LB136837
	Selenium	5210	5000	104	90 - 110	P	08/14/2025	15:58	LB136837
	Silver	1260	1250	101	90 - 110	P	08/14/2025	15:58	LB136837
	Sodium	25100	25000	100	90 - 110	P	08/14/2025	15:58	LB136837
	Thallium	5210	5000	104	90 - 110	P	08/14/2025	15:58	LB136837
	Vanadium	2470	2500	99	90 - 110	P	08/14/2025	15:58	LB136837
	Zinc	2580	2500	103	90 - 110	P	08/14/2025	15:58	LB136837
CCV05	Aluminum	9710	10000	97	90 - 110	P	08/14/2025	16:50	LB136837
	Antimony	5230	5000	105	90 - 110	P	08/14/2025	16:50	LB136837
	Arsenic	5110	5000	102	90 - 110	P	08/14/2025	16:50	LB136837
	Barium	9710	10000	97	90 - 110	P	08/14/2025	16:50	LB136837
	Beryllium	228	250	91	90 - 110	P	08/14/2025	16:50	LB136837
	Cadmium	2390	2500	96	90 - 110	P	08/14/2025	16:50	LB136837
	Calcium	23800	25000	95	90 - 110	P	08/14/2025	16:50	LB136837
	Chromium	985	1000	98	90 - 110	P	08/14/2025	16:50	LB136837
	Cobalt	2410	2500	96	90 - 110	P	08/14/2025	16:50	LB136837
	Copper	1260	1250	100	90 - 110	P	08/14/2025	16:50	LB136837
	Iron	5160	5000	103	90 - 110	P	08/14/2025	16:50	LB136837
	Lead	4770	5000	96	90 - 110	P	08/14/2025	16:50	LB136837
	Magnesium	23500	25000	94	90 - 110	P	08/14/2025	16:50	LB136837
	Manganese	2360	2500	94	90 - 110	P	08/14/2025	16:50	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	2430	2500	97	90 - 110	P	08/14/2025	16:50	LB136837
	Potassium	26500	25000	106	90 - 110	P	08/14/2025	16:50	LB136837
	Selenium	5230	5000	104	90 - 110	P	08/14/2025	16:50	LB136837
	Silver	1250	1250	100	90 - 110	P	08/14/2025	16:50	LB136837
	Sodium	23300	25000	93	90 - 110	P	08/14/2025	16:50	LB136837
	Thallium	4710	5000	94	90 - 110	P	08/14/2025	16:50	LB136837
	Vanadium	2450	2500	98	90 - 110	P	08/14/2025	16:50	LB136837
	Zinc	2590	2500	104	90 - 110	P	08/14/2025	16:50	LB136837
CCV06	Aluminum	9730	10000	97	90 - 110	P	08/14/2025	17:54	LB136837
	Antimony	5260	5000	105	90 - 110	P	08/14/2025	17:54	LB136837
	Arsenic	5150	5000	103	90 - 110	P	08/14/2025	17:54	LB136837
	Barium	9970	10000	100	90 - 110	P	08/14/2025	17:54	LB136837
	Beryllium	243	250	97	90 - 110	P	08/14/2025	17:54	LB136837
	Cadmium	2380	2500	95	90 - 110	P	08/14/2025	17:54	LB136837
	Calcium	24000	25000	96	90 - 110	P	08/14/2025	17:54	LB136837
	Chromium	984	1000	98	90 - 110	P	08/14/2025	17:54	LB136837
	Cobalt	2410	2500	96	90 - 110	P	08/14/2025	17:54	LB136837
	Copper	1260	1250	100	90 - 110	P	08/14/2025	17:54	LB136837
	Iron	5310	5000	106	90 - 110	P	08/14/2025	17:54	LB136837
	Lead	4750	5000	95	90 - 110	P	08/14/2025	17:54	LB136837
	Magnesium	23400	25000	94	90 - 110	P	08/14/2025	17:54	LB136837
	Manganese	2400	2500	96	90 - 110	P	08/14/2025	17:54	LB136837
	Nickel	2430	2500	97	90 - 110	P	08/14/2025	17:54	LB136837
	Potassium	26900	25000	108	90 - 110	P	08/14/2025	17:54	LB136837
	Selenium	5260	5000	105	90 - 110	P	08/14/2025	17:54	LB136837
	Silver	1250	1250	100	90 - 110	P	08/14/2025	17:54	LB136837
	Sodium	25000	25000	100	90 - 110	P	08/14/2025	17:54	LB136837
	Thallium	5000	5000	100	90 - 110	P	08/14/2025	17:54	LB136837
	Vanadium	2470	2500	99	90 - 110	P	08/14/2025	17:54	LB136837
	Zinc	2570	2500	103	90 - 110	P	08/14/2025	17:54	LB136837

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	7800	8000	98	90 - 110	P	08/20/2025	13:04	LB136898
	Antimony	4060	4000	102	90 - 110	P	08/20/2025	13:04	LB136898
	Arsenic	3950	4000	99	90 - 110	P	08/20/2025	13:04	LB136898
	Barium	7740	8000	97	90 - 110	P	08/20/2025	13:04	LB136898
	Beryllium	217	200	109	90 - 110	P	08/20/2025	13:04	LB136898
	Cadmium	1960	2000	98	90 - 110	P	08/20/2025	13:04	LB136898
	Calcium	19400	20000	97	90 - 110	P	08/20/2025	13:04	LB136898
	Chromium	809	800	101	90 - 110	P	08/20/2025	13:04	LB136898
	Cobalt	1970	2000	99	90 - 110	P	08/20/2025	13:04	LB136898
	Copper	1010	1000	101	90 - 110	P	08/20/2025	13:04	LB136898
	Iron	3970	4000	99	90 - 110	P	08/20/2025	13:04	LB136898
	Lead	3970	4000	99	90 - 110	P	08/20/2025	13:04	LB136898
	Magnesium	19400	20000	97	90 - 110	P	08/20/2025	13:04	LB136898
	Manganese	1950	2000	97	90 - 110	P	08/20/2025	13:04	LB136898
	Nickel	1970	2000	98	90 - 110	P	08/20/2025	13:04	LB136898
	Potassium	19600	20000	98	90 - 110	P	08/20/2025	13:04	LB136898
	Selenium	3990	4000	100	90 - 110	P	08/20/2025	13:04	LB136898
	Silver	1010	1000	101	90 - 110	P	08/20/2025	13:04	LB136898
	Sodium	18900	20000	94	90 - 110	P	08/20/2025	13:04	LB136898
	Thallium	3920	4000	98	90 - 110	P	08/20/2025	13:04	LB136898
	Vanadium	1940	2000	97	90 - 110	P	08/20/2025	13:04	LB136898
	Zinc	2010	2000	101	90 - 110	P	08/20/2025	13:04	LB136898

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	105	100	105	80 - 120	P	08/20/2025	13:17	LB136898
	Antimony	49.3	50.0	98	80 - 120	P	08/20/2025	13:17	LB136898
	Arsenic	20.0	20.0	100	80 - 120	P	08/20/2025	13:17	LB136898
	Barium	97.7	100	98	80 - 120	P	08/20/2025	13:17	LB136898
	Beryllium	6.15	6.0	103	80 - 120	P	08/20/2025	13:17	LB136898
	Cadmium	5.60	6.0	93	80 - 120	P	08/20/2025	13:17	LB136898
	Calcium	2050	2000	102	80 - 120	P	08/20/2025	13:17	LB136898
	Chromium	9.70	10.0	97	80 - 120	P	08/20/2025	13:17	LB136898
	Cobalt	28.7	30.0	96	80 - 120	P	08/20/2025	13:17	LB136898
	Copper	20.8	20.0	104	80 - 120	P	08/20/2025	13:17	LB136898
	Iron	103	100	103	80 - 120	P	08/20/2025	13:17	LB136898
	Lead	12.0	12.0	100	80 - 120	P	08/20/2025	13:17	LB136898
	Magnesium	2160	2000	108	80 - 120	P	08/20/2025	13:17	LB136898
	Manganese	21.9	20.0	109	80 - 120	P	08/20/2025	13:17	LB136898
	Nickel	39.1	40.0	98	80 - 120	P	08/20/2025	13:17	LB136898
	Potassium	1870	2000	94	80 - 120	P	08/20/2025	13:17	LB136898
	Selenium	21.2	20.0	106	80 - 120	P	08/20/2025	13:17	LB136898
	Silver	10.4	10.0	104	80 - 120	P	08/20/2025	13:17	LB136898
	Sodium	1910	2000	96	80 - 120	P	08/20/2025	13:17	LB136898
	Thallium	41.1	40.0	103	80 - 120	P	08/20/2025	13:17	LB136898
	Vanadium	42.6	40.0	107	80 - 120	P	08/20/2025	13:17	LB136898
	Zinc	41.2	40.0	103	80 - 120	P	08/20/2025	13:17	LB136898

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	9920	10000	99	90 - 110	P	08/20/2025	13:47	LB136898
	Antimony	4980	5000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Arsenic	4980	5000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Barium	9810	10000	98	90 - 110	P	08/20/2025	13:47	LB136898
	Beryllium	246	250	98	90 - 110	P	08/20/2025	13:47	LB136898
	Cadmium	2470	2500	99	90 - 110	P	08/20/2025	13:47	LB136898
	Calcium	24800	25000	99	90 - 110	P	08/20/2025	13:47	LB136898
	Chromium	1010	1000	101	90 - 110	P	08/20/2025	13:47	LB136898
	Cobalt	2460	2500	98	90 - 110	P	08/20/2025	13:47	LB136898
	Copper	1250	1250	100	90 - 110	P	08/20/2025	13:47	LB136898
	Iron	5020	5000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Lead	4900	5000	98	90 - 110	P	08/20/2025	13:47	LB136898
	Magnesium	24700	25000	99	90 - 110	P	08/20/2025	13:47	LB136898
	Manganese	2470	2500	99	90 - 110	P	08/20/2025	13:47	LB136898
	Nickel	2460	2500	98	90 - 110	P	08/20/2025	13:47	LB136898
	Potassium	24800	25000	99	90 - 110	P	08/20/2025	13:47	LB136898
	Selenium	5010	5000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Silver	1240	1250	100	90 - 110	P	08/20/2025	13:47	LB136898
	Sodium	25000	25000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Thallium	4970	5000	100	90 - 110	P	08/20/2025	13:47	LB136898
	Vanadium	2480	2500	99	90 - 110	P	08/20/2025	13:47	LB136898
	Zinc	2520	2500	101	90 - 110	P	08/20/2025	13:47	LB136898
CCV02	Aluminum	9850	10000	98	90 - 110	P	08/20/2025	14:39	LB136898
	Antimony	4990	5000	100	90 - 110	P	08/20/2025	14:39	LB136898
	Arsenic	4960	5000	99	90 - 110	P	08/20/2025	14:39	LB136898
	Barium	9760	10000	98	90 - 110	P	08/20/2025	14:39	LB136898
	Beryllium	243	250	97	90 - 110	P	08/20/2025	14:39	LB136898
	Cadmium	2450	2500	98	90 - 110	P	08/20/2025	14:39	LB136898
	Calcium	24500	25000	98	90 - 110	P	08/20/2025	14:39	LB136898
	Chromium	1000	1000	100	90 - 110	P	08/20/2025	14:39	LB136898
	Cobalt	2440	2500	98	90 - 110	P	08/20/2025	14:39	LB136898
	Copper	1240	1250	100	90 - 110	P	08/20/2025	14:39	LB136898
	Iron	5060	5000	101	90 - 110	P	08/20/2025	14:39	LB136898
	Lead	4860	5000	97	90 - 110	P	08/20/2025	14:39	LB136898

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	24200	25000	97	90 - 110	P	08/20/2025	14:39	LB136898
	Manganese	2440	2500	98	90 - 110	P	08/20/2025	14:39	LB136898
	Nickel	2450	2500	98	90 - 110	P	08/20/2025	14:39	LB136898
	Potassium	25300	25000	101	90 - 110	P	08/20/2025	14:39	LB136898
	Selenium	5010	5000	100	90 - 110	P	08/20/2025	14:39	LB136898
	Silver	1250	1250	100	90 - 110	P	08/20/2025	14:39	LB136898
	Sodium	25200	25000	101	90 - 110	P	08/20/2025	14:39	LB136898
	Thallium	5050	5000	101	90 - 110	P	08/20/2025	14:39	LB136898
	Vanadium	2460	2500	98	90 - 110	P	08/20/2025	14:39	LB136898
	Zinc	2510	2500	100	90 - 110	P	08/20/2025	14:39	LB136898
CCV03	Aluminum	9770	10000	98	90 - 110	P	08/20/2025	15:45	LB136898
	Antimony	5030	5000	101	90 - 110	P	08/20/2025	15:45	LB136898
	Arsenic	5010	5000	100	90 - 110	P	08/20/2025	15:45	LB136898
	Barium	9560	10000	96	90 - 110	P	08/20/2025	15:45	LB136898
	Beryllium	251	250	100	90 - 110	P	08/20/2025	15:45	LB136898
	Cadmium	2470	2500	99	90 - 110	P	08/20/2025	15:45	LB136898
	Calcium	24100	25000	96	90 - 110	P	08/20/2025	15:45	LB136898
	Chromium	1020	1000	102	90 - 110	P	08/20/2025	15:45	LB136898
	Cobalt	2460	2500	98	90 - 110	P	08/20/2025	15:45	LB136898
	Copper	1250	1250	100	90 - 110	P	08/20/2025	15:45	LB136898
	Iron	4950	5000	99	90 - 110	P	08/20/2025	15:45	LB136898
	Lead	4900	5000	98	90 - 110	P	08/20/2025	15:45	LB136898
	Magnesium	24100	25000	96	90 - 110	P	08/20/2025	15:45	LB136898
	Manganese	2390	2500	96	90 - 110	P	08/20/2025	15:45	LB136898
	Nickel	2470	2500	99	90 - 110	P	08/20/2025	15:45	LB136898
	Potassium	24500	25000	98	90 - 110	P	08/20/2025	15:45	LB136898
	Selenium	5050	5000	101	90 - 110	P	08/20/2025	15:45	LB136898
	Silver	1260	1250	101	90 - 110	P	08/20/2025	15:45	LB136898
	Sodium	22900	25000	92	90 - 110	P	08/20/2025	15:45	LB136898
	Thallium	4780	5000	96	90 - 110	P	08/20/2025	15:45	LB136898
	Vanadium	2440	2500	98	90 - 110	P	08/20/2025	15:45	LB136898
	Zinc	2530	2500	101	90 - 110	P	08/20/2025	15:45	LB136898
CCV04	Aluminum	9870	10000	99	90 - 110	P	08/20/2025	16:35	LB136898
	Antimony	5050	5000	101	90 - 110	P	08/20/2025	16:35	LB136898

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	5050	5000	101	90 - 110	P	08/20/2025	16:35	LB136898
	Barium	9770	10000	98	90 - 110	P	08/20/2025	16:35	LB136898
	Beryllium	247	250	99	90 - 110	P	08/20/2025	16:35	LB136898
	Cadmium	2480	2500	99	90 - 110	P	08/20/2025	16:35	LB136898
	Calcium	24600	25000	98	90 - 110	P	08/20/2025	16:35	LB136898
	Chromium	1010	1000	101	90 - 110	P	08/20/2025	16:35	LB136898
	Cobalt	2480	2500	99	90 - 110	P	08/20/2025	16:35	LB136898
	Copper	1260	1250	100	90 - 110	P	08/20/2025	16:35	LB136898
	Iron	4980	5000	100	90 - 110	P	08/20/2025	16:35	LB136898
	Lead	4930	5000	99	90 - 110	P	08/20/2025	16:35	LB136898
	Magnesium	24500	25000	98	90 - 110	P	08/20/2025	16:35	LB136898
	Manganese	2430	2500	97	90 - 110	P	08/20/2025	16:35	LB136898
	Nickel	2480	2500	99	90 - 110	P	08/20/2025	16:35	LB136898
	Potassium	24800	25000	99	90 - 110	P	08/20/2025	16:35	LB136898
	Selenium	5090	5000	102	90 - 110	P	08/20/2025	16:35	LB136898
	Silver	1250	1250	100	90 - 110	P	08/20/2025	16:35	LB136898
	Sodium	23800	25000	95	90 - 110	P	08/20/2025	16:35	LB136898
	Thallium	5150	5000	103	90 - 110	P	08/20/2025	16:35	LB136898
	Vanadium	2470	2500	99	90 - 110	P	08/20/2025	16:35	LB136898
	Zinc	2530	2500	101	90 - 110	P	08/20/2025	16:35	LB136898
CCV05	Aluminum	9860	10000	99	90 - 110	P	08/20/2025	17:09	LB136898
	Antimony	4990	5000	100	90 - 110	P	08/20/2025	17:09	LB136898
	Arsenic	4990	5000	100	90 - 110	P	08/20/2025	17:09	LB136898
	Barium	9690	10000	97	90 - 110	P	08/20/2025	17:09	LB136898
	Beryllium	251	250	101	90 - 110	P	08/20/2025	17:09	LB136898
	Cadmium	2480	2500	99	90 - 110	P	08/20/2025	17:09	LB136898
	Calcium	24500	25000	98	90 - 110	P	08/20/2025	17:09	LB136898
	Chromium	1010	1000	102	90 - 110	P	08/20/2025	17:09	LB136898
	Cobalt	2470	2500	99	90 - 110	P	08/20/2025	17:09	LB136898
	Copper	1250	1250	100	90 - 110	P	08/20/2025	17:09	LB136898
	Iron	4930	5000	98	90 - 110	P	08/20/2025	17:09	LB136898
	Lead	4920	5000	98	90 - 110	P	08/20/2025	17:09	LB136898
	Magnesium	24500	25000	98	90 - 110	P	08/20/2025	17:09	LB136898
	Manganese	2420	2500	97	90 - 110	P	08/20/2025	17:09	LB136898

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	2480	2500	99	90 - 110	P	08/20/2025	17:09	LB136898
	Potassium	24600	25000	98	90 - 110	P	08/20/2025	17:09	LB136898
	Selenium	5020	5000	100	90 - 110	P	08/20/2025	17:09	LB136898
	Silver	1250	1250	100	90 - 110	P	08/20/2025	17:09	LB136898
	Sodium	23400	25000	94	90 - 110	P	08/20/2025	17:09	LB136898
	Thallium	5030	5000	101	90 - 110	P	08/20/2025	17:09	LB136898
	Vanadium	2460	2500	99	90 - 110	P	08/20/2025	17:09	LB136898
	Zinc	2540	2500	102	90 - 110	P	08/20/2025	17:09	LB136898

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

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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
CRA	Mercury	0.21	0.2	106	70 - 130	CV	08/12/2025	14:30	LB136788
CRI01	Aluminum	105	100	105	65 - 135	P	08/14/2025	12:23	LB136837
	Antimony	52.8	50.0	106	65 - 135	P	08/14/2025	12:23	LB136837
	Arsenic	21.1	20.0	105	65 - 135	P	08/14/2025	12:23	LB136837
	Barium	96.4	100	96	65 - 135	P	08/14/2025	12:23	LB136837
	Beryllium	6.27	6.0	104	65 - 135	P	08/14/2025	12:23	LB136837
	Cadmium	5.92	6.0	99	65 - 135	P	08/14/2025	12:23	LB136837
	Calcium	2070	2000	104	65 - 135	P	08/14/2025	12:23	LB136837
	Chromium	10.4	10.0	104	65 - 135	P	08/14/2025	12:23	LB136837
	Cobalt	29.9	30.0	100	65 - 135	P	08/14/2025	12:23	LB136837
	Copper	21.4	20.0	107	65 - 135	P	08/14/2025	12:23	LB136837
	Iron	106	100	106	65 - 135	P	08/14/2025	12:23	LB136837
	Lead	12.4	12.0	103	65 - 135	P	08/14/2025	12:23	LB136837
	Magnesium	2180	2000	109	65 - 135	P	08/14/2025	12:23	LB136837
	Manganese	20.7	20.0	104	65 - 135	P	08/14/2025	12:23	LB136837
	Nickel	40.2	40.0	100	65 - 135	P	08/14/2025	12:23	LB136837
	Potassium	1930	2000	96	65 - 135	P	08/14/2025	12:23	LB136837
	Selenium	17.9	20.0	89	65 - 135	P	08/14/2025	12:23	LB136837
	Silver	11.0	10.0	110	65 - 135	P	08/14/2025	12:23	LB136837
	Sodium	1830	2000	92	65 - 135	P	08/14/2025	12:23	LB136837
	Thallium	41.3	40.0	103	65 - 135	P	08/14/2025	12:23	LB136837
	Vanadium	36.7	40.0	92	65 - 135	P	08/14/2025	12:23	LB136837
	Zinc	43.0	40.0	108	65 - 135	P	08/14/2025	12:23	LB136837
CRA	Mercury	0.19	0.2	94	70 - 130	CV	08/15/2025	12:16	LB136836
CRI01	Aluminum	98.0	100	98	65 - 135	P	08/20/2025	13:26	LB136898
	Antimony	50.6	50.0	101	65 - 135	P	08/20/2025	13:26	LB136898
	Arsenic	21.4	20.0	107	65 - 135	P	08/20/2025	13:26	LB136898
	Barium	98.2	100	98	65 - 135	P	08/20/2025	13:26	LB136898
	Beryllium	6.30	6.0	105	65 - 135	P	08/20/2025	13:26	LB136898
	Cadmium	5.72	6.0	95	65 - 135	P	08/20/2025	13:26	LB136898
	Calcium	2050	2000	103	65 - 135	P	08/20/2025	13:26	LB136898
	Chromium	9.89	10.0	99	65 - 135	P	08/20/2025	13:26	LB136898
	Cobalt	29.1	30.0	97	65 - 135	P	08/20/2025	13:26	LB136898
	Copper	20.9	20.0	104	65 - 135	P	08/20/2025	13:26	LB136898
	Iron	95.2	100	95	65 - 135	P	08/20/2025	13:26	LB136898

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

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	Lead	12.4	12.0	104	65 - 135	P	08/20/2025	13:26	LB136898
	Magnesium	2160	2000	108	65 - 135	P	08/20/2025	13:26	LB136898
	Manganese	21.9	20.0	109	65 - 135	P	08/20/2025	13:26	LB136898
	Nickel	39.4	40.0	98	65 - 135	P	08/20/2025	13:26	LB136898
	Potassium	1830	2000	92	65 - 135	P	08/20/2025	13:26	LB136898
	Selenium	21.8	20.0	109	65 - 135	P	08/20/2025	13:26	LB136898
	Silver	9.95	10.0	100	65 - 135	P	08/20/2025	13:26	LB136898
	Sodium	1910	2000	96	65 - 135	P	08/20/2025	13:26	LB136898
	Thallium	43.3	40.0	108	65 - 135	P	08/20/2025	13:26	LB136898
	Vanadium	42.6	40.0	107	65 - 135	P	08/20/2025	13:26	LB136898
	Zinc	41.5	40.0	104	65 - 135	P	08/20/2025	13:26	LB136898

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB10	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/12/2025	14:23	LB136788

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB29	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/12/2025	14:28	LB136788
CCB30	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/12/2025	14:59	LB136788
CCB31	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/12/2025	15:26	LB136788
CCB32	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/12/2025	15:38	LB136788

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB18	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/15/2025	11:45	LB136836

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB54	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/15/2025	12:13	LB136836
CCB55	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/15/2025	12:41	LB136836
CCB56	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/15/2025	13:11	LB136836
CCB57	Mercury	0.076	+/-0.2	U	0.16	0.20	CV	08/15/2025	13:18	LB136836

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	12:13	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	12:13	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	12:13	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	12:13	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	12:13	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	12:13	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	12:13	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	12:13	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	12:13	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	12:13	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	12:13	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	12:13	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	12:13	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	12:13	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	12:13	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	12:13	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	12:13	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	12:13	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	12:13	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	12:13	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	12:13	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	12:13	LB136837

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	12:54	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	12:54	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	12:54	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	12:54	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	12:54	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	12:54	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	12:54	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	12:54	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	12:54	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	12:54	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	12:54	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	12:54	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	12:54	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	12:54	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	12:54	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	12:54	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	12:54	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	12:54	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	12:54	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	12:54	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	12:54	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	12:54	LB136837
CCB02	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	13:46	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	13:46	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	13:46	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	13:46	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	13:46	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	13:46	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	13:46	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	13:46	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	13:46	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	13:46	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	13:46	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	13:46	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	13:46	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	13:46	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	13:46	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	13:46	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	13:46	LB136837

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	13:46	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	13:46	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	13:46	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	13:46	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	13:46	LB136837
CCB03	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	14:45	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	14:45	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	14:45	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	14:45	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	14:45	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	14:45	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	14:45	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	14:45	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	14:45	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	14:45	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	14:45	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	14:45	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	14:45	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	14:45	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	14:45	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	14:45	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	14:45	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	14:45	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	14:45	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	14:45	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	14:45	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	14:45	LB136837
CCB04	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	16:02	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	16:02	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	16:02	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	16:02	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	16:02	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	16:02	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	16:02	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	16:02	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	16:02	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	16:02	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	16:02	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	16:02	LB136837

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	16:02	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	16:02	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	16:02	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	16:02	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	16:02	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	16:02	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	16:02	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	16:02	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	16:02	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	16:02	LB136837
CCB05	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	17:00	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	17:00	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	17:00	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	17:00	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	17:00	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	17:00	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	17:00	LB136837
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	17:00	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	17:00	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	17:00	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	17:00	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	17:00	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	17:00	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	17:00	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	17:00	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	17:00	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	17:00	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	17:00	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	17:00	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	17:00	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	17:00	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	17:00	LB136837
CCB06	Aluminum	11.3	+/-50	U	80.0	100	P	08/14/2025	18:05	LB136837
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/14/2025	18:05	LB136837
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/14/2025	18:05	LB136837
	Barium	14.6	+/-50	U	25.0	100	P	08/14/2025	18:05	LB136837
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/14/2025	18:05	LB136837
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/14/2025	18:05	LB136837
	Calcium	234	+/-1000	U	500	2000	P	08/14/2025	18:05	LB136837

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	2.12	+/-5	U	5.00	10.0	P	08/14/2025	18:05	LB136837
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/14/2025	18:05	LB136837
	Copper	4.60	+/-10	U	16.0	20.0	P	08/14/2025	18:05	LB136837
	Iron	23.4	+/-50	U	80.0	100	P	08/14/2025	18:05	LB136837
	Lead	2.30	+/-6	U	9.60	12.0	P	08/14/2025	18:05	LB136837
	Magnesium	244	+/-1000	U	500	2000	P	08/14/2025	18:05	LB136837
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/14/2025	18:05	LB136837
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/14/2025	18:05	LB136837
	Potassium	918	+/-1000	U	1600	2000	P	08/14/2025	18:05	LB136837
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/14/2025	18:05	LB136837
	Silver	1.62	+/-5	U	5.00	10.0	P	08/14/2025	18:05	LB136837
	Sodium	868	+/-1000	U	1000	2000	P	08/14/2025	18:05	LB136837
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/14/2025	18:05	LB136837
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/14/2025	18:05	LB136837
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/14/2025	18:05	LB136837

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	13:21	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	13:21	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	13:21	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	13:21	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	13:21	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	13:21	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	13:21	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	13:21	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	13:21	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	13:21	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	13:21	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	13:21	LB136898
	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	13:21	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	13:21	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	13:21	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	13:21	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	13:21	LB136898
	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	13:21	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	13:21	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	13:21	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	13:21	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	13:21	LB136898

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	13:51	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	13:51	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	13:51	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	13:51	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	13:51	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	13:51	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	13:51	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	13:51	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	13:51	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	13:51	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	13:51	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	13:51	LB136898
	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	13:51	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	13:51	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	13:51	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	13:51	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	13:51	LB136898
	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	13:51	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	13:51	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	13:51	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	13:51	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	13:51	LB136898
CCB02	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	14:43	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	14:43	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	14:43	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	14:43	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	14:43	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	14:43	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	14:43	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	14:43	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	14:43	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	14:43	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	14:43	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	14:43	LB136898
	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	14:43	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	14:43	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	14:43	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	14:43	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	14:43	LB136898

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	14:43	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	14:43	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	14:43	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	14:43	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	14:43	LB136898
CCB03	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	15:49	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	15:49	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	15:49	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	15:49	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	15:49	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	15:49	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	15:49	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	15:49	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	15:49	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	15:49	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	15:49	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	15:49	LB136898
	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	15:49	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	15:49	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	15:49	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	15:49	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	15:49	LB136898
	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	15:49	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	15:49	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	15:49	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	15:49	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	15:49	LB136898
CCB04	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	16:39	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	16:39	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	16:39	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	16:39	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	16:39	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	16:39	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	16:39	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	16:39	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	16:39	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	16:39	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	16:39	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	16:39	LB136898

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	16:39	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	16:39	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	16:39	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	16:39	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	16:39	LB136898
	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	16:39	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	16:39	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	16:39	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	16:39	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	16:39	LB136898
CCB05	Aluminum	11.3	+/-50	U	80.0	100	P	08/20/2025	17:13	LB136898
	Antimony	6.76	+/-25	U	12.5	50.0	P	08/20/2025	17:13	LB136898
	Arsenic	5.12	+/-10	U	15.0	20.0	P	08/20/2025	17:13	LB136898
	Barium	14.6	+/-50	U	25.0	100	P	08/20/2025	17:13	LB136898
	Beryllium	0.56	+/-3	U	1.50	6.00	P	08/20/2025	17:13	LB136898
	Cadmium	0.50	+/-3	U	1.50	6.00	P	08/20/2025	17:13	LB136898
	Calcium	234	+/-1000	U	500	2000	P	08/20/2025	17:13	LB136898
	Chromium	2.12	+/-5	U	5.00	10.0	P	08/20/2025	17:13	LB136898
	Cobalt	2.26	+/-15	U	7.50	30.0	P	08/20/2025	17:13	LB136898
	Copper	4.60	+/-10	U	16.0	20.0	P	08/20/2025	17:13	LB136898
	Iron	23.4	+/-50	U	80.0	100	P	08/20/2025	17:13	LB136898
	Lead	2.30	+/-6	U	9.60	12.0	P	08/20/2025	17:13	LB136898
	Magnesium	244	+/-1000	U	500	2000	P	08/20/2025	17:13	LB136898
	Manganese	5.94	+/-10	U	15.0	20.0	P	08/20/2025	17:13	LB136898
	Nickel	3.06	+/-20	U	10.0	40.0	P	08/20/2025	17:13	LB136898
	Potassium	918	+/-1000	U	1600	2000	P	08/20/2025	17:13	LB136898
	Selenium	9.64	+/-10	U	16.0	20.0	P	08/20/2025	17:13	LB136898
	Silver	1.62	+/-5	U	5.00	10.0	P	08/20/2025	17:13	LB136898
	Sodium	868	+/-1000	U	1000	2000	P	08/20/2025	17:13	LB136898
	Thallium	4.38	+/-20	U	20.0	40.0	P	08/20/2025	17:13	LB136898
	Vanadium	6.26	+/-20	U	20.0	40.0	P	08/20/2025	17:13	LB136898
	Zinc	16.7	+/-20	U	15.0	40.0	P	08/20/2025	17:13	LB136898

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169202BL		**WATER**		**Batch Number:**		**PB169202**		**Prep Date:**	**08/12/2025**	
	Mercury	0.076	<0.2	U	0.16	0.20	CV	08/12/2025	14:37	LB136788

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169249BL		**WATER**		**Batch Number:**		**PB169249**		**Prep Date:**	**08/14/2025**	
	Mercury	0.076	<0.2	U	0.16	0.20	CV	08/15/2025	12:22	LB136836

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169232BL		**WATER**		**Batch Number:**		**PB169232**		**Prep Date:**	**08/13/2025**	
	Aluminum	5.67	<25	U	40.0	50.0	P	08/14/2025	13:11	LB136837
	Antimony	3.38	<12.5	U	6.25	25.0	P	08/14/2025	13:11	LB136837
	Arsenic	2.56	<5	U	7.50	10.0	P	08/14/2025	13:11	LB136837
	Barium	7.28	<25	U	12.5	50.0	P	08/14/2025	13:11	LB136837
	Beryllium	0.28	<1.5	U	0.75	3.00	P	08/14/2025	13:11	LB136837
	Cadmium	0.25	<1.5	U	0.75	3.00	P	08/14/2025	13:11	LB136837
	Calcium	117	<500	U	250	1000	P	08/14/2025	13:11	LB136837
	Chromium	1.06	<2.5	U	2.50	5.00	P	08/14/2025	13:11	LB136837
	Cobalt	1.13	<7.5	U	3.75	15.0	P	08/14/2025	13:11	LB136837
	Copper	2.30	<5	U	8.00	10.0	P	08/14/2025	13:11	LB136837
	Iron	11.7	<25	U	40.0	50.0	P	08/14/2025	13:11	LB136837
	Lead	1.15	<3	U	4.80	6.00	P	08/14/2025	13:11	LB136837
	Magnesium	122	<500	U	250	1000	P	08/14/2025	13:11	LB136837
	Manganese	2.97	<5	U	7.50	10.0	P	08/14/2025	13:11	LB136837
	Nickel	1.53	<10	U	5.00	20.0	P	08/14/2025	13:11	LB136837
	Potassium	459	<500	U	800	1000	P	08/14/2025	13:11	LB136837
	Selenium	4.82	<5	U	8.00	10.0	P	08/14/2025	13:11	LB136837
	Silver	0.81	<2.5	U	2.50	5.00	P	08/14/2025	13:11	LB136837
	Sodium	434	<500	U	500	1000	P	08/14/2025	13:11	LB136837
	Thallium	2.19	<10	U	10.0	20.0	P	08/14/2025	13:11	LB136837
	Vanadium	3.13	<10	U	10.0	20.0	P	08/14/2025	13:11	LB136837
	Zinc	8.33	<10	U	7.50	20.0	P	08/14/2025	13:11	LB136837

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	251000	255000	98	216000	294000	08/14/2025	12:27	LB136837
	Antimony	-1.10			-50	50	08/14/2025	12:27	LB136837
	Arsenic	7.57			-20	20	08/14/2025	12:27	LB136837
	Barium	0.097	6.0	2	-94	106	08/14/2025	12:27	LB136837
	Beryllium	1.36			-6	6	08/14/2025	12:27	LB136837
	Cadmium	2.91	1.0	291	-5	7	08/14/2025	12:27	LB136837
	Calcium	237000	245000	97	208000	282000	08/14/2025	12:27	LB136837
	Chromium	60.3	52.0	116	42	62	08/14/2025	12:27	LB136837
	Cobalt	1.84			-30	30	08/14/2025	12:27	LB136837
	Copper	7.21	2.0	360	-18	22	08/14/2025	12:27	LB136837
	Iron	99800	101000	99	85600	116500	08/14/2025	12:27	LB136837
	Lead	-5.21			-12	12	08/14/2025	12:27	LB136837
	Magnesium	251000	255000	98	216000	294000	08/14/2025	12:27	LB136837
	Manganese	7.95	7.0	114	-13	27	08/14/2025	12:27	LB136837
	Nickel	5.40	2.0	270	-38	42	08/14/2025	12:27	LB136837
	Potassium	130			0	0	08/14/2025	12:27	LB136837
	Selenium	-3.06			-20	20	08/14/2025	12:27	LB136837
	Silver	1.48			-10	10	08/14/2025	12:27	LB136837
	Sodium	111			0	0	08/14/2025	12:27	LB136837
	Thallium	-3.36			-40	40	08/14/2025	12:27	LB136837
	Vanadium	2.16			-40	40	08/14/2025	12:27	LB136837
	Zinc	3.33			-40	40	08/14/2025	12:27	LB136837
ICSAB01	Aluminum	249000	247000	101	209000	285000	08/14/2025	12:38	LB136837
	Antimony	593	618	96	525	711	08/14/2025	12:38	LB136837
	Arsenic	110	104	106	88.4	120	08/14/2025	12:38	LB136837
	Barium	485	537	90	437	637	08/14/2025	12:38	LB136837
	Beryllium	496	495	100	420	570	08/14/2025	12:38	LB136837
	Cadmium	989	972	102	826	1120	08/14/2025	12:38	LB136837
	Calcium	236000	235000	100	199000	271000	08/14/2025	12:38	LB136837
	Chromium	566	542	104	460	624	08/14/2025	12:38	LB136837
	Cobalt	494	476	104	404	548	08/14/2025	12:38	LB136837
	Copper	490	511	96	434	588	08/14/2025	12:38	LB136837
	Iron	98600	99300	99	84400	114500	08/14/2025	12:38	LB136837
	Lead	42.6	49.0	87	37	61	08/14/2025	12:38	LB136837
	Magnesium	252000	248000	102	210000	286000	08/14/2025	12:38	LB136837
	Manganese	487	507	96	430	584	08/14/2025	12:38	LB136837
	Nickel	987	954	104	810	1100	08/14/2025	12:38	LB136837
	Potassium	-0.28			0	0	08/14/2025	12:38	LB136837
	Selenium	46.6	46.0	101	26	66	08/14/2025	12:38	LB136837
	Silver	216	201	108	170	232	08/14/2025	12:38	LB136837
	Sodium	-6.45			0	0	08/14/2025	12:38	LB136837
	Thallium	109	108	101	68	148	08/14/2025	12:38	LB136837

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	479	491	98	417	565	08/14/2025	12:38	LB136837
	Zinc	1040	952	109	809	1095	08/14/2025	12:38	LB136837
ICSA01	Aluminum	247000	255000	97	216000	294000	08/20/2025	13:30	LB136898
	Antimony	-1.47			-50	50	08/20/2025	13:30	LB136898
	Arsenic	10.7			-20	20	08/20/2025	13:30	LB136898
	Barium	1.81	6.0	30	-94	106	08/20/2025	13:30	LB136898
	Beryllium	1.50			-6	6	08/20/2025	13:30	LB136898
	Cadmium	2.34	1.0	234	-5	7	08/20/2025	13:30	LB136898
	Calcium	233000	245000	95	208000	282000	08/20/2025	13:30	LB136898
	Chromium	60.0	52.0	115	42	62	08/20/2025	13:30	LB136898
	Cobalt	1.69			-30	30	08/20/2025	13:30	LB136898
	Copper	4.70	2.0	235	-18	22	08/20/2025	13:30	LB136898
	Iron	99200	101000	98	85600	116500	08/20/2025	13:30	LB136898
	Lead	-3.40			-12	12	08/20/2025	13:30	LB136898
	Magnesium	249000	255000	98	216000	294000	08/20/2025	13:30	LB136898
	Manganese	8.90	7.0	127	-13	27	08/20/2025	13:30	LB136898
	Nickel	6.20	2.0	310	-38	42	08/20/2025	13:30	LB136898
	Potassium	84.7			0	0	08/20/2025	13:30	LB136898
	Selenium	-0.17			-20	20	08/20/2025	13:30	LB136898
	Silver	2.09			-10	10	08/20/2025	13:30	LB136898
	Sodium	74.1			0	0	08/20/2025	13:30	LB136898
	Thallium	-3.61			-40	40	08/20/2025	13:30	LB136898
	Vanadium	5.01			-40	40	08/20/2025	13:30	LB136898
	Zinc	1.99			-40	40	08/20/2025	13:30	LB136898
ICSAB01	Aluminum	250000	247000	101	209000	285000	08/20/2025	13:34	LB136898
	Antimony	587	618	95	525	711	08/20/2025	13:34	LB136898
	Arsenic	109	104	105	88.4	120	08/20/2025	13:34	LB136898
	Barium	475	537	88	437	637	08/20/2025	13:34	LB136898
	Beryllium	482	495	97	420	570	08/20/2025	13:34	LB136898
	Cadmium	963	972	99	826	1120	08/20/2025	13:34	LB136898
	Calcium	236000	235000	100	199000	271000	08/20/2025	13:34	LB136898
	Chromium	553	542	102	460	624	08/20/2025	13:34	LB136898
	Cobalt	484	476	102	404	548	08/20/2025	13:34	LB136898
	Copper	475	511	93	434	588	08/20/2025	13:34	LB136898
	Iron	101000	99300	102	84400	114500	08/20/2025	13:34	LB136898
	Lead	38.4	49.0	78	37	61	08/20/2025	13:34	LB136898
	Magnesium	251000	248000	101	210000	286000	08/20/2025	13:34	LB136898
	Manganese	476	507	94	430	584	08/20/2025	13:34	LB136898
	Nickel	964	954	101	810	1100	08/20/2025	13:34	LB136898
	Potassium	-189			0	0	08/20/2025	13:34	LB136898
	Selenium	47.4	46.0	103	26	66	08/20/2025	13:34	LB136898
	Silver	212	201	106	170	232	08/20/2025	13:34	LB136898

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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	27.1			0	0	08/20/2025	13:34	LB136898
	Thallium	99.0	108	92	68	148	08/20/2025	13:34	LB136898
	Vanadium	475	491	97	417	565	08/20/2025	13:34	LB136898
	Zinc	1020	952	107	809	1095	08/20/2025	13:34	LB136898

METAL QC DATA

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2821-08 **client id:** DM-COMPMS

Percent Solids for Sample: NA **Spiked ID:** Q2821-08MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.70		0.20	U	4.0	92		CV

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2821-08 **client id:** DM-COMPMSD

Percent Solids for Sample: NA **Spiked ID:** Q2821-08MSD **Percent Solids for Spike Sample:** NA

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

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2837-01 **client id:** TW-WTS-13MS

Percent Solids for Sample: NA **Spiked ID:** Q2837-01MS **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	86 - 115	1410		468		1000	94		P
Antimony	ug/L	88 - 113	436		25.0	U	400	109		P
Arsenic	ug/L	87 - 113	430		10.0	U	400	108		P
Barium	ug/L	88 - 113	320		239		100	81	N	P
Beryllium	ug/L	89 - 112	85.3		3.00	U	100	85	N	P
Cadmium	ug/L	88 - 113	94.9		3.00	U	100	95		P
Calcium	ug/L	87 - 113	249000		265000		500	-3173		P
Chromium	ug/L	90 - 113	222		28.5		200	97		P
Cobalt	ug/L	89 - 114	98.5		1.99	J	100	97		P
Copper	ug/L	86 - 114	158		13.7		150	96		P
Iron	ug/L	87 - 115	4340		2840		1500	100		P
Lead	ug/L	86 - 113	444		1.79	J	500	88		P
Magnesium	ug/L	85 - 113	1100		252	J	1000	85		P
Manganese	ug/L	90 - 114	101		3.47	J	100	98		P
Nickel	ug/L	88 - 113	264		23.9		250	96		P
Potassium	ug/L	86 - 114	221000		228000		5000	-122		P
Selenium	ug/L	83 - 114	1080		10.0	U	1000	108		P
Silver	ug/L	84 - 115	34.0		5.00	U	37.5	91		P
Sodium	ug/L	87 - 115	115000		119000		1500	-253		P
Thallium	ug/L	85 - 114	859		20.0	U	1000	86		P
Vanadium	ug/L	90 - 111	149		3.33	J	150	97		P
Zinc	ug/L	87 - 115	117		20.0	U	100	117	N	P

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2837-01 **client id:** TW-WTS-13MSD

Percent Solids for Sample: NA **Spiked ID:** Q2837-01MSD **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	86 - 115	1450		468		1000	98		P
Antimony	ug/L	88 - 113	457		25.0	U	400	114	N	P
Arsenic	ug/L	87 - 113	448		10.0	U	400	112		P
Barium	ug/L	88 - 113	336		239		100	98		P
Beryllium	ug/L	89 - 112	86.2		3.00	U	100	86	N	P
Cadmium	ug/L	88 - 113	96.7		3.00	U	100	97		P
Calcium	ug/L	87 - 113	258000		265000		500	-1371		P
Chromium	ug/L	90 - 113	226		28.5		200	99		P
Cobalt	ug/L	89 - 114	101		1.99	J	100	99		P
Copper	ug/L	86 - 114	164		13.7		150	100		P
Iron	ug/L	87 - 115	4570		2840		1500	115		P
Lead	ug/L	86 - 113	451		1.79	J	500	90		P
Magnesium	ug/L	85 - 113	1130		252	J	1000	88		P
Manganese	ug/L	90 - 114	99.7		3.47	J	100	96		P
Nickel	ug/L	88 - 113	270		23.9		250	99		P
Potassium	ug/L	86 - 114	232000		228000		5000	89		P
Selenium	ug/L	83 - 114	1130		10.0	U	1000	113		P
Silver	ug/L	84 - 115	35.2		5.00	U	37.5	94		P
Sodium	ug/L	87 - 115	121000		119000		1500	153		P
Thallium	ug/L	85 - 114	886		20.0	U	1000	89		P
Vanadium	ug/L	90 - 111	153		3.33	J	150	100		P
Zinc	ug/L	87 - 115	120		20.0	U	100	120	N	P

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2842-03 **client id:** MW-17B-55.5-081225MS

Percent Solids for Sample: NA **Spiked ID:** Q2842-04 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.75		0.20	U	4.0	94		CV

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: First Environment, Inc. **level:** low **sdg no.:** Q2815

contract: FIRS02 **lab code:** ACE

matrix: Water **sample id:** Q2842-03 **client id:** MW-17B-55.5-081225MSD

Percent Solids for Sample: NA **Spiked ID:** Q2842-05 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	3.89		0.20	U	4.0	97		CV

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

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Level:** LOW **Client ID:** TW-WTS-13A

Sample ID: Q2837-01 **Spiked ID:** Q2837-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	88 - 113	448		25.0	U	400	112		P
Barium	ug/L	88 - 113	319		239		100	81	N	P
Beryllium	ug/L	89 - 112	81.5		3.00	U	100	82	N	P
Zinc	ug/L	87 - 115	116		20.0	U	100	116	N	P

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2821-08 **Client ID:** DM-COMPDUP

Percent Solids for Sample: NA **Duplicate ID** Q2821-08DUP **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"

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2821-08MS **Client ID:** DM-COMPMSD

Percent Solids for Sample: NA **Duplicate ID** Q2821-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	3.70		3.82		3		CV

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

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2837-01 **Client ID:** TW-WTS-13DUP

Percent Solids for Sample: NA **Duplicate ID** Q2837-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	468		451		4		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	239		226		6		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	265000		253000		5		P
Chromium	ug/L	20	28.5		27.0		5		P
Cobalt	ug/L	20	1.99	J	1.89	J	5		P
Copper	ug/L	20	13.7		12.9		6		P
Iron	ug/L	20	2840		2750		3		P
Lead	ug/L	20	1.79	J	1.81	J	1		P
Magnesium	ug/L	20	252	J	237	J	6		P
Manganese	ug/L	20	3.47	J	3.25	J	7		P
Nickel	ug/L	20	23.9		22.6		6		P
Potassium	ug/L	20	228000		217000		5		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	119000		112000		6		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	3.33	J	3.38	J	1		P
Zinc	ug/L	20	20.0	U	20.0	U			P

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

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2837-01MS **Client ID:** TW-WTS-13MSD

Percent Solids for Sample: NA **Duplicate ID** Q2837-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1410		1450		3		P
Antimony	ug/L	20	436		457		5		P
Arsenic	ug/L	20	430		448		4		P
Barium	ug/L	20	320		336		5		P
Beryllium	ug/L	20	85.3		86.2		1		P
Cadmium	ug/L	20	94.9		96.7		2		P
Calcium	ug/L	20	249000		258000		4		P
Chromium	ug/L	20	222		226		2		P
Cobalt	ug/L	20	98.5		101		3		P
Copper	ug/L	20	158		164		4		P
Iron	ug/L	20	4340		4570		5		P
Lead	ug/L	20	444		451		2		P
Magnesium	ug/L	20	1100		1130		3		P
Manganese	ug/L	20	101		99.7		1		P
Nickel	ug/L	20	264		270		2		P
Potassium	ug/L	20	221000		232000		5		P
Selenium	ug/L	20	1080		1130		5		P
Silver	ug/L	20	34.0		35.2		3		P
Sodium	ug/L	20	115000		121000		5		P
Thallium	ug/L	20	859		886		3		P
Vanadium	ug/L	20	149		153		3		P
Zinc	ug/L	20	117		120		3		P

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

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2842-03 **Client ID:** MW-17B-55.5-081225DUP

Percent Solids for Sample: NA **Duplicate ID** Q2842-03DUP **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"

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: First Environment, Inc. **Level:** LOW **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2842-04 **Client ID:** MW-17B-55.5-081225MSD

Percent Solids for Sample: NA **Duplicate ID** Q2842-05 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	3.75		3.89		4		CV

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

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169202BS							
Mercury	ug/L	4.0	4.14		104	82 - 119	CV

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169232BS							
Aluminum	ug/L	1000	1020		102	86 - 115	P
Antimony	ug/L	400	414		104	88 - 113	P
Arsenic	ug/L	400	400		100	87 - 113	P
Barium	ug/L	100	97.5		98	88 - 113	P
Beryllium	ug/L	100	102		102	89 - 112	P
Cadmium	ug/L	100	97.0		97	88 - 113	P
Calcium	ug/L	500	530	J	106	87 - 113	P
Chromium	ug/L	200	210		105	90 - 113	P
Cobalt	ug/L	100	99.9		100	89 - 114	P
Copper	ug/L	150	158		105	86 - 114	P
Iron	ug/L	1500	1520		101	87 - 115	P
Lead	ug/L	500	488		98	86 - 113	P
Magnesium	ug/L	1000	1030		103	85 - 113	P
Manganese	ug/L	100	103		103	90 - 114	P
Nickel	ug/L	250	251		100	88 - 113	P
Potassium	ug/L	5000	4910		98	86 - 114	P
Selenium	ug/L	1000	1010		101	83 - 114	P
Silver	ug/L	37.5	38.8		104	84 - 115	P
Sodium	ug/L	1500	1400		93	87 - 115	P
Thallium	ug/L	1000	1070		107	85 - 114	P
Vanadium	ug/L	150	154		103	90 - 111	P
Zinc	ug/L	100	106		106	87 - 115	P

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169249BS							
Mercury	ug/L	4.0	4.19		105	82 - 119	CV

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

DM-COMPL

Lab Name: Alliance **Contract:** FIRS02

Lab Code: ACE **Lb No.:** lb136788 **Lab Sample ID :** Q2821-08L **SDG No.:** Q2815

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	0.40	J	100.0		CV

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

TW-WTS-13L

Lab Name: Alliance **Contract:** FIRS02

Lab Code: ACE **Lb No.:** lb136837 **Lab Sample ID :** Q2837-01L **SDG No.:** Q2815

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	468		512		9		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	239		218	J	9		P
Beryllium	3.00	U	15.0	U			P
Cadmium	3.00	U	15.0	U			P
Calcium	265000		272000		3		P
Chromium	28.5		28.0		1		P
Cobalt	1.99	J	75.0	U	100.0		P
Copper	13.7		13.9	J	2		P
Iron	2840		2730		4		P
Lead	1.79	J	30.0	U	100.0		P
Magnesium	252	J	5000	U	100.0		P
Manganese	3.47	J	50.0	U	100.0		P
Nickel	23.9		24.6	J	3		P
Potassium	228000		211000		7		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	119000		104000		13		P
Thallium	20.0	U	100	U			P
Vanadium	3.33	J	100	U	100.0		P
Zinc	20.0	U	100	U			P

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

MW-17B-55.5-081225L

Lab Name: Alliance **Contract:** FIRS02

Lab Code: ACE **Lb No.:** lb136836 **Lab Sample ID :** Q2842-03L **SDG No.:** Q2815

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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:	**PB169202**						
PB169202BL	PB169202BL	MB	WATER	08/12/2025	30.0	30.0	
PB169202BS	PB169202BS	LCS	WATER	08/12/2025	30.0	30.0	
Q2815-01	TW-705R-S	SAM	WATER	08/12/2025	30.0	30.0	
Q2815-11	TW-22M-W	SAM	WATER	08/12/2025	30.0	30.0	
Q2815-20	TW-11M-W	SAM	WATER	08/12/2025	30.0	30.0	
Q2815-26	FB	SAM	WATER	08/12/2025	30.0	30.0	
Q2821-08DUP	DM-COMPDUP	DUP	WATER	08/12/2025	30.0	30.0	
Q2821-08MS	DM-COMPMS	MS	WATER	08/12/2025	30.0	30.0	
Q2821-08MSD	DM-COMPMSD	MSD	WATER	08/12/2025	30.0	30.0	

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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:	**PB169232**						
PB169232BL	PB169232BL	MB	WATER	08/13/2025	50.0	25.0	
PB169232BS	PB169232BS	LCS	WATER	08/13/2025	50.0	25.0	
Q2815-01	TW-705R-S	SAM	WATER	08/13/2025	50.0	25.0	
Q2815-11	TW-22M-W	SAM	WATER	08/13/2025	50.0	25.0	
Q2815-20	TW-11M-W	SAM	WATER	08/13/2025	50.0	25.0	
Q2815-25	TW-11M-W	SAM	WATER	08/13/2025	50.0	25.0	
Q2815-26	FB	SAM	WATER	08/13/2025	50.0	25.0	
Q2837-01DUP	TW-WTS-13DUP	DUP	WATER	08/13/2025	50.0	25.0	
Q2837-01MS	TW-WTS-13MS	MS	WATER	08/13/2025	50.0	25.0	
Q2837-01MSD	TW-WTS-13MSD	MSD	WATER	08/13/2025	50.0	25.0	

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: First Environment, Inc. **SDG No.:** Q2815

Contract: FIRS02 **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:	**PB169249**						
PB169249BL	PB169249BL	MB	WATER	08/14/2025	30.0	30.0	
PB169249BS	PB169249BS	LCS	WATER	08/14/2025	30.0	30.0	
Q2815-25	TW-11M-W	SAM	WATER	08/14/2025	30.0	30.0	
Q2842-03DUP	MW-17B-55.5-081225DUP	DUP	WATER	08/14/2025	30.0	30.0	
Q2842-04	MW-17B-55.5-081225MS	MS	WATER	08/14/2025	30.0	30.0	
Q2842-05	MW-17B-55.5-081225MSD	MSD	WATER	08/14/2025	30.0	30.0	

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

metals
- 14 -
ANALYSIS RUN LOG

Client: First Environment, Inc. **Contract:** FIRS02

Lab code: ACE **Sdg no.:** Q2815

Instrument id number: **Method:** **Run number:** LB136788

Start date: 08/12/2025 **End date:** 08/12/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1407	HG
S0.2	S0.2	1	1409	HG
S2.5	S2.5	1	1411	HG
S5	S5	1	1414	HG
S7.5	S7.5	1	1416	HG
S10	S10	1	1418	HG
ICV10	ICV10	1	1421	HG
ICB10	ICB10	1	1423	HG
CCV29	CCV29	1	1426	HG
CCB29	CCB29	1	1428	HG
CRA	CRA	1	1430	HG
PB169202BL	PB169202BL	1	1437	HG
PB169202BS	PB169202BS	1	1442	HG
CCV30	CCV30	1	1456	HG
CCB30	CCB30	1	1459	HG
Q2815-01	TW-705R-S	1	1503	HG
Q2815-11	TW-22M-W	1	1506	HG
Q2815-20	TW-11M-W	1	1508	HG
Q2815-26	FB	1	1510	HG
Q2821-08DUP	DM-COMPDUP	1	1517	HG
Q2821-08MS	DM-COMPMS	1	1519	HG
Q2821-08MSD	DM-COMPMSD	1	1522	HG
CCV31	CCV31	1	1524	HG
CCB31	CCB31	1	1526	HG
Q2821-08L	DM-COMPL	5	1529	HG
CCV32	CCV32	1	1535	HG
CCB32	CCB32	1	1538	HG

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

metals
- 14 -
ANALYSIS RUN LOG

Client: First Environment, Inc. **Contract:** FIRS02

Lab code: ACE **Sdg no.:** Q2815

Instrument id number: **Method:** **Run number:** LB136836

Start date: 08/15/2025 **End date:** 08/15/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1125	HG
S0.2	S0.2	1	1128	HG
S2.5	S2.5	1	1130	HG
S5	S5	1	1132	HG
S7.5	S7.5	1	1135	HG
S10	S10	1	1137	HG
ICV18	ICV18	1	1140	HG
ICB18	ICB18	1	1145	HG
CCV54	CCV54	1	1211	HG
CCB54	CCB54	1	1213	HG
CRA	CRA	1	1216	HG
PB169249BL	PB169249BL	1	1222	HG
PB169249BS	PB169249BS	1	1225	HG
Q2815-25	TW-11M-W	1	1232	HG
CCV55	CCV55	1	1238	HG
CCB55	CCB55	1	1241	HG
Q2842-03DUP	MW-17B-55.5-081225DUP	1	1245	HG
Q2842-04	MW-17B-55.5-081225MS	1	1248	HG
Q2842-05	MW-17B-55.5-081225MSD	1	1250	HG
Q2842-03L	MW-17B-55.5-081225L	5	1304	HG
CCV56	CCV56	1	1309	HG
CCB56	CCB56	1	1311	HG
CCV57	CCV57	1	1315	HG
CCB57	CCB57	1	1318	HG

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

metals
- 14 -
ANALYSIS RUN LOG

Client: First Environment, Inc. **Contract:** FIRS02

Lab code: ACE **Sdg no.:** Q2815

Instrument id number: **Method:** **Run number:** LB136837

Start date: 08/14/2025 **End date:** 08/14/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1139	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	1144	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	1148	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	1152	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	1156	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	1200	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	1205	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	1209	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	1213	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	1223	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	1227	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	1238	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	1250	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	1254	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB169232BL	PB169232BL	1	1311	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB169232BS	PB169232BS	1	1315	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	1342	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	1346	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	1441	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	1445	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2815-01	TW-705R-S	1	1527	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	1558	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	1602	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2815-11	TW-22M-W	1	1606	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2815-20	TW-11M-W	1	1610	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2815-26	FB	1	1618	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2837-01DUP	TW-WTS-13DUP	1	1636	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2837-01L	TW-WTS-13L	5	1641	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2837-01MS	TW-WTS-13MS	1	1645	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	1650	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	1700	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2837-01MSD	TW-WTS-13MSD	1	1704	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2837-01A	TW-WTS-13A	1	1709	Ba,Be,Sb,Zn
CCV06	CCV06	1	1754	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1805	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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

metals
- 14 -
ANALYSIS RUN LOG

Client: First Environment, Inc. **Contract:** FIRS02

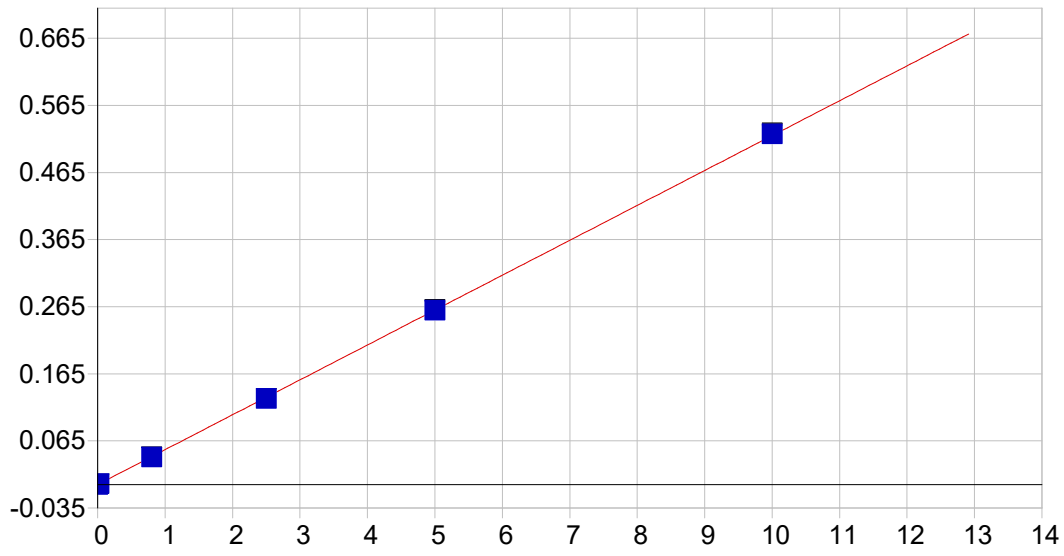
Lab code: ACE **Sdg no.:** Q2815

Instrument id number: **Method:** **Run number:** LB136898

Start date: 08/20/2025 **End date:** 08/20/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1238	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	1243	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	1247	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	1251	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	1255	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	1259	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	1304	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	1317	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	1321	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	1326	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	1330	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	1334	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	1347	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	1351	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	1439	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	1443	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	1545	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	1549	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	1635	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	1639	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2815-25	TW-11M-W	1	1700	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	1709	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	1713	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

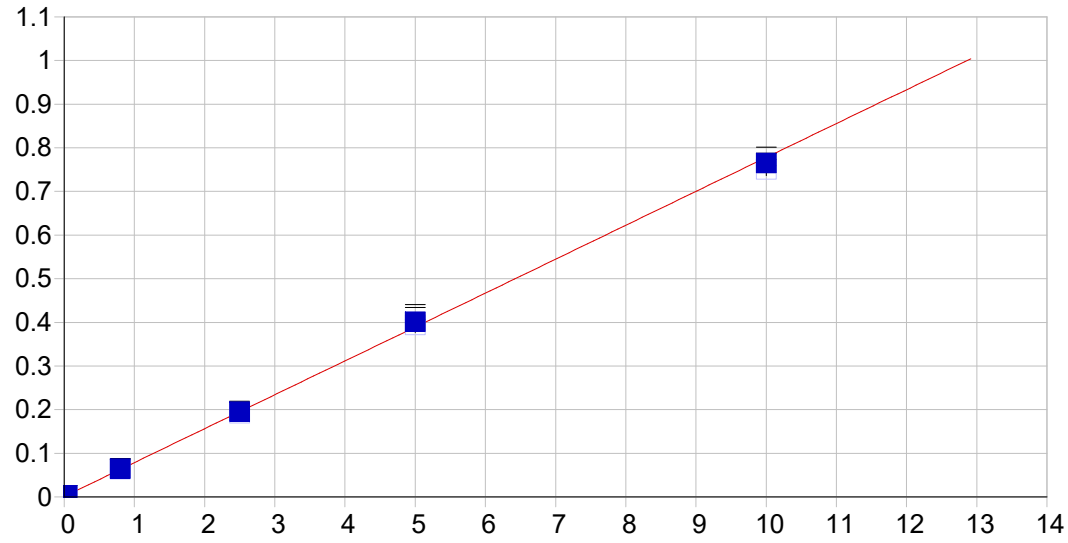


As 189.042 {479}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000098	Re-Slope:	1.000000
A1 (Gain):	0.052011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999965	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.002142		
Predicted MQL:	0.007141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00010	.000	1
S1	.02000	.02235	.002	11.8	.00106	.000	1
S3	2.5000	2.4617	-.038	-1.53	.12780	.000	1
S4	5.0000	4.9945	-.005	-.109	.25939	.001	1
S5	10.000	10.052	.052	.518	.52214	.001	1
S2	.80000	.78961	-.010	-1.30	.04093	.000	1

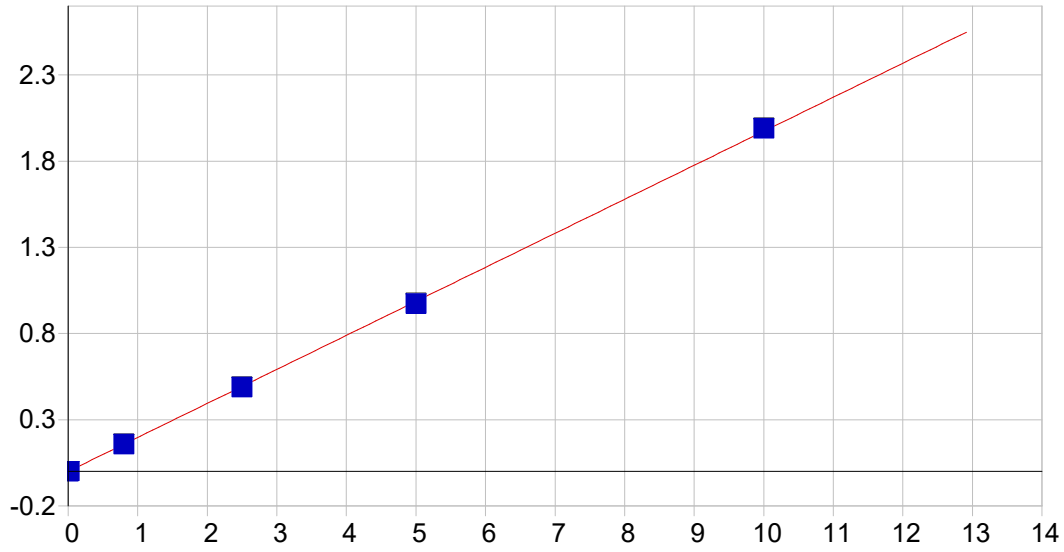


Tl 190.856 {477}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000925	Re-Slope:	1.000000
A1 (Gain):	0.077690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999778	Status:	OK.
Std Error of Est:	0.000053		
Predicted MDL:	0.001540		
Predicted MQL:	0.005133		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00092	.000	1
S1	.04000	.04304	.003	7.60	.00407	.000	1
S3	2.5000	2.5002	.000	.008	.19162	.001	1
S4	5.0000	5.1491	.149	2.98	.39387	.017	1
S5	10.000	9.8313	-.169	-1.69	.75055	.014	1
S2	.80000	.81652	.017	2.07	.06323	.001	1

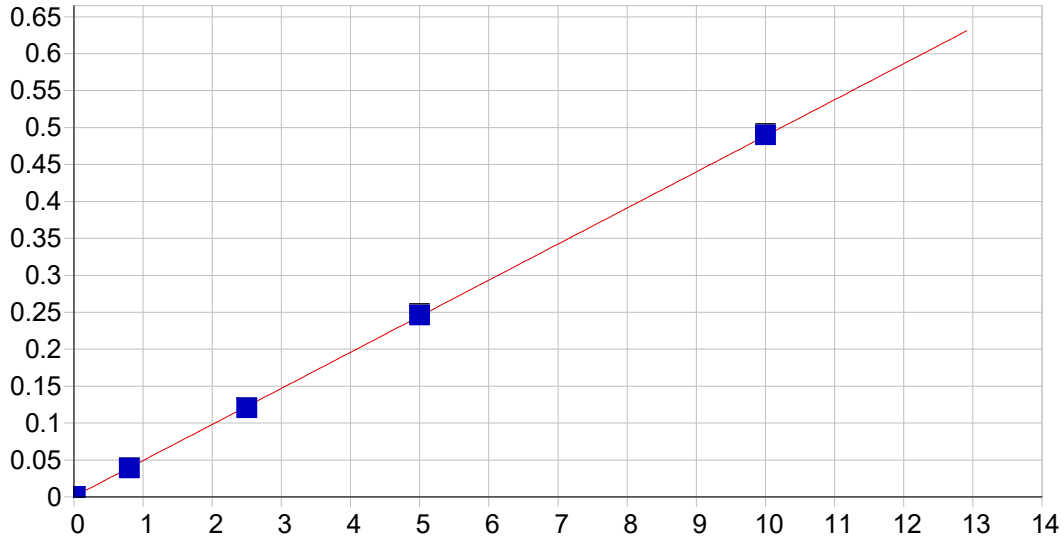


Pb 220.353 {453}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000064	Re-Slope:	1.000000
A1 (Gain):	0.197351	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999950	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.001273		
Predicted MQL:	0.004245		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.01200	.01288	.001	7.36	.00256	.000	1
S3	2.5000	2.4785	-.022	-.862	.48868	.000	1
S4	5.0000	4.9357	-.064	-1.29	.97312	.002	1
S5	10.000	10.087	.087	.869	1.9887	.002	1
S2	.80000	.79800	-.002	-.249	.15739	.000	1

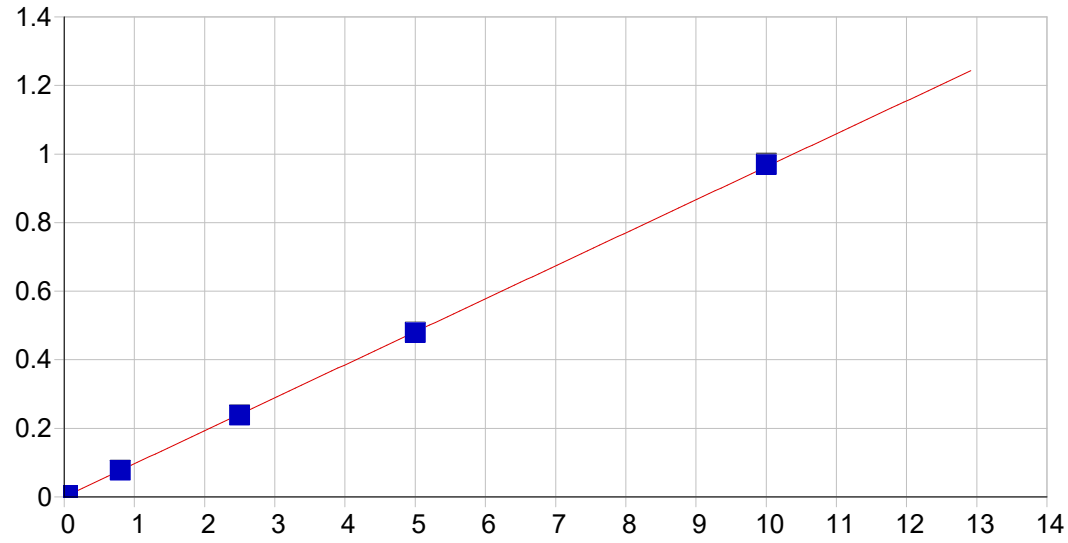


Se 196.090 {472}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000440	Re-Slope:	1.000000
A1 (Gain):	0.048834	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.002861		
Predicted MQL:	0.009537		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00044	.000	1
S1	.02000	.01717	-.003	-14.2	.00128	.000	1
S3	2.5000	2.4569	-.043	-1.72	.12039	.000	1
S4	5.0000	5.0295	.029	.589	.24598	.002	1
S5	10.000	10.028	.028	.280	.49001	.001	1
S2	.80000	.78845	-.012	-1.44	.03893	.000	1

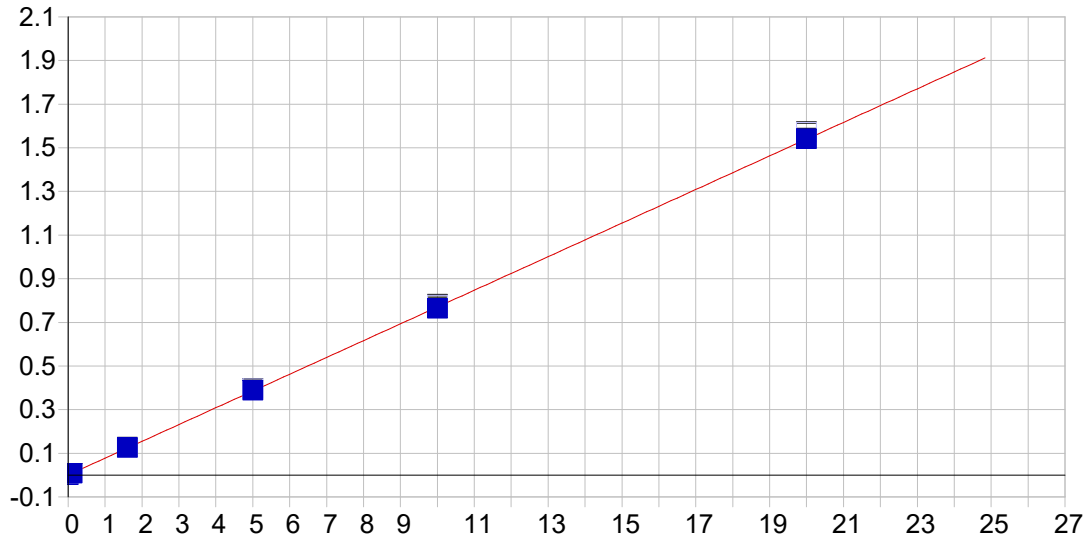


Sb 206.833 {463}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000407	Re-Slope:	1.000000
A1 (Gain):	0.096227	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.001839		
Predicted MQL:	0.006130		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00041	.000	1
S1	.05000	.05263	.003	5.25	.00548	.000	1
S3	2.5000	2.4689	-.031	-1.24	.23863	.000	1
S4	5.0000	4.9718	-.028	-.563	.48014	.001	1
S5	10.000	10.059	.059	.595	.97101	.002	1
S2	.80000	.79719	-.003	-.352	.07733	.000	1

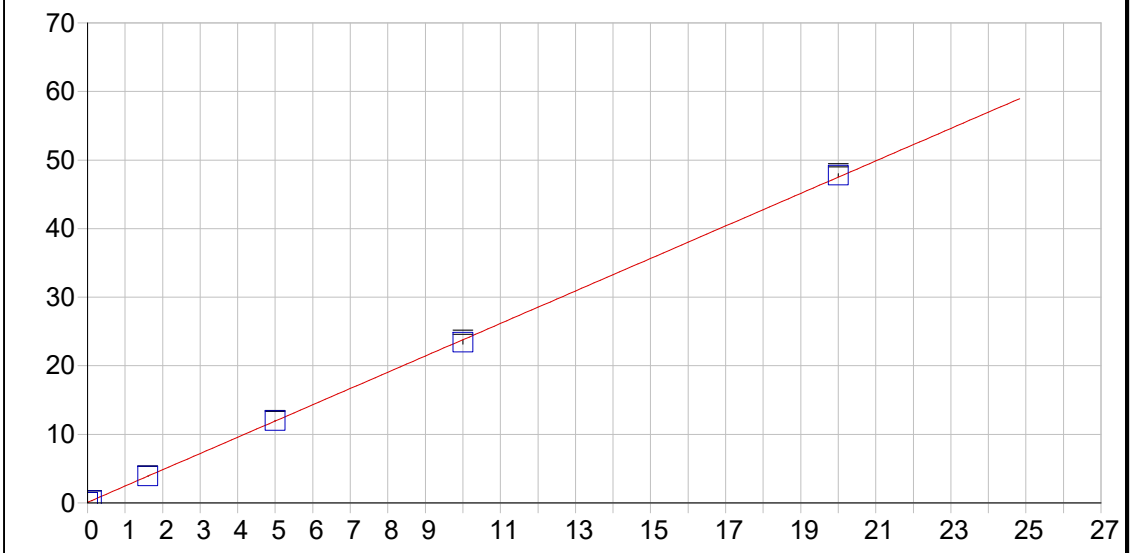


Al 396.152 { 85}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000669	Re-Slope:	1.000000
A1 (Gain):	0.076953	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.010545		
Predicted MQL:	0.035152		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00067	.001	1
S1	.10000	.10317	.003	3.17	.00921	.000	1
S3	5.0000	5.0448	.045	.896	.39635	.001	1
S4	10.000	9.9226	-.077	-.774	.77917	.003	1
S5	20.000	20.010	.010	.050	1.5704	.003	1
S2	1.6000	1.6194	.019	1.21	.12767	.000	1

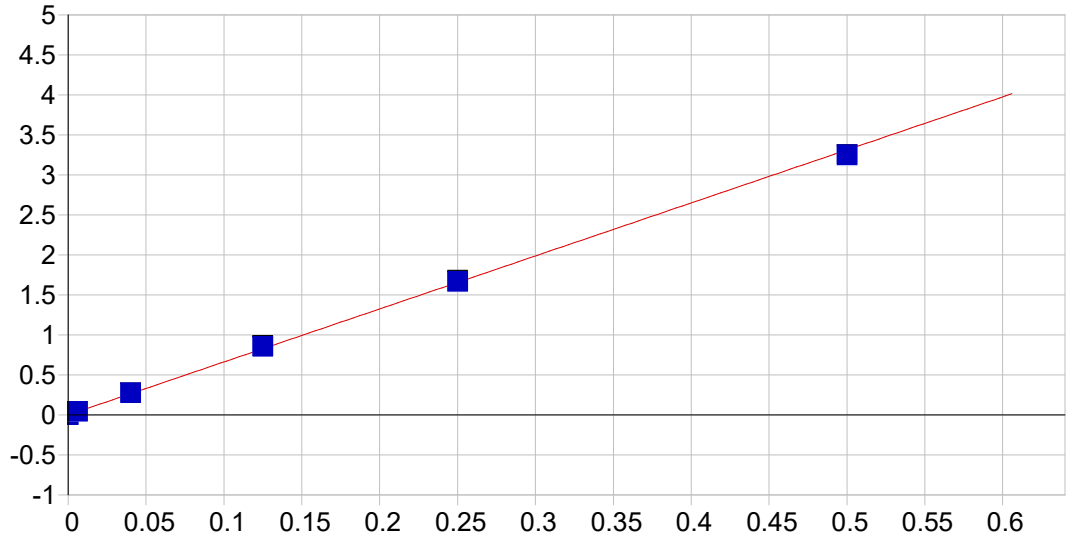


Ba 493.409 { 68}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.092174	Re-Slope:	1.000000
A1 (Gain):	2.370512	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.001690		
Predicted MDL:	0.001007		
Predicted MQL:	0.003355		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.09217	.002	1
S1	.10000	.10276	.003	2.76	.33576	.001	1
S3	5.0000	5.0161	.016	.323	11.983	.069	1
S4	10.000	9.8449	-.155	-1.55	23.430	.304	1
S5	20.000	20.127	.127	.637	47.804	.239	1
S2	1.6000	1.6088	.009	.551	3.9059	.007	1

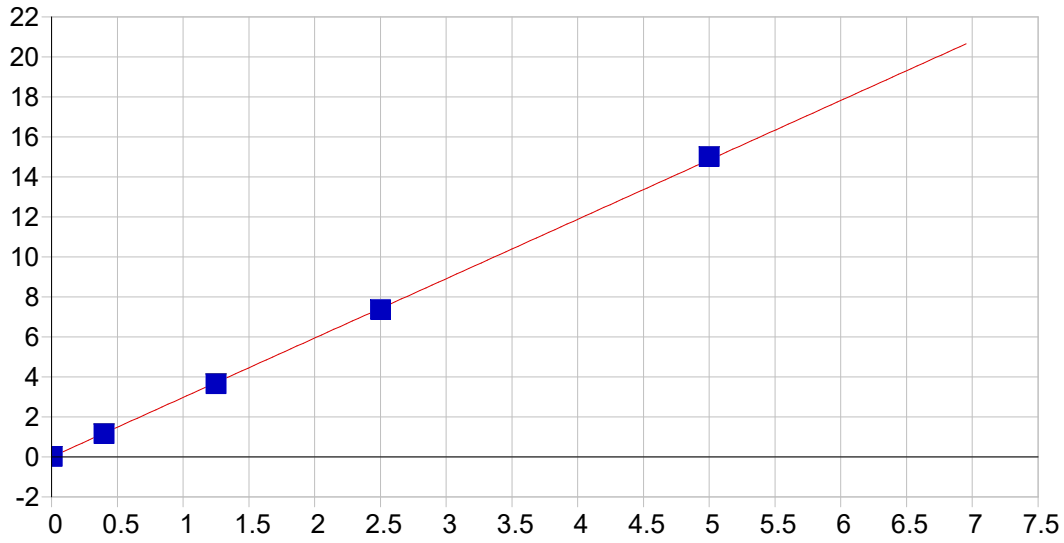


Be 234.861 {144}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000681	Re-Slope:	1.000000
A1 (Gain):	6.626094	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999701	Status:	OK.
Std Error of Est:	0.000464		
Predicted MDL:	0.000069		
Predicted MQL:	0.000231		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00069	.000	1
S1	.00600	.00674	.001	12.3	.04366	.001	1
S3	.12500	.12958	.005	3.66	.85421	.010	1
S4	.25000	.25194	.002	.776	1.6613	.013	1
S5	.50000	.49074	-.009	-1.85	3.2362	.002	1
S2	.04000	.04200	.002	5.01	.27646	.001	1

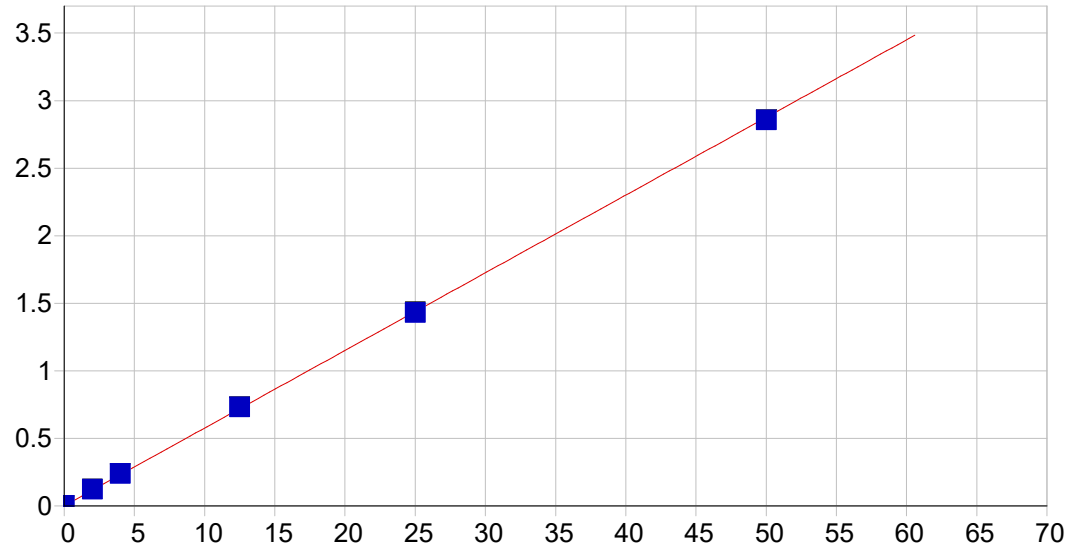


Cd 226.502 {449}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000432	Re-Slope:	1.000000
A1 (Gain):	2.970490	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000317		
Predicted MDL:	0.000072		
Predicted MQL:	0.000241		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00043	.000	1
S1	.00600	.00582	-.000	-3.00	.01692	.000	1
S3	1.2500	1.2296	-.020	-1.63	3.6546	.008	1
S4	2.5000	2.4802	-.020	-.793	7.3718	.011	1
S5	5.0000	5.0506	.051	1.01	15.012	.010	1
S2	.40000	.38977	-.010	-2.56	1.1582	.002	1

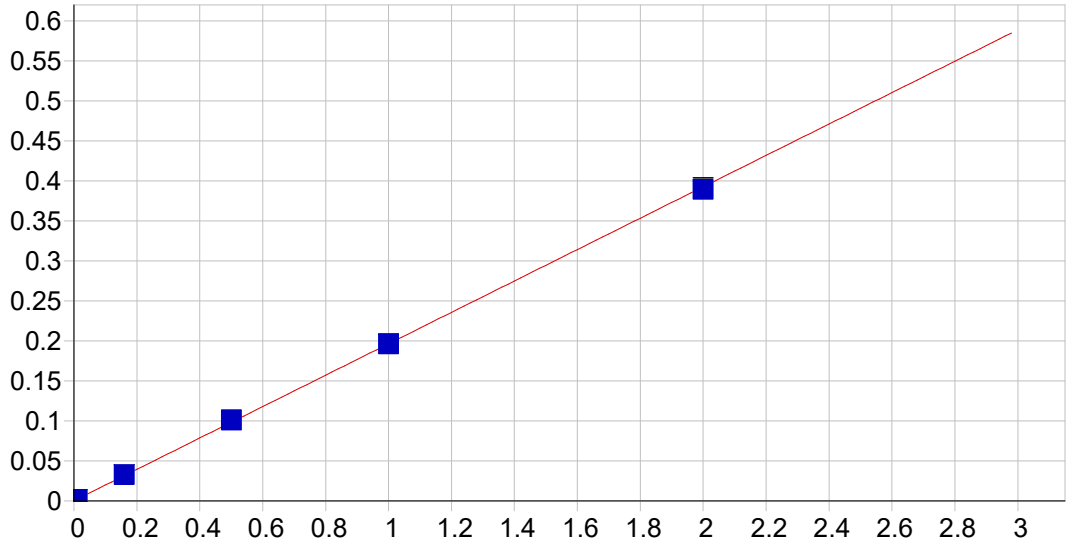


Ca 373.690 { 90}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001331	Re-Slope:	1.000000
A1 (Gain):	0.057478	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	0.000418		
Predicted MDL:	0.011076		
Predicted MQL:	0.036920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00019	-.000	.000	.00132	.000	1
S2	4.0000	4.1265	.127	3.16	.23852	.001	1
S3	12.500	12.709	.209	1.67	.73183	.002	1
S4	25.000	24.858	-.142	-.566	1.4301	.006	1
S5	50.000	49.684	-.316	-.631	2.8571	.002	1
S1	2.0000	2.1215	.121	6.07	.12327	.001	1

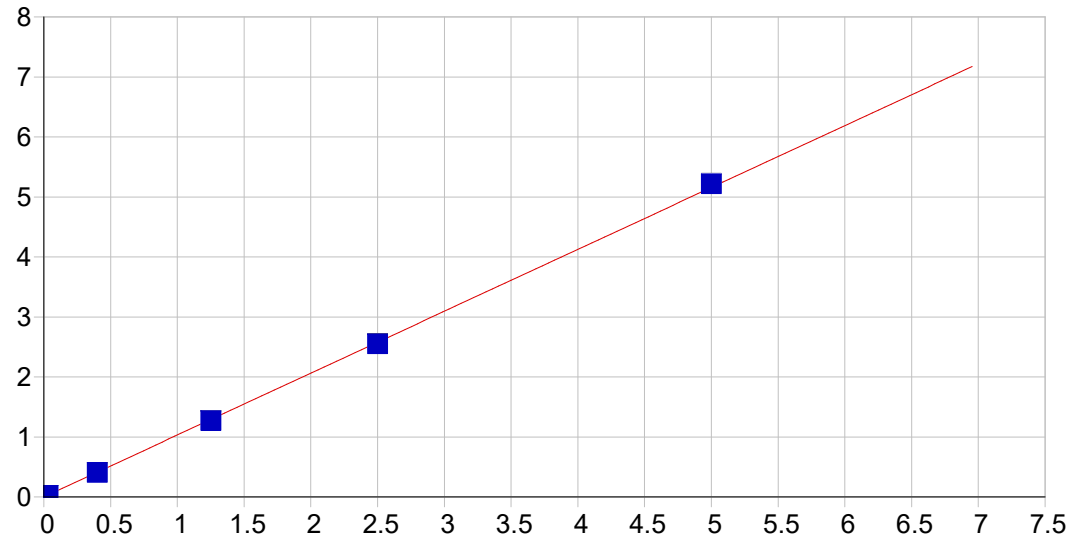


Cr 267.716 {126}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000191	Re-Slope:	1.000000
A1 (Gain):	0.196225	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.000333		
Predicted MQL:	0.001111		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00019	.000	1
S1	.01000	.01028	.000	2.84	.00221	.000	1
S3	.50000	.51318	.013	2.64	.10093	.000	1
S4	1.0000	.99745	-.003	-.255	.19599	.001	1
S5	2.0000	1.9830	-.017	-.851	.38946	.002	1
S2	.16000	.16611	.006	3.82	.03280	.000	1

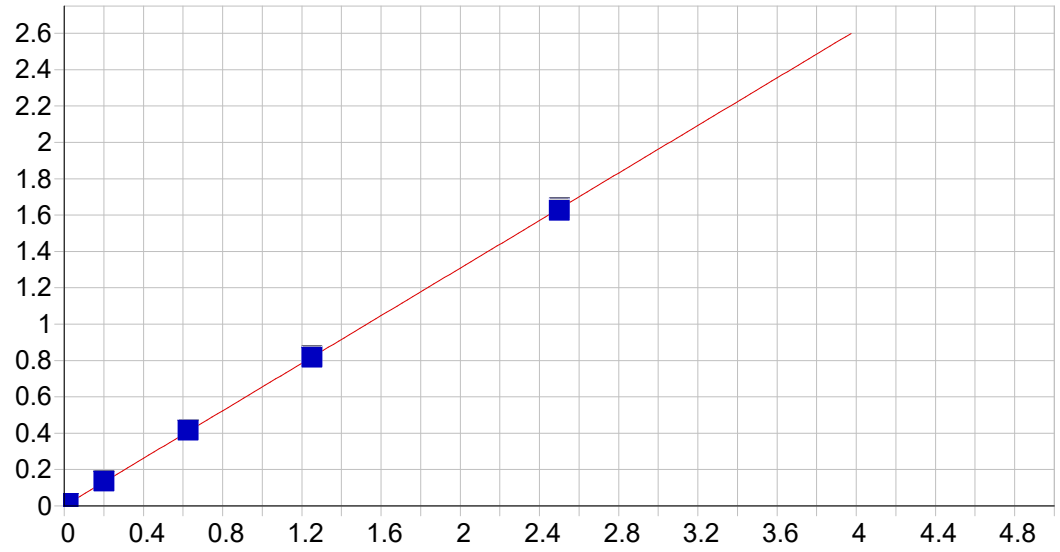


Co 228.616 {448}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000207	Re-Slope:	1.000000
A1 (Gain):	1.031345	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999918	Status:	OK.
Std Error of Est:	0.000269		
Predicted MDL:	0.000185		
Predicted MQL:	0.000616		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.03000	.03008	.000	.260	.03110	.000	1
S3	1.2500	1.2290	-.021	-1.68	1.2700	.001	1
S4	2.5000	2.4694	-.031	-1.23	2.5513	.003	1
S5	5.0000	5.0582	.058	1.16	5.2257	.002	1
S2	.40000	.39332	-.007	-1.67	.40655	.000	1

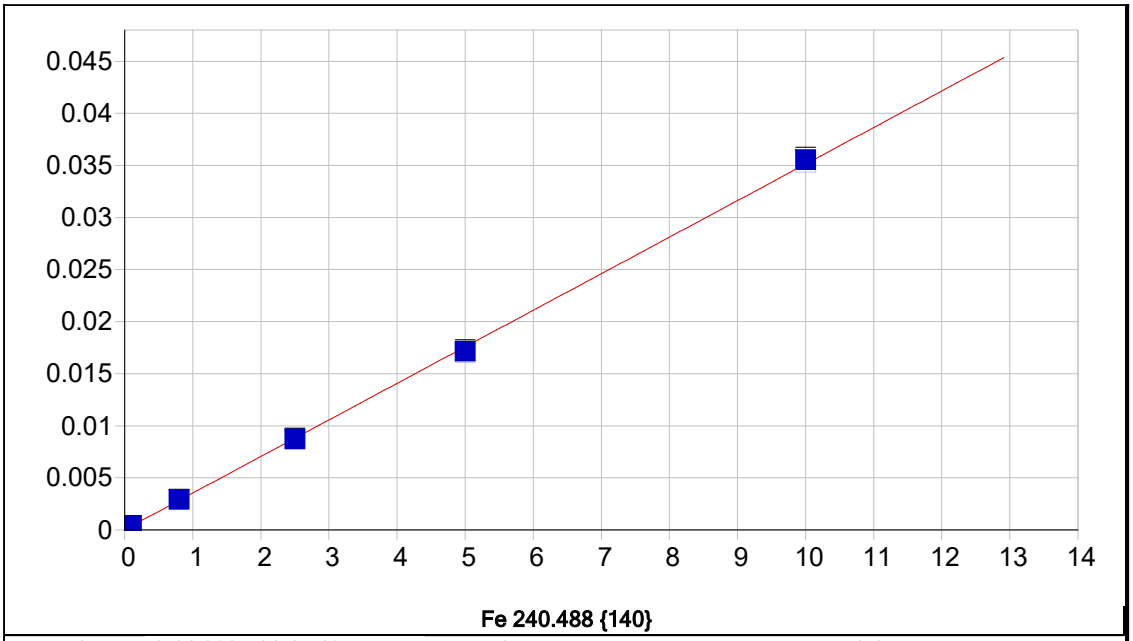


Cu 224.700 {450}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000464	Re-Slope:	1.000000
A1 (Gain):	0.654030	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.000408		
Predicted MQL:	0.001360		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00046	.000	1
S1	.02000	.02161	.002	8.03	.01474	.000	1
S3	.62500	.63340	.008	1.34	.41813	.000	1
S4	1.2500	1.2485	-.002	-.123	.82381	.002	1
S5	2.5000	2.4848	-.015	-.610	1.6392	.001	1
S2	.20000	.20676	.007	3.38	.13678	.000	1

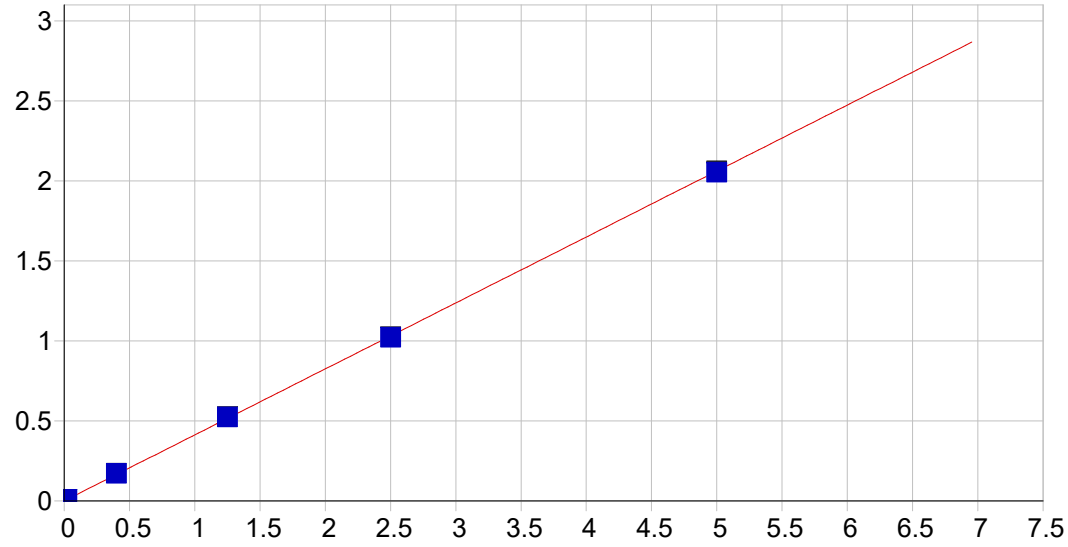


Fe 240.488 {140}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000029	Re-Slope:	1.000000
A1 (Gain):	0.003510	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999843	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.006149		
Predicted MQL:	0.020497		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00003	.000	1
S1	.10000	.10135	.001	1.35	.00038	.000	1
S3	2.5000	2.4798	-.020	-.806	.00866	.000	1
S4	5.0000	4.8722	-.128	-2.56	.01698	.000	1
S5	10.000	10.122	.122	1.22	.03526	.000	1
S2	.80000	.82443	.024	3.05	.00290	.000	1

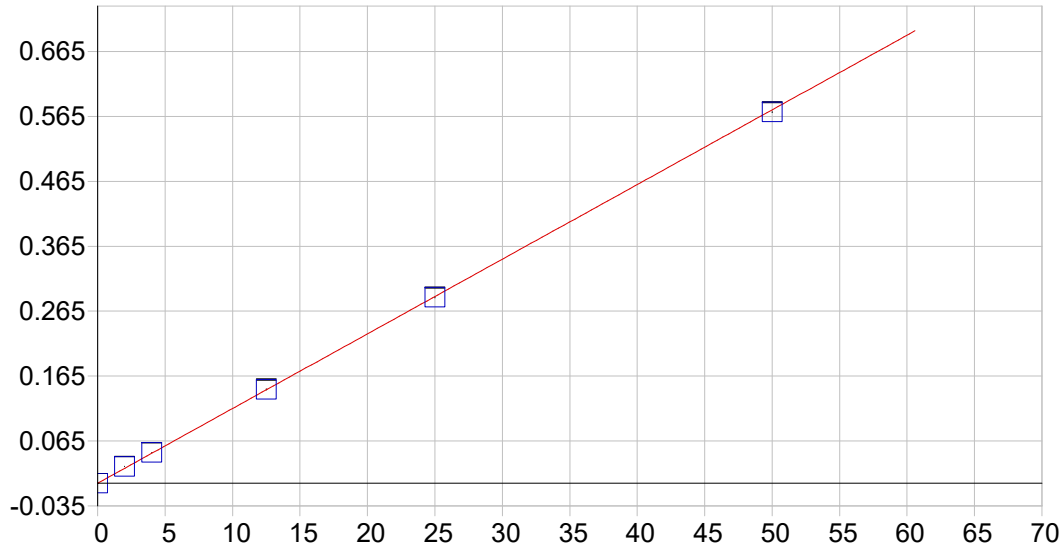


Mn 257.610 {131}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000311	Re-Slope:	1.000000
A1 (Gain):	0.412280	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000084		
Predicted MDL:	0.000559		
Predicted MQL:	0.001864		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00031	.000	1
S1	.02000	.02224	.002	11.2	.00948	.000	1
S3	1.2500	1.2691	.019	1.53	.52365	.005	1
S4	2.5000	2.4805	-.020	-.781	1.0232	.002	1
S5	5.0000	4.9823	-.018	-.353	2.0548	.006	1
S2	.40000	.41583	.016	3.96	.17178	.001	1

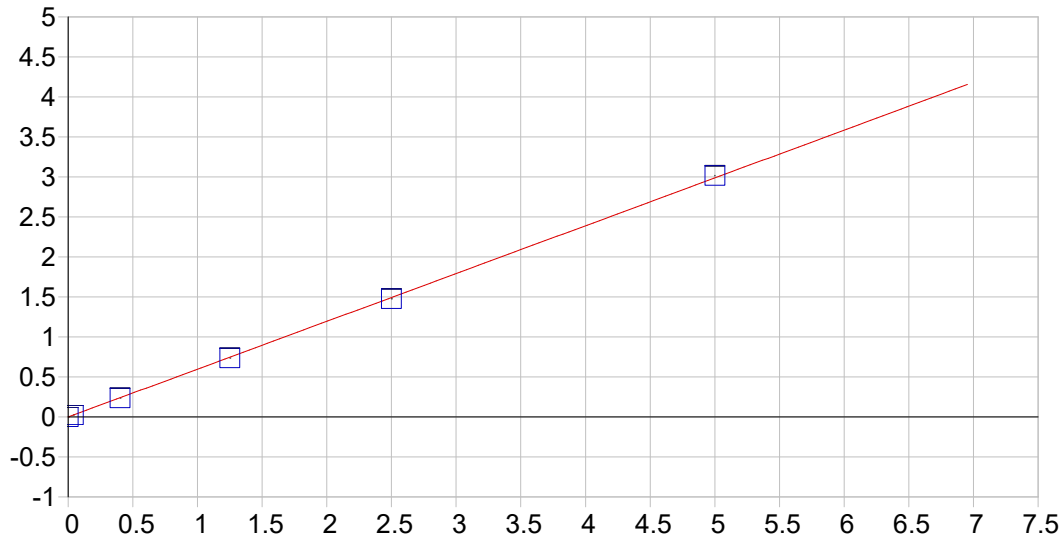


Mg 279.079 {121}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000036	Re-Slope:	1.000000
A1 (Gain):	0.011502	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000117		
Predicted MDL:	0.026016		
Predicted MQL:	0.086722		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00028	-.000	.000	-.00004	.000	1
S2	4.0000	4.0966	.097	2.42	.04708	.000	1
S3	12.500	12.569	.069	.554	.14454	.001	1
S4	25.000	24.891	-.109	-.437	.28627	.001	1
S5	50.000	49.700	-.300	-.601	.57163	.001	1
S1	2.0000	2.2438	.244	12.2	.02577	.000	1

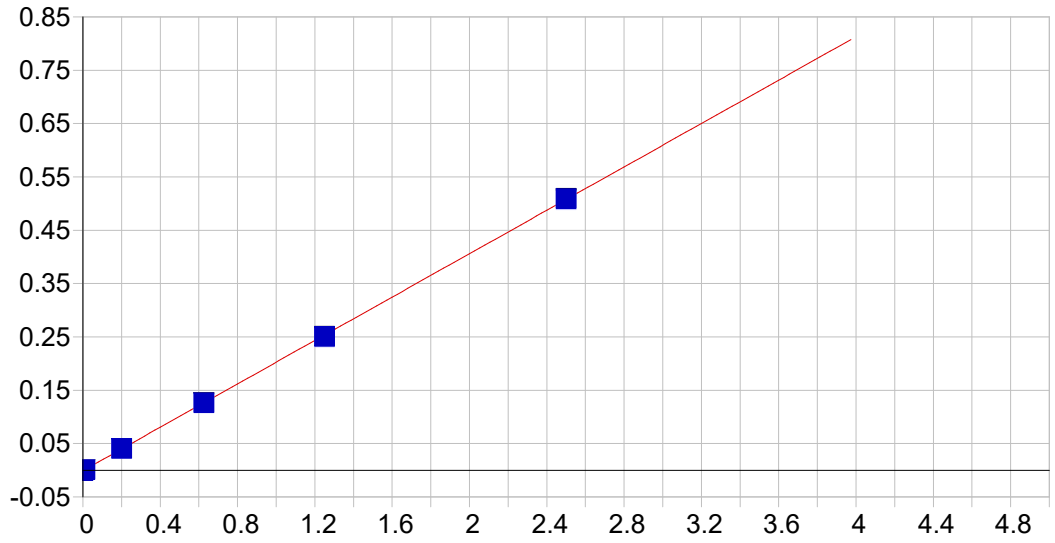


Ni 231.604 {446}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000502	Re-Slope:	1.000000
A1 (Gain):	0.597490	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.000146		
Predicted MDL:	0.000339		
Predicted MQL:	0.001131		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00050	.000	1
S1	.04000	.04015	.000	.375	.02349	.000	1
S3	1.2500	1.2333	-.017	-1.34	.73638	.001	1
S4	2.5000	2.4734	-.027	-1.06	1.4774	.000	1
S5	5.0000	5.0472	.047	.944	3.0151	.004	1
S2	.40000	.39591	-.004	-1.02	.23605	.001	1

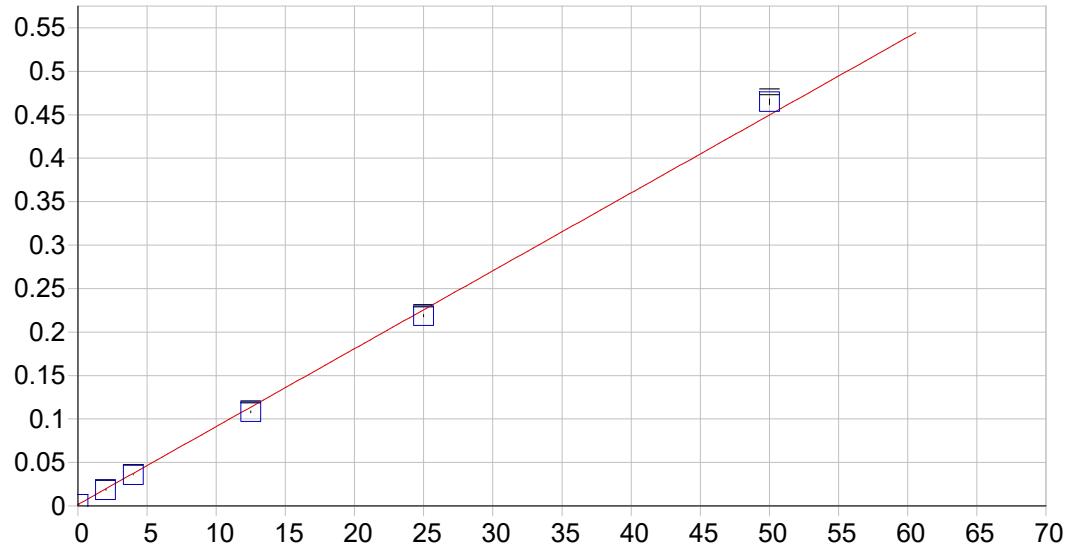


Ag 328.068 {103}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000803	Re-Slope:	1.000000
A1 (Gain):	0.203404	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.000506		
Predicted MQL:	0.001687		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00080	.000	1
S1	.01000	.01027	.000	2.68	.00127	.000	1
S3	.62500	.62622	.001	.195	.12596	.000	1
S4	1.2500	1.2373	-.013	-1.02	.24963	.000	1
S5	2.5000	2.5079	.008	.315	.50684	.001	1
S2	.20000	.20338	.003	1.69	.04037	.000	1

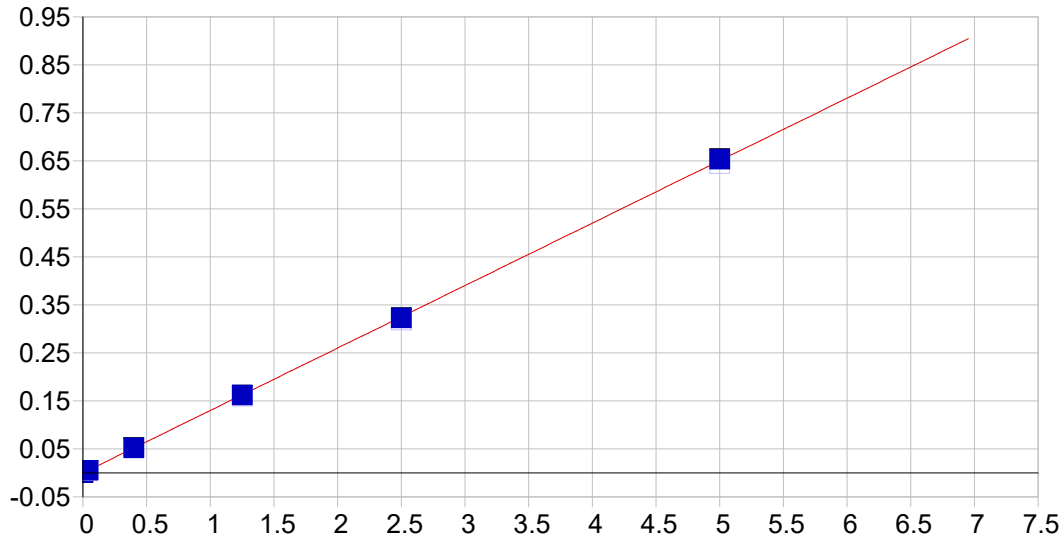


Na 589.592 { 57}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001660	Re-Slope:	1.000000
A1 (Gain):	0.008960	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999308	Status:	OK.
Std Error of Est:	0.000176		
Predicted MDL:	0.017023		
Predicted MQL:	0.056743		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00032	.000	.000	.00166	.000	1
S2	4.0000	3.8074	-.193	-4.81	.03577	.000	1
S3	12.500	11.893	-.607	-4.86	.10822	.001	1
S4	25.000	24.228	-.772	-3.09	.21874	.001	1
S5	50.000	51.704	1.70	3.41	.46492	.003	1
S1	2.0000	1.8681	-.132	-6.59	.01840	.000	1

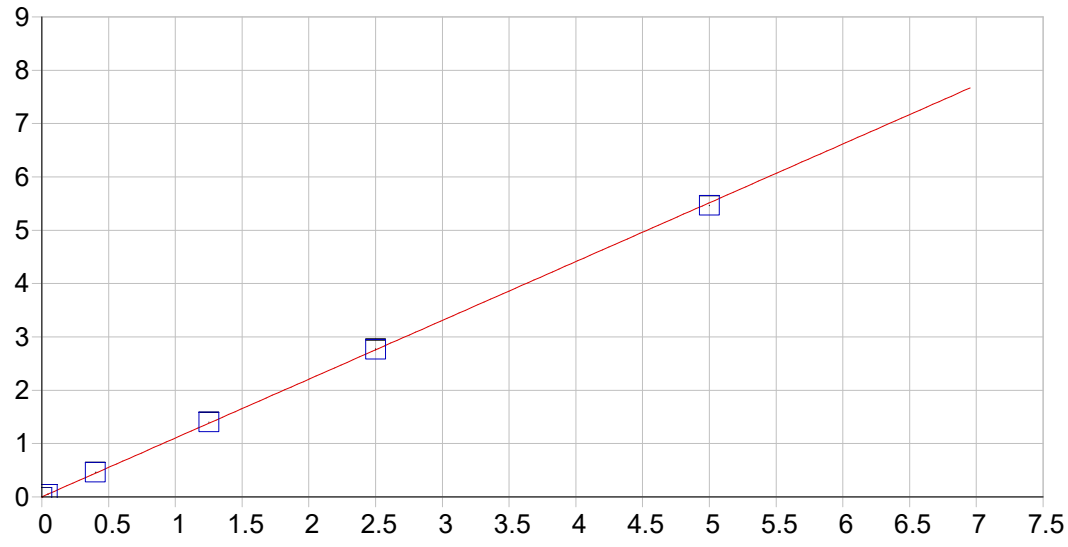


V 292.402 {115}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000056	Re-Slope:	1.000000
A1 (Gain):	0.130168	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.002687		
Predicted MQL:	0.008958		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00006	.000	1
S1	.04000	.04005	.000	.117	.00496	.000	1
S3	1.2500	1.2436	-.006	-.514	.15945	.000	1
S4	2.5000	2.4804	-.020	-.786	.31806	.001	1
S5	5.0000	5.0236	.024	.472	.64436	.001	1
S2	.40000	.40244	.002	.609	.05157	.000	1

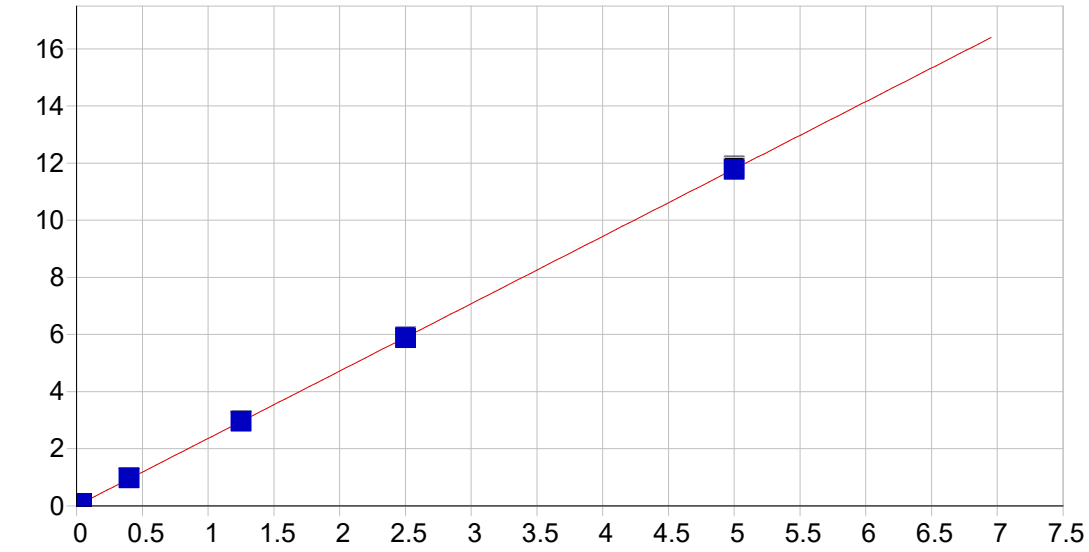


Zn 206.200 {464}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001601	Re-Slope:	1.000000
A1 (Gain):	1.102627	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000351		
Predicted MDL:	0.000146		
Predicted MQL:	0.000487		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00160	.000	1
S1	.04000	.04264	.003	6.61	.04862	.000	1
S3	1.2500	1.2696	.020	1.57	1.4015	.003	1
S4	2.5000	2.5071	.007	.285	2.7660	.012	1
S5	5.0000	4.9533	-.047	-.934	5.4633	.004	1
S2	.40000	.41731	.017	4.33	.46173	.000	1

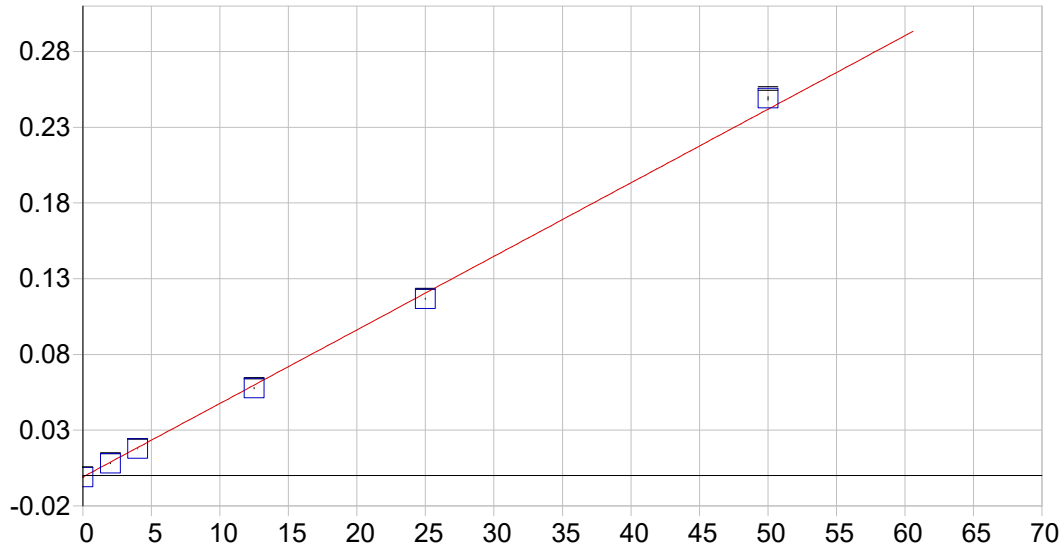


Zn 213.856 {158}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004582	Re-Slope:	1.000000
A1 (Gain):	2.358031	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000334		
Predicted MDL:	0.000239		
Predicted MQL:	0.000797		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00458	.000	1
S1	.04000	.04198	.002	4.95	.10423	.000	1
S3	1.2500	1.2520	.002	.158	2.9773	.012	1
S4	2.5000	2.4938	-.006	-.248	5.9260	.005	1
S5	5.0000	4.9931	-.007	-.138	11.860	.040	1
S2	.40000	.40914	.009	2.29	.97591	.002	1

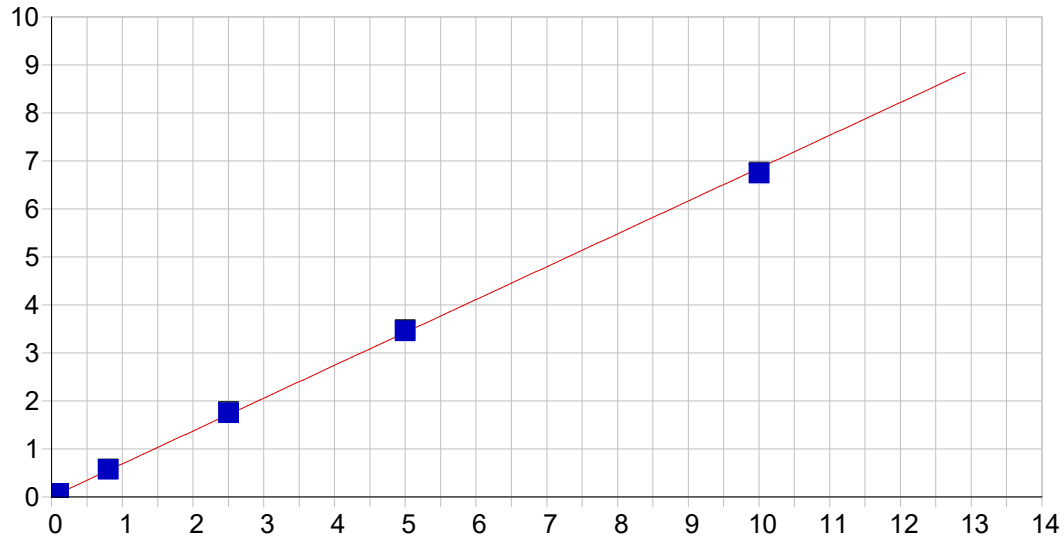


K 766.490 { 44}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000883	Re-Slope:	1.000000
A1 (Gain):	0.004855	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999474	Status:	OK.
Std Error of Est:	0.000083		
Predicted MDL:	0.037550		
Predicted MQL:	0.125166		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00029	.000	.000	-.00088	.000	1
S2	4.0000	3.8305	-.170	-4.24	.01771	.000	1
S3	12.500	12.074	-.426	-3.40	.05774	.000	1
S4	25.000	24.239	-.761	-3.05	.11679	.000	1
S5	50.000	51.491	1.49	2.98	.24910	.001	1
S1	2.0000	1.8658	-.134	-6.71	.00818	.000	1

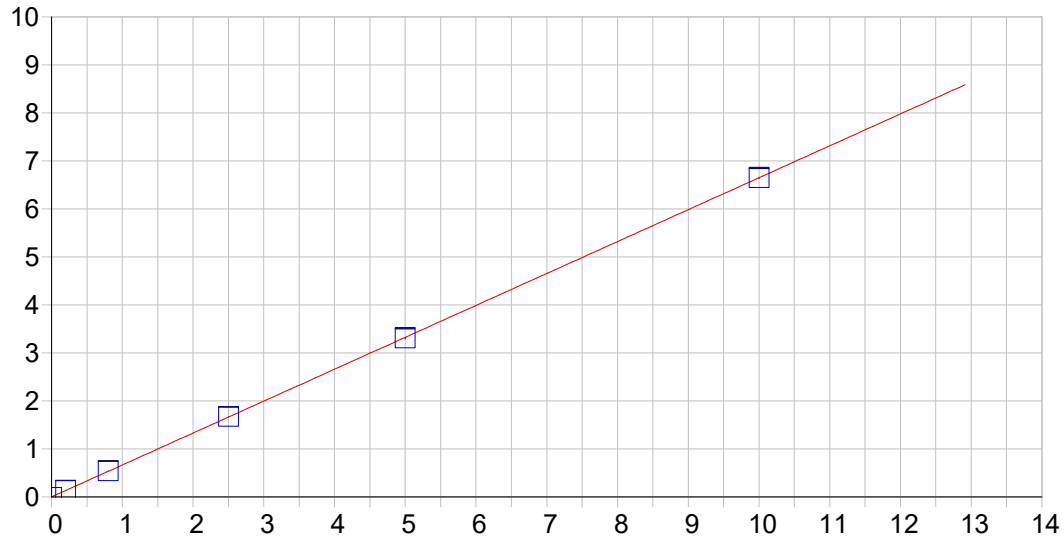


B 249.678 {135}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004322	Re-Slope:	1.000000
A1 (Gain):	0.684450	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999842	Status:	OK.
Std Error of Est:	0.000637		
Predicted MDL:	0.000728		
Predicted MQL:	0.002427		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00431	.000	1
S1	.10000	.10735	.007	7.35	.07739	.000	1
S3	2.5000	2.5574	.057	2.29	1.7485	.020	1
S4	5.0000	5.0492	.049	.985	3.4479	.023	1
S5	10.000	9.8537	-.146	-1.46	6.7240	.019	1
S2	.80000	.83234	.032	4.04	.57204	.003	1

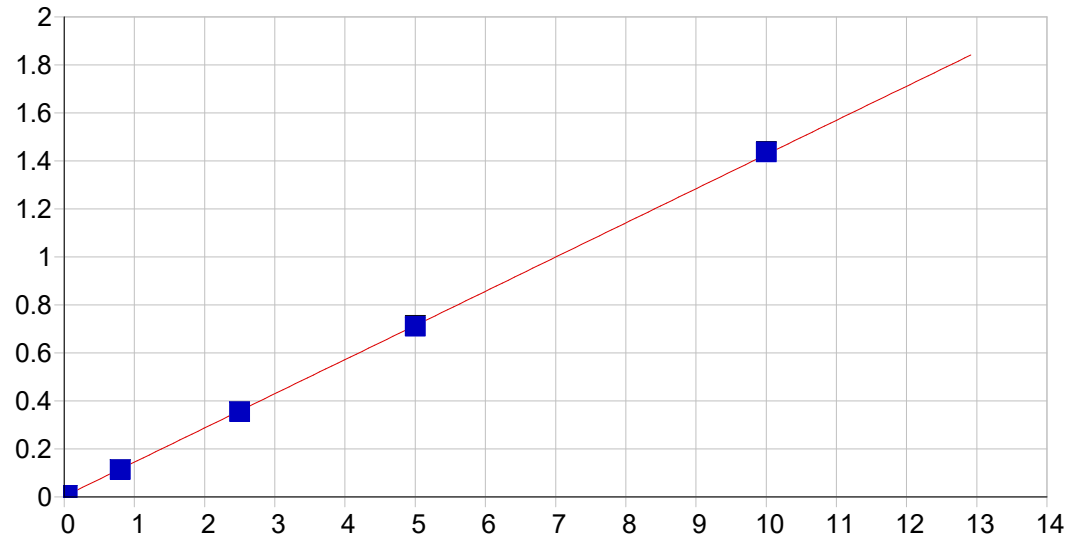


Mo 202.030 {467}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000387	Re-Slope:	1.000000
A1 (Gain):	0.664891	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000290		
Predicted MDL:	0.000254		
Predicted MQL:	0.000848		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00038	.000	1
S1	.20000	.20442	.004	2.21	.13630	.000	1
S3	2.5000	2.5129	.013	.517	1.6712	.003	1
S4	5.0000	4.9698	-.030	-.604	3.3048	.013	1
S5	10.000	9.9977	-.002	-.023	6.6477	.013	1
S2	.80000	.81517	.015	1.90	.54239	.001	1

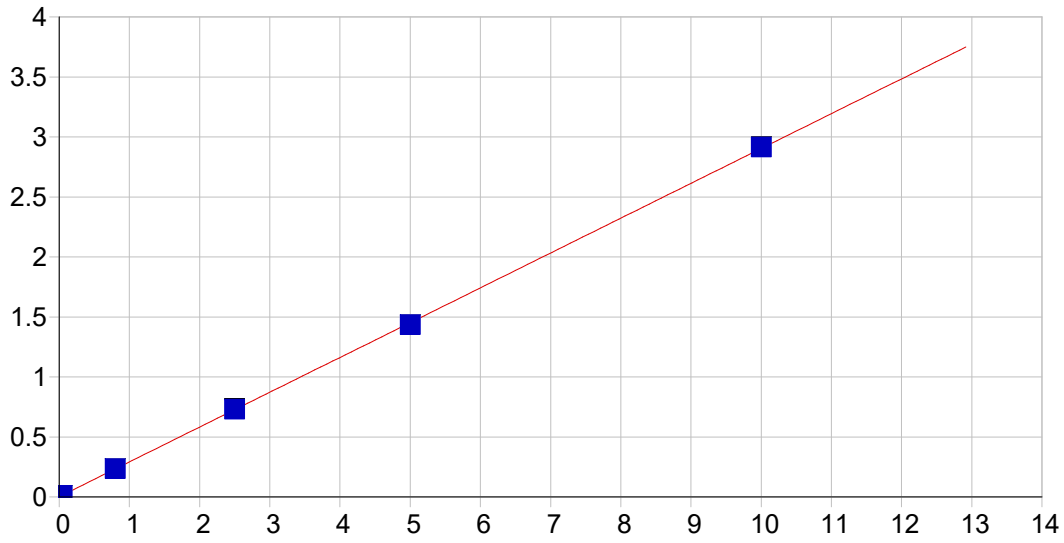


Sn 189.989 {478}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002432	Re-Slope:	1.000000
A1 (Gain):	0.142395	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.000636		
Predicted MQL:	0.002121		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00243	.000	1
S1	.04000	.03983	-.000	-.425	.00810	.000	1
S3	2.5000	2.4738	-.026	-1.05	.35432	.001	1
S4	5.0000	4.9753	-.025	-.494	.71016	.003	1
S5	10.000	10.073	.073	.730	1.4353	.002	1
S2	.80000	.77810	-.022	-2.74	.11311	.000	1

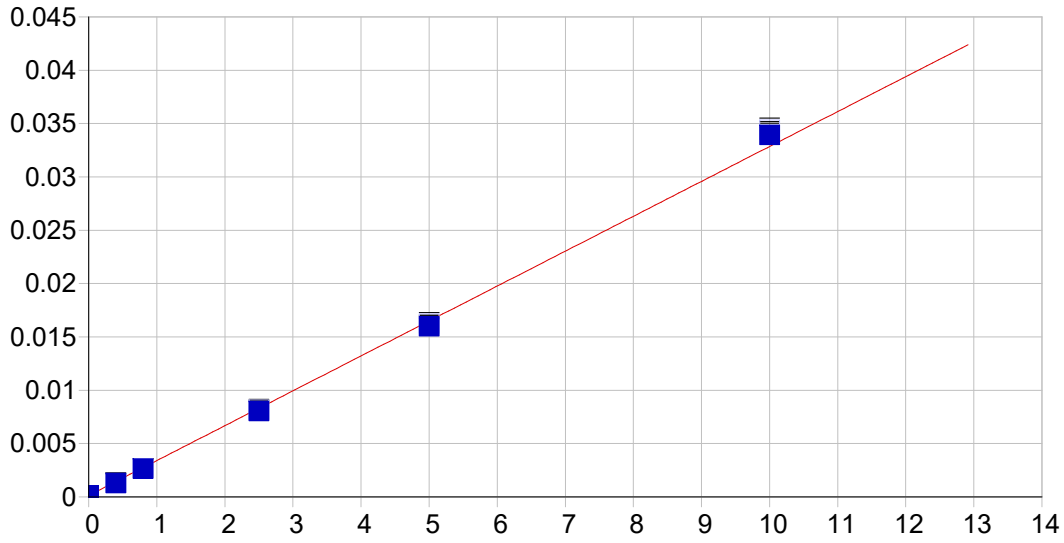


Ti 336.121 {100}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001294	Re-Slope:	1.000000
A1 (Gain):	0.290182	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000070		
Predicted MDL:	0.001570		
Predicted MQL:	0.005233		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00129	.000	1
S1	.04000	.04053	.001	1.33	.01305	.000	1
S3	2.5000	2.5094	.009	.376	.72922	.006	1
S4	5.0000	4.9413	-.059	-1.17	1.4346	.003	1
S5	10.000	10.041	.041	.410	2.9140	.005	1
S2	.80000	.80782	.008	.978	.23563	.001	1

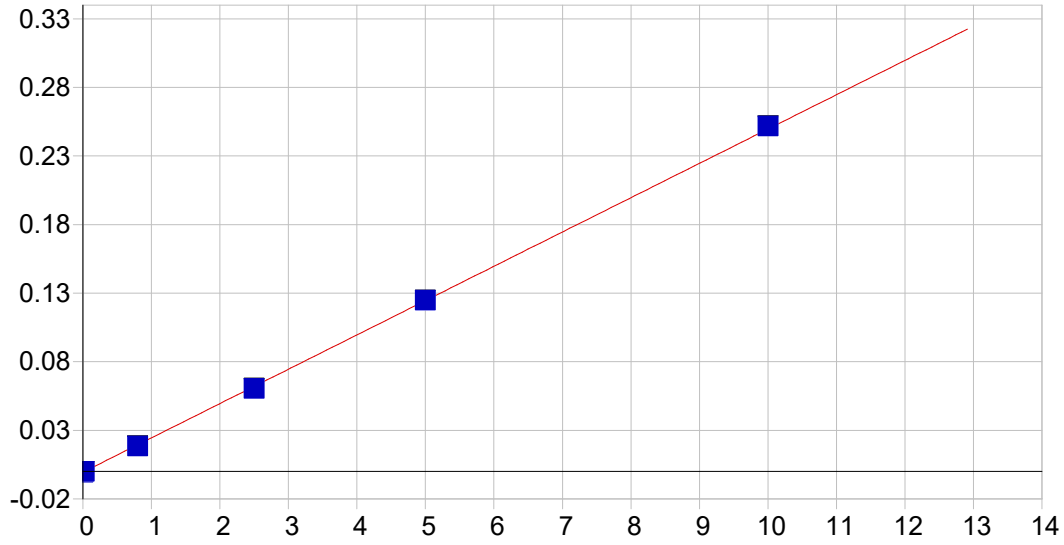


Si 288.158 {117}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000131	Re-Slope:	1.000000
A1 (Gain):	0.003272	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999312	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.011804		
Predicted MQL:	0.039348		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00013	.000	1
S1	.40000	.35060	-.049	-12.4	.00128	.000	1
S3	2.5000	2.4137	-.086	-3.45	.00815	.000	1
S4	5.0000	4.8429	-.157	-3.14	.01622	.000	1
S5	10.000	10.329	.329	3.29	.03442	.000	1
S2	.80000	.76336	-.037	-4.58	.00267	.000	1

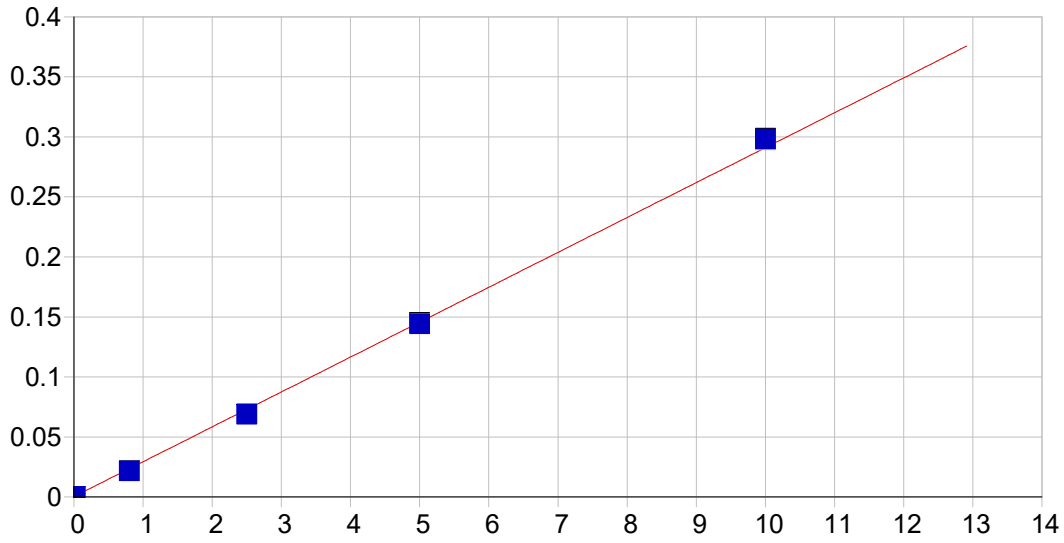


P 177.495 {490}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000528	Re-Slope:	1.000000
A1 (Gain):	0.025020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.002641		
Predicted MQL:	0.008804		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00053	.000	1
S1	.02000	.01961	-.000	-1.96	-.00004	.000	1
S3	2.5000	2.4403	-.060	-2.39	.06052	.000	1
S4	5.0000	5.0083	.008	.165	.12476	.000	1
S5	10.000	10.087	.087	.874	.25182	.000	1
S2	.80000	.76450	-.035	-4.44	.01860	.000	1

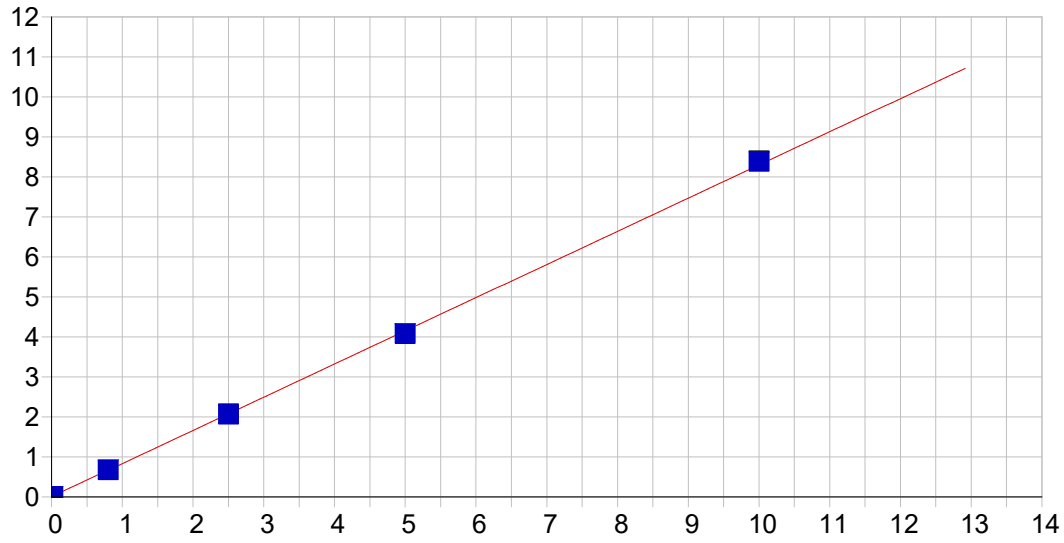


S 182.034 {485}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000215	Re-Slope:	1.000000
A1 (Gain):	0.029079	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999484	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.002820		
Predicted MQL:	0.009399		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00022	.000	1
S1	.02000	.02134	.001	6.69	.00081	.000	1
S3	2.5000	2.3615	-.138	-5.54	.06870	.000	1
S4	5.0000	4.9542	-.046	-.916	.14390	.001	1
S5	10.000	10.244	.244	2.44	.29735	.001	1
S2	.80000	.73885	-.061	-7.64	.02164	.000	1

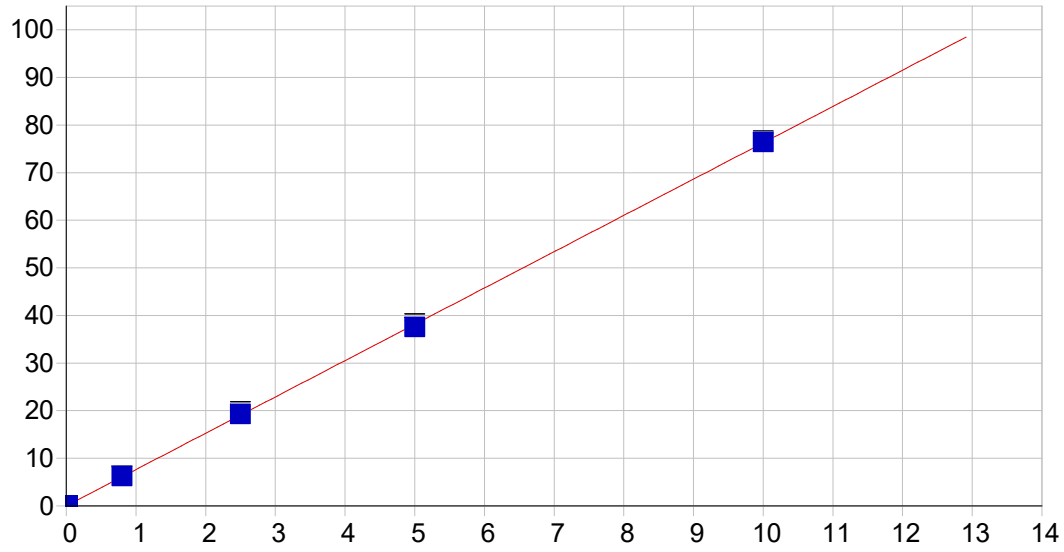


Li 670.784 { 50}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005393	Re-Slope:	1.000000
A1 (Gain):	0.829297	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000243		
Predicted MDL:	0.001826		
Predicted MQL:	0.006086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00539	.000	1
S5	10.000	10.100	.100	.997	8.3876	.011	1
S4	5.0000	4.9088	-.091	-1.82	4.0795	.003	1
S3	2.5000	2.4829	-.017	-.685	2.0661	.009	1
S1	.02000	.02022	.000	1.12	.02246	.001	1
S2	.80000	.80847	.008	1.06	.67639	.002	1

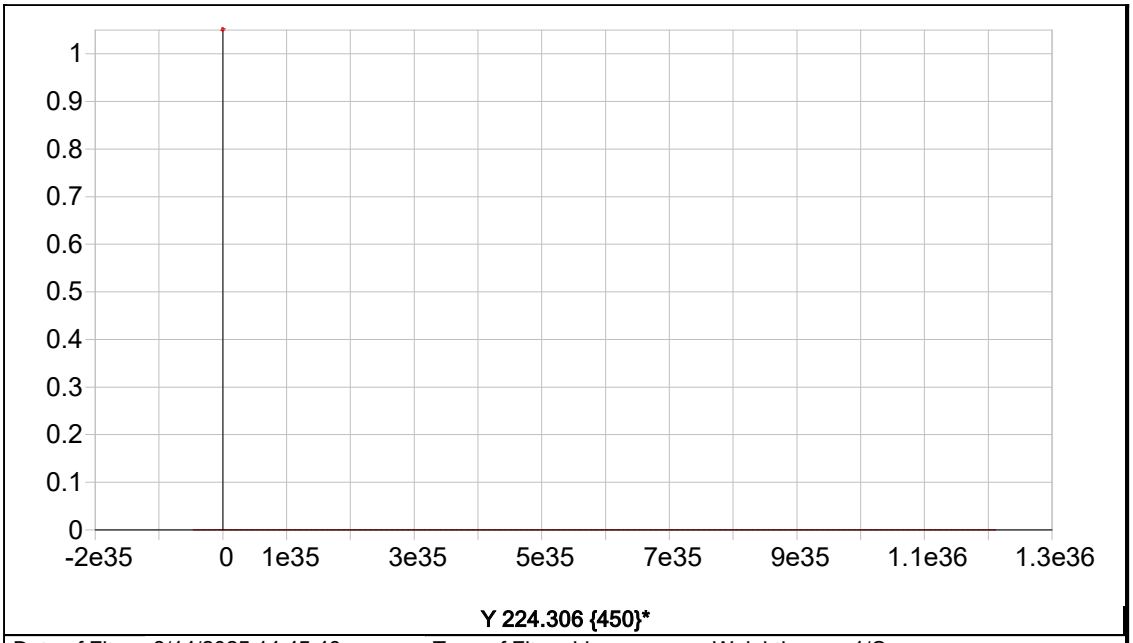


Sr 407.771 { 83}

Date of Fit:	8/14/2025 14:45:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001208	Re-Slope:	1.000000
A1 (Gain):	7.627087	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.002006		
Predicted MDL:	0.000102		
Predicted MQL:	0.000341		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00120	.000	1
S1	.02000	.02067	.001	3.33	.15957	.001	1
S3	2.5000	2.5325	.033	1.30	19.335	.476	1
S4	5.0000	4.9243	-.076	-1.51	37.596	.665	1
S5	10.000	10.019	.019	.192	76.492	.193	1
S2	.80000	.82333	.023	2.92	6.2867	.013	1

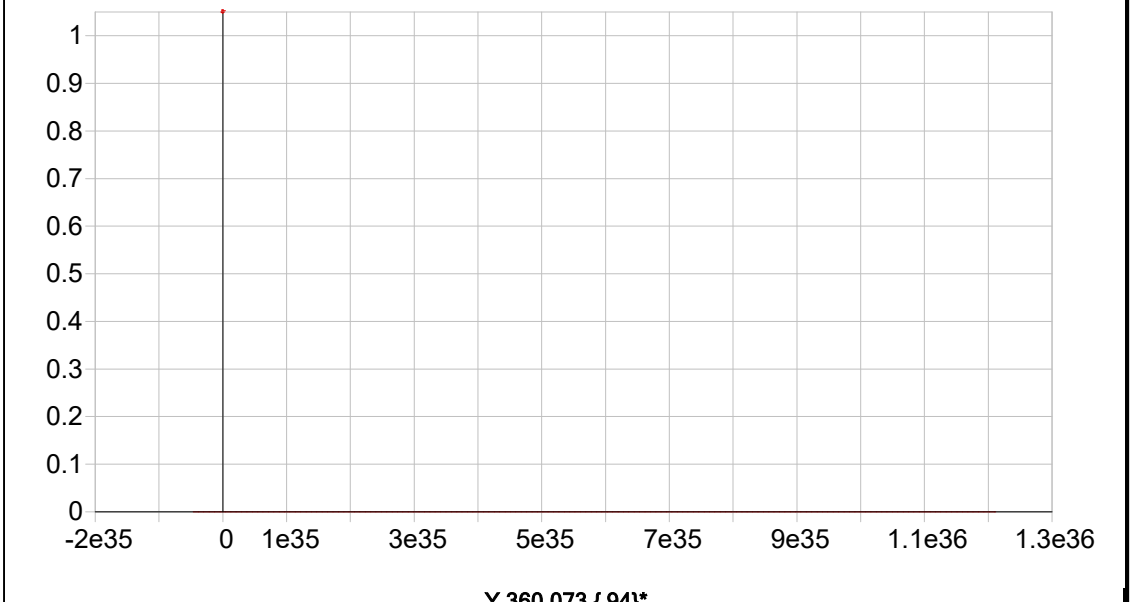


Y 224.306 {450}*

Date of Fit:	8/14/2025 14:45:49	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



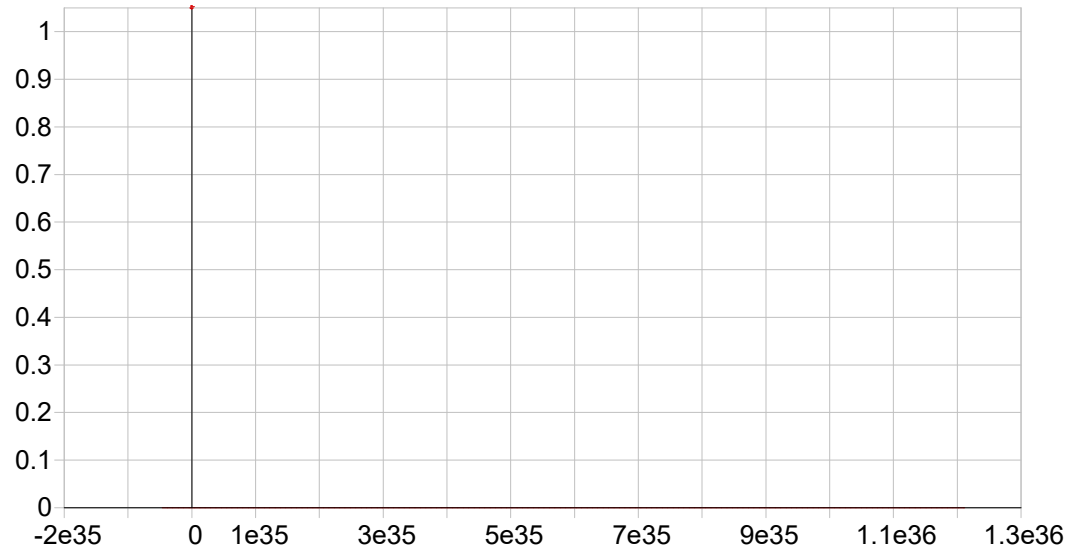
Y 360.073 { 94}*

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

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					

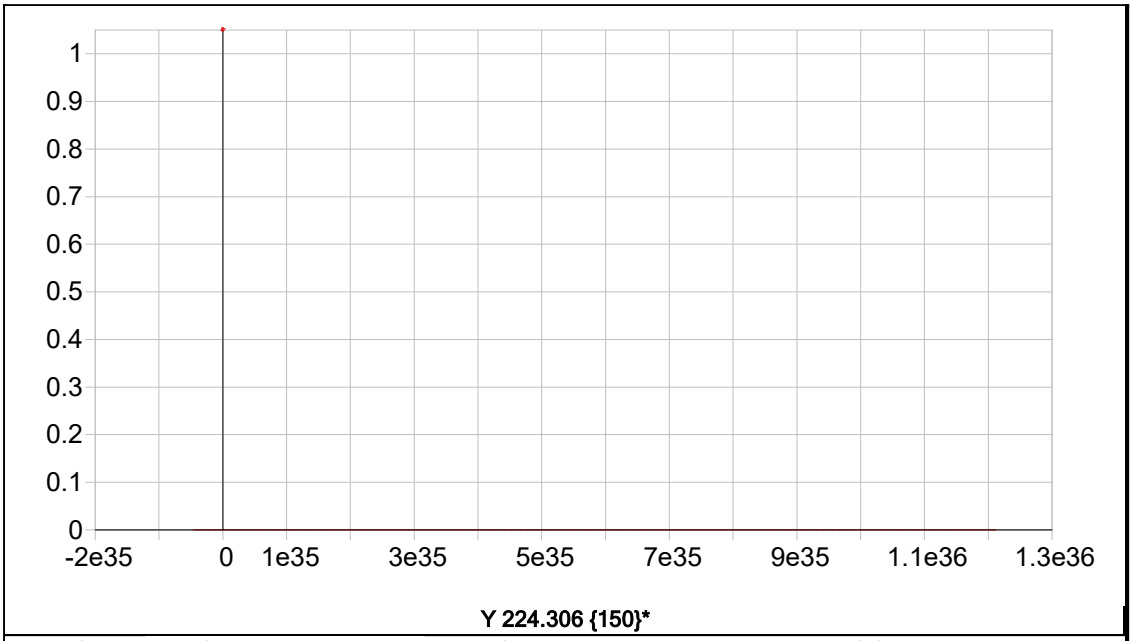
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

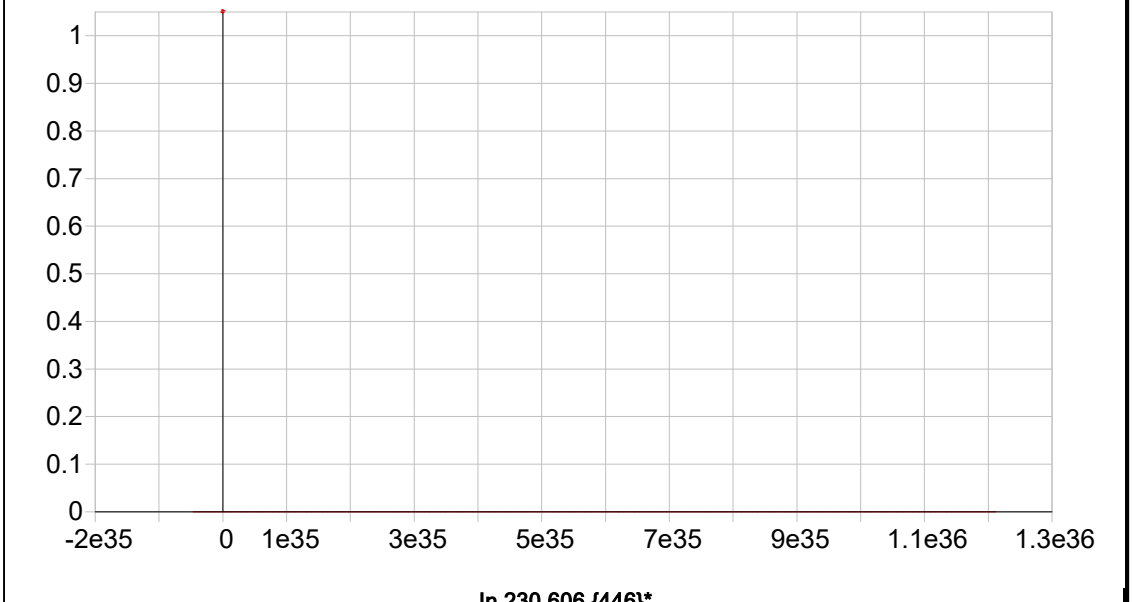
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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	

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**

Sample Name: S0 Acquired: 8/14/2025 11:39:38 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**-.00010**	**.00092**	**.00006**	**.00044**	**.00041**	**.00067**	**.09217**	**-.00069**
Stddev	.00008	.00006	.00025	.00010	.00001	.00071	.00217	.00034
%RSD	82.743	6.0141	392.83	23.561	2.5983	105.73	2.3551	49.222
#1	-.00016	.00086	.00032	.00034	.00040	-.00002	.09020	-.00081
#2	-.00012	.00097	.00004	.00043	.00041	.00062	.09181	-.00095
#3	-.00001	.00094	-.00018	.00055	.00042	.00140	.09449	-.00031

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	**-.00043**	**.00132**	**.00019**	**.00021**	**.00046**	**.00003**	**.00031**	**-.00004**
Stddev	.00015	.00044	.00004	.00012	.00029	.00001	.00014	.00007
%RSD	35.161	33.043	19.229	58.755	62.292	17.887	46.311	185.71
#1	-.00030	.00085	.00018	.00032	.00023	.00003	.00047	-.00012
#2	-.00039	.00138	.00016	.00008	.00079	.00002	.00019	-.00002
#3	-.00060	.00172	.00023	.00023	.00037	.00003	.00027	.00002

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	**-.00050**	**-.00080**	**.00166**	**-.00006**	**.00458**	**-.00088**	**.00431**	**.00038**
Stddev	.00020	.00004	.00001	.00016	.00041	.00007	.00022	.00010
%RSD	40.314	5.3714	.35490	293.44	8.9721	8.1041	5.0453	25.341
#1	-.00037	-.00085	.00167	.00012	.00495	-.00086	.00406	.00039
#2	-.00073	-.00077	.00166	-.00010	.00464	-.00096	.00441	.00048
#3	-.00041	-.00078	.00167	-.00019	.00414	-.00082	.00447	.00028

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	**.00243**	**.00129**	**.00013**	**-.00053**	**.00022**	**.00539**	**.00120**
Stddev	.00005	.00027	.00004	.00001	.00008	.00039	.00042
%RSD	2.0118	20.966	30.954	1.0589	36.349	7.2658	35.121
#1	.00238	.00152	.00017	-.00053	.00020	.00499	.00126
#2	.00246	.00137	.00014	-.00052	.00030	.00541	.00159
#3	.00246	.00099	.00009	-.00053	.00014	.00578	.00075

Sample Name: S0 Acquired: 8/14/2025 11:39:38 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**5873.8**	**102370.**	**10448.**	**4601.8**	**7553.2**
Stddev	14.7	125.	9.	.9	12.9
%RSD	.25033	.12241	.08768	.01941	.17094
#1	5856.9	102510.	10454.	4601.2	7539.8
#2	5881.1	102260.	10452.	4602.8	7554.2
#3	5883.5	102340.	10437.	4601.5	7565.6

Sample Name: S1 Acquired: 8/14/2025 11:44:04 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**.00106**	**.00407**	**.00256**	**.00128**	**.00548**	**.00921**	**.33576**	**.04366**
Stddev	.00010	.00004	.00031	.00006	.00011	.00006	.00149	.00065
%RSD	9.1189	.98222	11.998	4.7054	2.0405	.59984	.44371	1.4824
#1	.00114	.00403	.00242	.00132	.00535	.00927	.33733	.04436
#2	.00108	.00406	.00235	.00121	.00557	.00916	.33436	.04308
#3	.00095	.00411	.00291	.00130	.00552	.00919	.33560	.04354

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	**.01692**	**.12327**	**.00221**	**.03110**	**.01474**	**.00038**	**.00948**	**.02577**
Stddev	.00013	.00080	.00002	.00006	.00003	.00000	.00017	.00021
%RSD	.76453	.65252	.87164	.18291	.22380	1.1418	1.7428	.83200
#1	.01706	.12342	.00222	.03104	.01472	.00038	.00942	.02583
#2	.01688	.12240	.00223	.03110	.01473	.00038	.00936	.02553
#3	.01681	.12399	.00219	.03115	.01478	.00038	.00967	.02595

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	**.02349**	**.00127**	**.01840**	**.00496**	**.10423**	**.00818**	**.07739**	**.13630**
Stddev	.00005	.00002	.00015	.00039	.00014	.00036	.00040	.00042
%RSD	.22053	1.2817	.82123	7.9099	.13532	4.4397	.51548	.30848
#1	.02353	.00128	.01827	.00461	.10414	.00829	.07746	.13618
#2	.02343	.00125	.01857	.00489	.10415	.00847	.07696	.13595
#3	.02350	.00126	.01836	.00539	.10439	.00777	.07775	.13677

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	**.00810**	**.01305**	**.00128**	**-.00004**	**.00081**	**.02246**	**.15957**
Stddev	.00007	.00015	.00004	.00002	.00002	.00117	.00067
%RSD	.86407	1.1282	3.2698	49.817	2.9972	5.2296	.41884
#1	.00815	.01288	.00133	-.00003	.00081	.02119	.16015
#2	.00802	.01316	.00124	-.00002	.00079	.02350	.15972
#3	.00813	.01310	.00128	-.00006	.00084	.02268	.15884

Sample Name: S1 Acquired: 8/14/2025 11:44:04 Type: Cal
Method: 6010-200.7 NEW(v98) 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	5777.7	101130.	10306.	4553.0	7295.6
Stddev	2.7	195.	66.	12.1	5.1
%RSD	.04615	.19315	.64205	.26678	.06930
#1	5777.4	101020.	10271.	4539.4	7295.7
#2	5775.3	101360.	10382.	4562.8	7290.4
#3	5780.6	101020.	10265.	4556.8	7300.5

Sample Name: S2 Acquired: 8/14/2025 11:48:27 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**.04093**	**.06323**	**.15739**	**.03893**	**.07733**	**.12767**	**3.9059**	**.27646**
Stddev	.00009	.00073	.00048	.00007	.00021	.00009	.0070	.00116
%RSD	.23064	1.1617	.30196	.17668	.26737	.07238	.17838	.41967
#1	.04086	.06246	.15763	.03886	.07709	.12766	3.9067	.27753
#2	.04103	.06393	.15684	.03895	.07748	.12777	3.9124	.27662
#3	.04089	.06329	.15770	.03899	.07741	.12759	3.8986	.27523

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	**1.1582**	**.23852**	**.03280**	**.40655**	**.13678**	**.00290**	**.17178**	**.04708**
Stddev	.0016	.00099	.00009	.00033	.00016	.00003	.00069	.00015
%RSD	.14088	.41706	.26689	.08092	.11862	.99109	.40448	.32700
#1	1.1597	.23824	.03271	.40691	.13669	.00287	.17254	.04713
#2	1.1564	.23769	.03280	.40627	.13668	.00292	.17164	.04721
#3	1.1583	.23962	.03288	.40647	.13697	.00291	.17117	.04691

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	**.23605**	**.04037**	**.03577**	**.05157**	**.97591**	**.01771**	**.57204**	**.54239**
Stddev	.00053	.00002	.00017	.00039	.00212	.00007	.00334	.00103
%RSD	.22533	.04726	.47056	.75032	.21680	.41237	.58439	.18967
#1	.23665	.04035	.03559	.05181	.97725	.01763	.57493	.54131
#2	.23566	.04039	.03581	.05178	.97702	.01776	.57281	.54337
#3	.23584	.04036	.03592	.05112	.97347	.01775	.56838	.54248

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	**.11311**	**.23563**	**.00267**	**.01860**	**.02164**	**.67639**	**6.2867**
Stddev	.00027	.00075	.00001	.00009	.00009	.00248	.0127
%RSD	.24007	.31702	.46475	.50101	.40475	.36626	.20266
#1	.11316	.23576	.00268	.01867	.02167	.67473	6.2845
#2	.11282	.23629	.00266	.01849	.02154	.67924	6.3004
#3	.11335	.23482	.00267	.01863	.02171	.67519	6.2752

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: S2 Acquired: 8/14/2025 11:48:27 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**5646.3**	**97642.**	**10343.**	**4387.6**	**7009.7**
Stddev	11.7	140.	70.	12.1	9.7
%RSD	.20799	.14348	.67809	.27504	.13906
#1	5649.8	97564.	10287.	4380.8	7002.4
#2	5633.2	97557.	10321.	4380.5	7006.0
#3	5655.8	97803.	10422.	4401.5	7020.8

Sample Name: S3 Acquired: 8/14/2025 11:52:33 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**.12780**	**.19162**	**.48868**	**.12039**	**.23863**	**.39635**	**11.983**	**.85421**
Stddev	.00006	.00142	.00032	.00025	.00031	.00073	.069	.00974
%RSD	.04306	.74181	.06465	.20976	.12885	.18356	.57499	1.1399
#1	.12782	.19189	.48892	.12050	.23840	.39677	11.974	.84297
#2	.12784	.19009	.48833	.12010	.23852	.39551	11.919	.86007
#3	.12774	.19289	.48880	.12057	.23898	.39676	12.056	.85958

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	**3.6546**	**.73183**	**.10093**	**1.2700**	**.41813**	**.00866**	**.52365**	**.14454**
Stddev	.0078	.00222	.00010	.0012	.00032	.00008	.00465	.00103
%RSD	.21275	.30336	.09624	.09789	.07616	.86616	.88746	.71154
#1	3.6623	.73020	.10104	1.2713	.41815	.00873	.51929	.14340
#2	3.6468	.73093	.10088	1.2688	.41781	.00858	.52313	.14482
#3	3.6547	.73436	.10087	1.2698	.41844	.00866	.52854	.14540

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	**.73638**	**.12596**	**.10822**	**.15945**	**2.9773**	**.05774**	**1.7485**	**1.6712**
Stddev	.00100	.00020	.00110	.00039	.0124	.00049	.0202	.0034
%RSD	.13623	.15841	1.0204	.24639	.41516	.84374	1.1563	.20256
#1	.73662	.12581	.10924	.15910	2.9633	.05824	1.7252	1.6715
#2	.73528	.12618	.10704	.15936	2.9817	.05727	1.7607	1.6677
#3	.73725	.12588	.10836	.15987	2.9869	.05770	1.7597	1.6744

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	**.35432**	**.72922**	**.00815**	**.06052**	**.06870**	**2.0661**	**19.335**
Stddev	.00065	.00552	.00006	.00016	.00020	.0086	.476
%RSD	.18409	.75756	.77932	.27172	.29039	.41468	2.4605
#1	.35506	.72599	.00822	.06039	.06852	2.0593	18.786
#2	.35411	.72606	.00810	.06045	.06866	2.0633	19.612
#3	.35380	.73560	.00813	.06070	.06891	2.0757	19.607

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: S3 Acquired: 8/14/2025 11:52:33 Type: Cal
Method: 6010-200.7 NEW(v98) 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	5564.8	96063.	10386.	4315.7	6749.8
Stddev	8.2	84.	114.	19.4	17.4
%RSD	.14736	.08786	1.0991	.45043	.25709
#1	5558.3	96091.	10516.	4336.6	6732.8
#2	5562.0	95968.	10303.	4312.5	6749.2
#3	5574.0	96130.	10339.	4298.2	6767.5

Sample Name: S4 Acquired: 8/14/2025 11:56:38 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**.25939**	**.39387**	**.97312**	**.24598**	**.48014**	**.77917**	**23.430**	**1.6613**
Stddev	.00099	.01726	.00214	.00170	.00086	.00311	.304	.0133
%RSD	.38239	4.3829	.22029	.69311	.17977	.39852	1.2963	.80113
#1	.25826	.37486	.97065	.24404	.47917	.77918	23.544	1.6612
#2	.26009	.39820	.97418	.24666	.48082	.78227	23.660	1.6746
#3	.25983	.40856	.97453	.24725	.48043	.77606	23.085	1.6480

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	**7.3718**	**1.4301**	**.19599**	**2.5513**	**.82381**	**.01698**	**1.0232**	**.28627**
Stddev	.0111	.0059	.00073	.0025	.00222	.00017	.0019	.00084
%RSD	.15011	.41264	.37258	.09823	.26887	1.0089	.18661	.29242
#1	7.3590	1.4315	.19632	2.5485	.82129	.01705	1.0252	.28649
#2	7.3777	1.4352	.19651	2.5531	.82546	.01679	1.0215	.28697
#3	7.3786	1.4237	.19516	2.5524	.82467	.01711	1.0228	.28534

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	**1.4774**	**.24963**	**.21874**	**.31806**	**5.9260**	**.11679**	**3.4479**	**3.3048**
Stddev	.0005	.00028	.00122	.00088	.0045	.00039	.0227	.0132
%RSD	.03255	.11051	.55741	.27586	.07662	.33689	.65848	.40055
#1	1.4768	.24987	.21896	.31907	5.9214	.11702	3.4474	3.2907
#2	1.4778	.24933	.21742	.31746	5.9305	.11634	3.4709	3.3067
#3	1.4774	.24969	.21983	.31766	5.9262	.11702	3.4255	3.3169

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	**.71016**	**1.4346**	**.01622**	**.12476**	**.14390**	**4.0795**	**37.596**
Stddev	.00330	.0025	.00013	.00008	.00117	.0035	.665
%RSD	.46461	.17566	.78059	.06156	.81427	.08571	1.7683
#1	.70635	1.4375	.01636	.12473	.14256	4.0807	37.196
#2	.71213	1.4328	.01611	.12470	.14469	4.0823	38.363
#3	.71199	1.4336	.01621	.12484	.14446	4.0756	37.228

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: S4 Acquired: 8/14/2025 11:56:38 Type: Cal
Method: 6010-200.7 NEW(v98) 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	5480.8	96876.	10538.	4265.9	6516.4
Stddev	15.2	235.	90.	5.0	15.4
%RSD	.27733	.24260	.85745	.11664	.23645
#1	5489.9	96811.	10533.	4260.9	6519.2
#2	5489.2	96680.	10451.	4270.8	6530.3
#3	5463.2	97137.	10631.	4265.9	6499.8

Sample Name: S5 Acquired: 8/14/2025 12:00:49 Type: Cal
Method: 6010-200.7 NEW(v98) 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	**.52214**	**.75055**	**1.9887**	**.49001**	**.97101**	**1.5704**	**47.804**	**3.2362**
Stddev	.00132	.01405	.0017	.00140	.00235	.0034	.239	.0019
%RSD	.25354	1.8716	.08687	.28502	.24250	.21977	.49959	.05742
#1	.52239	.75494	1.9872	.49014	.96946	1.5675	47.729	3.2382
#2	.52071	.73483	1.9906	.48856	.96986	1.5742	48.072	3.2346
#3	.52332	.76187	1.9883	.49134	.97372	1.5694	47.612	3.2357

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	**15.012**	**2.8571**	**.38946**	**5.2257**	**1.6392**	**.03526**	**2.0548**	**.57163**
Stddev	.010	.0015	.00205	.0024	.0008	.00024	.0064	.00079
%RSD	.06610	.05408	.52737	.04678	.05214	.66742	.30989	.13849
#1	15.004	2.8584	.39109	5.2233	1.6388	.03547	2.0615	.57137
#2	15.023	2.8575	.39013	5.2282	1.6386	.03531	2.0541	.57100
#3	15.009	2.8554	.38715	5.2256	1.6402	.03501	2.0488	.57252

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	**3.0151**	**.50684**	**.46492**	**.64436**	**11.860**	**.24910**	**6.7240**	**6.6477**
Stddev	.0042	.00054	.00334	.00101	.040	.00112	.0188	.0128
%RSD	.14040	.10744	.71935	.15665	.33913	.44979	.27939	.19220
#1	3.0111	.50745	.46761	.64322	11.898	.25013	6.7181	6.6475
#2	3.0195	.50669	.46597	.64473	11.865	.24927	6.7089	6.6351
#3	3.0149	.50639	.46117	.64514	11.818	.24791	6.7451	6.6607

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	**1.4353**	**2.9140**	**.03442**	**.25182**	**.29735**	**8.3876**	**76.492**
Stddev	.0015	.0053	.00017	.00044	.00095	.0115	.193
%RSD	.10494	.18051	.48667	.17560	.31965	.13657	.25187
#1	1.4336	2.9194	.03427	.25163	.29687	8.4001	76.714
#2	1.4361	2.9135	.03460	.25232	.29674	8.3854	76.378
#3	1.4362	2.9089	.03439	.25149	.29845	8.3775	76.383

Sample Name: S5 Acquired: 8/14/2025 12:00:49 Type: Cal
Method: 6010-200.7 NEW(v98) 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	5419.0	95852.	10776.	4174.5	6287.6
Stddev	10.4	471.	20.	35.0	10.7
%RSD	.19211	.49106	.18317	.83884	.17087
#1	5429.8	95531.	10755.	4149.9	6299.6
#2	5418.3	95633.	10781.	4159.1	6278.9
#3	5409.0	96393.	10794.	4214.6	6284.3

Sample Name: ICV01 Acquired: 8/14/2025 12:05:00 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**3.983115**	**3.831936**	**3.889633**	**3.973990**	**4.099898**	**8.031750**
Stddev	.008305	.078506	.003423	.010526	.002386	.017868
%RSD	.2084992	2.048737	.0880110	.2648745	.0581933	.2224623
#1	3.985177	3.863460	3.890532	3.972193	4.102547	8.017479
#2	3.973973	3.742568	3.885849	3.964478	4.097919	8.025983
#3	3.990194	3.889781	3.892516	3.985299	4.099227	8.051789

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.039274**	**.2024571**	**1.975279**	**20.09242**	**.8202612**	**2.012214**
Stddev	.066125	.0008682	.002011	.05043	.0028819	.001880
%RSD	.8225304	.4288514	.1018318	.2509945	.3513335	.0934154
#1	7.970977	.2014557	1.975581	20.03584	.8233503	2.014179
#2	8.102990	.2029162	1.973133	20.13262	.8176451	2.010433
#3	8.043855	.2029994	1.977122	20.10881	.8197884	2.012031

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.025120**	**4.049689**	**2.015337**	**20.07467**	**2.006392**	**1.072744**
Stddev	.000149	.008283	.005588	.11584	.002603	.000733
%RSD	.0145115	.2045378	.2772597	.5770688	.1297477	.0683257
#1	1.025104	4.050945	2.010583	19.98325	2.005540	1.073322
#2	1.025276	4.057272	2.021492	20.03581	2.004322	1.072991
#3	1.024980	4.040850	2.013937	20.20494	2.009315	1.071919

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.65383**	**2.018386**	**2.004004**	**19.84979**	**3.963730**	**4.091221**
Stddev	.05700	.002018	.008143	.04590	.017439	.004505
%RSD	.2900000	.0999879	.4063407	.2312326	.4399621	.1101216
#1	19.65307	2.016996	2.012098	19.85721	3.943829	4.094664
#2	19.71120	2.020700	1.995813	19.89153	3.971025	4.086122
#3	19.59721	2.017461	2.004100	19.80064	3.976338	4.092878

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: ICV01 Acquired: 8/14/2025 12:05:00 Type: Unk
Method: 6010-200.7 NEW(v98) 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	3.977435	4.028995	3.862312	F .0036382	F .0316200	F .0036675
Stddev	.010595	.006326	.014334	.0034519	.0021320	.0015016
%RSD	.2663762	.1570066	.3711203	94.88108	6.742691	40.94357
#1	3.979647	4.021962	3.875033	.0001522	.0293724	.0022505
#2	3.965908	4.034219	3.865122	.0037073	.0318740	.0035106
#3	3.986748	4.030806	3.846782	.0070550	.0336137	.0052415

Elem	Sr4077
Units	ppm
Avg	F -.003413
Stddev	.000037
%RSD	1.097482
#1	-.003428
#2	-.003370
#3	-.003441

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5531.259	97090.78	10825.54	4246.931	6667.203
Stddev	12.144	309.61	43.46	17.920	7.714
%RSD	.2195540	.3188877	.4014562	.4219617	.1156933
#1	5527.738	96887.24	10860.39	4228.270	6663.765
#2	5521.264	97447.08	10839.39	4264.005	6661.807
#3	5544.774	96938.02	10776.85	4248.518	6676.038

Sample Name: LLICV01 Acquired: 8/14/2025 12:09:05 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0213823**	**.0417178**	**.0121627**	**.0195805**	**.0531848**	**.0902064**
Stddev	.0009559	.0009872	.0009880	.0018248	.0007901	.0030218
%RSD	4.470651	2.366357	8.123563	9.319634	1.485474	3.349888
#1	.0207778	.0406249	.0129021	.0181910	.0538751	.0889016
#2	.0224844	.0419835	.0125453	.0189035	.0523231	.0880563
#3	.0208849	.0425449	.0110405	.0216471	.0533563	.0936614

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0978587**	**.0062208**	**.0058459**	**2.091367**	**.0107134**	**.0298686**
Stddev	.0008121	.0000360	.0000284	.002960	.0001968	.0000713
%RSD	.8298370	.5793897	.4864702	.1415261	1.836751	.2386857
#1	.0977667	.0062343	.0058376	2.087972	.0105317	.0298625
#2	.0970965	.0062482	.0058226	2.092727	.0106862	.0298006
#3	.0987128	.0061800	.0058776	2.093402	.0109224	.0299428

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0215755**	**.1121069**	**.0215660**	**2.198578**	**.0402091**	**.0104762**
Stddev	.0005207	.0007384	.0003913	.038518	.0003417	.0003583
%RSD	2.413151	.6586426	1.814491	1.751940	.8497810	3.420063
#1	.0209786	.1112680	.0218595	2.155669	.0402190	.0107686
#2	.0219361	.1126581	.0217168	2.209895	.0398626	.0105833
#3	.0218117	.1123947	.0211217	2.230169	.0405457	.0100765

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.917047**	**.0394358**	**.0428785**	**2.025081**	F **.1226145**	**.2101118**
Stddev	.017376	.0024628	.0002496	.012520	.0010521	.0001475
%RSD	.9064074	6.245087	.5822018	.6182589	.8580269	.0702122
#1	1.915372	.0420531	.0431567	2.036886	.1220081	.2102661
#2	1.935200	.0371640	.0426740	2.026406	.1238294	.2100970
#3	1.900568	.0390903	.0428050	2.011951	.1220062	.2099722

Sample Name: LLICV01 Acquired: 8/14/2025 12:09:05 Type: Unk
Method: 6010-200.7 NEW(v98) 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	F .0247853	.0403823	.3934222	.0165115	.0208180	F .0240415
Stddev	.0005211	.0009143	.0126056	.0022866	.0016048	.0012545
%RSD	2.102346	2.264021	3.204095	13.84849	7.708655	5.218282
#1	.0248003	.0407973	.3961154	.0147891	.0191474	.0254868
#2	.0242569	.0393342	.3796876	.0191058	.0223477	.0234035
#3	.0252988	.0410156	.4044636	.0156396	.0209588	.0232341

Elem	Sr4077
Units	ppm
Avg	.0201339
Stddev	.0000982
%RSD	.4875072
#1	.0202003
#2	.0201802
#3	.0200212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5701.620	100508.9	10894.33	4336.273	7268.006
Stddev	14.008	97.0	60.80	9.371	15.336
%RSD	.2456774	.0965509	.5580570	.2161087	.2110062
#1	5685.677	100620.6	10964.48	4337.092	7250.526
#2	5711.953	100461.2	10856.99	4345.207	7279.204
#3	5707.230	100445.0	10861.52	4326.519	7274.286

Sample Name: ICB01 Acquired: 8/14/2025 12:13:21 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0002298**	**.0005026**	**.0004058**	**.0006011**	**.0022911**	**-.004473**	**-.001179**
Stddev	.0009218	.0012439	.0007915	.0020429	.0010671	.008816	.000719
%RSD	401.1543	247.5144	195.0551	339.8793	46.57637	197.1131	61.02428
#1	-.000113	.0018840	-.000373	.0008550	.0035123	-.007412	-.001742
#2	-.000472	-.000529	.001209	.0025051	.0015381	.005438	-.001426
#3	.001274	.000152	.000382	-.001557	.0018229	-.011443	-.000368

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000010**	**.0001187**	**.0216559**	**.0005406**	**.0001733**	**.0001837**	**.0231846**
Stddev	.000036	.0000400	.0031372	.0002058	.0000390	.0006504	.0013093
%RSD	356.8307	33.73577	14.48634	38.07890	22.53313	354.0824	5.647170
#1	-.000005	.0001626	.0251127	.0003333	.0001481	-.000534	.0246733
#2	-.000048	.0000841	.0189897	.0005435	.0001535	.000351	.0226688
#3	.000023	.0001094	.0208652	.0007449	.0002182	.000734	.0222118

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008928**	**.0019572**	**.0010869**	**.0005929**	**.0138255**	**.0008757**	**.0032484**
Stddev	.0005819	.0208712	.0000973	.0004128	.0118668	.0007327	.0000452
%RSD	65.18051	1066.392	8.951284	69.62126	85.83296	83.67391	1.390545
#1	.0004154	-.015581	.0009949	.0010453	.0066060	.0017186	.0032971
#2	.0007220	-.003589	.0011887	.0004971	.0073491	.0003908	.0032403
#3	.0015411	.025041	.0010770	.0002365	.0275214	.0005177	.0032079

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0487387**	**.0129003**	**.0008296**	**-.013039**	**.0000832**	**.0059875**	**.0017213**
Stddev	.0200701	.0006508	.0001699	.000272	.0005810	.0040532	.0010652
%RSD	41.17899	5.044592	20.47887	2.088748	698.3645	67.69503	61.87944
#1	.0567178	.0136449	.0009170	-.012725	.0007438	.0100363	.0027054
#2	.0259061	.0126152	.0009381	-.013181	-.000146	.0019299	.0005904
#3	.0635921	.0124406	.0006338	-.013212	-.000348	.0059961	.0018683

Sample Name: ICB01 Acquired: 8/14/2025 12:13:21 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0044082	.0009302	.0002286
Stddev	.0019912	.0011768	.0000429
%RSD	45.16973	126.5009	18.74714
#1	.0044665	.0020707	.0002150
#2	.0063696	.0009998	.0001942
#3	.0023886	-.000280	.0002766

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5670.487	100939.3	10862.56	4318.704	7325.825
Stddev	5.395	115.5	48.56	14.353	6.874
%RSD	.0951460	.1143978	.4470516	.3323393	.0938274
#1	5670.528	101004.8	10868.33	4302.481	7328.969
#2	5675.862	101007.1	10907.98	4329.750	7317.942
#3	5665.072	100806.0	10811.37	4323.880	7330.565

Sample Name: CRI01 Acquired: 8/14/2025 12:23:01 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0210861**	**.0412680**	**.0123628**	**.0178605**	**.0527549**	**.1053792**	**.0964454**
Stddev	.0008967	.0006478	.0010791	.0018821	.0019546	.0041325	.0007619
%RSD	4.252468	1.569614	8.728210	10.53755	3.705026	3.921587	.7899380
#1	.0201121	.0420157	.0135174	.0192618	.0507190	.1032425	.0956782
#2	.0212692	.0409092	.0121911	.0157213	.0546165	.1101427	.0972018
#3	.0218772	.0408789	.0113799	.0185984	.0529291	.1027525	.0964561

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062698**	**.0059237**	**2.069657**	**.0103718**	**.0298727**	**.0214296**	**.1061838**
Stddev	.0000211	.0000456	.010009	.0000577	.0000726	.0002092	.0004287
%RSD	.3373891	.7705565	.4836190	.5562377	.2429351	.9761585	.4036983
#1	.0062818	.0059700	2.062611	.0103754	.0297893	.0214155	.1065922
#2	.0062822	.0059224	2.081114	.0103123	.0299067	.0216455	.1057374
#3	.0062454	.0058788	2.065245	.0104275	.0299220	.0212278	.1062219

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0207229**	**2.181947**	**.0402143**	**.0110308**	**1.834180**	**.0367466**	**.0430272**
Stddev	.0003053	.019185	.0001315	.0003101	.007997	.0011098	.0001918
%RSD	1.473025	.8792714	.3271021	2.811667	.4360097	3.020202	.4457806
#1	.0209542	2.194871	.0400666	.0107255	1.840396	.0366604	.0431666
#2	.0203769	2.159903	.0402571	.0113456	1.825158	.0378970	.0428085
#3	.0208377	2.191067	.0403190	.0110213	1.836986	.0356824	.0431066

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.928746**	**.1058214**	**.2105935**	**.0336065**	**.0392938**	**.3742952**	**.0181968**
Stddev	.022942	.0007276	.0004305	.0002983	.0007069	.0081726	.0020823
%RSD	1.189481	.6876127	.2044318	.8875180	1.798934	2.183451	11.44326
#1	1.947335	.1049941	.2102959	.0338008	.0386869	.3713029	.0170968
#2	1.903106	.1061075	.2110872	.0332631	.0400699	.3680405	.0168952
#3	1.935797	.1063624	.2103975	.0337555	.0391246	.3835421	.0205984

Sample Name: CRI01 Acquired: 8/14/2025 12:23:01 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0205776	.0205029	.0200453
Stddev	.0020253	.0023570	.0001262
%RSD	9.841978	11.49581	.6296726
#1	.0182487	.0225656	.0199354
#2	.0215588	.0179339	.0201832
#3	.0219254	.0210092	.0200173

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5763.608	101503.7	11014.31	4361.004	7378.116
Stddev	8.529	242.2	38.21	15.591	16.080
%RSD	.1479726	.2385992	.3469469	.3575135	.2179444
#1	5753.943	101511.9	11048.28	4343.007	7359.981
#2	5766.804	101257.5	10972.94	4369.616	7383.728
#3	5770.076	101741.7	11021.70	4370.390	7390.637

Sample Name: ICSA01 Acquired: 8/14/2025 12:27:17 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0075727**	**-.003357**	**-.005206**	**-.003058**	**-.001095**	**250.5428**
Stddev	.0034473	.001740	.001174	.001247	.001496	.4618
%RSD	45.52275	51.82516	22.55075	40.79227	136.6599	.1843156
#1	.0037531	-.004266	-.006551	-.002840	-.001466	250.0878
#2	.0104529	-.004454	-.004390	-.004399	-.002370	250.5296
#3	.0085121	-.001351	-.004677	-.001933	.000552	251.0111

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000965**	**.0013551**	**.0029093**	**236.6456**	**.0603355**	**.0018407**
Stddev	.0004241	.0000592	.0000286	.4593	.0007318	.0001227
%RSD	439.5010	4.372077	.9818466	.1940958	1.212856	6.664332
#1	.0005044	.0012882	.0028904	236.7561	.0600622	.0019757
#2	-.000342	.0014011	.0029422	236.1411	.0597796	.0017362
#3	.000127	.0013759	.0028953	237.0395	.0611646	.0018100

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072050**	**99.78717**	**.0079467**	**251.4685**	**.0054012**	**.0014842**
Stddev	.0004738	.33812	.0002954	.6477	.0004339	.0006806
%RSD	6.575834	.3388378	3.717397	.2575749	8.033482	45.85823
#1	.0072758	99.68795	.0082821	251.8906	.0056928	.0011617
#2	.0076394	99.50976	.0078329	250.7228	.0056081	.0022662
#3	.0066998	100.1638	.0077252	251.7922	.0049025	.0010248

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1113047**	**.0021639**	**.0033253**	**.1302653**	**.0451729**	**.0010129**
Stddev	.0092092	.0009880	.0005992	.0205773	.0019586	.0004228
%RSD	8.273872	45.65865	18.02090	15.79649	4.335866	41.74117
#1	.1218443	.0030264	.0026721	.1274340	.0435161	.0005298
#2	.1072584	.0010860	.0038496	.1112501	.0446681	.0013155
#3	.1048114	.0023794	.0034542	.1521116	.0473345	.0011935

Sample Name: ICSA01 Acquired: 8/14/2025 12:27:17 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.017093	-.004564	.0259288	.0015885	-.008743	F -.026673
Stddev	.000544	.000171	.0061664	.0029764	.006692	.000514
%RSD	3.181835	3.750525	23.78194	187.3786	76.54074	1.925892
#1	-.016469	-.004487	.0252165	-.001818	-.001766	-.027220
#2	-.017470	-.004445	.0324205	.003685	-.015108	-.026200
#3	-.017339	-.004761	.0201496	.002898	-.009357	-.026598

Elem	Sr4077
Units	ppm
Avg	.0028082
Stddev	.0003299
%RSD	11.74692
#1	.0030898
#2	.0028895
#3	.0024452

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5005.005	88151.07	10554.21	3830.210	5782.522
Stddev	7.281	153.56	57.07	9.395	6.285
%RSD	.1454652	.1742002	.5407174	.2452904	.1086967
#1	4996.795	87990.46	10492.92	3832.753	5775.374
#2	5007.545	88296.44	10563.90	3838.071	5787.186
#3	5010.676	88166.30	10605.82	3819.805	5785.007

Sample Name: ICSAB01 Acquired: 8/14/2025 12:38:15 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.1101404**	**.1089983**	**.0425643**	**.0466071**	**.5928043**	**248.9878**
Stddev	.0053416	.0027981	.0003732	.0046662	.0043643	.3835
%RSD	4.849794	2.567076	.8767128	10.01181	.7362201	.1540337
#1	.1085369	.1105754	.0429598	.0412425	.5929422	249.1322
#2	.1057842	.1057676	.0422185	.0488550	.5970980	248.5530
#3	.1161000	.1106517	.0425147	.0497239	.5883726	249.2782

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4853229**	**.4963325**	**.9886766**	**235.5356**	**.5661622**	**.4944547**
Stddev	.0023793	.0022460	.0004385	.6697	.0016814	.0005784
%RSD	.4902504	.4525296	.0443504	.2843407	.2969734	.1169674
#1	.4880659	.4944216	.9882224	235.8099	.5664830	.4949519
#2	.4840862	.4957694	.9887099	234.7723	.5676600	.4945921
#3	.4838166	.4988065	.9890975	236.0247	.5643435	.4938200

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4903239**	**98.61986**	**.4865518**	**252.0626**	**.9866669**	**.2160691**
Stddev	.0001074	.67082	.0015308	.7698	.0007218	.0004531
%RSD	.0218982	.6802094	.3146245	.3053883	.0731513	.2096954
#1	.4903876	99.31400	.4877821	252.2033	.9859722	.2161437
#2	.4903842	98.57047	.4848375	251.2321	.9866154	.2164803
#3	.4902000	97.97509	.4870358	252.7522	.9874130	.2155834

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006452**	**.4790916**	**1.044322**	**-.000278**	**.9672500**	**1.005912**
Stddev	.011076	.0024162	.001152	.028008	.0041877	.000209
%RSD	171.6611	.5043282	.1103497	10089.61	.4329533	.0207286
#1	-.019207	.4793599	1.043487	.031811	.9676307	1.005845
#2	-.000892	.4765525	1.045637	-.012827	.9628849	1.006146
#3	.000742	.4813625	1.043843	-.019817	.9712344	1.005746

Sample Name: ICSAB01 Acquired: 8/14/2025 12:38:15 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.9824429	.9702644	1.005418	F .0062988	F .0008193	F -.032510
Stddev	.0027704	.0055856	.008784	.0042038	.0046006	.001009
%RSD	.2819896	.5756804	.8736808	66.73965	561.5008	3.103004
#1	.9793576	.9743642	.998022	.0023329	-.003188	-.033557
#2	.9847174	.9639026	1.015127	.0058578	-.000197	-.032428
#3	.9832538	.9725265	1.003105	.0107057	.005843	-.031545

Elem	Sr4077
Units	ppm
Avg	F .0025228
Stddev	.0004640
%RSD	18.39175
#1	.0021875
#2	.0023284
#3	.0030523

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5192.975	90543.49	10782.36	3947.009	6004.227
Stddev	8.861	299.13	58.87	9.318	8.600
%RSD	.1706386	.3303769	.5459618	.2360883	.1432334
#1	5187.286	90771.55	10839.12	3952.267	5998.025
#2	5203.185	90204.80	10786.38	3936.250	6014.044
#3	5188.455	90654.13	10721.59	3952.510	6000.611

Sample Name: ICSA01DLX20 Acquired: 8/14/2025 12:42:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0010744**	**.0007808**	**-.000452**	**-.001411**	**.0016594**	**12.09840**	**-.001222**
Stddev	.0013452	.0008230	.000748	.002158	.0019796	.02381	.000774
%RSD	125.2093	105.4140	165.6095	152.9982	119.2954	.1968039	63.33586
#1	-.000379	.0017282	-.001142	.001037	.0036305	12.08503	-.000624
#2	.001327	.0002428	-.000557	-.002230	.0016761	12.08428	-.002096
#3	.002275	.0003713	.000343	-.003040	-.000329	12.12589	-.000946

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000936**	**.0001225**	**11.97091**	**.0031140**	**.0001084**	**.0003743**	**4.724494**
Stddev	.0000865	.0000282	.04897	.0004883	.0001366	.0000935	.038559
%RSD	92.49452	23.03877	.4090605	15.68124	126.0651	24.98083	.8161560
#1	.0000050	.0000984	12.02593	.0029816	-.000011	.0002715	4.769004
#2	.0000977	.0001157	11.93211	.0036549	.000079	.0004542	4.703199
#3	.0001780	.0001535	11.95470	.0027056	.000257	.0003971	4.701278

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033705**	**12.56556**	**.0005497**	**.0005971**	**-.015384**	**-.000618**	**.0001347**
Stddev	.0002668	.01802	.0002229	.0002129	.013663	.001397	.0003393
%RSD	7.915770	.1433878	40.55481	35.65948	88.81337	225.9650	251.9335
#1	.0031065	12.57692	.0004889	.0005734	-.022341	.000859	.0004678
#2	.0033648	12.57497	.0003635	.0008209	-.024169	-.000796	-.000210
#3	.0036400	12.54478	.0007968	.0003970	.000357	-.001918	.000147

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001895**	**.0006398**	**.0004395**	**-.015085**	**.0002478**	**.0205204**	**-.000252**
Stddev	.016853	.0005575	.0001271	.000353	.0012907	.0059256	.001704
%RSD	889.2343	87.13644	28.92616	2.340934	520.7823	28.87666	676.0330
#1	-.002133	-.000002	.0005521	-.014683	.0017302	.0273495	.001713
#2	-.018628	.000912	.0003016	-.015342	-.000627	.0174730	-.001326
#3	.015075	.001009	.0004648	-.015232	-.000359	.0167386	-.001143

Sample Name: ICSA01DLX20 Acquired: 8/14/2025 12:42:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0000190	-.004506	.0002203
Stddev	.0021982	.000854	.0000417
%RSD	11585.57	18.95512	18.91821
#1	-.000794	-.003832	.0001764
#2	.002508	-.004220	.0002594
#3	-.001657	-.005467	.0002251

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5662.440	98670.18	10898.76	4236.293	7129.531
Stddev	18.326	420.54	14.27	16.118	25.654
%RSD	.3236424	.4262127	.1309411	.3804830	.3598209
#1	5648.225	98283.27	10910.72	4229.562	7108.245
#2	5655.972	98609.48	10882.96	4224.631	7122.333
#3	5683.123	99117.77	10902.60	4254.686	7158.015

Sample Name: ICSAB01DLX20 Acquired: 8/14/2025 12:46:33 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0048372	.0055963	.0040051	.0019855	.0315576	12.76710	.0233895
Stddev	.0007520	.0025436	.0013490	.0005297	.0004807	.01604	.0002968
%RSD	15.54492	45.45172	33.68197	26.67841	1.523298	.1256493	1.269128
#1	.0044907	.0034836	.0044907	.0023567	.0318409	12.75109	.0230474
#2	.0043210	.0048856	.0050441	.0013789	.0310026	12.78318	.0235432
#3	.0057000	.0084196	.0024805	.0022209	.0318295	12.76702	.0235780

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0256799	.0487169	12.61825	.0294966	.0244817	.0266158	4.988984
Stddev	.0001207	.0000598	.03024	.0001985	.0000281	.0001228	.027332
%RSD	.4698462	.1226699	.2396808	.6728473	.1145615	.4612585	.5478390
#1	.0255414	.0487704	12.61232	.0293048	.0245045	.0265677	4.989086
#2	.0257622	.0486524	12.65102	.0297011	.0244504	.0267553	5.016265
#3	.0257362	.0487279	12.59141	.0294839	.0244902	.0265244	4.961602

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0261608	13.15380	.0499155	.0109946	-.003454	.0237732	.0521969
Stddev	.0005609	.07329	.0001980	.0008295	.017123	.0019223	.0002983
%RSD	2.144196	.5571538	.3966377	7.544405	495.7248	8.086107	.5714240
#1	.0268084	13.08523	.0501368	.0105996	-.003139	.0237492	.0521912
#2	.0258298	13.23103	.0498545	.0119477	.013509	.0218630	.0519015
#3	.0258441	13.14512	.0497552	.0104364	-.020733	.0257074	.0524980

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014747	.0513761	.0545615	.0351141	.0515348	.0684289	-.001124
Stddev	.018204	.0007264	.0001483	.0006957	.0001633	.0109772	.001227
%RSD	123.4409	1.413889	.2717157	1.981210	.3169600	16.04173	109.2166
#1	-.027077	.0505403	.0545261	.0350264	.0517228	.0597377	-.000177
#2	-.023325	.0517327	.0544342	.0344664	.0514279	.0647842	-.002510
#3	.006161	.0518553	.0547243	.0358494	.0514536	.0807649	-.000683

Sample Name: ICSAB01DLX20 Acquired: 8/14/2025 12:46:33 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.001592**	**-.003843**	**.0001801**
Stddev	.001007	.000939	.0000552
%RSD	63.25944	24.43630	30.63516
#1	-.001781	-.003166	.0001563
#2	-.000504	-.003447	.0001409
#3	-.002491	-.004915	.0002433

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5566.274**	**97840.60**	**10849.98**	**4224.092**	**7033.477**
Stddev	8.015	219.34	30.21	11.940	9.229
%RSD	.1439980	.2241766	.2784520	.2826556	.1312137
#1	5557.491	97929.14	10853.22	4236.773	7024.237
#2	5568.138	97590.84	10818.27	4222.438	7033.498
#3	5573.194	98001.83	10878.43	4213.066	7042.695

Sample Name: CCV01 Acquired: 8/14/2025 12:50:45 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.074211**	**5.279395**	**4.962132**	**5.136518**	**5.102735**	**10.08323**	**9.908862**
Stddev	.002136	.093187	.007171	.015562	.013369	.02114	.018850
%RSD	.0420911	1.765105	.1445090	.3029662	.2619942	.2096453	.1902362
#1	5.072552	5.190169	4.970401	5.118680	5.096017	10.09302	9.928591
#2	5.073459	5.376093	4.957625	5.143553	5.094058	10.05897	9.906961
#3	5.076620	5.271924	4.958370	5.147319	5.118131	10.09770	9.891034

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2495920**	**2.490153**	**25.01199**	**1.022039**	**2.492499**	**1.266680**	**5.009785**
Stddev	.0011262	.003017	.07011	.003066	.003044	.000422	.012648
%RSD	.4512065	.1211662	.2803019	.2999458	.1221394	.0332885	.2524579
#1	.2506142	2.492413	25.06699	1.024907	2.494707	1.266891	4.995500
#2	.2497771	2.486727	25.03592	1.022401	2.489026	1.266194	5.019558
#3	.2483848	2.491320	24.93305	1.018808	2.493765	1.266954	5.014296

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.473673**	**24.92503**	**2.492797**	**1.269200**	**24.88896**	**2.513847**	**2.548355**
Stddev	.010181	.06460	.002383	.000283	.03386	.004820	.007382
%RSD	.4115772	.2591822	.0955990	.0223307	.1360332	.1917414	.2896750
#1	2.484741	24.91509	2.494061	1.269515	24.92803	2.519350	2.552962
#2	2.471571	24.99402	2.490048	1.269116	24.87070	2.511820	2.552262
#3	2.464707	24.86597	2.494283	1.268967	24.86816	2.510372	2.539841

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.09230**	**4.980957**	**5.135268**	**4.992681**	**5.003937**	**5.069945**	**4.939930**
Stddev	.00426	.018017	.003625	.002290	.016529	.022356	.007886
%RSD	.0169679	.3617099	.0705829	.0458728	.3303104	.4409544	.1596444
#1	25.09525	4.998847	5.133488	4.994548	5.020609	5.050058	4.944776
#2	25.09423	4.981207	5.132878	4.993370	5.003646	5.065634	4.930830
#3	25.08742	4.962816	5.139438	4.990125	4.987556	5.094142	4.944183

Sample Name: CCV01 Acquired: 8/14/2025 12:50:45 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.956511**	**4.929372**	**5.079991**
Stddev	.013324	.022735	.018368
%RSD	.2688148	.4612141	.3615681
#1	4.946840	4.954332	5.094219
#2	4.950983	4.923938	5.059256
#3	4.971709	4.909846	5.086499

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5481.655**	**96915.21**	**10942.63**	**4152.549**	**6579.175**
Stddev	6.687	123.77	53.59	13.914	9.623
%RSD	.1219973	.1277114	.4897008	.3350621	.1462643
#1	5473.958	96880.79	10895.66	4162.661	6568.542
#2	5486.043	96812.29	10931.22	4136.681	6587.286
#3	5484.963	97052.55	11001.00	4158.305	6581.696

Sample Name: CCB01 Acquired: 8/14/2025 12:54:56 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000165**	**-.000959**	**.0002645**	**-.000817**	**.0010256**	**-.013473**	**-.002807**
Stddev	.001951	.000617	.0004780	.000520	.0013679	.006106	.000893
%RSD	1182.610	64.35497	180.7352	63.65689	133.3720	45.32330	31.82256
#1	.000333	-.001557	.0001635	-.000659	.0014513	-.017936	-.003359
#2	.001489	-.000324	.0007849	-.000394	-.000504	-.006514	-.003286
#3	-.002317	-.000997	-.000155	-.001398	.002130	-.015968	-.001776

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000354**	**.0000612**	**.0126438**	**.0003876**	**-.000081**	**.0001444**	**.0001769**
Stddev	.0000059	.0000327	.0029067	.0001092	.000134	.0005746	.0033815
%RSD	16.77645	53.34030	22.98918	28.16120	164.5226	397.8375	1911.749
#1	.0000292	.0000556	.0154798	.0002897	.000033	.0007913	-.003142
#2	.0000410	.0000963	.0096712	.0003679	-.000229	-.000051	.003617
#3	.0000361	.0000318	.0127803	.0005053	-.000049	-.000307	.000056

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000930**	**.0219449**	**.0001860**	**.0007198**	**-.006220**	**-.001147**	**.0008043**
Stddev	.0003772	.0181410	.0000906	.0003053	.008694	.000554	.0001519
%RSD	405.4888	82.66611	48.69862	42.41174	139.7634	48.31889	18.88932
#1	-.000129	.0420857	.0000960	.0005948	-.014712	-.000614	.0008800
#2	-.000121	.0068889	.0001848	.0004968	.002662	-.001720	.0009036
#3	.000529	.0168601	.0002772	.0010677	-.006611	-.001108	.0006294

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003249**	**.0074898**	**.0007262**	**-.014487**	**.0001290**	**.0237067**	**-.001848**
Stddev	.014680	.0002579	.0002442	.000420	.0012859	.0016135	.000519
%RSD	451.7650	3.442761	33.62055	2.897985	996.8694	6.805928	28.05405
#1	-.018882	.0076888	.0004609	-.014918	.0012858	.0223723	-.001507
#2	.010242	.0075821	.0009415	-.014463	-.001256	.0254999	-.001593
#3	-.001108	.0071985	.0007762	-.014080	.000357	.0232480	-.002445

Sample Name: CCB01 Acquired: 8/14/2025 12:54:56 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.000127	-.001895	-.000015
Stddev	.001386	.000987	.000071
%RSD	1088.678	52.05329	482.4352
#1	.000645	-.001575	.000014
#2	.000700	-.003003	.000037
#3	-.001727	-.001109	-.000095

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.254	101102.3	11071.46	4279.285	7396.664
Stddev	9.898	473.8	33.78	24.023	18.787
%RSD	.1743761	.4686708	.3050975	.5613776	.2539984
#1	5686.812	101095.7	11032.52	4272.258	7412.229
#2	5667.185	100631.7	11088.92	4259.560	7375.795
#3	5674.765	101579.3	11092.92	4306.038	7401.968

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2832-01 Acquired: 8/14/2025 12:59:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0849478**	**-.032143**	**3.523241**	**.0059061**	**.0698530**	**85.45999**	**.9848550**
Stddev	.0026202	.000187	.005837	.0006242	.0004410	.19262	.0063235
%RSD	3.084447	.5823578	.1656665	10.56881	.6312582	.2253958	.6420713
#1	.0819224	-.032355	3.526547	.0053158	.0693740	85.34143	.9884808
#2	.0864812	-.032073	3.526674	.0058431	.0702420	85.68224	.9885308
#3	.0864398	-.032001	3.516501	.0065594	.0699431	85.35629	.9775533

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076076**	**.0133278**	**70.47171**	**.2973433**	**.1227520**	**.8306538**	**258.6725**
Stddev	.0001126	.0001854	.27303	.0004095	.0001876	.0012302	1.6062
%RSD	1.479519	1.390850	.3874383	.1377114	.1527931	.1480986	.6209220
#1	.0075107	.0131153	70.45046	.2977999	.1228570	.8303060	260.4023
#2	.0077311	.0134561	70.75474	.2970088	.1228635	.8320204	257.2283
#3	.0075812	.0134120	70.20991	.2972210	.1225354	.8296349	258.3870

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.679245**	**41.21518**	**.3032896**	**.0109548**	**2.751245**	**.3006464**	**1.524582**
Stddev	.020172	.13377	.0003015	.0006795	.021812	.0006171	.004923
%RSD	.5482641	.3245699	.0994056	6.202613	.7928171	.2052551	.3228776
#1	3.687187	41.12035	.3029449	.0116502	2.775691	.3002989	1.529946
#2	3.694238	41.36819	.3035039	.0102924	2.733771	.3013588	1.523528
#3	3.656311	41.15700	.3034201	.0109219	2.744273	.3002813	1.520271

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.26699**	**.1698241**	**.0106148**	**.1256281**	**4.236538**	**12.41740**	**5.783223**
Stddev	.05788	.0085317	.0002579	.0007223	.018811	.06844	.004539
%RSD	.5637665	5.023816	2.429395	.5749885	.4440299	.5511320	.0784910
#1	10.33176	.1785096	.0103469	.1264461	4.238402	12.46728	5.780699
#2	10.22032	.1614551	.0108613	.1253603	4.254348	12.33938	5.780506
#3	10.24889	.1695075	.0106362	.1250778	4.216864	12.44554	5.788463

Sample Name: Q2832-01 Acquired: 8/14/2025 12:59:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**3.341203**	**.1415867**	**.1399467**
Stddev	.008628	.0003778	.0026098
%RSD	.2582354	.2668313	1.864819
#1	3.339055	.1420226	.1402645
#2	3.350702	.1413543	.1423829
#3	3.333851	.1413831	.1371925

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5898.345**	**105581.2**	**12640.65**	**4462.697**	**6388.471**
Stddev	9.511	254.1	88.18	34.773	9.353
%RSD	.1612513	.2406654	.6976174	.7792031	.1464084
#1	5887.695	105288.0	12674.85	4427.291	6380.469
#2	5901.344	105737.3	12540.49	4463.999	6386.191
#3	5905.995	105718.3	12706.61	4496.801	6398.754

Sample Name: PB169236BL Acquired: 8/14/2025 13:03:19 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000184**	**-.000343**	**-.000630**	**-.000683**	**.0010537**	**-.013537**	**-.001923**
Stddev	.001144	.001119	.000421	.000422	.0005938	.001093	.000310
%RSD	622.0139	326.3726	66.79209	61.73340	56.35601	8.074946	16.14259
#1	.000803	-.000809	-.000147	-.000646	.0005777	-.012275	-.001927
#2	-.001438	.000934	-.000918	-.001123	.0017192	-.014176	-.002232
#3	.000083	-.001154	-.000825	-.000281	.0008643	-.014160	-.001611

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000001**	**.0000264**	**.0126318**	**.0003141**	**-.000006**	**-.000076**	**.0038262**
Stddev	.000025	.0000304	.0092322	.0001257	.000026	.000235	.0030381
%RSD	3787.396	115.1308	73.08706	40.04142	414.4529	307.9972	79.40327
#1	.000011	.0000572	.0229320	.0004575	-.000036	-.000254	.0022586
#2	-.000030	-.000004	.0051022	.0002226	.000010	.000190	.0073280
#3	.000017	.000025	.0098610	.0002621	.000008	-.000165	.0018921

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000004**	**.0092342**	**-.000006**	**.0008173**	**-.014275**	**-.001051**	**.0013281**
Stddev	.000431	.0101750	.000150	.0001589	.018283	.001624	.0001558
%RSD	9805.271	110.1882	2561.568	19.44642	128.0744	154.5788	11.73461
#1	.000403	.0209633	.000164	.0009904	-.034884	-.002840	.0014986
#2	-.000456	.0027769	-.000062	.0007835	-.007935	.000332	.0012925
#3	.000040	.0039623	-.000120	.0006779	-.000007	-.000645	.0011931

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007943**	**.0009282**	**.0002560**	**-.014674**	**-.000443**	**.0270201**	**-.001330**
Stddev	.0138255	.0007414	.0001209	.000460	.000894	.0043256	.001543
%RSD	1740.660	79.87092	47.24800	3.136404	201.9503	16.00891	116.0029
#1	-.015055	.0001890	.0003955	-.015204	.000292	.0312689	-.002957
#2	.010376	.0009238	.0001901	-.014372	-.000182	.0271697	.000111
#3	.007061	.0016718	.0001823	-.014447	-.001439	.0226216	-.001143

Sample Name: PB169236BL Acquired: 8/14/2025 13:03:19 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.000467	-.002062	-.000145
Stddev	.000936	.001458	.000012
%RSD	200.3144	70.69185	8.539297
#1	.000286	-.003737	-.000131
#2	-.000173	-.001075	-.000150
#3	-.001515	-.001375	-.000155

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5752.469	99853.72	11008.01	4272.118	7500.170
Stddev	10.083	171.58	71.72	16.260	12.947
%RSD	.1752770	.1718264	.6515137	.3806148	.1726223
#1	5743.732	100051.8	11090.47	4290.823	7486.899
#2	5763.502	99751.5	10973.31	4264.167	7512.766
#3	5750.172	99757.8	10960.23	4261.362	7500.847

Sample Name: PB169236BS Acquired: 8/14/2025 13:07:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8026698**	**2.164346**	**.9798474**	**2.036521**	**.8164822**	**2.039176**
Stddev	.0009291	.014011	.0052886	.009788	.0047584	.007136
%RSD	.1157567	.6473577	.5397399	.4806236	.5827928	.3499452
#1	.8025269	2.180524	.9848266	2.044150	.8198742	2.036153
#2	.8036621	2.156305	.9804198	2.039929	.8185296	2.047326
#3	.8018204	2.156207	.9742959	2.025485	.8110428	2.034050

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1963100**	**.2047273**	**.1944304**	**1.056541**	**.4220973**	**.2000031**
Stddev	.0007919	.0008238	.0010270	.011891	.0004899	.0012484
%RSD	.4033992	.4023663	.5281999	1.125466	.1160704	.6241661
#1	.1967376	.2045812	.1947092	1.058225	.4225913	.2007335
#2	.1967962	.2056144	.1952891	1.067500	.4216115	.2007141
#3	.1953962	.2039864	.1932928	1.043898	.4220891	.1985617

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3157385**	**3.044881**	**.2049977**	**2.066221**	**.5020989**	**.0779516**
Stddev	.0018878	.014438	.0012511	.023705	.0020570	.0002890
%RSD	.5978965	.4741779	.6102873	1.147284	.4096827	.3707458
#1	.3167082	3.036529	.2036781	2.044819	.5030243	.0777203
#2	.3169444	3.036561	.2051483	2.062143	.5035306	.0782755
#3	.3135630	3.061553	.2061666	2.091701	.4997417	.0778590

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.831934**	**.3074018**	**.2125918**	**9.864105**	**.3009030**	**.4170913**
Stddev	.019825	.0003479	.0003682	.042548	.0011912	.0013774
%RSD	.7000490	.1131699	.1732008	.4313412	.3958707	.3302399
#1	2.811605	.3070937	.2123863	9.835452	.3008475	.4183974
#2	2.832984	.3073324	.2123722	9.843869	.3021210	.4172243
#3	2.851213	.3077791	.2130169	9.912994	.2997405	.4156523

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: PB169236BS Acquired: 8/14/2025 13:07:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6660585	.1966644	.9102837	5.659030	F .0013079	.2066199
Stddev	.0036752	.0011828	.0032457	.016854	.0021480	.0014179
%RSD	.5517861	.6014231	.3565596	.2978279	164.2357	.6862545
#1	.6691373	.1954869	.9087794	5.657030	-.001143	.2051556
#2	.6670485	.1978524	.9080631	5.676795	.002861	.2067177
#3	.6619896	.1966539	.9140086	5.643265	.002206	.2079864

Elem	Sr4077
Units	ppm
Avg	.1989483
Stddev	.0004839
%RSD	.2432503
#1	.1984144
#2	.1990722
#3	.1993582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5656.513	100223.7	11102.72	4265.256	7164.316
Stddev	22.231	302.9	41.78	18.930	28.838
%RSD	.3930093	.3022238	.3762620	.4438260	.4025266
#1	5639.986	99953.7	11073.37	4258.412	7156.137
#2	5647.767	100551.3	11084.24	4286.657	7140.450
#3	5681.787	100166.1	11150.55	4250.700	7196.360

Sample Name: PB169232BL Acquired: 8/14/2025 13:11:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000191**	**-.000224**	**.0004159**	**-.003748**	**.0012251**	**-.014184**	**-.003052**
Stddev	.001194	.001259	.0003879	.001709	.0020130	.005839	.001281
%RSD	625.0031	561.7904	93.27086	45.60719	164.3105	41.16625	41.98386
#1	.000797	-.000202	.0008512	-.005464	.0033278	-.010280	-.004312
#2	-.001517	.001023	.0001067	-.003733	.0010321	-.020897	-.001750
#3	.000148	-.001494	.0002899	-.002046	-.000684	-.011376	-.003094

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000026**	**.0000152**	**.0093632**	**.0004780**	**-.000117**	**-.000440**	**.0011853**
Stddev	.000023	.0000108	.0139384	.0004767	.000102	.000213	.0042438
%RSD	88.16308	71.08071	148.8637	99.73258	86.88219	48.53491	358.0328
#1	-.000005	.0000046	-.005414	.0009700	-.000000	-.000341	.0031714
#2	-.000050	.0000262	.022275	.0000182	-.000167	-.000685	.0040718
#3	-.000022	.0000149	.011229	.0004458	-.000184	-.000294	-.003687

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001157**	**.0132592**	**.0002501**	**.0006978**	**-.019177**	**-.001103**	**.0002765**
Stddev	.0004498	.0285702	.0000446	.0001509	.003880	.001592	.0001989
%RSD	388.8221	215.4751	17.83180	21.62042	20.23406	144.3447	71.92573
#1	.0006184	.0227635	.0002000	.0005286	-.015175	-.001329	.0000622
#2	-.000249	-.018852	.0002854	.0007462	-.019434	-.002569	.0004552
#3	-.000023	.035866	.0002649	.0008184	-.022922	.000590	.0003121

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0113781**	**-.000373**	**.0003052**	**-.014746**	**.0000560**	**.0135048**	**-.001305**
Stddev	.0124744	.000640	.0001366	.000812	.0009865	.0082466	.001445
%RSD	109.6353	171.6747	44.77348	5.506013	1760.303	61.06425	110.7682
#1	.0216732	-.000810	.0002118	-.014742	-.000688	.0169123	-.002179
#2	.0149551	.000361	.0002418	-.015560	.001175	.0195015	-.002099
#3	-.002494	-.000669	.0004620	-.013936	-.000319	.0041005	.000363

Sample Name: PB169232BL Acquired: 8/14/2025 13:11:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.003117	-.003463	-.000068
Stddev	.000240	.001185	.000038
%RSD	7.690640	34.21055	55.56813
#1	-.003092	-.002379	-.000088
#2	-.003367	-.003281	-.000092
#3	-.002890	-.004728	-.000025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5746.506	99638.27	11044.59	4274.536	7482.413
Stddev	1.721	338.32	39.87	7.479	6.213
%RSD	.0299440	.3395516	.3609561	.1749711	.0830329
#1	5744.783	99287.97	11089.56	4278.782	7489.109
#2	5748.225	99963.19	11030.66	4265.900	7476.836
#3	5746.510	99663.64	11013.57	4278.925	7481.294

Sample Name: PB169232BS Acquired: 8/14/2025 13:15:57 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.7993041**	**2.146844**	**.9768165**	**2.024524**	**.8281554**	**2.041400**
Stddev	.0034986	.065055	.0038261	.004525	.0030911	.012885
%RSD	.4377029	3.030273	.3916910	.2235128	.3732456	.6311733
#1	.8013505	2.179342	.9805795	2.028117	.8305336	2.030402
#2	.7952644	2.189248	.9769397	2.026014	.8246614	2.055577
#3	.8012974	2.071943	.9729303	2.019442	.8292713	2.038222

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1949101**	**.2047974**	**.1940002**	**1.059667**	**.4200512**	**.1998247**
Stddev	.0019800	.0005373	.0003567	.004843	.0012170	.0001243
%RSD	1.015856	.2623757	.1838781	.4570130	.2897262	.0622241
#1	.1963896	.2046912	.1943562	1.059982	.4213479	.1999595
#2	.1956799	.2043212	.1940017	1.064345	.4189338	.1997145
#3	.1926608	.2053800	.1936428	1.054675	.4198719	.1998001

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3157200**	**3.037934**	**.2061098**	**2.054344**	**.5012919**	**.0776901**
Stddev	.0005854	.009151	.0008006	.005582	.0002140	.0002805
%RSD	.1854056	.3012267	.3884419	.2716999	.0426937	.3610976
#1	.3162360	3.048435	.2064437	2.052784	.5014727	.0777296
#2	.3150839	3.031663	.2051963	2.060539	.5013473	.0779487
#3	.3158400	3.033703	.2066895	2.049708	.5010556	.0773919

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.807027**	**.3083148**	**.2118264**	**9.810849**	**.3004155**	**.4262257**
Stddev	.040451	.0029559	.0005247	.056314	.0007495	.0003765
%RSD	1.441049	.9587416	.2477238	.5740006	.2494726	.0883418
#1	2.846066	.3081497	.2114382	9.874980	.3000287	.4260426
#2	2.765299	.3113498	.2116176	9.769470	.2999385	.4266587
#3	2.809716	.3054449	.2124234	9.788096	.3012793	.4259757

Sample Name: PB169232BS Acquired: 8/14/2025 13:15:57 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6822921	.2001597	.9298091	5.628213	F -.000220	.2047625
Stddev	.0009031	.0019768	.0060502	.007872	.003477	.0011218
%RSD	.1323641	.9876245	.6506946	.1398708	1582.131	.5478591
#1	.6824698	.2024286	.9287541	5.636348	-.004075	.2046900
#2	.6830932	.1988084	.9363174	5.627656	.000736	.2059188
#3	.6813134	.1992423	.9243557	5.620633	.002679	.2036787

Elem	Sr4077
Units	ppm
Avg	.1985551
Stddev	.0014115
%RSD	.7108913
#1	.2001842
#2	.1976956
#3	.1977856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5667.323	99853.24	10999.42	4246.639	7177.427
Stddev	7.953	124.69	22.46	9.804	19.217
%RSD	.1403267	.1248767	.2042235	.2308669	.2677426
#1	5658.141	99797.01	11002.70	4246.263	7160.298
#2	5671.793	99996.15	11020.07	4256.625	7173.774
#3	5672.034	99766.56	10975.51	4237.028	7198.208

Sample Name: PB169212TB Acquired: 8/14/2025 13:19:58 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002215**	**.0007873**	**-.000910**	**.0025764**	**.0031924**	**-.016453**	**-.005356**
Stddev	.001324	.0005362	.001627	.0017803	.0003497	.008070	.000666
%RSD	59.76340	68.10912	178.8387	69.10083	10.95286	49.04723	12.42947
#1	-.003626	.0013803	-.000758	.0042705	.0034888	-.019131	-.004784
#2	-.001000	.0006452	-.002607	.0027376	.0032817	-.022844	-.006087
#3	-.002019	.0003365	.000636	.0007209	.0028067	-.007385	-.005199

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000140**	**-.000003**	**.0514656**	**.0005169**	**-.000329**	**.0000087**	**.0113251**
Stddev	.000015	.000042	.0057310	.0002133	.000125	.0000776	.0035908
%RSD	10.43381	1596.592	11.13564	41.27664	38.08529	890.2378	31.70674
#1	-.000145	.000000	.0569141	.0005111	-.000275	.0000260	.0073425
#2	-.000124	.000038	.0519939	.0003065	-.000239	.0000762	.0123172
#3	-.000152	-.000046	.0454887	.0007330	-.000472	-.000076	.0143155

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030696**	**-.004258**	**.0012771**	**.0005945**	**505.1217**	**-.000122**	**.0026746**
Stddev	.0000361	.019915	.0002069	.0003021	7.2947	.001382	.0001316
%RSD	1.177718	467.6891	16.19615	50.81880	1.444144	1136.049	4.920818
#1	.0030858	-.000283	.0011369	.0006050	512.4382	-.000046	.0028020
#2	.0030948	.013369	.0015147	.0008911	505.0780	-.001541	.0025392
#3	.0030282	-.025861	.0011799	.0002872	497.8490	.001221	.0026827

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1468571**	**-.001434**	**.0005378**	**-.015085**	**-.000035**	**.0147731**	**.0085399**
Stddev	.0395992	.000818	.0002217	.000614	.000699	.0041131	.0014288
%RSD	26.96443	57.05767	41.21986	4.068268	2013.953	27.84199	16.73062
#1	.1632247	-.002279	.0003279	-.015125	-.000841	.0123020	.0084188
#2	.1756486	-.001376	.0005158	-.014452	.000394	.0195212	.0071756
#3	.1016980	-.000646	.0007696	-.015677	.000343	.0124961	.0100254

Sample Name: PB169212TB Acquired: 8/14/2025 13:19:58 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0751545	-.007809	.0000969
Stddev	.0012677	.000410	.0000741
%RSD	1.686792	5.251508	76.45738
#1	.0750926	-.007675	.0001824
#2	.0739189	-.008269	.0000564
#3	.0764520	-.007482	.0000519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5302.125	92786.67	11300.96	4012.004	6283.353
Stddev	4.181	168.89	3.47	12.388	9.835
%RSD	.0788644	.1820246	.0307480	.3087791	.1565277
#1	5301.362	92630.28	11301.45	4000.849	6278.974
#2	5306.635	92763.96	11297.26	4025.336	6294.618
#3	5298.377	92965.77	11304.16	4009.826	6276.468

Sample Name: Q2732-03 Acquired: 8/14/2025 13:24:25 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002525**	**.0030264**	**-.000327**	**-.001844**	**.0011824**	**.1990329**	**.0446824**
Stddev	.001641	.0005735	.001242	.002884	.0009512	.0063635	.0012880
%RSD	65.01145	18.94866	380.1969	156.3696	80.45074	3.197220	2.882521
#1	-.002670	.0036774	-.000255	.000855	.0005466	.1930363	.0459961
#2	-.000815	.0025961	.000878	-.004883	.0022759	.2057088	.0434218
#3	-.004088	.0028056	-.001603	-.001504	.0007246	.1983537	.0446293

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000011**	**-.000018**	**187.9807**	**.0040528**	**.0001959**	**.0023594**	**.1527361**
Stddev	.000044	.000072	.1111	.0003225	.0002699	.0002334	.0038122
%RSD	385.6459	399.9069	.0591103	7.956437	137.7144	9.889959	2.495947
#1	-.000045	-.000032	188.0132	.0041736	-.000112	.0026103	.1500516
#2	-.000027	-.000082	188.0719	.0036874	.000309	.0023191	.1510571
#3	.000038	.000060	187.8569	.0042975	.000391	.0021489	.1570997

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140389**	**8.458787**	**.0012779**	**.0005754**	**477.8157**	**.0030552**	**.0092256**
Stddev	.0000378	.040804	.0004633	.0000956	4.9821	.0005232	.0001746
%RSD	.2689662	.4823863	36.25488	16.61499	1.042690	17.12419	1.892562
#1	.0140429	8.495978	.0008505	.0004650	476.8922	.0024998	.0093847
#2	.0139993	8.415139	.0017702	.0006280	473.3599	.0031273	.0090388
#3	.0140745	8.465244	.0012129	.0006331	483.1949	.0035387	.0092533

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.579443**	**.0461575**	**.0067540**	**-.017163**	**-.000388**	**4.658472**	**.0159002**
Stddev	.111322	.0006907	.0001339	.000813	.001282	.044878	.0020021
%RSD	1.162093	1.496505	1.981838	4.737997	330.1812	.9633715	12.59192
#1	9.454936	.0469550	.0066004	-.016239	.000080	4.625900	.0157413
#2	9.669375	.0457527	.0068454	-.017772	.000593	4.709663	.0139823
#3	9.614018	.0457646	.0068163	-.017477	-.001838	4.639852	.0179771

Sample Name: Q2732-03 Acquired: 8/14/2025 13:24:25 Type: Unk
Method: 6010-200.7 NEW(v98) 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	13.92828	-.023665	.9919014
Stddev	.01852	.001624	.0031766
%RSD	.1329655	6.862872	.3202545
#1	13.91534	-.024601	.9887443
#2	13.92001	-.021790	.9950972
#3	13.94949	-.024605	.9918625

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5190.585	92352.91	11666.15	3940.610	6078.374
Stddev	6.688	198.48	97.91	16.798	10.569
%RSD	.1288444	.2149131	.8393042	.4262781	.1738773
#1	5192.143	92130.57	11557.71	3955.026	6090.457
#2	5196.356	92415.94	11748.09	3922.164	6070.846
#3	5183.256	92512.21	11692.65	3944.640	6073.820

Sample Name: Q2832-02 Acquired: 8/14/2025 13:28:50 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.001778**	**.0014870**	**.0156331**	**.0004477**	**.0024468**	**.0925434**	**.1509231**
Stddev	.001158	.0003270	.0007161	.0017476	.0015496	.0097667	.0013942
%RSD	65.11151	21.98894	4.580555	390.3396	63.33342	10.55367	.9237595
#1	-.002706	.0016745	.0156049	.0004702	.0020697	.1012899	.1515071
#2	-.000481	.0011094	.0163628	-.001311	.0041502	.0943358	.1493319
#3	-.002148	.0016770	.0149315	.002184	.0011205	.0820047	.1519303

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000052**	**.0005255**	**53.96986**	**.0006473**	**.0006563**	**.0087101**	**.0813422**
Stddev	.000067	.0000442	.10523	.0000572	.0001435	.0002104	.0065046
%RSD	127.9392	8.401646	.1949815	8.833881	21.87003	2.415203	7.996544
#1	-.000042	.0005320	54.04419	.0006087	.0006964	.0089530	.0793595
#2	.000009	.0004785	53.84945	.0007129	.0004970	.0085879	.0760597
#3	-.000123	.0005661	54.01595	.0006201	.0007755	.0085894	.0886073

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2084312**	**1.161739**	**.0032185**	**.0006603**	**366.7155**	**.0016561**	**.1034500**
Stddev	.0007563	.011412	.0001823	.0000777	5.9461	.0011196	.0004446
%RSD	.3628542	.9822828	5.664487	11.77072	1.621443	67.60814	.4297578
#1	.2086941	1.170330	.0033316	.0006237	373.5786	.0029210	.1032042
#2	.2075786	1.148791	.0030082	.0006077	363.1111	.0007921	.1039632
#3	.2090211	1.166096	.0033158	.0007496	363.4569	.0012551	.1031826

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.463691**	**.0106612**	**.0005722**	**-.016764**	**-.001067**	**.9855768**	**.1474628**
Stddev	.017734	.0003697	.0001703	.000871	.000669	.0075400	.0018149
%RSD	.7198071	3.467405	29.77290	5.197670	62.69316	.7650321	1.230740
#1	2.475552	.0106179	.0006237	-.017296	-.000783	.9926711	.1489854
#2	2.443304	.0110506	.0003820	-.015758	-.001830	.9864005	.1479485
#3	2.472217	.0103151	.0007108	-.017237	-.000586	.9776588	.1454545

Sample Name: Q2832-02 Acquired: 8/14/2025 13:28:50 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.9937301	-.014365	.2413699
Stddev	.0006766	.001209	.0007795
%RSD	.0680899	8.417627	.3229413
#1	.9929645	-.014932	.2414964
#2	.9939777	-.012977	.2405349
#3	.9942480	-.015187	.2420784

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5396.306	93451.97	11792.99	3988.351	6423.447
Stddev	5.857	78.15	71.33	14.136	.716
%RSD	.1085366	.0836227	.6048712	.3544239	.0111396
#1	5400.691	93476.06	11725.50	4000.130	6424.011
#2	5398.574	93364.62	11785.85	3992.247	6422.642
#3	5389.654	93515.24	11867.63	3972.676	6423.687

Sample Name: Q2832-04 Acquired: 8/14/2025 13:33:14 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002570**	**.0015171**	**.0123383**	**-.000934**	**.0016139**	**.1274299**	**.1549693**
Stddev	.002257	.0017488	.0012869	.002172	.0011098	.0088936	.0008927
%RSD	87.80459	115.2748	10.43012	232.4530	68.76448	6.979236	.5760601
#1	-.000332	.0034799	.0114913	-.002728	.0028697	.1374241	.1555922
#2	-.002534	.0001248	.0138191	.001480	.0007651	.1244781	.1539466
#3	-.004846	.0009465	.0117044	-.001555	.0012069	.1203874	.1553691

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000055**	**.0011923**	**30.40896**	**.0008662**	**.0013515**	**.0249227**	**.1711052**
Stddev	.000015	.0000459	.06866	.0002087	.0002169	.0003279	.0036261
%RSD	28.14843	3.846886	.2257742	24.09000	16.05084	1.315559	2.119207
#1	-.000072	.0011977	30.45782	.0007808	.0011011	.0246445	.1677127
#2	-.000052	.0011439	30.33046	.0007139	.0014841	.0252842	.1706760
#3	-.000041	.0012351	30.43859	.0011041	.0014691	.0248395	.1749267

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2168605**	**2.314825**	**.0102058**	**.0006051**	**469.6403**	**.0009723**	**.2771602**
Stddev	.0011182	.008675	.0001018	.0000911	9.4183	.0014463	.0006505
%RSD	.5156493	.3747767	.9971528	15.05167	2.005437	148.7367	.2347109
#1	.2180655	2.314120	.0102959	.0005022	479.3737	.0002679	.2775469
#2	.2158562	2.323832	.0102261	.0006380	460.5723	.0000133	.2764092
#3	.2166598	2.306524	.0100954	.0006752	468.9749	.0026358	.2775247

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.507390**	**.0067499**	**.0005235**	**-.017016**	**.0008923**	**1.258656**	**.0324497**
Stddev	.023825	.0004663	.0003260	.000282	.0002768	.012898	.0045707
%RSD	1.580514	6.907726	62.28673	1.654900	31.02509	1.024783	14.08548
#1	1.532819	.0070561	.0001473	-.017258	.0010356	1.270829	.0303102
#2	1.485586	.0062133	.0006979	-.016707	.0005732	1.260003	.0376977
#3	1.503766	.0069804	.0007252	-.017083	.0010682	1.245137	.0293411

Sample Name: Q2832-04 Acquired: 8/14/2025 13:33:14 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.3007068	-.010447	.1638651
Stddev	.0013065	.000500	.0007058
%RSD	.4344911	4.788779	.4306926
#1	.2992066	-.010067	.1646580
#2	.3013187	-.010259	.1633054
#3	.3015951	-.011014	.1636321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5295.073	93140.63	11695.54	3966.536	6268.119
Stddev	6.506	390.73	57.05	21.918	8.675
%RSD	.1228714	.4195021	.4877937	.5525846	.1384042
#1	5287.703	92800.74	11641.46	3957.697	6259.215
#2	5297.498	93567.53	11755.16	3991.493	6276.546
#3	5300.018	93053.64	11689.99	3950.416	6268.596

Sample Name: Q2832-06 Acquired: 8/14/2025 13:37:37 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002157**	**-.000351**	**.0156132**	**.0009000**	**.0028024**	**.1585958**	**.1074507**
Stddev	.001164	.000283	.0005143	.0031063	.0016424	.0081251	.0008275
%RSD	53.95305	80.66765	3.294125	345.1395	58.60600	5.123143	.7701610
#1	-.002834	-.000199	.0161692	-.001452	.0013032	.1515293	.1071219
#2	-.002824	-.000177	.0151544	.004421	.0025462	.1674737	.1083921
#3	-.000813	-.000677	.0155161	-.000269	.0045579	.1567844	.1068381

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000043**	**.0010177**	**20.63971**	**.0007778**	**.0003594**	**.0165424**	**.2175752**
Stddev	.0000314	.0000470	.02860	.0001631	.0000590	.0001830	.0046561
%RSD	723.8885	4.616241	.1385575	20.96791	16.42095	1.105941	2.139977
#1	.0000180	.0010702	20.65029	.0009058	.0003185	.0163642	.2202550
#2	-.000032	.0010032	20.60733	.0008335	.0004271	.0167297	.2121988
#3	.000027	.0009797	20.66152	.0005942	.0003327	.0165333	.2202717

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0642835**	**2.187123**	**.0060615**	**.0007286**	**371.0600**	**.0003435**	**.2354985**
Stddev	.0007339	.018767	.0000474	.0002171	5.5116	.0005049	.0002992
%RSD	1.141725	.8580483	.7815382	29.80324	1.485355	146.9782	.1270410
#1	.0640467	2.206999	.0060344	.0006450	366.2831	-.000190	.2355684
#2	.0651066	2.169709	.0061162	.0009752	377.0903	.000814	.2357565
#3	.0636971	2.184661	.0060339	.0005657	369.8066	.000406	.2351705

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.779906**	**.0076524**	**.0005119**	**-.015108**	**.0038745**	**1.174138**	**.0470076**
Stddev	.015893	.0004716	.0001438	.000478	.0009746	.004961	.0019320
%RSD	.8929228	6.162230	28.09012	3.162978	25.15370	.4225572	4.109986
#1	1.768807	.0078338	.0006263	-.015494	.0028019	1.177289	.0489330
#2	1.772798	.0080062	.0003505	-.014573	.0041157	1.168419	.0470206
#3	1.798112	.0071170	.0005589	-.015256	.0047057	1.176707	.0450690

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2832-06 Acquired: 8/14/2025 13:37:37 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.2658859	-.009142	.1221407
Stddev	.0024769	.001094	.0002536
%RSD	.9315806	11.96781	.2076483
#1	.2687404	-.007987	.1218946
#2	.2646144	-.010163	.1224012
#3	.2643030	-.009276	.1221262

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5384.414	94856.64	11907.35	3981.883	6439.593
Stddev	7.359	282.57	16.50	9.978	18.479
%RSD	.1366640	.2978935	.1385661	.2505748	.2869560
#1	5384.751	95129.01	11900.66	3989.003	6431.911
#2	5391.598	94564.86	11895.25	3970.478	6460.674
#3	5376.892	94876.03	11926.15	3986.167	6426.195

Sample Name: CCV02 Acquired: 8/14/2025 13:42:02 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**5.086368**	**5.037551**	**4.894037**	**5.142287**	**5.139685**	**9.981818**	**9.915609**
Stddev	.022503	.089432	.008144	.013002	.008663	.016892	.085802
%RSD	.4424256	1.775304	.1664024	.2528476	.1685491	.1692308	.8653256
#1	5.097390	4.981901	4.886996	5.143653	5.135322	9.995577	10.00982
#2	5.060478	4.990042	4.892158	5.128655	5.134072	9.962965	9.84194
#3	5.101236	5.140711	4.902956	5.154552	5.149662	9.986913	9.89507

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2326132**	**2.462555**	**24.63772**	**1.019246**	**2.475016**	**1.264058**	**5.259000**
Stddev	.0005989	.003577	.05845	.001702	.002895	.002972	.025651
%RSD	.2574812	.1452482	.2372567	.1669955	.1169732	.2351014	.4877558
#1	.2330891	2.459285	24.60826	1.020106	2.473752	1.265075	5.240414
#2	.2319406	2.462004	24.70504	1.017285	2.472968	1.260711	5.288265
#3	.2328097	2.466375	24.59985	1.020346	2.478328	1.266388	5.248320

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.430986**	**24.38542**	**2.478882**	**1.257142**	**24.98253**	**2.501527**	**2.575512**
Stddev	.008396	.09652	.002193	.000782	.08616	.006678	.003322
%RSD	.3453662	.3958009	.0884818	.0621795	.3448779	.2669645	.1289796
#1	2.423080	24.41652	2.477239	1.256470	24.88307	2.494432	2.571738
#2	2.430080	24.46256	2.478035	1.256956	25.03033	2.507690	2.576807
#3	2.439798	24.27719	2.481373	1.258000	25.03419	2.502459	2.577992

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.72777**	**4.617364**	**5.178719**	**4.926183**	**4.971954**	**5.295730**	**4.689323**
Stddev	.10760	.012181	.014301	.011763	.012344	.033610	.013022
%RSD	.4025922	.2638121	.2761460	.2387883	.2482685	.6346596	.2777006
#1	26.61490	4.624496	5.176463	4.925514	4.957813	5.256926	4.677816
#2	26.82920	4.603299	5.165680	4.914768	4.977474	5.315646	4.703459
#3	26.73922	4.624297	5.194014	4.938266	4.980574	5.314619	4.686693

Sample Name: CCV02 Acquired: 8/14/2025 13:42:02 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.852704**	**4.887713**	**5.037084**
Stddev	.020029	.015006	.087066
%RSD	.4127350	.3070207	1.728508
#1	4.839508	4.870585	5.101292
#2	4.842852	4.894003	5.071976
#3	4.875750	4.898551	4.937983

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5507.948**	**97701.68**	**11756.51**	**4109.109**	**6667.151**
Stddev	15.668	49.07	28.44	6.555	9.313
%RSD	.2844530	.0502218	.2419259	.1595157	.1396917
#1	5503.981	97672.65	11724.35	4108.964	6664.929
#2	5525.218	97674.06	11778.38	4102.628	6677.374
#3	5494.645	97758.33	11766.79	4115.735	6659.150

Sample Name: CCB02 Acquired: 8/14/2025 13:46:13 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000990**	**-.000706**	**.0004601**	**-.001342**	**.0018922**	**-.016098**
Stddev	.0009153	.000372	.0005815	.001084	.0004800	.002429
%RSD	924.0457	52.62780	126.3751	80.79991	25.36733	15.08872
#1	.0010144	-.000624	.0009033	-.000243	.0024021	-.017765
#2	-.000816	-.001113	.0006754	-.001371	.0014491	-.017217
#3	.000099	-.000383	-.000198	-.002411	.0018254	-.013311

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005193**	**-.000011**	**.0000319**	**.0116653**	**.0005872**	**.0000443**
Stddev	.000606	.000047	.0000438	.0051223	.0002236	.0001606
%RSD	11.66270	434.0609	137.1184	43.90997	38.08140	362.1087
#1	-.004807	-.000054	.0000438	.0122976	.0008366	.0000247
#2	-.004882	.000039	.0000685	.0164421	.0005203	-.000105
#3	-.005892	-.000017	-.000017	.0062563	.0004047	.000214

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000648**	**.0019735**	**.0003334**	**.0077073**	**.0003337**	**.0005772**
Stddev	.0002030	.0006013	.0002067	.0007598	.0001938	.0002537
%RSD	313.4915	30.46584	61.97903	9.857684	58.07599	43.95510
#1	.0002959	.0015743	.0005676	.0081375	.0001875	.0006588
#2	-.000017	.0026650	.0001766	.0081543	.0002601	.0002927
#3	-.000085	.0016812	.0002561	.0068300	.0005535	.0007800

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5853130**	**-.000640**	**.0009600**	**.4405304**	**.0058278**	**.0005575**
Stddev	.0114065	.002330	.0002126	.0074998	.0007876	.0002426
%RSD	1.948783	364.3190	22.14898	1.702436	13.51495	43.52257
#1	.5872642	.002025	.0007377	.4417908	.0054769	.0007239
#2	.5956180	-.001648	.0011615	.4473201	.0067299	.0006696
#3	.5730568	-.002295	.0009809	.4324803	.0052766	.0002791

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: CCB02 Acquired: 8/14/2025 13:46:13 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014547	.0005928	.0208950	-.001898	.0006684	F .0133973
Stddev	.000397	.0010367	.0098217	.003027	.0014532	.0016911
%RSD	2.726554	174.8757	47.00493	159.5406	217.4237	12.62252
#1	-.014093	.0014122	.0202600	-.003012	-.000555	.0149349
#2	-.014823	.0009390	.0114062	-.004210	.002275	.0136708
#3	-.014726	-.000573	.0310188	.001529	.000285	.0115861

Elem	Sr4077
Units	ppm
Avg	-.000034
Stddev	.000004
%RSD	10.67865
#1	-.000030
#2	-.000035
#3	-.000036

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5676.905	101452.1	11306.23	4222.441	7429.634
Stddev	12.631	430.9	43.87	30.623	21.199
%RSD	.2224934	.4247195	.3879945	.7252363	.2853312
#1	5662.430	101756.0	11353.76	4239.474	7405.410
#2	5685.692	100959.0	11297.62	4187.089	7438.696
#3	5682.592	101641.3	11267.31	4240.761	7444.796

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2832-08 Acquired: 8/14/2025 13:50:32 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002079**	**.0020433**	**.0076410**	**.0009020**	**.0009460**	**.0941768**	**.1650888**
Stddev	.002206	.0007381	.0002131	.0004129	.0010649	.0086471	.0008676
%RSD	106.0984	36.12457	2.788261	45.77835	112.5644	9.181799	.5255055
#1	-.000088	.0016309	.0076573	.0010817	.0021680	.0933532	.1658641
#2	-.004451	.0016035	.0078455	.0004297	.0004535	.0859709	.1652504
#3	-.001698	.0028955	.0074203	.0011946	.0002166	.1032062	.1641518

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000037**	**.0011332**	**35.87144**	**.0028769**	**.0024427**	**.0147477**	**.0851282**
Stddev	.000043	.0000053	.06381	.0002148	.0001282	.0002310	.0049214
%RSD	117.1747	.4660960	.1778911	7.466279	5.248147	1.566445	5.781164
#1	-.000056	.0011377	35.91398	.0026316	.0025187	.0146995	.0808915
#2	-.000067	.0011346	35.90227	.0029676	.0022947	.0145446	.0905265
#3	.000013	.0011274	35.79807	.0030314	.0025148	.0149991	.0839667

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1104402**	**4.899326**	**.0203182**	**.0006350**	**381.8625**	**.0002139**	**.1337667**
Stddev	.0005377	.032354	.0001185	.0004233	.7119	.0002346	.0006461
%RSD	.4868379	.6603783	.5834145	66.66557	.1864333	109.6746	.4829693
#1	.1109942	4.936657	.0204182	.0004870	381.1731	.0001548	.1330219
#2	.1099205	4.881930	.0203492	.0011124	382.5949	.0004724	.1341751
#3	.1104059	4.879391	.0201873	.0003055	381.8195	.0000145	.1341032

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.302540**	**.0164972**	**.0007884**	**-.016571**	**.0010461**	**1.193944**	**.0627657**
Stddev	.059398	.0003471	.0003981	.000468	.0011861	.021405	.0024710
%RSD	2.579668	2.104062	50.48764	2.825567	113.3788	1.792835	3.936777
#1	2.293133	.0166509	.0011957	-.016612	-.000320	1.196009	.0622789
#2	2.248407	.0167410	.0007693	-.017017	.001647	1.171581	.0605745
#3	2.366080	.0160998	.0004003	-.016083	.001812	1.214242	.0654439

Sample Name: Q2832-08 Acquired: 8/14/2025 13:50:32 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.3667730	-.011612	.1630525
Stddev	.0065838	.002275	.0005624
%RSD	1.795048	19.58929	.3449027
#1	.3614882	-.012765	.1636644
#2	.3646827	-.013080	.1629349
#3	.3741482	-.008992	.1625583

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5374.143	93559.42	11638.51	3980.098	6399.883
Stddev	1.693	149.94	70.55	2.988	5.635
%RSD	.0315087	.1602566	.6061879	.0750655	.0880439
#1	5375.389	93442.13	11559.52	3978.728	6403.642
#2	5374.824	93728.35	11660.73	3983.525	6402.603
#3	5372.215	93507.78	11695.28	3978.042	6393.405

Sample Name: Q2832-10 Acquired: 8/14/2025 13:54:58 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.001374**	**-.000110**	**.0282103**	**-.000295**	**.0010231**	**.0270327**	**.0815509**
Stddev	.001293	.001396	.0004739	.000061	.0001974	.0060421	.0007444
%RSD	94.08022	1268.674	1.679703	20.62061	19.29564	22.35123	.9127718
#1	-.002237	-.001712	.0280121	-.000254	.0012277	.0220294	.0815729
#2	.000112	.000540	.0278678	-.000265	.0010076	.0253233	.0822841
#3	-.001999	.000842	.0287511	-.000365	.0008338	.0337454	.0807959

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000060**	**.0001518**	**11.04886**	**.0007135**	**.0005378**	**.0099425**	**.1145575**
Stddev	.000025	.0000790	.03453	.0000530	.0001606	.0001426	.0020144
%RSD	42.66212	52.07733	.3124899	7.431267	29.85558	1.433956	1.758456
#1	-.000074	.0000855	11.07432	.0007565	.0005934	.0099844	.1151175
#2	-.000030	.0002393	11.06269	.0006542	.0003568	.0097836	.1123223
#3	-.000074	.0001306	11.00956	.0007297	.0006632	.0100594	.1162326

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0319724**	**1.665520**	**.0030832**	**.0006419**	**324.8458**	**.0009041**	**.0588031**
Stddev	.0004829	.027327	.0003668	.0001420	4.5889	.0005002	.0003128
%RSD	1.510314	1.640739	11.89684	22.11627	1.412651	55.33225	.5319812
#1	.0320126	1.659159	.0028413	.0007329	324.8913	.0010344	.0591537
#2	.0324339	1.695466	.0035053	.0004783	329.4118	.0003516	.0587031
#3	.0314706	1.641935	.0029032	.0007143	320.2343	.0013262	.0585525

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.435021**	**.0049988**	**.0005318**	**-.015353**	**.0000003**	**.5202709**	**.0814415**
Stddev	.048974	.0004964	.0000820	.000366	.0005793	.0036084	.0023970
%RSD	3.412741	9.930145	15.41858	2.381915	180433.4	.6935697	2.943163
#1	1.379382	.0046762	.0004637	-.015164	.0002779	.5173425	.0796684
#2	1.454089	.0047499	.0005088	-.015774	.0003886	.5191682	.0841686
#3	1.471593	.0055704	.0006228	-.015120	-.000666	.5243020	.0804875

Sample Name: Q2832-10 Acquired: 8/14/2025 13:54:58 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.3605884	-.008737	.0549373
Stddev	.0018770	.001594	.0002385
%RSD	.5205246	18.24323	.4341391
#1	.3599884	-.008412	.0551295
#2	.3590848	-.010469	.0550120
#3	.3626919	-.007331	.0546704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5389.772	95094.26	11807.20	4030.420	6467.959
Stddev	5.122	178.60	97.98	3.571	7.430
%RSD	.0950297	.1878098	.8298098	.0886081	.1148695
#1	5393.349	95041.15	11716.82	4026.379	6467.908
#2	5392.064	94948.25	11793.45	4031.728	6475.415
#3	5383.905	95293.39	11911.32	4033.153	6460.556

Sample Name: Q2836-03 Acquired: 8/14/2025 13:59:25 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002093**	**.0028443**	**-.000963**	**-.002383**	**.0029646**	**.4264055**	**.0505324**
Stddev	.003540	.0010692	.000421	.002263	.0019180	.0093762	.0009842
%RSD	169.1437	37.59143	43.69338	94.95157	64.69729	2.198904	1.947658
#1	-.003393	.0040674	-.000533	-.001364	.0011169	.4176561	.0498503
#2	-.004800	.0020865	-.000983	-.000809	.0049459	.4363029	.0516607
#3	.001913	.0023791	-.001374	-.004976	.0028309	.4252574	.0500862

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000086**	**.0000545**	**201.0068**	**.0012925**	**.0006820**	**.0087375**	**.0237474**
Stddev	.000085	.0000489	.4606	.0005026	.0001600	.0005464	.0018181
%RSD	98.58218	89.59327	.2291519	38.88087	23.46312	6.254100	7.656121
#1	-.000032	.0000872	201.3457	.0009487	.0006828	.0088856	.0256504
#2	-.000184	.0000780	201.1923	.0018693	.0005216	.0091946	.0220281
#3	-.000042	-.000002	200.4823	.0010596	.0008416	.0081322	.0235638

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015588**	**.0711297**	**.0048231**	**.0004651**	**460.7655**	**.0041815**	**.0069912**
Stddev	.0006590	.0032762	.0003694	.0005052	2.9129	.0006421	.0001753
%RSD	42.27691	4.606000	7.659008	108.6187	.6321930	15.35493	2.507115
#1	.0019815	.0732077	.0047877	-.000090	463.2075	.0039908	.0068185
#2	.0007995	.0728283	.0052090	.000899	457.5414	.0036565	.0069860
#3	.0018955	.0673529	.0044727	.000586	461.5478	.0048974	.0071690

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.07354**	**.0244348**	**.0089270**	**-.017238**	**-.007756**	**2.133091**	**.0115248**
Stddev	.04058	.0002884	.0002496	.000656	.000233	.028919	.0032893
%RSD	.3103684	1.180184	2.795432	3.806020	3.002752	1.355722	28.54150
#1	13.10211	.0247643	.0089228	-.017947	-.007847	2.153845	.0150510
#2	13.02710	.0243118	.0086795	-.017113	-.007929	2.100059	.0085393
#3	13.09142	.0242284	.0091786	-.016652	-.007491	2.145370	.0109841

Sample Name: Q2836-03 Acquired: 8/14/2025 13:59:25 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**17.15570**	**-.024222**	**1.473688**
Stddev	.01002	.000930	.007038
%RSD	.0584308	3.841454	.4775965
#1	17.16679	-.023486	1.481111
#2	17.15305	-.025268	1.467111
#3	17.14727	-.023912	1.472842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5110.792**	**91653.29**	**11665.55**	**3803.072**	**6015.042**
Stddev	5.598	134.49	67.17	6.066	2.977
%RSD	.1095405	.1467412	.5757569	.1595018	.0494937
#1	5111.952	91519.83	11661.64	3803.442	6013.601
#2	5104.705	91651.24	11600.43	3808.945	6013.059
#3	5115.720	91788.79	11734.59	3796.830	6018.465

Sample Name: Q2836-07 Acquired: 8/14/2025 14:03:49 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.004771**	**.0023114**	**-.000894**	**-.001770**	**.0039004**	**.3810834**	**.0582268**
Stddev	.000681	.0004979	.000567	.002146	.0019043	.0143138	.0015341
%RSD	14.26986	21.53981	63.43501	121.2704	48.82300	3.756094	2.634667
#1	-.004812	.0027996	-.000822	-.003514	.0032471	.3688285	.0568413
#2	-.004070	.0018044	-.001494	-.002422	.0060454	.3968155	.0598754
#3	-.005430	.0023303	-.000366	.000627	.0024088	.3776063	.0579639

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000107**	**.0000409**	**197.5814**	**.0067520**	**.0007535**	**.0066831**	**.0132266**
Stddev	.000038	.0000731	.4190	.0002929	.0002419	.0005631	.0021211
%RSD	35.62582	178.7434	.2120535	4.338116	32.11060	8.425809	16.03668
#1	-.000063	-.000026	197.6050	.0068115	.0010313	.0063541	.0156758
#2	-.000131	.000119	197.9881	.0070106	.0006403	.0073333	.0120142
#3	-.000128	.000029	197.1512	.0064339	.0005889	.0063619	.0119899

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014128**	**.1143775**	**.0014219**	**.0004478**	**462.9374**	**.0012087**	**.0067200**
Stddev	.0000158	.0178273	.0002247	.0001765	4.1339	.0006286	.0002505
%RSD	1.119263	15.58640	15.80017	39.41351	.8929728	52.00445	3.727411
#1	.0014297	.1343082	.0016749	.0006502	467.6226	.0019321	.0068909
#2	.0013983	.0999523	.0013452	.0003260	461.3859	.0008985	.0064325
#3	.0014105	.1088722	.0012457	.0003672	459.8038	.0007955	.0068366

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.76538**	**.0180830**	**.0075889**	**-.017782**	**-.006746**	**2.203518**	**.0085359**
Stddev	.06622	.0000576	.0002732	.001219	.000747	.013073	.0022064
%RSD	.5628652	.3184341	3.599562	6.857060	11.06711	.5932926	25.84887
#1	11.82832	.0180892	.0073000	-.016655	-.007070	2.200131	.0090667
#2	11.69630	.0181373	.0076238	-.019076	-.005892	2.217951	.0061125
#3	11.77152	.0180226	.0078430	-.017615	-.007275	2.192471	.0104286

Sample Name: Q2836-07 Acquired: 8/14/2025 14:03:49 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**10.16781**	**-.025329**	**1.265160**
Stddev	.04639	.000442	.002915
%RSD	.4562271	1.745518	.2304320
#1	10.11745	-.025742	1.268282
#2	10.17721	-.025381	1.264688
#3	10.20878	-.024863	1.262509

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5121.336**	**91843.38**	**11724.54**	**3838.178**	**6026.420**
Stddev	3.193	190.42	52.18	24.756	9.785
%RSD	.0623517	.2073360	.4450774	.6449890	.1623626
#1	5123.780	91757.85	11727.39	3827.607	6036.127
#2	5117.723	91710.72	11670.99	3820.463	6016.559
#3	5122.505	92061.57	11775.24	3866.465	6026.575

Sample Name: Q2836-11 Acquired: 8/14/2025 14:08:14 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.002730**	**.0021895**	**-.000031**	**.0001470**	**.0028251**	**.1853727**	**.0415676**
Stddev	.001129	.0008185	.000710	.0018822	.0001904	.0092089	.0005068
%RSD	41.36014	37.38392	2322.963	1280.546	6.738712	4.967777	1.219250
#1	-.001477	.0016568	-.000654	.0012640	.0028868	.1903623	.0417191
#2	-.003669	.0017797	-.000180	.0012030	.0026116	.1910101	.0410022
#3	-.003045	.0031320	.000742	-.002026	.0029770	.1747458	.0419813

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000103**	**-.000007**	**167.7665**	**.0089681**	**.0009461**	**.0047326**	**.0554754**
Stddev	.000007	.000043	.0983	.0003753	.0000414	.0001111	.0046670
%RSD	6.885616	620.3479	.0586168	4.185232	4.379182	2.346691	8.412664
#1	-.000109	.000035	167.8459	.0092966	.0009768	.0046057	.0518012
#2	-.000104	-.000006	167.6565	.0090487	.0009626	.0047796	.0538984
#3	-.000095	-.000050	167.7970	.0085590	.0008990	.0048124	.0607265

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0195659**	**.2855004**	**.0038217**	**.0005246**	**401.4399**	**.0005285**	**.0082979**
Stddev	.0002065	.0035449	.0001886	.0001889	1.3593	.0006462	.0004714
%RSD	1.055490	1.241637	4.935299	36.00196	.3386078	122.2774	5.680547
#1	.0194630	.2877989	.0036696	.0007419	401.0397	.0007481	.0078834
#2	.0194310	.2872844	.0040328	.0004325	400.3257	.0010363	.0081997
#3	.0198036	.2814179	.0037627	.0003995	402.9544	-.000199	.0088107

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.481905**	**.0214394**	**.0058277**	**-.017635**	**-.005180**	**2.554311**	**.0099085**
Stddev	.064654	.0001537	.0001084	.000145	.001821	.013714	.0065855
%RSD	.8641366	.7169650	1.859354	.8216119	35.16319	.5369040	66.46309
#1	7.409122	.0212620	.0059442	-.017789	-.003528	2.543947	.0027167
#2	7.532687	.0215300	.0057299	-.017501	-.004879	2.569862	.0113649
#3	7.503905	.0215264	.0058090	-.017616	-.007133	2.549123	.0156439

Sample Name: Q2836-11 Acquired: 8/14/2025 14:08:14 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**9.107042**	**-.024046**	**.9614542**
Stddev	.021634	.001204	.0043548
%RSD	.2375509	5.005564	.4529373
#1	9.088686	-.022864	.9570631
#2	9.130894	-.024004	.9615279
#3	9.101547	-.025270	.9657717

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5226.463**	**93311.55**	**11799.04**	**3938.668**	**6178.421**
Stddev	3.877	131.32	49.11	11.528	6.182
%RSD	.0741783	.1407288	.4161947	.2926986	.1000499
#1	5226.522	93462.18	11754.98	3942.519	6178.872
#2	5222.557	93251.27	11851.98	3925.707	6172.026
#3	5230.310	93221.20	11790.16	3947.777	6184.364

Sample Name: Q2836-15 Acquired: 8/14/2025 14:12:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000069**	**.0040010**	**.0000719**	**.0039628**	**.0027676**	**.3578465**
Stddev	.002556	.0008076	.0017287	.0047302	.0004900	.0069430
%RSD	3711.678	20.18443	2403.290	119.3671	17.70558	1.940228
#1	-.002204	.0047340	.0013590	.0090569	.0031386	.3559303
#2	.002764	.0031353	.0007498	.0031221	.0022121	.3655464
#3	-.000767	.0041338	-.001893	-.000291	.0029520	.3520628

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0383768**	**-.000149**	**-.000023**	**205.5660**	**.0020942**	**.0013322**
Stddev	.0006629	.000052	.000118	.3491	.0001249	.0001366
%RSD	1.727428	34.65627	521.2330	.1698399	5.965780	10.25302
#1	.0391210	-.000185	-.000155	205.6974	.0022173	.0011927
#2	.0378493	-.000090	.000017	205.1702	.0019675	.0013383
#3	.0381600	-.000173	.000070	205.8303	.0020979	.0014657

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0174093**	**.0931407**	**.0040105**	**.3227582**	**.0059773**	**.0009250**
Stddev	.0002911	.0084904	.0003695	.0131838	.0000811	.0002509
%RSD	1.671856	9.115642	9.213222	4.084729	1.356634	27.11915
#1	.0175077	.0880568	.0036214	.3351858	.0060436	.0009997
#2	.0176383	.1029422	.0043566	.3089300	.0060014	.0006453
#3	.0170817	.0884229	.0040536	.3241587	.0058869	.0011301

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**438.3814**	**.0084746**	**.0048178**	**8.727406**	**.0322765**	**.0144357**
Stddev	3.4753	.0024276	.0000624	.049364	.0004354	.0000416
%RSD	.7927586	28.64485	1.294779	.5656165	1.348994	.2880314
#1	438.7427	.0057237	.0048021	8.670540	.0326673	.0143963
#2	434.7396	.0093840	.0048865	8.759234	.0318072	.0144315
#3	441.6620	.0103162	.0047647	8.752442	.0323550	.0144791

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2836-15 Acquired: 8/14/2025 14:12:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.017288	-.005900	1.758119	.0194588	F 29.13966	-.025624
Stddev	.000143	.001232	.003987	.0036031	.17283	.000853
%RSD	.8287416	20.88884	.2267692	18.51678	.5931128	3.330305
#1	-.017131	-.004516	1.754928	.0202034	29.16252	-.025109
#2	-.017411	-.006880	1.756841	.0226314	28.95654	-.025154
#3	-.017323	-.006302	1.762589	.0155415	29.29993	-.026609

Elem	Sr4077
Units	ppm
Avg	1.096439
Stddev	.003808
%RSD	.3473441
#1	1.092678
#2	1.096346
#3	1.100293

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5173.574	92941.11	11675.12	3904.145	6106.298
Stddev	12.600	204.54	62.08	16.514	4.675
%RSD	.2435409	.2200793	.5317081	.4229948	.0765679
#1	5161.045	93164.96	11660.80	3922.948	6103.752
#2	5186.244	92894.45	11743.10	3891.991	6111.693
#3	5173.434	92763.93	11621.45	3897.497	6103.447

Sample Name: Q2838-04 Acquired: 8/14/2025 14:17:03 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0005077**	**.0012381**	**.0020876**	**-.000252**	**.0004237**	**.0679346**	**.4074958**
Stddev	.0010381	.0008699	.0009220	.003020	.0003661	.0036521	.0006005
%RSD	204.4599	70.25624	44.16700	1197.527	86.41686	5.375935	.1473597
#1	-.000690	.0004955	.0029049	-.003211	.0001666	.0721051	.4081773
#2	.001074	.0010237	.0022697	-.000370	.0008428	.0653081	.4070442
#3	.001139	.0021951	.0010881	.002825	.0002616	.0663906	.4072661

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000643**	**.0002492**	**54.29060**	**.0010747**	**.0028286**	**.0028602**	**2.552456**
Stddev	.0000265	.0000584	.11663	.0001415	.0000796	.0004100	.022739
%RSD	41.26506	23.42143	.2148225	13.17024	2.815773	14.33291	.8908592
#1	.0000437	.0002062	54.19852	.0009659	.0028456	.0026817	2.543336
#2	.0000943	.0002256	54.25155	.0010235	.0028984	.0025698	2.578340
#3	.0000550	.0003156	54.42175	.0012347	.0027418	.0033292	2.535694

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.635883**	**3.407083**	**.0028188**	**.0014858**	**342.0834**	**.0010582**	**.0386387**
Stddev	.009562	.019724	.0002119	.0002232	2.1202	.0006210	.0000552
%RSD	.3627575	.5789231	7.517027	15.01897	.6197935	58.68538	.1427882
#1	2.641848	3.388236	.0030453	.0016231	342.0134	.0012896	.0386138
#2	2.624854	3.405433	.0027858	.0012283	344.2377	.0015302	.0386003
#3	2.640946	3.427581	.0026254	.0016059	339.9990	.0003547	.0387019

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.160258**	**.0112260**	**.0006353**	**-.017300**	**-.002169**	**.3655400**	**.0232843**
Stddev	.029686	.0002336	.0000864	.000453	.001583	.0046513	.0019437
%RSD	2.558574	2.081139	13.60207	2.618707	72.96126	1.272458	8.347690
#1	1.139657	.0114943	.0005893	-.017813	-.000910	.3708168	.0236952
#2	1.194285	.0111165	.0005817	-.017133	-.003946	.3637689	.0211680
#3	1.146832	.0110673	.0007350	-.016954	-.001651	.3620345	.0249897

Sample Name: Q2838-04 Acquired: 8/14/2025 14:17:03 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.2955721	-.013120	.1128952
Stddev	.0039362	.000415	.0003993
%RSD	1.331710	3.159310	.3537159
#1	.2956855	-.013554	.1133562
#2	.2915805	-.012728	.1126736
#3	.2994504	-.013079	.1126559

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5402.107	93037.42	11681.45	4016.211	6400.538
Stddev	5.523	363.10	46.39	13.304	6.309
%RSD	.1022432	.3902759	.3971656	.3312601	.0985692
#1	5405.073	93114.88	11699.81	4006.632	6407.766
#2	5405.513	92641.84	11715.84	4010.599	6397.711
#3	5395.734	93355.54	11628.68	4031.401	6396.138

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2838-08 Acquired: 8/14/2025 14:21:29 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0026871**	**-.000152**	**.0026549**	**.0012626**	**.0007988**	**.0919355**	**.2143035**
Stddev	.0035308	.000561	.0019698	.0011612	.0020249	.0058619	.0001282
%RSD	131.3998	369.6667	74.19245	91.97036	253.5103	6.376055	.0598014
#1	.0067635	-.000349	.0005106	.0008636	.0026478	.0985885	.2144514
#2	.0005886	-.000587	.0043837	.0003535	-.001365	.0896877	.2142324
#3	.0007091	.000481	.0030705	.0025706	.001114	.0875301	.2142266

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001464**	**.0000660**	**13.82287**	**.0002178**	**.0043335**	**.0035273**	**3.802805**
Stddev	.0000300	.0000176	.03768	.0001608	.0000707	.0003425	.024410
%RSD	20.46984	26.61278	.2726109	73.82841	1.632723	9.708619	.6419000
#1	.0001139	.0000487	13.84514	.0001601	.0043864	.0039223	3.774624
#2	.0001729	.0000839	13.77936	.0000938	.0042531	.0033146	3.816403
#3	.0001524	.0000654	13.84410	.0003995	.0043609	.0033450	3.817388

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.289702**	**1.783053**	**.0046425**	**.0012139**	**275.4455**	**.0013781**	**.0687497**
Stddev	.000480	.032419	.0002469	.0002578	3.0448	.0020736	.0002227
%RSD	.0372147	1.818164	5.317910	21.23419	1.105412	150.4760	.3238859
#1	1.289735	1.785639	.0043924	.0009163	278.1698	.0004600	.0688967
#2	1.290164	1.749419	.0048861	.0013594	272.1586	.0037523	.0684936
#3	1.289206	1.814102	.0046490	.0013660	276.0080	-.000078	.0688590

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8028602**	**.0218319**	**.0005271**	**-.016468**	**.0014514**	**.3289996**	**.0297147**
Stddev	.0118936	.0005119	.0002675	.000437	.0010241	.0056262	.0015737
%RSD	1.481400	2.344930	50.75666	2.652888	70.55808	1.710092	5.295907
#1	.7911927	.0221166	.0007704	-.015990	.0017546	.3297302	.0290497
#2	.8024203	.0212409	.0002406	-.016847	.0022897	.3342248	.0315117
#3	.8149676	.0221382	.0005703	-.016566	.0003100	.3230438	.0285827

Sample Name: Q2838-08 Acquired: 8/14/2025 14:21:29 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.3629052	-.005894	.0506206
Stddev	.0019739	.000766	.0000792
%RSD	.5439182	12.99655	.1564664
#1	.3643919	-.006502	.0506921
#2	.3606657	-.005034	.0505355
#3	.3636581	-.006147	.0506343

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5452.413	96220.14	11799.05	4082.217	6566.040
Stddev	7.382	162.78	75.75	1.523	9.221
%RSD	.1353945	.1691705	.6420028	.0372981	.1404325
#1	5460.820	96220.78	11730.43	4082.804	6573.724
#2	5446.987	96382.60	11880.34	4080.489	6555.815
#3	5449.433	96057.05	11786.39	4083.359	6568.582

Sample Name: Q2838-08DUP Acquired: 8/14/2025 14:25:55 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0048324	.0012757	.0046130	.0010004	.0018461	.1215624	.3090755
Stddev	.0017303	.0012416	.0007839	.0018906	.0017845	.0011243	.0010818
%RSD	35.80659	97.33086	16.99330	188.9867	96.66576	.9248490	.3499995
#1	.0051319	.0016093	.0049985	.0013902	.0037959	.1206859	.3079613
#2	.0029719	.0023164	.0037110	.0026657	.0002940	.1228299	.3101216
#3	.0063935	-.000099	.0051295	-.001055	.0014484	.1211712	.3091438

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001758	.0001839	19.54462	.0008808	.0064430	.0055284	5.569689
Stddev	.0000087	.0000508	.01173	.0003175	.0001811	.0002682	.012618
%RSD	4.941904	27.62606	.0600406	36.05170	2.810528	4.851565	.2265437
#1	.0001837	.0001255	19.53374	.0012452	.0064568	.0053066	5.581502
#2	.0001665	.0002179	19.54306	.0006633	.0062554	.0054522	5.571167
#3	.0001772	.0002082	19.55705	.0007339	.0066168	.0058265	5.556397

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.836175	2.518351	.0065714	.0013430	405.8896	.0022843	.0978212
Stddev	.003172	.021901	.0002222	.0003725	2.6016	.0007573	.0005127
%RSD	.1727456	.8696450	3.380933	27.73616	.6409595	33.14984	.5240934
#1	1.832577	2.493171	.0063166	.0009865	406.1190	.0031587	.0983994
#2	1.837382	2.528918	.0066726	.0017297	408.3689	.0018380	.0974223
#3	1.838566	2.532965	.0067248	.0013127	403.1809	.0018564	.0976418

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.213862	.0333408	.0005138	-.016179	.0023218	.4999064	.0385562
Stddev	.038862	.0001912	.0001300	.000435	.0012947	.0101888	.0023695
%RSD	3.201543	.5733832	25.30869	2.690889	55.76198	2.038132	6.145496
#1	1.235759	.0332592	.0005670	-.016016	.0038140	.5116661	.0381085
#2	1.168992	.0332041	.0003656	-.015849	.0016549	.4943316	.0364425
#3	1.236835	.0335593	.0006089	-.016673	.0014965	.4937215	.0411176

Sample Name: Q2838-08DUP Acquired: 8/14/2025 14:25:55 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.5454948	-.006545	.0719701
Stddev	.0023307	.000947	.0000529
%RSD	.4272668	14.47130	.0735002
#1	.5428203	-.006386	.0719354
#2	.5470914	-.007561	.0719439
#3	.5465728	-.005686	.0720310

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5369.617	95388.91	12065.55	4085.078	6355.207
Stddev	4.550	112.05	42.01	23.521	9.038
%RSD	.0847364	.1174704	.3482043	.5757739	.1422218
#1	5368.064	95366.36	12111.81	4093.658	6346.532
#2	5374.740	95289.85	12029.78	4103.104	6364.570
#3	5366.047	95510.53	12055.05	4058.471	6354.518

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2838-08LX5 Acquired: 8/14/2025 14:30:18 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000607**	**-.000574**	**.0002339**	**-.002283**	**-.000609**	**.0228317**	**.0389034**
Stddev	.000991	.000912	.0016101	.000643	.001217	.0045494	.0001914
%RSD	163.1803	158.9668	688.3904	28.17248	199.9756	19.92564	.4918837
#1	.000386	-.000632	-.000487	-.002841	.000477	.0210180	.0386824
#2	-.000611	.000366	-.000890	-.002427	-.001924	.0280081	.0390106
#3	-.001596	-.001455	.002079	-.001580	-.000379	.0194689	.0390170

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000157**	**-.000009**	**2.937336**	**.0000620**	**.0007187**	**.0008579**	**.7667228**
Stddev	.0000354	.000032	.008951	.0002308	.0000306	.0001821	.0067356
%RSD	225.3833	363.9182	.3047394	372.4582	4.257594	21.22025	.8784955
#1	.0000493	-.000012	2.937808	.0002609	.0006961	.0010668	.7744715
#2	.0000189	-.000039	2.928158	-.000191	.0007535	.0007741	.7622674
#3	-.000021	.000025	2.946042	.000116	.0007063	.0007329	.7634297

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2746413**	**.3917089**	**.0011445**	**.0013154**	**53.46443**	**-.002665**	**.0141206**
Stddev	.0009728	.0295244	.0001463	.0003770	.38711	.001459	.0000956
%RSD	.3541937	7.537333	12.78445	28.66004	.7240509	54.73949	.6771775
#1	.2751202	.3602663	.0010353	.0009256	53.88072	-.004288	.0140251
#2	.2735219	.3960191	.0013107	.0016781	53.39729	-.002245	.0142163
#3	.2752817	.4188413	.0010874	.0013424	53.11529	-.001462	.0141203

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8864862**	**.0016975**	**.0000713**	**-.002797**	**-.000010**	**.0669539**	**.0032562**
Stddev	.0168063	.0004483	.0000844	.000536	.001158	.0027464	.0019140
%RSD	1.895837	26.40944	118.3965	19.15756	11038.54	4.101983	58.77853
#1	.9055268	.0021868	.0000158	-.002577	.001163	.0697515	.0010856
#2	.8802132	.0015994	.0001684	-.002406	-.000043	.0642617	.0039818
#3	.8737186	.0013064	.0000297	-.003408	-.001152	.0668485	.0047013

Sample Name: Q2838-08LX5 Acquired: 8/14/2025 14:30:18 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0802746	.0178016	.0107015
Stddev	.0024057	.0006013	.0001008
%RSD	2.996850	3.377641	.9421292
#1	.0830433	.0171094	.0105860
#2	.0786957	.0181938	.0107469
#3	.0790846	.0181017	.0107717

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5667.704	101042.2	11892.62	4269.981	7085.208
Stddev	11.223	197.4	20.18	8.988	24.480
%RSD	.1980096	.1953245	.1697192	.2105021	.3455062
#1	5660.107	100818.0	11884.84	4261.480	7067.636
#2	5662.411	101189.4	11915.54	4269.075	7074.818
#3	5680.594	101119.3	11877.49	4279.388	7113.169

Sample Name: CCV03 Acquired: 8/14/2025 14:41:31 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.983598**	**4.710307**	**4.786569**	**4.999673**	**5.054010**	**9.773894**	**9.880753**
Stddev	.005107	.062259	.014330	.011044	.001471	.016195	.056356
%RSD	.1024832	1.321760	.2993789	.2208962	.0291116	.1656969	.5703596
#1	4.978067	4.644783	4.803095	4.989238	5.053366	9.755195	9.842397
#2	4.988136	4.717455	4.777589	4.998543	5.052971	9.783047	9.854405
#3	4.984591	4.768683	4.779023	5.011239	5.055693	9.783439	9.945457

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2367600**	**2.401909**	**24.19743**	**.9837924**	**2.407175**	**1.240562**	**5.005928**
Stddev	.0007150	.007411	.08002	.0017775	.005427	.000352	.005647
%RSD	.3019818	.3085339	.3306820	.1806755	.2254578	.0283346	.1128094
#1	.2360597	2.410462	24.11028	.9843193	2.413437	1.240167	5.011342
#2	.2374888	2.397400	24.26757	.9852469	2.403837	1.240840	5.006367
#3	.2367314	2.397865	24.21446	.9818111	2.404252	1.240679	5.000074

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.407169**	**23.97210**	**2.424498**	**1.242343**	**24.33863**	**2.455185**	**2.521072**
Stddev	.013479	.19882	.004281	.001795	.03653	.003939	.008169
%RSD	.5599525	.8293714	.1765629	.1444681	.1500722	.1604255	.3240126
#1	2.394223	23.75257	2.429394	1.244322	24.37466	2.452645	2.529358
#2	2.421124	24.14003	2.421462	1.241885	24.33959	2.459723	2.520831
#3	2.406158	24.02370	2.422638	1.240821	24.30163	2.453189	2.513026

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.36833**	**4.757166**	**5.028692**	**4.795300**	**4.902074**	**5.034422**	**4.725071**
Stddev	.04803	.022450	.003861	.009861	.015045	.022032	.019564
%RSD	.1893129	.4719206	.0767851	.2056395	.3069046	.4376215	.4140419
#1	25.41889	4.731560	5.024537	4.805415	4.884703	5.016365	4.747662
#2	25.32331	4.773469	5.029370	4.785714	4.910862	5.058970	4.713754
#3	25.36280	4.766468	5.032169	4.794772	4.910659	5.027930	4.713798

Sample Name: CCV03 Acquired: 8/14/2025 14:41:31 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.672754**	**4.842041**	**5.026769**
Stddev	.015661	.016682	.057159
%RSD	.3351654	.3445320	1.137095
#1	4.668327	4.823392	5.004005
#2	4.659782	4.847189	5.091803
#3	4.690152	4.855543	4.984499

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5582.970**	**99081.13**	**11499.90**	**4190.178**	**6782.298**
Stddev	9.167	101.66	57.03	6.846	18.949
%RSD	.1642012	.1026025	.4958777	.1633918	.2793937
#1	5579.181	99162.17	11565.43	4195.470	6764.210
#2	5576.303	98967.06	11461.56	4182.445	6780.679
#3	5593.424	99114.17	11472.71	4192.618	6802.004

Sample Name: CCB03 Acquired: 8/14/2025 14:45:41 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000591**	**-.000997**	**.0001690**	**-.001445**	**.0018348**	**-.000383**
Stddev	.002640	.000537	.0006476	.002806	.0006165	.001420
%RSD	446.3609	53.80556	383.2514	194.1669	33.59896	370.2249
#1	-.001266	-.000881	.0001279	.000169	.0021344	.001254
#2	-.002828	-.000529	.0008362	.000181	.0022442	-.001147
#3	.002320	-.001583	-.000457	-.004686	.0011258	-.001257

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007215**	**.0000157**	**.0000365**	**.0121288**	**.0004531**	**-.000015**
Stddev	.000403	.0000462	.0000476	.0033977	.0001971	.000197
%RSD	5.591962	294.5666	130.3382	28.01355	43.49482	1321.874
#1	-.007428	.0000374	.0000025	.0087659	.0006529	.000210
#2	-.007467	-.000037	.0000910	.0120602	.0002588	-.000153
#3	-.006750	.000047	.0000161	.0155603	.0004476	-.000102

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000257**	**.0031004**	**.0002506**	**-.000783**	**.0001743**	**.0014550**
Stddev	.000303	.0008466	.0001271	.014116	.0002323	.0001648
%RSD	117.7964	27.30731	50.71854	1802.534	133.3007	11.32972
#1	-.000054	.0022378	.0001362	-.015964	.0002126	.0014132
#2	-.000605	.0031333	.0003874	.011948	.0003850	.0016367
#3	-.000112	.0039300	.0002282	.001667	-.000075	.0013150

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7876665**	**-.000443**	**.0003390**	**.5284278**	**.0072099**	**.0005366**
Stddev	.0151689	.001550	.0000393	.0300654	.0003280	.0002553
%RSD	1.925807	350.1546	11.58165	5.689585	4.549597	47.57389
#1	.7748390	-.001347	.0003036	.5322801	.0074350	.0004038
#2	.7837514	.001347	.0003321	.5563814	.0068336	.0008308
#3	.8044093	-.001329	.0003812	.4966220	.0073613	.0003750

Sample Name: CCB03 Acquired: 8/14/2025 14:45:41 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.013932	.0004189	.0256237	-.000987	.0016668	F .0129305
Stddev	.000400	.0005079	.0071365	.000678	.0018830	.0010588
%RSD	2.872162	121.2468	27.85133	68.73635	112.9757	8.188196
#1	-.014378	.0002424	.0305407	-.000294	.0028709	.0117152
#2	-.013604	.0009916	.0288920	-.001649	.0026326	.0136531
#3	-.013813	.0000228	.0174382	-.001018	-.000503	.0134234

Elem	Sr4077
Units	ppm
Avg	-.000111
Stddev	.000019
%RSD	17.38948
#1	-.000098
#2	-.000133
#3	-.000103

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5733.276	101778.5	11559.18	4307.635	7527.980
Stddev	5.470	482.5	33.87	8.811	4.929
%RSD	.0954122	.4741039	.2930469	.2045499	.0654704
#1	5728.195	101632.3	11557.11	4301.052	7523.747
#2	5739.067	101386.0	11594.04	4304.208	7526.801
#3	5732.567	102317.3	11526.39	4317.645	7533.391

Sample Name: Q2838-08MS Acquired: 8/14/2025 14:50:01 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8126531**	**1.813072**	**.9034199**	**1.998481**	**.8137177**	**2.084444**	**.5313340**
Stddev	.0029549	.012926	.0021632	.007887	.0012511	.007029	.0024203
%RSD	.3636070	.7129277	.2394411	.3946326	.1537528	.3372334	.4555081
#1	.8104548	1.819233	.9013104	1.997951	.8123922	2.076687	.5326691
#2	.8114924	1.798218	.9056330	1.990872	.8138829	2.086251	.5285402
#3	.8160121	1.821765	.9033164	2.006619	.8148781	2.090393	.5327926

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1742733**	**.1924257**	**22.41689**	**.3948765**	**.2000961**	**.2920906**	**9.242732**
Stddev	.0005369	.0005414	.03548	.0011041	.0001621	.0010599	.049738
%RSD	.3081009	.2813788	.1582660	.2795954	.0810156	.3628508	.5381259
#1	.1748055	.1929282	22.44918	.3942861	.2002075	.2923963	9.233371
#2	.1742827	.1918523	22.37891	.3941931	.1999102	.2909115	9.198340
#3	.1737318	.1924966	22.42258	.3961502	.2001707	.2929640	9.296485

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.185735**	**4.602651**	**.4915920**	**.0759903**	**438.5393**	**.2936093**	**.3131220**
Stddev	.008025	.009992	.0003852	.0006135	3.1443	.0021941	.0001800
%RSD	.3671491	.2170869	.0783487	.8073691	.7169878	.7472966	.0574841
#1	2.194994	4.606219	.4920309	.0765041	435.9919	.2954732	.3129348
#2	2.181406	4.610368	.4913101	.0753110	437.5725	.2911912	.3132939
#3	2.180803	4.591365	.4914350	.0761558	442.0534	.2941635	.3131374

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.65707**	**.2779893**	**.4218242**	**.6657914**	**.1956670**	**1.476316**	**5.595892**
Stddev	.15508	.0009692	.0016732	.0022107	.0021583	.012982	.016707
%RSD	1.225230	.3486344	.3966549	.3320345	1.103075	.8793258	.2985644
#1	12.57316	.2786039	.4218228	.6639969	.1981273	1.488323	5.583368
#2	12.56204	.2768721	.4201518	.6682609	.1947811	1.462541	5.589445
#3	12.83603	.2784919	.4234981	.6651164	.1940924	1.478085	5.614862

Sample Name: Q2838-08MS Acquired: 8/14/2025 14:50:01 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.5616974	.1913190	.2639709
Stddev	.0024766	.0004601	.0002786
%RSD	.4409130	.2404874	.1055453
#1	.5631392	.1907942	.2637988
#2	.5588377	.1916529	.2638215
#3	.5631153	.1915099	.2642923

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5345.955	94719.73	11889.29	4024.959	6309.462
Stddev	10.811	337.85	26.32	11.323	8.429
%RSD	.2022297	.3566822	.2213769	.2813266	.1335927
#1	5343.670	94905.61	11859.17	4026.024	6309.361
#2	5357.726	94923.82	11907.91	4035.712	6317.941
#3	5336.470	94329.76	11900.77	4013.141	6301.084

Sample Name: Q2838-08MSD Acquired: 8/14/2025 14:54:09 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8064475**	**1.854823**	**.8923168**	**1.995953**	**.7915381**	**2.016034**	**.4970318**
Stddev	.0015856	.011460	.0012871	.005069	.0040137	.005205	.0041612
%RSD	.1966137	.6178663	.1442419	.2539823	.5070724	.2581872	.8372133
#1	.8047881	1.865330	.8919762	1.995136	.7953122	2.021979	.4991747
#2	.8079472	1.856539	.8937400	1.991342	.7873215	2.013825	.4922359
#3	.8066071	1.842602	.8912343	2.001381	.7919806	2.012297	.4996849

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1752261**	**.1898470**	**20.43895**	**.3924775**	**.1974589**	**.2890936**	**8.532840**
Stddev	.0008586	.0002411	.06146	.0023372	.0002715	.0004328	.001044
%RSD	.4899915	.1270016	.3007177	.5955089	.1375037	.1496992	.0122299
#1	.1759103	.1895758	20.46649	.3929500	.1971889	.2891297	8.532094
#2	.1742627	.1899281	20.36854	.3945424	.1974559	.2886440	8.532395
#3	.1755054	.1900371	20.48184	.3899401	.1977319	.2895072	8.534033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013089**	**4.361839**	**.4849360**	**.0742387**	**394.8594**	**.2922756**	**.3019869**
Stddev	.009865	.030327	.0002856	.0008590	5.3788	.0016826	.0002661
%RSD	.4900594	.6952768	.0588853	1.157088	1.362206	.5756756	.0881117
#1	2.018933	4.371918	.4846504	.0751658	388.6530	.2931289	.3016932
#2	2.001698	4.327756	.4849360	.0734699	398.1671	.2903373	.3020558
#3	2.018635	4.385843	.4852215	.0740802	397.7583	.2933604	.3022118

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.17305**	**.2747896**	**.4142240**	**.6492783**	**.1910233**	**1.371030**	**5.551040**
Stddev	.02675	.0018710	.0015776	.0014794	.0008992	.009267	.012661
%RSD	.2197574	.6808890	.3808443	.2278531	.4707010	.6759502	.2280899
#1	12.19082	.2762078	.4145729	.6495034	.1911946	1.376902	5.540385
#2	12.14229	.2726690	.4125012	.6506323	.1900508	1.375842	5.547699
#3	12.18606	.2754919	.4155979	.6476993	.1918244	1.360347	5.565037

Sample Name: Q2838-08MSD Acquired: 8/14/2025 14:54:09 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6497779	.1884034	.2556237
Stddev	.0031018	.0004722	.0009007
%RSD	.4773642	.2506208	.3523692
#1	.6533196	.1886417	.2561762
#2	.6484696	.1878596	.2545843
#3	.6475447	.1887090	.2561106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5360.436	94938.38	11690.65	4029.742	6357.668
Stddev	13.346	64.49	76.81	16.230	6.890
%RSD	.2489652	.0679302	.6570448	.4027512	.1083721
#1	5352.967	94906.53	11656.51	4046.129	6358.182
#2	5375.844	95012.60	11778.61	4013.674	6364.287
#3	5352.498	94896.00	11636.83	4029.425	6350.536

Sample Name: Q2838-08A Acquired: 8/14/2025 14:58:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8296309**	**1.889837**	**.9279724**	**2.073422**	**.8242431**	**2.044137**	**.4439018**
Stddev	.0023768	.013905	.0031409	.008789	.0027105	.012689	.0005862
%RSD	.2864890	.7357738	.3384690	.4239045	.3288533	.6207733	.1320529
#1	.8320429	1.877673	.9300991	2.069619	.8273696	2.058068	.4435359
#2	.8272910	1.886841	.9294533	2.067174	.8225552	2.041104	.4445779
#3	.8295588	1.904995	.9243649	2.083472	.8228044	2.033239	.4435916

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1799751**	**.1948049**	**17.30144**	**.4018767**	**.2022938**	**.2993321**	**7.769142**
Stddev	.0005363	.0002306	.02251	.0021716	.0005362	.0006879	.014585
%RSD	.2979661	.1183683	.1300887	.5403526	.2650531	.2298106	.1877290
#1	.1795689	.1950497	17.31272	.4028087	.2028612	.2999672	7.785976
#2	.1805830	.1947730	17.31607	.3993948	.2022247	.2986014	7.761137
#3	.1797735	.1945918	17.27552	.4034267	.2017955	.2994277	7.760312

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.709929**	**4.015705**	**.5002499**	**.0767112**	**328.4046**	**.2987203**	**.2956337**
Stddev	.003817	.009979	.0005155	.0002359	4.5278	.0023074	.0010525
%RSD	.2232199	.2485086	.1030514	.3074795	1.378724	.7724389	.3560151
#1	1.705907	4.004401	.5008442	.0764738	325.8400	.3011901	.2947744
#2	1.713501	4.019422	.4999817	.0769455	325.7413	.2983512	.2968076
#3	1.710379	4.023293	.4999238	.0767141	333.6326	.2966197	.2953190

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.23463**	**.2800426**	**.4214561**	**.6641000**	**.1907361**	**1.390083**	**5.648525**
Stddev	.06477	.0010864	.0010897	.0010705	.0010945	.009924	.039750
%RSD	.5294023	.3879306	.2585623	.1611957	.5738042	.7139050	.7037281
#1	12.25724	.2791599	.4209326	.6633804	.1901658	1.388858	5.689904
#2	12.16158	.2812559	.4207269	.6653302	.1919979	1.380829	5.645036
#3	12.28506	.2797121	.4227088	.6635895	.1900446	1.400563	5.610634

Sample Name: Q2838-08A Acquired: 8/14/2025 14:58:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.4482838	.1913180	.2473294
Stddev	.0021722	.0006302	.0002546
%RSD	.4845558	.3294261	.1029369
#1	.4480568	.1909141	.2471243
#2	.4462340	.1920442	.2476143
#3	.4505606	.1909957	.2472496

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5420.712	96346.79	12004.58	4079.936	6454.675
Stddev	10.191	156.33	31.91	6.944	12.520
%RSD	.1880039	.1622567	.2658515	.1702059	.1939688
#1	5432.268	96347.57	12038.14	4087.240	6461.647
#2	5416.863	96502.73	11974.62	4073.418	6440.221
#3	5413.007	96190.08	12001.00	4079.150	6462.158

Sample Name: Q2814-01 Acquired: 8/14/2025 15:02:24 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0031528**	**.0008100**	**.0076498**	**.0026090**	**.0037440**	**.9218908**	**.0625422**
Stddev	.0006992	.0011359	.0009363	.0015606	.0007589	.0104140	.0007976
%RSD	22.17658	140.2396	12.24012	59.81656	20.26962	1.129640	1.275296
#1	.0024291	.0021148	.0082443	.0021938	.0030705	.9286494	.0619654
#2	.0038246	.0000417	.0081345	.0043353	.0045662	.9271251	.0634524
#3	.0032047	.0002735	.0065704	.0012980	.0035953	.9098980	.0622088

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000682**	**.0001880**	**40.90931**	**.0037406**	**.0000103**	**.0067203**	**2.072176**
Stddev	.0000590	.0000692	.10399	.0001249	.0000733	.0003695	.016581
%RSD	86.54772	36.80168	.2542040	3.338076	715.0774	5.498450	.8001668
#1	.0000982	.0001147	40.80966	.0036008	.0000844	.0063189	2.090622
#2	.0000002	.0002522	41.01716	.0037800	.0000085	.0067956	2.058510
#3	.0001061	.0001971	40.90110	.0038410	-.000062	.0070463	2.067395

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0388256**	**23.06362**	**.0021459**	**.0005062**	**131.1322**	**.0038627**	**.0328102**
Stddev	.0003464	.07932	.0001610	.0003403	1.1572	.0027551	.0004474
%RSD	.8923011	.3439149	7.502894	67.21706	.8824414	71.32599	1.363600
#1	.0386133	22.98542	.0022917	.0001138	132.3872	.0068475	.0331316
#2	.0392253	23.06144	.0021728	.0006861	130.9019	.0014169	.0329997
#3	.0386381	23.14401	.0019731	.0007187	130.1075	.0033238	.0322992

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.14861**	**.1568181**	**.0032940**	**-.016396**	**.0303878**	**12.77306**	**.9423697**
Stddev	.17594	.0015862	.0000622	.000556	.0003194	.11557	.0070594
%RSD	.6480721	1.011514	1.887584	3.390555	1.051165	.9047960	.7491121
#1	27.34680	.1549944	.0033512	-.016886	.0302384	12.87871	.9481164
#2	27.08823	.1575826	.0033028	-.015792	.0307545	12.79084	.9344897
#3	27.01081	.1578772	.0032278	-.016510	.0301703	12.64963	.9445032

Sample Name: Q2814-01 Acquired: 8/14/2025 15:02:24 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.392043**	**-.009609**	**.3486520**
Stddev	.006059	.000471	.0002538
%RSD	.1379583	4.905357	.0727896
#1	4.388269	-.009078	.3485874
#2	4.399032	-.009771	.3489318
#3	4.388828	-.009979	.3484367

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5432.346**	**98492.76**	**11853.97**	**4104.224**	**6660.619**
Stddev	1.297	235.87	106.35	20.471	9.936
%RSD	.0238785	.2394833	.8971985	.4987729	.1491785
#1	5431.002	98377.69	11976.76	4101.086	6661.921
#2	5432.444	98336.49	11790.67	4085.504	6669.840
#3	5433.591	98764.08	11794.49	4126.083	6650.096

Sample Name: Q2814-03 Acquired: 8/14/2025 15:06:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0125364**	**.0009098**	**.0418210**	**.0015616**	**.0036855**	**5.509489**	**.0371319**
Stddev	.0022494	.0024562	.0013403	.0014140	.0001416	.005280	.0009153
%RSD	17.94284	269.9731	3.204911	90.55283	3.841015	.0958289	2.464875
#1	.0100433	-.000024	.0427577	.0029748	.0038458	5.503415	.0373611
#2	.0131522	-.000943	.0402857	.0015630	.0035775	5.512078	.0361238
#3	.0144137	.003696	.0424195	.0001468	.0036332	5.512975	.0379107

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004435**	**.0004899**	**36.79843**	**.0084620**	**.0015818**	**.0143946**	**3.539530**
Stddev	.0000439	.0000828	.04814	.0001077	.0002192	.0003517	.006552
%RSD	9.900318	16.90216	.1308211	1.273192	13.85905	2.443322	.1851051
#1	.0004098	.0005180	36.78599	.0084996	.0018271	.0147141	3.547052
#2	.0004275	.0003967	36.75773	.0085458	.0015133	.0140178	3.536474
#3	.0004931	.0005551	36.85157	.0083405	.0014050	.0144521	3.535066

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2048574**	**13.61443**	**.0034810**	**.0010999**	**86.78552**	**.0160416**	**.0795470**
Stddev	.0014284	.03370	.0004254	.0001400	.16532	.0008425	.0003136
%RSD	.6972474	.2475552	12.22145	12.73191	.1904976	5.251629	.3942722
#1	.2054940	13.57552	.0029934	.0009492	86.94126	.0154712	.0791974
#2	.2032215	13.63452	.0036728	.0012261	86.80327	.0170092	.0798038
#3	.2058569	13.63325	.0037767	.0011245	86.61204	.0156444	.0796396

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.978182**	**.1494501**	**.0010005**	**-.017241**	**.0526035**	**11.85758**	**2.251366**
Stddev	.041214	.0007689	.0001685	.000657	.0006931	.02149	.004603
%RSD	.4130456	.5145065	16.83744	3.812294	1.317538	.1812643	.2044378
#1	10.02326	.1491353	.0011035	-.017462	.0525002	11.83554	2.255281
#2	9.96886	.1488884	.0008061	-.016502	.0533424	11.85872	2.252520
#3	9.94242	.1503264	.0010919	-.017760	.0519678	11.87848	2.246296

Sample Name: Q2814-03 Acquired: 8/14/2025 15:06:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	4.302705	-.009898	.1660236
Stddev	.015564	.000817	.0003532
%RSD	.3617200	8.255867	.2127490
#1	4.304799	-.010636	.1663133
#2	4.317115	-.010037	.1661273
#3	4.286200	-.009020	.1656301

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5598.329	100262.7	12117.03	4209.108	6876.355
Stddev	4.927	146.0	32.44	2.849	12.238
%RSD	.0880010	.1456042	.2676976	.0676875	.1779716
#1	5592.675	100339.1	12151.75	4212.279	6862.723
#2	5600.616	100094.4	12087.50	4206.762	6886.396
#3	5601.696	100354.7	12111.83	4208.284	6879.946

Sample Name: Q2814-16 Acquired: 8/14/2025 15:10:49 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.003544**	**-.001204**	**-.000852**	**.0011431**	**.0022467**	**-.007780**	**-.008093**
Stddev	.000512	.001097	.000289	.0008424	.0006486	.003749	.000816
%RSD	14.45343	91.12950	33.88205	73.69290	28.86680	48.17909	10.08810
#1	-.004059	.000057	-.001150	.0010856	.0015864	-.009697	-.007893
#2	-.003034	-.001941	-.000830	.0003309	.0022710	-.010183	-.008990
#3	-.003540	-.001726	-.000574	.0020128	.0028828	-.003461	-.007394

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000182**	**.0000960**	**.0221497**	**.0000100**	**-.000380**	**.0002196**	**.0034072**
Stddev	.000036	.0000782	.0052713	.0001438	.000149	.0005010	.0038367
%RSD	19.84380	81.46324	23.79840	1438.808	39.30095	228.1032	112.6056
#1	-.000223	.0001826	.0161422	-.000117	-.000551	-.000212	.0052798
#2	-.000156	.0000744	.0243057	.000166	-.000316	.000103	.0059481
#3	-.000166	.0000308	.0260013	-.000019	-.000274	.000769	-.001006

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033701**	**.0182736**	**-.000117**	**.0010062**	**-.046919**	**-.000956**	**.0024567**
Stddev	.0002603	.0152469	.000186	.0002393	.010427	.002322	.0000322
%RSD	7.724296	83.43695	159.1818	23.78196	22.22452	242.8573	1.310444
#1	.0034331	.0358497	-.000274	.0007539	-.034889	.000818	.0024923
#2	.0030840	.0086021	.000088	.0012299	-.052499	-.003585	.0024485
#3	.0035931	.0103691	-.000165	.0010348	-.053369	-.000102	.0024295

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0371972**	**-.002072**	**.0004505**	**-.015491**	**.0006007**	**.0064268**	**.0047204**
Stddev	.0313024	.000376	.0001415	.000144	.0006909	.0045212	.0007846
%RSD	84.15252	18.14395	31.40252	.9285216	115.0237	70.34904	16.62126
#1	.0079075	-.002503	.0005574	-.015340	.0008086	.0014119	.0048504
#2	.0335001	-.001901	.0002901	-.015626	-.000170	.0101908	.0038789
#3	.0701839	-.001812	.0005041	-.015507	.001164	.0076776	.0054319

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2814-16 Acquired: 8/14/2025 15:10:49 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0148881	-.007257	-.000054
Stddev	.0014115	.001533	.000073
%RSD	9.481065	21.11993	133.6965
#1	.0155164	-.008174	-.000138
#2	.0132715	-.008109	-.000024
#3	.0158764	-.005487	-.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5867.375	105925.6	11980.48	4381.382	7852.568
Stddev	10.710	108.0	77.59	18.414	10.204
%RSD	.1825411	.1019563	.6476626	.4202730	.1299477
#1	5862.079	105949.6	11900.96	4362.271	7848.440
#2	5879.701	105807.6	11984.50	4382.866	7864.189
#3	5860.344	106019.6	12055.99	4399.009	7845.074

Sample Name: Q2814-17DLX5 Acquired: 8/14/2025 15:15:10 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.1215035**	**-.011428**	**.3567469**	**.0070570**	**-.001650**	**93.31502**
Stddev	.0040755	.001263	.0053161	.0024024	.000215	.05559
%RSD	3.354195	11.04760	1.490161	34.04229	13.04071	.0595716
#1	.1250769	-.010221	.3615055	.0081390	-.001453	93.27280
#2	.1223686	-.011324	.3577259	.0087280	-.001879	93.37800
#3	.1170649	-.012739	.3510094	.0043039	-.001617	93.29426

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3561054**	**.0063462**	**.0173023**	**20.37743**	**.1904158**	**.0607219**
Stddev	.0009834	.0000272	.0002523	.00258	.0006953	.0010406
%RSD	.2761566	.4292780	1.458002	.0126799	.3651389	1.713709
#1	.3561721	.0063622	.0175087	20.37969	.1909581	.0615716
#2	.3550904	.0063617	.0173770	20.37800	.1906573	.0610330
#3	.3570538	.0063148	.0170211	20.37461	.1896320	.0595613

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5198336**	**135.5291**	**.4753863**	**22.69980**	**.1150995**	**.0092354**
Stddev	.0078562	.2990	.0009146	.07068	.0012954	.0002127
%RSD	1.511292	.2205982	.1923842	.3113682	1.125427	2.303549
#1	.5270476	135.3056	.4750234	22.67207	.1164177	.0093064
#2	.5209898	135.4129	.4764266	22.78014	.1150525	.0089963
#3	.5114633	135.8687	.4747088	22.64720	.1138283	.0094036

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**149.0942**	**.2206338**	**1.567869**	**18.45318**	**.5222688**	**.0293904**
Stddev	.4624	.0019383	.011568	.04930	.0016948	.0005152
%RSD	.3101220	.8785160	.7378093	.2671837	.3245148	1.752863
#1	149.5796	.2228712	1.579795	18.40478	.5203123	.0299770
#2	148.6590	.2194646	1.567115	18.45141	.5232104	.0290115
#3	149.0439	.2195657	1.556696	18.50334	.5232839	.0291827

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2814-17DLX5 Acquired: 8/14/2025 15:15:10 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0012722	2.385776	F 34.20847	5.997792	F 66.17811	.1274272
Stddev	.0003202	.000991	.11135	.063757	.87604	.0011546
%RSD	25.17289	.0415320	.3255085	1.063000	1.323768	.9060749
#1	.0015515	2.384683	34.11281	6.055066	66.79320	.1261409
#2	.0009227	2.386615	34.18191	6.009214	66.56605	.1277672
#3	.0013423	2.386030	34.33071	5.929097	65.17508	.1283737

Elem	Sr4077
Units	ppm
Avg	.1007231
Stddev	.0002897
%RSD	.2876195
#1	.1010555
#2	.1005887
#3	.1005250

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5741.516	102255.4	12780.42	4314.548	6432.194
Stddev	7.609	315.1	47.28	10.705	18.192
%RSD	.1325220	.3081688	.3699351	.2481072	.2828262
#1	5748.688	102603.9	12827.06	4305.608	6447.239
#2	5733.535	102172.0	12732.53	4311.625	6411.976
#3	5742.326	101990.5	12781.67	4326.410	6437.368

Sample Name: Q2814-22 Acquired: 8/14/2025 15:19:13 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0020481**	**.0000819**	**.0075584**	**.0002256**	**.0012201**	**.8188757**	**.0680922**
Stddev	.0020697	.0010287	.0008578	.0019886	.0008977	.0094843	.0021812
%RSD	101.0569	1256.341	11.34891	881.3550	73.57390	1.158208	3.203257
#1	-.000216	-.000647	.0070678	.0022657	.0006001	.8271429	.0706107
#2	.003842	.001259	.0085489	.0001184	.0008107	.8085218	.0668572
#3	.002519	-.000366	.0070586	-.001707	.0022495	.8209623	.0668088

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000154**	**.0002394**	**43.66693**	**.0036210**	**.0001351**	**.0056971**	**1.652325**
Stddev	.0000364	.0000678	.43991	.0005560	.0001521	.0003989	.009960
%RSD	236.8137	28.33122	1.007429	15.35436	112.5366	7.001905	.6028156
#1	-.000018	.0002402	44.17349	.0032831	.0000871	.0053179	1.648781
#2	.000054	.0001712	43.44635	.0042626	.0000129	.0056602	1.663572
#3	.000010	.0003068	43.38094	.0033172	.0003054	.0061132	1.644620

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0404055**	**24.52734**	**.0015877**	**.0008233**	**143.4595**	**.0045219**	**.0312375**
Stddev	.0004047	.30899	.0003110	.0001183	.4047	.0021529	.0001584
%RSD	1.001472	1.259774	19.58791	14.36502	.2821186	47.61155	.5069360
#1	.0408691	24.84666	.0016507	.0008014	142.9947	.0067774	.0311823
#2	.0402244	24.50551	.0018623	.0009509	143.7340	.0042992	.0314160
#3	.0401231	24.22984	.0012500	.0007175	143.6498	.0024889	.0311141

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.08499**	**.1614927**	**.0030528**	**-.016043**	**.0249332**	**13.47646**	**.9724078**
Stddev	.03920	.0023920	.0002259	.000419	.0010919	.02961	.0020895
%RSD	.1347759	1.481176	7.400265	2.611274	4.379475	.2197119	.2148797
#1	29.04243	.1642520	.0030046	-.015575	.0240994	13.48742	.9734071
#2	29.11962	.1600060	.0032990	-.016169	.0245310	13.44293	.9700063
#3	29.09293	.1602202	.0028549	-.016384	.0261692	13.49902	.9738100

Sample Name: Q2814-22 Acquired: 8/14/2025 15:19:13 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.448379**	**-.009655**	**.3732710**
Stddev	.000685	.001452	.0027976
%RSD	.0154097	15.03711	.7494864
#1	4.447816	-.011110	.3764934
#2	4.448179	-.009648	.3718562
#3	4.449143	-.008206	.3714633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5400.996**	**96455.00**	**11732.74**	**4014.763**	**6629.153**
Stddev	4.140	421.17	166.52	23.635	17.761
%RSD	.0766570	.4366504	1.419246	.5886953	.2679273
#1	5396.893	95970.46	11540.51	3990.837	6608.690
#2	5405.172	96733.34	11825.07	4015.358	6640.567
#3	5400.921	96661.21	11832.65	4038.095	6638.204

Sample Name: Q2814-23 Acquired: 8/14/2025 15:23:28 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0240815**	**.0003590**	**.0560720**	**.0023988**	**.0036556**	**20.46146**
Stddev	.0013525	.0025753	.0010114	.0012287	.0020486	.02442
%RSD	5.616417	717.4103	1.803804	51.21973	56.04128	.1193249
#1	.0226116	.0011298	.0568949	.0029662	.0059403	20.43643
#2	.0243592	.0024608	.0563781	.0032412	.0019822	20.46273
#3	.0252735	-.002514	.0549428	.0009890	.0030443	20.48521

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0621581**	**.0008793**	**.0011536**	**37.74388**	**.0298778**	**.0047034**
Stddev	.0004237	.0000154	.0000686	.05052	.0002735	.0001629
%RSD	.6817046	1.755204	5.945304	.1338555	.9153383	3.462661
#1	.0617562	.0008877	.0012207	37.68690	.0297910	.0046778
#2	.0621175	.0008615	.0010836	37.78321	.0301842	.0048776
#3	.0626007	.0008887	.0011565	37.76153	.0296583	.0045549

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0426491**	**18.08672**	**.2693819**	**15.12997**	**.0134930**	**.0020671**
Stddev	.0002297	.07400	.0008690	.06158	.0003669	.0001917
%RSD	.5386197	.4091273	.3225829	.4069959	2.719030	9.271920
#1	.0424075	18.04876	.2703450	15.05961	.0131152	.0022877
#2	.0428648	18.17199	.2691441	15.15627	.0135158	.0019712
#3	.0426751	18.03941	.2686566	15.17404	.0138479	.0019423

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**89.80201**	**.0386744**	**.1869602**	**11.51882**	**.1633341**	**.0031957**
Stddev	.32108	.0021004	.0012006	.05802	.0008396	.0001401
%RSD	.3575381	5.431013	.6421680	.5036799	.5140288	4.384983
#1	89.85365	.0379814	.1855744	11.57739	.1624139	.0033530
#2	90.09414	.0410337	.1876838	11.51770	.1640585	.0030841
#3	89.45825	.0370080	.1876225	11.46137	.1635298	.0031501

Sample Name: Q2814-23 Acquired: 8/14/2025 15:23:28 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.014670	.5759426	F 27.61583	2.782714	5.945609	.0036300
Stddev	.000426	.0016995	.05752	.004539	.016859	.0019933
%RSD	2.906353	.2950791	.2082754	.1631178	.2835584	54.91155
#1	-.015089	.5740002	27.68210	2.777991	5.936826	.0033269
#2	-.014236	.5766719	27.58660	2.783106	5.934954	.0018056
#3	-.014685	.5771558	27.57880	2.787044	5.965046	.0057575

Elem	Sr4077
Units	ppm
Avg	.1617317
Stddev	.0002857
%RSD	.1766332
#1	.1615986
#2	.1620596
#3	.1615368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5560.527	99159.46	12149.22	4171.997	6791.157
Stddev	3.673	111.89	34.53	10.055	3.549
%RSD	.0660557	.1128427	.2841944	.2410012	.0522644
#1	5563.995	99047.36	12177.95	4179.607	6787.081
#2	5556.679	99271.14	12158.79	4175.784	6792.826
#3	5560.908	99159.90	12110.92	4160.598	6793.565

Sample Name: Q2815-01 Acquired: 8/14/2025 15:27:37 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0565352	-.001053	.3532355	.0088579	.0014412	107.3299
Stddev	.0023970	.002342	.0004842	.0014777	.0022497	.3846
%RSD	4.239799	222.4517	.1370741	16.68183	156.0925	.3582987
#1	.0579269	.001609	.3528589	.0071967	.0006825	107.0309
#2	.0537675	-.001968	.3530659	.0093512	.0039722	107.1950
#3	.0579114	-.002800	.3537816	.0100258	-.000331	107.7637

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2008060	.0043480	.0050632	57.28931	.1794203	.0365315
Stddev	.0007060	.0000319	.0000856	.18300	.0002625	.0001106
%RSD	.3515787	.7347721	1.691288	.3194310	.1463066	.3026219
#1	.2016038	.0043604	.0049962	57.14335	.1793798	.0366569
#2	.2005523	.0043117	.0050336	57.22997	.1797007	.0364895
#3	.2002619	.0043718	.0051597	57.49462	.1791803	.0364481

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1453335	116.9640	.5104626	55.85419	.0884110	.0079761
Stddev	.0001288	.4530	.0003782	.26624	.0006827	.0002635
%RSD	.0886009	.3873241	.0740808	.4766627	.7722111	3.303065
#1	.1452056	117.3949	.5101906	55.66663	.0891965	.0082788
#2	.1454631	117.0053	.5103028	55.73703	.0879600	.0077987
#3	.1453318	116.4917	.5108944	56.15892	.0880765	.0078508

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	703.7469	.2293501	.6735897	67.84187	.7383080	.0205925
Stddev	6.0099	.0004461	.0011587	.23562	.0010495	.0003487
%RSD	.8539887	.1945298	.1720226	.3473059	.1421520	1.693337
#1	710.6070	.2289207	.6730446	67.96888	.7387019	.0206845
#2	699.4096	.2293183	.6728040	67.98674	.7371185	.0202070
#3	701.2239	.2298113	.6749204	67.57000	.7391036	.0208860

Sample Name: Q2815-01 Acquired: 8/14/2025 15:27:37 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.011405	3.109903	F 116.9198	5.943075	F 74.48156	.1359419
Stddev	.000286	.011923	.0911	.009799	.27582	.0011447
%RSD	2.504547	.3833867	.0779062	.1648871	.3703176	.8420691
#1	-.011191	3.096136	116.9623	5.953338	74.16991	.1372246
#2	-.011295	3.116949	116.9820	5.933816	74.58053	.1355769
#3	-.011729	3.116622	116.8153	5.942071	74.69423	.1350242

Elem	Sr4077
Units	ppm
Avg	.4122308
Stddev	.0004741
%RSD	.1150059
#1	.4116927
#2	.4125869
#3	.4124129

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5326.859	94519.94	12765.43	3984.551	5736.340
Stddev	9.733	90.12	57.92	11.283	8.409
%RSD	.1827247	.0953430	.4537209	.2831575	.1465950
#1	5328.743	94433.95	12802.58	3996.473	5742.243
#2	5335.513	94613.68	12795.02	3983.139	5740.065
#3	5316.322	94512.18	12698.69	3974.040	5726.712

Sample Name: CCV04 Acquired: 8/14/2025 15:58:09 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**5.091239**	**5.205269**	**4.810086**	**5.211242**	**5.182375**	**9.866869**	**9.791639**
Stddev	.008802	.138034	.001888	.028938	.011414	.023901	.084824
%RSD	.1728854	2.651819	.0392532	.5553069	.2202489	.2422357	.8662925
#1	5.081255	5.098068	4.809673	5.186353	5.170829	9.855954	9.755149
#2	5.094588	5.156719	4.808439	5.204379	5.182643	9.850374	9.731167
#3	5.097876	5.361018	4.812147	5.242995	5.193653	9.894279	9.888602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2315329**	**2.413055**	**24.23797**	**1.001789**	**2.426567**	**1.255007**	**5.209976**
Stddev	.0012500	.000638	.05866	.001869	.000097	.001968	.048177
%RSD	.5398844	.0264316	.2420039	.1865195	.0039787	.1568446	.9247037
#1	.2309713	2.412319	24.19548	.999651	2.426582	1.252908	5.173154
#2	.2306623	2.413449	24.21355	1.003109	2.426655	1.256811	5.264500
#3	.2329653	2.413396	24.30490	1.002608	2.426464	1.255303	5.192274

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.407048**	**24.00627**	**2.438274**	**1.257796**	**25.09967**	**2.473524**	**2.580288**
Stddev	.005488	.12529	.001938	.001225	.16353	.008099	.007750
%RSD	.2279798	.5219249	.0794658	.0974056	.6515324	.3274098	.3003427
#1	2.400821	23.92343	2.438837	1.256382	25.10743	2.471136	2.574638
#2	2.409151	23.94496	2.439869	1.258494	25.25918	2.466888	2.589123
#3	2.411174	24.15041	2.436118	1.258513	24.93240	2.482548	2.577104

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.48879**	**4.615020**	**5.148940**	**4.865328**	**4.931188**	**5.279719**	**4.653831**
Stddev	.19783	.037780	.014139	.008511	.015143	.023656	.004056
%RSD	.7468305	.8186340	.2746052	.1749378	.3070861	.4480476	.0871486
#1	26.37815	4.595789	5.133156	4.862980	4.915181	5.275826	4.649800
#2	26.71719	4.590725	5.153218	4.858236	4.933100	5.305079	4.653782
#3	26.37104	4.658547	5.160446	4.874766	4.945285	5.258251	4.657911

Sample Name: CCV04 Acquired: 8/14/2025 15:58:09 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.858388**	**4.805736**	**4.928534**
Stddev	.024092	.010999	.068073
%RSD	.4958766	.2288670	1.381208
#1	4.842569	4.793642	4.850024
#2	4.846479	4.815140	4.964455
#3	4.886114	4.808425	4.971123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5528.587**	**98071.32**	**11889.89**	**4119.864**	**6748.720**
Stddev	23.286	184.81	98.23	12.410	15.568
%RSD	.4211996	.1884475	.8261850	.3012188	.2306782
#1	5551.541	98283.63	11929.07	4130.826	6763.560
#2	5504.981	97983.90	11962.48	4106.391	6732.514
#3	5529.239	97946.44	11778.11	4122.375	6750.085

Sample Name: CCB04 Acquired: 8/14/2025 16:02:18 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000387**	**-.001271**	**.0000375**	**-.002513**	**.0006442**	**-.006006**	**-.009450**
Stddev	.002271	.001425	.0005098	.001114	.0015734	.006387	.000816
%RSD	587.2929	112.0995	1361.432	44.32010	244.2493	106.3546	8.639516
#1	.001655	-.000664	.0006253	-.003705	.0023653	-.005537	-.009757
#2	-.002832	-.002900	-.000283	-.002335	-.000720	.000134	-.010069
#3	.000017	-.000250	-.000230	-.001499	.000287	-.012614	-.008525

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000034**	**.0000243**	**.0141263**	**.0004936**	**-.000169**	**-.000110**	**.0023195**
Stddev	.000050	.0000202	.0069767	.0001021	.000117	.000388	.0013213
%RSD	148.1989	82.86081	49.38837	20.68110	69.65402	352.2736	56.96315
#1	-.000076	.0000054	.0070500	.0004718	-.000159	-.000552	.0014295
#2	.000021	.0000220	.0209990	.0004041	-.000056	.000180	.0038377
#3	-.000047	.0000456	.0143299	.0006048	-.000291	.000041	.0016913

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000916**	**.0075759**	**.0002725**	**.0008765**	**.5051759**	**.0005797**	**.0007897**
Stddev	.0003187	.0115526	.0002303	.0003211	.0201361	.0013902	.0001076
%RSD	348.0783	152.4915	84.53669	36.63511	3.985958	239.8074	13.62168
#1	.0001397	-.000178	.0003332	.0006782	.4821103	-.000747	.0008889
#2	.0003835	.020853	.0004663	.0007044	.5141703	.000461	.0008050
#3	-.000248	.002052	.0000179	.0012470	.5192473	.002025	.0006754

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4003878**	**.0095149**	**.0004594**	**-.013944**	**.0007333**	**.0169905**	**-.000994**
Stddev	.0199747	.0005624	.0000839	.000614	.0013177	.0092490	.001699
%RSD	4.988844	5.910420	18.25921	4.399664	179.7070	54.43594	171.0291
#1	.4226763	.0099201	.0005343	-.013259	.0021653	.0197187	-.002381
#2	.3841047	.0097518	.0003688	-.014442	-.000428	.0245685	.000902
#3	.3943825	.0088729	.0004750	-.014132	.000463	.0066844	-.001502

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: CCB04 Acquired: 8/14/2025 16:02:18 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0035333	.0068665	-.000027
Stddev	.0016847	.0008056	.000029
%RSD	47.68129	11.73167	106.7305
#1	.0054379	.0066381	-.000060
#2	.0029243	.0061998	-.000007
#3	.0022378	.0077616	-.000014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5693.353	101084.1	11633.61	4221.058	7505.411
Stddev	14.734	202.2	38.13	11.422	21.178
%RSD	.2587859	.2000611	.3277659	.2706043	.2821644
#1	5687.366	101003.8	11672.82	4227.669	7493.856
#2	5710.138	100934.3	11631.37	4207.868	7529.852
#3	5682.556	101314.1	11596.65	4227.636	7492.524

Sample Name: Q2815-11 Acquired: 8/14/2025 16:06:36 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0748352**	**-.001173**	**.1992513**	**.0045185**	**.0011063**	**56.42529**
Stddev	.0008615	.001450	.0018940	.0009036	.0012886	.03761
%RSD	1.151198	123.6198	.9505359	19.99748	116.4718	.0666482
#1	.0738573	-.000849	.1988027	.0041381	.0013433	56.44853
#2	.0754822	.000088	.1976220	.0055501	.0022600	56.38191
#3	.0751662	-.002758	.2013293	.0038673	-.000284	56.44545

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2268818**	**.0061979**	**.0026146**	**38.50730**	**.1095624**	**.0147473**
Stddev	.0006689	.0000568	.0000811	.07951	.0004820	.0001881
%RSD	.2947996	.9162501	3.101722	.2064886	.4399175	1.275233
#1	.2276021	.0062530	.0026688	38.58651	.1091290	.0149495
#2	.2262803	.0062013	.0025213	38.50788	.1100815	.0147148
#3	.2267631	.0061395	.0026535	38.42749	.1094769	.0145776

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2386430**	**62.20659**	**.4958017**	**27.11319**	**.0448741**	**.0040097**
Stddev	.0005087	.28610	.0014998	.03673	.0003612	.0004762
%RSD	.2131427	.4599112	.3025016	.1354726	.8049865	11.87702
#1	.2381818	62.37073	.4965992	27.11808	.0448187	.0044170
#2	.2385588	62.37280	.4967344	27.14723	.0452599	.0041259
#3	.2391886	61.87624	.4940717	27.07426	.0445438	.0034861

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**117.7961**	**.1207738**	**.6570086**	**24.40206**	**.2650387**	**.0074790**
Stddev	.4372	.0016398	.0018485	.08315	.0016561	.0002869
%RSD	.3711534	1.357759	.2813445	.3407408	.6248426	3.836370
#1	118.0489	.1218198	.6549902	24.48365	.2659657	.0077822
#2	118.0481	.1188839	.6574166	24.40509	.2660238	.0072117
#3	117.2913	.1216176	.6586189	24.31744	.2631268	.0074431

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2815-11 Acquired: 8/14/2025 16:06:36 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.014952	1.581533	F 70.02855	4.641695	15.27565	.0576091
Stddev	.000688	.002616	.19597	.018379	.06155	.0008394
%RSD	4.600948	.1654056	.2798496	.3959641	.4029049	1.457021
#1	-.015196	1.584323	70.04156	4.661175	15.32513	.0574614
#2	-.015485	1.579136	70.21769	4.624661	15.20673	.0568533
#3	-.014175	1.581139	69.82639	4.639250	15.29509	.0585125

Elem	Sr4077
Units	ppm
Avg	.2533606
Stddev	.0003617
%RSD	.1427544
#1	.2536372
#2	.2529513
#3	.2534932

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5588.640	99146.67	12377.69	4177.904	6561.999
Stddev	6.647	105.16	21.88	6.471	7.511
%RSD	.1189309	.1060694	.1767667	.1548887	.1144646
#1	5588.130	99040.63	12368.87	4179.401	6569.131
#2	5595.527	99148.45	12402.60	4183.496	6562.706
#3	5582.263	99250.93	12361.60	4170.816	6554.159

Sample Name: Q2815-20 Acquired: 8/14/2025 16:10:40 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0219923**	**.0014259**	**.0833571**	**.0020685**	**.0012171**	**24.98818**
Stddev	.0023822	.0002449	.0004467	.0031513	.0024634	.03471
%RSD	10.83215	17.17539	.5359298	152.3441	202.3900	.1389211
#1	.0219954	.0017015	.0829071	-.000736	.0040099	25.02366
#2	.0243730	.0013428	.0838005	.001463	.0002884	24.98658
#3	.0196085	.0012333	.0833637	.005479	-.000647	24.95429

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1080696**	**.0054056**	**.0025182**	**76.10581**	**.0800970**	**.0083801**
Stddev	.0006302	.0000126	.0000665	.17101	.0003407	.0000943
%RSD	.5831742	.2340888	2.641739	.2247008	.4253705	1.125144
#1	.1074838	.0054066	.0025465	76.12733	.0802203	.0084784
#2	.1079888	.0054177	.0024423	75.92507	.0803588	.0082904
#3	.1087364	.0053925	.0025660	76.26505	.0797117	.0083714

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0539224**	**28.96528**	**.2676475**	**11.86574**	**.0336417**	**.0024172**
Stddev	.0002666	.08441	.0008707	.07393	.0003765	.0001116
%RSD	.4944538	.2914054	.3253294	.6230872	1.119074	4.617545
#1	.0536200	28.89266	.2671935	11.91306	.0332783	.0022885
#2	.0540237	28.94529	.2686514	11.78054	.0336167	.0024878
#3	.0541235	29.05788	.2670975	11.90361	.0340301	.0024753

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.25300**	**.0637814**	**.3395026**	**10.99310**	**.1021016**	**.0070533**
Stddev	.08741	.0023202	.0002605	.03324	.0009951	.0001913
%RSD	.2988143	3.637693	.0767246	.3023617	.9746257	2.711603
#1	29.35119	.0656818	.3392166	11.02781	.1011785	.0070840
#2	29.18366	.0644667	.3397263	10.98993	.1019706	.0072273
#3	29.22416	.0611958	.3395649	10.96156	.1031558	.0068485

Sample Name: Q2815-20 Acquired: 8/14/2025 16:10:40 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.016495	.6621279	F 45.55595	2.012158	11.65105	.0197793
Stddev	.000082	.0013825	.06694	.003056	.02486	.0012173
%RSD	.4969474	.2088005	.1469338	.1518994	.2133430	6.154244
#1	-.016587	.6630101	45.48894	2.015176	11.67933	.0211678
#2	-.016428	.6628390	45.62282	2.012232	11.63269	.0188958
#3	-.016472	.6605345	45.55608	2.009065	11.64111	.0192744

Elem	Sr4077
Units	ppm
Avg	.3996071
Stddev	.0006872
%RSD	.1719582
#1	.4003997
#2	.3992427
#3	.3991789

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5580.543	99864.09	12307.10	4163.881	6821.111
Stddev	8.895	129.83	47.92	14.739	3.584
%RSD	.1593964	.1300021	.3893608	.3539703	.0525405
#1	5589.407	99988.91	12328.49	4151.213	6824.956
#2	5580.605	99873.57	12340.61	4160.372	6817.863
#3	5571.617	99729.78	12252.22	4180.057	6820.513

Sample Name: Q2815-25 Acquired: 8/14/2025 16:14:48 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0235998**	**-.000436**	**.0852755**	**.0007801**	**.0033237**	**26.27676**
Stddev	.0009303	.001538	.0018048	.0010877	.0017776	.04422
%RSD	3.941815	352.6395	2.116403	139.4290	53.48208	.1682917
#1	.0227738	-.001959	.0867815	.0008651	.0022373	26.22664
#2	.0246075	.001116	.0857700	.0018228	.0023588	26.29335
#3	.0234180	-.000466	.0832750	-.000348	.0053751	26.31028

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1131779**	**.0055665**	**.0026027**	**77.66342**	**.0837912**	**.0088290**
Stddev	.0002655	.0000584	.0000774	.27947	.0002111	.0000773
%RSD	.2345632	1.049594	2.972328	.3598495	.2519509	.8750528
#1	.1129833	.0056156	.0026662	77.34593	.0840339	.0088352
#2	.1130701	.0055019	.0026253	77.77214	.0836891	.0087488
#3	.1134804	.0055820	.0025166	77.87219	.0836505	.0089029

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0562180**	**30.32269**	**.2764289**	**12.13920**	**.0350844**	**.0022891**
Stddev	.0001273	.21346	.0016264	.02728	.0001712	.0000922
%RSD	.2265091	.7039561	.5883544	.2247486	.4878186	4.029014
#1	.0560709	30.08266	.2750418	12.10959	.0349660	.0022592
#2	.0562903	30.39421	.2760261	12.14470	.0350065	.0022156
#3	.0562927	30.49121	.2782188	12.16331	.0352806	.0023926

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**30.16892**	**.0666047**	**.3492542**	**11.34592**	**.1050855**	**.0069142**
Stddev	.17654	.0013275	.0012815	.03612	.0006458	.0000544
%RSD	.5851552	1.993138	.3669339	.3183636	.6145657	.7874119
#1	29.98375	.0652933	.3477749	11.30503	.1044204	.0068526
#2	30.18769	.0665729	.3499592	11.37349	.1051258	.0069560
#3	30.33532	.0679478	.3500284	11.35925	.1057102	.0069340

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2815-25 Acquired: 8/14/2025 16:14:48 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.016016	.6983031	F 47.46522	2.058551	11.96989	.0222929
Stddev	.000496	.0021769	.27764	.004477	.06305	.0002781
%RSD	3.099872	.3117471	.5849396	.2174682	.5267177	1.247544
#1	-.016481	.6966154	47.14522	2.053934	12.04264	.0220252
#2	-.016074	.6975337	47.64211	2.058846	11.93116	.0225804
#3	-.015493	.7007603	47.60833	2.062873	11.93587	.0222731

Elem	Sr4077
Units	ppm
Avg	.4081616
Stddev	.0014091
%RSD	.3452375
#1	.4075640
#2	.4071498
#3	.4097711

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5592.162	99742.94	12273.98	4185.762	6828.796
Stddev	7.276	206.35	43.60	5.338	16.425
%RSD	.1301065	.2068833	.3552396	.1275282	.2405259
#1	5586.136	99929.32	12253.28	4187.192	6814.037
#2	5590.106	99778.30	12324.08	4190.240	6825.861
#3	5600.245	99521.19	12244.59	4179.855	6846.491

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2815-26 Acquired: 8/14/2025 16:18:55 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.003043**	**-.001228**	**-.000043**	**.0016271**	**.0018905**	**-.007404**	**-.007518**
Stddev	.001410	.001198	.001206	.0011522	.0007671	.001836	.001303
%RSD	46.32076	97.51453	2801.843	70.81020	40.57607	24.80109	17.33405
#1	-.002292	-.002103	-.001435	.0022909	.0027484	-.005432	-.006360
#2	-.002168	-.001718	.000657	.0022937	.0016523	-.009064	-.008929
#3	-.004669	.000137	.000649	.0002967	.0012708	-.007716	-.007265

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000186**	**.0000028**	**.0476487**	**.0000685**	**-.000401**	**-.000438**	**.0020554**
Stddev	.000021	.0000195	.0121060	.0002840	.000141	.000237	.0057517
%RSD	11.03842	689.6641	25.40671	414.4919	35.28994	54.00946	279.8308
#1	-.000198	.0000227	.0376334	.0000592	-.000288	-.000308	.0010114
#2	-.000163	.0000019	.0442111	-.000211	-.000354	-.000712	-.003103
#3	-.000198	-.000016	.0611018	.000357	-.000560	-.000296	.008258

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004661**	**.0039589**	**-.000203**	**.0008989**	**-.097692**	**-.000321**	**.0030520**
Stddev	.0000959	.0168327	.000076	.0001276	.001500	.002044	.0000962
%RSD	20.57970	425.1897	37.33998	14.19074	1.535435	637.1902	3.153275
#1	.0003917	.0203514	-.000224	.0008089	-.095969	-.001605	.0029576
#2	.0004321	-.013282	-.000266	.0008430	-.098709	.002036	.0030483
#3	.0005743	.004807	-.000119	.0010449	-.098397	-.001393	.0031500

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074510**	**.0004919**	**.0004233**	**-.015673**	**.0012875**	**.0074626**	**.0035620**
Stddev	.0367598	.0001478	.0000642	.000617	.0009199	.0080483	.0011652
%RSD	493.3511	30.04523	15.15390	3.935997	71.44920	107.8490	32.71177
#1	-.030638	.0005150	.0004709	-.015619	.0006412	.0011539	.0048770
#2	.010271	.0006269	.0004487	-.016315	.0023407	.0047071	.0026581
#3	.042719	.0003340	.0003503	-.015084	.0008806	.0165267	.0031509

Sample Name: Q2815-26 Acquired: 8/14/2025 16:18:55 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0100569	-.006460	-.000032
Stddev	.0021309	.001534	.000040
%RSD	21.18834	23.75020	123.4513
#1	.0125143	-.004712	.000012
#2	.0087201	-.007088	-.000065
#3	.0089363	-.007581	-.000044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5804.358	105671.7	11967.79	4311.526	7746.384
Stddev	6.673	272.7	25.16	20.909	6.961
%RSD	.1149632	.2581085	.2102601	.4849468	.0898659
#1	5801.352	105382.2	11990.35	4325.051	7746.120
#2	5812.005	105708.9	11972.37	4287.443	7753.474
#3	5799.716	105923.9	11940.65	4322.082	7739.559

Sample Name: Q2821-05 Acquired: 8/14/2025 16:23:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0243442**	**.0044831**	**.0104582**	**.0028700**	**.0069288**	**.7977559**
Stddev	.0007826	.0009441	.0016845	.0017995	.0012298	.0114700
%RSD	3.214895	21.05979	16.10651	62.70104	17.74893	1.437780
#1	.0252375	.0053573	.0085187	.0008063	.0079047	.7881874
#2	.0237789	.0034819	.0113013	.0041119	.0055475	.8104707
#3	.0240162	.0046100	.0115546	.0036919	.0073342	.7946098

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9506210**	**-.000068**	**.0000924**	**138.1940**	**.0021169**	**.0010942**
Stddev	.0035190	.000064	.0000452	.3605	.0001682	.0000515
%RSD	.3701779	94.99761	48.94886	.2608357	7.945452	4.706943
#1	.9545601	-.000002	.0000726	138.4965	.0022976	.0010476
#2	.9495151	-.000131	.0000604	137.7952	.0019650	.0011495
#3	.9477878	-.000070	.0001441	138.2905	.0020879	.0010854

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050414**	**1.925624**	**.6023131**	**21.45769**	**.0048908**	**.0012790**
Stddev	.0002938	.009269	.0020837	.05812	.0000938	.0002992
%RSD	5.826866	.4813349	.3459540	.2708513	1.918455	23.39570
#1	.0047249	1.922444	.6046900	21.50101	.0048054	.0010817
#2	.0053052	1.918364	.6008013	21.39164	.0049912	.0011320
#3	.0050942	1.936065	.6014479	21.48041	.0048757	.0016233

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**665.9786**	**.0245319**	**.0125254**	**18.39186**	**.5843123**	**.0502821**
Stddev	5.1593	.0018524	.0001284	.11062	.0049388	.0001291
%RSD	.7746883	7.550833	1.024813	.6014725	.8452277	.2567222
#1	670.7859	.0244599	.0124571	18.28093	.5899933	.0504222
#2	660.5278	.0264192	.0124457	18.39249	.5819038	.0501679
#3	666.6221	.0227166	.0126735	18.50217	.5810399	.0502563

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2821-05 Acquired: 8/14/2025 16:23:16 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.013079**	**.0134203**	F **20.04536**	**.1812955**	**7.748968**	**-.014363**
Stddev	.000397	.0004328	.11512	.0045378	.030190	.001119
%RSD	3.036759	3.224833	.5743073	2.503007	.3896034	7.792680
#1	-.013458	.0136037	19.94970	.1760627	7.716658	-.015652
#2	-.012666	.0137312	20.01325	.1841465	7.753787	-.013796
#3	-.013114	.0129260	20.17313	.1836773	7.776459	-.013641

Elem	Sr4077
Units	ppm
Avg	**1.143160**
Stddev	.002720
%RSD	.2379445
#1	1.145870
#2	1.143182
#3	1.140429

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4994.031**	**89741.39**	**11784.70**	**3731.419**	**5820.068**
Stddev	8.042	190.58	64.09	8.355	4.339
%RSD	.1610263	.2123713	.5438231	.2239145	.0745554
#1	4985.722	89680.87	11710.71	3737.639	5819.071
#2	5001.775	89954.89	11822.93	3734.696	5824.819
#3	4994.597	89588.42	11820.46	3721.922	5816.314

Sample Name: Q2821-08 Acquired: 8/14/2025 16:27:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000703**	**.0028602**	**-.001164**	**.0015668**	**.0038354**	**.2807029**
Stddev	.002376	.0003845	.000545	.0030863	.0012513	.0180291
%RSD	337.8576	13.44425	46.87402	196.9850	32.62373	6.422844
#1	.001565	.0033023	-.001368	.0050925	.0052562	.2601021
#2	-.000501	.0026034	-.001577	.0002528	.0028976	.2884041
#3	-.003174	.0026749	-.000545	-.000645	.0033526	.2936024

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5392230**	**-.000368**	**.0003404**	**163.4147**	**.0012763**	**.0007468**
Stddev	.0028557	.000047	.0000139	.5227	.0001506	.0001401
%RSD	.5295984	12.74836	4.086765	.3198349	11.80240	18.75563
#1	.5361871	-.000399	.0003540	163.3138	.0013925	.0005887
#2	.5396264	-.000391	.0003409	162.9499	.0011061	.0008555
#3	.5418556	-.000314	.0003262	163.9805	.0013304	.0007962

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065069**	**3.712539**	**4.294986**	**26.18069**	**.0022604**	**.0007856**
Stddev	.0003532	.009871	.021503	.18720	.0003560	.0001853
%RSD	5.428292	.2658813	.5006623	.7150443	15.74891	23.58247
#1	.0064295	3.707679	4.275358	26.16346	.0026710	.0006527
#2	.0061989	3.723898	4.291630	26.00269	.0020713	.0009972
#3	.0068924	3.706041	4.317970	26.37591	.0020389	.0007068

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1160.186**	**-.001417**	**1.303350**	**21.86823**	**3.071963**	**.0124817**
Stddev	15.520	.003672	.000477	.10861	.020184	.0001820
%RSD	1.337674	259.1064	.0365854	.4966392	.6570269	1.458337
#1	1169.336	-.000258	1.303255	21.80382	3.071082	.0125829
#2	1168.955	.001535	1.303867	21.99362	3.052235	.0122716
#3	1142.267	-.005529	1.302928	21.80724	3.092573	.0125907

Sample Name: Q2821-08 Acquired: 8/14/2025 16:27:38 Type: Unk
Method: 6010-200.7 NEW(v98) 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	-.015267	.0020616	F 18.22625	.0977861	F 123.3071	-.026425
Stddev	.000694	.0005393	.04713	.0011681	.1262	.000408
%RSD	4.545298	26.16156	.2585801	1.194562	.1023549	1.543614
#1	-.015880	.0015717	18.24123	.0989597	123.4243	-.026024
#2	-.014514	.0019734	18.26407	.0977752	123.1735	-.026413
#3	-.015408	.0026396	18.17345	.0966235	123.3236	-.026839

Elem	Sr4077
Units	ppm
Avg	.8618744
Stddev	.0029316
%RSD	.3401365
#1	.8584900
#2	.8636243
#3	.8635089

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4729.398	84208.75	11393.83	3519.626	5450.331
Stddev	2.264	273.18	45.15	12.812	.853
%RSD	.0478686	.3244103	.3963049	.3640173	.0156477
#1	4731.998	83909.96	11383.10	3530.357	5450.949
#2	4727.865	84270.55	11443.38	3505.441	5450.687
#3	4728.331	84445.74	11355.00	3523.079	5449.358

Sample Name: Q2837-01 Acquired: 8/14/2025 16:31:57 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000612**	**.0027725**	**.0035835**	**.0008435**	**.0040073**	**.9354059**
Stddev	.003815	.0015669	.0011886	.0013559	.0013358	.0058046
%RSD	623.4193	56.51741	33.16792	160.7416	33.33418	.6205447
#1	-.000994	.0019194	.0031537	.0007612	.0029802	.9341763
#2	-.004222	.0045809	.0049272	-.000469	.0035243	.9417269
#3	.003379	.0018172	.0026696	.002239	.0055175	.9303147

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4770064**	**-.000042**	**.0000143**	**529.6286**	**.0569228**	**.0039740**
Stddev	.0019255	.000030	.0000618	6.4519	.0003914	.0002748
%RSD	.4036556	72.55607	433.1711	1.218186	.6876568	6.915845
#1	.4763813	-.000018	.0000668	532.8301	.0565926	.0036658
#2	.4754712	-.000031	-.000054	533.8536	.0573552	.0040625
#3	.4791668	-.000076	.000030	522.2021	.0568207	.0041937

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0274179**	**5.683863**	**.0069396**	**.5030078**	**.0477313**	**.0004164**
Stddev	.0003889	.021156	.0004907	.0207137	.0002208	.0000599
%RSD	1.418568	.3722193	7.071690	4.117964	.4626385	14.37353
#1	.0272986	5.666988	.0063821	.5135920	.0479821	.0004839
#2	.0271025	5.677001	.0073061	.4791405	.0476456	.0003959
#3	.0278525	5.707598	.0071306	.5162909	.0475662	.0003695

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**237.1370**	**.0066658**	**.0145496**	**455.1391**	**.0709828**	**.2323806**
Stddev	2.4359	.0015852	.0002506	2.2217	.0007282	.0006646
%RSD	1.027205	23.78078	1.722750	.4881289	1.025855	.2859828
#1	235.0074	.0080234	.0142612	456.2024	.0702074	.2323298
#2	239.7931	.0070502	.0146734	456.6293	.0710887	.2330691
#3	236.6106	.0049238	.0147143	452.5856	.0716522	.2317429

Sample Name: Q2837-01 Acquired: 8/14/2025 16:31:57 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.0028271	-.012560	8.670086	.0401811	F 262.3472	.1228581
Stddev	.0007653	.000709	.043152	.0064082	1.1781	.0025091
%RSD	27.07064	5.643222	.4977060	15.94823	.4490565	2.042233
#1	.0019473	-.011777	8.628985	.0331149	263.0555	.1235790
#2	.0031950	-.012745	8.666243	.0456158	262.9989	.1200676
#3	.0033390	-.013157	8.715031	.0418126	260.9873	.1249278

Elem	Sr4077
Units	ppm
Avg	7.441351
Stddev	.029731
%RSD	.3995356
#1	7.467018
#2	7.448262
#3	7.408773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4845.993	87579.95	11433.55	3582.493	5717.060
Stddev	6.875	408.93	46.20	19.961	11.948
%RSD	.1418680	.4669239	.4041066	.5571872	.2089840
#1	4838.057	88045.86	11483.94	3600.996	5704.079
#2	4850.115	87280.50	11393.18	3561.339	5719.505
#3	4849.808	87413.50	11423.54	3585.145	5727.596

Sample Name: Q2837-01DUP Acquired: 8/14/2025 16:36:44 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0005176**	**.0039287**	**.0036109**	**-.003236**	**.0058951**	**.9016336**
Stddev	.0005388	.0016881	.0006875	.002249	.0010699	.0029352
%RSD	104.0850	42.96787	19.03877	69.49494	18.14849	.3255419
#1	.0010532	.0019828	.0037079	-.005751	.0053728	.8983618
#2	-.000024	.0048038	.0042446	-.001418	.0071259	.9040355
#3	.000524	.0049996	.0028800	-.002538	.0051868	.9025037

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4526456**	**-.000025**	**-.000004**	**506.9390**	**.0540100**	**.0037747**
Stddev	.0030484	.000007	.000074	3.1256	.0001048	.0002179
%RSD	.6734564	29.21229	2010.426	.6165670	.1940797	5.771888
#1	.4557387	-.000033	.000016	509.0251	.0540293	.0040090
#2	.4496441	-.000019	.000059	508.4466	.0541038	.0037371
#3	.4525540	-.000022	-.000086	503.3453	.0538969	.0035781

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0258257**	**5.490307**	**.0065079**	**.4736849**	**.0452744**	**.0002167**
Stddev	.0001512	.034745	.0002912	.0280418	.0004413	.0003791
%RSD	.5853445	.6328452	4.474160	5.919931	.9746248	174.9773
#1	.0258165	5.451358	.0061850	.4877683	.0449722	.0004956
#2	.0259813	5.501446	.0067504	.4918936	.0450703	.0003694
#3	.0256794	5.518116	.0065883	.4413927	.0457808	-.000215

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**224.4899**	**.0067677**	**.0107447**	**433.3540**	**.0643067**	**.2222410**
Stddev	.5103	.0010086	.0001438	2.9742	.0007599	.0006835
%RSD	.2273078	14.90326	1.338509	.6863300	1.181625	.3075547
#1	224.0089	.0070548	.0108720	432.3638	.0650320	.2226537
#2	225.0252	.0056467	.0107734	436.6971	.0643718	.2214521
#3	224.4357	.0076016	.0105887	431.0012	.0635165	.2226173

Sample Name: Q2837-01DUP Acquired: 8/14/2025 16:36:44 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.016748**	**-.012942**	**8.275377**	**.0384730**	F **247.4088**	**.1148681**
Stddev	.000353	.000758	.064865	.0011703	.2486	.0005681
%RSD	2.109798	5.859759	.7838317	3.041846	.1004797	.4945459
#1	-.016439	-.012131	8.202784	.0385906	247.6751	.1152484
#2	-.016673	-.013062	8.327648	.0372483	247.3685	.1142151
#3	-.017133	-.013633	8.295700	.0395800	247.1829	.1151409

Elem	Sr4077
Units	ppm
Avg	**7.037833**
Stddev	.064138
%RSD	.9113307
#1	7.111870
#2	6.999210
#3	7.002420

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4882.262**	**88342.12**	**11702.63**	**3612.105**	**5795.182**
Stddev	2.232	111.73	129.68	10.862	2.701
%RSD	.0457157	.1264797	1.108163	.3007150	.0466142
#1	4880.537	88248.46	11553.57	3599.626	5796.611
#2	4884.783	88312.10	11789.59	3617.257	5796.869
#3	4881.467	88465.79	11764.72	3619.433	5792.067

Sample Name: Q2837-01LX5 Acquired: 8/14/2025 16:41:26 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000610**	**.0013588**	**-.000389**	**-.002969**	**-.002322**	**.2047498**
Stddev	.000860	.0007370	.001047	.003201	.001724	.0070503
%RSD	140.9382	54.23891	268.8634	107.8401	74.27727	3.443383
#1	-.000904	.0008005	-.001515	-.002704	-.000340	.2106723
#2	.000358	.0021942	-.000207	.000092	-.003480	.1969512
#3	-.001284	.0010818	.000555	-.006294	-.003145	.2066257

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0870861**	**-.000039**	**.0000297**	**108.8640**	**.0112163**	**.0006254**
Stddev	.0009044	.000032	.0000486	.1794	.0002528	.0000582
%RSD	1.038489	83.36613	163.4089	.1647790	2.254344	9.305829
#1	.0881123	-.000068	-.000008	109.0326	.0114031	.0006095
#2	.0864053	-.000043	.000085	108.6755	.0109286	.0005768
#3	.0867408	-.000004	.000012	108.8840	.0113172	.0006899

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055706**	**1.093411**	**.0010734**	**.1110932**	**.0098233**	**.0010677**
Stddev	.0004425	.011540	.0001868	.0111245	.0001174	.0001272
%RSD	7.944171	1.055409	17.40660	10.01368	1.195348	11.91022
#1	.0050767	1.080796	.0009310	.0993921	.0097916	.0010133
#2	.0059311	1.103435	.0010042	.1215338	.0097249	.0012130
#3	.0057040	1.096001	.0012849	.1123537	.0099533	.0009768

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.47351**	**.0014352**	**.0029166**	**84.32401**	**.0141205**	**.0452301**
Stddev	.25532	.0022117	.0000499	.34984	.0002011	.0001393
%RSD	.6156329	154.1023	1.711313	.4148739	1.424345	.3080040
#1	41.36717	.0014092	.0029502	84.03363	.0141543	.0450726
#2	41.28853	.0036598	.0029403	84.22601	.0143026	.0452804
#3	41.76481	-.000763	.0028592	84.71240	.0139046	.0453372

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2837-01LX5 Acquired: 8/14/2025 16:41:26 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**-.000513**	**-.003035**	**1.607270**	**.0062285**	F **52.45920**	**.0379220**
Stddev	.000154	.000524	.006490	.0020371	.23823	.0005607
%RSD	29.93932	17.27402	.4037794	32.70640	.4541253	1.478465
#1	-.000397	-.003379	1.608516	.0085542	52.72243	.0385543
#2	-.000687	-.003294	1.613047	.0047606	52.39676	.0374855
#3	-.000455	-.002431	1.600248	.0053706	52.25841	.0377261

Elem	Sr4077
Units	ppm
Avg	**1.518608**
Stddev	.006720
%RSD	.4424922
#1	1.515731
#2	1.513805
#3	1.526287

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5391.345**	**97464.24**	**11968.65**	**4016.554**	**6633.411**
Stddev	10.584	190.97	28.37	2.621	5.614
%RSD	.1963190	.1959436	.2370259	.0652613	.0846258
#1	5403.068	97676.96	11952.73	4018.467	6637.147
#2	5388.475	97307.54	11951.82	4017.630	6636.131
#3	5382.492	97408.21	12001.40	4013.566	6626.956

Sample Name: Q2837-01MS Acquired: 8/14/2025 16:45:43 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8600862**	**1.718191**	**.8882354**	**2.159626**	**.8729981**	**2.816105**
Stddev	.0011176	.036341	.0028626	.006278	.0042557	.015045
%RSD	.1299457	2.115076	.3222830	.2906808	.4874847	.5342623
#1	.8610334	1.704342	.8852131	2.154125	.8723088	2.812748
#2	.8603716	1.759420	.8909058	2.158288	.8691292	2.832546
#3	.8588535	1.690810	.8885873	2.166464	.8775565	2.803022

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6390089**	**.1705970**	**.1897602**	**497.8931**	**.4435380**	**.1970176**
Stddev	.0046707	.0011586	.0006880	2.9909	.0009498	.0005020
%RSD	.7309247	.6791583	.3625516	.6007182	.2141447	.2547796
#1	.6383743	.1715613	.1889669	500.7833	.4427164	.1966435
#2	.6439644	.1709181	.1901200	494.8107	.4433195	.1968213
#3	.6346879	.1693117	.1901937	498.0853	.4445779	.1975881

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3162861**	**8.685270**	**.2022725**	**2.206802**	**.5272807**	**.0680437**
Stddev	.0002419	.027520	.0015677	.036197	.0011059	.0003603
%RSD	.0764678	.3168570	.7750342	1.640236	.2097420	.5295131
#1	.3160219	8.659356	.2018534	2.218359	.5260044	.0683071
#2	.3163400	8.714155	.2040071	2.235810	.5279542	.0681910
#3	.3164965	8.682299	.2009569	2.166239	.5278836	.0676331

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**229.5584**	**.2970745**	**.2349967**	**442.9647**	**.2954125**	**.6465524**
Stddev	.6110	.0049263	.0002384	3.8332	.0036418	.0005656
%RSD	.2661675	1.658272	.1014435	.8653549	1.232769	.0874749
#1	228.9785	.2986405	.2352117	443.1275	.2982298	.6463773
#2	230.1964	.3010275	.2347403	439.0526	.2967075	.6460951
#3	229.5002	.2915556	.2350380	446.7139	.2913002	.6471849

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2837-01MS Acquired: 8/14/2025 16:45:43 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6507833	.1810180	9.157723	5.801823	F 242.7781	.3217640
Stddev	.0023636	.0007653	.024745	.023480	.7784	.0012815
%RSD	.3631933	.4227713	.2702134	.4046938	.3206254	.3982732
#1	.6483902	.1801672	9.135006	5.779323	242.1658	.3212712
#2	.6508432	.1816500	9.154070	5.799972	243.6541	.3232188
#3	.6531163	.1812369	9.184091	5.826173	242.5142	.3208021

Elem	Sr4077
Units	ppm
Avg	7.278394
Stddev	.064433
%RSD	.8852572
#1	7.292693
#2	7.334476
#3	7.208013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4866.851	88971.90	11831.14	3634.720	5775.513
Stddev	4.349	13.15	77.86	17.308	11.624
%RSD	.0893696	.0147852	.6580920	.4761858	.2012574
#1	4868.126	88967.37	11757.65	3652.497	5788.858
#2	4870.420	88986.72	11823.04	3633.742	5767.599
#3	4862.006	88961.61	11912.73	3617.922	5770.081

Sample Name: CCV05 Acquired: 8/14/2025 16:50:15 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**5.114708**	**4.710340**	**4.773488**	**5.225192**	**5.232513**	**9.711862**	**9.705590**
Stddev	.010041	.181250	.020237	.021441	.006194	.036775	.044734
%RSD	.1963064	3.847912	.4239372	.4103406	.1183827	.3786639	.4609070
#1	5.108402	4.559202	4.765103	5.203817	5.239619	9.738548	9.748060
#2	5.109435	4.660533	4.758791	5.225061	5.229667	9.727126	9.709819
#3	5.126286	4.911287	4.796569	5.246698	5.228254	9.669913	9.658893

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2283110**	**2.389477**	**23.77220**	**.9845878**	**2.412141**	**1.255871**	**5.155964**
Stddev	.0005825	.009302	.03364	.0017722	.006791	.002367	.030665
%RSD	.2551481	.3892978	.1415112	.1799957	.2815514	.1885045	.5947402
#1	.2283110	2.383846	23.78398	.9864979	2.409587	1.255283	5.185966
#2	.2288935	2.384371	23.79837	.9842688	2.406997	1.253853	5.124677
#3	.2277284	2.400214	23.73426	.9829968	2.419840	1.258477	5.157248

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.361207**	**23.49209**	**2.428214**	**1.254954**	**23.34016**	**2.449468**	**2.588129**
Stddev	.006207	.13764	.007289	.002017	.13439	.007149	.002971
%RSD	.2628753	.5859093	.3001728	.1607123	.5757819	.2918648	.1148012
#1	2.368359	23.54443	2.423096	1.257188	23.49052	2.456348	2.589525
#2	2.358041	23.59589	2.424987	1.254406	23.23175	2.449979	2.590145
#3	2.357222	23.33596	2.436560	1.253268	23.29821	2.442077	2.584717

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.50163**	**4.607680**	**5.140996**	**4.798819**	**4.853985**	**5.170420**	**4.605430**
Stddev	.09923	.009483	.009979	.023892	.011980	.036363	.020036
%RSD	.3744181	.2058091	.1941051	.4978670	.2468077	.7032810	.4350545
#1	26.61267	4.603262	5.133516	4.777713	4.867668	5.201721	4.628190
#2	26.42166	4.618566	5.137145	4.793986	4.848900	5.130533	4.597647
#3	26.47055	4.601213	5.152327	4.824758	4.845386	5.179007	4.590453

Sample Name: CCV05 Acquired: 8/14/2025 16:50:15 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**4.885101**	**4.692917**	**4.899423**
Stddev	.028042	.006610	.013246
%RSD	.5740388	.1408493	.2703683
#1	4.859013	4.700234	4.884562
#2	4.881534	4.691138	4.909989
#3	4.914756	4.687379	4.903719

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5508.273**	**100320.4**	**12161.45**	**4095.658**	**6755.987**
Stddev	6.647	346.4	26.00	13.211	7.035
%RSD	.1206708	.3453247	.2138310	.3225701	.1041360
#1	5500.624	99937.5	12147.83	4080.881	6756.147
#2	5512.653	100612.1	12145.08	4106.327	6762.941
#3	5511.540	100411.5	12191.44	4099.767	6748.873

Sample Name: CCB05 Acquired: 8/14/2025 17:00:15 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000658**	**-.001408**	**-.000067**	**-.001777**	**-.000562**	**.0016345**
Stddev	.001119	.000579	.000957	.001747	.000576	.0099087
%RSD	169.9612	41.08190	1430.778	98.34131	102.5266	606.2334
#1	.000232	-.001136	-.001171	-.000034	-.001210	-.003889
#2	-.000293	-.002073	.000530	-.003529	-.000371	.013074
#3	-.001914	-.001016	.000440	-.001768	-.000105	-.004281

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.009753**	**.0000447**	**.0000147**	**.0054078**	**-.000129**	**-.000107**
Stddev	.000945	.0000087	.0000632	.0085716	.000130	.000113
%RSD	9.688176	19.45259	430.0954	158.5044	100.3331	105.8633
#1	-.010363	.0000379	.0000497	.0082938	.000020	.000024
#2	-.010232	.0000416	-.000058	-.004234	-.000210	-.000175
#3	-.008665	.0000545	.000053	.012164	-.000199	-.000169

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000283**	**.0024441**	**-.000378**	**.0046958**	**.0000494**	**.0013196**
Stddev	.000461	.0053989	.000092	.0146409	.0003482	.0002193
%RSD	163.0476	220.8954	24.36641	311.7877	705.0684	16.62097
#1	.000246	-.003695	-.000305	.0083537	-.000210	.0011439
#2	-.000602	.004574	-.000348	.0171609	-.000087	.0015654
#3	-.000493	.006453	-.000482	-.011427	.000445	.0012494

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4493008**	**-.002584**	**-.000061**	**.4421860**	**-.000433**	**.0001426**
Stddev	.0309146	.002102	.000325	.0529697	.000246	.0001808
%RSD	6.880602	81.33630	530.8672	11.97905	56.80984	126.7244
#1	.4141281	-.005004	.000136	.3811360	-.000458	-.000007
#2	.4616075	-.001521	.000117	.4694776	-.000175	.000091
#3	.4721668	-.001226	-.000437	.4759445	-.000665	.000344

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: CCB05 Acquired: 8/14/2025 17:00:15 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000287**	**.0008311**	**.0042590**	**.0013334**	F **.0270164**	**.0011641**
Stddev	.000427	.0002928	.0095369	.0013133	.0013954	.0007469
%RSD	148.8644	35.23710	223.9230	98.49551	5.165069	64.16588
#1	-.000365	.0005153	.0138699	.0015739	.0282076	.0003016
#2	-.000670	.0008842	-.005202	-.000084	.0273605	.0015867
#3	.000174	.0010937	.004109	.002510	.0254811	.0016039

Elem	Sr4077
Units	ppm
Avg	**-.000063**
Stddev	.000063
%RSD	99.07940
#1	-.000044
#2	-.000012
#3	-.000133

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5789.619**	**104207.0**	**12088.27**	**4328.957**	**7695.130**
Stddev	6.899	219.4	50.78	9.333	14.213
%RSD	.1191657	.2105421	.4201084	.2156059	.1847069
#1	5788.420	103993.7	12135.44	4329.264	7690.978
#2	5783.398	104195.2	12094.87	4319.474	7683.455
#3	5797.039	104432.0	12034.51	4338.133	7710.957

Sample Name: Q2837-01MSD Acquired: 8/14/2025 17:04:34 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8958620**	**1.772004**	**.9020326**	**2.264545**	**.9143061**	**2.899208**
Stddev	.0051446	.017213	.0022376	.002643	.0010806	.006739
%RSD	.5742571	.9713640	.2480615	.1167066	.1181911	.2324343
#1	.8922155	1.752865	.8994549	2.261510	.9132688	2.906920
#2	.8936241	1.776931	.9034745	2.266339	.9142241	2.896249
#3	.9017465	1.786216	.9031683	2.265785	.9154254	2.894454

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6724473**	**.1723068**	**.1933040**	**515.9136**	**.4513684**	**.2019243**
Stddev	.0020911	.0029025	.0003086	10.7060	.0003217	.0002319
%RSD	.3109730	1.684522	.1596727	2.075162	.0712704	.1148666
#1	.6705427	.1719592	.1929691	517.0006	.4517391	.2016806
#2	.6746850	.1753675	.1935770	526.0346	.4511617	.2021424
#3	.6721142	.1695937	.1933658	504.7055	.4512046	.2019498

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3277882**	**9.139796**	**.1993660**	**2.259079**	**.5403237**	**.0704419**
Stddev	.0007436	.104090	.0022789	.022664	.0005798	.0008402
%RSD	.2268638	1.138862	1.143059	1.003230	.1073093	1.192715
#1	.3280245	9.121959	.1980633	2.234540	.5396543	.0713711
#2	.3269552	9.045778	.2019974	2.263471	.5406627	.0697358
#3	.3283850	9.251652	.1980374	2.279225	.5406543	.0702188

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**241.7269**	**.3055677**	**.2392248**	**464.0576**	**.3008991**	**.6723390**
Stddev	2.9487	.0005667	.0014740	4.9147	.0053202	.0017143
%RSD	1.219861	.1854720	.6161735	1.059062	1.768096	.2549756
#1	241.9562	.3055285	.2380913	460.7965	.3013531	.6713714
#2	244.5543	.3061530	.2408912	461.6659	.3059778	.6713273
#3	238.6702	.3050216	.2386919	469.7103	.2953665	.6743183

Sample Name: Q2837-01MSD Acquired: 8/14/2025 17:04:34 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6580772	.1847748	9.644965	5.902406	F 256.6118	.3406898
Stddev	.0027214	.0014268	.135178	.010278	.7429	.0022154
%RSD	.4135442	.7721923	1.401544	.1741296	.2895219	.6502702
#1	.6552795	.1856130	9.601168	5.912991	255.7971	.3409546
#2	.6607153	.1855841	9.537115	5.901761	256.7868	.3383539
#3	.6582368	.1831274	9.796611	5.892466	257.2517	.3427609

Elem	Sr4077
Units	ppm
Avg	7.505237
Stddev	.071261
%RSD	.9494869
#1	7.461315
#2	7.587459
#3	7.466938

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4772.103	89389.98	12048.37	3593.432	5696.337
Stddev	11.794	115.35	189.80	13.791	11.117
%RSD	.2471528	.1290452	1.575342	.3837942	.1951675
#1	4782.979	89338.19	12033.75	3609.163	5709.148
#2	4773.765	89522.15	11866.30	3587.709	5690.634
#3	4759.566	89309.58	12245.06	3583.422	5689.228

Sample Name: Q2837-01A Acquired: 8/14/2025 17:09:05 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8586769**	**1.670175**	**.8613869**	**2.177982**	**.8964786**	**2.761432**
Stddev	.0035067	.038036	.0046050	.009105	.0027746	.009724
%RSD	.4083865	2.277361	.5346032	.4180256	.3094938	.3521184
#1	.8596176	1.641733	.8563777	2.184617	.8993992	2.751963
#2	.8616172	1.655411	.8623464	2.167602	.8938778	2.771392
#3	.8547957	1.713379	.8654365	2.181726	.8961587	2.760941

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6383446**	**.1629080**	**.1847726**	**496.1586**	**.4309728**	**.1924329**
Stddev	.0007150	.0004026	.0004826	3.3333	.0011753	.0004226
%RSD	.1119999	.2471214	.2611867	.6718309	.2727192	.2196223
#1	.6385569	.1625371	.1842511	498.9639	.4302249	.1919486
#2	.6375475	.1628506	.1848632	497.0382	.4303659	.1926229
#3	.6389293	.1633362	.1852034	492.4737	.4323275	.1927271

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3123297**	**8.784790**	**.1881634**	**2.163687**	**.5182393**	**.0753241**
Stddev	.0003775	.021532	.0000257	.005537	.0017363	.0012330
%RSD	.1208824	.2451018	.0136706	.2558946	.3350403	1.636924
#1	.3122778	8.761575	.1881898	2.161258	.5164106	.0755872
#2	.3127306	8.804105	.1881621	2.159780	.5184420	.0764043
#3	.3119808	8.788691	.1881384	2.170023	.5198654	.0739808

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**234.8103**	**.2922705**	**.2318932**	**445.1963**	**.2849944**	**.6532755**
Stddev	2.8504	.0007539	.0011990	2.0389	.0010093	.0009606
%RSD	1.213934	.2579612	.5170367	.4579690	.3541382	.1470470
#1	238.0761	.2914824	.2305089	444.1158	.2852505	.6543805
#2	232.8225	.2929848	.2326047	443.9250	.2838818	.6526394
#3	233.5324	.2923442	.2325660	447.5480	.2858510	.6528067

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2837-01A Acquired: 8/14/2025 17:09:05 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6520497	.1792648	9.486592	5.552983	F 241.6708	.3243025
Stddev	.0011763	.0018609	.014467	.039507	1.3319	.0006782
%RSD	.1804061	1.038077	.1524944	.7114578	.5511214	.2091274
#1	.6509177	.1772720	9.471159	5.508316	240.3958	.3242321
#2	.6519655	.1795653	9.499845	5.583345	241.5634	.3236622
#3	.6532659	.1809572	9.488772	5.567288	243.0531	.3250131

Elem	Sr4077
Units	ppm
Avg	7.179132
Stddev	.016781
%RSD	.2337431
#1	7.176181
#2	7.197193
#3	7.164023

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4910.565	91667.12	12509.62	3675.669	5878.101
Stddev	4.821	112.63	26.17	12.794	10.665
%RSD	.0981779	.1228663	.2091660	.3480608	.1814438
#1	4905.925	91538.99	12499.45	3661.079	5886.405
#2	4915.549	91711.89	12539.35	3684.969	5881.825
#3	4910.222	91750.47	12490.07	3680.959	5866.073

Sample Name: Q2858-01 Acquired: 8/14/2025 17:13:36 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0572673**	**-.025466**	**1.384830**	**-.000232**	**-.007972**	**101.8079**	**.5109856**
Stddev	.0015215	.001653	.000813	.001678	.000777	.1255	.0026807
%RSD	2.656889	6.490916	.0586960	722.3051	9.742734	.1232913	.5246097
#1	.0566789	-.023925	1.383918	.000705	-.007355	101.9128	.5108346
#2	.0589951	-.027212	1.385097	-.002170	-.007716	101.8422	.5137385
#3	.0561277	-.025261	1.385476	.000768	-.008844	101.6689	.5083835

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061287**	**.0105638**	**92.45795**	**.1875823**	**.0890305**	**.2792764**	**229.9780**
Stddev	.0000561	.0001105	.28926	.0008524	.0001808	.0009147	.8450
%RSD	.9145552	1.046270	.3128523	.4543993	.2030993	.3275164	.3674060
#1	.0060740	.0105415	92.47392	.1885335	.0890106	.2788391	230.3633
#2	.0061259	.0104662	92.73889	.1873258	.0888605	.2786625	230.5616
#3	.0061860	.0106838	92.16104	.1868877	.0892205	.2803277	229.0091

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.890201**	**25.69322**	**.1693561**	**.0125017**	**5.702301**	**.3512860**	**1.028328**
Stddev	.014516	.06582	.0003346	.0002532	.016181	.0024641	.002534
%RSD	.3731302	.2561911	.1975992	2.025068	.2837685	.7014605	.2464262
#1	3.890918	25.70214	.1690313	.0126011	5.717696	.3518069	1.027098
#2	3.904345	25.75413	.1693370	.0126901	5.703772	.3534481	1.031242
#3	3.875340	25.62339	.1696998	.0122139	5.685434	.3486031	1.026643

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.638765**	**.1530277**	**.0052772**	**.0065242**	**4.118063**	**11.12196**	**4.025009**
Stddev	.077149	.0028228	.0001750	.0002364	.006184	.12992	.009432
%RSD	.8004060	1.844638	3.315182	3.623027	.1501577	1.168104	.2343423
#1	9.669984	.1559691	.0050847	.0065066	4.116473	11.26750	4.032173
#2	9.695411	.1527733	.0054265	.0062971	4.124886	11.01770	4.014322
#3	9.550898	.1503408	.0053204	.0067689	4.112829	11.08068	4.028532

Sample Name: Q2858-01 Acquired: 8/14/2025 17:13:36 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**2.962992**	**.1001873**	**.2081702**
Stddev	.010047	.0009241	.0004289
%RSD	.3390670	.9223468	.2060185
#1	2.965073	.1009682	.2076752
#2	2.952068	.1004267	.2084292
#3	2.971835	.0991671	.2084062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6084.976**	**111450.5**	**14732.17**	**4512.093**	**6675.461**
Stddev	11.950	194.0	17.11	8.716	8.981
%RSD	.1963862	.1740249	.1161543	.1931701	.1345375
#1	6082.715	111257.2	14724.68	4516.653	6670.034
#2	6097.895	111449.4	14720.09	4502.043	6685.828
#3	6074.317	111645.1	14751.75	4517.583	6670.522

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2858-01DUP Acquired: 8/14/2025 17:17:40 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0606134**	**-.026574**	**1.408849**	**-.001385**	**-.007143**	**105.4439**	**.5215077**
Stddev	.0011122	.002079	.002476	.001390	.001078	.0828	.0004167
%RSD	1.834926	7.824551	.1757643	100.3599	15.08782	.0784951	.0799031
#1	.0617569	-.028606	1.408800	-.000123	-.005904	105.3642	.5214736
#2	.0595353	-.026667	1.406397	-.002876	-.007662	105.5294	.5211091
#3	.0605480	-.024450	1.411349	-.001158	-.007864	105.4381	.5219404

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064002**	**.0116699**	**82.63264**	**.2061302**	**.0966712**	**.2870158**	**229.2773**
Stddev	.0001343	.0000201	.09245	.0002329	.0003842	.0004812	.6724
%RSD	2.098420	.1723581	.1118854	.1129704	.3974673	.1676681	.2932605
#1	.0062616	.0116468	82.63511	.2061043	.0971135	.2871402	229.9213
#2	.0065297	.0116791	82.72382	.2059113	.0964204	.2864847	229.3307
#3	.0064092	.0116838	82.53897	.2063749	.0964796	.2874227	228.5798

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.123274**	**28.17365**	**.1793015**	**.0099079**	**5.486426**	**.3421529**	**1.156859**
Stddev	.007545	.11231	.0004424	.0001246	.010795	.0013725	.000075
%RSD	.1472607	.3986301	.2467653	1.258038	.1967639	.4011468	.0064664
#1	5.128752	28.14270	.1797092	.0100515	5.493309	.3431581	1.156914
#2	5.126400	28.29819	.1788310	.0098442	5.491985	.3405891	1.156774
#3	5.114668	28.08006	.1793643	.0098280	5.473984	.3427114	1.156888

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.90735**	**.1316237**	**.0060489**	**.0099033**	**3.713799**	**12.54578**	**4.123067**
Stddev	.02061	.0021646	.0001881	.0009400	.015857	.16404	.010091
%RSD	.1889883	1.644502	3.110418	9.492195	.4269646	1.307570	.2447557
#1	10.89970	.1337705	.0061125	.0104221	3.701665	12.70634	4.121694
#2	10.93070	.1316590	.0058372	.0104696	3.731740	12.55255	4.113733
#3	10.89166	.1294418	.0061970	.0088181	3.707990	12.37846	4.133775

Sample Name: Q2858-01DUP Acquired: 8/14/2025 17:17:40 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**2.974418**	**.1117740**	**.1745882**
Stddev	.008784	.0003858	.0011118
%RSD	.2953268	.3451385	.6368404
#1	2.982331	.1119351	.1733045
#2	2.975957	.1113338	.1752134
#3	2.964966	.1120531	.1752467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6111.250**	**111949.3**	**14454.72**	**4550.291**	**6686.929**
Stddev	3.354	97.9	24.76	5.879	1.528
%RSD	.0548838	.0874660	.1712659	.1292091	.0228487
#1	6115.016	112034.7	14482.74	4544.877	6685.166
#2	6108.583	111842.4	14435.81	4549.452	6687.872
#3	6110.152	111970.6	14445.62	4556.545	6687.749

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2858-01LX5 Acquired: 8/14/2025 17:21:43 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.0134344**	**-.006576**	**.3012615**	**-.001273**	**-.001375**	**23.72329**	**.1066000**
Stddev	.0012814	.002026	.0043120	.000898	.001357	.02245	.0006689
%RSD	9.537920	30.80959	1.431309	70.50517	98.72969	.0946300	.6274926
#1	.0143781	-.007361	.3049080	-.001148	.000192	23.70269	.1072278
#2	.0119757	-.008092	.3023743	-.000444	-.002140	23.74722	.1066758
#3	.0139494	-.004275	.2965022	-.002226	-.002176	23.71998	.1058964

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015277**	**.0017943**	**21.91431**	**.0445173**	**.0184459**	**.0687060**	**52.00371**
Stddev	.0000436	.0001163	.04073	.0003730	.0001106	.0007010	.15226
%RSD	2.851082	6.479860	.1858754	.8377926	.5993446	1.020304	.2927905
#1	.0014878	.0018664	21.91808	.0445383	.0183786	.0685838	51.95335
#2	.0015211	.0018564	21.87183	.0441343	.0185735	.0694601	52.17477
#3	.0015741	.0016602	21.95303	.0448793	.0183857	.0680742	51.88301

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9510984**	**6.166296**	**.0356523**	**.0034705**	**1.630119**	**.0822357**	**.2571195**
Stddev	.0011138	.015207	.0005096	.0001892	.016788	.0017175	.0015089
%RSD	.1171097	.2466172	1.429442	5.452930	1.029852	2.088556	.5868352
#1	.9510250	6.177505	.0362407	.0032704	1.613742	.0821241	.2587033
#2	.9500232	6.172399	.0353570	.0034944	1.629324	.0840063	.2556988
#3	.9522472	6.148986	.0353590	.0036466	1.647290	.0805766	.2569565

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.615458**	**.0217507**	**.0013304**	**.0000958**	**.9666221**	**2.859320**	**.8248415**
Stddev	.018941	.0014301	.0002554	.0008907	.0034454	.025972	.0125775
%RSD	.7242013	6.575105	19.19680	929.7116	.3564377	.9083433	1.524832
#1	2.593627	.0202936	.0013228	.0010440	.9668328	2.830006	.8309876
#2	2.625222	.0231522	.0015895	-.000723	.9630762	2.879462	.8331641
#3	2.627524	.0218061	.0010789	-.000033	.9699574	2.868493	.8103727

Sample Name: Q2858-01LX5 Acquired: 8/14/2025 17:21:43 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6821402	.0232474	.0490129
Stddev	.0076183	.0013627	.0003732
%RSD	1.116816	5.861540	.7614733
#1	.6873452	.0239572	.0493724
#2	.6856792	.0241086	.0486273
#3	.6733961	.0216763	.0490392

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5813.359	106896.5	13324.12	4345.838	7313.607
Stddev	4.392	118.4	43.29	6.111	6.228
%RSD	.0755445	.1107521	.3249223	.1406238	.0851589
#1	5815.988	106987.4	13327.91	4343.835	7306.416
#2	5808.289	106762.6	13365.40	4352.700	7317.115
#3	5815.799	106939.4	13279.06	4340.980	7317.290

Sample Name: Q2858-01MS Acquired: 8/14/2025 17:25:53 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.7556269**	**1.664506**	**2.206179**	**1.695790**	**.3254792**	**119.6307**
Stddev	.0031263	.023765	.005039	.008022	.0006452	.1735
%RSD	.4137333	1.427752	.2284215	.4730312	.1982471	.1450456
#1	.7590487	1.681298	2.211428	1.686843	.3262229	119.6630
#2	.7529200	1.637313	2.201379	1.698188	.3251479	119.7858
#3	.7549119	1.674905	2.205728	1.702340	.3250670	119.4433

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6981396**	**.1488239**	**.1897487**	**94.79876**	**.5507114**	**.2814447**
Stddev	.0019571	.0007795	.0004388	.18349	.0041207	.0004300
%RSD	.2803355	.5237656	.2312347	.1935523	.7482522	.1527865
#1	.6958863	.1488559	.1896484	94.78148	.5543004	.2813952
#2	.6994164	.1495869	.1893688	94.99027	.5516225	.2810416
#3	.6991160	.1480289	.1902290	94.62452	.5462114	.2818973

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5340245**	**251.1046**	**4.701313**	**29.29738**	**.6471347**	**.0786857**
Stddev	.0008027	1.0500	.009286	.07171	.0013945	.0000514
%RSD	.1503150	.4181339	.1975201	.2447814	.2154865	.0652584
#1	.5336197	252.1527	4.691232	29.33261	.6462197	.0787443
#2	.5335047	251.1082	4.709518	29.34467	.6464448	.0786638
#3	.5349490	250.0529	4.703188	29.21487	.6487397	.0786488

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.281295**	**.5897101**	**1.319329**	**20.28678**	**.3747947**	**.3558079**
Stddev	.022258	.0025143	.012533	.06237	.0036688	.0007474
%RSD	.2687726	.4263606	.9499892	.3074300	.9788794	.2100693
#1	8.299494	.5899201	1.324905	20.34907	.3790167	.3563136
#2	8.287913	.5921128	1.328107	20.28692	.3723821	.3549493
#3	8.256479	.5870974	1.304975	20.22434	.3729852	.3561607

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2858-01MS Acquired: 8/14/2025 17:25:53 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6009222	4.172984	F 16.55255	9.371012	3.754173	.2820730
Stddev	.0013794	.007180	.24936	.012827	.011329	.0010864
%RSD	.2295514	.1720536	1.506500	.1368790	.3017769	.3851573
#1	.6006644	4.178362	16.84045	9.385393	3.760492	.2809796
#2	.5996899	4.164830	16.41279	9.360752	3.741094	.2820872
#3	.6024124	4.175759	16.40441	9.366891	3.760935	.2831523

Elem	Sr4077
Units	ppm
Avg	.3899516
Stddev	.0024026
%RSD	.6161387
#1	.3871845
#2	.3915081
#3	.3911623

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6108.744	112745.8	14986.15	4567.899	6595.786
Stddev	9.462	660.6	46.96	38.109	12.545
%RSD	.1548948	.5859284	.3133377	.8342718	.1901966
#1	6112.038	112180.8	15000.89	4556.539	6593.780
#2	6116.118	112584.4	14933.60	4536.762	6609.213
#3	6098.075	113472.1	15023.98	4610.396	6584.364

Sample Name: Q2858-01MSD Acquired: 8/14/2025 17:29:48 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.7534426**	**1.679801**	**2.417061**	**1.684420**	**.3060983**	**127.8085**
Stddev	.0038816	.029520	.005451	.003789	.0020697	.0348
%RSD	.5151756	1.757341	.2255107	.2249173	.6761699	.0271990
#1	.7544535	1.661423	2.421483	1.688670	.3084237	127.7928
#2	.7491556	1.664128	2.410971	1.681398	.3054132	127.7844
#3	.7567187	1.713852	2.418729	1.683193	.3044579	127.8484

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7474403**	**.1482530**	**.1906274**	**69.48679**	**.5440577**	**.2886343**
Stddev	.0020743	.0001799	.0006262	.12753	.0020309	.0004717
%RSD	.2775251	.1213413	.3284991	.1835289	.3732843	.1634387
#1	.7493475	.1482998	.1911243	69.62351	.5463508	.2890828
#2	.7452317	.1484048	.1899240	69.37106	.5424859	.2881423
#3	.7477416	.1480543	.1908340	69.46580	.5433366	.2886778

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5577476**	**259.1127**	**4.868481**	**31.40618**	**.6627894**	**.0789635**
Stddev	.0012133	1.5779	.017633	.04065	.0006256	.0007662
%RSD	.2175378	.6089441	.3621773	.1294335	.0943959	.9702682
#1	.5566315	260.7599	4.885665	31.43371	.6626072	.0795858
#2	.5575722	257.6148	4.850432	31.35949	.6622751	.0781078
#3	.5590391	258.9633	4.869347	31.42534	.6634859	.0791969

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.472979**	**.6004427**	**1.427478**	**19.98263**	**.3460646**	**.3503622**
Stddev	.047980	.0040285	.005481	.08874	.0068242	.0006842
%RSD	.5662735	.6709283	.3839959	.4440999	1.971946	.1952963
#1	8.528069	.6040055	1.433330	20.08483	.3522296	.3507875
#2	8.450531	.6012515	1.426642	19.92515	.3387319	.3495729
#3	8.440339	.5960711	1.422463	19.93790	.3472322	.3507262

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2858-01MSD Acquired: 8/14/2025 17:29:48 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.5994116	4.171916	F 15.83624	9.365435	2.839599	.2980917
Stddev	.0018321	.012608	.03729	.012796	.005342	.0014521
%RSD	.3056469	.3022005	.2354446	.1366273	.1881324	.4871346
#1	.5988023	4.186449	15.87737	9.379603	2.835682	.2982059
#2	.5979617	4.163911	15.80466	9.354721	2.837430	.2994834
#3	.6014707	4.165387	15.82670	9.361980	2.845684	.2965859

Elem	Sr4077
Units	ppm
Avg	.2926608
Stddev	.0001732
%RSD	.0591918
#1	.2927345
#2	.2927850
#3	.2924629

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6111.569	112717.6	15012.36	4542.080	6578.795
Stddev	6.086	148.6	36.10	13.339	9.247
%RSD	.0995890	.1318236	.2404448	.2936727	.1405573
#1	6107.076	112575.1	15053.96	4531.923	6569.306
#2	6118.496	112871.6	14989.28	4557.186	6587.780
#3	6109.136	112706.2	14993.85	4537.131	6579.299

Sample Name: Q2858-01A Acquired: 8/14/2025 17:33:44 Type: Unk
Method: 6010-200.7 NEW(v98) 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	**.8306090**	**1.854410**	**2.292205**	**1.928257**	**.8083428**	**102.2124**
Stddev	.0455433	.082066	.051513	.106636	.0429324	.0594
%RSD	5.483121	4.425456	2.247323	5.530169	5.311163	.0581558
#1	.7838324	1.787525	2.236072	1.822001	.7646813	102.1946
#2	.8331851	1.829717	2.303228	1.927501	.8098401	102.1639
#3	.8748096	1.945987	2.337314	2.035269	.8505070	102.2787

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6451984**	**.1402317**	**.2048385**	**90.60228**	**.4998504**	**.2893090**
Stddev	.0043495	.0059786	.0100990	.20966	.0124726	.0100679
%RSD	.6741382	4.263365	4.930226	.2314110	2.495267	3.479992
#1	.6403286	.1346138	.1942090	90.37726	.4870820	.2787365
#2	.6465689	.1395660	.2060000	90.79214	.5004647	.2904082
#3	.6486975	.1465152	.2143065	90.63744	.5120045	.2987821

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5505642**	**230.5231**	**4.094939**	**26.72454**	**.6709877**	**.0729780**
Stddev	.0153321	1.8986	.008344	.10874	.0266490	.0021208
%RSD	2.784789	.8236125	.2037695	.4068923	3.971605	2.906096
#1	.5351441	230.2834	4.094135	26.60023	.6428112	.0705308
#2	.5507420	232.5301	4.103657	26.80202	.6743649	.0741228
#3	.5658066	228.7557	4.087027	26.77137	.6957872	.0742805

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.508279**	**.5475397**	**1.181167**	**17.14534**	**.3484493**	**.4052057**
Stddev	.046676	.0082232	.002779	.26118	.0074945	.0217902
%RSD	.6216667	1.501841	.2352682	1.523308	2.150826	5.377556
#1	7.457267	.5392505	1.178050	16.85592	.3398561	.3826581
#2	7.548851	.5476733	1.182064	17.21662	.3536320	.4068093
#3	7.518720	.5556952	1.183386	17.36347	.3518598	.4261498

Reviewed By:jaswal
On:8/19/2025 4:32:19 PM
Inst Id :P4
LB :LB136837

Sample Name: Q2858-01A Acquired: 8/14/2025 17:33:44 Type: Unk
Method: 6010-200.7 NEW(v98) 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	.6955269	4.173397	F 13.59954	9.237124	2.841748	.2339152
Stddev	.0362599	.007752	.17359	.273065	.012470	.0057256
%RSD	5.213307	.1857539	1.276414	2.956168	.4388155	2.447728
#1	.6569388	4.164599	13.66595	8.949962	2.855640	.2277246
#2	.7007495	4.176368	13.73011	9.267933	2.831523	.2350007
#3	.7288923	4.179225	13.40255	9.493478	2.838081	.2390205

Elem	Sr4077
Units	ppm
Avg	.3357606
Stddev	.0053165
%RSD	1.583406
#1	.3314242
#2	.3341657
#3	.3416920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6020.651	110565.5	14721.01	4492.515	6611.799
Stddev	17.080	405.1	45.08	20.489	14.615
%RSD	.2836918	.3664129	.3062486	.4560662	.2210407
#1	6036.788	110466.8	14718.68	4498.135	6626.858
#2	6022.403	110218.8	14767.22	4469.803	6610.864
#3	6002.762	111010.8	14677.14	4509.608	6597.673

Sample Name: CCV06 Acquired: 8/14/2025 17:54:46 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.147495**	**4.999600**	**4.751030**	**5.255591**	**5.260674**	**9.734911**
Stddev	.015191	.099565	.006624	.022497	.020105	.025187
%RSD	.2951152	1.991459	.1394304	.4280503	.3821663	.2587273
#1	5.130577	4.908454	4.750209	5.230045	5.237723	9.742626
#2	5.151943	5.105856	4.744853	5.272447	5.275172	9.706770
#3	5.159966	4.984489	4.758026	5.264279	5.269126	9.755339

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.969442**	**.2425316**	**2.382054**	**24.00823**	**.9842582**	**2.409881**
Stddev	.050538	.0004587	.004397	.05314	.0014397	.005892
%RSD	.5069251	.1891344	.1845684	.2213458	.1462701	.2445107
#1	9.973389	.2430518	2.382722	24.00856	.9826510	2.408781
#2	9.917046	.2423575	2.377361	23.95492	.9854298	2.404616
#3	10.01789	.2421854	2.386077	24.06121	.9846938	2.416246

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.255099**	**5.312148**	**2.397394**	**23.41586**	**2.428692**	**1.253767**
Stddev	.001056	.024378	.007826	.08950	.002713	.001779
%RSD	.0841104	.4589171	.3264538	.3822044	.1116937	.1418599
#1	1.254253	5.288752	2.395763	23.41742	2.427751	1.252972
#2	1.254762	5.310289	2.390511	23.32560	2.426575	1.252523
#3	1.256282	5.337402	2.405907	23.50457	2.431750	1.255804

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.04809**	**2.474562**	**2.572157**	**26.94976**	**4.502417**	**5.201319**
Stddev	.09674	.004415	.001729	.09096	.008400	.013412
%RSD	.3862371	.1784027	.0672077	.3375195	.1865627	.2578616
#1	24.96957	2.474680	2.570219	26.87457	4.511602	5.186033
#2	25.01853	2.470089	2.573539	26.92385	4.495125	5.211115
#3	25.15616	2.478916	2.572712	27.05087	4.500525	5.206810

Sample Name: CCV06 Acquired: 8/14/2025 17:54:46 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.797266**	**4.935201**	**5.388417**	F **4.411828**	**4.785661**	**4.762817**
Stddev	.007663	.014011	.023182	.002845	.005754	.012100
%RSD	.1597307	.2838976	.4302205	.0644779	.1202280	.2540542
#1	4.796259	4.931426	5.368851	4.415072	4.781486	4.763223
#2	4.790157	4.923464	5.382380	4.410649	4.792224	4.750520
#3	4.805383	4.950713	5.414020	4.409762	4.783272	4.774710

Elem	Sr4077
Units	ppm
Avg	**5.043267**
Stddev	.024828
%RSD	.4923048
#1	5.019117
#2	5.041962
#3	5.068721

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5549.096**	**100637.8**	**12475.61**	**4140.234**	**6820.090**
Stddev	14.272	222.1	11.79	15.761	11.202
%RSD	.2571983	.2207097	.0945042	.3806698	.1642457
#1	5565.512	100878.5	12465.38	4158.300	6830.290
#2	5542.149	100594.2	12488.50	4129.303	6821.878
#3	5539.628	100440.8	12472.95	4133.098	6808.102

Sample Name: CCB06 Acquired: 8/14/2025 18:05:45 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000102**	**-.001876**	**.0000201**	**-.001761**	**-.000204**	**-.015220**
Stddev	.001588	.000902	.0002232	.002373	.002072	.005063
%RSD	1559.755	48.10584	1108.701	134.7118	1015.861	33.26677
#1	-.001907	-.002596	-.000130	-.003257	-.000126	-.020608
#2	.001080	-.002167	-.000087	.000974	.001827	-.014493
#3	.000522	-.000864	.000277	-.003001	-.002313	-.010560

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.014347**	**-.000005**	**.0000123**	**.0202246**	**.0004056**	**-.000227**
Stddev	.000814	.000041	.0000388	.0040049	.0001708	.000077
%RSD	5.670367	821.0430	316.2779	19.80196	42.11782	33.86251
#1	-.014192	-.000048	.0000003	.0211239	.0006025	-.000231
#2	-.015228	.000034	.0000556	.0237033	.0002967	-.000301
#3	-.013623	-.000001	-.000019	.0158465	.0003176	-.000148

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000395**	**.0076668**	**-.000326**	**-.003407**	**.0002365**	**.0014844**
Stddev	.000135	.0033631	.000125	.007987	.0001322	.0003185
%RSD	34.06172	43.86546	38.48021	234.4409	55.91155	21.45560
#1	-.000399	.0109076	-.000214	.002998	.0003662	.0013722
#2	-.000258	.0041935	-.000462	-.012355	.0001019	.0018439
#3	-.000527	.0078992	-.000303	-.000863	.0002413	.0012373

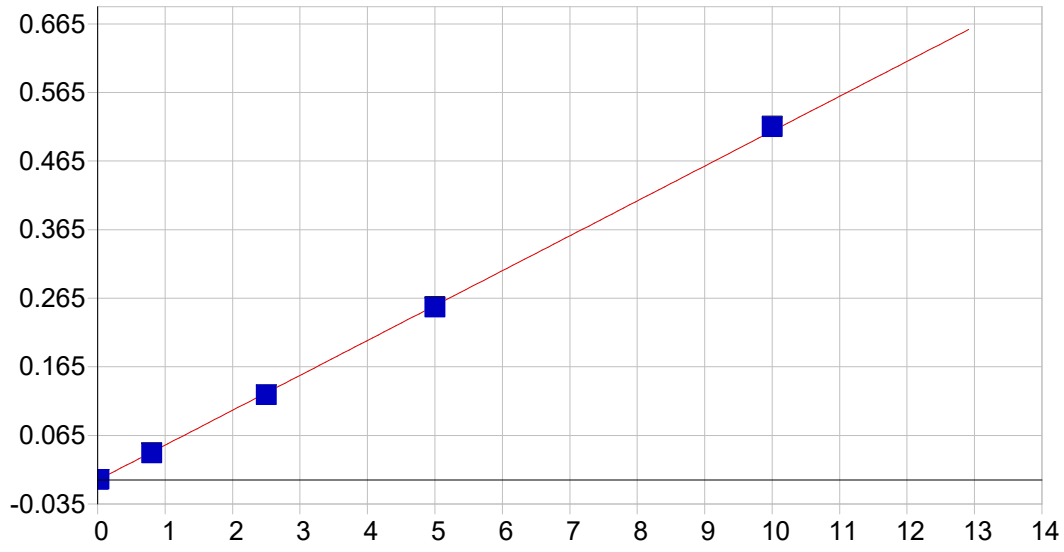
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4055122**	**-.001236**	**.0003172**	**.5199273**	**.0018751**	**.0002963**
Stddev	.0199763	.000367	.0000315	.0040250	.0002921	.0000675
%RSD	4.926184	29.69414	9.916939	.7741421	15.57748	22.77358
#1	.3838788	-.001583	.0003490	.5245476	.0015575	.0002254
#2	.4093971	-.000851	.0002861	.5171809	.0021322	.0003037
#3	.4232607	-.001275	.0003166	.5180534	.0019356	.0003598

Sample Name: CCB06 Acquired: 8/14/2025 18:05:45 Type: Unk
Method: 6010-200.7 NEW(v98) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.013915	-.000174	.0194123	-.001219	F .0101961	.0035866
Stddev	.000372	.000455	.0005403	.000710	.0005331	.0005852
%RSD	2.673263	261.1370	2.783297	58.29687	5.228649	16.31595
#1	-.014106	.000301	.0189112	-.001938	.0098765	.0029491
#2	-.013487	-.000607	.0199847	-.000518	.0108115	.0037112
#3	-.014154	-.000217	.0193409	-.001199	.0099001	.0040993

Elem	Sr4077
Units	ppm
Avg	-.000095
Stddev	.000033
%RSD	34.46160
#1	-.000057
#2	-.000116
#3	-.000111

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5763.393	105381.3	12420.50	4317.490	7671.868
Stddev	9.482	102.9	50.78	12.501	9.454
%RSD	.1645135	.0976004	.4088658	.2895346	.1232326
#1	5771.780	105295.0	12464.00	4303.402	7680.502
#2	5765.295	105495.1	12432.81	4321.811	7673.337
#3	5753.105	105353.8	12364.70	4327.258	7661.766

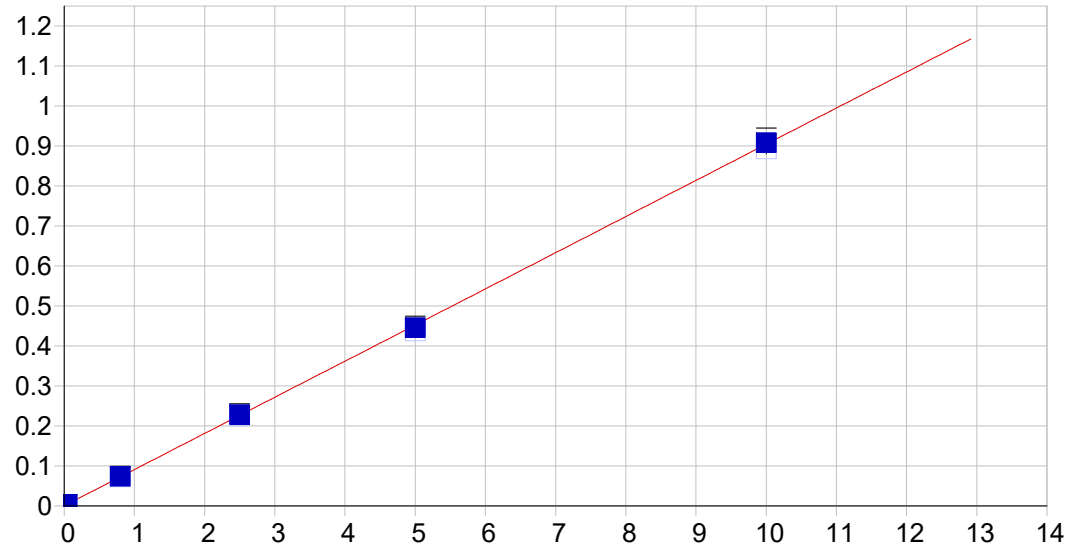


As 189.042 {479}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000129	Re-Slope:	1.000000
A1 (Gain):	0.050867	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999890	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.002090		
Predicted MQL:	0.006968		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00013	.000	1
S1	.02000	.02119	.001	5.93	.00094	.000	1
S3	2.5000	2.4456	-.054	-2.17	.12414	.000	1
S4	5.0000	4.9512	-.049	-.977	.25145	.001	1
S5	10.000	10.126	.126	1.26	.51440	.001	1
S2	.80000	.77609	-.024	-2.99	.03930	.000	1

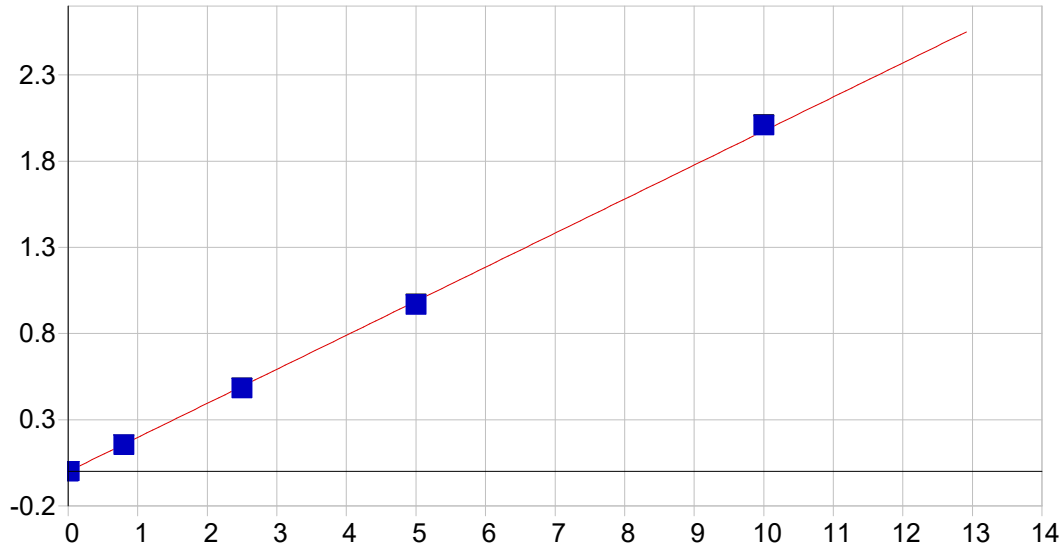


Tl 190.856 {477}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000401	Re-Slope:	1.000000
A1 (Gain):	0.090402	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.001458		
Predicted MQL:	0.004861		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00040	.000	1
S1	.04000	.04329	.003	8.22	.00408	.000	1
S3	2.5000	2.5197	.020	.787	.22406	.002	1
S4	5.0000	4.9243	-.076	-1.51	.43732	.004	1
S5	10.000	10.044	.044	.444	.89195	.012	1
S2	.80000	.80852	.009	1.06	.07217	.001	1

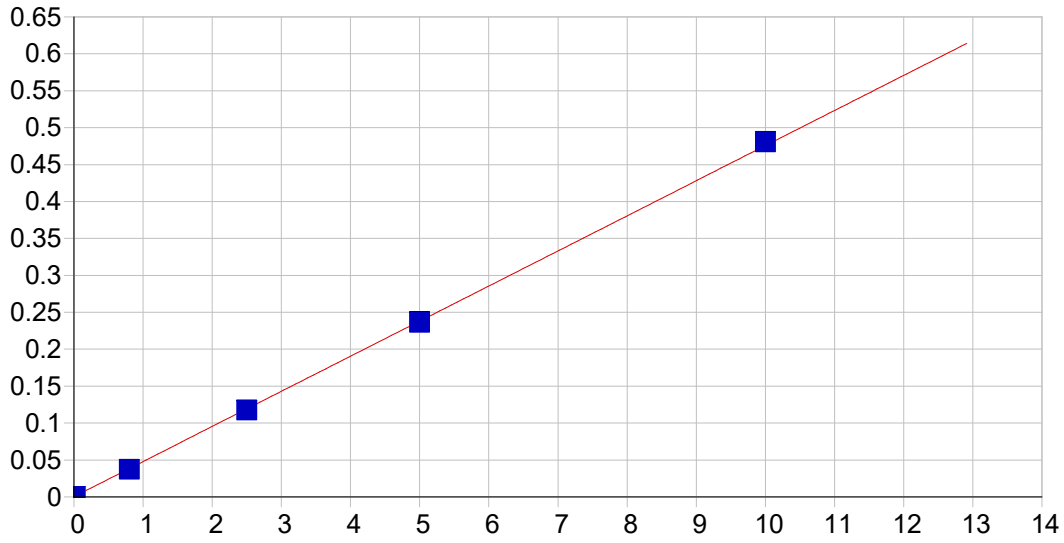


Pb 220.353 {453}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000022	Re-Slope:	1.000000
A1 (Gain):	0.197506	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000067		
Predicted MDL:	0.001246		
Predicted MQL:	0.004154		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00002	.000	1
S1	.01200	.01154	-.000	-3.84	.00226	.000	1
S3	2.5000	2.4458	-.054	-2.17	.48257	.001	1
S4	5.0000	4.9045	-.096	-1.91	.96767	.002	1
S5	10.000	10.171	.171	1.71	2.0068	.002	1
S2	.80000	.77953	-.020	-2.56	.15382	.000	1

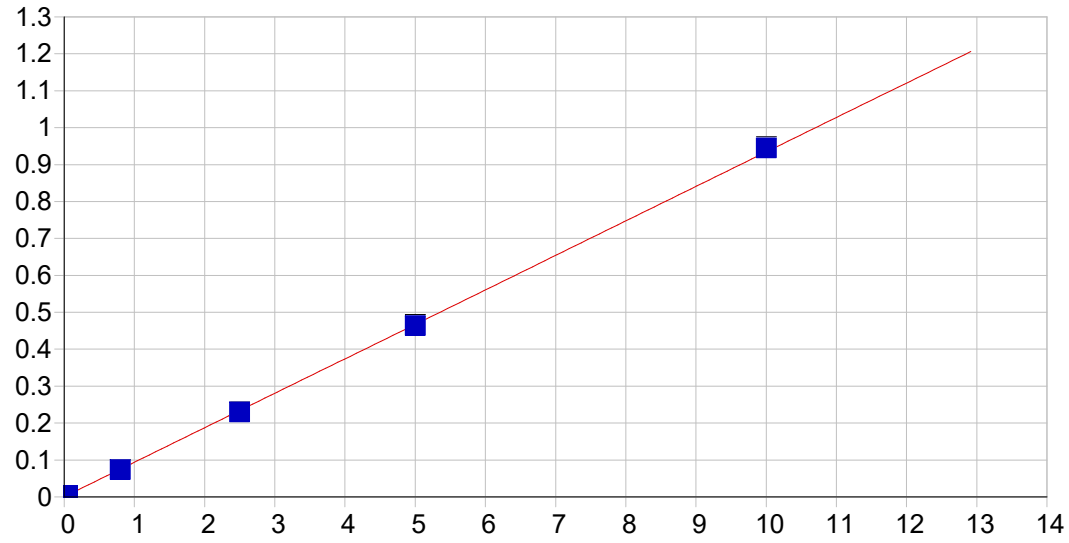


Se 196.090 {472}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000387	Re-Slope:	1.000000
A1 (Gain):	0.047529	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.002829		
Predicted MQL:	0.009431		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00039	.000	1
S1	.02000	.01897	-.001	-5.13	.00129	.000	1
S3	2.5000	2.4593	-.041	-1.63	.11724	.000	1
S4	5.0000	4.9638	-.036	-.724	.23625	.001	1
S5	10.000	10.100	.100	1.00	.48032	.001	1
S2	.80000	.77743	-.023	-2.82	.03733	.000	1

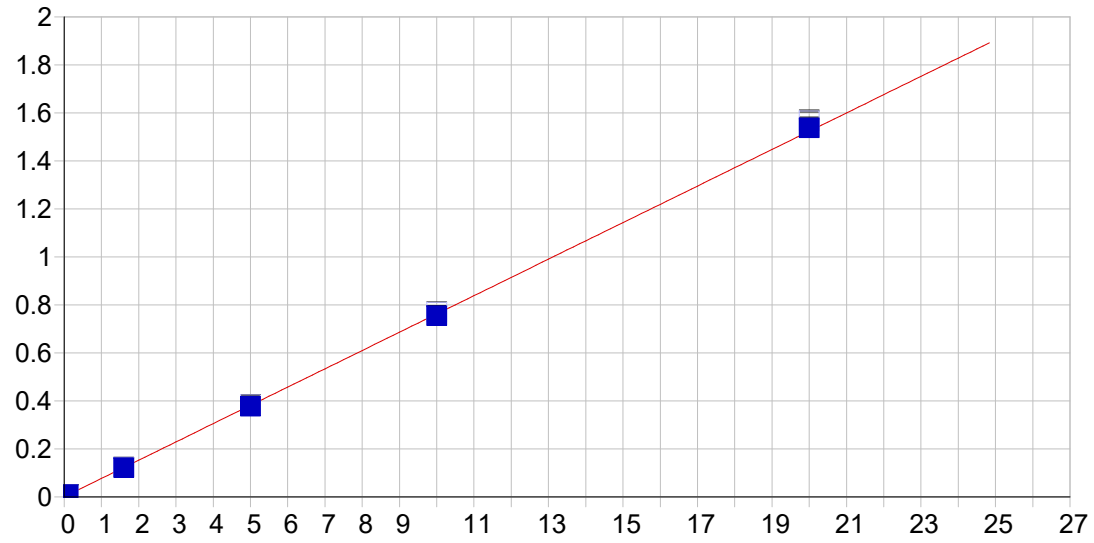


Sb 206.833 {463}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000579	Re-Slope:	1.000000
A1 (Gain):	0.093354	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999921	Status:	OK.
Std Error of Est:	0.000044		
Predicted MDL:	0.001810		
Predicted MQL:	0.006035		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00058	.000	1
S1	.05000	.04860	-.001	-2.80	.00513	.000	1
S3	2.5000	2.4546	-.045	-1.82	.23036	.001	1
S4	5.0000	4.9561	-.044	-.878	.46452	.003	1
S5	10.000	10.110	.110	1.10	.94694	.002	1
S2	.80000	.78061	-.019	-2.42	.07366	.000	1

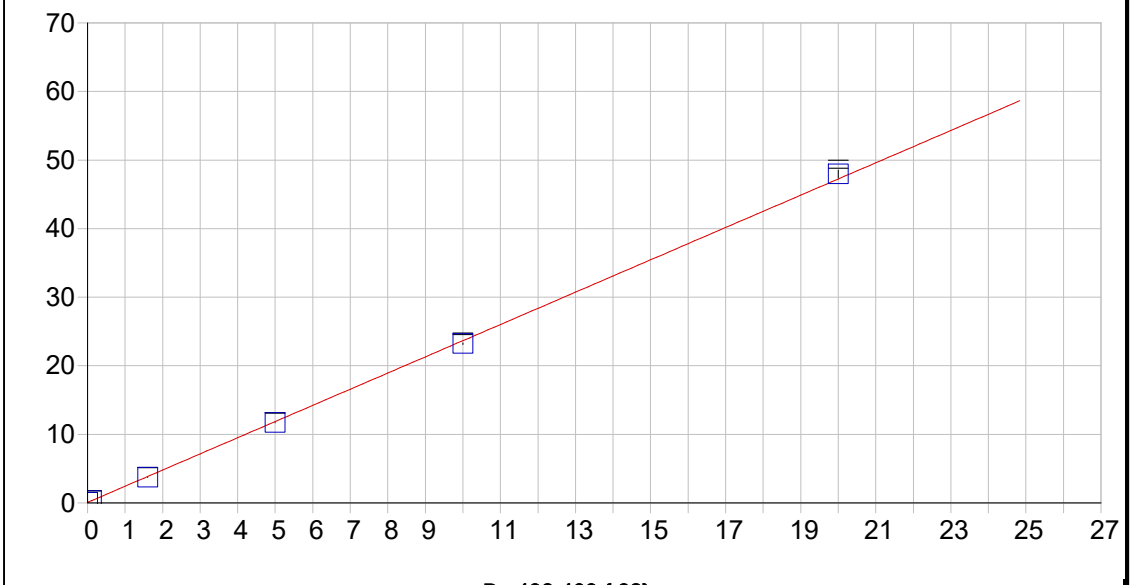


Al 396.152 { 85}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000814	Re-Slope:	1.000000
A1 (Gain):	0.076146	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999948	Status:	OK.
Std Error of Est:	0.000059		
Predicted MDL:	0.010345		
Predicted MQL:	0.034484		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00081	.000	1
S1	.10000	.10715	.007	7.15	.00956	.001	1
S3	5.0000	4.9397	-.060	-1.21	.38434	.001	1
S4	10.000	9.9013	-.099	-.987	.76953	.001	1
S5	20.000	20.173	.173	.864	1.5664	.004	1
S2	1.6000	1.5787	-.021	-1.33	.12339	.000	1

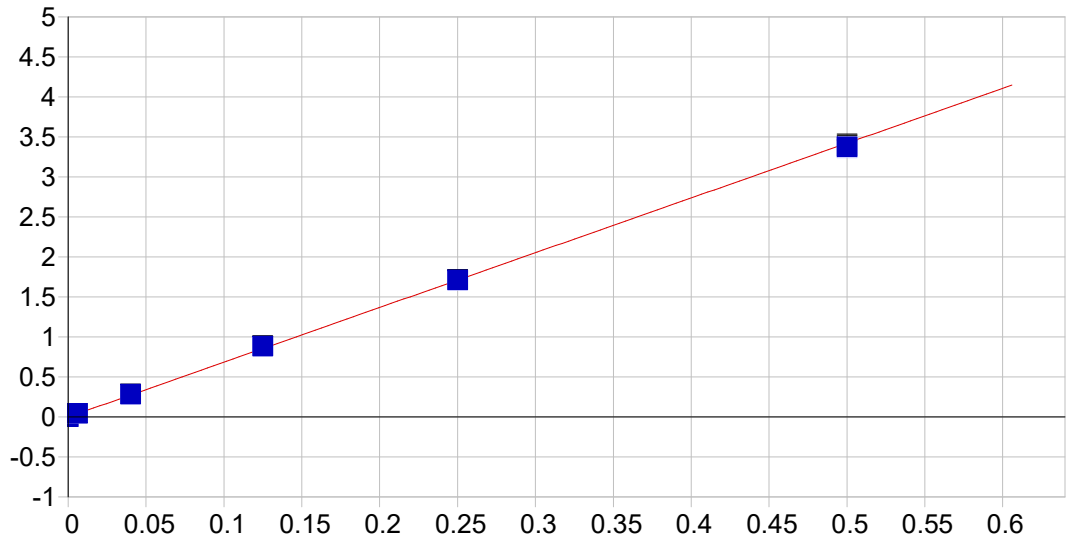


Ba 493.409 { 68}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.076911	Re-Slope:	1.000000
A1 (Gain):	2.358114	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999852	Status:	OK.
Std Error of Est:	0.003007		
Predicted MDL:	0.000957		
Predicted MQL:	0.003188		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.07693	.002	1
S1	.10000	.09803	-.002	-1.97	.30808	.002	1
S3	5.0000	4.9286	-.071	-1.43	11.699	.028	1
S4	10.000	9.8210	-.179	-1.79	23.236	.119	1
S5	20.000	20.307	.307	1.54	47.963	.583	1
S2	1.6000	1.5453	-.055	-3.42	3.7209	.017	1

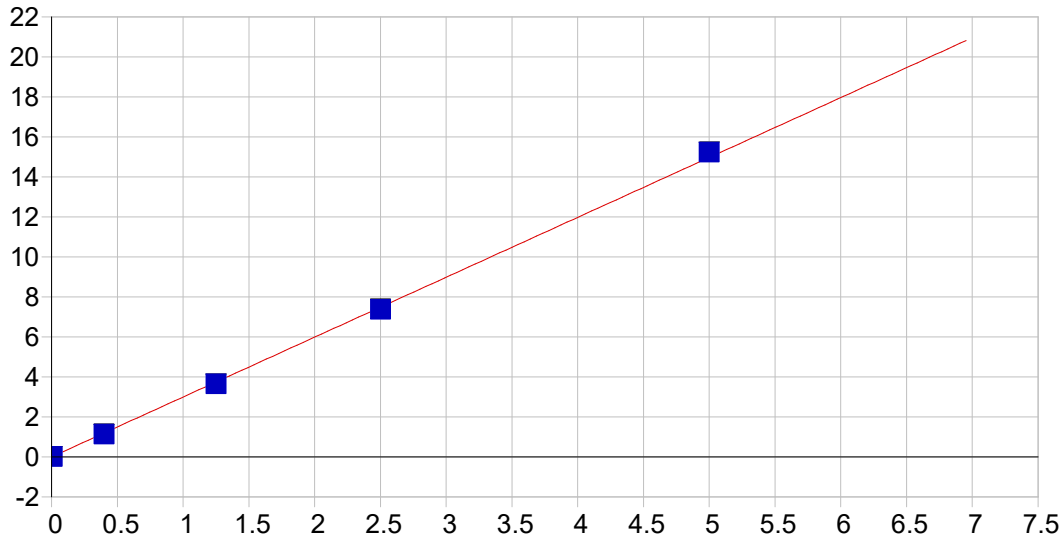


Be 234.861 {144}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001063	Re-Slope:	1.000000
A1 (Gain):	6.844405	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999827	Status:	OK.
Std Error of Est:	0.000365		
Predicted MDL:	0.000069		
Predicted MQL:	0.000229		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00107	.000	1
S1	.00600	.00642	.000	7.05	.04259	.000	1
S3	.12500	.12942	.004	3.54	.88093	.003	1
S4	.25000	.25024	.000	.098	1.7040	.006	1
S5	.50000	.49355	-.006	-1.29	3.3616	.035	1
S2	.04000	.04136	.001	3.41	.28081	.003	1

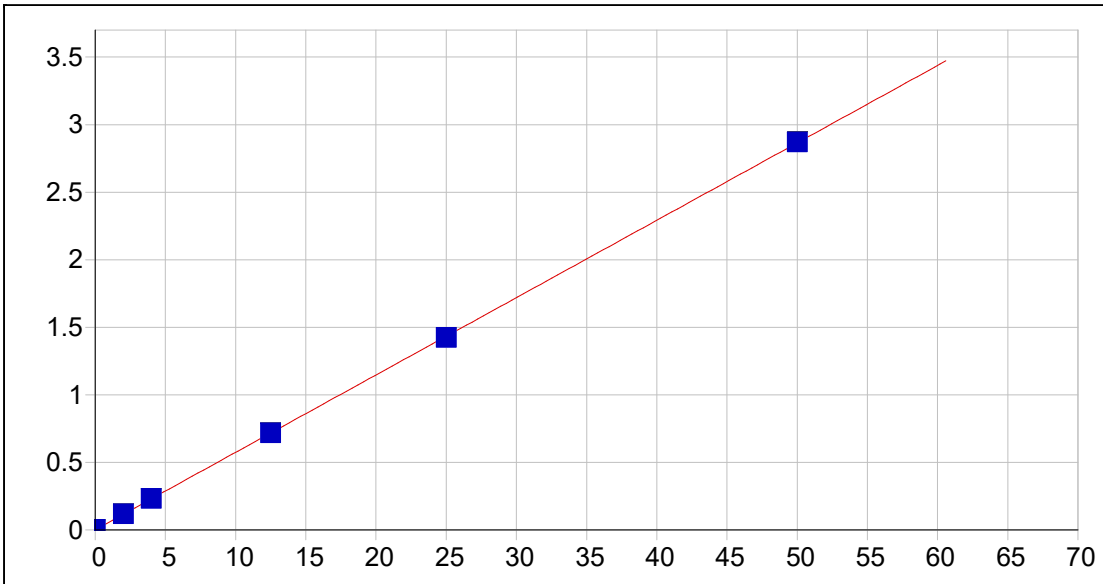


Cd 226.502 {449}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000443	Re-Slope:	1.000000
A1 (Gain):	2.994412	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999785	Status:	OK.
Std Error of Est:	0.000563		
Predicted MDL:	0.000070		
Predicted MQL:	0.000235		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00044	.000	1
S1	.00600	.00575	-.000	-4.19	.01683	.000	1
S3	1.2500	1.2161	-.034	-2.71	3.6437	.001	1
S4	2.5000	2.4642	-.036	-1.43	7.3832	.008	1
S5	5.0000	5.0890	.089	1.78	15.248	.014	1
S2	.40000	.38091	-.019	-4.77	1.1409	.001	1

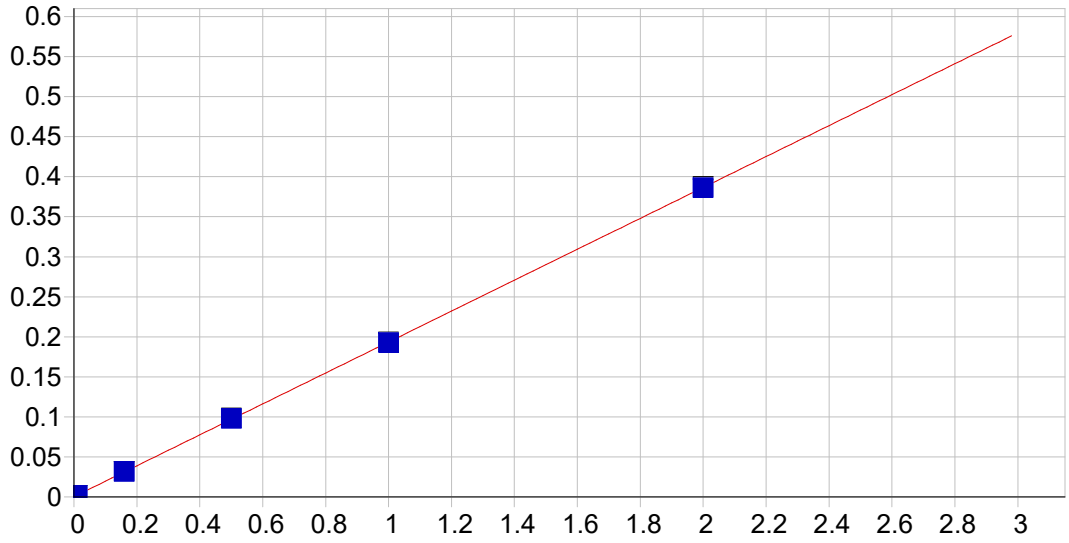


Ca 373.690 { 90}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001477	Re-Slope:	1.000000
A1 (Gain):	0.057266	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000176		
Predicted MDL:	0.010818		
Predicted MQL:	0.036060		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00005	-.000	.000	.00147	.001	1
S2	4.0000	4.0117	.012	.294	.23121	.001	1
S3	12.500	12.520	.020	.161	.71845	.003	1
S4	25.000	24.815	-.185	-.740	1.4225	.001	1
S5	50.000	50.098	.098	.195	2.8704	.005	1
S1	2.0000	2.0555	.056	2.78	.11919	.000	1

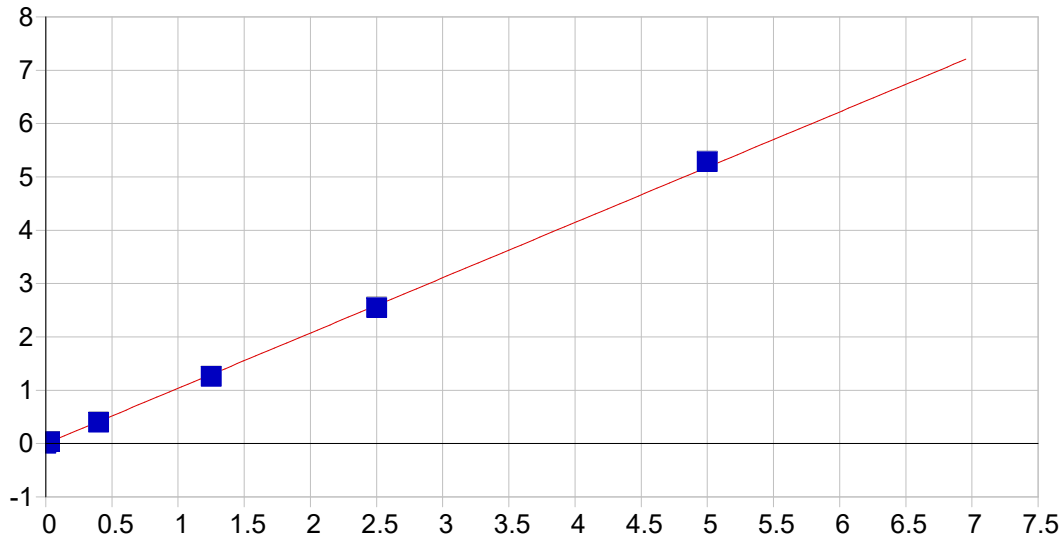


Cr 267.716 {126}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000278	Re-Slope:	1.000000
A1 (Gain):	0.193160	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.000328		
Predicted MQL:	0.001092		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00028	.000	1
S1	.01000	.00989	-.000	-1.10	.00219	.000	1
S3	.50000	.50562	.006	1.12	.09798	.000	1
S4	1.0000	.99574	-.004	-.426	.19269	.001	1
S5	2.0000	1.9966	-.003	-.168	.38611	.001	1
S2	.16000	.16211	.002	1.32	.03160	.000	1

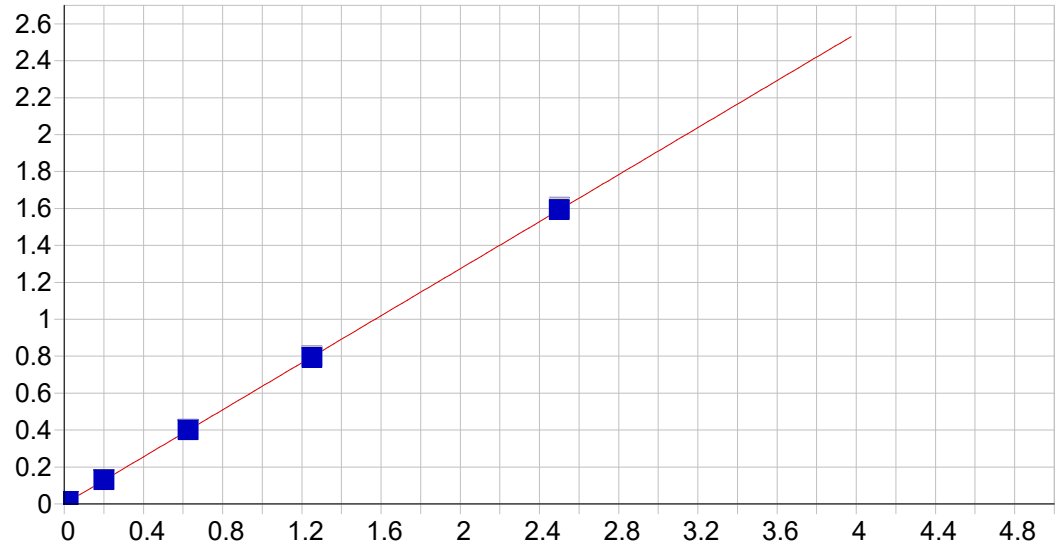


Co 228.616 {448}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000038	Re-Slope:	1.000000
A1 (Gain):	1.036336	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999759	Status:	OK.
Std Error of Est:	0.000463		
Predicted MDL:	0.000180		
Predicted MQL:	0.000599		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.03000	.02917	-.001	-2.76	.03014	.000	1
S3	1.2500	1.2134	-.037	-2.92	1.2598	.001	1
S4	2.5000	2.4571	-.043	-1.72	2.5508	.005	1
S5	5.0000	5.0973	.097	1.95	5.2914	.001	1
S2	.40000	.38294	-.017	-4.26	.39760	.001	1

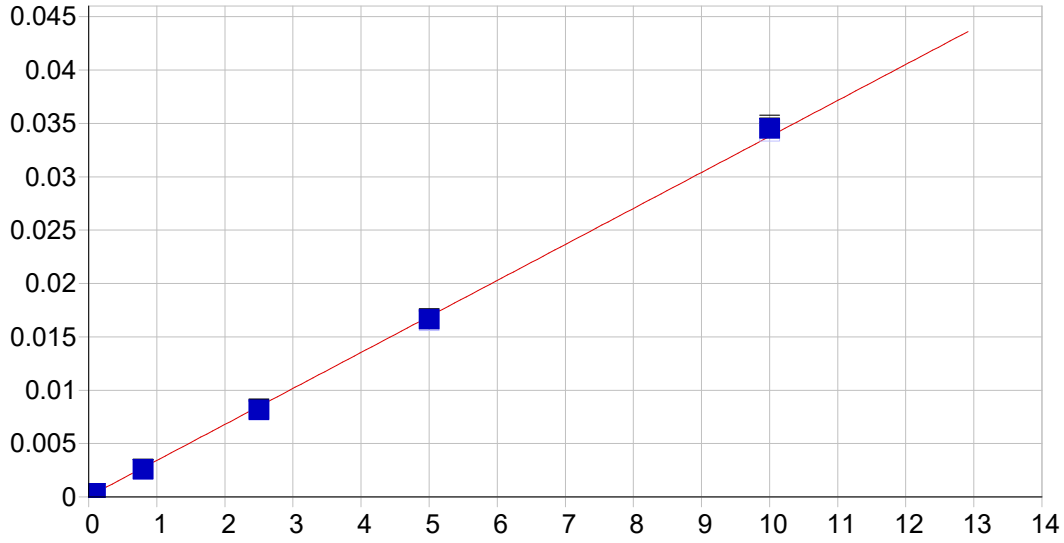


Cu 224.700 {450}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000506	Re-Slope:	1.000000
A1 (Gain):	0.636701	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.000401		
Predicted MQL:	0.001338		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00051	.000	1
S1	.02000	.02075	.001	3.75	.01386	.000	1
S3	.62500	.62844	.003	.550	.40395	.001	1
S4	1.2500	1.2433	-.007	-.539	.79873	.002	1
S5	2.5000	2.4997	-.000	-.012	1.6053	.001	1
S2	.20000	.20285	.003	1.42	.13072	.000	1

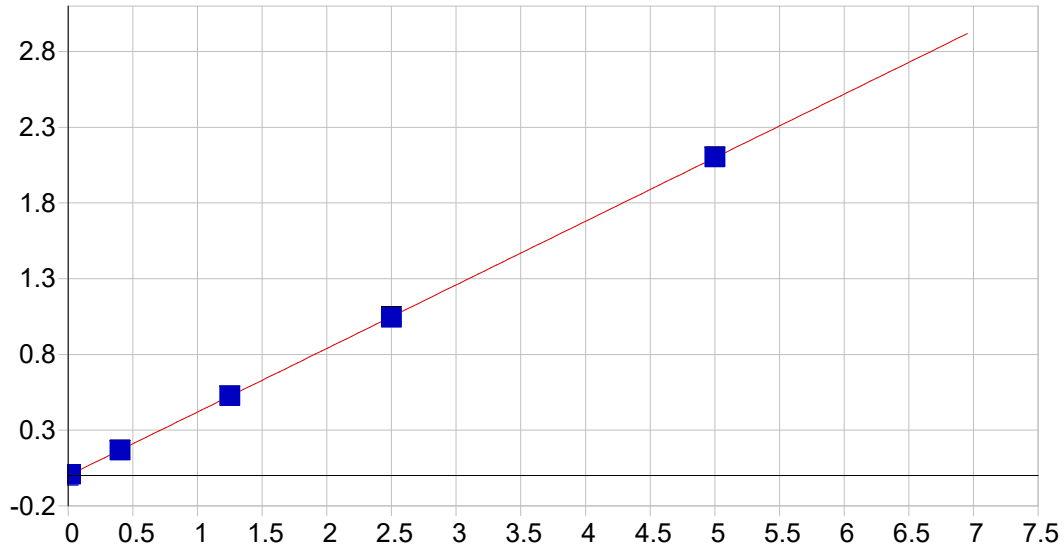


Fe 240.488 {140}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000041	Re-Slope:	1.000000
A1 (Gain):	0.003373	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999660	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.006072		
Predicted MQL:	0.020242		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00004	.000	1
S1	.10000	.09497	-.005	-5.03	.00036	.000	1
S3	2.5000	2.4086	-.091	-3.66	.00809	.000	1
S4	5.0000	4.9210	-.079	-1.58	.01650	.000	1
S5	10.000	10.221	.221	2.21	.03423	.000	1
S2	.80000	.75468	-.045	-5.67	.00256	.000	1

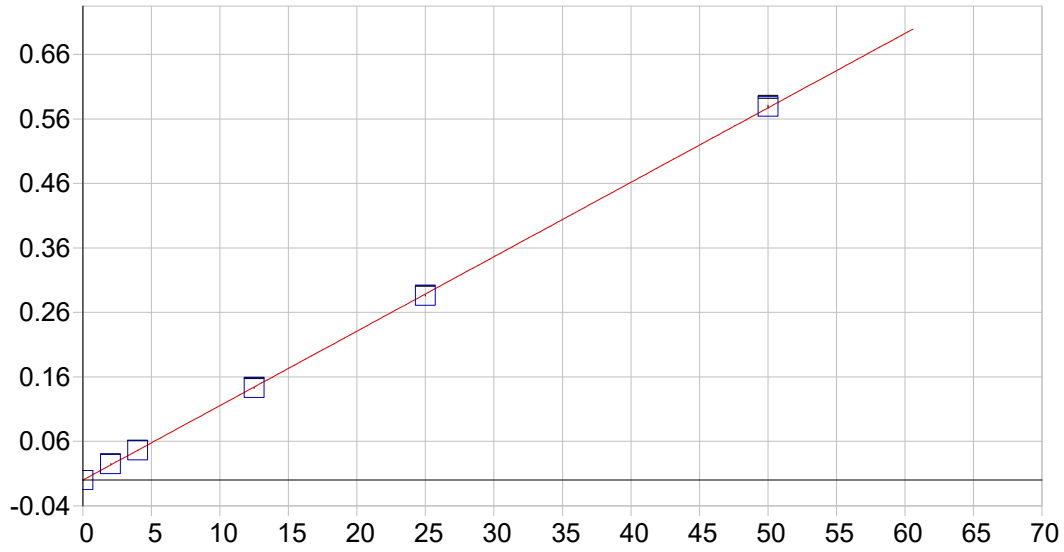


Mn 257.610 {131}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000165	Re-Slope:	1.000000
A1 (Gain):	0.419705	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.000552		
Predicted MQL:	0.001841		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.02000	.02185	.002	9.24	.00934	.000	1
S3	1.2500	1.2532	.003	.260	.52626	.001	1
S4	2.5000	2.4867	-.013	-.531	1.0441	.007	1
S5	5.0000	5.0083	.008	.167	2.1026	.002	1
S2	.40000	.39984	-.000	-.041	.16801	.001	1

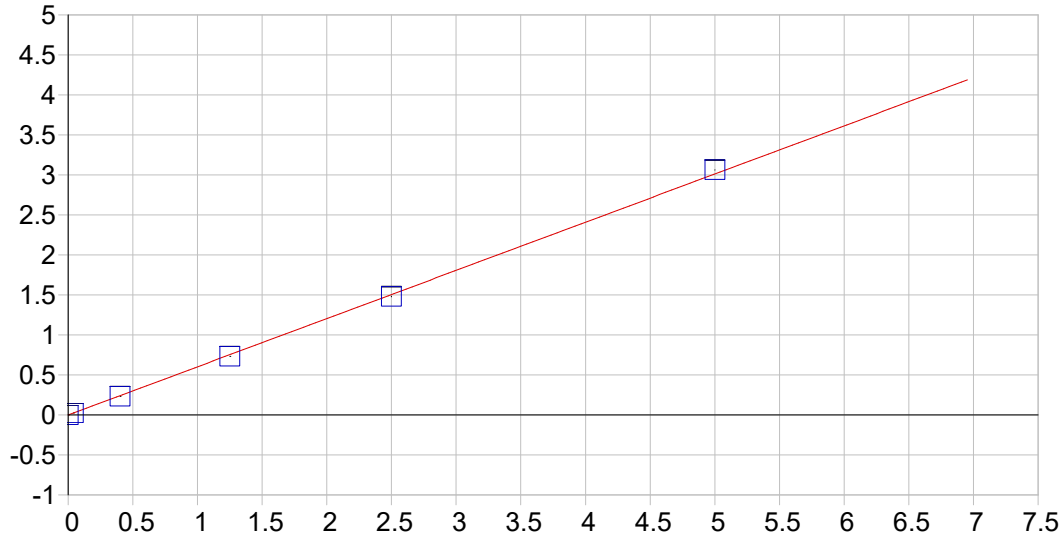


Mg 279.079 {121}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000093	Re-Slope:	1.000000
A1 (Gain):	0.011541	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000077		
Predicted MDL:	0.025707		
Predicted MQL:	0.085691		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.00009	.000	1
S2	4.0000	3.9973	-.003	-.067	.04623	.000	1
S3	12.500	12.395	-.105	-.844	.14314	.001	1
S4	25.000	24.791	-.209	-.835	.28621	.001	1
S5	50.000	50.163	.163	.327	.57904	.002	1
S1	2.0000	2.1534	.153	7.67	.02495	.000	1

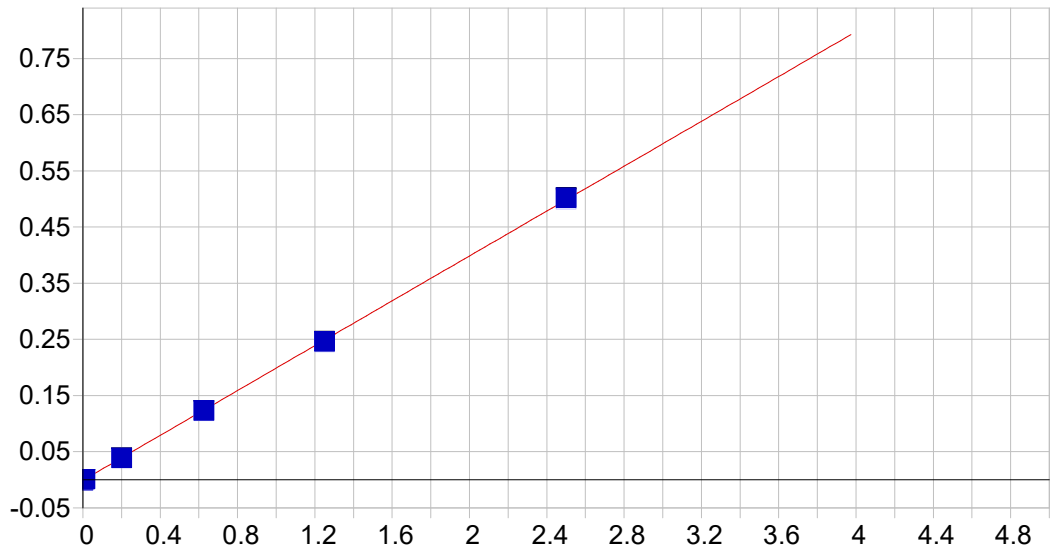


Ni 231.604 {446}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000497	Re-Slope:	1.000000
A1 (Gain):	0.602308	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999812	Status:	OK.
Std Error of Est:	0.000274		
Predicted MDL:	0.000330		
Predicted MQL:	0.001099		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00049	.000	1
S1	.04000	.03934	-.001	-1.66	.02320	.000	1
S3	1.2500	1.2186	-.031	-2.51	.73348	.000	1
S4	2.5000	2.4597	-.040	-1.61	1.4810	.003	1
S5	5.0000	5.0866	.087	1.73	3.0632	.002	1
S2	.40000	.38572	-.014	-3.57	.23182	.000	1

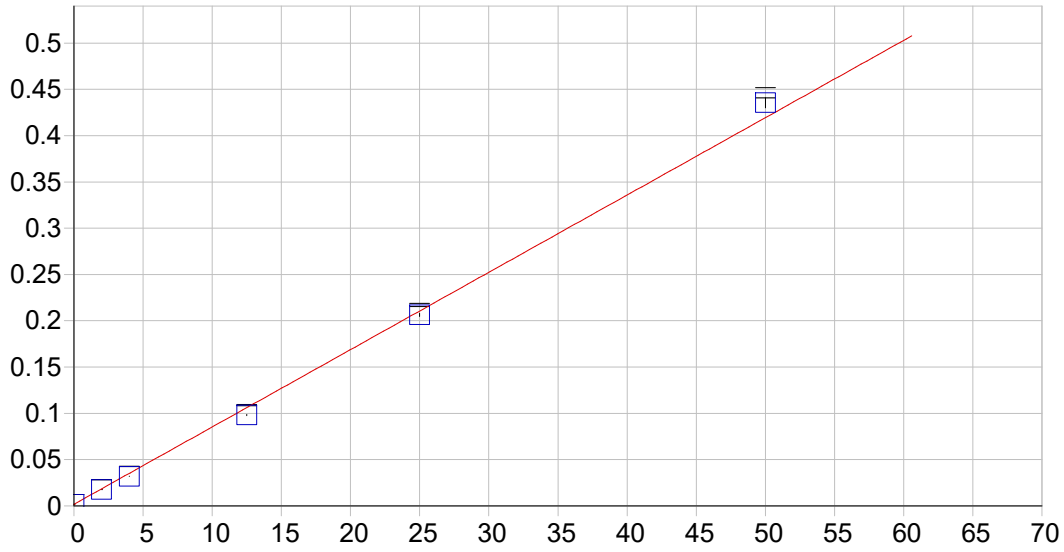


Ag 328.068 {103}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000760	Re-Slope:	1.000000
A1 (Gain):	0.199696	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.000500		
Predicted MQL:	0.001667		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00076	.000	1
S1	.01000	.01007	.000	.690	.00123	.000	1
S3	.62500	.62077	-.004	-.677	.12260	.000	1
S4	1.2500	1.2371	-.013	-1.03	.24507	.000	1
S5	2.5000	2.5173	.017	.691	.49951	.001	1
S2	.20000	.19981	-.000	-.094	.03895	.000	1

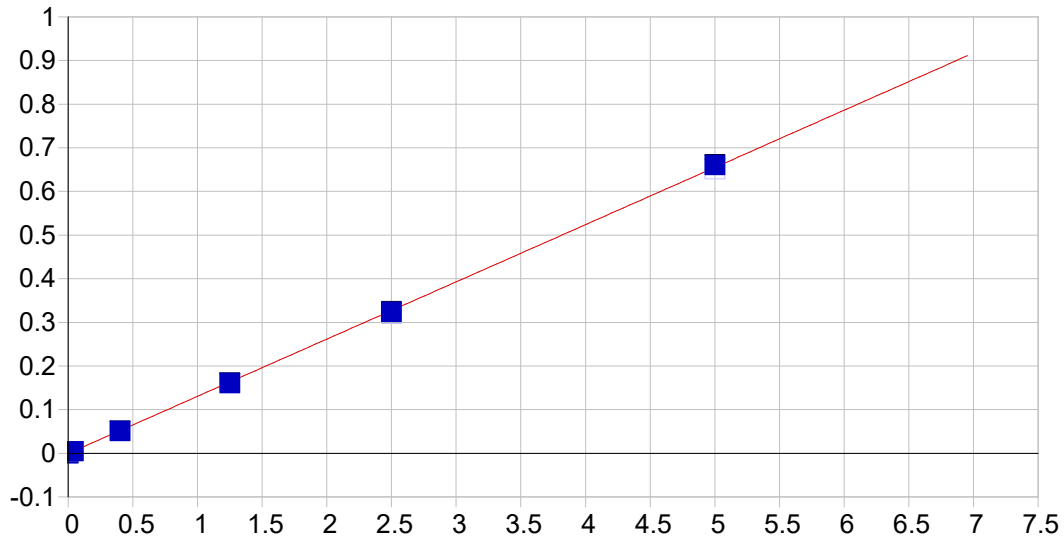


Na 589.592 { 57}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001771	Re-Slope:	1.000000
A1 (Gain):	0.008353	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998919	Status:	OK.
Std Error of Est:	0.000206		
Predicted MDL:	0.016728		
Predicted MQL:	0.055760		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00042	.000	.000	.00177	.000	1
S2	4.0000	3.6159	-.384	-9.60	.03197	.000	1
S3	12.500	11.543	-.957	-7.66	.09818	.001	1
S4	25.000	24.502	-.498	-1.99	.20642	.002	1
S5	50.000	51.950	1.95	3.90	.43569	.005	1
S1	2.0000	1.8892	-.111	-5.54	.01755	.000	1

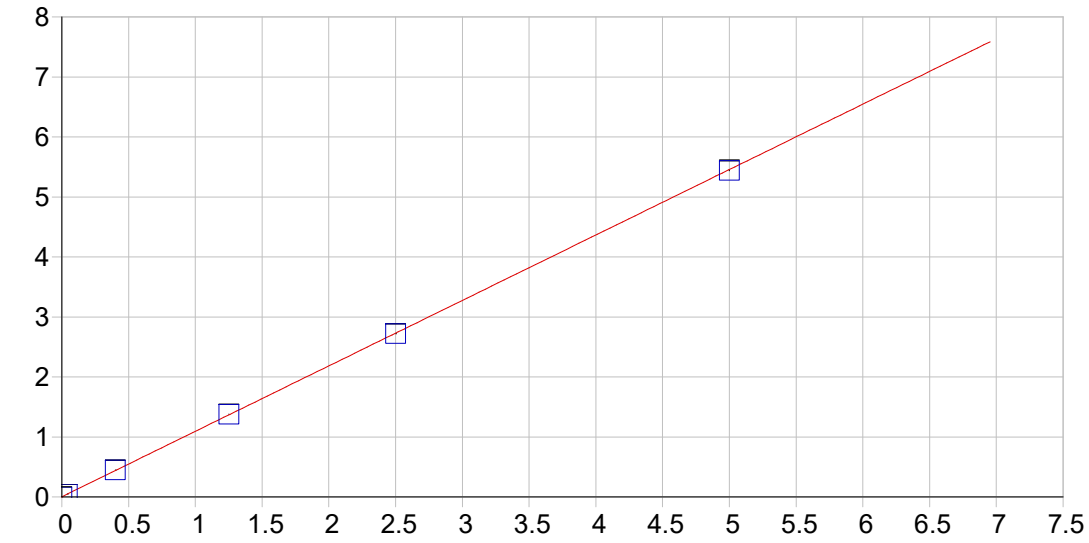


V 292.402 {115}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000567	Re-Slope:	1.000000
A1 (Gain):	0.131121	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.002671		
Predicted MQL:	0.008904		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00057	.000	1
S1	.04000	.04344	.003	8.61	.00493	.000	1
S3	1.2500	1.2334	-.017	-1.33	.15877	.000	1
S4	2.5000	2.4758	-.024	-.966	.31929	.001	1
S5	5.0000	5.0441	.044	.883	.65127	.001	1
S2	.40000	.39326	-.007	-1.69	.05023	.000	1

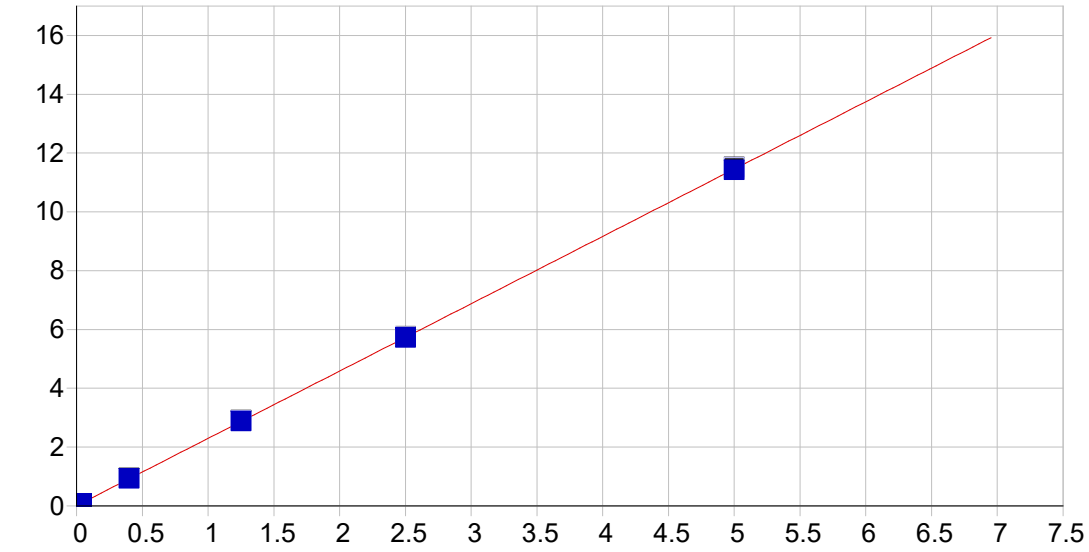


Zn 206.200 {464}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002551	Re-Slope:	1.000000
A1 (Gain):	1.090652	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000156		
Predicted MDL:	0.000141		
Predicted MQL:	0.000470		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00255	.000	1
S1	.04000	.04079	.001	1.99	.04704	.000	1
S3	1.2500	1.2613	.011	.906	1.3782	.001	1
S4	2.5000	2.4918	-.008	-.328	2.7202	.001	1
S5	5.0000	4.9879	-.012	-.242	5.4426	.007	1
S2	.40000	.40821	.008	2.05	.44777	.000	1

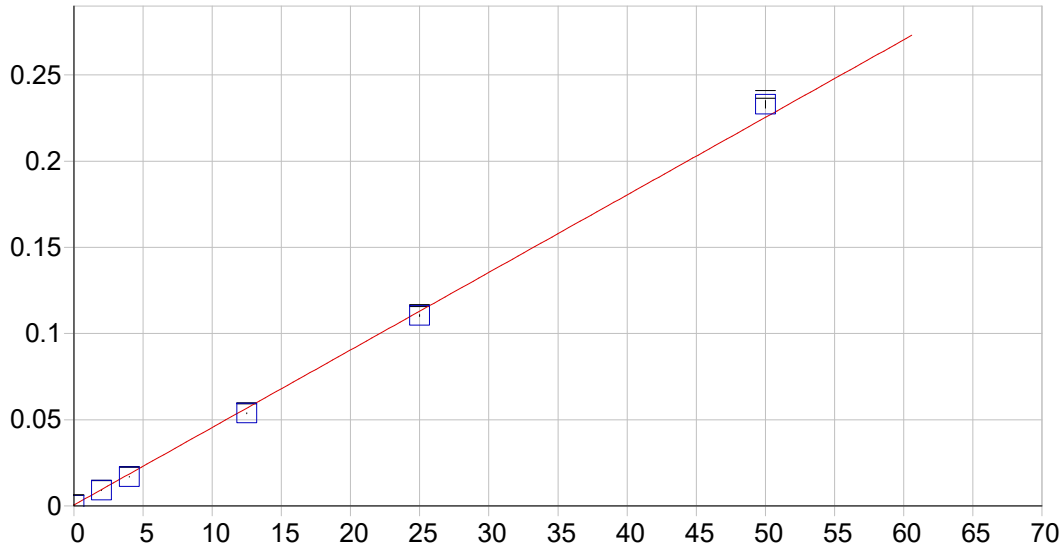


Zn 213.856 {158}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006729	Re-Slope:	1.000000
A1 (Gain):	2.289723	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000221		
Predicted MDL:	0.000238		
Predicted MQL:	0.000793		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00673	.000	1
S1	.04000	.04074	.001	1.85	.10065	.001	1
S3	1.2500	1.2584	.008	.673	2.9081	.011	1
S4	2.5000	2.4959	-.004	-.164	5.7615	.011	1
S5	5.0000	4.9901	-.010	-.198	11.512	.018	1
S2	.40000	.40485	.005	1.21	.94010	.003	1

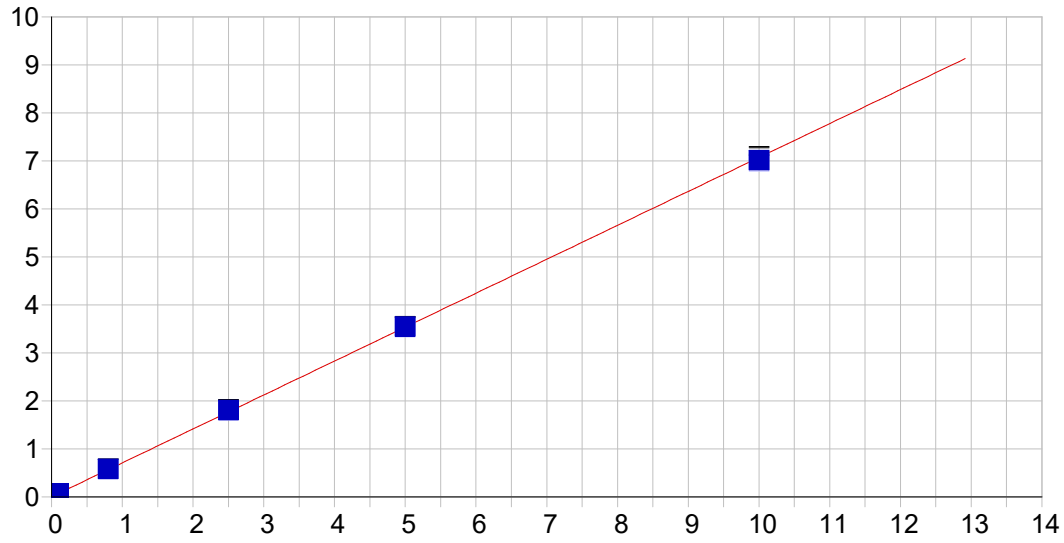


K 766.490 { 44}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000534	Re-Slope:	1.000000
A1 (Gain):	0.004498	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999234	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	0.037470		
Predicted MQL:	0.124899		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00037	.000	.000	.00054	.000	1
S2	4.0000	3.6367	-.363	-9.08	.01689	.000	1
S3	12.500	11.835	-.665	-5.32	.05376	.000	1
S4	25.000	24.440	-.560	-2.24	.11045	.001	1
S5	50.000	51.691	1.69	3.38	.23302	.002	1
S1	2.0000	1.8976	-.102	-5.12	.00907	.000	1

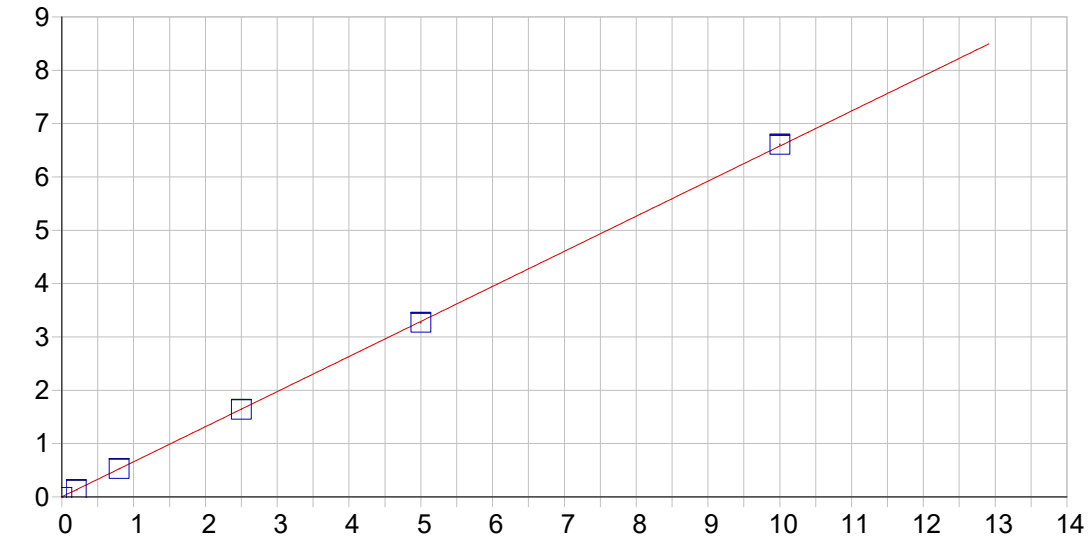


B 249.678 {135}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002531	Re-Slope:	1.000000
A1 (Gain):	0.706876	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000414		
Predicted MDL:	0.000716		
Predicted MQL:	0.002386		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00253	.000	1
S1	.10000	.10218	.002	2.18	.07434	.000	1
S3	2.5000	2.5549	.055	2.20	1.8021	.010	1
S4	5.0000	5.0111	.011	.221	3.5320	.006	1
S5	10.000	9.9161	-.084	-.839	6.9865	.081	1
S2	.80000	.81580	.016	1.97	.57716	.006	1

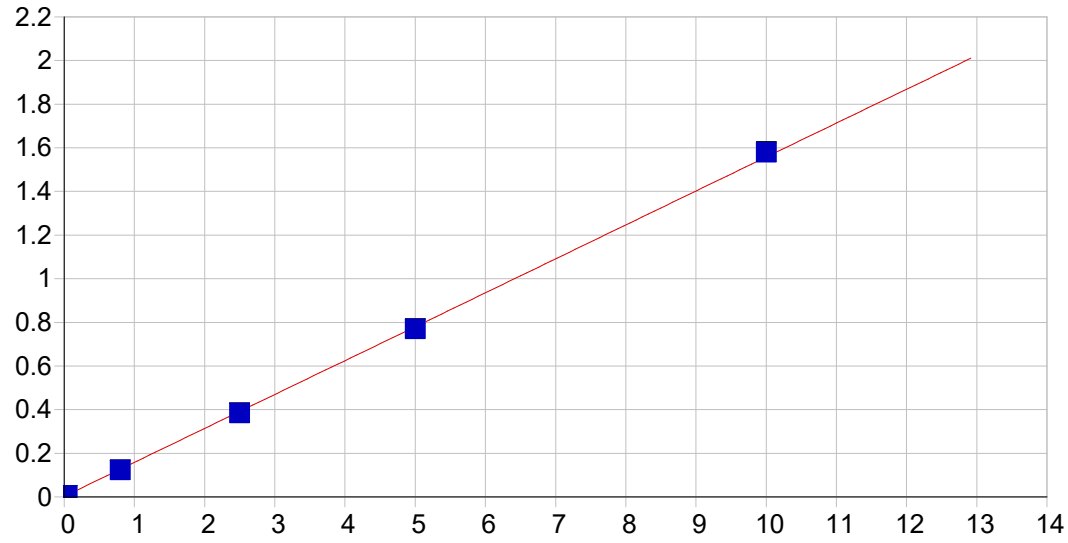


Mo 202.030 {467}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000553	Re-Slope:	1.000000
A1 (Gain):	0.657844	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000238		
Predicted MDL:	0.000246		
Predicted MQL:	0.000821		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00055	.000	1
S1	.20000	.20271	.003	1.35	.13390	.000	1
S3	2.5000	2.4911	-.009	-.356	1.6393	.002	1
S4	5.0000	4.9672	-.033	-.656	3.2682	.010	1
S5	10.000	10.039	.039	.392	6.6048	.013	1
S2	.80000	.79977	-.000	-.028	.52668	.000	1

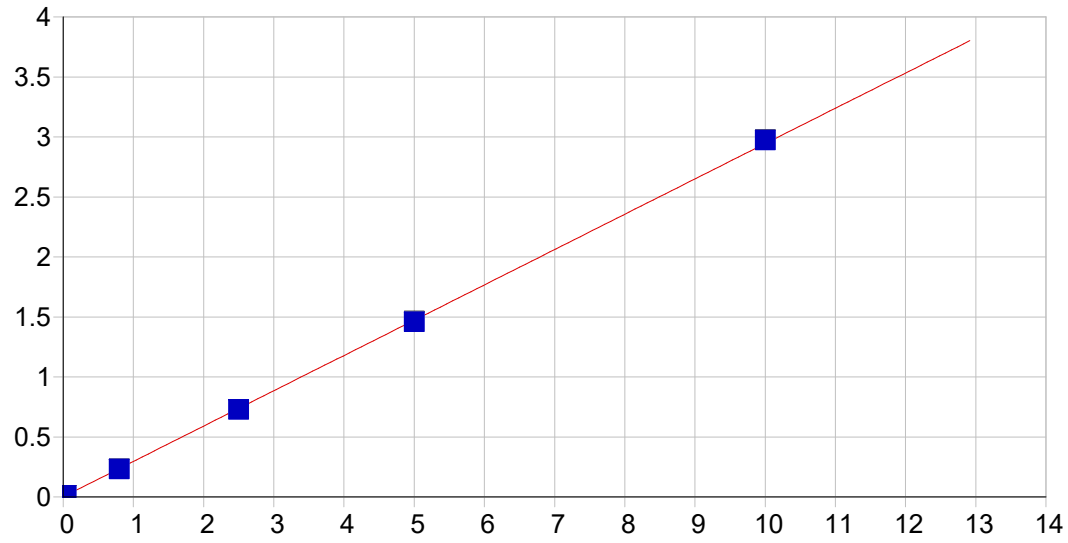


Sn 189.989 {478}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002779	Re-Slope:	1.000000
A1 (Gain):	0.155472	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.000580		
Predicted MQL:	0.001935		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00278	.000	1
S1	.04000	.03566	-.004	-10.9	.00832	.000	1
S3	2.5000	2.4574	-.043	-1.71	.38443	.000	1
S4	5.0000	4.9328	-.067	-1.34	.76889	.001	1
S5	10.000	10.141	.141	1.41	1.5778	.003	1
S2	.80000	.77358	-.026	-3.30	.12292	.000	1

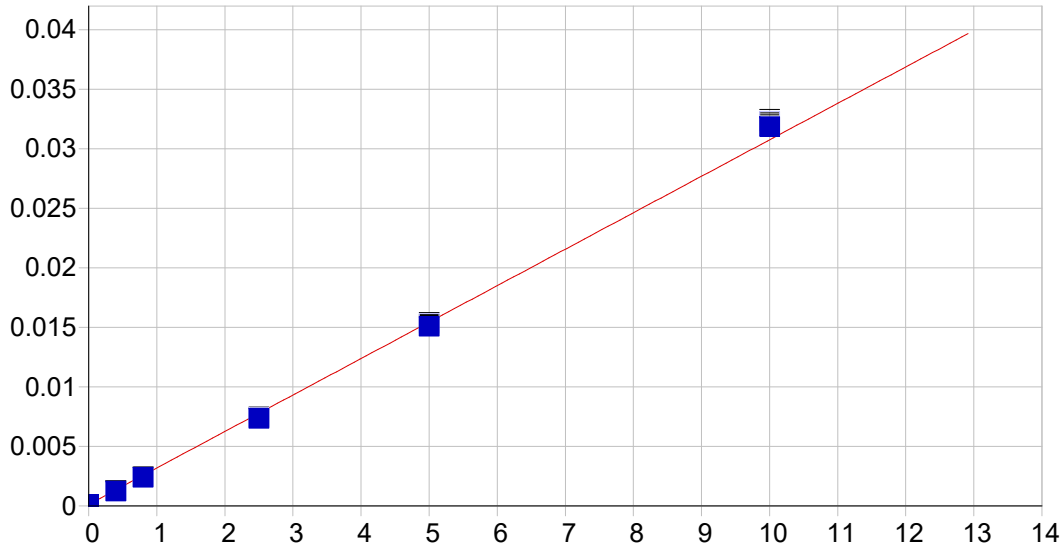


Ti 336.121 {100}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001423	Re-Slope:	1.000000
A1 (Gain):	0.294263	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999932	Status:	OK.
Std Error of Est:	0.000114		
Predicted MDL:	0.001529		
Predicted MQL:	0.005097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00142	.000	1
S1	.04000	.03790	-.002	-5.25	.01257	.000	1
S3	2.5000	2.4673	-.033	-1.31	.72718	.000	1
S4	5.0000	4.9501	-.050	-.998	1.4575	.005	1
S5	10.000	10.103	.103	1.03	2.9732	.000	1
S2	.80000	.78202	-.018	-2.25	.23146	.001	1

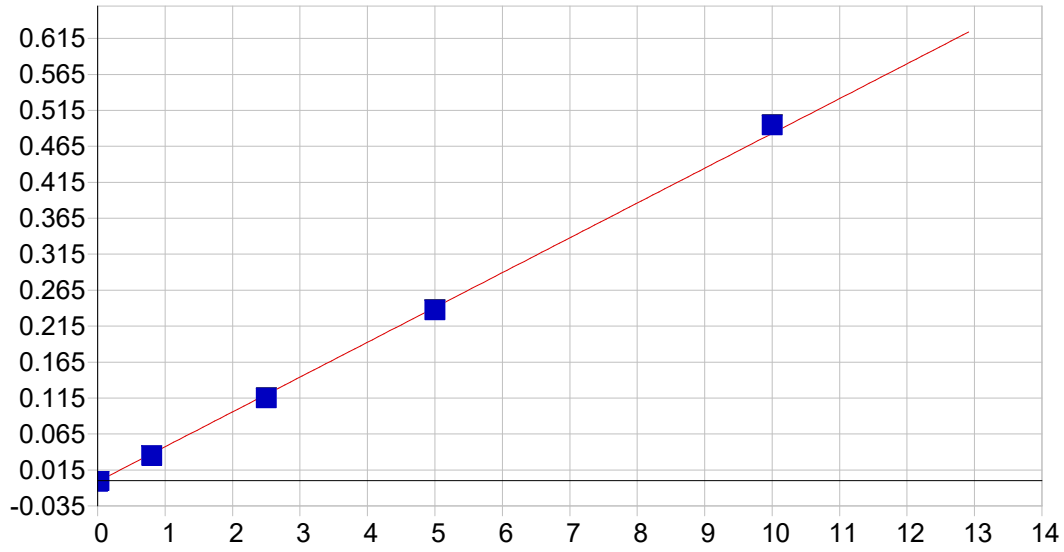


Si 288.158 {117}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000127	Re-Slope:	1.000000
A1 (Gain):	0.003063	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999136	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.011970		
Predicted MQL:	0.039900		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	.00013	.000	1
S1	.40000	.35894	-.041	-10.3	.00123	.000	1
S3	2.5000	2.3532	-.147	-5.87	.00745	.000	1
S4	5.0000	4.8858	-.114	-2.28	.01532	.000	1
S5	10.000	10.363	.363	3.63	.03233	.000	1
S2	.80000	.73882	-.061	-7.65	.00243	.000	1

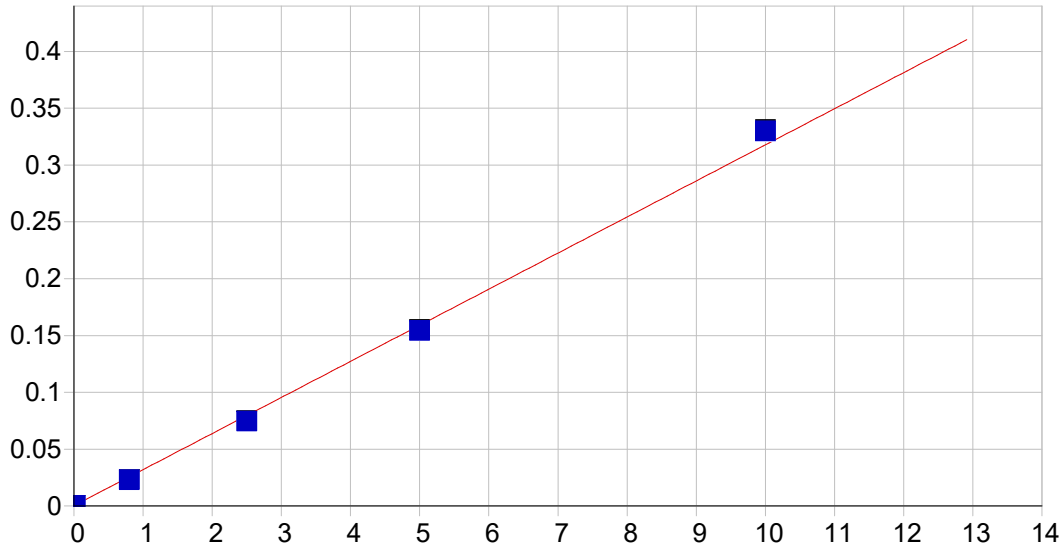


P 177.495 {490}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001117	Re-Slope:	1.000000
A1 (Gain):	0.048404	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999565	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.001558		
Predicted MQL:	0.005193		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00112	.000	1
S1	.02000	.01654	-.003	-17.3	-.00032	.000	1
S3	2.5000	2.3954	-.105	-4.19	.11481	.000	1
S4	5.0000	4.9292	-.071	-1.42	.23744	.001	1
S5	10.000	10.238	.238	2.38	.49435	.001	1
S2	.80000	.74122	-.059	-7.35	.03475	.000	1

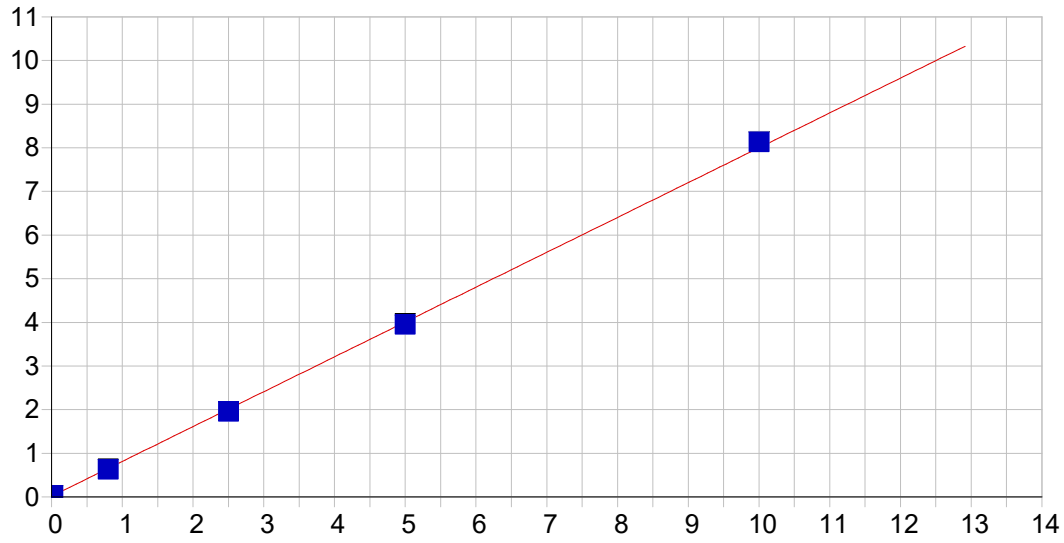


S 182.034 {485}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000180	Re-Slope:	1.000000
A1 (Gain):	0.031767	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998977	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.002598		
Predicted MQL:	0.008659		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00018	.000	1
S1	.02000	.01932	-.001	-3.41	.00077	.000	1
S3	2.5000	2.3411	-.159	-6.36	.07434	.000	1
S4	5.0000	4.8578	-.142	-2.84	.15409	.001	1
S5	10.000	10.384	.384	3.84	.32922	.001	1
S2	.80000	.71790	-.082	-10.3	.02292	.000	1

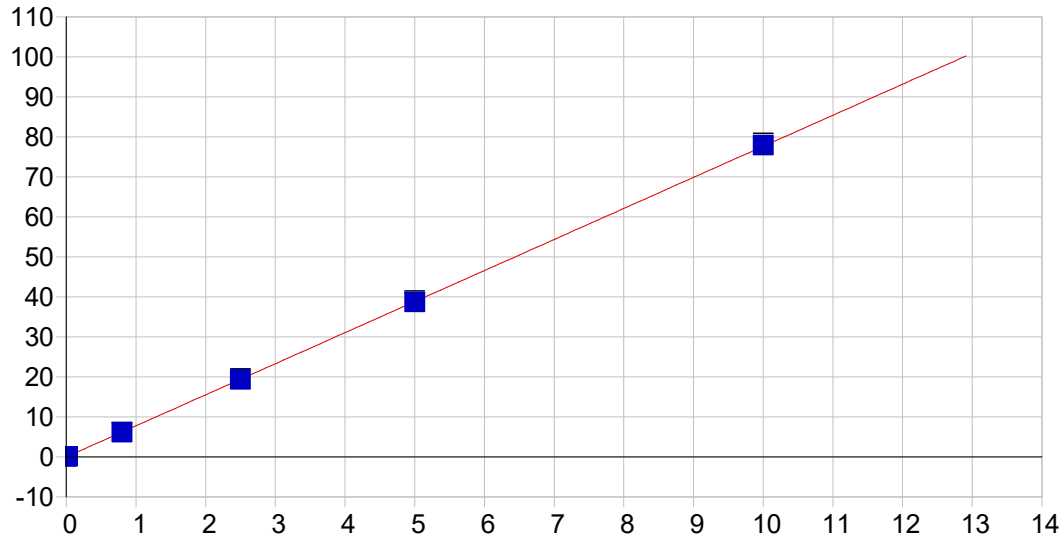


Li 670.784 { 50}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.015049	Re-Slope:	1.000000
A1 (Gain):	0.798600	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000375		
Predicted MDL:	0.001808		
Predicted MQL:	0.006028		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.01505	.001	1
S5	10.000	10.168	.168	1.68	8.1417	.004	1
S4	5.0000	4.9299	-.070	-1.40	3.9553	.019	1
S3	2.5000	2.4328	-.067	-2.69	1.9595	.001	1
S1	.02000	.01587	-.004	-20.6	.02800	.001	1
S2	.80000	.77343	-.027	-3.32	.63322	.003	1

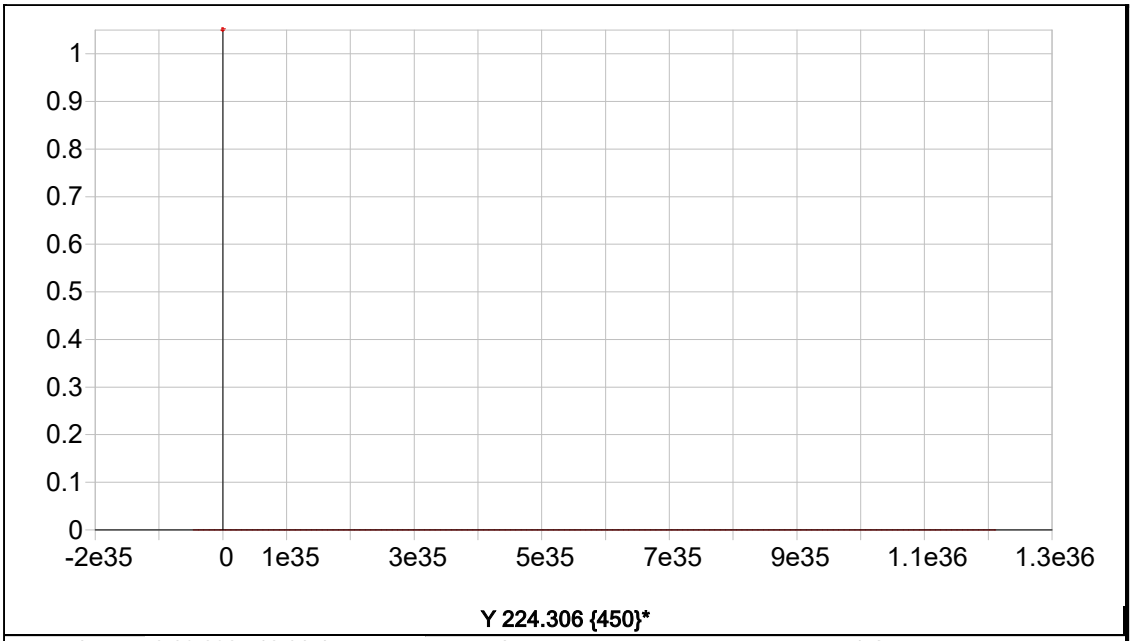


Sr 407.771 { 83}

Date of Fit:	8/20/2025 13:04:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000116	Re-Slope:	1.000000
A1 (Gain):	7.764139	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000771		
Predicted MDL:	0.000098		
Predicted MQL:	0.000327		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00011	.000	1
S1	.02000	.01979	-.000	-1.07	.15424	.001	1
S3	2.5000	2.4935	-.007	-.261	19.378	.176	1
S4	5.0000	4.9855	-.014	-.289	38.745	.255	1
S5	10.000	10.033	.033	.326	77.969	.484	1
S2	.80000	.78864	-.011	-1.42	6.1289	.024	1

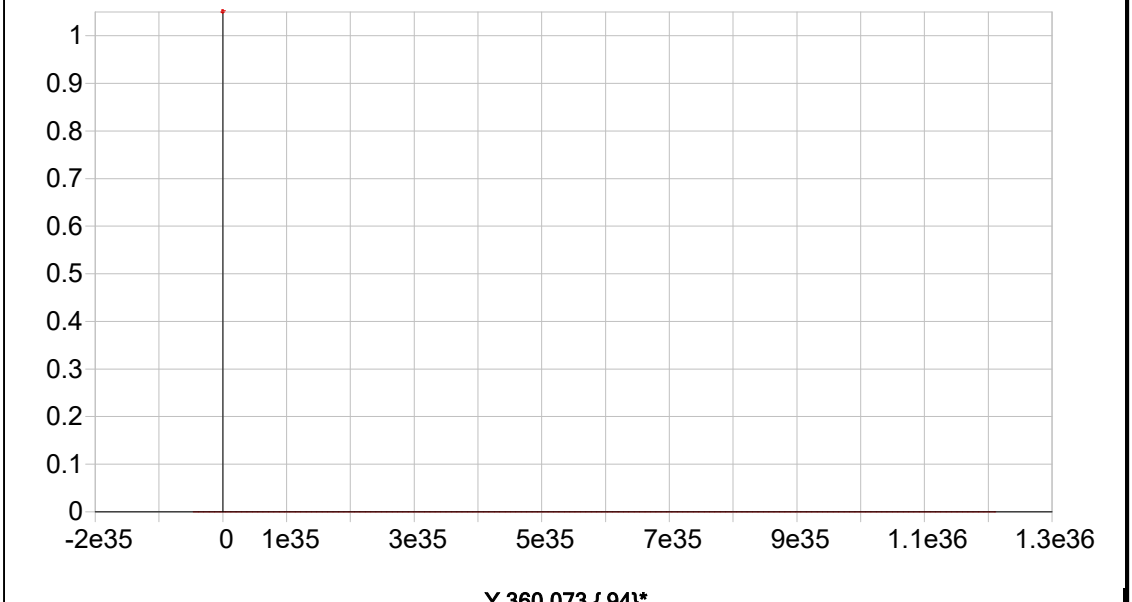


Y 224.306 {450}*

Date of Fit:	8/20/2025 12:36:45	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



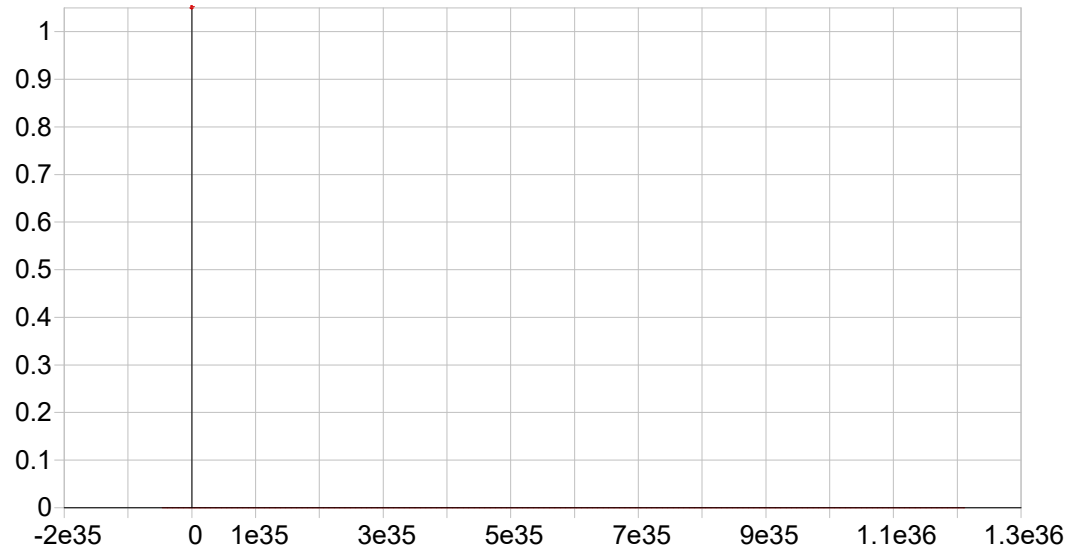
Y 360.073 { 94}*

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

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					

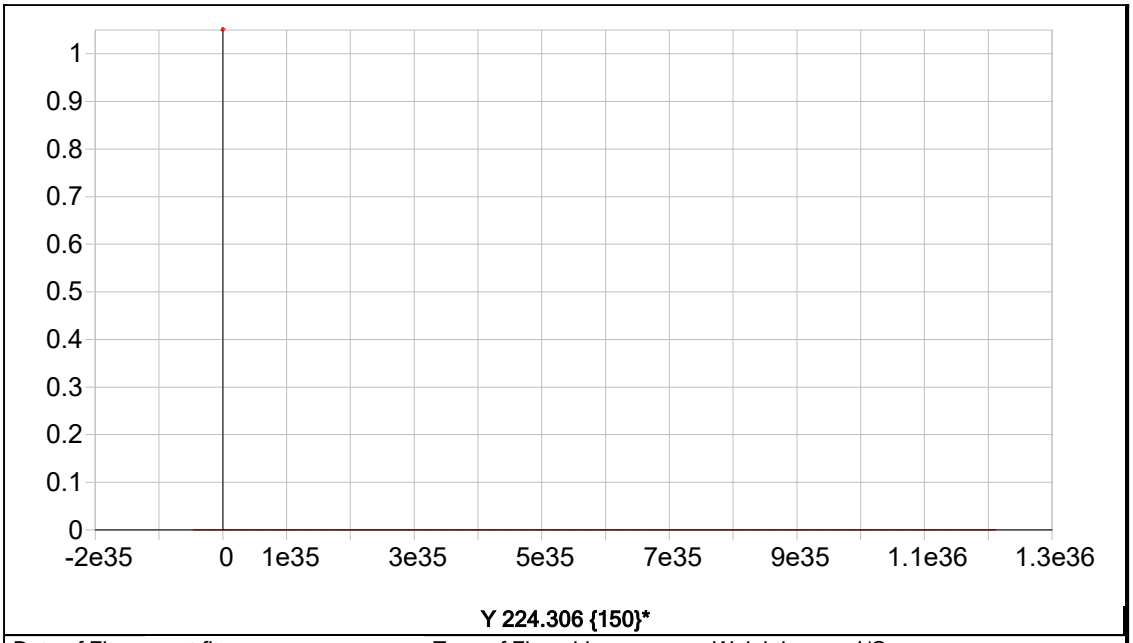
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

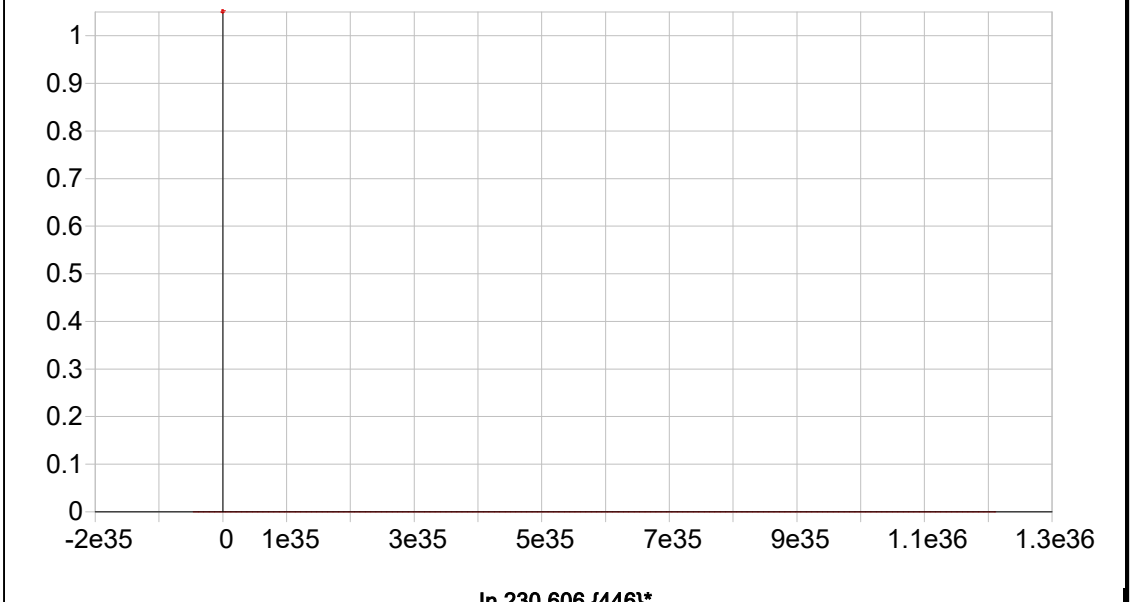


Y 224.306 {150}*

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

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**

Sample Name: S0 Acquired: 8/20/2025 12:38:48 Type: Cal
Method: 6010-200.7 NEW(v122) 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	**-.00013**	**.00040**	**.00002**	**.00039**	**.00058**	**.00081**	**.07693**	**-.00107**
Stddev	.00008	.00001	.00007	.00006	.00010	.00015	.00168	.00010
%RSD	60.388	2.2998	311.73	15.475	17.431	18.474	2.1875	9.5596
#1	-.00005	.00041	.00003	.00032	.00070	.00067	.07816	-.00115
#2	-.00014	.00041	.00009	.00043	.00053	.00097	.07501	-.00096
#3	-.00020	.00039	-.00005	.00042	.00051	.00081	.07761	-.00110

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	**-.00044**	**.00147**	**.00028**	**.00004**	**.00051**	**.00004**	**.00016**	**.00009**
Stddev	.00016	.00055	.00004	.00022	.00013	.00003	.00022	.00014
%RSD	36.062	37.213	14.390	538.51	26.640	70.542	131.87	147.08
#1	-.00062	.00087	.00028	-.00021	.00035	.00007	.00041	.00024
#2	-.00036	.00161	.00024	.00015	.00060	.00001	.00001	-.00003
#3	-.00034	.00194	.00032	.00019	.00056	.00005	.00007	.00007

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	**-.00049**	**-.00076**	**.00177**	**-.00057**	**.00673**	**.00054**	**.00253**	**.00055**
Stddev	.00015	.00008	.00007	.00013	.00018	.00019	.00008	.00008
%RSD	31.085	10.266	4.0198	23.332	2.7392	34.950	3.1769	14.516
#1	-.00033	-.00085	.00185	-.00052	.00653	.00060	.00244	.00057
#2	-.00063	-.00070	.00172	-.00072	.00689	.00032	.00255	.00062
#3	-.00053	-.00073	.00175	-.00046	.00676	.00068	.00259	.00046

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	**.00278**	**.00142**	**.00013**	**-.00112**	**.00018**	**.01505**	**-.00011**
Stddev	.00013	.00047	.00002	.00008	.00010	.00052	.00025
%RSD	4.8420	32.875	14.234	7.1108	57.111	3.4843	224.70
#1	.00271	.00127	.00011	-.00114	.00024	.01564	-.00012
#2	.00269	.00105	.00014	-.00118	.00024	.01464	-.00036
#3	.00294	.00195	.00013	-.00103	.00006	.01487	.00014

Sample Name: S0 Acquired: 8/20/2025 12:38:48 Type: Cal
Method: 6010-200.7 NEW(v122) 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	6256.0	107060.	10471.	4891.9	7868.1
Stddev	11.4	156.	38.	2.7	2.0
%RSD	.18205	.14572	.36071	.05620	.02491
#1	6258.4	107010.	10460.	4890.6	7870.2
#2	6265.9	106930.	10440.	4890.1	7866.4
#3	6243.5	107240.	10513.	4895.1	7867.8

Sample Name: S1 Acquired: 8/20/2025 12:43:11 Type: Cal
Method: 6010-200.7 NEW(v122) 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	**.00094**	**.00408**	**.00226**	**.00129**	**.00513**	**.00956**	**.30808**	**.04259**
Stddev	.00000	.00005	.00010	.00009	.00005	.00068	.00204	.00032
%RSD	.39114	1.2908	4.5381	6.7381	1.0657	7.1080	.66320	.75609
#1	.00094	.00405	.00232	.00121	.00514	.01012	.30594	.04294
#2	.00094	.00406	.00231	.00138	.00507	.00881	.30830	.04230
#3	.00095	.00414	.00214	.00128	.00517	.00976	.31001	.04255

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	**.01683**	**.11919**	**.00219**	**.03014**	**.01386**	**.00036**	**.00934**	**.02495**
Stddev	.00014	.00013	.00005	.00014	.00016	.00001	.00029	.00003
%RSD	.81582	.11044	2.3671	.45375	1.1687	2.1638	3.1363	.13914
#1	.01698	.11904	.00223	.03029	.01389	.00035	.00900	.02494
#2	.01679	.11929	.00213	.03010	.01369	.00036	.00950	.02492
#3	.01672	.11924	.00221	.03003	.01401	.00037	.00951	.02499

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	**.02320**	**.00123**	**.01755**	**.00493**	**.10065**	**.00907**	**.07434**	**.13390**
Stddev	.00006	.00011	.00007	.00007	.00078	.00008	.00038	.00026
%RSD	.24518	8.5252	.41613	1.5133	.77800	.92000	.51331	.19167
#1	.02326	.00115	.01750	.00485	.10076	.00898	.07440	.13374
#2	.02314	.00135	.01752	.00499	.09982	.00915	.07469	.13377
#3	.02319	.00120	.01763	.00496	.10137	.00907	.07393	.13420

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	**.00832**	**.01257**	**.00123**	**-.00032**	**.00077**	**.02800**	**.15424**
Stddev	.00012	.00019	.00005	.00006	.00004	.00102	.00056
%RSD	1.4615	1.5266	4.2022	18.894	5.8318	3.6505	.36262
#1	.00818	.01272	.00124	-.00025	.00071	.02728	.15430
#2	.00842	.01235	.00117	-.00036	.00079	.02756	.15478
#3	.00835	.01263	.00127	-.00034	.00080	.02917	.15366

Sample Name: S1 Acquired: 8/20/2025 12:43:11 Type: Cal
Method: 6010-200.7 NEW(v122) 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	6288.6	103260.	10558.	4846.4	7760.8
Stddev	5.5	41.	9.	8.1	4.2
%RSD	.08681	.04013	.08575	.16767	.05425
#1	6292.9	103260.	10552.	4855.8	7758.2
#2	6290.6	103300.	10554.	4842.5	7765.6
#3	6282.5	103210.	10569.	4841.0	7758.5

Sample Name: S2 Acquired: 8/20/2025 12:47:33 Type: Cal
Method: 6010-200.7 NEW(v122) 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	**.03930**	**.07217**	**.15382**	**.03733**	**.07366**	**.12339**	**3.7209**	**.28081**
Stddev	.00012	.00056	.00043	.00004	.00014	.00038	.0167	.00296
%RSD	.31377	.77381	.27987	.11783	.18701	.30783	.44967	1.0543
#1	.03945	.07186	.15346	.03729	.07366	.12295	3.7020	.27871
#2	.03925	.07184	.15371	.03732	.07379	.12356	3.7339	.28420
#3	.03922	.07282	.15430	.03737	.07352	.12365	3.7267	.27953

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	**1.1409**	**.23121**	**.03160**	**.39760**	**.13072**	**.00256**	**.16801**	**.04623**
Stddev	.0011	.00083	.00013	.00053	.00036	.00003	.00058	.00030
%RSD	.09387	.35801	.41697	.13338	.27835	1.0021	.34439	.64684
#1	1.1397	.23214	.03164	.39748	.13112	.00258	.16735	.04588
#2	1.1416	.23094	.03172	.39818	.13041	.00253	.16844	.04641
#3	1.1415	.23056	.03146	.39714	.13063	.00258	.16825	.04639

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	**.23182**	**.03895**	**.03197**	**.05023**	**.94010**	**.01689**	**.57716**	**.52668**
Stddev	.00042	.00008	.00024	.00030	.00303	.00010	.00554	.00043
%RSD	.18110	.20615	.74421	.60279	.32236	.59621	.96001	.08215
#1	.23134	.03893	.03193	.05033	.94220	.01678	.57455	.52696
#2	.23203	.03888	.03176	.05048	.94148	.01690	.58352	.52618
#3	.23210	.03904	.03223	.04989	.93663	.01699	.57340	.52690

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	**.12292**	**.23146**	**.00243**	**.03475**	**.02292**	**.63322**	**6.1289**
Stddev	.00021	.00117	.00002	.00016	.00006	.00258	.0238
%RSD	.16682	.50355	.66322	.45917	.25294	.40703	.38838
#1	.12316	.23014	.00241	.03486	.02287	.63027	6.1043
#2	.12283	.23188	.00244	.03457	.02298	.63502	6.1518
#3	.12278	.23236	.00243	.03483	.02291	.63438	6.1307

Sample Name: S2 Acquired: 8/20/2025 12:47:33 Type: Cal
Method: 6010-200.7 NEW(v122) 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	6221.8	106160.	10665.	4878.6	7568.0
Stddev	7.9	243.	88.	24.0	4.3
%RSD	.12652	.22849	.82897	.49157	.05644
#1	6213.6	105880.	10714.	4862.9	7566.9
#2	6222.5	106270.	10563.	4866.6	7564.4
#3	6229.3	106320.	10718.	4906.2	7572.7

Sample Name: S3 Acquired: 8/20/2025 12:51:37 Type: Cal
Method: 6010-200.7 NEW(v122) 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	.12414	.22406	.48257	.11724	.23036	.38434	11.699	.88093
Stddev	.00036	.00246	.00067	.00036	.00053	.00133	.028	.00269
%RSD	.28659	1.0998	.13841	.30712	.22821	.34724	.24005	.30565
#1	.12430	.22378	.48334	.11735	.23043	.38500	11.715	.88279
#2	.12373	.22175	.48224	.11684	.22981	.38280	11.715	.87784
#3	.12438	.22666	.48213	.11754	.23085	.38521	11.667	.88216

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	3.6437	.71845	.09798	1.2598	.40395	.00809	.52626	.14314
Stddev	.0010	.00267	.00047	.0011	.00060	.00009	.00062	.00104
%RSD	.02891	.37094	.48285	.08543	.14838	1.1123	.11784	.72381
#1	3.6429	.71875	.09751	1.2596	.40463	.00804	.52696	.14288
#2	3.6433	.71565	.09846	1.2588	.40351	.00820	.52605	.14226
#3	3.6449	.72096	.09797	1.2609	.40370	.00804	.52577	.14428

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	.73348	.12260	.09818	.15877	2.9081	.05376	1.8021	1.6393
Stddev	.00026	.00027	.00065	.00010	.0107	.00024	.0102	.0018
%RSD	.03526	.22014	.66446	.06017	.36846	.45132	.56690	.10917
#1	.73321	.12289	.09771	.15871	2.9199	.05358	1.8066	1.6386
#2	.73351	.12236	.09893	.15872	2.8991	.05404	1.7905	1.6380
#3	.73372	.12255	.09791	.15888	2.9052	.05367	1.8094	1.6414

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	.38443	.72718	.00745	.11481	.07434	1.9595	19.378
Stddev	.00037	.00035	.00003	.00044	.00031	.0010	.176
%RSD	.09605	.04848	.38465	.38389	.41730	.04964	.90983
#1	.38401	.72758	.00742	.11461	.07411	1.9606	19.370
#2	.38471	.72692	.00747	.11450	.07422	1.9587	19.206
#3	.38458	.72704	.00747	.11531	.07470	1.9591	19.558

Sample Name: S3 Acquired: 8/20/2025 12:51:37 Type: Cal
Method: 6010-200.7 NEW(v122) 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	6120.5	104150.	10584.	4786.4	7247.1
Stddev	10.3	362.	66.	7.8	14.3
%RSD	.16844	.34724	.62212	.16357	.19774
#1	6132.4	104540.	10585.	4782.8	7263.6
#2	6113.7	104070.	10650.	4781.1	7238.7
#3	6115.5	103830.	10518.	4795.4	7238.9

Sample Name: S4 Acquired: 8/20/2025 12:55:41 Type: Cal
Method: 6010-200.7 NEW(v122) 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	**.25145**	**.43732**	**.96767**	**.23625**	**.46452**	**.76953**	**23.236**	**1.7040**
Stddev	.00083	.00391	.00213	.00095	.00260	.00055	.119	.0061
%RSD	.32844	.89314	.21965	.40153	.55869	.07175	.51294	.35888
#1	.25085	.43646	.96522	.23574	.46213	.76994	23.342	1.7006
#2	.25110	.43391	.96874	.23566	.46417	.76976	23.107	1.7111
#3	.25239	.44158	.96905	.23734	.46728	.76890	23.259	1.7005

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	**7.3832**	**1.4225**	**.19269**	**2.5508**	**.79873**	**.01650**	**1.0441**	**.28621**
Stddev	.0078	.0008	.00060	.0049	.00159	.00007	.0069	.00069
%RSD	.10507	.05922	.31132	.19226	.19935	.44395	.66183	.24262
#1	7.3755	1.4226	.19226	2.5461	.79720	.01647	1.0414	.28617
#2	7.3831	1.4234	.19338	2.5505	.79859	.01644	1.0389	.28693
#3	7.3910	1.4217	.19244	2.5559	.80038	.01658	1.0519	.28554

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	**1.4810**	**.24507**	**.20642**	**.31929**	**5.7615**	**.11045**	**3.5320**	**3.2682**
Stddev	.0033	.00030	.00169	.00109	.0105	.00060	.0063	.0097
%RSD	.22215	.12081	.81671	.34022	.18285	.54704	.17821	.29687
#1	1.4780	.24473	.20579	.31868	5.7734	.11025	3.5247	3.2604
#2	1.4806	.24524	.20515	.32054	5.7578	.10998	3.5358	3.2651
#3	1.4845	.24523	.20834	.31864	5.7533	.11113	3.5354	3.2791

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	**.76889**	**1.4575**	**.01532**	**.23744**	**.15409**	**3.9553**	**38.745**
Stddev	.00140	.0053	.00008	.00058	.00075	.0191	.255
%RSD	.18244	.36647	.53672	.24260	.48750	.48184	.65902
#1	.76729	1.4552	.01524	.23698	.15389	3.9498	38.461
#2	.76954	1.4537	.01532	.23725	.15346	3.9395	38.955
#3	.76986	1.4636	.01541	.23808	.15492	3.9765	38.820

Sample Name: S4 Acquired: 8/20/2025 12:55:41 Type: Cal
Method: 6010-200.7 NEW(v122) 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	6038.0	104170.	10843.	4728.7	7004.4
Stddev	13.1	183.	29.	12.1	13.4
%RSD	.21639	.17548	.27071	.25494	.19064
#1	6053.0	104220.	10840.	4719.8	7019.8
#2	6032.3	103970.	10815.	4723.9	6997.4
#3	6028.8	104320.	10873.	4742.4	6996.0

Sample Name: S5 Acquired: 8/20/2025 12:59:53 Type: Cal
Method: 6010-200.7 NEW(v122) 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	**.51440**	**.89195**	**2.0068**	**.48032**	**.94694**	**1.5664**	**47.963**	**3.3616**
Stddev	.00118	.01179	.0021	.00097	.00245	.0039	.583	.0350
%RSD	.22869	1.3215	.10465	.20148	.25913	.24684	1.2147	1.0398
#1	.51492	.90555	2.0086	.48062	.94543	1.5627	47.593	3.3327
#2	.51305	.88467	2.0073	.47924	.94561	1.5661	47.663	3.3518
#3	.51522	.88563	2.0044	.48111	.94977	1.5704	48.635	3.4005

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	**15.248**	**2.8704**	**.38611**	**5.2914**	**1.6053**	**.03423**	**2.1026**	**.57904**
Stddev	.014	.0051	.00139	.0014	.0011	.00034	.0021	.00219
%RSD	.08958	.17630	.35932	.02658	.07045	.99373	.10192	.37833
#1	15.263	2.8657	.38754	5.2924	1.6049	.03451	2.1002	.57738
#2	15.246	2.8697	.38478	5.2920	1.6045	.03433	2.1041	.57821
#3	15.235	2.8757	.38600	5.2898	1.6066	.03385	2.1035	.58152

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	**3.0632**	**.49951**	**.43569**	**.65127**	**11.512**	**.23302**	**6.9865**	**6.6048**
Stddev	.0016	.00065	.00549	.00123	.018	.00219	.0812	.0128
%RSD	.05236	.12928	1.2603	.18928	.15411	.93845	1.1621	.19441
#1	3.0647	.49982	.44012	.65012	11.532	.23460	6.9058	6.6047
#2	3.0634	.49877	.43740	.65111	11.507	.23393	6.9854	6.5920
#3	3.0615	.49994	.42955	.65257	11.498	.23052	7.0682	6.6177

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	**1.5778**	**2.9732**	**.03233**	**.49435**	**.32922**	**8.1417**	**77.969**
Stddev	.0030	.0002	.00015	.00054	.00122	.0036	.484
%RSD	.18799	.00661	.47217	.10999	.36967	.04467	.62037
#1	1.5811	2.9732	.03244	.49496	.33051	8.1404	78.517
#2	1.5767	2.9730	.03239	.49393	.32810	8.1458	77.601
#3	1.5755	2.9734	.03216	.49415	.32905	8.1388	77.789

Sample Name: S5 Acquired: 8/20/2025 12:59:53 Type: Cal
Method: 6010-200.7 NEW(v122) 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	5897.1	102290.	10903.	4616.5	6637.0
Stddev	7.6	279.	86.	22.0	10.8
%RSD	.12859	.27238	.78778	.47731	.16217
#1	5893.3	101980.	10979.	4593.7	6624.8
#2	5905.9	102360.	10921.	4617.9	6641.0
#3	5892.2	102520.	10810.	4637.7	6645.2

Sample Name: ICV01 Acquired: 8/20/2025 13:04:03 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**3.950731**	**3.920598**	**3.974574**	**3.988234**	**4.062391**	**7.804015**
Stddev	.012953	.025265	.001029	.006994	.003972	.018181
%RSD	.3278645	.6444272	.0258883	.1753772	.0977785	.2329716
#1	3.963563	3.949437	3.974273	3.995734	4.064701	7.783229
#2	3.937660	3.902360	3.975720	3.981888	4.057804	7.811854
#3	3.950970	3.909997	3.973730	3.987081	4.064667	7.816962

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.744888**	**.2172733**	**1.956807**	**19.40919**	**.8087891**	**1.973282**
Stddev	.085747	.0017318	.000969	.09296	.0014401	.001584
%RSD	1.107147	.7970799	.0495091	.4789259	.1780562	.0802600
#1	7.657758	.2167542	1.955755	19.31665	.8099856	1.971475
#2	7.829182	.2158603	1.957006	19.40838	.8091909	1.973940
#3	7.747724	.2192053	1.957661	19.50255	.8071908	1.974430

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.010912**	**3.974810**	**1.946811**	**19.35609**	**1.970252**	**1.012755**
Stddev	.001531	.019732	.008587	.10116	.002545	.001388
%RSD	.1514003	.4964357	.4410961	.5226034	.1291902	.1370900
#1	1.011530	3.966218	1.939272	19.28622	1.967386	1.013667
#2	1.012038	3.997382	1.945002	19.30995	1.971121	1.011157
#3	1.009170	3.960830	1.956159	19.47208	1.972249	1.013441

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.90335**	**1.944991**	**2.011997**	**19.55215**	**4.067550**	**4.022571**
Stddev	.07866	.006542	.003451	.08650	.034637	.002428
%RSD	.4161237	.3363651	.1715026	.4423855	.8515486	.0603651
#1	18.89300	1.937590	2.011575	19.51031	4.057411	4.023661
#2	18.98668	1.947382	2.015639	19.65161	4.039113	4.019789
#3	18.83038	1.950002	2.008776	19.49453	4.106125	4.024263

Sample Name: ICV01 Acquired: 8/20/2025 13:04:03 Type: Unk
Method: 6010-200.7 NEW(v122) 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	3.945727	3.903723	3.974838	F .0057284	F .0245904	F -.006851
Stddev	.004362	.016584	.011996	.0013709	.0036556	.000496
%RSD	.1105399	.4248305	.3018079	23.93233	14.86599	7.234621
#1	3.943969	3.886660	3.973836	.0054845	.0277725	-.006961
#2	3.942518	3.904726	3.987303	.0072049	.0254012	-.006309
#3	3.950693	3.919783	3.963373	.0044957	.0205974	-.007282

Elem	Sr4077
Units	ppm
Avg	F -.003297
Stddev	.000055
%RSD	1.671764
#1	-.003290
#2	-.003356
#3	-.003246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6202.883	105390.3	11232.78	4807.705	7286.035
Stddev	4.773	200.8	74.19	23.017	5.314
%RSD	.0769476	.1904876	.6604819	.4787460	.0729272
#1	6201.303	105499.5	11288.17	4828.098	7291.296
#2	6199.100	105158.6	11261.67	4782.749	7280.670
#3	6208.246	105512.8	11148.48	4812.269	7286.138

Sample Name: LLICV01 Acquired: 8/20/2025 13:17:31 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0200107**	**.0411097**	**.0119706**	**.0212397**	**.0492522**	**.1053737**
Stddev	.0022923	.0005427	.0005698	.0018497	.0003157	.0038232
%RSD	11.45525	1.320225	4.759637	8.708558	.6409471	3.628226
#1	.0174006	.0417152	.0114279	.0191933	.0488979	.1033249
#2	.0216966	.0409471	.0119198	.0217335	.0495035	.1030115
#3	.0209348	.0406669	.0125641	.0227924	.0493553	.1097847

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0976588**	**.0061540**	**.0056018**	**2.047333**	**.0097031**	**.0286729**
Stddev	.0014044	.0000792	.0001158	.016194	.0001417	.0001689
%RSD	1.438090	1.287239	2.067117	.7909659	1.459822	.5892104
#1	.0973850	.0061359	.0055195	2.065112	.0095396	.0284834
#2	.0964115	.0060854	.0057342	2.033426	.0097897	.0287277
#3	.0991800	.0062407	.0055515	2.043461	.0097799	.0288078

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0207980**	**.1033674**	**.0218540**	**2.155935**	**.0390527**	**.0103994**
Stddev	.0001176	.0057768	.0002935	.031849	.0000175	.0006435
%RSD	.5656076	5.588596	1.342902	1.477270	.0447705	6.187764
#1	.0207209	.1083285	.0221143	2.185223	.0390485	.0111424
#2	.0207397	.0970253	.0219117	2.160552	.0390719	.0100291
#3	.0209334	.1047484	.0215360	2.122030	.0390377	.0100267

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.909510**	**.0426471**	**.0411891**	**1.869549**	**.1064304**	**.2031291**
Stddev	.022319	.0008816	.0002913	.019244	.0008663	.0003000
%RSD	1.168850	2.067308	.7072536	1.029333	.8139810	.1476951
#1	1.917715	.0419069	.0414481	1.849539	.1061721	.2030183
#2	1.926566	.0424120	.0408737	1.871184	.1057226	.2034688
#3	1.884250	.0436225	.0412456	1.887923	.1073965	.2029003

Sample Name: LLICV01 Acquired: 8/20/2025 13:17:31 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0355182	.0388954	.3711363	.0189682	.0193628	F .0134595
Stddev	.0002852	.0007959	.0097743	.0007702	.0010373	.0013635
%RSD	.8029484	2.046203	2.633615	4.060685	5.357171	10.13007
#1	.0353767	.0391426	.3701338	.0181532	.0181688	.0144424
#2	.0353314	.0380052	.3813732	.0190674	.0198776	.0119029
#3	.0358465	.0395383	.3619019	.0196840	.0200420	.0140331

Elem	Sr4077
Units	ppm
Avg	.0200263
Stddev	.0000728
%RSD	.3636608
#1	.0200747
#2	.0200617
#3	.0199426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6386.956	108649.9	11292.05	4961.248	7967.511
Stddev	6.732	417.8	46.30	29.767	5.108
%RSD	.1054091	.3844988	.4100346	.5999900	.0641129
#1	6387.811	108791.1	11329.07	4995.144	7965.509
#2	6379.837	108179.8	11306.95	4949.235	7973.317
#3	6393.220	108978.7	11240.14	4939.364	7963.707

Sample Name: ICB01 Acquired: 8/20/2025 13:21:46 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.000166**	**-.000089**	**.0010528**	**-.001771**	**-.000082**	**.0029640**	**-.002077**
Stddev	.001607	.000744	.0008031	.002630	.001076	.0049400	.000893
%RSD	970.2941	836.9244	76.28670	148.4820	1315.732	166.6676	42.99912
#1	-.001397	-.000740	.0016527	-.001202	.001155	.0042995	-.003105
#2	.001653	-.000249	.0013653	-.004639	-.000800	.0070989	-.001501
#3	-.000752	.000722	.0001404	.000527	-.000601	-.002506	-.001624

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000046**	**-.000020**	**.0016710**	**-.000547**	**-.000009**	**-.000258**	**-.007395**
Stddev	.000018	.000070	.0045873	.000348	.000152	.000191	.001356
%RSD	38.66540	360.5021	274.5153	63.59398	1655.631	74.06555	18.33697
#1	-.000027	-.000055	-.000861	-.000655	.000135	-.000143	-.008960
#2	-.000063	.000062	.006966	-.000827	.000006	-.000153	-.006621
#3	-.000047	-.000066	-.001092	-.000158	-.000169	-.000479	-.006603

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004335**	**-.006360**	**.0000091**	**.0000255**	**-.035463**	**.0036999**	**-.000755**
Stddev	.0002584	.017742	.0002647	.0002194	.004277	.0016218	.000094
%RSD	59.60625	278.9611	2899.825	859.9056	12.05975	43.83429	12.39713
#1	.0002802	-.020922	-.000171	-.000150	-.038845	.0055710	-.000650
#2	.0007319	-.011558	.000313	.000271	-.036888	.0028322	-.000831
#3	.0002885	.013400	-.000115	-.000045	-.030655	.0026966	-.000783

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.105212**	**.0040936**	**-.000076**	**-.001627**	**-.000604**	**-.003766**	**.0001058**
Stddev	.009079	.0005114	.000135	.000398	.000727	.009187	.0003945
%RSD	8.628946	12.49187	178.4348	24.48537	120.3116	243.9477	373.0690
#1	-.104829	.0041891	-.000149	-.001313	-.000693	.006554	.0002912
#2	-.096331	.0035412	.000080	-.001493	.000163	-.011051	.0003734
#3	-.114476	.0045505	-.000159	-.002075	-.001282	-.006801	-.000347

Sample Name: ICB01 Acquired: 8/20/2025 13:21:46 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.000476	-.008176	.0000061
Stddev	.000687	.000607	.0000470
%RSD	144.2895	7.429008	772.1921
#1	.000280	-.007867	-.000038
#2	-.001062	-.008876	.000000
#3	-.000646	-.007785	.000056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6347.340	109311.0	11227.89	4920.485	8061.962
Stddev	7.405	151.8	65.78	13.718	4.808
%RSD	.1166621	.1388490	.5858550	.2787954	.0596417
#1	6355.068	109446.6	11292.41	4924.738	8061.489
#2	6340.307	109339.4	11230.34	4931.573	8066.990
#3	6346.645	109147.0	11160.92	4905.144	8057.408

Sample Name: CRI01 Acquired: 8/20/2025 13:26:14 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0213815**	**.0432944**	**.0124471**	**.0217557**	**.0505973**	**.0979956**
Stddev	.0011286	.0011525	.0003071	.0016274	.0008812	.0116763
%RSD	5.278342	2.661938	2.467198	7.480298	1.741571	11.91511
#1	.0205293	.0446159	.0126638	.0228905	.0514821	.0845914
#2	.0226615	.0427694	.0125819	.0198912	.0505900	.1034396
#3	.0209538	.0424979	.0120957	.0224854	.0497198	.1059557

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0981940**	**.0063008**	**.0057193**	**2.052222**	**.0098876**	**.0291382**
Stddev	.0007610	.0000480	.0000854	.003652	.0002277	.0000107
%RSD	.7750146	.7619377	1.492893	.1779316	2.302493	.0366701
#1	.0973223	.0063105	.0057666	2.056267	.0101063	.0291282
#2	.0987260	.0062487	.0056208	2.051228	.0099045	.0291370
#3	.0985337	.0063432	.0057706	2.049169	.0096519	.0291494

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0208905**	**.0952394**	**.0218861**	**2.161923**	**.0393962**	**.0099478**
Stddev	.0002241	.0053007	.0002632	.015644	.0000495	.0001713
%RSD	1.072782	5.565644	1.202503	.7236194	.1256376	1.721661
#1	.0211436	.0891191	.0221872	2.144475	.0393594	.0097504
#2	.0208103	.0983600	.0217000	2.174697	.0394525	.0100360
#3	.0207175	.0982391	.0217710	2.166598	.0393767	.0100570

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.913876**	**.0426488**	**.0414916**	**1.830847**	**.1039878**	**.2052171**
Stddev	.027515	.0011267	.0003169	.017310	.0003659	.0006594
%RSD	1.437661	2.641855	.7638961	.9454402	.3519016	.3213038
#1	1.945627	.0416100	.0417806	1.816906	.1039925	.2059771
#2	1.898976	.0424899	.0411527	1.825414	.1036196	.2048772
#3	1.897024	.0438465	.0415416	1.850221	.1043514	.2047971

Sample Name: CRI01 Acquired: 8/20/2025 13:26:14 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0357864	.0387948	.3705346	.0192278	.0187247	F .0135697
Stddev	.0003665	.0006269	.0080232	.0016092	.0010086	.0007256
%RSD	1.024224	1.616051	2.165312	8.369103	5.386356	5.347544
#1	.0355742	.0380930	.3612711	.0182099	.0176206	.0143790
#2	.0362096	.0392996	.3752784	.0210830	.0189558	.0133531
#3	.0355753	.0389917	.3750544	.0183905	.0195977	.0129770

Elem	Sr4077
Units	ppm
Avg	.0201501
Stddev	.0000742
%RSD	.3682824
#1	.0201371
#2	.0200833
#3	.0202300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6335.484	107334.8	11198.77	4877.106	7900.565
Stddev	8.088	52.0	27.39	8.986	9.449
%RSD	.1276570	.0484224	.2445436	.1842535	.1195961
#1	6344.043	107292.2	11197.57	4866.742	7910.142
#2	6334.440	107319.4	11226.74	4881.843	7900.303
#3	6327.969	107392.7	11172.01	4882.733	7891.250

Sample Name: ICSA01 Acquired: 8/20/2025 13:30:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0107216**	**-.003611**	**-.003403**	**-.000169**	**-.001474**	**246.5307**
Stddev	.0004316	.001265	.002130	.002652	.001054	.3989
%RSD	4.025648	35.02748	62.59588	1565.457	71.52046	.1618055
#1	.0108416	-.002430	-.005770	-.002209	-.002684	246.6604
#2	.0102427	-.003456	-.001640	-.001128	-.000750	246.8486
#3	.0110805	-.004945	-.002799	.002829	-.000988	246.0831

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018143**	**.0015005**	**.0023415**	**233.3394**	**.0599638**	**.0016905**
Stddev	.0008732	.0001040	.0001051	.2845	.0001321	.0001875
%RSD	48.12966	6.929601	4.486729	.1219164	.2202745	11.08894
#1	.0010339	.0015950	.0024545	233.4850	.0599354	.0017910
#2	.0016517	.0015174	.0022468	233.5216	.0598482	.0014742
#3	.0027574	.0013891	.0023232	233.0116	.0601077	.0018061

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046995**	**99.16501**	**.0089009**	**248.6924**	**.0061990**	**.0020872**
Stddev	.0000193	.43535	.0002551	.3369	.0004365	.0002045
%RSD	.4112696	.4390185	2.865629	.1354769	7.041207	9.798253
#1	.0047191	99.01029	.0091745	248.7741	.0066729	.0019076
#2	.0046805	98.82815	.0086696	248.9809	.0061110	.0020443
#3	.0046990	99.65659	.0088587	248.3221	.0058133	.0023098

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0740643**	**.0050139**	**.0019908**	**.0847051**	**.0514203**	**.0009541**
Stddev	.0140620	.0037738	.0001134	.0250065	.0025518	.0001798
%RSD	18.98616	75.26568	5.694587	29.52179	4.962550	18.84429
#1	.0643956	.0042865	.0019002	.0623229	.0516546	.0007533
#2	.0676015	.0090984	.0019544	.0800975	.0487594	.0011001
#3	.0901958	.0016568	.0021179	.1116950	.0538468	.0010089

Sample Name: ICSA01 Acquired: 8/20/2025 13:30:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.004166	-.005658	.0189780	.0076384	-.009131	F -.032952
Stddev	.000469	.000829	.0028752	.0010715	.002754	.000496
%RSD	11.26661	14.65115	15.15038	14.02788	30.16249	1.503871
#1	-.003852	-.004764	.0189357	.0064145	-.011709	-.033471
#2	-.003940	-.006401	.0218741	.0084074	-.009455	-.032900
#3	-.004705	-.005810	.0161241	.0080935	-.006229	-.032484

Elem	Sr4077
Units	ppm
Avg	.0019887
Stddev	.0007777
%RSD	39.10438
#1	.0024173
#2	.0024577
#3	.0010910

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5644.727	95345.32	10819.40	4366.562	6297.248
Stddev	8.228	63.48	43.27	6.059	8.715
%RSD	.1457697	.0665764	.3998944	.1387694	.1383997
#1	5637.158	95365.60	10814.66	4373.198	6287.246
#2	5653.485	95396.18	10778.70	4361.324	6303.214
#3	5643.537	95274.18	10864.84	4365.164	6301.282

Sample Name: ICSAB01 Acquired: 8/20/2025 13:34:39 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.1085343**	**.0990293**	**.0384338**	**.0474153**	**.5870785**	**249.6700**
Stddev	.0013678	.0026180	.0016519	.0005988	.0017569	.3746
%RSD	1.260256	2.643683	4.298047	1.262972	.2992648	.1500303
#1	.1089890	.0984171	.0365367	.0467713	.5867579	249.3455
#2	.1069970	.1018991	.0392106	.0475194	.5855039	249.5846
#3	.1096168	.0967716	.0395542	.0479553	.5889736	250.0799

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4747686**	**.4818464**	**.9632126**	**235.7419**	**.5525261**	**.4842859**
Stddev	.0023796	.0020221	.0007682	.6963	.0016127	.0009506
%RSD	.5012041	.4196467	.0797541	.2953645	.2918739	.1962857
#1	.4720303	.4799381	.9626167	235.0556	.5507626	.4838479
#2	.4759413	.4816355	.9629414	235.7222	.5528900	.4836333
#3	.4763343	.4839656	.9640796	236.4478	.5539258	.4853766

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4747409**	**100.7582**	**.4760143**	**251.3987**	**.9640116**	**.2120207**
Stddev	.0010399	.2690	.0016252	.5196	.0009756	.0003700
%RSD	.2190497	.2670058	.3414127	.2066654	.1011997	.1745308
#1	.4745463	100.4518	.4744097	250.8823	.9634459	.2124457
#2	.4738121	100.9555	.4776593	251.3924	.9634508	.2117703
#3	.4758644	100.8674	.4759737	251.9213	.9651381	.2118461

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0271386**	**.4749297**	**1.024479**	**-.189415**	F **.0534853**	F **.0012380**
Stddev	.0112917	.0022120	.001557	.048561	.0011568	.0001367
%RSD	41.60747	.4657574	.1519840	25.63735	2.162735	11.04160
#1	.0168923	.4723859	1.022991	-.144150	.0540408	.0011275
#2	.0392448	.4760023	1.024349	-.183386	.0521556	.0013909
#3	.0252787	.4764010	1.026097	-.240709	.0542596	.0011957

Sample Name: ICSAB01 Acquired: 8/20/2025 13:34:39 Type: Unk
Method: 6010-200.7 NEW(v122) 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 -.004788	F -.007886	F .0105158	F .0096879	F .0009868	F -.035570
Stddev	.000443	.000624	.0071533	.0003182	.0044355	.001057
%RSD	9.257119	7.913767	68.02391	3.284411	449.5057	2.970692
#1	-.005250	-.008142	.0172925	.0094155	-.001178	-.034888
#2	-.004366	-.007175	.0030377	.0100376	-.001950	-.036787
#3	-.004749	-.008341	.0112172	.0096105	.006089	-.035035

Elem	Sr4077
Units	ppm
Avg	F .0011171
Stddev	.0003300
%RSD	29.54104
#1	.0007538
#2	.0013982
#3	.0011992

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5578.489	95302.34	10910.31	4331.233	6233.546
Stddev	8.370	220.61	39.72	19.860	7.291
%RSD	.1500441	.2314816	.3640588	.4585399	.1169715
#1	5575.347	95530.30	10949.61	4326.142	6234.966
#2	5587.975	95286.81	10911.16	4353.144	6240.023
#3	5572.144	95089.91	10870.18	4314.414	6225.649

Sample Name: ICSADLX20 Acquired: 8/20/2025 13:38:43 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0010520**	**.0000161**	**-.000096**	**.0016678**	**-.000214**	**11.86645**	**-.001788**
Stddev	.0019184	.0013632	.000206	.0020880	.000791	.01416	.000837
%RSD	182.3610	8447.124	214.5676	125.2007	369.1609	.1193592	46.78531
#1	.0030160	-.000901	.000078	.0012021	-.000689	11.87504	-.000877
#2	.0009574	-.000633	-.000323	.0039493	.000698	11.85010	-.001964
#3	-.000817	.001583	-.000043	-.000148	-.000652	11.87421	-.002522

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001351**	**.0001001**	**11.69763**	**.0025204**	**.0000328**	**.0003611**	**4.592607**
Stddev	.0000475	.0000511	.00862	.0002533	.0000664	.0002667	.024054
%RSD	35.12214	51.00681	.0736723	10.05052	202.4445	73.87592	.5237568
#1	.0001367	.0001034	11.70054	.0028129	-.000044	.0000854	4.620111
#2	.0000869	.0001494	11.70441	.0023761	.000074	.0003798	4.582208
#3	.0001818	.0000474	11.68793	.0023723	.000068	.0006179	4.575502

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007187**	**12.21834**	**.0001521**	**.0003802**	**-.102598**	**.0042989**	**-.000684**
Stddev	.0002330	.03431	.0000616	.0002764	.005999	.0014602	.000030
%RSD	32.41995	.2808383	40.47928	72.70600	5.847426	33.96622	4.350195
#1	.0004614	12.24632	.0001823	.0000857	-.097763	.0032605	-.000687
#2	.0007792	12.18005	.0001927	.0006341	-.100720	.0059685	-.000653
#3	.0009154	12.22866	.0000813	.0004208	-.109312	.0036677	-.000712

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.341534**	**.0020643**	**.0000687**	**-.002580**	**-.001489**	**.0003705**	**.0004246**
Stddev	.047032	.0003562	.0001808	.000667	.000740	.0048153	.0007496
%RSD	13.77070	17.25734	263.0247	25.86054	49.66271	1299.507	176.5437
#1	-.317731	.0021619	-.000090	-.002355	-.001399	-.000925	-.000343
#2	-.395709	.0023616	.000266	-.002054	-.002269	.005701	.000463
#3	-.311162	.0016694	.000030	-.003330	-.000799	-.003664	.001154

Sample Name: ICSADLX20 Acquired: 8/20/2025 13:38:43 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.002129**	**-.010749**	**.0003012**
Stddev	.001180	.001532	.0001000
%RSD	55.40977	14.25604	33.18642
#1	-.002137	-.012303	.0002141
#2	-.003305	-.010703	.0004104
#3	-.000946	-.009240	.0002793

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6206.252**	**106968.2**	**11111.82**	**4833.306**	**7633.684**
Stddev	7.826	282.4	53.29	26.309	5.908
%RSD	.1261053	.2640229	.4795835	.5443228	.0773940
#1	6197.586	106643.1	11108.64	4809.406	7631.705
#2	6208.366	107108.1	11166.64	4861.496	7629.019
#3	6212.804	107153.3	11060.20	4829.017	7640.327

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: ICSABDLX20 Acquired: 8/20/2025 13:42:59 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0050447**	**.0058553**	**.0020430**	**.0013526**	**.0280631**	**12.17426**	**.0218190**
Stddev	.0009747	.0000813	.0007122	.0005265	.0009026	.01973	.0011566
%RSD	19.32070	1.388024	34.85947	38.91971	3.216319	.1620339	5.301005
#1	.0055310	.0059460	.0019186	.0016940	.0281525	12.16089	.0204925
#2	.0039225	.0057890	.0028092	.0007464	.0271191	12.19692	.0226167
#3	.0056805	.0058310	.0014012	.0016176	.0289177	12.16498	.0223477

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0242346**	**.0453717**	**12.01291**	**.0268346**	**.0229340**	**.0240977**	**4.825151**
Stddev	.0000538	.0000516	.01778	.0002201	.0000242	.0003365	.010133
%RSD	.2218626	.1136552	.1480250	.8203407	.1053315	1.396561	.2100093
#1	.0241911	.0454278	11.99240	.0266827	.0229579	.0238512	4.813911
#2	.0242947	.0453610	12.02408	.0267339	.0229096	.0244811	4.833588
#3	.0242179	.0453264	12.02224	.0270870	.0229344	.0239608	4.827954

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0244269**	**12.52539**	**.0460076**	**.0095155**	**-.100478**	**.0281114**	**.0489873**
Stddev	.0002449	.01397	.0001602	.0001183	.009425	.0013010	.0000952
%RSD	1.002754	.1115497	.3482032	1.243124	9.380200	4.627937	.1943583
#1	.0241927	12.50939	.0459151	.0093940	-.092182	.0296090	.0490967
#2	.0244066	12.53154	.0461926	.0095222	-.110726	.0274641	.0489232
#3	.0246814	12.53523	.0459152	.0096303	-.098525	.0272610	.0489421

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.307211**	**.0014851**	**.0001010**	**-.003112**	**-.001201**	**-.002797**	**.0002037**
Stddev	.026706	.0000448	.0001131	.000343	.000739	.004629	.0006533
%RSD	8.692877	3.017691	112.0217	11.01580	61.51830	165.4719	320.7817
#1	-.310119	.0014335	.0001355	-.002875	-.000585	-.001553	.0007788
#2	-.279171	.0015072	-.000025	-.003505	-.002021	.001082	.0003389
#3	-.332344	.0015146	.000193	-.002957	-.000998	-.007921	-.000507

Sample Name: ICSABDLX20 Acquired: 8/20/2025 13:42:59 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.001005**	**-.011257**	**.0002360**
Stddev	.000617	.001247	.0000251
%RSD	61.40195	11.07298	10.63282
#1	-.001521	-.012687	.0002650
#2	-.001173	-.010400	.0002212
#3	-.000321	-.010685	.0002219

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6224.420**	**106486.8**	**11282.08**	**4820.977**	**7649.068**
Stddev	7.788	342.7	79.12	13.781	10.711
%RSD	.1251157	.3218071	.7012924	.2858621	.1400303
#1	6231.787	106882.4	11373.18	4821.136	7660.545
#2	6225.204	106298.6	11230.51	4807.118	7647.320
#3	6216.270	106279.6	11242.55	4834.679	7639.338

Sample Name: CCV01 Acquired: 8/20/2025 13:47:11 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.982209**	**4.974882**	**4.900644**	**5.008231**	**4.981173**	**9.924865**	**9.806624**
Stddev	.008849	.066959	.012002	.002014	.006120	.016351	.116245
%RSD	.1776078	1.345945	.2449006	.0402064	.1228699	.1647493	1.185372
#1	4.978075	4.991822	4.900251	5.010540	4.978145	9.929908	9.940241
#2	4.992368	5.031743	4.888844	5.007317	4.988217	9.906587	9.728742
#3	4.976184	4.901079	4.912837	5.006837	4.977157	9.938101	9.750887

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2462164**	**2.470373**	**24.77337**	**1.008736**	**2.462184**	**1.247200**	**5.015588**
Stddev	.0009505	.005344	.04476	.002523	.004267	.000611	.042987
%RSD	.3860476	.2163333	.1806966	.2501634	.1732863	.0490136	.8570610
#1	.2454827	2.470151	24.80261	1.010048	2.460922	1.247286	5.047000
#2	.2458762	2.465143	24.72183	1.005826	2.458690	1.246550	5.033166
#3	.2472902	2.475824	24.79566	1.010332	2.466939	1.247764	4.966598

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.467940**	**24.67880**	**2.463563**	**1.243869**	**24.99949**	**2.483950**	**2.524049**
Stddev	.007180	.09081	.005660	.000547	.20795	.003431	.002577
%RSD	.2909318	.3679612	.2297316	.0439547	.8317992	.1381142	.1020943
#1	2.474264	24.76272	2.463418	1.243947	25.08831	2.485710	2.521287
#2	2.469422	24.58239	2.457978	1.243287	25.14827	2.479997	2.524474
#3	2.460135	24.69127	2.469294	1.244372	24.76188	2.486144	2.526388

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.82432**	**4.896276**	**5.007942**	**4.938841**	**4.942733**	**5.028054**	**4.917674**
Stddev	.15653	.022706	.004623	.008222	.008914	.012319	.007907
%RSD	.6305517	.4637321	.0923206	.1664725	.1803436	.2450114	.1607863
#1	24.91581	4.873144	5.009712	4.944931	4.946766	5.037317	4.926328
#2	24.91358	4.897157	5.011419	4.929488	4.948918	5.032772	4.915864
#3	24.64358	4.918529	5.002695	4.942102	4.932516	5.014073	4.910828

Sample Name: CCV01 Acquired: 8/20/2025 13:47:11 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.880336**	**4.910950**	**4.981938**
Stddev	.014535	.019555	.048481
%RSD	.2978221	.3981925	.9731410
#1	4.875734	4.920778	4.946473
#2	4.896615	4.923640	4.962159
#3	4.868659	4.888430	5.037182

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6039.484**	**103441.3**	**11067.21**	**4659.752**	**7021.969**
Stddev	3.664	10.7	43.03	14.747	5.798
%RSD	.0606646	.0103594	.3888206	.3164762	.0825728
#1	6039.213	103430.4	11100.83	4673.266	7022.441
#2	6035.964	103441.7	11082.08	4661.969	7027.517
#3	6043.276	103451.8	11018.72	4644.023	7015.950

Sample Name: CCB01 Acquired: 8/20/2025 13:51:22 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0031211**	**.0002393**	**-.000613**	**.0012661**	**.0000124**	**.0032407**	**-.002109**
Stddev	.0005517	.0003417	.000880	.0016052	.0007010	.0040605	.000279
%RSD	17.67679	142.7630	143.6995	126.7763	5649.787	125.2971	13.22749
#1	.0026528	.0004406	-.000149	.0027064	-.000690	.0027355	-.002191
#2	.0037293	.0004326	-.001628	-.000464	.000016	-.000544	-.002338
#3	.0029811	-.000155	-.000061	.001556	.000712	.007530	-.001799

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000033**	**-.000019**	**.0076088**	**-.000358**	**-.000065**	**-.000253**	**-.001411**
Stddev	.000065	.000062	.0080637	.000226	.000113	.000022	.002909
%RSD	196.5634	334.5723	105.9785	63.24584	175.5915	8.881910	206.1850
#1	-.000052	.000047	.0168942	-.000167	.000024	-.000227	-.004153
#2	-.000087	-.000077	.0023671	-.000298	-.000193	-.000268	-.001721
#3	.000039	-.000026	.0035650	-.000608	-.000025	-.000264	.001641

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003500**	**-.013399**	**.0000418**	**.0003118**	**-.092431**	**.0031382**	**-.000450**
Stddev	.0005090	.020421	.0001219	.0004490	.015235	.0018229	.000267
%RSD	145.4450	152.4120	291.6309	144.0331	16.48211	58.08671	59.40967
#1	.0001679	-.023359	.0001509	.0000841	-.109180	.0021889	-.000262
#2	.0009250	.010091	-.000090	.0008290	-.088714	.0052398	-.000756
#3	-.000043	-.026928	.000064	.0000221	-.079399	.0019859	-.000332

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.329523**	**.0049995**	**.0002195**	**-.001419**	**-.000795**	**.0007522**	**.0017190**
Stddev	.010472	.0008820	.0001580	.000537	.000848	.0051997	.0007114
%RSD	3.178050	17.64197	71.96556	37.85443	106.6507	691.2833	41.38790
#1	-.326194	.0060162	.0003371	-.002014	.000160	.0004100	.0011565
#2	-.321120	.0045433	.0000400	-.000971	-.001086	.0061145	.0025187
#3	-.341256	.0044390	.0002815	-.001272	-.001460	-.004268	.0014817

Sample Name: CCB01 Acquired: 8/20/2025 13:51:22 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0009326	-.008267	.0000330
Stddev	.0011053	.000736	.0000253
%RSD	118.5219	8.907452	76.68498
#1	.0016004	-.008913	.0000542
#2	-.000343	-.007465	.0000399
#3	.001541	-.008423	.0000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6357.856	106960.5	11368.33	4832.067	8062.234
Stddev	4.940	442.7	16.83	23.000	3.524
%RSD	.0776927	.4138661	.1480167	.4759880	.0437097
#1	6353.786	107369.3	11352.00	4841.715	8060.793
#2	6363.352	107021.9	11385.62	4848.672	8059.660
#3	6356.430	106490.3	11367.38	4805.815	8066.251

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: LR-1 Acquired: 8/20/2025 13:55:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.002853**	**.0092239**	**.0123243**	**-.015435**	**.0152064**	**.1346766**	**-.014022**
Stddev	.002774	.0034874	.0027590	.003027	.0047058	.0127261	.000780
%RSD	97.23952	37.80791	22.38683	19.61083	30.94595	9.449411	5.561343
#1	-.003250	.0073318	.0154358	-.015341	.0143655	.1239467	-.014723
#2	-.005406	.0070915	.0113610	-.012456	.0202759	.1487367	-.014162
#3	.000099	.0132483	.0101761	-.018508	.0109778	.1313464	-.013182

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001265**	**.0004411**	**2116.212**	**.0114847**	**-.000354**	**.0026692**	**.4317345**
Stddev	.0000368	.0001135	12.958	.0001392	.000214	.0010111	.0058454
%RSD	29.06406	25.72773	.6123233	1.211895	60.41775	37.87940	1.353943
#1	.0001378	.0003809	2102.609	.0114208	-.000598	.0020170	.4364228
#2	.0000854	.0005719	2117.617	.0116444	-.000265	.0021566	.4335957
#3	.0001563	.0003703	2128.411	.0113890	-.000199	.0038339	.4251851

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135153**	**2141.241**	**.0087689**	**-.001825**	**2520.792**	**.0077642**	**.0466987**
Stddev	.0006013	15.331	.0002582	.000387	24.351	.0031000	.0006747
%RSD	4.449286	.7159669	2.944066	21.18501	.9660159	39.92750	1.444717
#1	.0130945	2124.080	.0088375	-.001558	2542.754	.0106540	.0474777
#2	.0132473	2146.062	.0089858	-.001649	2525.017	.0044898	.0463110
#3	.0142040	2153.582	.0084834	-.002269	2494.604	.0081487	.0463074

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.883755**	**.0107534**	**.0027068**	**-.015081**	**-.098087**	**-.023129**	**.0141968**
Stddev	.362972	.0007183	.0003425	.000144	.003424	.008926	.0025440
%RSD	5.272884	6.679850	12.65201	.9538060	3.490312	38.59274	17.91940
#1	6.478402	.0115807	.0030937	-.014976	-.100736	-.032521	.0135523
#2	6.994151	.0103914	.0025840	-.015022	-.094221	-.014757	.0170010
#3	7.178713	.0102882	.0024427	-.015245	-.099304	-.022108	.0120370

Sample Name: LR-1 Acquired: 8/20/2025 13:55:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.1963370	-.324070	.0588717
Stddev	.0049202	.000471	.0001388
%RSD	2.505976	.1454296	.2358250
#1	.1949565	-.323526	.0588982
#2	.2018000	-.324322	.0587215
#3	.1922546	-.324362	.0589953

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3883.147	70369.92	10109.58	2992.139	4123.195
Stddev	6.468	146.55	73.97	4.038	8.856
%RSD	.1665625	.2082513	.7316507	.1349410	.2147796
#1	3885.543	70470.97	10175.32	2991.604	4128.673
#2	3888.076	70201.85	10123.94	2988.394	4127.934
#3	3875.823	70436.94	10029.49	2996.417	4112.978

Sample Name: LR-2 Acquired: 8/20/2025 14:00:20 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2336146	-.368988	-.129733	-.002700	-.159858	1916.710	.021671
Stddev	.0023697	.004984	.007806	.012855	.008941	15.670	.000549
%RSD	1.014370	1.350717	6.017060	476.1469	5.593255	.8175370	2.53603
#1	.2343658	-.370251	-.126148	.009558	-.168349	1900.512	.021300
#2	.2309603	-.363494	-.138688	-.001578	-.160698	1931.792	.021411
#3	.2355176	-.373219	-.124363	-.016079	-.150526	1917.826	.022303

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe240
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0425345	.1441347	^ *****	-.045888	.0882619	.1573745	2788.90
Stddev	.0005407	.0029395	-----	.000908	.0002522	.0179528	29.37
%RSD	1.271288	2.039440	-----	1.977950	.2857296	11.40772	1.05311
#1	.0419123	.1407597	12.90992	-.046897	.0884143	.1367041	2822.45
#2	.0427997	.1461356	^ -----	-.045138	.0884006	.1690717	2767.87
#3	.0428914	.1455086	13.00495	-.045630	.0879708	.1663476	2776.36

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.184732	1.048704	.0591209	^ *****	2.655464	.0503486	.1059880
Stddev	.002093	.019614	.0009403	-----	.013176	.0029510	.0026301
%RSD	1.132733	1.870261	1.590422	-----	.4961940	5.861064	2.481500
#1	-.185195	1.059862	.0601641	^ -----	2.666212	.0492254	.1037242
#2	-.186554	1.060194	.0583387	^ -----	2.640764	.0481242	.1053666
#3	-.182447	1.026058	.0588599	^ -----	2.659415	.0536962	.1088731

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1846.272	^ *****	-.015848	.0240792	.0028031	.5038142	.1197687
Stddev	14.222	-----	.001001	.0047301	.0009499	.0034730	.0081434
%RSD	.7703240	-----	6.315408	19.64380	33.88778	.6893386	6.799262
#1	1862.005	^ -----	-.016036	.0211151	.0020622	.5065167	.1105587
#2	1834.327	^ -----	-.014767	.0215883	.0024730	.4998970	.1260160
#3	1842.485	^ -----	-.016742	.0295342	.0038740	.5050288	.1227313

Sample Name: LR-2 Acquired: 8/20/2025 14:00:20 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.410218**	k **.2777913**	**-2.67327**
Stddev	.011119	.0020199	.02818
%RSD	2.710587	.7271196	1.054089
#1	-.420683	.2801178	-2.70547
#2	-.398543	k .2764855	-2.65311
#3	-.411429	.2767706	-2.66122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4862.378**	**81073.85**	**10536.38**	**3699.208**	**4112.073**
Stddev	8.453	173.45	84.16	19.077	4.493
%RSD	.1738422	.2139433	.7987834	.5157021	.1092709
#1	4867.088	81112.44	10633.28	3697.630	4115.731
#2	4867.427	81224.75	10494.44	3719.025	4113.431
#3	4852.619	80884.35	10481.44	3680.969	4107.057

Sample Name: LR-3 Acquired: 8/20/2025 14:04:48 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0962229**	**.0088544**	**224.4396**	**-.000482**	**.1152296**	**.1229048**	**-.001407**
Stddev	.0022896	.0008476	.6747	.001475	.0039150	.0054409	.001283
%RSD	2.379454	9.572620	.3006163	305.8871	3.397582	4.426953	91.17262
#1	.0940906	.0079012	225.2052	-.001646	.1181705	.1276408	-.001330
#2	.0986426	.0095233	223.9321	-.000978	.1107858	.1241118	-.002726
#3	.0959356	.0091386	224.1814	.001177	.1167324	.1169617	-.000164

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004556**	**-.001671**	**.2431928**	**23.83954**	**.0060383**	**52.50632**	**.1312486**
Stddev	.000042	.000025	.0013855	.08663	.0000882	.06715	.0095435
%RSD	.9129819	1.516196	.5697313	.3634071	1.460276	.1278957	7.271343
#1	-.004510	-.001689	.2441342	23.88440	.0059959	52.57645	.1400258
#2	-.004565	-.001642	.2438425	23.89455	.0061397	52.44261	.1326305
#3	-.004592	-.001682	.2416018	23.73968	.0059793	52.49990	.1210894

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.21645**	**-.183298**	**23.42704**	**.0048770**	**.1823358**	**-.034120**	**29.44924**
Stddev	.28891	.015704	.03088	.0002649	.0151045	.001922	.08379
%RSD	.5991912	8.567633	.1318114	5.430573	8.283910	5.632387	.2845281
#1	48.48607	-.181108	23.45547	.0047550	.1650538	-.034046	29.52016
#2	48.25179	-.199982	23.39419	.0051809	.1930129	-.032237	29.47079
#3	47.91150	-.168804	23.43147	.0046952	.1889407	-.036078	29.35678

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4318858**	**.0045906**	**-.014111**	**-.011844**	**-.043680**	**-.131864**	**.1281622**
Stddev	.0522918	.0005194	.000244	.000467	.000474	.009712	.0020233
%RSD	12.10778	11.31332	1.730309	3.940125	1.084624	7.364818	1.578718
#1	.3729772	.0045312	-.013831	-.012378	-.043586	-.142216	.1299240
#2	.4728190	.0051371	-.014276	-.011642	-.044194	-.130420	.1286102
#3	.4498612	.0041035	-.014228	-.011513	-.043261	-.122955	.1259525

Sample Name: LR-3 Acquired: 8/20/2025 14:04:48 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0527295	-.006484	.0004198
Stddev	.0014280	.002378	.0000524
%RSD	2.708127	36.67345	12.48682
#1	.0535626	-.003781	.0004704
#2	.0510806	-.008254	.0003657
#3	.0535453	-.007415	.0004233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5964.477	109010.9	11304.33	4723.982	7714.965
Stddev	21.506	558.8	47.65	12.294	24.456
%RSD	.3605672	.5125818	.4215280	.2602557	.3170005
#1	5942.698	108811.6	11249.57	4734.782	7691.607
#2	5965.035	108579.0	11336.41	4710.602	7712.898
#3	5985.699	109641.9	11327.00	4726.562	7740.389

Sample Name: Q2892-02 Acquired: 8/20/2025 14:09:42 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.2048661**	**-.020961**	**1.390924**	**.0077696**	**-.013187**	**193.8884**
Stddev	.0013170	.002997	.002810	.0006708	.003071	1.6631
%RSD	.6428576	14.29906	.2020590	8.633169	23.28823	.8577479
#1	.2044200	-.023953	1.394060	.0078841	-.016620	194.0971
#2	.2063483	-.017959	1.390077	.0070490	-.012243	192.1309
#3	.2038301	-.020969	1.388634	.0083757	-.010699	195.4374

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9628243**	**.0170110**	**.0235429**	**35.30456**	**.3868533**	**.1958166**
Stddev	.0009143	.0000632	.0000688	.02908	.0016695	.0000986
%RSD	.0949589	.3715875	.2922498	.0823627	.4315619	.0503429
#1	.9620578	.0169652	.0236065	35.28120	.3884503	.1958060
#2	.9638362	.0169848	.0234698	35.33713	.3869900	.1959201
#3	.9625788	.0170831	.0235524	35.29537	.3851197	.1957238

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8536550**	**338.6152**	**8.193195**	**92.84369**	**.3323223**	**.0114016**
Stddev	.0010906	.4289	.008354	.12414	.0004562	.0002751
%RSD	.1277618	.1266604	.1019627	.1337057	.1372601	2.412506
#1	.8526582	339.0269	8.185500	92.94321	.3327973	.0114275
#2	.8548199	338.6478	8.202080	92.70459	.3322817	.0111146
#3	.8534868	338.1709	8.192005	92.88327	.3318877	.0116629

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.932406**	**.6902276**	**2.321387**	**35.63925**	**.2367685**	**.0174825**
Stddev	.002292	.0011755	.006634	.09851	.0007571	.0002924
%RSD	.0330625	.1703047	.2857686	.2764150	.3197772	1.672802
#1	6.934045	.6901592	2.324478	35.72814	.2358949	.0173990
#2	6.929787	.6890878	2.325911	35.65629	.2372344	.0172409
#3	6.933387	.6914358	2.313772	35.53334	.2371763	.0178076

Sample Name: Q2892-02 Acquired: 8/20/2025 14:09:42 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0262144	9.088549	F 11.35298	8.713168	2.093306	.3701813
Stddev	.0001974	.004281	.06328	.003655	.010555	.0002229
%RSD	.7531024	.0471017	.5573946	.0419478	.5042073	.0602138
#1	.0260613	9.092557	11.39278	8.716849	2.105455	.3704385
#2	.0264372	9.089051	11.38614	8.713116	2.086393	.3700590
#3	.0261447	9.084039	11.28000	8.709540	2.088069	.3700462

Elem	Sr4077
Units	ppm
Avg	-.092323
Stddev	.000259
%RSD	.2808283
#1	-.092556
#2	-.092044
#3	-.092368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7476.478	128672.2	15210.67	5734.075	6421.353
Stddev	10.089	522.1	33.40	39.844	9.087
%RSD	.1349414	.4057981	.2196125	.6948718	.1415107
#1	7471.758	128098.8	15173.79	5694.300	6411.249
#2	7469.614	128797.4	15219.31	5733.935	6423.956
#3	7488.061	129120.3	15238.90	5773.988	6428.855

Sample Name: Q2892-02DUP Acquired: 8/20/2025 14:15:13 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.2064987**	**-.022467**	**1.385831**	**.0042857**	**-.014141**	**195.6674**
Stddev	.0019947	.003546	.002579	.0037909	.000274	1.3594
%RSD	.9659759	15.78178	.1861087	88.45383	1.935830	.6947677
#1	.2048682	-.023369	1.386594	.0015493	-.013828	194.4526
#2	.2087229	-.018558	1.382957	.0086127	-.014260	195.4139
#3	.2059051	-.025475	1.387943	.0026951	-.014335	197.1358

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9662049**	**.0170096**	**.0233193**	**35.33301**	**.3887274**	**.1954963**
Stddev	.0029377	.0000895	.0002238	.05246	.0016806	.0005277
%RSD	.3040421	.5264878	.9597977	.1484606	.4323432	.2699152
#1	.9641206	.0170749	.0234955	35.27365	.3903318	.1957560
#2	.9695647	.0169075	.0230675	35.37311	.3888706	.1948891
#3	.9649293	.0170464	.0233950	35.35228	.3869797	.1958438

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8482489**	**340.9807**	**8.205715**	**92.76648**	**.3319744**	**.0116429**
Stddev	.0012365	1.6692	.007028	.15643	.0006493	.0000815
%RSD	.1457701	.4895209	.0856527	.1686310	.1955781	.6996383
#1	.8493983	339.5430	8.197605	92.60324	.3316245	.0116625
#2	.8469407	342.8113	8.210035	92.78113	.3315752	.0117129
#3	.8484079	340.5877	8.209505	92.91507	.3327236	.0115535

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.979227**	**.6932141**	**2.334690**	**35.79366**	**.2530418**	**.0173184**
Stddev	.073666	.0029391	.001958	.28652	.0067387	.0001828
%RSD	1.055508	.4239868	.0838764	.8004643	2.663097	1.055693
#1	6.907123	.6948640	2.334062	35.60439	.2492482	.0174785
#2	7.054362	.6898207	2.336885	36.12329	.2608222	.0173576
#3	6.976195	.6949575	2.333122	35.65329	.2490550	.0171192

Sample Name: Q2892-02DUP Acquired: 8/20/2025 14:15:13 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0264233	9.103807	F 11.37325	8.764164	2.092588	.3713261
Stddev	.0013502	.019089	.06805	.031474	.014919	.0011727
%RSD	5.109976	.2096838	.5983693	.3591252	.7129317	.3158237
#1	.0248732	9.092425	11.29658	8.755339	2.085674	.3700794
#2	.0270535	9.125846	11.42651	8.738044	2.082380	.3714914
#3	.0273433	9.093151	11.39666	8.799109	2.109709	.3724073

Elem	Sr4077
Units	ppm
Avg	-.094391
Stddev	.000797
%RSD	.8443527
#1	-.093695
#2	-.095261
#3	-.094218

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7508.741	127822.0	15191.75	5711.719	6451.386
Stddev	10.343	430.0	37.90	27.840	7.331
%RSD	.1377405	.3363943	.2494777	.4874122	.1136273
#1	7520.046	127965.1	15152.14	5711.849	6459.334
#2	7499.754	127338.7	15227.67	5683.815	6449.933
#3	7506.423	128162.2	15195.42	5739.494	6444.890

Sample Name: Q2892-02MS Acquired: 8/20/2025 14:23:25 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.8375885**	**1.968027**	**2.524403**	**1.560339**	**.1876213**	**220.7237**
Stddev	.0028986	.023585	.003959	.003120	.0027111	.8697
%RSD	.3460639	1.198406	.1568121	.1999384	1.444968	.3940315
#1	.8405856	1.983515	2.522682	1.563262	.1890543	219.7679
#2	.8347997	1.940883	2.521596	1.557054	.1893152	220.9347
#3	.8373801	1.979682	2.528931	1.560701	.1844945	221.4685

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.251939**	**.1686884**	**.2344521**	**40.03896**	**.7346454**	**.4134228**
Stddev	.007134	.0013880	.0002904	.13216	.0025962	.0007532
%RSD	.5698523	.8228426	.1238837	.3300763	.3533997	.1821893
#1	1.244684	.1670914	.2342510	39.91161	.7330328	.4129824
#2	1.252187	.1693687	.2343202	40.02982	.7332630	.4129934
#3	1.258946	.1696050	.2347851	40.17545	.7376403	.4142925

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6365308**	**342.0404**	**8.256953**	**107.5364**	**.8843806**	**.0735351**
Stddev	.0006000	1.2277	.049335	.3484	.0010063	.0006350
%RSD	.0942599	.3589395	.5974981	.3239554	.1137892	.8635963
#1	.6360410	342.1362	8.210105	107.2630	.8838967	.0740371
#2	.6372001	340.7676	8.252308	107.4176	.8855375	.0728212
#3	.6363514	343.2175	8.308446	107.9286	.8837077	.0737471

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.14914**	**.9678536**	**2.624146**	**55.74369**	**.4151518**	**.3361824**
Stddev	.02359	.0063598	.002300	.12086	.0063510	.0005428
%RSD	.2324284	.6571011	.0876435	.2168049	1.529804	.1614715
#1	10.15287	.9637258	2.626512	55.69497	.4212581	.3356427
#2	10.12391	.9646576	2.621918	55.65481	.4085815	.3361761
#3	10.17065	.9751775	2.624008	55.88131	.4156159	.3367284

Sample Name: Q2892-02MS Acquired: 8/20/2025 14:23:25 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.7222629	F 11.25956	F 12.22122	F 15.90150	2.135907	.6128346
Stddev	.0023544	.05172	.05124	.02695	.003741	.0028524
%RSD	.3259692	.4593524	.4192421	.1694696	.1751429	.4654428
#1	.7220149	11.21741	12.27839	15.92081	2.137425	.6097156
#2	.7200423	11.24399	12.20583	15.87071	2.131646	.6134775
#3	.7247314	11.31728	12.17945	15.91298	2.138651	.6153106

Elem	Sr4077
Units	ppm
Avg	.0823944
Stddev	.0021762
%RSD	2.641239
#1	.0798854
#2	.0835274
#3	.0837704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7528.231	129849.1	15192.09	5769.563	6319.371
Stddev	5.478	279.9	114.32	4.511	3.143
%RSD	.0727668	.2155715	.7524927	.0781808	.0497333
#1	7527.947	130141.2	15321.01	5764.706	6319.554
#2	7522.901	129823.0	15152.22	5773.620	6316.141
#3	7533.846	129583.2	15103.05	5770.363	6322.418

Sample Name: Q2892-02MSD Acquired: 8/20/2025 14:27:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.8417563**	**1.938457**	**2.534799**	**1.537513**	**.1793907**	**223.2255**
Stddev	.0024605	.037017	.004635	.002183	.0008653	2.0142
%RSD	.2923067	1.909600	.1828363	.1419846	.4823811	.9023260
#1	.8398327	1.980873	2.530064	1.540033	.1797096	223.5286
#2	.8409073	1.921820	2.539326	1.536194	.1784111	221.0769
#3	.8445289	1.912677	2.535007	1.536311	.1800513	225.0710

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.250926**	**.1656916**	**.2347031**	**40.17379**	**.7314897**	**.4205492**
Stddev	.006507	.0009292	.0003529	.09213	.0027438	.0004887
%RSD	.5201927	.5608185	.1503598	.2293209	.3750994	.1161956
#1	1.248599	.1646966	.2345715	40.07415	.7338578	.4201653
#2	1.258277	.1665368	.2351029	40.25588	.7284829	.4203829
#3	1.245902	.1658413	.2344349	40.19135	.7321284	.4210993

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6299674**	**348.9118**	**8.295371**	**100.7823**	**.9105036**	**.0729152**
Stddev	.0024795	1.7894	.030255	.3795	.0017048	.0005123
%RSD	.3935971	.5128562	.3647255	.3765675	.1872423	.7025561
#1	.6275063	350.8611	8.265309	100.4014	.9090166	.0734877
#2	.6299310	347.3436	8.325816	100.7851	.9123643	.0725000
#3	.6324650	348.5306	8.294989	101.1604	.9101300	.0727580

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.951618**	**.9550917**	**2.665477**	**50.09854**	**.4220437**	**.3305565**
Stddev	.074688	.0011110	.007495	.37901	.0106968	.0006461
%RSD	.7505098	.1163294	.2811763	.7565253	2.534530	.1954594
#1	10.03731	.9563034	2.662221	50.53549	.4325864	.3309314
#2	9.91717	.9548506	2.674049	49.90135	.4111991	.3298105
#3	9.90038	.9541209	2.660161	49.85879	.4223455	.3309277

Sample Name: Q2892-02MSD Acquired: 8/20/2025 14:27:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.7158128	F 10.51572	9.867020	F 16.17619	2.342128	.5831440
Stddev	.0024995	.01783	.105925	.06258	.005426	.0029802
%RSD	.3491894	.1695726	1.073526	.3868792	.2316616	.5110498
#1	.7186905	10.49814	9.969282	16.22307	2.345327	.5810570
#2	.7145657	10.53379	9.757777	16.10513	2.335864	.5865571
#3	.7141821	10.51522	9.874001	16.20038	2.345195	.5818180

Elem	Sr4077
Units	ppm
Avg	.0758663
Stddev	.0028175
%RSD	3.713736
#1	.0733332
#2	.0789008
#3	.0753650

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7631.020	131251.8	15482.12	5840.786	6337.835
Stddev	10.556	430.5	98.62	4.416	10.888
%RSD	.1383318	.3280257	.6370010	.0756089	.1717898
#1	7634.827	130870.7	15595.88	5842.615	6350.407
#2	7639.144	131718.8	15429.71	5835.749	6331.647
#3	7619.088	131165.9	15420.77	5843.993	6331.451

Sample Name: Q2892-02A Acquired: 8/20/2025 14:31:30 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.8108756**	**1.860993**	**2.287975**	**1.512771**	**.5943811**	**191.8246**
Stddev	.0028123	.028447	.002351	.006173	.0008449	3.5189
%RSD	.3468231	1.528565	.1027537	.4080340	.1421491	1.834421
#1	.8079156	1.888503	2.285742	1.518792	.5951504	188.3079
#2	.8135122	1.831694	2.287756	1.506457	.5945160	195.3456
#3	.8111989	1.862782	2.290429	1.513062	.5934768	191.8202

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.098907**	**.1608942**	**.2176169**	**35.58813**	**.6922371**	**.3908026**
Stddev	.007795	.0005901	.0003226	.15579	.0011401	.0008311
%RSD	.7093014	.3667558	.1482487	.4377483	.1647040	.2126724
#1	1.100273	.1602208	.2176875	35.54227	.6910951	.3905985
#2	1.090519	.1611411	.2172648	35.46043	.6933754	.3900925
#3	1.105928	.1613208	.2178983	35.76170	.6922409	.3917167

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.053362**	**338.5843**	**8.227334**	**93.22776**	**.8195785**	**.0727969**
Stddev	.001286	2.9146	.056958	.38451	.0005076	.0015711
%RSD	.1221276	.8608197	.6923077	.4124427	.0619374	2.158122
#1	1.052394	340.0548	8.219142	92.87939	.8190792	.0739112
#2	1.054822	335.2274	8.174915	93.16355	.8195621	.0710000
#3	1.052871	340.4707	8.287945	93.64033	.8200941	.0734795

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.265395**	**.9061653**	**2.456981**	**43.45782**	**.4395870**	**.3248953**
Stddev	.115855	.0054693	.002830	.30576	.0102166	.0003544
%RSD	1.250401	.6035692	.1151818	.7035718	2.324137	.1090894
#1	9.345751	.9024614	2.453879	43.70097	.4444628	.3251846
#2	9.132591	.9035873	2.457644	43.11456	.4278460	.3245000
#3	9.317842	.9124472	2.459421	43.55795	.4464523	.3250015

Sample Name: Q2892-02A Acquired: 8/20/2025 14:31:30 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.6935053	9.111678	F 11.83901	F 14.12949	2.034842	.5206410
Stddev	.0014316	.042075	.02004	.05014	.011280	.0024309
%RSD	.2064309	.4617686	.1692777	.3548907	.5543353	.4669108
#1	.6938920	9.112871	11.85695	14.16961	2.046377	.5204568
#2	.6919201	9.069019	11.84269	14.07327	2.023836	.5183075
#3	.6947038	9.153144	11.81738	14.14557	2.034315	.5231588

Elem	Sr4077
Units	ppm
Avg	.0559738
Stddev	.0010723
%RSD	1.915784
#1	.0547424
#2	.0564778
#3	.0567014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7490.812	126749.5	15069.15	5699.320	6465.583
Stddev	4.714	216.7	96.21	16.442	3.188
%RSD	.0629308	.1709930	.6384466	.2884933	.0493066
#1	7491.138	126892.5	15179.10	5710.592	6467.468
#2	7495.355	126855.8	15027.93	5706.914	6467.380
#3	7485.943	126500.2	15000.42	5680.453	6461.903

Sample Name: CCV02 Acquired: 8/20/2025 14:39:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.964567**	**5.052485**	**4.857183**	**5.008876**	**4.992450**	**9.853631**	**9.762197**
Stddev	.017600	.064552	.004039	.008603	.004335	.001565	.165075
%RSD	.3545113	1.277638	.0831629	.1717563	.0868384	.0158803	1.690960
#1	4.968811	5.099510	4.855090	5.004967	4.991985	9.855427	9.671726
#2	4.979657	5.079058	4.861839	5.018739	4.988366	9.852561	9.662136
#3	4.945233	4.978888	4.854619	5.002921	4.996999	9.852905	9.952728

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2433466**	**2.448582**	**24.48854**	**1.002469**	**2.444131**	**1.243195**	**5.062771**
Stddev	.0013145	.004403	.01853	.002293	.002878	.000708	.013589
%RSD	.5401744	.1798078	.0756520	.2287347	.1177417	.0569395	.2684173
#1	.2424801	2.444543	24.48975	1.004541	2.440809	1.243226	5.057789
#2	.2427006	2.453275	24.46944	1.000005	2.445848	1.243886	5.078148
#3	.2448591	2.447929	24.50643	1.002862	2.445737	1.242472	5.052375

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.439007**	**24.24725**	**2.447154**	**1.250457**	**25.18476**	**2.461153**	**2.506119**
Stddev	.006061	.08114	.003704	.000693	.17526	.009819	.005150
%RSD	.2484998	.3346398	.1513721	.0554566	.6958999	.3989662	.2054972
#1	2.442138	24.20155	2.442879	1.249706	25.37121	2.456513	2.503547
#2	2.432021	24.19926	2.449400	1.251073	25.15967	2.454515	2.512048
#3	2.442862	24.34093	2.449185	1.250592	25.02339	2.472433	2.502762

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.28372**	**4.844309**	**5.029153**	**4.906165**	**4.921247**	**5.067349**	**4.847495**
Stddev	.05178	.027141	.007588	.016789	.011916	.013425	.023157
%RSD	.2048042	.5602758	.1508766	.3421954	.2421347	.2649300	.4777146
#1	25.33426	4.819189	5.033029	4.900817	4.927186	5.052466	4.858489
#2	25.28613	4.840638	5.034020	4.924976	4.907529	5.071033	4.863108
#3	25.23078	4.873099	5.020410	4.892702	4.929027	5.078546	4.820889

Sample Name: CCV02 Acquired: 8/20/2025 14:39:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.832470**	**4.832344**	**4.957914**
Stddev	.030122	.016084	.027552
%RSD	.6233330	.3328327	.5557199
#1	4.843428	4.849872	4.929499
#2	4.855578	4.818264	4.984513
#3	4.798402	4.828895	4.959729

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6102.014**	**103882.7**	**11360.20**	**4665.742**	**7129.425**
Stddev	6.103	172.3	34.49	10.442	5.915
%RSD	.1000143	.1658827	.3036377	.2238035	.0829676
#1	6097.905	103683.9	11367.89	4659.221	7129.538
#2	6099.111	103976.2	11390.20	4660.219	7123.454
#3	6109.027	103988.1	11322.51	4677.786	7135.283

Sample Name: CCB02 Acquired: 8/20/2025 14:43:52 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.000870**	**.0001037**	**-.000200**	**-.001250**	**-.001598**	**-.000178**	**-.003024**
Stddev	.000970	.0015160	.000769	.000883	.001778	.004958	.000924
%RSD	111.5564	1461.711	385.2148	70.63132	111.2521	2791.889	30.55272
#1	-.000750	.0011761	-.000049	-.000259	-.003646	-.000690	-.003526
#2	-.001894	-.001631	-.001033	-.001539	-.000713	.005017	-.003589
#3	.000035	.000766	.000483	-.001951	-.000437	-.004860	-.001958

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000029**	**.0000325**	**.0061993**	**-.000354**	**-.000141**	**-.000198**	**.0004676**
Stddev	.000013	.0000375	.0020178	.000278	.000167	.000130	.0078024
%RSD	44.82549	115.1586	32.54910	78.47689	118.8237	65.71668	1668.790
#1	-.000044	.0000623	.0072461	-.000459	.000010	-.000068	-.003288
#2	-.000019	-.000010	.0038732	-.000039	-.000320	-.000197	.009438
#3	-.000024	.000045	.0074786	-.000563	-.000112	-.000328	-.004747

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002879**	**-.011116**	**-.000178**	**.0001549**	**.0075663**	**.0033587**	**-.000816**
Stddev	.0001752	.015300	.000028	.0003545	.0063204	.0007568	.000147
%RSD	60.86263	137.6334	15.46286	228.8040	83.53415	22.53232	18.05782
#1	.0001190	-.018076	-.000208	-.000187	.0002785	.0031169	-.000831
#2	.0002759	.006426	-.000153	.000521	.0108718	.0027524	-.000955
#3	.0004688	-.021699	-.000174	.000131	.0115484	.0042069	-.000662

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.095337**	**.0042111**	**.0003254**	**-.001987**	**-.000114**	**.0020744**	**.0011428**
Stddev	.022569	.0005014	.0001607	.000798	.001729	.0121540	.0002445
%RSD	23.67270	11.90763	49.38017	40.15983	1523.566	585.8987	21.39387
#1	-.093552	.0047825	.0002764	-.001806	.001175	.0161035	.0014045
#2	-.118745	.0040063	.0001950	-.002860	-.002079	-.004611	.0011039
#3	-.073714	.0038445	.0005049	-.001295	.000564	-.005269	.0009201

Sample Name: CCB02 Acquired: 8/20/2025 14:43:52 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0013555	-.007083	-.000014
Stddev	.0016010	.002149	.000036
%RSD	118.1122	30.34337	262.2772
#1	.0021899	-.004972	-.000024
#2	-.000490	-.009268	-.000043
#3	.002367	-.007008	.000026

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6379.986	109751.6	11461.98	4931.758	8123.485
Stddev	10.597	524.6	17.36	33.093	6.727
%RSD	.1660960	.4779930	.1514477	.6710172	.0828074
#1	6391.417	110055.6	11480.51	4922.723	8128.195
#2	6378.050	110053.3	11459.34	4968.430	8115.781
#3	6370.490	109145.8	11446.09	4904.121	8126.480

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: PB169301BL Acquired: 8/20/2025 14:48:10 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.000512**	**.0005984**	**.0002162**	**.0001640**	**-.001332**	**.0041184**	**-.002732**
Stddev	.000904	.0007365	.0003527	.0014074	.001527	.0043359	.000653
%RSD	176.5278	123.0761	163.1555	858.2136	114.6627	105.2805	23.90910
#1	-.001339	-.000220	-.000182	.0015675	-.003035	.0068469	-.002027
#2	-.000649	.000806	.000490	-.001247	-.000879	.0063895	-.003316
#3	.000453	.001209	.000340	.000172	-.000083	-.000881	-.002852

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000052**	**.0000089**	**.0053283**	**-.000441**	**-.000188**	**-.000433**	**-.008146**
Stddev	.000025	.0000627	.0130869	.000088	.000258	.000125	.004304
%RSD	47.33789	703.6047	245.6116	19.87641	137.5223	28.92646	52.83844
#1	-.000047	-.000060	.0001684	-.000360	.000073	-.000543	-.012113
#2	-.000079	.000023	-.004392	-.000429	-.000194	-.000297	-.003569
#3	-.000030	.000063	.020209	-.000534	-.000443	-.000459	-.008757

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001910**	**-.020747**	**-.000253**	**.0004080**	**-.040079**	**.0017530**	**-.000977**
Stddev	.0001400	.024722	.000153	.0000510	.006985	.0017333	.000137
%RSD	73.31978	119.1599	60.63881	12.49093	17.42694	98.87546	14.05983
#1	.0002410	-.028858	-.000190	.0003741	-.048139	.0014901	-.000865
#2	.0002992	-.040395	-.000141	.0004666	-.035795	.0001662	-.001131
#3	.0000328	.007012	-.000427	.0003834	-.036303	.0036028	-.000937

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.162401**	**.0012839**	**-.000084**	**-.002225**	**-.000325**	**-.001854**	**.0011973**
Stddev	.011563	.0000476	.000064	.000407	.001064	.007550	.0016794
%RSD	7.120206	3.706104	75.81630	18.28511	326.9986	407.1772	140.2694
#1	-.175382	.0012364	-.000133	-.002560	-.000250	.002803	.0006720
#2	-.158616	.0012837	-.000108	-.002344	.000699	.002199	-.000157
#3	-.153204	.0013316	-.000012	-.001772	-.001425	-.010565	.003076

Sample Name: PB169301BL Acquired: 8/20/2025 14:48:10 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0006611	-.008043	-.000015
Stddev	.0002200	.000327	.000074
%RSD	33.27169	4.071978	504.5244
#1	.0006856	-.008134	.000061
#2	.0004299	-.007679	-.000019
#3	.0008678	-.008314	-.000086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6320.415	109572.3	11248.50	4860.195	8047.716
Stddev	9.991	281.4	28.07	23.381	1.485
%RSD	.1580827	.2568565	.2495625	.4810683	.0184482
#1	6321.533	109397.7	11243.14	4844.548	8049.297
#2	6329.801	109422.3	11223.49	4848.966	8046.352
#3	6309.912	109897.0	11278.86	4887.072	8047.500

Sample Name: PB169301BS Acquired: 8/20/2025 14:52:29 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.7684913**	**1.980923**	**.9336362**	**1.954503**	**.7922616**	**1.952506**	**.1874326**
Stddev	.0025386	.051431	.0013655	.006795	.0026346	.009570	.0020050
%RSD	.3303372	2.596328	.1462506	.3476416	.3325418	.4901408	1.069725
#1	.7661622	1.950930	.9330835	1.949012	.7892747	1.963392	.1894203
#2	.7681145	2.040310	.9326338	1.962102	.7932548	1.948708	.1874668
#3	.7711973	1.951529	.9351914	1.952396	.7942552	1.945417	.1854108

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1990020**	**.1865071**	**1.009493**	**.4004236**	**.1907414**	**.3034701**	**2.909883**
Stddev	.0013718	.0000346	.011883	.0018303	.0000968	.0011253	.024360
%RSD	.6893482	.0185629	1.177078	.4570959	.0507365	.3708169	.8371564
#1	.1987371	.1865057	1.022971	.4022070	.1907083	.3022125	2.935410
#2	.2004869	.1864733	1.000530	.4005140	.1906656	.3038158	2.907354
#3	.1977819	.1865425	1.004979	.3985497	.1908504	.3043821	2.886887

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1968728**	**1.959029**	**.4800866**	**.0738567**	**2.710051**	**.2944111**	**.2060566**
Stddev	.0018721	.007295	.0011867	.0002524	.028079	.0033072	.0006019
%RSD	.9509188	.3724000	.2471860	.3418135	1.036097	1.123310	.2920999
#1	.1986452	1.951609	.4789766	.0739244	2.728314	.2926990	.2064864
#2	.1970584	1.959286	.4799460	.0735773	2.677719	.2982232	.2063146
#3	.1949148	1.966193	.4813374	.0740684	2.724121	.2923109	.2053687

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.290000**	**.2912877**	**.4024715**	**.6621054**	**.1896803**	**.8794658**	**5.385195**
Stddev	.063737	.0021189	.0003489	.0007888	.0012136	.0184618	.012892
%RSD	.6860869	.7274266	.0866835	.1191408	.6397934	2.099208	.2394046
#1	9.318228	.2910155	.4020700	.6616427	.1910149	.8684890	5.382895
#2	9.217023	.2935296	.4026436	.6616572	.1893827	.8691279	5.399083
#3	9.334749	.2893181	.4027008	.6630162	.1886432	.9007805	5.373608

Sample Name: PB169301BS Acquired: 8/20/2025 14:52:29 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0016548	.1895921	.1899373
Stddev	.0021219	.0011275	.0013408
%RSD	128.2336	.5946786	.7058988
#1	-.000634	.1890860	.1914291
#2	.002042	.1908840	.1895498
#3	.003556	.1888065	.1888329

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6278.664	108318.0	11332.72	4830.578	7758.809
Stddev	19.563	67.0	52.82	12.674	19.136
%RSD	.3115795	.0618832	.4660908	.2623607	.2466299
#1	6292.885	108328.7	11337.06	4816.528	7769.078
#2	6286.754	108378.9	11277.86	4841.148	7770.618
#3	6256.354	108246.2	11383.23	4834.058	7736.731

Sample Name: Q2892-02LX5 Acquired: 8/20/2025 14:56:29 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0479101**	**-.002099**	**.2735407**	**-.000172**	**-.005051**	**46.48324**	**.2246085**
Stddev	.0007099	.001504	.0006603	.003263	.001455	.02357	.0020585
%RSD	1.481637	71.64357	.2414074	1900.245	28.80723	.0506990	.9164705
#1	.0484457	-.002089	.2727803	.003181	-.006697	46.50259	.2234609
#2	.0481796	-.003608	.2738715	-.003336	-.003938	46.49015	.2269850
#3	.0471049	-.000600	.2739702	-.000360	-.004517	46.45700	.2233797

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043514**	**.0029067**	**8.762137**	**.0937841**	**.0364012**	**.2175413**	**77.79362**
Stddev	.0001071	.0000220	.022002	.0001024	.0001639	.0003553	.28013
%RSD	2.460812	.7567434	.2511017	.1091972	.4503169	.1633298	.3600896
#1	.0044666	.0029226	8.759774	.0936660	.0363954	.2175916	77.58140
#2	.0042549	.0029159	8.785225	.0938467	.0362403	.2171636	78.11114
#3	.0043327	.0028816	8.741412	.0938398	.0365680	.2178688	77.68833

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017588**	**22.91832**	**.0639905**	**.0016993**	**1.445761**	**.1702877**	**.5639462**
Stddev	.009691	.07553	.0005386	.0003372	.034582	.0022352	.0002866
%RSD	.4803464	.3295745	.8417159	19.84203	2.391940	1.312571	.0508267
#1	2.014133	23.00421	.0634592	.0013103	1.407361	.1678399	.5641475
#2	2.028533	22.86224	.0645361	.0019078	1.474446	.1722201	.5640731
#3	2.010097	22.88852	.0639761	.0018798	1.455477	.1708032	.5636181

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.513086**	**.0315946**	**.0039236**	**.0029807**	**2.194960**	**2.459324**	**1.630483**
Stddev	.011295	.0009975	.0000839	.0006425	.012986	.016213	.005250
%RSD	.1503372	3.157256	2.137600	21.55434	.5916373	.6592410	.3219789
#1	7.500045	.0311923	.0039063	.0036243	2.188577	2.442674	1.624476
#2	7.519431	.0327305	.0040148	.0023393	2.209902	2.460238	1.632781
#3	7.519782	.0308612	.0038498	.0029785	2.186400	2.475061	1.634192

Sample Name: Q2892-02LX5 Acquired: 8/20/2025 14:56:29 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.3785300	.0791288	-.018822
Stddev	.0020709	.0023328	.000104
%RSD	.5471010	2.948049	.5537915
#1	.3772029	.0767113	-.018743
#2	.3774709	.0813664	-.018782
#3	.3809163	.0793088	-.018940

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6500.665	112070.4	12119.69	5033.124	7338.356
Stddev	5.025	72.5	22.20	14.018	8.171
%RSD	.0773000	.0646822	.1831882	.2785131	.1113420
#1	6496.699	112007.8	12094.08	5016.965	7335.592
#2	6506.316	112149.8	12133.47	5040.392	7347.550
#3	6498.979	112053.6	12131.51	5042.016	7331.926

Sample Name: Q2818-04 Acquired: 8/20/2025 15:00:34 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.0374491	.0024814	.0354177	-.004809	-.004759	49.63469
Stddev	.0023460	.0009634	.0015182	.000870	.000437	.04192
%RSD	6.264420	38.82661	4.286529	18.09084	9.183934	.0844661
#1	.0388301	.0015390	.0356603	-.005631	-.004288	49.59154
#2	.0347404	.0024406	.0368001	-.003898	-.004840	49.67527
#3	.0387768	.0034646	.0337929	-.004900	-.005151	49.63726

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0599800	.0126183	.0084234	103.8756	.0532410	.0918263
Stddev	.0006249	.0000710	.0000173	.1339	.0002110	.0002651
%RSD	1.041849	.5628421	.2057390	.1289378	.3963007	.2887073
#1	.0606887	.0125798	.0084432	103.8686	.0532648	.0916303
#2	.0597434	.0127003	.0084113	104.0129	.0530191	.0921279
#3	.0595080	.0125748	.0084156	103.7453	.0534391	.0917206

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1169761	47.09003	5.038371	20.19779	.0527505	.0007198
Stddev	.0001268	.13510	.011751	.03417	.0001707	.0004160
%RSD	.1084240	.2869016	.2332394	.1691874	.3235463	57.79089
#1	.1170068	47.24556	5.046349	20.19482	.0527482	.0010890
#2	.1168367	47.00184	5.043887	20.23335	.0525809	.0002691
#3	.1170848	47.02268	5.024876	20.16520	.0529222	.0008012

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.74846	.4482502	3.978617	23.88313	.5507732	-.000911
Stddev	.06493	.0018786	.013899	.15001	.0013712	.000099
%RSD	.5092966	.4191027	.3493443	.6280867	.2489510	10.91826
#1	12.81781	.4462591	3.977289	24.05506	.5501715	-.000982
#2	12.73843	.4499914	3.965430	23.77895	.5523424	-.000797
#3	12.68913	.4484999	3.993133	23.81538	.5498059	-.000953

Sample Name: Q2818-04 Acquired: 8/20/2025 15:00:34 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.016795	.0031398	8.318259	F 36.32405	F 401.6404	-.025979
Stddev	.000431	.0004974	.036005	.15810	2.1034	.000285
%RSD	2.565097	15.84129	.4328436	.4352535	.5237025	1.096912
#1	-.016435	.0025702	8.345978	36.44555	401.9242	-.026308
#2	-.017272	.0034884	8.277565	36.14530	399.4096	-.025833
#3	-.016677	.0033607	8.331235	36.38130	403.5875	-.025798

Elem	Sr4077
Units	ppm
Avg	.6234871
Stddev	.0026206
%RSD	.4203083
#1	.6258613
#2	.6239249
#3	.6206753

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8408.621	144268.8	16160.61	6395.816	7097.325
Stddev	5.556	292.5	27.37	40.784	9.656
%RSD	.0660711	.2027285	.1693758	.6376623	.1360543
#1	8410.018	144186.1	16191.25	6415.043	7107.187
#2	8402.501	144593.7	16138.58	6423.431	7087.888
#3	8413.346	144026.5	16151.99	6348.972	7096.901

Sample Name: Q2818-05 Acquired: 8/20/2025 15:04:36 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0618296**	**-.040852**	**.0237567**	**-.000692**	**-.020938**	**40.21758**
Stddev	.0025021	.003141	.0017041	.003170	.000382	.03206
%RSD	4.046676	7.689195	7.173020	457.8564	1.826130	.0797280
#1	.0646554	-.039388	.0256563	.002824	-.020573	40.25452
#2	.0609377	-.038710	.0232510	-.003331	-.020907	40.20128
#3	.0598958	-.044458	.0223626	-.001570	-.021336	40.19694

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0530809**	**.0144082**	**.0198173**	**89.53644**	**.3489483**	**.1223010**
Stddev	.0005416	.0000327	.0001365	.04732	.0006833	.0001751
%RSD	1.020382	.2271999	.6888698	.0528520	.1958052	.1431786
#1	.0533728	.0143928	.0198804	89.54276	.3489395	.1224905
#2	.0524559	.0144458	.0196606	89.58029	.3482694	.1221451
#3	.0534139	.0143860	.0199108	89.48628	.3496359	.1222676

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3864758**	**313.8214**	**5.092060**	**16.28130**	**.5480729**	**.0069192**
Stddev	.0007853	.2666	.012575	.02431	.0003389	.0003604
%RSD	.2032017	.0849635	.2469500	.1493241	.0618307	5.209319
#1	.3873517	313.5138	5.078587	16.26497	.5478858	.0065058
#2	.3858347	313.9632	5.103485	16.26970	.5484640	.0070839
#3	.3862409	313.9872	5.094110	16.30924	.5478688	.0071679

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.288948**	**.3913326**	**3.321910**	**19.80967**	**.4943762**	**.0008525**
Stddev	.025718	.0027687	.008520	.05292	.0034067	.0000599
%RSD	.2768613	.7075013	.2564706	.2671584	.6890934	7.027032
#1	9.286787	.3940251	3.320250	19.75478	.4975986	.0009157
#2	9.315678	.3914792	3.331138	19.86038	.4908111	.0007964
#3	9.264380	.3884936	3.314343	19.81385	.4947190	.0008456

Sample Name: Q2818-05 Acquired: 8/20/2025 15:04:36 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.014927	-.002497	8.633685	F 21.41018	F 372.7321	.0033166
Stddev	.000806	.000312	.018826	.20394	2.9891	.0013157
%RSD	5.397512	12.50741	.2180515	.9525405	.8019468	39.67094
#1	-.015856	-.002202	8.626899	21.63163	375.0189	.0040414
#2	-.014491	-.002824	8.619192	21.36880	373.8276	.0041105
#3	-.014432	-.002465	8.654963	21.23009	369.3498	.0017978

Elem	Sr4077
Units	ppm
Avg	.2712377
Stddev	.0009336
%RSD	.3442177
#1	.2704546
#2	.2722709
#3	.2709875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7785.835	136976.1	15437.59	5988.558	6939.559
Stddev	4.550	71.4	11.59	5.159	9.303
%RSD	.0584355	.0521081	.0750955	.0861433	.1340560
#1	7790.834	137016.2	15439.77	5985.796	6929.744
#2	7784.732	137018.4	15425.06	5985.368	6940.685
#3	7781.938	136893.7	15447.94	5994.510	6948.248

Sample Name: Q2818-05DUP Acquired: 8/20/2025 15:08:39 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0662286**	**-.043817**	**.0211924**	**-.000678**	**-.020922**	**41.01495**
Stddev	.0008329	.002390	.0020857	.003098	.001166	.09471
%RSD	1.257572	5.453834	9.841643	456.6317	5.573481	.2309195
#1	.0671903	-.041147	.0223946	-.003590	-.022187	41.11568
#2	.0657444	-.045756	.0187841	.002577	-.019890	40.92770
#3	.0657511	-.044548	.0223986	-.001023	-.020690	41.00148

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0541724**	**.0145885**	**.0180552**	**91.29210**	**.3641794**	**.1259697**
Stddev	.0005631	.0000202	.0001277	.13240	.0011040	.0002882
%RSD	1.039529	.1382530	.7070093	.1450308	.3031585	.2288244
#1	.0546862	.0146117	.0179748	91.42387	.3652973	.1261982
#2	.0542606	.0145791	.0179884	91.15908	.3630898	.1260651
#3	.0535704	.0145747	.0182023	91.29335	.3641510	.1256459

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3828499**	**338.3039**	**5.215679**	**16.64974**	**.5652697**	**.0113173**
Stddev	.0001639	1.2835	.016288	.01313	.0016860	.0006610
%RSD	.0428171	.3793804	.3122818	.0788554	.2982629	5.840774
#1	.3829685	337.4819	5.221953	16.66197	.5644453	.0108747
#2	.3829184	337.6470	5.197187	16.63586	.5641546	.0110001
#3	.3826629	339.7829	5.227896	16.65139	.5672093	.0120771

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.08873**	**.3981231**	**3.484399**	**21.37595**	**.6179963**	**.0010211**
Stddev	.05667	.0014055	.007300	.07078	.0073246	.0002785
%RSD	.5617596	.3530293	.2094956	.3311290	1.185210	27.27528
#1	10.04509	.3995322	3.476660	21.31578	.6106870	.0010620
#2	10.06831	.3967212	3.485375	21.35814	.6179657	.0012769
#3	10.15278	.3981160	3.491161	21.45394	.6253360	.0007244

Sample Name: Q2818-05DUP Acquired: 8/20/2025 15:08:39 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.014151	-.002251	9.343312	F 22.05654	F 382.2240	.0040880
Stddev	.000193	.000904	.027577	.12550	2.6196	.0013131
%RSD	1.366016	40.15356	.2951520	.5689815	.6853578	32.12052
#1	-.014083	-.002109	9.311632	21.93639	379.4445	.0030592
#2	-.014000	-.003217	9.361938	22.04644	382.5804	.0055669
#3	-.014369	-.001426	9.356366	22.18678	384.6472	.0036378

Elem	Sr4077
Units	ppm
Avg	.2588158
Stddev	.0010341
%RSD	.3995406
#1	.2589704
#2	.2577131
#3	.2597638

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7889.838	129998.9	15519.90	5843.422	6960.644
Stddev	5.491	180.0	39.84	22.997	5.788
%RSD	.0695944	.1384475	.2566937	.3935467	.0831503
#1	7894.413	130188.5	15474.20	5866.089	6964.296
#2	7891.353	129977.9	15538.17	5844.067	6963.666
#3	7883.749	129830.4	15547.32	5820.109	6953.971

Sample Name: Q2818-05A Acquired: 8/20/2025 15:24:51 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.6863638**	**1.871445**	**.9497124**	**1.599349**	**.5881448**	**41.40286**
Stddev	.0025814	.063999	.0029276	.008016	.0023923	.08952
%RSD	.3760931	3.419748	.3082619	.5012204	.4067555	.2162122
#1	.6884797	1.813673	.9515626	1.594475	.5902588	41.42642
#2	.6834877	1.860424	.9463371	1.594971	.5886279	41.30392
#3	.6871238	1.940239	.9512374	1.608601	.5855479	41.47824

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2031786**	**.1602716**	**.2126609**	**89.70706**	**.6499333**	**.3179470**
Stddev	.0007649	.0007444	.0005703	.25213	.0014352	.0007208
%RSD	.3764759	.4644583	.2681511	.2810597	.2208244	.2267010
#1	.2040610	.1602095	.2127099	89.88403	.6505388	.3186595
#2	.2027043	.1595602	.2120677	89.41837	.6509665	.3172182
#3	.2027704	.1610451	.2132050	89.81877	.6482945	.3179632

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6067831**	**314.1422**	**5.213352**	**17.71171**	**1.032700**	**.0661234**
Stddev	.0023005	1.3134	.014283	.05178	.002761	.0003071
%RSD	.3791340	.4181027	.2739620	.2923486	.2673624	.4644743
#1	.6064052	315.1531	5.228108	17.69573	1.034363	.0664778
#2	.6046950	314.6159	5.199596	17.66980	1.029513	.0659340
#3	.6092492	312.6576	5.212352	17.76960	1.034225	.0659585

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.70917**	**.6178813**	**3.431938**	**27.67394**	**.6931137**	**.3112344**
Stddev	.08878	.0000299	.002855	.22513	.0034773	.0003289
%RSD	.7582194	.0048441	.0831873	.8134940	.5016890	.1056748
#1	11.76613	.6179112	3.428944	27.81925	.6914893	.3109923
#2	11.75451	.6178813	3.434630	27.78795	.6971059	.3111020
#3	11.60688	.6178513	3.432241	27.41462	.6907460	.3116088

Sample Name: Q2818-05A Acquired: 8/20/2025 15:24:51 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.6457911	.1391467	9.346867	F 26.49448	F 371.4874	.1599798
Stddev	.0003232	.0011171	.013998	.12668	2.5867	.0009338
%RSD	.0500433	.8028427	.1497621	.4781278	.6963115	.5837034
#1	.6456357	.1400948	9.357166	26.37518	368.9210	.1609311
#2	.6461626	.1394301	9.352505	26.48083	371.4473	.1590645
#3	.6455750	.1379151	9.330929	26.62743	374.0939	.1599437

Elem	Sr4077
Units	ppm
Avg	.4190822
Stddev	.0020308
%RSD	.4845751
#1	.4214265
#2	.4179596
#3	.4178606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7720.995	134923.5	15197.19	5924.117	6879.307
Stddev	4.629	251.6	112.37	14.590	5.089
%RSD	.0599493	.1864813	.7393938	.2462883	.0739758
#1	7717.762	135008.6	15228.88	5939.887	6875.461
#2	7718.926	135121.5	15290.30	5911.098	6877.383
#3	7726.297	134640.3	15072.38	5921.366	6885.078

Sample Name: Q2818-05LX5 Acquired: 8/20/2025 15:32:55 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0135485**	**-.009150**	**.0026915**	**-.002226**	**-.004604**	**9.393418**
Stddev	.0007143	.000563	.0005206	.001842	.001640	.012634
%RSD	5.272274	6.153851	19.34346	82.73713	35.61836	.1345031
#1	.0142446	-.009245	.0023762	-.000130	-.005933	9.393183
#2	.0128173	-.009660	.0024058	-.002962	-.005107	9.406167
#3	.0135835	-.008546	.0032924	-.003585	-.002771	9.380902

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088529**	**.0035086**	**.0023784**	**21.37225**	**.0826845**	**.0227449**
Stddev	.0006732	.0000406	.0000562	.08721	.0000937	.0000702
%RSD	7.604819	1.156571	2.363196	.4080307	.1132875	.3086072
#1	.0094691	.0034623	.0023648	21.32960	.0827909	.0227338
#2	.0089552	.0035380	.0023304	21.47258	.0826145	.0228200
#3	.0081343	.0035255	.0024402	21.31459	.0826481	.0226809

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0943574**	**72.26772**	**1.228556**	**3.921377**	**.1035735**	**.0009685**
Stddev	.0003092	.14668	.006659	.019227	.0006122	.0003771
%RSD	.3277326	.2029666	.5420591	.4903131	.5910286	38.93487
#1	.0940376	72.17125	1.221941	3.903218	.1030951	.0007700
#2	.0943796	72.43652	1.235259	3.941519	.1033620	.0014033
#3	.0946549	72.19540	1.228468	3.919394	.1042633	.0007321

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.011276**	**.0950435**	**.7863928**	**4.331546**	**.1104885**	**.0001098**
Stddev	.018200	.0008414	.0027023	.034781	.0004366	.0002338
%RSD	.9048923	.8853051	.3436359	.8029635	.3951150	212.8182
#1	1.990327	.0958296	.7837157	4.291407	.1102455	.0002032
#2	2.020294	.0951451	.7891196	4.352789	.1102275	.0002825
#3	2.023205	.0941560	.7863431	4.350441	.1109925	-.000156

Sample Name: Q2818-05LX5 Acquired: 8/20/2025 15:32:55 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.006194	-.000765	1.904185	4.127167	F 74.81011	-.005126
Stddev	.000527	.000748	.008275	.012455	.29734	.000407
%RSD	8.510592	97.77066	.4345568	.3017691	.3974635	7.947507
#1	-.005615	-.000230	1.896282	4.124697	74.57163	-.004717
#2	-.006319	-.001620	1.912787	4.116132	74.71543	-.005532
#3	-.006647	-.000445	1.903485	4.140671	75.14326	-.005129

Elem	Sr4077
Units	ppm
Avg	.0641938
Stddev	.0003594
%RSD	.5598663
#1	.0638420
#2	.0645604
#3	.0641789

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6614.529	114346.3	12210.35	5093.877	7600.690
Stddev	11.254	237.7	53.44	26.403	18.425
%RSD	.1701375	.2079038	.4376973	.5183266	.2424126
#1	6615.973	114316.3	12232.15	5115.902	7599.221
#2	6624.992	114125.0	12149.45	5064.608	7619.805
#3	6602.624	114597.6	12249.45	5101.122	7583.043

Sample Name: Q2818-05MS Acquired: 8/20/2025 15:37:08 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.6726270**	**1.845047**	**.9337112**	**1.570809**	**.5779820**	**40.75386**
Stddev	.0024548	.011935	.0042532	.001767	.0006438	.03216
%RSD	.3649623	.6468763	.4555140	.1125001	.1113886	.0789076
#1	.6700929	1.858693	.9311813	1.572413	.5777453	40.76362
#2	.6727941	1.836551	.9386216	1.568915	.5774901	40.71796
#3	.6749941	1.839898	.9313307	1.571098	.5787107	40.78001

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1997316**	**.1589324**	**.2086217**	**88.54608**	**.6409163**	**.3121346**
Stddev	.0009338	.0005866	.0004314	.19094	.0009293	.0007512
%RSD	.4675193	.3690539	.2068072	.2156417	.1449994	.2406815
#1	.2008023	.1590056	.2082223	88.68661	.6419607	.3117709
#2	.1993063	.1583127	.2090793	88.32868	.6401805	.3129985
#3	.1990862	.1594789	.2085636	88.62294	.6406078	.3116345

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5975749**	**309.6065**	**5.167896**	**17.45689**	**1.013517**	**.0647819**
Stddev	.0020769	.8252	.022284	.03346	.000728	.0003562
%RSD	.3475610	.2665410	.4311913	.1916751	.0718393	.5498946
#1	.5952824	310.5416	5.189143	17.46184	1.013081	.0651740
#2	.5981114	308.9800	5.144704	17.42123	1.014358	.0644781
#3	.5993310	309.2980	5.169840	17.48760	1.013113	.0646936

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.54634**	**.6048524**	**3.388758**	**27.34417**	**.6817065**	**.3068142**
Stddev	.07575	.0023288	.004846	.15309	.0049026	.0008455
%RSD	.6560436	.3850181	.1429980	.5598590	.7191724	.2755620
#1	11.63301	.6064328	3.383675	27.52071	.6845748	.3064445
#2	11.49281	.6021781	3.393326	27.26364	.6760456	.3062166
#3	11.51319	.6059465	3.389273	27.24816	.6844992	.3077816

Sample Name: Q2818-05MS Acquired: 8/20/2025 15:37:08 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.6342748	.1381742	9.121811	F 25.98300	F 365.2993	.1576257
Stddev	.0019948	.0004007	.023678	.05367	.1826	.0004896
%RSD	.3145069	.2899942	.2595771	.2065560	.0499856	.3105921
#1	.6323350	.1385945	9.131672	25.97889	365.2186	.1573855
#2	.6363205	.1381316	9.138965	26.03860	365.5084	.1573026
#3	.6341688	.1377965	9.094796	25.93150	365.1710	.1581889

Elem	Sr4077
Units	ppm
Avg	.4170627
Stddev	.0029015
%RSD	.6956975
#1	.4199347
#2	.4141325
#3	.4171208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7830.919	136868.9	15339.37	6024.676	7002.897
Stddev	13.972	393.9	50.77	8.636	6.182
%RSD	.1784239	.2877826	.3309677	.1433506	.0882793
#1	7837.167	136425.2	15292.39	6014.880	7009.982
#2	7840.676	137004.0	15393.23	6031.190	6998.601
#3	7814.912	137177.4	15332.49	6027.958	7000.107

Sample Name: Q2818-05MSD Acquired: 8/20/2025 15:41:10 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.6673061**	**1.739634**	**.9389860**	**1.547024**	**.5757149**	**43.46283**
Stddev	.0040457	.101634	.0018501	.009273	.0019681	.01427
%RSD	.6062689	5.842253	.1970351	.5994140	.3418573	.0328306
#1	.6719011	1.815890	.9406761	1.557625	.5734499	43.46360
#2	.6657381	1.778761	.9392725	1.543030	.5770076	43.47670
#3	.6642792	1.624252	.9370093	1.540417	.5766873	43.44819

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2015113**	**.1566737**	**.2120683**	**94.22648**	**.6598351**	**.3242728**
Stddev	.0006691	.0004818	.0000830	.15317	.0011123	.0003850
%RSD	.3320497	.3075384	.0391360	.1625524	.1685657	.1187171
#1	.2022786	.1568822	.2121578	94.39388	.6589470	.3245857
#2	.2012063	.1561228	.2120530	94.09335	.6610826	.3238430
#3	.2010491	.1570163	.2119939	94.19222	.6594757	.3243898

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6183534**	**330.5122**	**5.471058**	**18.46637**	**1.064386**	**.0645027**
Stddev	.0009495	.4872	.015594	.06738	.001832	.0005531
%RSD	.1535573	.1474156	.2850360	.3648743	.1721474	.8574740
#1	.6194314	330.8995	5.487829	18.42076	1.063017	.0650522
#2	.6176411	330.6719	5.456995	18.43459	1.063673	.0639461
#3	.6179879	329.9651	5.468349	18.54376	1.066468	.0645100

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.24330**	**.6265696**	**3.610456**	**28.67076**	**.7143507**	**.3056113**
Stddev	.04637	.0016496	.005768	.17532	.0036939	.0008125
%RSD	.3787450	.2632713	.1597496	.6114919	.5171001	.2658474
#1	12.28973	.6284736	3.603803	28.79604	.7112012	.3064079
#2	12.24319	.6256621	3.613540	28.74584	.7184165	.3056420
#3	12.19699	.6255730	3.614027	28.47040	.7134343	.3047839

Sample Name: Q2818-05MSD Acquired: 8/20/2025 15:41:10 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.6473065	.1369292	9.860299	F 27.67274	F 388.3373	.1556508
Stddev	.0033595	.0007815	.039766	.11456	4.7329	.0013275
%RSD	.5189998	.5706928	.4032971	.4139677	1.218772	.8528392
#1	.6511844	.1377880	9.845671	27.79480	393.1753	.1565397
#2	.6454559	.1362600	9.905308	27.65587	388.1197	.1562877
#3	.6452792	.1367396	9.829919	27.56755	383.7170	.1541249

Elem	Sr4077
Units	ppm
Avg	.4290572
Stddev	.0035688
%RSD	.8317668
#1	.4331416
#2	.4274886
#3	.4265414

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7799.453	136397.1	15422.75	5947.031	6818.817
Stddev	2.293	339.9	45.36	24.775	2.433
%RSD	.0294032	.2491956	.2940905	.4165975	.0356833
#1	7797.315	136764.1	15454.11	5975.613	6821.465
#2	7799.170	136093.1	15443.41	5933.795	6818.306
#3	7801.875	136334.1	15370.74	5931.685	6816.680

Sample Name: CCV03 Acquired: 8/20/2025 15:45:09 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.007315**	**4.778010**	**4.898519**	**5.053180**	**5.033378**	**9.769302**	**9.556323**
Stddev	.010077	.026492	.007823	.017798	.010632	.025840	.135770
%RSD	.2012431	.5544476	.1597050	.3522129	.2112397	.2644984	1.420739
#1	4.996677	4.755865	4.897502	5.037057	5.023168	9.799130	9.598682
#2	5.016716	4.807358	4.891253	5.072278	5.044388	9.755047	9.665864
#3	5.008553	4.770806	4.906800	5.050206	5.032577	9.753731	9.404423

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2505592**	**2.467868**	**24.09964**	**1.019062**	**2.461485**	**1.250662**	**4.950934**
Stddev	.0007802	.002283	.00553	.001425	.003081	.000308	.014454
%RSD	.3113993	.0925031	.0229490	.1397956	.1251831	.0245960	.2919468
#1	.2511229	2.467792	24.09612	1.017714	2.462015	1.250307	4.943711
#2	.2496687	2.465623	24.10601	1.018920	2.458174	1.250855	4.967576
#3	.2508860	2.470187	24.09678	1.020552	2.464268	1.250824	4.941515

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.387289**	**24.11324**	**2.468693**	**1.259497**	**22.89269**	**2.441554**	**2.527550**
Stddev	.007264	.05789	.003597	.004041	.12277	.003667	.009641
%RSD	.3042618	.2400629	.1457156	.3208770	.5362830	.1501724	.3814482
#1	2.378902	24.17819	2.467179	1.255572	22.79233	2.437381	2.516418
#2	2.391402	24.09447	2.466101	1.259274	23.02958	2.443022	2.532959
#3	2.391562	24.06707	2.472800	1.263646	22.85615	2.444259	2.533272

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.47144**	**4.941882**	**5.051217**	**4.929315**	**4.821648**	**5.100357**	**4.920614**
Stddev	.15441	.009886	.004678	.001229	.005878	.008548	.006496
%RSD	.6309987	.2000518	.0926033	.0249233	.1219162	.1676025	.1320201
#1	24.30968	4.947399	5.048621	4.928000	4.824635	5.094847	4.916989
#2	24.61728	4.930469	5.056616	4.929512	4.825432	5.110205	4.916740
#3	24.48736	4.947779	5.048413	4.930434	4.814875	5.096021	4.928114

Sample Name: CCV03 Acquired: 8/20/2025 15:45:09 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.040846**	**4.592629**	**4.856853**
Stddev	.016904	.010175	.063749
%RSD	.3353316	.2215449	1.312559
#1	5.052083	4.591751	4.816865
#2	5.049050	4.603214	4.823325
#3	5.021407	4.582922	4.930370

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6028.447**	**102176.7**	**11052.98**	**4591.252**	**7044.908**
Stddev	6.235	109.0	34.10	24.983	17.590
%RSD	.1034311	.1066596	.3085487	.5441442	.2496774
#1	6031.783	102286.9	11034.00	4608.224	7046.695
#2	6032.303	102069.0	11092.35	4602.967	7061.535
#3	6021.253	102174.1	11032.59	4562.564	7026.493

Sample Name: CCB03 Acquired: 8/20/2025 15:49:22 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015874**	**-.000061**	**.0000524**	**-.001239**	**-.000664**	**.0022425**
Stddev	.0004672	.001417	.0010224	.000892	.001747	.0026051
%RSD	29.43364	2311.634	1951.715	71.99534	263.0574	116.1669
#1	.0015993	-.001678	.0009828	-.002244	-.000459	.0051700
#2	.0011143	.000963	.0002166	-.000931	-.002504	.0001796
#3	.0020485	.000532	-.001042	-.000541	.000971	.0013781

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003035**	**-.000055**	**.0000109**	**.0010063**	**-.000450**	**-.000036**
Stddev	.000756	.000034	.0000346	.0037528	.000329	.000125
%RSD	24.90666	62.02063	317.5191	372.9301	73.13871	344.2550
#1	-.003447	-.000026	.0000266	-.003180	-.000622	.000094
#2	-.003495	-.000093	-.000029	.002131	-.000658	-.000048
#3	-.002163	-.000047	.000035	.004068	-.000071	-.000155

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000319**	**.0002328**	**.0009010**	**-.028058**	**-.000193**	**.0004199**
Stddev	.000192	.0052018	.0002303	.010000	.000184	.0004708
%RSD	60.28900	2234.065	25.56345	35.63969	95.22368	112.1235
#1	-.000540	-.002343	.0006540	-.018539	-.000253	.0004599
#2	-.000201	.006220	.0009390	-.038478	.000013	.0008694
#3	-.000214	-.003178	.0011099	-.027157	-.000339	-.000070

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0276476**	**.0026750**	**-.000641**	**.1422258**	**.0044476**	**.0002299**
Stddev	.0345698	.0031535	.000077	.0590281	.0004811	.0001696
%RSD	125.0370	117.8879	11.99404	41.50307	10.81746	73.78596
#1	-.009529	-.000615	-.000594	.0794544	.0047592	.0000345
#2	.058826	.005672	-.000599	.1506088	.0038935	.0003389
#3	.033646	.002968	-.000730	.1966142	.0046901	.0003162

Sample Name: CCB03 Acquired: 8/20/2025 15:49:22 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002017	.0002648	.1044758	.0004228	F .0901592	-.007389
Stddev	.000487	.0008356	.1388919	.0001374	.0049594	.000417
%RSD	24.15179	315.5334	132.9416	32.50715	5.500670	5.637733
#1	-.002158	-.000698	.0273287	.0003924	.0947773	-.006909
#2	-.002418	.000799	.2648164	.0005729	.0907827	-.007622
#3	-.001475	.000694	.0212825	.0003031	.0849176	-.007638

Elem	Sr4077
Units	ppm
Avg	.0001177
Stddev	.0001203
%RSD	102.1705
#1	.0000830
#2	.0000186
#3	.0002515

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6342.990	109512.0	11217.58	4861.381	8083.949
Stddev	15.347	264.6	23.17	6.047	19.245
%RSD	.2419473	.2416445	.2065673	.1243956	.2380648
#1	6349.728	109706.5	11200.56	4863.301	8085.695
#2	6325.427	109210.7	11243.97	4854.607	8063.891
#3	6353.815	109618.9	11208.21	4866.235	8102.262

Sample Name: PB169303BL Acquired: 8/20/2025 15:53:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0005820**	**-.000799**	**-.000566**	**-.000593**	**-.000809**	**-.004698**
Stddev	.0013260	.000269	.000940	.002766	.000777	.010529
%RSD	227.8522	33.68139	166.2372	466.1851	96.03710	224.1190
#1	.0013407	-.000839	-.001624	.002465	-.001693	-.007248
#2	.0013544	-.001045	-.000246	-.001325	-.000228	-.013719
#3	-.000949	-.000512	.000173	-.002920	-.000507	.006872

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003160**	**-.000052**	**-.000005**	**-.000035**	**-.000520**	**-.000091**
Stddev	.001215	.000026	.000030	.008641	.000253	.000050
%RSD	38.44752	49.36426	651.7586	24637.61	48.58443	55.43980
#1	-.002694	-.000078	.000002	.009813	-.000693	-.000125
#2	-.002248	-.000049	-.000037	-.003570	-.000637	-.000114
#3	-.004539	-.000028	.000022	-.006349	-.000230	-.000033

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000263**	**-.002318**	**.0002111**	**-.004866**	**-.000057**	**.0005426**
Stddev	.000176	.002186	.0005137	.007237	.000153	.0002733
%RSD	67.17161	94.29892	243.3850	148.7168	268.2482	50.36511
#1	-.000453	-.000721	.0006305	-.004473	.000087	.0008575
#2	-.000105	-.004810	.0003646	.002166	-.000218	.0003666
#3	-.000230	-.001424	-.000362	-.012291	-.000040	.0004038

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071618**	**.0021764**	**-.000972**	**.0811552**	**.0015383**	**-.000012**
Stddev	.0195120	.0007432	.000227	.0431357	.0002746	.000109
%RSD	272.4444	34.14765	23.32373	53.15210	17.85411	891.0586
#1	-.008616	.0014673	-.000777	.0528566	.0012634	-.000130
#2	.001122	.0029495	-.000919	.0598070	.0015388	.000009
#3	.028980	.0021125	-.001221	.1308022	.0018127	.000084

Sample Name: PB169303BL Acquired: 8/20/2025 15:53:41 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.002120	-.000182	.0018828	.0004238	F .0603502	-.007666
Stddev	.000135	.000374	.0055760	.0009469	.0032289	.001580
%RSD	6.357853	205.3478	296.1562	223.4402	5.350267	20.61355
#1	-.002261	.000082	.0017761	.0003583	.0632991	-.007583
#2	-.002108	-.000610	-.003639	.0014017	.0608516	-.009285
#3	-.001992	-.000018	.007511	-.000489	.0569000	-.006128

Elem	Sr4077
Units	ppm
Avg	-.000006
Stddev	.000038
%RSD	642.7489
#1	-.000000
#2	.000029
#3	-.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6356.387	110216.7	11330.99	4897.193	8086.713
Stddev	8.422	348.5	15.85	23.053	7.543
%RSD	.1324981	.3161819	.1398793	.4707371	.0932725
#1	6362.107	110322.2	11318.46	4906.962	8082.081
#2	6360.338	109827.7	11348.80	4870.864	8095.416
#3	6346.715	110500.3	11325.70	4913.752	8082.641

Sample Name: PB169303BS Acquired: 8/20/2025 15:58:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.7798616**	**1.974867**	**.9469622**	**1.982125**	**.7794342**	**2.004153**
Stddev	.0053502	.099028	.0017656	.014804	.0026546	.002157
%RSD	.6860489	5.014418	.1864453	.7468996	.3405841	.1076183
#1	.7753933	2.017820	.9489527	1.978655	.7763702	2.001900
#2	.7784011	1.861615	.9463486	1.969364	.7808898	2.006199
#3	.7857905	2.045167	.9455853	1.998357	.7810426	2.004358

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1912461**	**.2028442**	**.1895678**	**1.026760**	**.4100419**	**.1936529**
Stddev	.0010053	.0002549	.0001851	.009401	.0002601	.0004632
%RSD	.5256382	.1256595	.0976172	.9156428	.0634425	.2392070
#1	.1900959	.2027380	.1896671	1.036095	.4103421	.1941162
#2	.1916861	.2026596	.1893543	1.026891	.4098829	.1931898
#3	.1919564	.2031350	.1896821	1.017294	.4099007	.1936526

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3093409**	**3.031308**	**.2005006**	**1.975678**	**.4880593**	**.0753505**
Stddev	.0006230	.003746	.0004824	.008792	.0002194	.0005121
%RSD	.2013991	.1235680	.2405766	.4450207	.0449610	.6796316
#1	.3091382	3.035356	.2003552	1.965605	.4883048	.0758048
#2	.3088446	3.030602	.2001076	1.979612	.4878822	.0754512
#3	.3100401	3.027966	.2010389	1.981815	.4879909	.0747955

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.823797**	**.2988580**	**.2108897**	**9.751599**	**.2959665**	**.3946253**
Stddev	.021281	.0022179	.0006185	.050237	.0003373	.0016380
%RSD	.7536132	.7421119	.2932907	.5151682	.1139797	.4150690
#1	2.808557	.2984484	.2113294	9.702931	.2963273	.3940772
#2	2.814725	.3012521	.2111573	9.748595	.2959130	.3933316
#3	2.848111	.2968735	.2101824	9.803271	.2956590	.3964670

Sample Name: PB169303BS Acquired: 8/20/2025 15:58:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	.6492152	.1861974	.8994007	5.460416	F .0484551	.1922401
Stddev	.0029627	.0010339	.0087382	.036771	.0010335	.0019145
%RSD	.4563505	.5552658	.9715603	.6734021	2.132861	.9958756
#1	.6495628	.1851898	.8905121	5.439017	.0479657	.1900329
#2	.6460940	.1861468	.9079803	5.439357	.0477572	.1932377
#3	.6519887	.1872557	.8997095	5.502875	.0496424	.1934498

Elem	Sr4077
Units	ppm
Avg	.1930608
Stddev	.0004906
%RSD	.2541253
#1	.1925280
#2	.1934939
#3	.1931606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6287.492	106218.8	11293.34	4809.793	7752.446
Stddev	4.095	216.9	27.50	3.425	9.527
%RSD	.0651303	.2042409	.2434805	.0712124	.1228864
#1	6287.471	106330.7	11292.10	4808.314	7745.768
#2	6283.407	106356.9	11321.43	4807.355	7748.215
#3	6291.597	105968.7	11266.48	4813.709	7763.355

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: Q2881-01 Acquired: 8/20/2025 16:02:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.001433**	**-.001988**	**.0050607**	**.0014664**	**-.000549**	**.0478653**	**.0011208**
Stddev	.001213	.001036	.0012155	.0021843	.001164	.0031199	.0007738
%RSD	84.63479	52.10172	24.01855	148.9605	211.9729	6.518091	69.04092
#1	-.002831	-.001683	.0054060	.0010964	-.000070	.0446973	.0020076
#2	-.000657	-.001139	.0060662	-.000509	.000299	.0509348	.0007729
#3	-.000812	-.003142	.0037099	.003812	-.001876	.0479638	.0005820

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000114**	**.0000179**	**3.795015**	**-.000107**	**.0060428**	**.0142734**	**1.131198**
Stddev	.000054	.0000518	.004171	.000067	.0001944	.0003103	.003647
%RSD	47.11084	289.7730	.1099030	62.63434	3.217745	2.174199	.3223714
#1	-.000062	.0000497	3.793764	-.000169	.0058183	.0143836	1.127088
#2	-.000170	-.000042	3.799668	-.000117	.0061572	.0139230	1.132461
#3	-.000111	.000046	3.791612	-.000036	.0061529	.0145136	1.134045

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0157154**	**1.469035**	**.0072678**	**.0001355**	**12.08933**	**.0027760**	**.0295800**
Stddev	.0002710	.026786	.0000596	.0001698	.07262	.0013825	.0002687
%RSD	1.724446	1.823389	.8203985	125.2978	.6006847	49.80158	.9085336
#1	.0160086	1.499854	.0073364	.0000140	12.03673	.0011796	.0298834
#2	.0156633	1.451357	.0072286	.0003295	12.05908	.0035684	.0294847
#3	.0154742	1.455893	.0072383	.0000630	12.17219	.0035799	.0293719

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5267241**	**.0083004**	**.0005060**	**-.016282**	**-.000545**	**5.324327**	**.0065369**
Stddev	.0260761	.0005183	.0001457	.000484	.000899	.029524	.0007317
%RSD	4.950623	6.243821	28.78929	2.972322	165.0278	.5545109	11.19304
#1	.5231359	.0077139	.0004151	-.016707	-.000092	5.321795	.0071526
#2	.5544086	.0084903	.0004289	-.015755	-.001581	5.296151	.0067301
#3	.5026280	.0086968	.0006741	-.016384	.000037	5.355035	.0057280

Sample Name: Q2881-01 Acquired: 8/20/2025 16:02:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.695664**	**-.013335**	**.0194870**
Stddev	.018475	.000721	.0001230
%RSD	.3934534	5.407682	.6311082
#1	4.681231	-.013363	.0194128
#2	4.689275	-.012601	.0196290
#3	4.716486	-.014042	.0194193

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6358.851**	**110617.5**	**11494.03**	**4859.150**	**7961.357**
Stddev	10.944	449.6	55.35	10.890	9.099
%RSD	.1720989	.4064529	.4815779	.2241212	.1142909
#1	6346.216	110687.6	11448.93	4846.624	7954.162
#2	6365.307	111027.9	11477.36	4864.444	7971.585
#3	6365.031	110136.9	11555.80	4866.381	7958.324

Sample Name: Q2881-02 Acquired: 8/20/2025 16:06:17 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.002823**	**-.000943**	**.0016932**	**.0012803**	**.0010497**	**.0539177**	**-.000764**
Stddev	.000720	.000702	.0005488	.0008144	.0007496	.0050546	.000586
%RSD	25.50487	74.47204	32.41362	63.61062	71.40827	9.374695	76.65511
#1	-.002982	-.000715	.0018592	.0003528	.0007045	.0545539	-.000574
#2	-.003450	-.001731	.0010805	.0016099	.0005350	.0586242	-.001422
#3	-.002037	-.000383	.0021398	.0018783	.0019098	.0485752	-.000297

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000107**	**.0000530**	**4.088617**	**-.000148**	**.0065447**	**.0045239**	**.1070616**
Stddev	.000042	.0000843	.015247	.000153	.0000543	.0002662	.0025056
%RSD	39.49229	159.1160	.3729214	103.6171	.8303515	5.885021	2.340374
#1	-.000060	.0001502	4.097027	.000029	.0065303	.0042194	.1076434
#2	-.000143	.0000002	4.071017	-.000228	.0064990	.0046393	.1043163
#3	-.000118	.0000085	4.097808	-.000246	.0066048	.0047129	.1092252

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0188846**	**1.607884**	**.0072994**	**.0001705**	**12.15598**	**.0022121**	**.0282346**
Stddev	.0004392	.021055	.0001525	.0004759	.01565	.0026766	.0002215
%RSD	2.325710	1.309478	2.089759	279.1181	.1287808	120.9989	.7846182
#1	.0190640	1.624250	.0071436	-.000008	12.16061	.0006189	.0283594
#2	.0183840	1.584131	.0074484	-.000191	12.16880	.0053022	.0283655
#3	.0192056	1.615271	.0073063	.000710	12.13853	.0007151	.0279788

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6315239**	**.0079561**	**.0004042**	**-.015770**	**.0007541**	**5.608318**	**.0083677**
Stddev	.0052933	.0003093	.0001087	.000153	.0010240	.008702	.0015004
%RSD	.8381811	3.887578	26.90046	.9689758	135.7835	.1551586	17.93060
#1	.6262729	.0076218	.0003316	-.015936	-.000395	5.615877	.0100999
#2	.6314403	.0082321	.0005293	-.015636	.001086	5.610271	.0075301
#3	.6368585	.0080143	.0003518	-.015737	.001571	5.598805	.0074731

Sample Name: Q2881-02 Acquired: 8/20/2025 16:06:17 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.121587**	**-.015099**	**.0220459**
Stddev	.032560	.000790	.0001085
%RSD	.6357381	5.231298	.4920469
#1	5.095039	-.015954	.0221401
#2	5.157917	-.014397	.0219273
#3	5.111806	-.014947	.0220703

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6352.649**	**110934.0**	**11306.74**	**4866.629**	**7936.678**
Stddev	4.191	100.7	34.02	11.301	2.743
%RSD	.0659660	.0907577	.3008982	.2322065	.0345613
#1	6349.265	111050.2	11294.00	4853.644	7938.859
#2	6357.336	110872.7	11345.29	4874.241	7937.577
#3	6351.344	110879.3	11280.93	4872.001	7933.599

Sample Name: Q2881-02DUP Acquired: 8/20/2025 16:10:34 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.001543**	**-.001578**	**.0021606**	**.0019649**	**.0012934**	**.0551826**	**.0002673**
Stddev	.000553	.000829	.0009206	.0009593	.0006149	.0102380	.0006829
%RSD	35.81337	52.52526	42.60599	48.82261	47.54194	18.55293	255.4772
#1	-.001137	-.002299	.0010977	.0009271	.0018686	.0669744	-.000335
#2	-.002173	-.000672	.0026984	.0028191	.0013663	.0485579	.001009
#3	-.001320	-.001762	.0026858	.0021484	.0006453	.0500154	.000128

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000150**	**.0000196**	**4.370477**	**.0019269**	**.0068983**	**.0048716**	**.1257415**
Stddev	.000057	.0000653	.005116	.0000913	.0001532	.0001482	.0040744
%RSD	38.44892	333.4741	.1170509	4.740971	2.221399	3.041132	3.240296
#1	-.000178	-.000018	4.371577	.0020290	.0067213	.0048318	.1210523
#2	-.000187	-.000019	4.364901	.0018530	.0069891	.0050356	.1284169
#3	-.000083	.000095	4.374954	.0018986	.0069843	.0047475	.1277552

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0270532**	**1.682501**	**.0080591**	**-.000074**	**13.52001**	**.0038388**	**.0294606**
Stddev	.0005082	.012638	.0002588	.000159	.03292	.0016597	.0002484
%RSD	1.878440	.7511149	3.211664	216.1354	.2434589	43.23539	.8430958
#1	.0268363	1.677552	.0081331	-.000213	13.54999	.0019804	.0296228
#2	.0276339	1.696864	.0077713	-.000108	13.52526	.0051735	.0291746
#3	.0266895	1.673086	.0082729	.000100	13.48479	.0043625	.0295843

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7025677**	**.0075995**	**.0003818**	**-.014933**	**.0001462**	**6.054510**	**.0100178**
Stddev	.0044231	.0008804	.0002393	.000069	.0010588	.015620	.0002053
%RSD	.6295553	11.58548	62.67160	.4600935	724.3841	.2579864	2.049035
#1	.6974771	.0070535	.0003747	-.014855	-.000819	6.039633	.0101788
#2	.7054707	.0071298	.0006245	-.014982	-.000021	6.053117	.0100878
#3	.7047554	.0086152	.0001461	-.014963	.001278	6.070779	.0097866

Sample Name: Q2881-02DUP Acquired: 8/20/2025 16:10:34 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.385817**	**-.013578**	**.0234303**
Stddev	.016927	.002137	.0000236
%RSD	.3142966	15.73585	.1008071
#1	5.366277	-.011655	.0234164
#2	5.395153	-.015878	.0234576
#3	5.396021	-.013200	.0234169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6275.253**	**108693.6**	**11358.40**	**4788.673**	**7841.135**
Stddev	10.767	129.7	37.12	5.322	13.041
%RSD	.1715767	.1193006	.3268370	.1111372	.1663183
#1	6276.438	108784.8	11371.68	4783.219	7847.262
#2	6285.379	108545.2	11316.46	4793.852	7849.983
#3	6263.943	108750.9	11387.05	4788.949	7826.158

Sample Name: Q2881-02LX5 Acquired: 8/20/2025 16:14:49 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0003588**	**-.000824**	**.0002896**	**.0006237**	**-.002461**	**.0080431**	**-.002197**
Stddev	.0013000	.001593	.0013521	.0011632	.000983	.0053918	.000425
%RSD	362.3775	193.2966	466.8769	186.4973	39.95971	67.03610	19.32320
#1	.0001212	.000983	-.001168	-.000591	-.001996	.0037075	-.002654
#2	-.000806	-.001429	.000534	.001728	-.003591	.0140804	-.001815
#3	.001761	-.002026	.001503	.000734	-.001796	.0063414	-.002122

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000034**	**-.000014**	**.9088734**	**-.000292**	**.0013520**	**.0008614**	**.0253596**
Stddev	.000030	.000025	.0038764	.000574	.0000247	.0002354	.0026288
%RSD	89.42252	182.0867	.4265004	196.6533	1.827672	27.32871	10.36603
#1	-.000052	.000002	.9109827	.000358	.0013257	.0007172	.0276231
#2	.000001	-.000001	.9112377	-.000504	.0013556	.0007340	.0224763
#3	-.000051	-.000043	.9043998	-.000730	.0013747	.0011330	.0259794

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048388**	**.3493109**	**.0015208**	**.0003621**	**2.733006**	**.0019844**	**.0051514**
Stddev	.0003588	.0275183	.0002104	.0001311	.008256	.0014662	.0001225
%RSD	7.415815	7.877878	13.83543	36.20012	.3020666	73.88310	2.377746
#1	.0052188	.3198406	.0012786	.0004915	2.741942	.0036701	.0050142
#2	.0047918	.3537561	.0016585	.0002294	2.731411	.0012781	.0051903
#3	.0045057	.3743360	.0016253	.0003653	2.725664	.0010052	.0052497

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0504125**	**.0011808**	**.0001052**	**-.005237**	**.0002152**	**1.245364**	**.0021566**
Stddev	.0322807	.0006472	.0000925	.000254	.0011422	.008436	.0004046
%RSD	64.03302	54.80838	87.93960	4.845903	530.7985	.6774324	18.75887
#1	.0151228	.0009137	.0000201	-.005072	-.000015	1.235730	.0022959
#2	.0576642	.0019188	.0002036	-.005109	-.000794	1.248935	.0017008
#3	.0784505	.0007099	.0000917	-.005529	.001455	1.251428	.0024732

Sample Name: Q2881-02LX5 Acquired: 8/20/2025 16:14:49 Type: Unk
Method: 6010-200.7 NEW(v122) 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	1.157389	-.009482	.0048856
Stddev	.017981	.000605	.0000518
%RSD	1.553623	6.382258	1.059569
#1	1.173868	-.010102	.0049427
#2	1.160088	-.009450	.0048417
#3	1.138210	-.008893	.0048725

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6383.128	110168.2	11333.06	4865.322	8025.918
Stddev	4.125	203.3	27.32	13.346	7.907
%RSD	.0646279	.1845797	.2410943	.2743148	.0985160
#1	6382.656	109974.7	11325.72	4850.001	8034.968
#2	6379.259	110149.8	11310.16	4871.542	8020.348
#3	6387.469	110380.2	11363.30	4874.423	8022.439

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: Q2881-02MS Acquired: 8/20/2025 16:19:08 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.7381503**	**1.821396**	**.8694930**	**1.822598**	**.7427555**	**1.938088**	**.1831413**
Stddev	.0024113	.018842	.0016154	.006549	.0019948	.006166	.0006972
%RSD	.3266706	1.034461	.1857826	.3593220	.2685736	.3181293	.3806798
#1	.7408611	1.842636	.8706346	1.820178	.7438749	1.937784	.1838385
#2	.7362443	1.806694	.8676447	1.817604	.7404524	1.944400	.1831414
#3	.7373456	1.814858	.8701996	1.830013	.7439393	1.932079	.1824441

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1830952**	**.1758302**	**5.088816**	**.3913895**	**.1895926**	**.2909710**	**2.901044**
Stddev	.0007606	.0000919	.007178	.0012957	.0003332	.0008872	.011535
%RSD	.4154141	.0522772	.1410511	.3310489	.1757424	.3049152	.3976298
#1	.1835672	.1757900	5.090882	.3928571	.1892490	.2911148	2.897610
#2	.1835007	.1757653	5.094735	.3904037	.1896147	.2917775	2.891614
#3	.1822178	.1759354	5.080832	.3909078	.1899143	.2900207	2.913906

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2144788**	**3.496864**	**.4621975**	**.0675169**	**15.67888**	**.2856271**	**.2237178**
Stddev	.0010070	.022904	.0004117	.0010096	.02853	.0011684	.0002990
%RSD	.4694934	.6549966	.0890790	1.495341	.1819455	.4090676	.1336373
#1	.2144481	3.519695	.4626605	.0682812	15.67973	.2862626	.2240479
#2	.2155007	3.497010	.4618725	.0678972	15.64994	.2842787	.2236401
#3	.2134875	3.473887	.4620594	.0663724	15.70698	.2863401	.2234653

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.662278**	**.2578335**	**.4038248**	**.6163397**	**.1820259**	**6.610523**	**4.990816**
Stddev	.019151	.0002256	.0006623	.0006190	.0012805	.019146	.013740
%RSD	.1982084	.0874857	.1640124	.1004310	.7034666	.2896291	.2753131
#1	9.684275	.2580556	.4039580	.6162129	.1817381	6.617767	5.006680
#2	9.649315	.2578401	.4031059	.6157940	.1834258	6.588812	4.983039
#3	9.653243	.2576046	.4044103	.6170123	.1809138	6.624990	4.982727

Sample Name: Q2881-02MS Acquired: 8/20/2025 16:19:08 Type: Unk
Method: 6010-200.7 NEW(v122) 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	5.314715	.1708354	.2031649
Stddev	.010725	.0017882	.0005100
%RSD	.2017936	1.046746	.2510153
#1	5.318828	.1690576	.2036452
#2	5.302543	.1726338	.2032197
#3	5.322775	.1708147	.2026297

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6301.008	110127.4	11446.45	4818.440	7773.372
Stddev	4.567	384.5	60.27	10.832	15.547
%RSD	.0724876	.3491261	.5265094	.2247935	.1999979
#1	6306.038	109697.1	11389.95	4830.754	7789.603
#2	6299.868	110437.1	11439.50	4814.177	7771.897
#3	6297.119	110248.1	11509.88	4810.388	7758.615

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: Q2881-02MSD Acquired: 8/20/2025 16:23:07 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.7227484**	**1.765213**	**.8443304**	**1.782994**	**.7312795**	**1.866827**	**.1794753**
Stddev	.0021720	.018219	.0016320	.001567	.0009255	.014119	.0017119
%RSD	.3005244	1.032092	.1932876	.0879136	.1265589	.7563152	.9538520
#1	.7204580	1.753966	.8436017	1.781461	.7313534	1.867348	.1788673
#2	.7230086	1.786233	.8431897	1.782929	.7303192	1.852455	.1781503
#3	.7247786	1.755441	.8461998	1.784593	.7321658	1.880679	.1814082

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1779364**	**.1712299**	**4.968939**	**.3808537**	**.1839677**	**.2833374**	**2.832392**
Stddev	.0013018	.0001881	.012276	.0009708	.0002961	.0000993	.010671
%RSD	.7315964	.1098266	.2470608	.2548940	.1609248	.0350319	.3767513
#1	.1772673	.1710209	4.961742	.3818830	.1836868	.2832494	2.844290
#2	.1771053	.1712836	4.961961	.3807238	.1839395	.2834450	2.823669
#3	.1794367	.1713853	4.983114	.3799545	.1842769	.2833178	2.829217

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2137651**	**3.377922**	**.4490855**	**.0656672**	**15.38241**	**.2796133**	**.2166814**
Stddev	.0008954	.030384	.0007474	.0003264	.09998	.0009016	.0004378
%RSD	.4188731	.8994829	.1664296	.4970803	.6499784	.3224364	.2020315
#1	.2129597	3.390472	.4484833	.0657264	15.47316	.2804142	.2165803
#2	.2136065	3.343273	.4488512	.0653152	15.39886	.2797887	.2171608
#3	.2147293	3.400019	.4499220	.0659599	15.27523	.2786369	.2163030

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.479602**	**.2508619**	**.3976607**	**.6026003**	**.1788256**	**6.483940**	**4.845965**
Stddev	.043562	.0023958	.0006273	.0016788	.0011702	.008493	.012389
%RSD	.4595331	.9550417	.1577417	.2785907	.6544047	.1309893	.2556458
#1	9.529406	.2490576	.3972876	.6010129	.1784296	6.488388	4.833763
#2	9.460806	.2499478	.3973095	.6024304	.1779047	6.489286	4.845600
#3	9.448593	.2535802	.3983849	.6043576	.1801425	6.474147	4.858532

Sample Name: Q2881-02MSD Acquired: 8/20/2025 16:23:07 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.158675**	**.1659085**	**.1977870**
Stddev	.018870	.0005969	.0009633
%RSD	.3657831	.3597685	.4870199
#1	5.137000	.1652217	.1985331
#2	5.167593	.1663017	.1966996
#3	5.171433	.1662021	.1981284

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6291.687**	**110416.0**	**11497.21**	**4858.928**	**7772.396**
Stddev	9.087	293.6	54.48	35.074	15.153
%RSD	.1444224	.2659372	.4738461	.7218516	.1949545
#1	6289.609	110194.5	11514.58	4819.802	7778.304
#2	6301.633	110304.4	11540.88	4869.428	7783.704
#3	6283.820	110749.0	11436.16	4887.552	7755.179

Sample Name: Q2881-02A Acquired: 8/20/2025 16:27:04 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.7772262**	**1.971551**	**.9133421**	**1.930501**	**.7815287**	**2.044403**	**.1937596**
Stddev	.0025544	.027109	.0028797	.003379	.0011183	.005014	.0018717
%RSD	.3286527	1.375019	.3152870	.1750327	.1430888	.2452639	.9659927
#1	.7775245	1.978779	.9121524	1.933439	.7824329	2.043816	.1921772
#2	.7796183	1.994315	.9112478	1.931256	.7818750	2.049684	.1958256
#3	.7745358	1.941561	.9166259	1.926808	.7802782	2.039708	.1932759

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1911850**	**.1852388**	**5.154899**	**.4130848**	**.1984734**	**.3060373**	**3.144183**
Stddev	.0007185	.0003139	.005109	.0019482	.0004404	.0005831	.016994
%RSD	.3758225	.1694426	.0991042	.4716214	.2218711	.1905458	.5405000
#1	.1911651	.1849097	5.159502	.4113393	.1979701	.3053783	3.124957
#2	.1919132	.1852719	5.155791	.4151866	.1986628	.3064868	3.157199
#3	.1904766	.1855348	5.149402	.4127286	.1987875	.3062466	3.150393

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2174879**	**3.575599**	**.4866599**	**.0694288**	**16.31972**	**.3033517**	**.2365926**
Stddev	.0005552	.019045	.0009990	.0005089	.11918	.0005511	.0012808
%RSD	.2552661	.5326365	.2052727	.7329025	.7303059	.1816578	.5413615
#1	.2168861	3.566701	.4856951	.0690466	16.18704	.3033464	.2357932
#2	.2175974	3.562631	.4865947	.0700064	16.41769	.3039054	.2380699
#3	.2179802	3.597464	.4876898	.0692335	16.35444	.3028033	.2359146

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.41536**	**.2710821**	**.4230092**	**.6435876**	**.1885016**	**6.910515**	**5.260383**
Stddev	.06581	.0012433	.0002475	.0002327	.0009449	.017234	.006137
%RSD	.6318935	.4586512	.0584991	.0361625	.5012434	.2493871	.1166699
#1	10.34042	.2715180	.4232033	.6438427	.1874625	6.900567	5.253802
#2	10.46377	.2720487	.4227306	.6433868	.1893092	6.900563	5.265950
#3	10.44188	.2696795	.4230937	.6435332	.1887330	6.930415	5.261396

Sample Name: Q2881-02A Acquired: 8/20/2025 16:27:04 Type: Unk
Method: 6010-200.7 NEW(v122) 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	5.224338	.1816664	.2138239
Stddev	.016341	.0007488	.0006127
%RSD	.3127797	.4121793	.2865486
#1	5.239369	.1810667	.2131628
#2	5.226700	.1814268	.2143727
#3	5.206945	.1825056	.2139363

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6272.888	107502.4	11509.41	4800.024	7748.698
Stddev	.967	242.3	26.09	21.625	3.881
%RSD	.0154097	.2253991	.2266839	.4505234	.0500904
#1	6273.814	107767.9	11510.33	4806.736	7751.722
#2	6271.886	107293.3	11482.86	4775.839	7744.321
#3	6272.964	107446.0	11535.02	4817.498	7750.050

Sample Name: Q2814-01 Acquired: 8/20/2025 16:31:02 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0003099**	**-.001713**	**.0069933**	**.0016998**	**.0034726**	**.9349769**
Stddev	.0020081	.000719	.0001246	.0012500	.0009081	.0053510
%RSD	648.0577	41.97522	1.782004	73.54042	26.14939	.5723117
#1	-.001566	-.002534	.0068965	.0007034	.0041191	.9374555
#2	.000067	-.001404	.0069496	.0012936	.0024344	.9288360
#3	.002428	-.001199	.0071339	.0031025	.0038642	.9386392

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0741388**	**-.000074**	**.0001957**	**45.03411**	**.0061468**	**.0001160**
Stddev	.0010403	.000019	.0000723	.11692	.0001317	.0001109
%RSD	1.403225	25.53618	36.94868	.2596183	2.142728	95.52886
#1	.0746063	-.000064	.0002716	44.94114	.0062031	-.000010
#2	.0748632	-.000096	.0001276	45.16537	.0062410	.000159
#3	.0729467	-.000063	.0001880	44.99583	.0059963	.000199

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073040**	**1.924042**	**.0359256**	**25.45586**	**.0018767**	**.0001393**
Stddev	.0002487	.020286	.0008708	.04056	.0003226	.0003008
%RSD	3.405356	1.054348	2.423970	.1593501	17.19157	216.0049
#1	.0071206	1.904775	.0356153	25.48047	.0020683	.0002120
#2	.0072044	1.922138	.0369090	25.47806	.0015042	.0003970
#3	.0075871	1.945213	.0352524	25.40904	.0020576	-.000191

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**137.7688**	**.0078666**	**.0320256**	**27.30660**	**.1727379**	**.0035157**
Stddev	.5903	.0022332	.0002403	.05721	.0005493	.0001008
%RSD	.4284916	28.38821	.7502223	.2095226	.3180228	2.867879
#1	137.0872	.0053061	.0322701	27.26546	.1732227	.0034148
#2	138.1205	.0094112	.0320168	27.28239	.1728498	.0036164
#3	138.0985	.0088825	.0317898	27.37193	.1721413	.0035159

Sample Name: Q2814-01 Acquired: 8/20/2025 16:31:02 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.015055**	**.0338486**	F **13.25954**	**1.042958**	**4.270758**	**-.018078**
Stddev	.000653	.0007611	.09573	.004133	.015688	.001364
%RSD	4.337140	2.248625	.7219387	.3963227	.3673405	7.544353
#1	-.015498	.0344688	13.17594	1.047665	4.283735	-.019591
#2	-.014305	.0329992	13.23872	1.039921	4.275215	-.017703
#3	-.015363	.0340777	13.36396	1.041287	4.253323	-.016941

Elem	Sr4077
Units	ppm
Avg	**.3749724**
Stddev	.0021097
%RSD	.5626317
#1	.3746567
#2	.3772221
#3	.3730383

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5916.784**	**102117.4**	**11088.09**	**4549.645**	**6989.462**
Stddev	2.038	390.8	30.82	37.027	7.259
%RSD	.0344427	.3826650	.2779487	.8138476	.1038561
#1	5914.661	102200.8	11068.85	4553.487	6983.826
#2	5916.966	102459.8	11071.78	4584.601	6997.653
#3	5918.725	101691.7	11123.64	4510.846	6986.906

Sample Name: CCV04 Acquired: 8/20/2025 16:35:17 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**5.052088**	**5.148766**	**4.929721**	**5.091073**	**5.052871**	**9.867562**	**9.767982**
Stddev	.028574	.104411	.028974	.033635	.026837	.009533	.076229
%RSD	.5655956	2.027882	.5877312	.6606675	.5311224	.0966125	.7803998
#1	5.037864	5.083242	4.902991	5.079414	5.033532	9.856588	9.774234
#2	5.084983	5.269173	4.960510	5.128986	5.083510	9.873803	9.840892
#3	5.033417	5.093883	4.925662	5.064819	5.041571	9.872294	9.688819

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2471579**	**2.484598**	**24.59102**	**1.005860**	**2.476198**	**1.255739**	**4.977099**
Stddev	.0006800	.013485	.02104	.000886	.011949	.006329	.008757
%RSD	.2751229	.5427621	.0855675	.0881111	.4825549	.5039929	.1759395
#1	.2466057	2.471157	24.60851	1.005061	2.464175	1.249711	4.986569
#2	.2469506	2.498127	24.56767	1.005706	2.488072	1.262331	4.969296
#3	.2479174	2.484509	24.59690	1.006813	2.476347	1.255174	4.975432

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.431889**	**24.54368**	**2.483240**	**1.249076**	**23.81423**	**2.473984**	**2.525421**
Stddev	.009780	.05496	.013927	.000733	.20270	.004768	.006206
%RSD	.4021734	.2239394	.5608305	.0586825	.8511738	.1927429	.2457283
#1	2.441377	24.50180	2.468943	1.249574	24.04814	2.477534	2.531160
#2	2.421841	24.52331	2.496764	1.249418	23.69024	2.468564	2.526266
#3	2.432450	24.60592	2.484013	1.248234	23.70430	2.475853	2.518836

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.79694**	**4.919787**	**5.084770**	**4.987489**	**4.897649**	**4.976035**	**4.960306**
Stddev	.04728	.016763	.027188	.027146	.012934	.014692	.039215
%RSD	.1906687	.3407213	.5346932	.5442742	.2640941	.2952561	.7905677
#1	24.82207	4.904878	5.065353	4.967446	4.912249	4.961618	4.936060
#2	24.74240	4.916552	5.115843	5.018382	4.887624	4.975500	5.005548
#3	24.82634	4.937932	5.073116	4.976641	4.893073	4.990987	4.939310

Sample Name: CCV04 Acquired: 8/20/2025 16:35:17 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.981653**	**4.747346**	**4.920480**
Stddev	.031923	.017030	.059266
%RSD	.6408097	.3587166	1.204467
#1	4.963136	4.760944	4.866735
#2	5.018514	4.728246	4.910663
#3	4.963309	4.752850	4.984041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6061.915**	**105522.1**	**11297.17**	**4721.360**	**7064.292**
Stddev	29.066	34.8	28.12	22.732	34.586
%RSD	.4794921	.0329835	.2488683	.4814802	.4895915
#1	6085.412	105539.6	11326.12	4704.912	7098.864
#2	6029.411	105544.6	11295.41	4711.867	7029.692
#3	6070.920	105482.0	11269.97	4747.300	7064.321

Sample Name: CCB04 Acquired: 8/20/2025 16:39:28 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000475**	**-.000495**	**.0004625**	**.0003753**	**-.000974**	**.0030327**
Stddev	.001609	.001268	.0005123	.0006468	.000610	.0057079
%RSD	339.1047	256.4340	110.7598	172.3694	62.64853	188.2141
#1	-.001572	.000824	-.000046	-.000182	-.001255	-.002824
#2	-.001224	-.000603	.000978	.000223	-.000274	.003342
#3	.001373	-.001705	.000456	.001085	-.001393	.008580

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003118**	**-.000085**	**.0000228**	**.0042483**	**-.000544**	**-.000107**
Stddev	.000984	.000037	.0000489	.0046477	.000246	.000095
%RSD	31.55861	43.60070	214.2145	109.4017	45.14507	88.88505
#1	-.002441	-.000113	.0000601	.0001642	-.000729	.000002
#2	-.004246	-.000043	.0000409	.0093055	-.000265	-.000154
#3	-.002666	-.000099	-.000033	.0032752	-.000638	-.000171

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000327**	**-.006028**	**.0005548**	**-.010587**	**.0002811**	**.0004798**
Stddev	.000295	.000899	.0000212	.015219	.0001224	.0001382
%RSD	90.04151	14.90723	3.822983	143.7452	43.54965	28.79566
#1	-.000621	-.005025	.0005425	.005981	.0001918	.0003925
#2	-.000330	-.006761	.0005793	-.013798	.0002310	.0006391
#3	-.000031	-.006299	.0005425	-.023944	.0004207	.0004078

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0285990**	**.0032238**	**-.000221**	**.0805686**	**.0043257**	**.0002796**
Stddev	.0169256	.0006119	.000039	.0641514	.0005309	.0002561
%RSD	59.18249	18.98036	17.84852	79.62328	12.27303	91.59690
#1	.0090615	.0027189	-.000217	.0079081	.0040711	.0004177
#2	.0379299	.0039043	-.000184	.1044195	.0039702	-.000016
#3	.0388055	.0030482	-.000263	.1293783	.0049360	.000437

Sample Name: CCB04 Acquired: 8/20/2025 16:39:28 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001875	-.000442	.0121152	-.000014	F .0261418	-.007019
Stddev	.000434	.000568	.0063614	.000789	.0015133	.001009
%RSD	23.12934	128.4322	52.50764	5788.459	5.788680	14.37808
#1	-.001564	-.000553	.0050403	-.000501	.0274876	-.008140
#2	-.001690	-.000947	.0173634	.000897	.0264341	-.006734
#3	-.002371	.000173	.0139420	-.000437	.0245037	-.006182

Elem	Sr4077
Units	ppm
Avg	.0000980
Stddev	.0000489
%RSD	49.87574
#1	.0001278
#2	.0000416
#3	.0001246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6354.006	109665.6	11034.70	4873.821	8076.835
Stddev	5.138	240.7	28.04	21.776	5.518
%RSD	.0808630	.2194679	.2540960	.4467899	.0683227
#1	6359.906	109924.2	11049.74	4875.058	8083.199
#2	6351.597	109624.4	11002.35	4851.453	8073.926
#3	6350.515	109448.2	11052.01	4894.952	8073.380

Sample Name: Q2814-03 Acquired: 8/20/2025 16:43:47 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0217787**	**-.002187**	**.0522537**	**.0047643**	**.0033479**	**18.62827**
Stddev	.0012250	.000371	.0012258	.0028328	.0015860	.01717
%RSD	5.624740	16.94136	2.345957	59.46007	47.37332	.0921862
#1	.0215734	-.001784	.0514911	.0077082	.0028093	18.63118
#2	.0206694	-.002512	.0536677	.0020575	.0021014	18.60983
#3	.0230934	-.002265	.0516022	.0045271	.0051331	18.64381

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0611836**	**.0008127**	**.0009804**	**35.81063**	**.0310581**	**.0043343**
Stddev	.0004068	.0000540	.0000342	.06646	.0000744	.0000633
%RSD	.6648312	6.643176	3.486950	.1855903	.2395923	1.460605
#1	.0610170	.0008610	.0009789	35.82103	.0310321	.0043489
#2	.0608865	.0008225	.0009469	35.73958	.0310002	.0042650
#3	.0616472	.0007544	.0010153	35.87128	.0311420	.0043891

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0418878**	**16.38794**	**.2572641**	**14.33233**	**.0142630**	**.0010630**
Stddev	.0004163	.15977	.0010044	.02389	.0003204	.0002525
%RSD	.9938887	.9748981	.3904084	.1666735	2.246108	23.75231
#1	.0419050	16.32893	.2570829	14.33953	.0143748	.0007795
#2	.0414632	16.26606	.2563627	14.30567	.0145125	.0011455
#3	.0422953	16.56881	.2583467	14.35179	.0139017	.0012638

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**79.12875**	**.0395913**	**.1673440**	**9.478936**	**.1586491**	**.0032422**
Stddev	.52962	.0032372	.0002775	.047854	.0008597	.0001458
%RSD	.6693183	8.176524	.1658256	.5048434	.5418674	4.497027
#1	78.89477	.0406129	.1672213	9.444424	.1592237	.0032523
#2	78.75642	.0421944	.1676617	9.458819	.1590629	.0033826
#3	79.73507	.0359665	.1671490	9.533564	.1576608	.0030915

Sample Name: Q2814-03 Acquired: 8/20/2025 16:43:47 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.014757	.6024015	F 23.55158	2.694794	5.044351	-.005808
Stddev	.000371	.0020721	.22807	.011641	.029716	.001414
%RSD	2.517228	.3439740	.9684060	.4319755	.5890905	24.34889
#1	-.015183	.6039902	23.48367	2.707926	5.075757	-.005748
#2	-.014501	.6000578	23.36518	2.685743	5.040616	-.007252
#3	-.014586	.6031566	23.80590	2.690713	5.016679	-.004425

Elem	Sr4077
Units	ppm
Avg	.1506185
Stddev	.0002558
%RSD	.1698271
#1	.1507725
#2	.1503232
#3	.1507597

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6067.221	103732.4	11153.23	4664.505	7151.557
Stddev	10.232	153.0	57.84	10.476	16.761
%RSD	.1686489	.1475357	.5185860	.2245920	.2343672
#1	6055.408	103619.5	11106.45	4676.570	7132.228
#2	6073.343	103906.6	11135.34	4659.235	7160.370
#3	6072.911	103671.2	11217.90	4657.711	7162.072

Sample Name: Q2814-22 Acquired: 8/20/2025 16:47:55 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0006515**	**-.001398**	**.0003394**	**.0020946**	**.0033435**	**.0398809**
Stddev	.0016170	.001002	.0011691	.0023535	.0025587	.0079037
%RSD	248.2096	71.68796	344.4583	112.3589	76.52804	19.81829
#1	.0001495	-.002367	-.000958	.0042156	.0061952	.0463774
#2	.0024600	-.001462	.000666	-.000437	.0012483	.0310815
#3	-.000655	-.000366	.001310	.002505	.0025871	.0421837

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0550895**	**-.000151**	**.0000666**	**41.40174**	**.0008411**	**-.000396**
Stddev	.0008912	.000021	.0000198	.13302	.0002417	.000106
%RSD	1.617737	13.66315	29.72916	.3212860	28.73187	26.71268
#1	.0548555	-.000173	.0000455	41.43924	.0007862	-.000492
#2	.0560743	-.000131	.0000695	41.51198	.0011055	-.000414
#3	.0543386	-.000149	.0000847	41.25399	.0006316	-.000283

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104719**	**.0349873**	**.0080960**	**23.60127**	**.0007293**	**.0000161**
Stddev	.0001022	.0050762	.0002424	.10353	.0001640	.0002092
%RSD	.9758884	14.50867	2.993900	.4386532	22.48670	1299.438
#1	.0105473	.0300437	.0079287	23.56984	.0005570	.0002360
#2	.0105129	.0347318	.0079852	23.71687	.0007474	-.000181
#3	.0103556	.0401864	.0083739	23.51710	.0008835	-.000007

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**130.8633**	**.0057501**	**.0237107**	**25.29151**	**.1708207**	**.0024760**
Stddev	.3246	.0005209	.0001070	.07742	.0006139	.0001987
%RSD	.2480456	9.058455	.4512061	.3061138	.3594007	8.024982
#1	130.5347	.0053389	.0237212	25.21590	.1709224	.0025249
#2	131.1838	.0055756	.0235988	25.28799	.1713774	.0026457
#3	130.8713	.0063358	.0238120	25.37063	.1701622	.0022574

Sample Name: Q2814-22 Acquired: 8/20/2025 16:47:55 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.016537	-.000873	F 11.23132	.8053637	4.226290	-.017609
Stddev	.000315	.000310	.01485	.0022384	.012424	.000825
%RSD	1.904163	35.51178	.1322156	.2779303	.2939591	4.686739
#1	-.016817	-.000873	11.21590	.8074264	4.231392	-.018016
#2	-.016196	-.000563	11.23254	.8029836	4.212128	-.016659
#3	-.016598	-.001184	11.24552	.8056811	4.235350	-.018151

Elem	Sr4077
Units	ppm
Avg	.3447642
Stddev	.0014678
%RSD	.4257410
#1	.3447916
#2	.3462181
#3	.3432829

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5958.082	103380.0	11158.81	4630.086	6993.512
Stddev	2.589	76.2	60.06	6.640	12.041
%RSD	.0434509	.0737014	.5382620	.1434004	.1721712
#1	5956.779	103365.4	11131.08	4637.752	7000.150
#2	5961.064	103312.1	11117.62	4626.360	7000.773
#3	5956.404	103462.4	11227.73	4626.147	6979.613

Reviewed By:MOHAN
On:8/21/2025 5:53:36 PM
Inst Id :P4
LB :LB136898

Sample Name: Q2814-23 Acquired: 8/20/2025 16:52:09 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0031780**	**-.000543**	**.0127019**	**.0017224**	**.0027934**	**.5956646**	**.0213885**
Stddev	.0012436	.001511	.0005470	.0014119	.0001096	.0058991	.0005848
%RSD	39.13105	278.0610	4.306127	81.97038	3.924341	.9903367	2.734134
#1	.0022392	.000901	.0132677	.0003610	.0026967	.5971445	.0212370
#2	.0027065	-.000419	.0121760	.0031798	.0027710	.5891665	.0220341
#3	.0045884	-.002112	.0126619	.0016265	.0029125	.6006829	.0208943

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000153**	**.0003280**	**39.52109**	**.0019792**	**-.000070**	**.1470114**	**.0777607**
Stddev	.000110	.0000931	.09068	.0001296	.000121	.0001889	.0015244
%RSD	71.86977	28.38891	.2294377	6.545728	172.2442	.1285177	1.960305
#1	-.000027	.0002414	39.42235	.0018305	.000069	.1468537	.0764047
#2	-.000203	.0003161	39.60062	.0020395	-.000130	.1472208	.0794106
#3	-.000229	.0004265	39.54031	.0020676	-.000149	.1469597	.0774669

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0405737**	**14.70714**	**.0022815**	**.0002129**	**91.98060**	**.0092889**	**.0397045**
Stddev	.0000877	.06583	.0002573	.0002194	.44853	.0026365	.0001454
%RSD	.2161606	.4476058	11.27826	103.0672	.4876401	28.38384	.3660732
#1	.0406712	14.66637	.0025144	.0001495	92.41278	.0064243	.0396070
#2	.0405012	14.67197	.0023249	.0000322	92.01167	.0098283	.0398716
#3	.0405485	14.78309	.0020053	.0004571	91.51733	.0116140	.0396349

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.526774**	**.1872066**	**.0019461**	**-.015969**	**-.000272**	**9.880860**	**1.082686**
Stddev	.029000	.0012185	.0000645	.000603	.001280	.037928	.001901
%RSD	.3044000	.6508742	3.313597	3.775579	471.1032	.3838540	.1755364
#1	9.551317	.1858422	.0020086	-.016429	.000662	9.913010	1.082995
#2	9.534231	.1875909	.0019500	-.015286	-.001731	9.890541	1.084413
#3	9.494774	.1881865	.0018798	-.016191	.000253	9.839030	1.080650

Sample Name: Q2814-23 Acquired: 8/20/2025 16:52:09 Type: Unk
Method: 6010-200.7 NEW(v122) 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	5.915526	-.020449	.1806446
Stddev	.005216	.001201	.0003039
%RSD	.0881830	5.873059	.1682565
#1	5.921390	-.019148	.1804433
#2	5.911402	-.020683	.1809943
#3	5.913785	-.021516	.1804963

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6082.023	104271.4	11184.74	4692.837	7226.191
Stddev	8.508	248.6	68.88	13.115	6.167
%RSD	.1398893	.2384248	.6158633	.2794786	.0853476
#1	6090.919	104490.6	11264.22	4682.141	7228.445
#2	6081.184	104001.3	11147.55	4707.470	7230.914
#3	6073.965	104322.3	11142.45	4688.901	7219.213

Sample Name: Q2815-20 Acquired: 8/20/2025 16:56:22 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0240717**	**-.004490**	**.1050691**	**.0062142**	**.0042926**	**25.91292**
Stddev	.0015378	.001692	.0004962	.0014585	.0010301	.04843
%RSD	6.388344	37.69443	.4723099	23.46994	23.99594	.1869104
#1	.0248835	-.002537	.1056391	.0045533	.0048868	25.95910
#2	.0250335	-.005537	.1048354	.0068034	.0031032	25.86251
#3	.0222981	-.005395	.1047329	.0072859	.0048877	25.91717

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1216148**	**.0056817**	**.0024382**	**75.65848**	**.0773608**	**.0091066**
Stddev	.0003682	.0000836	.0000515	.14927	.0000395	.0001123
%RSD	.3027734	1.470776	2.113135	.1972980	.0511008	1.232943
#1	.1217900	.0056176	.0023905	75.64952	.0773153	.0089849
#2	.1211917	.0056514	.0024928	75.51389	.0773861	.0091287
#3	.1218627	.0057762	.0024312	75.81203	.0773811	.0092061

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0617113**	**31.05451**	**.3208699**	**12.22032**	**.0316383**	**.0016056**
Stddev	.0003485	.07197	.0003441	.03171	.0004852	.0002736
%RSD	.5646754	.2317540	.1072315	.2595234	1.533437	17.04149
#1	.0613377	31.09540	.3212195	12.24290	.0316211	.0019191
#2	.0617687	31.09672	.3208587	12.18406	.0321318	.0014145
#3	.0620275	30.97141	.3205316	12.23400	.0311619	.0014833

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**28.28671**	**.0714547**	**.3735011**	**9.621208**	**.1025343**	**.0069589**
Stddev	.01340	.0021693	.0004103	.035363	.0009337	.0003439
%RSD	.0473865	3.035930	.1098442	.3675539	.9105862	4.941988
#1	28.27152	.0696277	.3730539	9.610661	.1015958	.0072680
#2	28.29175	.0738522	.3735894	9.660644	.1034630	.0070203
#3	28.29686	.0708840	.3738601	9.592318	.1025441	.0065885

Sample Name: Q2815-20 Acquired: 8/20/2025 16:56:22 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.015361	.7881832	F 39.20197	2.197841	F 10.17426	.0132221
Stddev	.000397	.0027773	.09751	.003568	.02965	.0008892
%RSD	2.584713	.3523728	.2487442	.1623387	.2914617	6.724840
#1	-.015130	.7909940	39.12325	2.195843	10.19217	.0122189
#2	-.015133	.7881148	39.31105	2.201961	10.19058	.0139132
#3	-.015819	.7854406	39.17161	2.195720	10.14003	.0135341

Elem	Sr4077
Units	ppm
Avg	.3852554
Stddev	.0012630
%RSD	.3278316
#1	.3866239
#2	.3841347
#3	.3850076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6099.968	105625.7	11361.48	4748.695	7154.251
Stddev	6.440	55.4	45.72	5.916	.325
%RSD	.1055724	.0524587	.4024289	.1245752	.0045475
#1	6101.776	105593.2	11313.95	4751.833	7153.888
#2	6105.311	105594.3	11405.15	4741.872	7154.350
#3	6092.818	105689.7	11365.33	4752.381	7154.516

Sample Name: Q2815-25 Acquired: 8/20/2025 17:00:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**.0058836**	**-.001055**	**.0002186**	**.0001954**	**.0024374**	**.1262662**
Stddev	.0012157	.001265	.0005671	.0041941	.0011454	.0090185
%RSD	20.66303	119.9217	259.4402	2146.542	46.99383	7.142422
#1	.0071009	-.001550	.0008580	-.000862	.0016503	.1309976
#2	.0046694	.000383	.0000213	.004817	.0037515	.1158667
#3	.0058805	-.001998	-.000224	-.003369	.0019104	.1319345

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0209617**	**-.000135**	**.0001088**	**66.50006**	**.0009846**	**.0004793**
Stddev	.0003347	.000054	.0000336	.11722	.0002215	.0001243
%RSD	1.596756	39.96709	30.93630	.1762691	22.49940	25.94232
#1	.0211664	-.000145	.0001071	66.53802	.0007967	.0003507
#2	.0211432	-.000183	.0001433	66.36856	.0012288	.0004883
#3	.0205754	-.000076	.0000760	66.59359	.0009281	.0005989

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0138930**	**.0300416**	**.0897540**	**8.230929**	**.0024788**	**.0003303**
Stddev	.0004775	.0023279	.0006162	.023740	.0004416	.0004360
%RSD	3.437006	7.748876	.6865588	.2884279	17.81394	131.9935
#1	.0133448	.0274444	.0890528	8.236806	.0029594	-.000103
#2	.0142183	.0307401	.0900000	8.204802	.0023864	.000324
#3	.0141159	.0319403	.0902093	8.251179	.0020908	.000769

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.44803**	**.0157602**	**.0365656**	**6.965964**	**.1218824**	**.0038590**
Stddev	.17904	.0021922	.0001638	.072938	.0004097	.0001841
%RSD	.7035357	13.90944	.4479004	1.047057	.3361066	4.771125
#1	25.36247	.0170400	.0367459	6.901429	.1221950	.0040088
#2	25.32782	.0170117	.0365248	6.951365	.1214187	.0036534
#3	25.65379	.0132290	.0364261	7.045096	.1220335	.0039147

Sample Name: Q2815-25 Acquired: 8/20/2025 17:00:28 Type: Unk
Method: 6010-200.7 NEW(v122) 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	-.016698	-.001836	F 16.14529	.4084977	5.515582	-.024173
Stddev	.000057	.000611	.08663	.0033430	.060824	.001715
%RSD	.3387573	33.25001	.5365384	.8183603	1.102768	7.093131
#1	-.016633	-.001355	16.08211	.4047193	5.445443	-.022756
#2	-.016738	-.001630	16.10973	.4110712	5.547483	-.023685
#3	-.016722	-.002523	16.24404	.4097025	5.553819	-.026079

Elem	Sr4077
Units	ppm
Avg	.3562528
Stddev	.0009313
%RSD	.2614224
#1	.3564914
#2	.3552253
#3	.3570415

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6151.012	107170.6	11282.90	4742.015	7429.871
Stddev	7.113	399.3	36.74	22.808	3.811
%RSD	.1156348	.3726115	.3256614	.4809698	.0512996
#1	6158.783	107298.2	11255.59	4766.012	7432.298
#2	6144.824	107490.5	11324.67	4739.413	7431.837
#3	6149.428	106723.0	11268.44	4720.620	7425.478

Sample Name: PB169301TB Acquired: 8/20/2025 17:04:42 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**-.002140**	**-.001250**	**.0008032**	**.0014581**	**.0004702**	**-.013752**	**-.003300**
Stddev	.001071	.000804	.0005481	.0012925	.0014639	.005334	.000372
%RSD	50.03515	64.30374	68.24121	88.64141	311.3647	38.78631	11.28297
#1	-.003358	-.001119	.0012188	.0000447	-.001169	-.012961	-.003384
#2	-.001351	-.000520	.0001820	.0017499	.001649	-.019437	-.002893
#3	-.001710	-.002112	.0010088	.0025797	.000930	-.008858	-.003623

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000093**	**-.000005**	**.0016975**	**-.000679**	**-.000106**	**-.000152**	**-.000509**
Stddev	.000047	.000017	.0074158	.000358	.000108	.000350	.005122
%RSD	50.65583	327.6591	436.8704	52.70615	102.2487	230.1489	1005.423
#1	-.000114	-.000014	.0089619	-.001061	-.000060	.000241	.002765
#2	-.000039	.000014	.0019916	-.000626	-.000028	-.000428	-.006412
#3	-.000127	-.000016	-.005861	-.000351	-.000229	-.000269	.002119

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014885**	**-.012566**	**-.000165**	**.0002311**	**-.191429**	**.0043945**	**-.000369**
Stddev	.0000681	.010595	.000031	.0001654	.004220	.0027393	.000225
%RSD	4.574451	84.31291	18.63026	71.53502	2.204614	62.33442	61.04630
#1	.0015011	-.006447	-.000198	.0000806	-.195980	.0040026	-.000135
#2	.0014150	-.006452	-.000136	.0004081	-.190665	.0018723	-.000585
#3	.0015495	-.024800	-.000162	.0002047	-.187644	.0073086	-.000388

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.397097**	**-.000078**	**.0000427**	**-.016517**	**-.000429**	**-.014704**	**.0009953**
Stddev	.023022	.000462	.0001684	.000110	.001027	.014869	.0013485
%RSD	5.797574	590.6855	394.4523	.6636453	239.3351	101.1245	135.4834
#1	-.371180	.000388	.0001483	-.016413	.000288	-.031610	-.000556
#2	-.415180	-.000535	-.000152	-.016506	.000030	-.008850	.001885
#3	-.404930	-.000087	.000131	-.016632	-.001605	-.003652	.001657

Sample Name: PB169301TB Acquired: 8/20/2025 17:04:42 Type: Unk
Method: 6010-200.7 NEW(v122) 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	8.566890	-.015333	.0000072
Stddev	.049563	.000507	.0000736
%RSD	.5785464	3.308806	1020.177
#1	8.622732	-.015600	-.000068
#2	8.528116	-.014748	.000011
#3	8.549823	-.015652	.000079

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6597.152	110848.8	11773.42	4989.496	8460.050
Stddev	4.562	574.3	14.53	39.595	5.307
%RSD	.0691480	.5181226	.1234219	.7935734	.0627282
#1	6600.783	110216.4	11784.77	4946.367	8457.917
#2	6598.642	111337.9	11778.45	5024.202	8466.091
#3	6592.032	110992.1	11757.05	4997.919	8456.141

Sample Name: CCV05 Acquired: 8/20/2025 17:09:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.988917**	**5.029429**	**4.916765**	**5.024130**	**4.991234**	**9.860197**	**9.693877**
Stddev	.003750	.077790	.004643	.006462	.004655	.003628	.042120
%RSD	.0751569	1.546704	.0944369	.1286136	.0932570	.0367982	.4344978
#1	4.992738	5.112878	4.912991	5.031589	4.994913	9.856724	9.692168
#2	4.985243	5.016491	4.915353	5.020240	4.986001	9.863963	9.736825
#3	4.988770	4.958919	4.921950	5.020561	4.992788	9.859905	9.652638

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2513909**	**2.482989**	**24.46243**	**1.014986**	**2.472796**	**1.250606**	**4.927202**
Stddev	.0007661	.002488	.03839	.000765	.001847	.000960	.015556
%RSD	.3047537	.1002198	.1569367	.0753798	.0746812	.0767732	.3157175
#1	.2520476	2.480432	24.50632	1.014144	2.470703	1.250095	4.922266
#2	.2515759	2.485403	24.43507	1.015639	2.474197	1.250009	4.914713
#3	.2505492	2.483131	24.44590	1.015176	2.473486	1.251713	4.944628

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.424829**	**24.50149**	**2.476442**	**1.252056**	**23.43871**	**2.464836**	**2.536996**
Stddev	.009388	.06595	.001739	.000659	.12198	.006901	.005363
%RSD	.3871571	.2691594	.0702350	.0526625	.5204122	.2799598	.2114015
#1	2.433315	24.53719	2.474889	1.252058	23.45075	2.463899	2.539427
#2	2.414745	24.54189	2.478321	1.252714	23.31116	2.458453	2.530848
#3	2.426427	24.42539	2.476115	1.251395	23.55422	2.472158	2.540713

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.56762**	**4.969698**	**5.062463**	**4.972081**	**4.863941**	**4.944930**	**4.926962**
Stddev	.14711	.014236	.006158	.004472	.017382	.024485	.013487
%RSD	.5988119	.2864519	.1216357	.0899426	.3573747	.4951587	.2737313
#1	24.50309	4.985986	5.069142	4.971147	4.874870	4.916657	4.935613
#2	24.46379	4.963474	5.057012	4.976946	4.843896	4.958988	4.933851
#3	24.73597	4.959634	5.061234	4.968149	4.873055	4.959144	4.911422

Sample Name: CCV05 Acquired: 8/20/2025 17:09:00 Type: Unk
Method: 6010-200.7 NEW(v122) 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	**4.904548**	**4.694384**	**4.893141**
Stddev	.017494	.016981	.049015
%RSD	.3566819	.3617283	1.001711
#1	4.917940	4.701498	4.849565
#2	4.910948	4.675003	4.883651
#3	4.884755	4.706650	4.946207

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6089.243**	**103617.1**	**11027.01**	**4664.715**	**7085.665**
Stddev	16.745	95.7	38.12	10.953	18.971
%RSD	.2749988	.0923446	.3456809	.2348115	.2677329
#1	6104.387	103654.4	10992.83	4652.615	7107.140
#2	6092.084	103508.4	11020.09	4667.578	7078.665
#3	6071.260	103688.5	11068.12	4673.953	7071.188

Sample Name: CCB05 Acquired: 8/20/2025 17:13:12 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001061**	**.0005517**	**.0006540**	**-.001009**	**-.000680**	**-.001434**
Stddev	.001299	.0000901	.0001803	.002349	.000483	.004206
%RSD	122.3911	16.34103	27.57635	232.6600	70.99688	293.3022
#1	.000304	.0005192	.0004589	.001220	-.000123	.003124
#2	-.002281	.0004823	.0006886	-.000787	-.000979	-.002262
#3	-.001207	.0006536	.0008146	-.003461	-.000938	-.005164

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001389**	**-.000027**	**.0000408**	**.0011462**	**-.000185**	**-.000076**
Stddev	.001125	.000017	.0000147	.0108421	.000209	.000146
%RSD	81.01107	62.78884	36.15193	945.9365	113.0787	192.5595
#1	-.002007	-.000014	.0000486	-.008317	-.000424	-.000238
#2	-.000090	-.000046	.0000238	.012976	-.000096	.000044
#3	-.002070	-.000020	.0000500	-.001220	-.000035	-.000033

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000446**	**-.007317**	**.0004652**	**-.017445**	**-.000045**	**.0004840**
Stddev	.000238	.003837	.0003689	.021745	.000160	.0004534
%RSD	53.25139	52.44711	79.31561	124.6503	354.1563	93.67346
#1	-.000511	-.008843	.0002057	-.003474	-.000161	.0005708
#2	-.000645	-.010156	.0008875	-.042499	.000138	.0008878
#3	-.000183	-.002951	.0003022	-.006362	-.000112	-.000006

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0521629**	**.0035252**	**-.000923**	**.0756746**	**.0042506**	**.0004999**
Stddev	.0204943	.0015340	.000080	.0847813	.0008001	.0000891
%RSD	39.28907	43.51478	8.678222	112.0339	18.82268	17.81669
#1	.0288777	.0040969	-.000879	-.018798	.0051587	.0005538
#2	.0674617	.0046911	-.001015	.100684	.0036496	.0005488
#3	.0601493	.0017874	-.000875	.145138	.0039434	.0003971

Sample Name: CCB05 Acquired: 8/20/2025 17:13:12 Type: Unk
Method: 6010-200.7 NEW(v122) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002010**	**-.001117**	**.0123610**	**.0007288**	F **.0202850**	**-.006745**
Stddev	.000321	.000551	.0120712	.0015597	.0023101	.000834
%RSD	15.95860	49.34322	97.65569	214.0016	11.38815	12.36637
#1	-.002335	-.000564	.0111450	-.000872	.0204553	-.007399
#2	-.002003	-.001122	.0009438	.000814	.0225053	-.007030
#3	-.001693	-.001666	.0249942	.002244	.0178945	-.005806

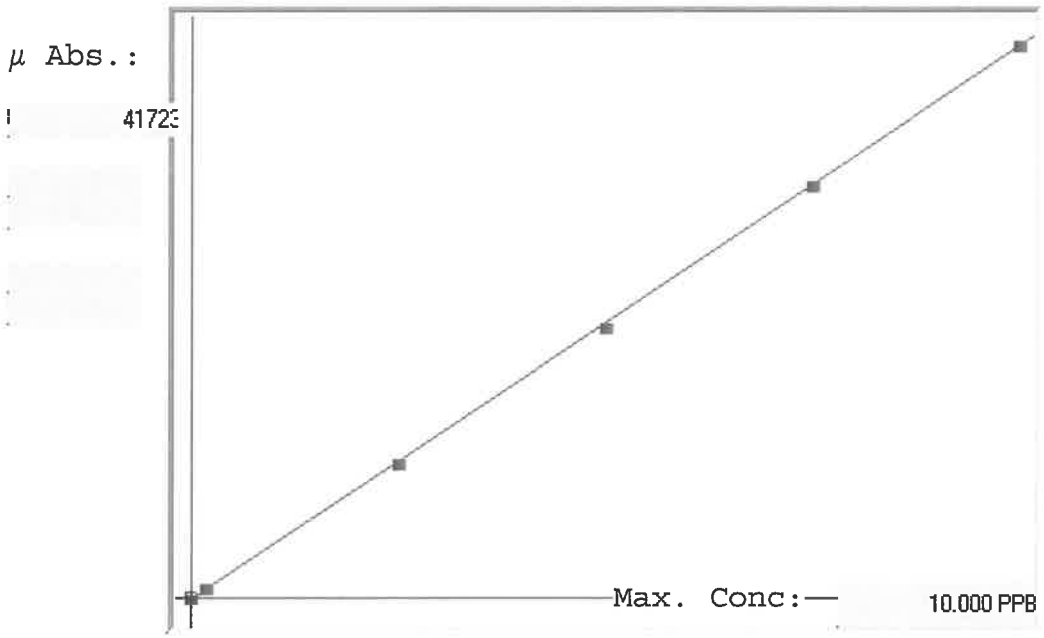
Elem	Sr4077
Units	ppm
Avg	**.0002383**
Stddev	.0000270
%RSD	11.33842
#1	.0002694
#2	.0002254
#3	.0002202

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6308.810**	**108487.6**	**11182.78**	**4828.382**	**8044.106**
Stddev	7.383	131.2	24.69	27.032	5.948
%RSD	.1170238	.1208976	.2207726	.5598560	.0739380
#1	6301.884	108595.8	11210.83	4807.391	8048.012
#2	6307.968	108341.7	11164.35	4818.869	8047.045
#3	6316.577	108525.1	11173.16	4858.884	8037.261

LB136788
INSTRUMENT ID: CV1

7470A

Linear



A=	0.0000e+000
B=	2.3988e-004
C=	3.3618e-002
Rho=	0.9999451
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	0.033	0.033	-3	0.000	-3	0				
0.2	0.200	0.218	0.018	768	0.0 %	768					
2.5	2.500	2.485	-0.015	10218	0.0 %	10218	0				
5.0	5.000	4.926	-0.074	20393	0.0 %	20393					
7.5	7.500	7.497	-0.003	31112	0.0 %	31112					
10.0	10.000	10.042	0.042	41723	0.0 %	41723					

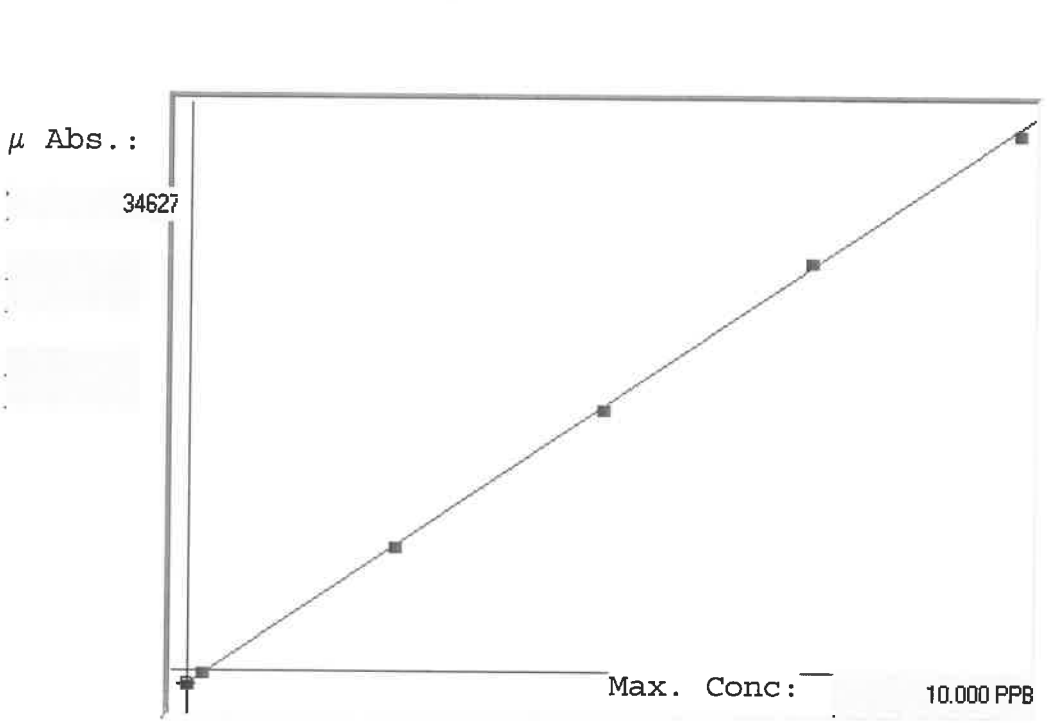
LB136788 INSTRUMENT ID:CV1

Method: 7470A Operator: Admin Date of Analysis: 12 Aug 2025 13:54:25

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	50.0	-	-3	PPB	Std	0.00000	7470A	12 Aug 2025 14:07:24
S	0.2 - 1	50.2	-	768	PPB	Std	0.20000	7470A	12 Aug 2025 14:09:41
S	2.5 - 1	52.5	-	10218	PPB	Std	2.50000	7470A	12 Aug 2025 14:11:59
S	5.0 - 1	55.0	-	20393	PPB	Std	5.00000	7470A	12 Aug 2025 14:14:15
S	7.5 - 1	57.5	-	31112	PPB	Std	7.50000	7470A	12 Aug 2025 14:16:32
S	10.0 - 1	510.0	-	41723	PPB	Std	10.00000	7470A	12 Aug 2025 14:18:50
U	ICV10 - 1	ICV10	4.1399	17118	PPB	SMPL		7470A	12 Aug 2025 14:21:34
U	ICB10 - 1	ICB10	-0.0369	-294	PPB	SMPL		7470A	12 Aug 2025 14:23:49
U	CCV29 - 1	CCV29	4.9296	20410	PPB	SMPL		7470A	12 Aug 2025 14:26:06
U	CCB29 - 1	CCB29	-0.0273	-254	PPB	SMPL		7470A	12 Aug 2025 14:28:24
U	CRA - 1	CRA	0.2118	743	PPB	SMPL		7470A	12 Aug 2025 14:30:43
U	HighStd - 1	HighStd	10.1276	42079	PPB	SMPL		7470A	12 Aug 2025 14:33:01
U	ChkStd - 1	ChkStd	7.3618	30549	PPB	SMPL		7470A	12 Aug 2025 14:35:20
U	PB169202BL - 1	PBW	-0.0513	-354	PPB	SMPL		7470A	12 Aug 2025 14:37:39
U	PB169202BS - 1	LCSW	4.1394	17116	PPB	SMPL		7470A	12 Aug 2025 14:42:43
U	Q2759-04 - 1	LIQUID-DRUM	21.1310	87949	PPB	SMPL		7470A	12 Aug 2025 14:44:59
U	Q2776-01 - 1	72825	-0.0371	-295	PPB	SMPL		7470A	12 Aug 2025 14:47:27
U	Q2814-01 - 1	TW-84SB-E	0.0497	67	PPB	SMPL		7470A	12 Aug 2025 14:50:03
U	Q2814-03 - 1	TW-17M-W	0.1411	448	PPB	SMPL		7470A	12 Aug 2025 14:52:25
U	Q2814-16 - 1	FB	0.0020	-132	PPB	SMPL		7470A	12 Aug 2025 14:54:43
U	CCV30 - 1	CCV30	4.9843	20638	PPB	SMPL		7470A	12 Aug 2025 14:56:58
U	CCB30 - 1	CCB30	-0.0326	-276	PPB	SMPL		7470A	12 Aug 2025 14:59:14
U	Q2814-17 - 1	TW-518R-S	0.2783	1020	PPB	SMPL		7470A	12 Aug 2025 15:01:32
U	Q2815-01 - 1	TW-705R-S	0.3579	1352	PPB	SMPL		7470A	12 Aug 2025 15:03:47
U	Q2815-11 - 1	TW-22M-W	0.0674	141	PPB	SMPL		7470A	12 Aug 2025 15:06:05
U	Q2815-20 - 1	TW-11M-W	0.1461	469	PPB	SMPL		7470A	12 Aug 2025 15:08:23
U	Q2815-26 - 1	FB	0.0103	-97	PPB	SMPL		7470A	12 Aug 2025 15:10:39
U	Q2821-05 - 1	GW-COMP	0.0351	6	PPB	SMPL		7470A	12 Aug 2025 15:12:55
U	Q2821-08 - 1	DM-COMP	-0.0110	-186	PPB	SMPL		7470A	12 Aug 2025 15:15:16
U	Q2821-08DUP - 1	DM-COMPDUP	0.0387	21	PPB	SMPL		7470A	12 Aug 2025 15:17:34
U	Q2821-08MS - 1	DM-COMPMS	3.7016	15291	PPB	SMPL		7470A	12 Aug 2025 15:19:51
U	Q2821-08MSD - 1	DM-COMPMSD	3.8177	15775	PPB	SMPL		7470A	12 Aug 2025 15:22:06
U	CCV31 - 1	CCV31	4.9118	20336	PPB	SMPL		7470A	12 Aug 2025 15:24:24
U	CCB31 - 1	CCB31	-0.0954	-538	PPB	SMPL		7470A	12 Aug 2025 15:26:41
U	Q2821-08LX5 - 1		0.0806	196	PPB	SMPL		7470A	12 Aug 2025 15:29:00
U	Q2821-08A - 1		4.1375	17108	PPB	SMPL		7470A	12 Aug 2025 15:31:15
U	Q2759-04DLX5 - 1		2.8880	11899	PPB	SMPL		7470A	12 Aug 2025 15:33:31
U	CCV32 - 1	CCV32	4.7818	19794	PPB	SMPL		7470A	12 Aug 2025 15:35:50
U	CCB32 - 1	CCB32	-0.0132	-195	PPB	SMPL		7470A	12 Aug 2025 15:38:08

LB136836
INSTRUMENT ID: CV1

7470A



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	-0.007	-0.007	-920	0.000	-920	0				-0.0
0.2	0.200	0.184	-0.016	-234	0.0 %	-234					
2.5	2.500	2.507	0.007	8083	0.0 %	8083	0				-0.0
5.0	5.000	4.982	-0.018	16942	0.0 %	16942					
7.5	7.500	7.613	0.113	26361	0.0 %	26361					-0.0
10.0	10.000	9.921	-0.079	34627	0.0 %	34627					

LB136836 INSTRUMENT ID:CV1

Method: 7470A Operator: Admin Date of Analysis: 15 Aug 2025 10:34:38

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	S0.0	-	-920	PPB	Std	0.00000	7470A	15 Aug 2025 11:25:54
S	0.2 - 1	S0.2	-	-234	PPB	Std	0.20000	7470A	15 Aug 2025 11:28:11
S	2.5 - 1	S2.5	-	8083	PPB	Std	2.50000	7470A	15 Aug 2025 11:30:28
S	5.0 - 1	S5.0	-	16942	PPB	Std	5.00000	7470A	15 Aug 2025 11:32:44
S	7.5 - 1	S7.5	-	26361	PPB	Std	7.50000	7470A	15 Aug 2025 11:35:03
S	10.0 - 1	S10.0	-	34627	PPB	Std	10.00000	7470A	15 Aug 2025 11:37:20
U	ICV18 - 1	ICV18	4.0785	13708	PPB	SMPL		7470A	15 Aug 2025 11:40:06
U	ICB18 - 1	ICB18	0.0028	-884	PPB	SMPL		7470A	15 Aug 2025 11:45:30
U	CCV54 - 1	CCV54	5.2390	17863	PPB	SMPL		7470A	15 Aug 2025 12:11:25
U	CCB54 - 1	CCB54	-0.0595	-1107	PPB	SMPL		7470A	15 Aug 2025 12:13:45
U	CRA - 1	CRA	0.1877	-222	PPB	SMPL		7470A	15 Aug 2025 12:16:02
U	HighStd - 1	HighStd	9.9914	34878	PPB	SMPL		7470A	15 Aug 2025 12:18:20
U	ChkStd - 1	ChkStd	7.6262	26410	PPB	SMPL		7470A	15 Aug 2025 12:20:35
U	PB169249BL - 1	PBW	-0.1458	-1416	PPB	SMPL		7470A	15 Aug 2025 12:22:53
U	PB169249BS - 1	LCSW	4.1949	14125	PPB	SMPL		7470A	15 Aug 2025 12:25:11
U	Q2814-22 - 1	TW-84SB-E	-0.0447	-1054	PPB	SMPL		7470A	15 Aug 2025 12:27:28
U	Q2814-23 - 1	TW-17M-W	0.0132	-847	PPB	SMPL		7470A	15 Aug 2025 12:29:47
U	Q2815-25 - 1	TW-11M-W	0.1841	-235	PPB	SMPL		7470A	15 Aug 2025 12:32:04
U	Q2837-01 - 1	TW-WTS-13	0.0059	-873	PPB	SMPL		7470A	15 Aug 2025 12:34:21
U	Q2840-03 - 1	0804-E	0.6824	1549	PPB	SMPL		7470A	15 Aug 2025 12:36:38
U	CCV55 - 1	CCV55	4.8250	16381	PPB	SMPL		7470A	15 Aug 2025 12:38:53
U	CCB55 - 1	CCB55	-0.0111	-934	PPB	SMPL		7470A	15 Aug 2025 12:41:15
U	Q2842-03 - 1	MW-17B-55.5-081225	0.0226	-813	PPB	SMPL		7470A	15 Aug 2025 12:43:33
U	Q2842-03DUP - 1	MW-17B-55.5-081225DUP	0.0145	-842	PPB	SMPL		7470A	15 Aug 2025 12:45:48
U	Q2842-04 - 1	Q2842-03MS	3.7508	12535	PPB	SMPL		7470A	15 Aug 2025 12:48:03
U	Q2842-05 - 1	Q2842-03MSD	3.8882	13027	PPB	SMPL		7470A	15 Aug 2025 12:50:19
U	Q2849-01 - 1	BUR-25-0071	0.0821	-600	PPB	SMPL		7470A	15 Aug 2025 12:52:36
U	Q2856-01 - 1	#452	0.5153	951	PPB	SMPL		7470A	15 Aug 2025 12:54:54
U	Q2856-03 - 1	#456	-0.0533	-1085	PPB	SMPL		7470A	15 Aug 2025 12:57:13
U	Q2857-01 - 1	4023	-0.0290	-998	PPB	SMPL		7470A	15 Aug 2025 12:59:34
U	Q2857-02 - 1	3919	0.0037	-881	PPB	SMPL		7470A	15 Aug 2025 13:01:53
U	Q2842-03LX5 - 1		0.0129	-848	PPB	SMPL		7470A	15 Aug 2025 13:04:09
U	CCV56 - 1	CCV56	5.0932	17341	PPB	SMPL		7470A	15 Aug 2025 13:09:07
U	CCB56 - 1	CCB56	-0.0477	-1065	PPB	SMPL		7470A	15 Aug 2025 13:11:23
U	Q2842-03A - 1		3.9251	13159	PPB	SMPL		7470A	15 Aug 2025 13:13:41
U	CCV57 - 1	CCV57	5.1775	17643	PPB	SMPL		7470A	15 Aug 2025 13:15:59
U	CCB57 - 1	CCB57	-0.0651	-1127	PPB	SMPL		7470A	15 Aug 2025 13:18:16

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169232

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 08/13/2025 **Time :** 10:30 **Temp :** 96 °C

End Digest Date: 08/13/2025 **Time :** 13:33 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLG.

Supervisor Signature:

Temp : 1. 96°C 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 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
08/13/25 14:33	SLG met dig	[illegible]
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB169232BL	PBW232	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	20
PB169232BS	LCS232	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	21
Q2814-01	TW-84SB-E	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	22
Q2814-03	TW-17M-W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	23
Q2814-16	FB	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	24
Q2814-17	TW-518R-S	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	25
Q2814-22	TW-84SB-E	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	26
Q2814-23	TW-17M-W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	27
Q2815-01	TW-705R-S	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	28
Q2815-11	TW-22M-W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	29
Q2815-20	TW-11M-W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	30
Q2815-25	TW-11M-W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	31
Q2815-26	FB	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	32
Q2821-05	GW-COMP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	33
Q2821-08	DM-COMP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	34
Q2837-01	TW-WTS-13	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	35
Q2837-01MS	TW-WTS-13MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	37
Q2837-01MSD	TW-WTS-13MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6180,M6181	38
Q2837-01DUP	TW-WTS-13DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	36

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169232 **WorkList ID :** 191247 **Department :** Digestion **Date :** 08-13-2025 09:48:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2814-01	TW-84SB-E	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	6010D
Q2814-03	TW-17M-W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	6010D
Q2814-16	FB	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	6010D
Q2814-17	TW-518R-S	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D31	08/04/2025	6010D
Q2814-22	TW-84SB-E	Water	Dissolved ICP-TAL Metals	Cool 4 deg C	FIRS02	D41	08/05/2025	6010D
Q2814-23	TW-17M-W	Water	Dissolved ICP-TAL Metals	Cool 4 deg C	FIRS02	D41	08/05/2025	6010D
Q2815-01	TW-705R-S	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D41	08/05/2025	6010D
Q2815-11	TW-22M-W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D41	08/06/2025	6010D
Q2815-20	TW-11M-W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	6010D
Q2815-25	TW-11M-W	Water	Dissolved ICP-TAL Metals	Cool 4 deg C	FIRS02	D41	08/08/2025	6010D
Q2815-26	FB	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	6010D
Q2821-05	GW-COMP	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D31	08/11/2025	6010D
Q2821-08	DM-COMP	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D31	08/11/2025	6010D
Q2837-01	TW-WTS-13	Water	Metals Group4	1:1 HNO3 to pH < 2	ENTA05	J23	08/12/2025	6010D

Date/Time 08/13/25 10:05
Raw Sample Received by: SLS metals
Raw Sample Relinquished by: CP Cen

Date/Time 08/13/25 11:05
Raw Sample Received by: CP Cen
Raw Sample Relinquished by: SLS metals

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169202

SOP ID : M7470A-Mercury-20

SDG No : N/A

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 08/12/2025 **Time :** 11:30 **Temp :** 95 °C

End Digest Date: 08/12/2025 **Time :** 11:40 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: SKS,

Supervisor Signature:

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP86729
CCV	30mL	MP86731
CRA	30mL	MP86733
Blank Spike	0.48mL	MP86722
Matrix Spike	0.48mL	MP86722

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	MP86707
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP86708
2.5 ppb	S2.5	30mL	MP86709
5.0 ppb	S5.0	30mL	MP86710
7.5 ppb	S7.5	30mL	MP86711
10.0 ppb	S10.0	30mL	MP86712
ICV	ICV	30mL	MP86713
ICB	ICB	30mL	MP86714
CCV	CCV	30mL	MP86715
CCB	CCB	30mL	MP86716
CRI	CRI	30mL	MP86717
CHK STD	CHK STD	30mL	MP86718

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
08/12/25 12:40	SKS not dig	SG (Metals Lab)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169202

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB169202BL	PBW202	30	30	<2	N/A	1-1
PB169202BS	LCS202	30	30	<2	MP8672	2
Q2759-04	LIQUID-DRUM	30	30	<2	N/A	3
Q2776-01	72825	30	30	<2	N/A	4
Q2814-01	TW-84SB-E	30	30	<2	N/A	5
Q2814-03	TW-17M-W	30	30	<2	N/A	6
Q2814-16	FB	30	30	<2	N/A	7
Q2814-17	TW-518R-S	30	30	<2	N/A	8
Q2815-01	TW-705R-S	30	30	<2	N/A	9
Q2815-11	TW-22M-W	30	30	<2	N/A	10
Q2815-20	TW-11M-W	30	30	<2	N/A	11
Q2815-26	FB	30	30	<2	N/A	12
Q2821-05	GW-COMP	30	30	<2	N/A	13
Q2821-08	DM-COMP	30	30	<2	N/A	14
Q2821-08MS	DM-COMPMS	30	30	<2	MP86722	16
Q2821-08MSD	DM-COMPMSD	30	30	<2	MP86722	17
Q2821-08DUP	DM-COMPDUP	30	30	<2	N/A	15

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169202 **WorkList ID :** 191206 **Department :** Digestion **Date :** 08-11-2025 15:43:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2759-04	LIQUID-DRUM	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/04/2025	7470A
Q2776-01	72825	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/05/2025	7470A
Q2814-01	TW-84SB-E	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	7470A
Q2814-03	TW-17M-W	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	7470A
Q2814-16	FB	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D31	08/04/2025	7470A
Q2814-17	TW518R-S	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D31	08/05/2025	7470A
Q2815-01	TW-705R-S	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/06/2025	7470A
Q2815-11	TW-22M-W	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	7470A
Q2815-20	TW-11M-W	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	7470A
Q2815-26	FB	Water	Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	7470A
Q2821-05	GW-COMP	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/11/2025	7470A
Q2821-08	DM-COMP	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/11/2025	7470A

08/12/2025 10:00

Date/Time ~~08~~/~~12~~/2025 ~~15~~ : ~~00~~

Raw Sample Received by: SLS met dig

Raw Sample Relinquished by: CP Cen

08/12/2025 13:10

Date/Time ~~08~~/~~12~~/2025 ~~13~~ : ~~00~~

Raw Sample Received by: CP Cen

Raw Sample Relinquished by: SLS met dig

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169249

SOP ID : M7470A-Mercury-20

SDG No : N/A

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 08/14/2025 **Time :** 10:30 **Temp :** 95 °C

End Digest Date: 08/14/2025 **Time :** 10:40 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: [signature]

Supervisor Signature: [signature]

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP86777
CCV	30mL	MP86779
CRA	30mL	MP86782
Blank Spike	0.48mL	MP86770
Matrix Spike	0.48mL	MP86770

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	MP86771
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP86772
2.5 ppb	S2.5	30mL	MP86773
5.0 ppb	S5.0	30mL	MP86774
7.5 ppb	S7.5	30mL	MP86775
10.0 ppb	S10.0	30mL	MP86776
ICV	ICV	30mL	MP86777
ICB	ICB	30mL	MP86778
CCV	CCV	30mL	MP86779
CCB	CCB	30mL	MP86781
CRI	CRI	30mL	MP86782
CHK STD	CHK STD	30mL	MP86783

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
08/14/25 11:40	[signature]	[signature]
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB169249

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB169249BL	PBW249	30	30	<2	N/A	1-1
PB169249BS	LCS249	30	30	<2	MP86770	2
Q2814-22	TW-84SB-E	30	30	<2	N/A	3
Q2814-23	TW-17M-W	30	30	<2	N/A	4
Q2815-25	TW-11M-W	30	30	<2	N/A	5
Q2837-01	TW-WTS-13	30	30	<2	N/A	6
Q2840-03	0804-E	30	30	<2	N/A	7
Q2842-03	MW-17B-55.5-081225	30	30	<2	N/A	8
Q2842-03DUP	MW-17B-55.5-081225DUP	30	30	<2	N/A	9
Q2842-04	Q2842-03MS	30	30	<2	MP86770	10
Q2842-05	Q2842-03MSD	30	30	<2	MP86770	11
Q2849-01	BUR-25-0071	30	30	<2	N/A	12
Q2856-01	#452	30	30	<2	N/A	13
Q2856-03	#456	30	30	<2	N/A	14
Q2857-01	4023	30	30	<2	N/A	15
Q2857-02	3919	30	30	<2	N/A	16

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169249 **WorkList ID :** 191275 **Department :** Digestion **Date :** 08-14-2025 12:09:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2814-22	TW-84SB-E	Water	Dissolved Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/05/2025	7470A
Q2814-23	TW-17M-W	Water	Dissolved Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/05/2025	7470A
Q2815-25	TW-11M-W	Water	Dissolved Mercury	1:1 HNO3 to pH < 2	FIRS02	D41	08/08/2025	7470A
Q2837-01	TW-WTS-13	Water	Mercury	1:1 HNO3 to pH < 2	ENTA05	J23	08/12/2025	7470A
Q2840-03	0804-E	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	D31	08/12/2025	7470A
Q2842-03	MW-17B-55.5-081225	Water	Mercury	1:1 HNO3 to pH < 2	JACO05	J23	08/12/2025	7470A
Q2842-04	Q2842-03MS	Water	Mercury	1:1 HNO3 to pH < 2	JACO05	J23	08/12/2025	7470A
Q2842-05	Q2842-03MSD	Water	Mercury	1:1 HNO3 to pH < 2	JACO05	J23	08/12/2025	7470A
Q2849-01	BUR-25-0071	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	J22	08/13/2025	7470A
Q2856-01	#452	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	J42	08/13/2025	7470A
Q2856-03	#456	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	J42	08/13/2025	7470A
Q2857-01	4023	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	J12	08/13/2025	7470A
Q2857-02	3919	Water	Mercury	1:1 HNO3 to pH < 2	PSEG03	J12	08/13/2025	7470A

08/14/2025 09 : 45

Date/Time ~~08/14/2025 10:00~~ 08/14/25 10:40

Raw Sample Received by: SHSmetdio

Raw Sample Relinquished by: Clpcen)

Date/Time 08/14/25 13:40

Raw Sample Received by: Clpcen

Raw Sample Relinquished by: SHSmetdio

Page 1 of 1

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136788

Review By	sagar	Review On	8/12/2025 4:11:06 PM
Supervise By	jaswal	Supervise On	8/12/2025 11:59:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP86723,MP86723,MP86724,MP86725,MP86726,MP86727,MP86729
ICV Standard	MP86729
CCV Standard	MP86730
ICSA Standard	
CRI Standard	MP86733
LCS Standard	
Chk Standard	MP86730,MP86732,MP86734,MP86737

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/12/25 14:07		sagar	OK
2	S0.2	S0.2	CAL2	08/12/25 14:09		sagar	OK
3	S2.5	S2.5	CAL3	08/12/25 14:11		sagar	OK
4	S5	S5	CAL4	08/12/25 14:14		sagar	OK
5	S7.5	S7.5	CAL5	08/12/25 14:16		sagar	OK
6	S10	S10	CAL6	08/12/25 14:18		sagar	OK
7	ICV10	ICV10	ICV	08/12/25 14:21		sagar	OK
8	ICB10	ICB10	ICB	08/12/25 14:23		sagar	OK
9	CCV29	CCV29	CCV	08/12/25 14:26		sagar	OK
10	CCB29	CCB29	CCB	08/12/25 14:28		sagar	OK
11	CRA	CRA	CRDL	08/12/25 14:30		sagar	OK
12	HighStd	HighStd	HIGH STD	08/12/25 14:33		sagar	OK
13	ChkStd	ChkStd	SAM	08/12/25 14:35		sagar	OK
14	PB169202BL	PB169202BL	MB	08/12/25 14:37		sagar	OK
15	PB169202BS	PB169202BS	LCS	08/12/25 14:42		sagar	OK
16	Q2759-04	LIQUID-DRUM	SAM	08/12/25 14:44	High	sagar	Dilution
17	Q2776-01	72825	SAM	08/12/25 14:47		sagar	OK
18	Q2814-01	TW-84SB-E	SAM	08/12/25 14:50		sagar	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136788

Review By	sagar	Review On	8/12/2025 4:11:06 PM
Supervise By	jaswal	Supervise On	8/12/2025 11:59:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP86723,MP86723,MP86724,MP86725,MP86726,MP86727,MP86729
ICV Standard	MP86729
CCV Standard	MP86730
ICSA Standard	
CRI Standard	MP86733
LCS Standard	
Chk Standard	MP86730,MP86732,MP86734,MP86737

19	Q2814-03	TW-17M-W	SAM	08/12/25 14:52		sagar	OK
20	Q2814-16	FB	SAM	08/12/25 14:54		sagar	OK
21	CCV30	CCV30	CCV	08/12/25 14:56		sagar	OK
22	CCB30	CCB30	CCB	08/12/25 14:59		sagar	OK
23	Q2814-17	TW-518R-S	SAM	08/12/25 15:01		sagar	OK
24	Q2815-01	TW-705R-S	SAM	08/12/25 15:03		sagar	OK
25	Q2815-11	TW-22M-W	SAM	08/12/25 15:06		sagar	OK
26	Q2815-20	TW-11M-W	SAM	08/12/25 15:08		sagar	OK
27	Q2815-26	FB	SAM	08/12/25 15:10		sagar	OK
28	Q2821-05	GW-COMP	SAM	08/12/25 15:12		sagar	OK
29	Q2821-08	DM-COMP	SAM	08/12/25 15:15		sagar	OK
30	Q2821-08DUP	DM-COMPDUP	DUP	08/12/25 15:17		sagar	OK
31	Q2821-08MS	DM-COMPMS	MS	08/12/25 15:19		sagar	OK
32	Q2821-08MSD	DM-COMPMSD	MSD	08/12/25 15:22		sagar	OK
33	CCV31	CCV31	CCV	08/12/25 15:24		sagar	OK
34	CCB31	CCB31	CCB	08/12/25 15:26		sagar	OK
35	Q2821-08L	DM-COMPL	SD	08/12/25 15:29		sagar	OK
36	Q2821-08A	DM-COMPA	PS	08/12/25 15:31		sagar	OK
37	Q2759-04DL	LIQUID-DRUMDL	SAM	08/12/25 15:33	Report 5X	sagar	Confirms
38	CCV32	CCV32	CCV	08/12/25 15:35		sagar	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136788

Review By	sagar	Review On	8/12/2025 4:11:06 PM
Supervise By	jaswal	Supervise On	8/12/2025 11:59:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP86723,MP86723,MP86724,MP86725,MP86726,MP86727,MP86729
ICV Standard	MP86729
CCV Standard	MP86730
ICSA Standard	
CRI Standard	MP86733
LCS Standard	
Chk Standard	MP86730,MP86732,MP86734,MP86737

39	CCB32	CCB32	CCB	08/12/25 15:38		sagar	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136836

Review By	sagar	Review On	8/15/2025 2:04:25 PM
Supervise By	jaswal	Supervise On	8/17/2025 11:19:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP86771,MP86772,MP86773,MP86774,MP86775,MP86776
ICV Standard	MP86777
CCV Standard	MP86779
ICSA Standard	
CRI Standard	MP86782
LCS Standard	
Chk Standard	MP86778,MP86781,MP86783,MP86786

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/15/25 11:25		sagar	OK
2	S0.2	S0.2	CAL2	08/15/25 11:28		sagar	OK
3	S2.5	S2.5	CAL3	08/15/25 11:30		sagar	OK
4	S5	S5	CAL4	08/15/25 11:32		sagar	OK
5	S7.5	S7.5	CAL5	08/15/25 11:35		sagar	OK
6	S10	S10	CAL6	08/15/25 11:37		sagar	OK
7	ICV18	ICV18	ICV	08/15/25 11:40		sagar	OK
8	ICB18	ICB18	ICB	08/15/25 11:45		sagar	OK
9	CCV54	CCV54	CCV	08/15/25 12:11		sagar	OK
10	CCB54	CCB54	CCB	08/15/25 12:13		sagar	OK
11	CRA	CRA	CRDL	08/15/25 12:16		sagar	OK
12	HighStd	HighStd	HIGH STD	08/15/25 12:18		sagar	OK
13	ChkStd	ChkStd	SAM	08/15/25 12:20		sagar	OK
14	PB169249BL	PB169249BL	MB	08/15/25 12:22		sagar	OK
15	PB169249BS	PB169249BS	LCS	08/15/25 12:25		sagar	OK
16	Q2814-22	TW-84SB-E	SAM	08/15/25 12:27		sagar	OK
17	Q2814-23	TW-17M-W	SAM	08/15/25 12:29		sagar	OK
18	Q2815-25	TW-11M-W	SAM	08/15/25 12:32		sagar	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136836

Review By	sagar	Review On	8/15/2025 2:04:25 PM
Supervise By	jaswal	Supervise On	8/17/2025 11:19:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP86771,MP86772,MP86773,MP86774,MP86775,MP86776
ICV Standard	MP86777
CCV Standard	MP86779
ICSA Standard	
CRI Standard	MP86782
LCS Standard	
Chk Standard	MP86778,MP86781,MP86783,MP86786

19	Q2837-01	TW-WTS-13	SAM	08/15/25 12:34		sagar	OK
20	Q2840-03	0804-E	SAM	08/15/25 12:36		sagar	OK
21	CCV55	CCV55	CCV	08/15/25 12:38		sagar	OK
22	CCB55	CCB55	CCB	08/15/25 12:41		sagar	OK
23	Q2842-03	MW-17B-55.5-081220	SAM	08/15/25 12:43		sagar	OK
24	Q2842-03DUP	MW-17B-55.5-081220	DUP	08/15/25 12:45		sagar	OK
25	Q2842-04	MW-17B-55.5-081225	MS	08/15/25 12:48		sagar	OK
26	Q2842-05	MW-17B-55.5-081225	MSD	08/15/25 12:50		sagar	OK
27	Q2849-01	BUR-25-0071	SAM	08/15/25 12:52		sagar	OK
28	Q2856-01	#452	SAM	08/15/25 12:54		sagar	OK
29	Q2856-03	#456	SAM	08/15/25 12:57		sagar	OK
30	Q2857-01	4023	SAM	08/15/25 12:59		sagar	OK
31	Q2857-02	3919	SAM	08/15/25 13:01		sagar	OK
32	Q2842-03L	MW-17B-55.5-081220	SD	08/15/25 13:04		sagar	OK
33	CCV56	CCV56	CCV	08/15/25 13:09		sagar	OK
34	CCB56	CCB56	CCB	08/15/25 13:11		sagar	OK
35	Q2842-03A	MW-17B-55.5-081220	PS	08/15/25 13:13		sagar	OK
36	CCV57	CCV57	CCV	08/15/25 13:15		sagar	OK
37	CCB57	CCB57	CCB	08/15/25 13:18		sagar	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 # LB136837

Review By	Janvi	Review On	8/18/2025 9:13:21 AM
Supervise By	jaswal	Supervise On	8/19/2025 4:32:19 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/14/25 11:39		Jaswal	OK
2	S1	S1	CAL2	08/14/25 11:44		Jaswal	OK
3	S2	S2	CAL3	08/14/25 11:48		Jaswal	OK
4	S3	S3	CAL4	08/14/25 11:52		Jaswal	OK
5	S4	S4	CAL5	08/14/25 11:56		Jaswal	OK
6	S5	S5	CAL6	08/14/25 12:00		Jaswal	OK
7	ICV01	ICV01	ICV	08/14/25 12:05		Jaswal	OK
8	LLICV01	LLICV01	LLICV	08/14/25 12:09		Jaswal	OK
9	ICB01	ICB01	ICB	08/14/25 12:13		Jaswal	OK
10	CRI01	CRI01	CRDL	08/14/25 12:23		Jaswal	OK
11	ICSA01	ICSA01	ICSA	08/14/25 12:27		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	08/14/25 12:38		Jaswal	OK
13	ICSADL	ICSADL	ICSA	08/14/25 12:42		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	08/14/25 12:46		Jaswal	OK
15	CCV01	CCV01	CCV	08/14/25 12:50		Jaswal	OK
16	CCB01	CCB01	CCB	08/14/25 12:54		Jaswal	OK
17	Q2832-01	TG-S01	SAM	08/14/25 12:59		Jaswal	OK
18	PB169236BL	PB169236BL	MB	08/14/25 13:03		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 # LB136837

Review By	Janvi	Review On	8/18/2025 9:13:21 AM
Supervise By	jaswal	Supervise On	8/19/2025 4:32:19 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

19	PB169236BS	PB169236BS	LCS	08/14/25 13:07		Jaswal	OK
20	PB169232BL	PB169232BL	MB	08/14/25 13:11		Jaswal	OK
21	PB169232BS	PB169232BS	LCS	08/14/25 13:15		Jaswal	OK
22	PB169212TB	PB169212TB	MB	08/14/25 13:19		Jaswal	OK
23	Q2732-03	WC-A7-01-C	SAM	08/14/25 13:24		Jaswal	OK
24	Q2832-02	TG-S01	SAM	08/14/25 13:28		Jaswal	OK
25	Q2832-04	TG-S02	SAM	08/14/25 13:33		Jaswal	OK
26	Q2832-06	TG-S03	SAM	08/14/25 13:37		Jaswal	OK
27	CCV02	CCV02	CCV	08/14/25 13:42		Jaswal	OK
28	CCB02	CCB02	CCB	08/14/25 13:46		Jaswal	OK
29	Q2832-08	TG-S04	SAM	08/14/25 13:50		Jaswal	OK
30	Q2832-10	TG-S05	SAM	08/14/25 13:54		Jaswal	OK
31	Q2836-03	WC-A2-15-C	SAM	08/14/25 13:59		Jaswal	OK
32	Q2836-07	WC-A2-16-C	SAM	08/14/25 14:03		Jaswal	OK
33	Q2836-11	WC-A2-17-C	SAM	08/14/25 14:08		Jaswal	OK
34	Q2836-15	WC-A5-02-C	SAM	08/14/25 14:12		Jaswal	OK
35	Q2838-04	TP-11	SAM	08/14/25 14:17		Jaswal	OK
36	Q2838-08	TP-10	SAM	08/14/25 14:21		Jaswal	OK
37	Q2838-08DUP	TP-10DUP	DUP	08/14/25 14:25		Jaswal	OK
38	Q2838-08L	TP-10L	SD	08/14/25 14:30		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 # LB136837

Review By	Janvi	Review On	8/18/2025 9:13:21 AM
Supervise By	jaswal	Supervise On	8/19/2025 4:32:19 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

39	CCV03	CCV03	CCV	08/14/25 14:41		Jaswal	OK
40	CCB03	CCB03	CCB	08/14/25 14:45		Jaswal	OK
41	Q2838-08MS	TP-10MS	MS	08/14/25 14:50		Jaswal	OK
42	Q2838-08MSD	TP-10MSD	MSD	08/14/25 14:54		Jaswal	OK
43	Q2838-08A	TP-10A	PS	08/14/25 14:58	0.1ml of M6004 and M6017 of each in 10ml sample.	Jaswal	OK
44	Q2814-01	TW-84SB-E	SAM	08/14/25 15:02		Jaswal	OK
45	Q2814-03	TW-17M-W	SAM	08/14/25 15:06		Jaswal	OK
46	Q2814-16	FB	SAM	08/14/25 15:10		Jaswal	OK
47	Q2814-17DL	TW-518R-SDL	SAM	08/14/25 15:15	Straight 5x for all elemenst	Jaswal	OK
48	Q2814-22	TW-84SB-E	SAM	08/14/25 15:19	Not used	Jaswal	Not Ok
49	Q2814-23	TW-17M-W	SAM	08/14/25 15:23	Not used	Jaswal	Not Ok
50	Q2815-01	TW-705R-S	SAM	08/14/25 15:27		Jaswal	OK
51	CCV04	CCV04	CCV	08/14/25 15:58		Jaswal	OK
52	CCB04	CCB04	CCB	08/14/25 16:02		Jaswal	OK
53	Q2815-11	TW-22M-W	SAM	08/14/25 16:06		Jaswal	OK
54	Q2815-20	TW-11M-W	SAM	08/14/25 16:10		Jaswal	OK
55	Q2815-25	TW-11M-W	SAM	08/14/25 16:14	Not used	Jaswal	Not Ok
56	Q2815-26	FB	SAM	08/14/25 16:18		Jaswal	OK
57	Q2821-05	GW-COMP	SAM	08/14/25 16:23		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 # LB136837

Review By	Janvi	Review On	8/18/2025 9:13:21 AM
Supervise By	jaswal	Supervise On	8/19/2025 4:32:19 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

58	Q2821-08	DM-COMP	SAM	08/14/25 16:27		Jaswal	OK
59	Q2837-01	TW-WTS-13	SAM	08/14/25 16:31		Jaswal	OK
60	Q2837-01DUP	TW-WTS-13DUP	DUP	08/14/25 16:36		Jaswal	OK
61	Q2837-01L	TW-WTS-13L	SD	08/14/25 16:41		Jaswal	OK
62	Q2837-01MS	TW-WTS-13MS	MS	08/14/25 16:45		Jaswal	OK
63	CCV05	CCV05	CCV	08/14/25 16:50		Jaswal	OK
64	CCB05	CCB05	CCB	08/14/25 17:00		Jaswal	OK
65	Q2837-01MSD	TW-WTS-13MSD	MSD	08/14/25 17:04		Jaswal	OK
66	Q2837-01A	TW-WTS-13A	PS	08/14/25 17:09	0.1ml of M6004 and M6017 of each in 10ml sample.	Jaswal	OK
67	Q2858-01	VNJ 216	SAM	08/14/25 17:13		Jaswal	OK
68	Q2858-01DUP	VNJ 216DUP	DUP	08/14/25 17:17		Jaswal	OK
69	Q2858-01L	VNJ 216L	SD	08/14/25 17:21		Jaswal	OK
70	Q2858-01MS	VNJ 216MS	MS	08/14/25 17:25		Jaswal	OK
71	Q2858-01MSD	VNJ 216MSD	MSD	08/14/25 17:29		Jaswal	OK
72	Q2858-01A	VNJ 216A	PS	08/14/25 17:33	0.1ml of M6004 and M6017 of each in 10ml sample.	Jaswal	OK
73	CCV06	CCV06	CCV	08/14/25 17:54		Jaswal	OK
74	CCB06	CCB06	CCB	08/14/25 18:05		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 # LB136898

Review By	jaswal	Review On	8/21/2025 9:30:15 AM
Supervise By	MOHAN	Supervise On	8/21/2025 5:53:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	08/20/25 12:38		Jaswal	OK
2	S1	S1	CAL2	08/20/25 12:43		Jaswal	OK
3	S2	S2	CAL3	08/20/25 12:47		Jaswal	OK
4	S3	S3	CAL4	08/20/25 12:51		Jaswal	OK
5	S4	S4	CAL5	08/20/25 12:55		Jaswal	OK
6	S5	S5	CAL6	08/20/25 12:59		Jaswal	OK
7	ICV01	ICV01	ICV	08/20/25 13:04		Jaswal	OK
8	LLICV01	LLICV01	LLICV	08/20/25 13:17		Jaswal	OK
9	ICB01	ICB01	ICB	08/20/25 13:21		Jaswal	OK
10	CRI01	CRI01	CRDL	08/20/25 13:26		Jaswal	OK
11	ICSA01	ICSA01	ICSA	08/20/25 13:30		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	08/20/25 13:34		Jaswal	OK
13	ICSADL	ICSADL	ICSA	08/20/25 13:38		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	08/20/25 13:42		Jaswal	OK
15	CCV01	CCV01	CCV	08/20/25 13:47		Jaswal	OK
16	CCB01	CCB01	CCB	08/20/25 13:51		Jaswal	OK
17	LR-1	LR-1	HIGH STD	08/20/25 13:55		Jaswal	OK
18	LR-2	LR-2	HIGH STD	08/20/25 14:00		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 # LB136898

Review By	jaswal	Review On	8/21/2025 9:30:15 AM
Supervise By	MOHAN	Supervise On	8/21/2025 5:53:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

19	LR-3	LR-3	HIGH STD	08/20/25 14:04		Jaswal	OK
20	Q2892-02	1-FLOOR-NORTH-EA	SAM	08/20/25 14:09		Jaswal	OK
21	Q2892-02DUP	1-FLOOR-NORTH-EA	DUP	08/20/25 14:15		Jaswal	OK
22	Q2892-02MS	1-FLOOR-NORTH-EA	MS	08/20/25 14:23		Jaswal	OK
23	Q2892-02MSD	1-FLOOR-NORTH-EA	MSD	08/20/25 14:27		Jaswal	OK
24	Q2892-02A	1-FLOOR-NORTH-EA	PS	08/20/25 14:31		Jaswal	OK
25	CCV02	CCV02	CCV	08/20/25 14:39		Jaswal	OK
26	CCB02	CCB02	CCB	08/20/25 14:43		Jaswal	OK
27	PB169301BL	PB169301BL	MB	08/20/25 14:48		Jaswal	OK
28	PB169301BS	PB169301BS	LCS	08/20/25 14:52		Jaswal	OK
29	Q2892-02L	1-FLOOR-NORTH-EA	SD	08/20/25 14:56		Jaswal	OK
30	Q2818-04	B-2-5-1	SAM	08/20/25 15:00		Jaswal	OK
31	Q2818-05	B-3-5-2	SAM	08/20/25 15:04		Jaswal	OK
32	Q2818-05DUP	B-3-5-2DUP	DUP	08/20/25 15:08		Jaswal	OK
33	Q2818-05A	B-3-5-2A	PS	08/20/25 15:24		Jaswal	OK
34	Q2818-05L	B-3-5-2L	SD	08/20/25 15:32		Jaswal	OK
35	Q2818-05MS	B-3-5-2MS	MS	08/20/25 15:37		Jaswal	OK
36	Q2818-05MSD	B-3-5-2MSD	MSD	08/20/25 15:41		Jaswal	OK
37	CCV03	CCV03	CCV	08/20/25 15:45		Jaswal	OK
38	CCB03	CCB03	CCB	08/20/25 15:49		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 # LB136898

Review By	jaswal	Review On	8/21/2025 9:30:15 AM
Supervise By	MOHAN	Supervise On	8/21/2025 5:53:36 PM

STD. NAME	STD REF.#
ICAL Standard	MP86640,MP86656,MP86653,MP86643,MP86642,MP86641
ICV Standard	MP86752,MP86656
CCV Standard	MP86646
ICSA Standard	MP86651,MP86753
CRI Standard	MP86656
LCS Standard	
Chk Standard	MP86647,MP86648

39	PB169303BL	PB169303BL	MB	08/20/25 15:53		Jaswal	OK
40	PB169303BS	PB169303BS	LCS	08/20/25 15:58		Jaswal	OK
41	Q2881-01	RW8-SP100-2025081	SAM	08/20/25 16:02		Jaswal	OK
42	Q2881-02	RW8-SP303-2025081	SAM	08/20/25 16:06		Jaswal	OK
43	Q2881-02DUP	RW8-SP303-2025081	DUP	08/20/25 16:10		Jaswal	OK
44	Q2881-02L	RW8-SP303-2025081	SD	08/20/25 16:14		Jaswal	OK
45	Q2881-02MS	RW8-SP303-2025081	MS	08/20/25 16:19		Jaswal	OK
46	Q2881-02MSD	RW8-SP303-2025081	MSD	08/20/25 16:23		Jaswal	OK
47	Q2881-02A	RW8-SP303-2025081	PS	08/20/25 16:27		Jaswal	OK
48	Q2814-01	TW-84SB-E	SAM	08/20/25 16:31		Jaswal	OK
49	CCV04	CCV04	CCV	08/20/25 16:35		Jaswal	OK
50	CCB04	CCB04	CCB	08/20/25 16:39		Jaswal	OK
51	Q2814-03	TW-17M-W	SAM	08/20/25 16:43		Jaswal	OK
52	Q2814-22	TW-84SB-E	SAM	08/20/25 16:47		Jaswal	OK
53	Q2814-23	TW-17M-W	SAM	08/20/25 16:52		Jaswal	OK
54	Q2815-20	TW-11M-W	SAM	08/20/25 16:56	Not use	Jaswal	Not Ok
55	Q2815-25	TW-11M-W	SAM	08/20/25 17:00		Jaswal	OK
56	PB169301TB	PB169301TB	MB	08/20/25 17:04		Jaswal	OK
57	CCV05	CCV05	CCV	08/20/25 17:09		Jaswal	OK
58	CCB05	CCB05	CCB	08/20/25 17:13		Jaswal	OK

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

Prep Standard - Chemical Standard Summary

Order ID : Q2815

Test : Dissolved ICP-TAL Metals,Dissolved Mercury,Mercury,Metals ICP-TAL

Prepbatch ID : PB169202,PB169232,PB169249,

Sequence ID/Qc Batch ID: LB136788,LB136836,LB136836,LB136837,LB136837,LB136837,LB136898,LB136898,

Standard ID :
MP85156,MP85892,MP85893,MP85894,MP85895,MP86640,MP86641,MP86642,MP86643,MP86646,MP86647,MP866
48,MP86651,MP86653,MP86655,MP86656,MP86722,MP86723,MP86724,MP86725,MP86726,MP86727,MP86729,MP
86730,MP86731,MP86732,MP86733,MP86734,MP86737,MP86752,MP86753,MP86770,MP86771,MP86772,MP86773,
MP86774,MP86775,MP86776,MP86777,MP86778,MP86779,MP86781,MP86782,MP86783,MP86786,

Chemical ID :
M4371,M4465,M4916,M5062,M5467,M5658,M5697,M5748,M5798,M5799,M5800,M5801,M5805,M5814,M5816,M5820
,M5884,M5962,M5969,M5970,M5979,M5985,M5998,M6021,M6023,M6027,M6028,M6030,M6032,M6041,M6058,M607
6,M6077,M6086,M6128,M6137,M6140,M6142,M6144,M6145,M6146,M6151,M6158,M6159,M6162,M6163,M6164,M61
65,M6171,M6174,M6176,M6177,M6178,M6179,M6180,M6181,M6182,M6184,W3112,

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

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

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

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

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

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

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

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

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

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
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

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

Metals STANDARD PREPARATION LOG

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

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

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

Metals STANDARD PREPARATION LOG

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

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

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

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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP86722	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 1.00000ml of M6162 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP86723	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP86724	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86722 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP86725	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 245.00000ml of W3112 + 2.50000ml of MP86722 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP86726	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 242.50000ml of W3112 + 5.00000ml of MP86722 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP86727	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 240.00000ml of W3112 + 7.50000ml of MP86722 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP86729	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 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)	MP86730	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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

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)	MP86731	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6162 + 10.00000ml of MP86722 = 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)	MP86732	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6162 = Final Quantity: 500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP86733	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86722 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP86734	08/12/2025	08/13/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 240.50000ml of W3112 + 7.00000ml of MP86722 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
104	5% RINSING HCL	MP86737	08/12/2025	08/17/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 100.00000ml of M6151 + 1900.00000ml of W3112 = Final Quantity: 2000.000 ml

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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP86753	08/06/2025	08/27/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICPA)	Sarabjit Jaswal 08/14/2025

FROM 0.05000ml of M6076 + 5.00000ml of M6182 + 5.00000ml of M6184 + 39.95000ml of MP86640 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP86770	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 1.00000ml of M6162 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP86771	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

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	MP86772	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86770 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP86773	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 245.00000ml of W3112 + 2.50000ml of MP86770 = 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	MP86774	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 242.50000ml of W3112 + 5.00000ml of MP86770 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP86775	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 240.00000ml of W3112 + 7.50000ml of MP86770 = 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	MP86776	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 237.50000ml of W3112 + 10.00000ml of MP86770 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP86777	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 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)	MP86778	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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

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)	MP86779	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6162 + 10.00000ml of MP86770 = 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)	MP86781	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6162 = Final Quantity: 500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP86782	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 247.30000ml of W3112 + 0.20000ml of MP86770 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP86783	08/14/2025	08/15/2025	Sagar Kanani	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 08/14/2025

FROM 2.50000ml of M6162 + 240.50000ml of W3112 + 7.00000ml of MP86770 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
104	5% RINSING HCL	MP86786	08/14/2025	08/17/2025	Sagar Kanani	None	None	Sarabjit Jaswal 08/14/2025

FROM 100.00000ml of M6151 + 1900.00000ml of W3112 = Final Quantity: 2000.000 ml

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

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

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

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

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-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

CHEMICAL RECEIPT LOG BOOK

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	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

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

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

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 / jaswal	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

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

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 #
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

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

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

CHEMICAL RECEIPT LOG BOOK

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 / jaswal	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

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

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

CHEMICAL RECEIPT LOG BOOK

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

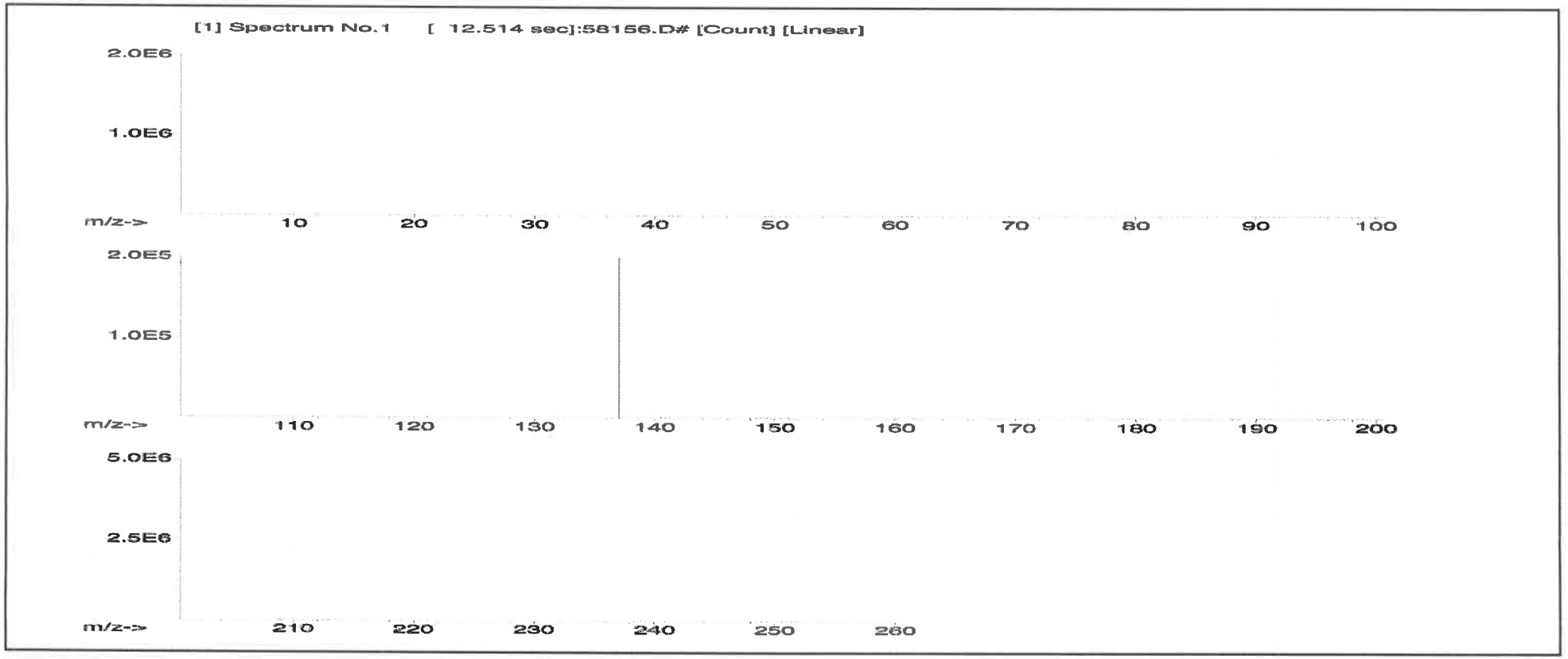
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).
* 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

R: 01/03/24 M5804, M5805

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 122223
Description: Calcium (Ca)

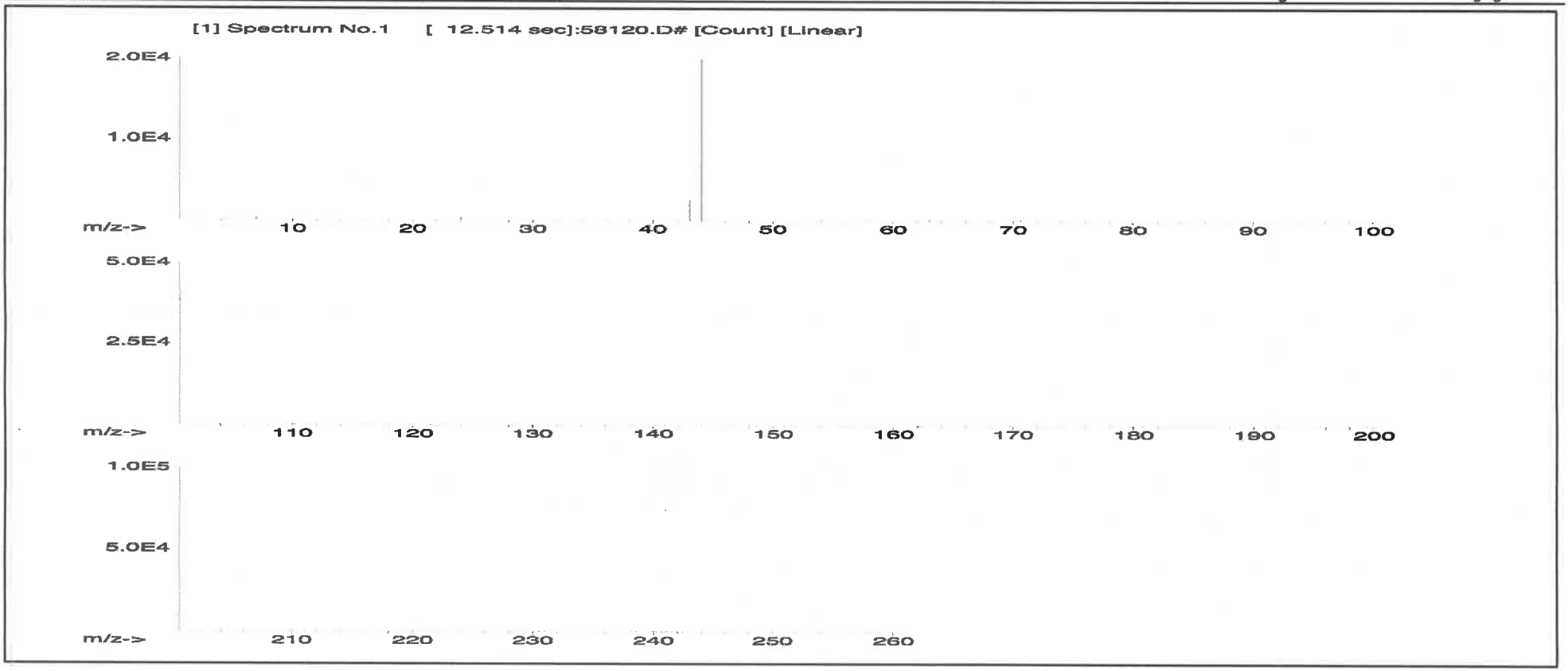
Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.0 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
		5E-05	Balance Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 122223

Pedro Rentas
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	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.

* 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

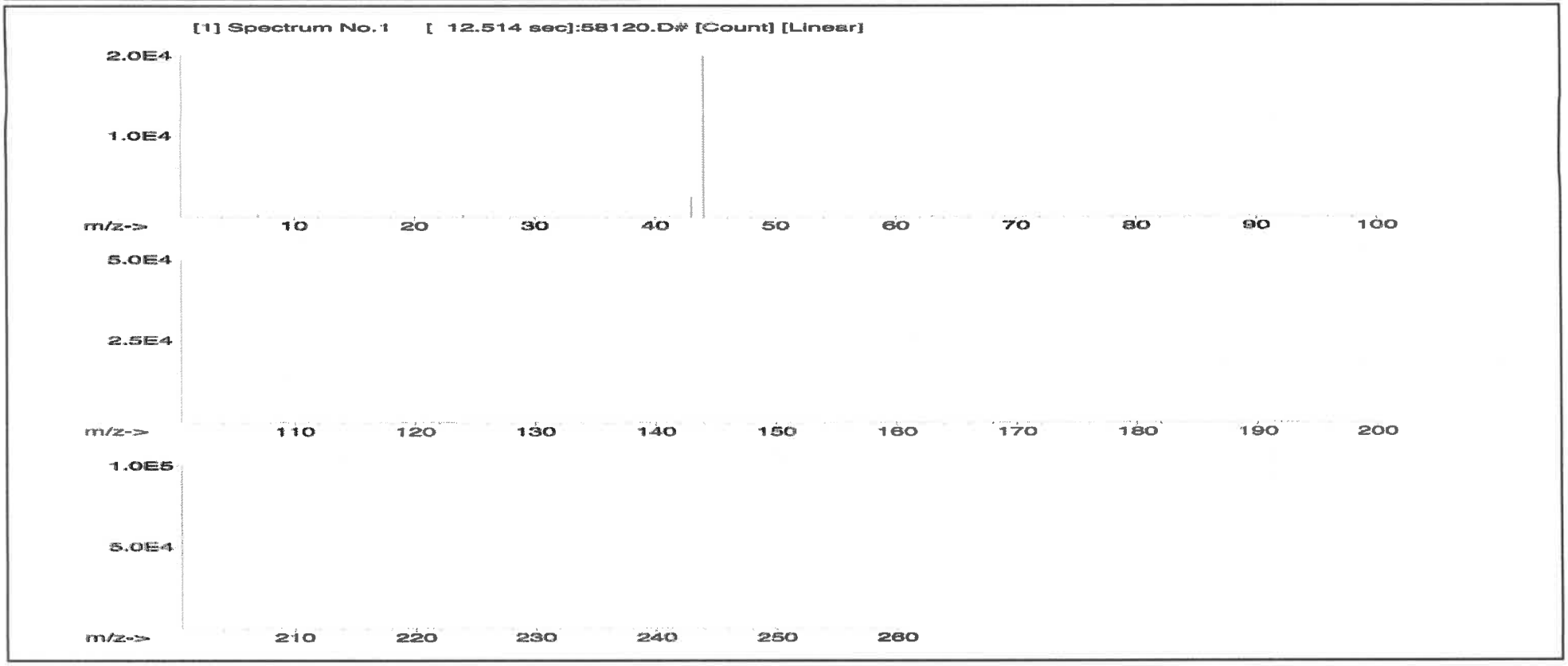
Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

Part Number:	**58120**		**Lot #**		
Lot Number:	**082324**		**Solvent:**	24002546	Nitric Acid
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	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.

* 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

M6028

R 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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		

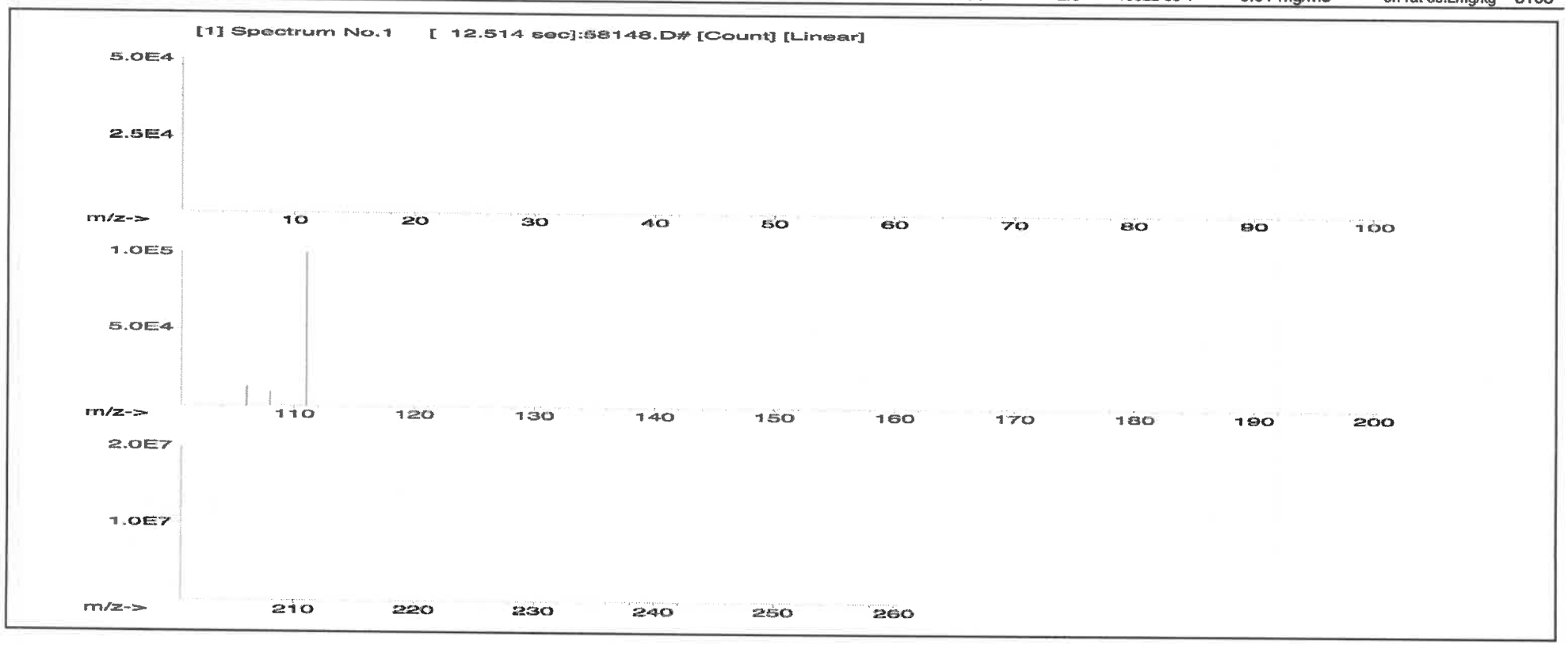
Aleah O'Brady

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* 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).

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

M4913-16

NB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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

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

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

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

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

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

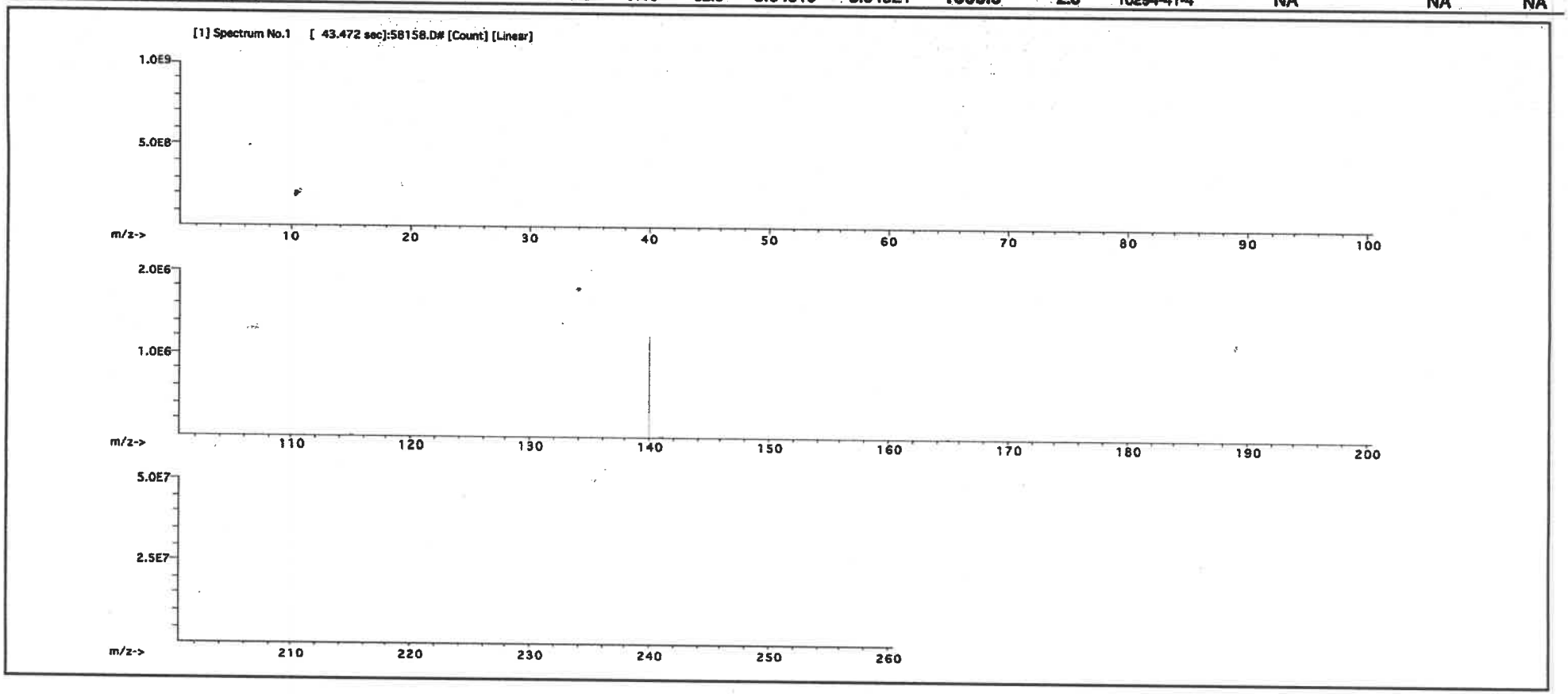
Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	2%	21110221	Nitric Acid
		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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

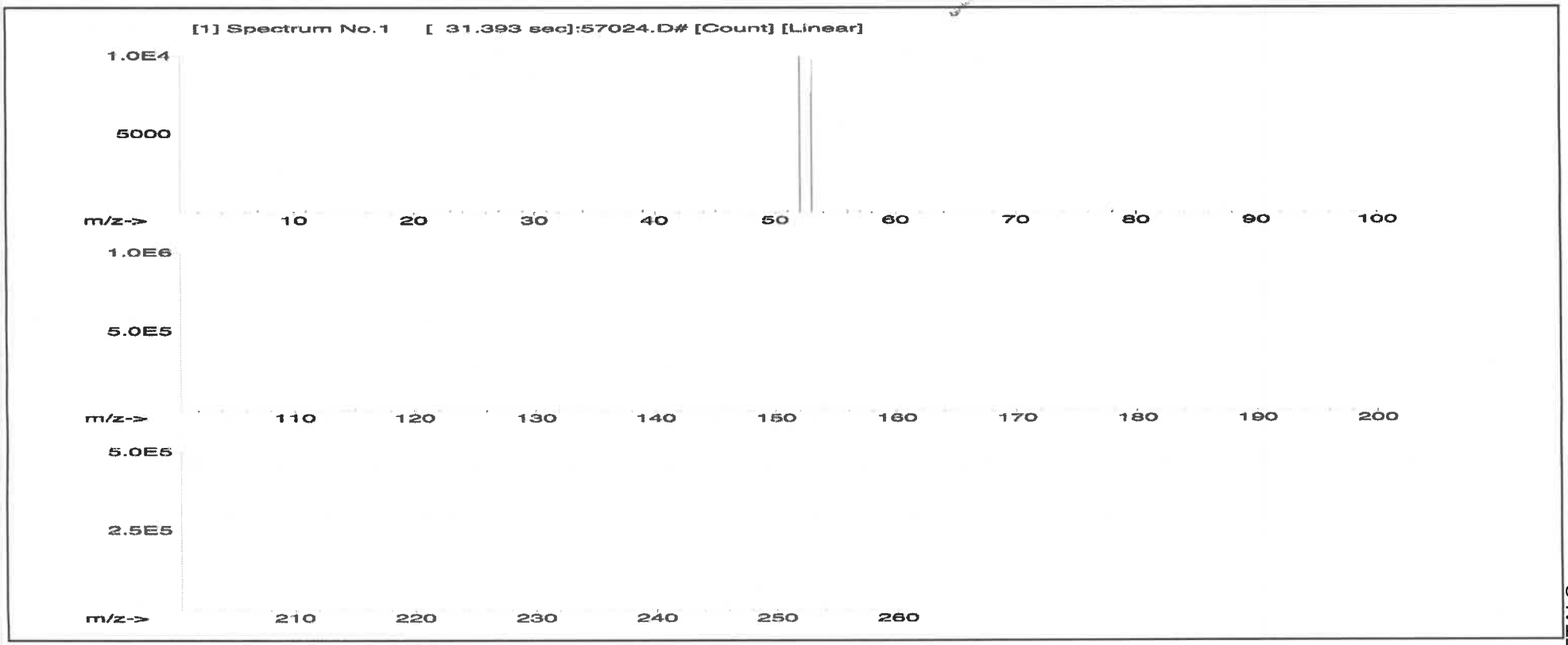
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5697 R: 10/27/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

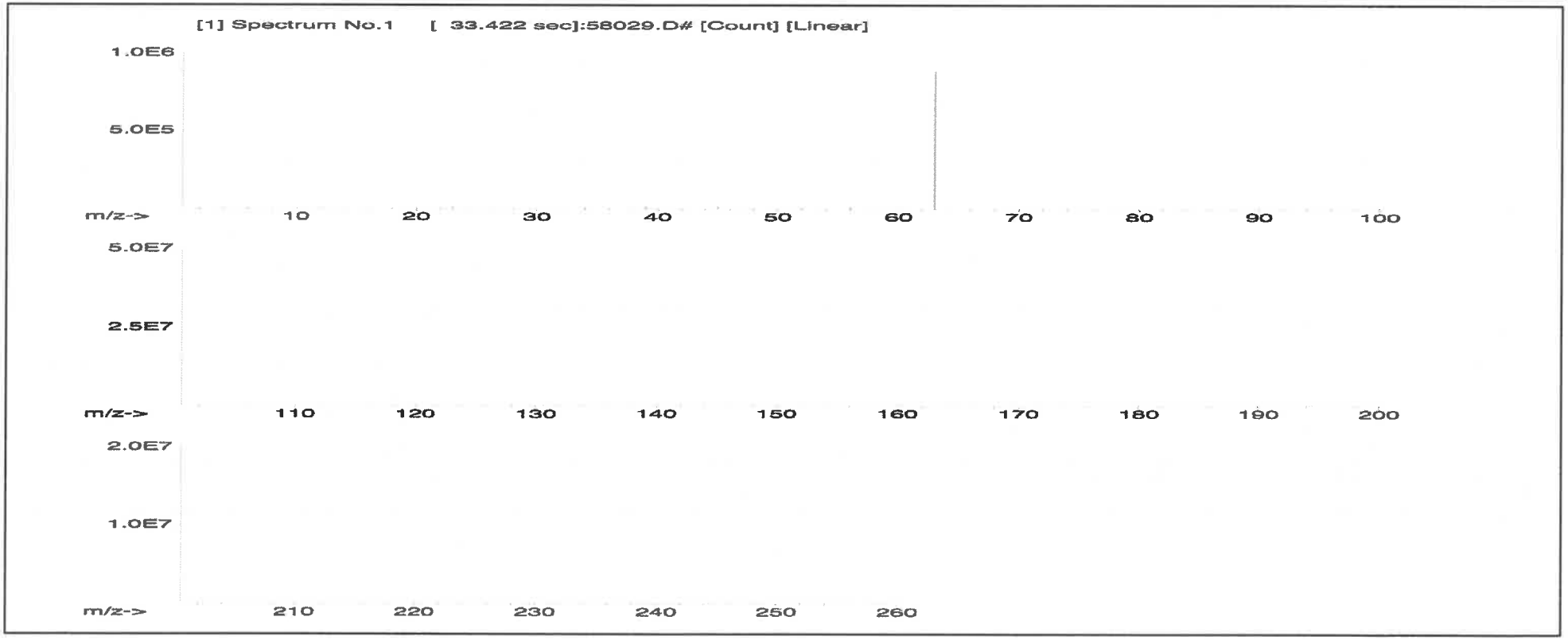
		Lot #	Solvent:
Part Number:	**58029**	24002546	Nitric Acid
Lot Number:	**102523**		
Description:	**Copper (Cu)**		

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



Absolute Standards, Inc.
300-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5748

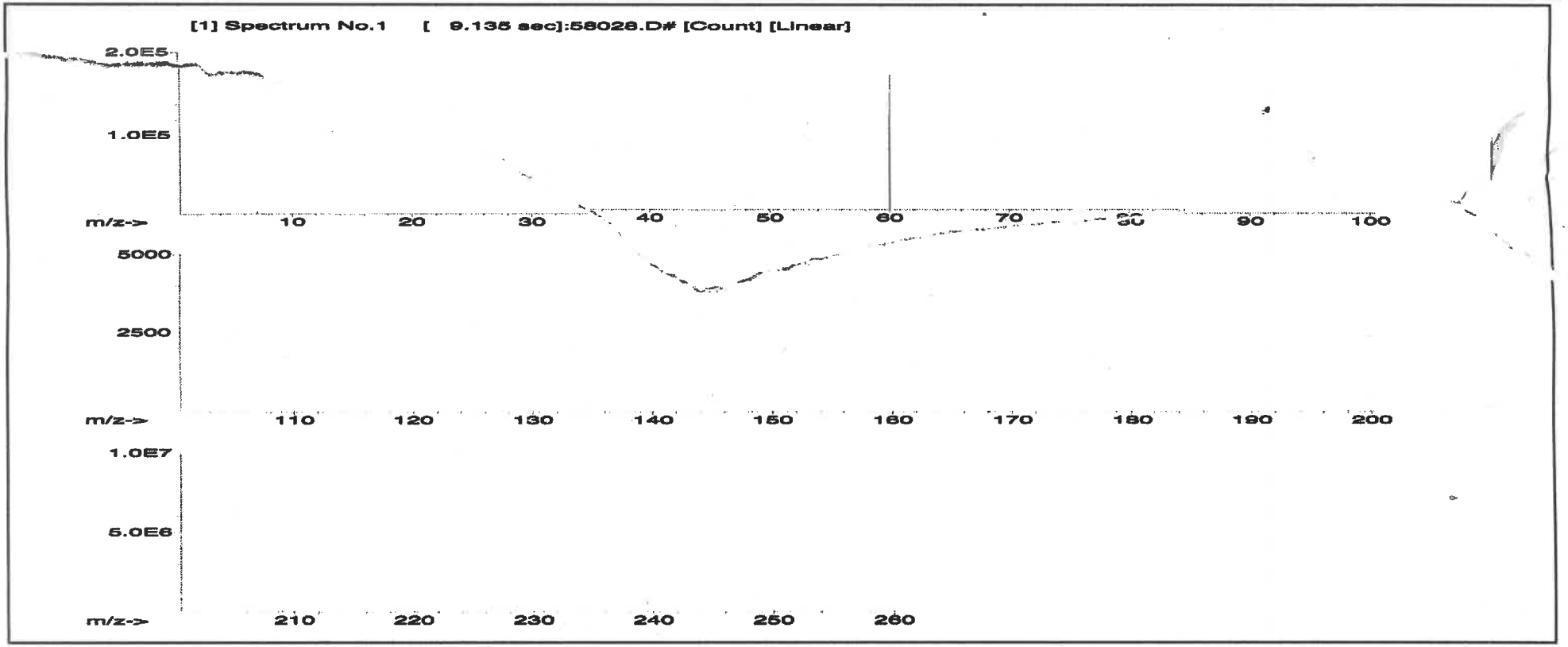
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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.

* 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

R: 02/09/24 M5798

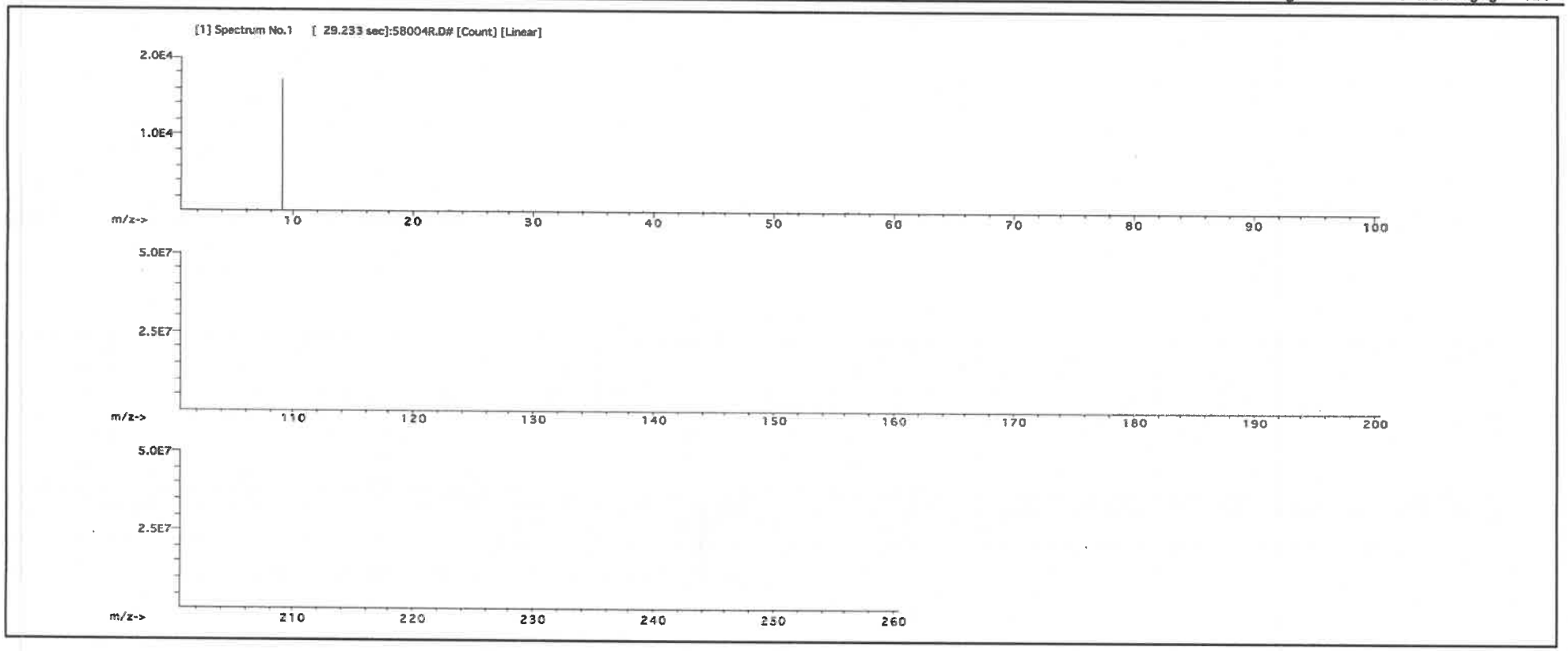
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* 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

R? 02/09/24 IV15799

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

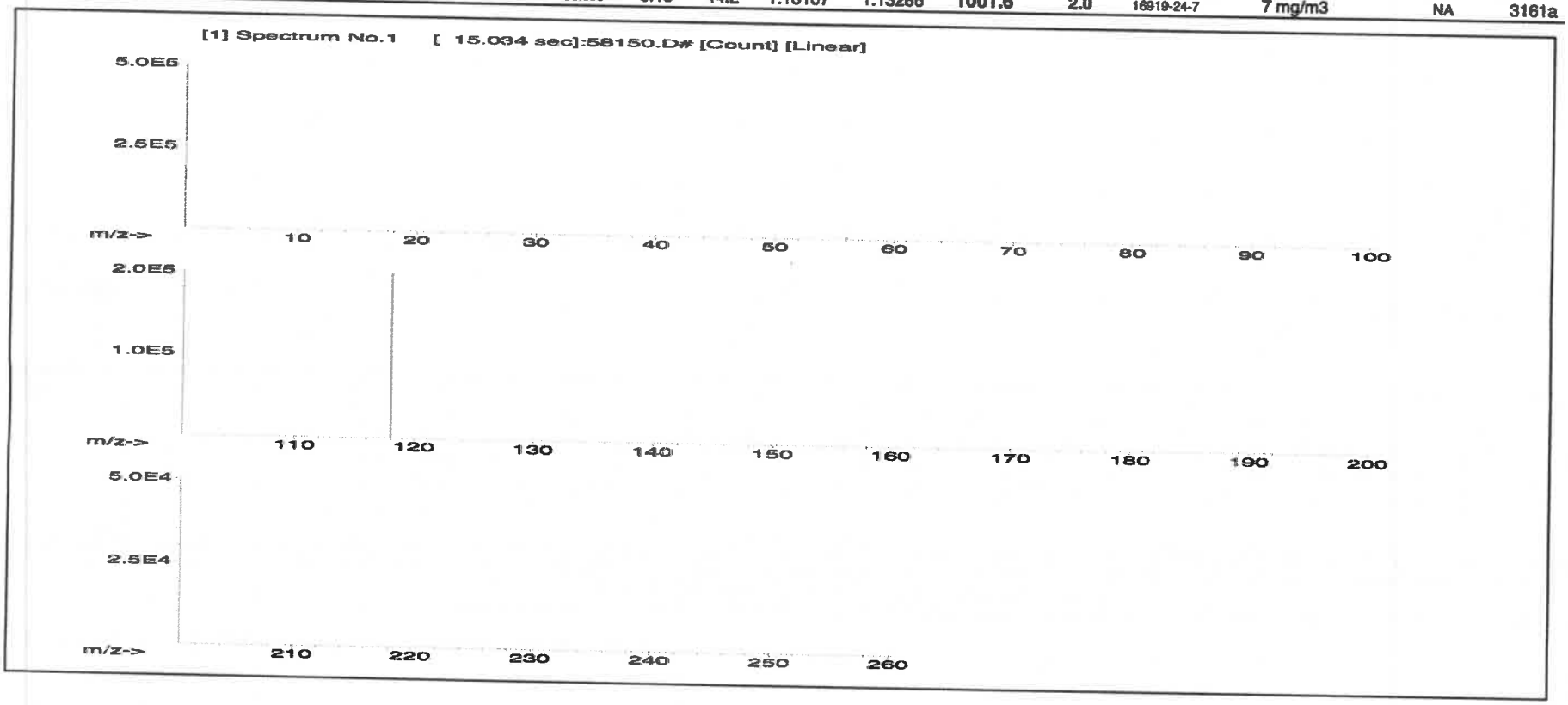
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 IM5800 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

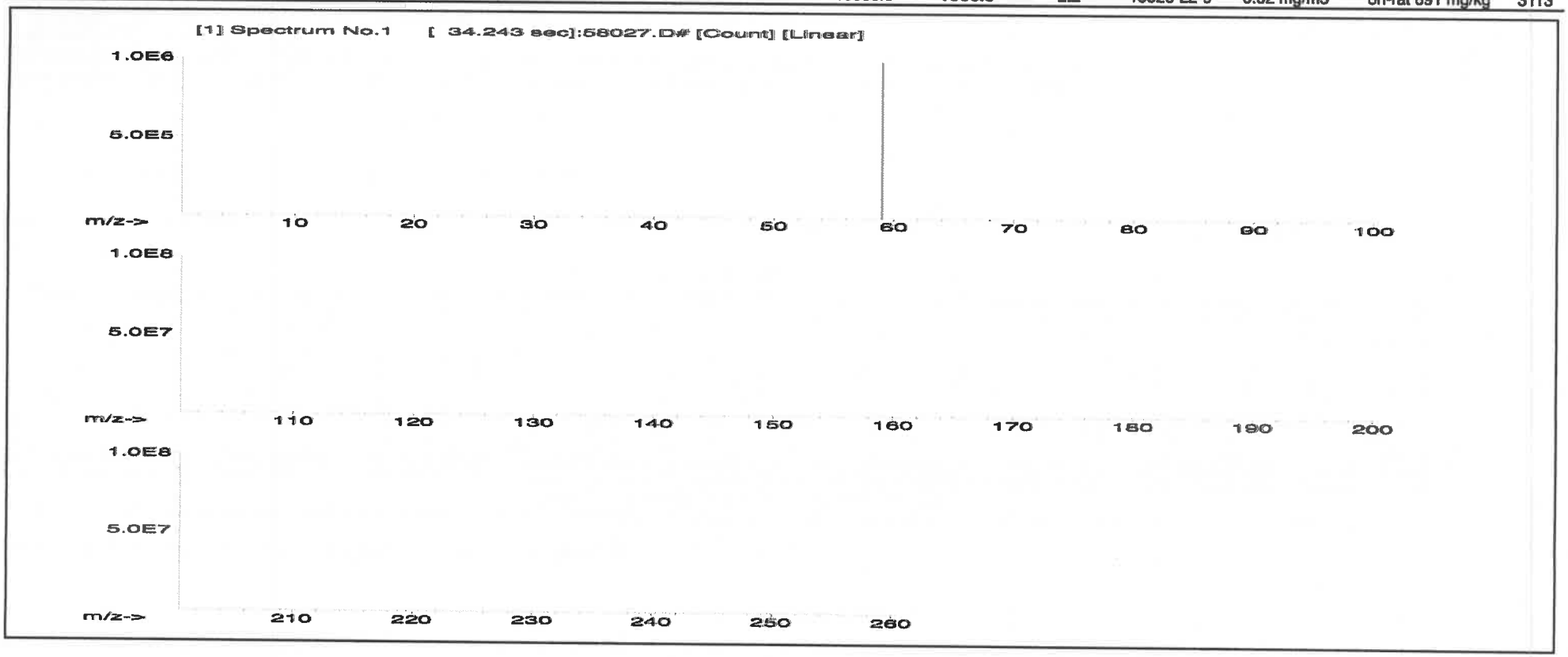
CERTIFIED WEIGHT REPORT:

		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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

R1 02/09/24 M5801 BH

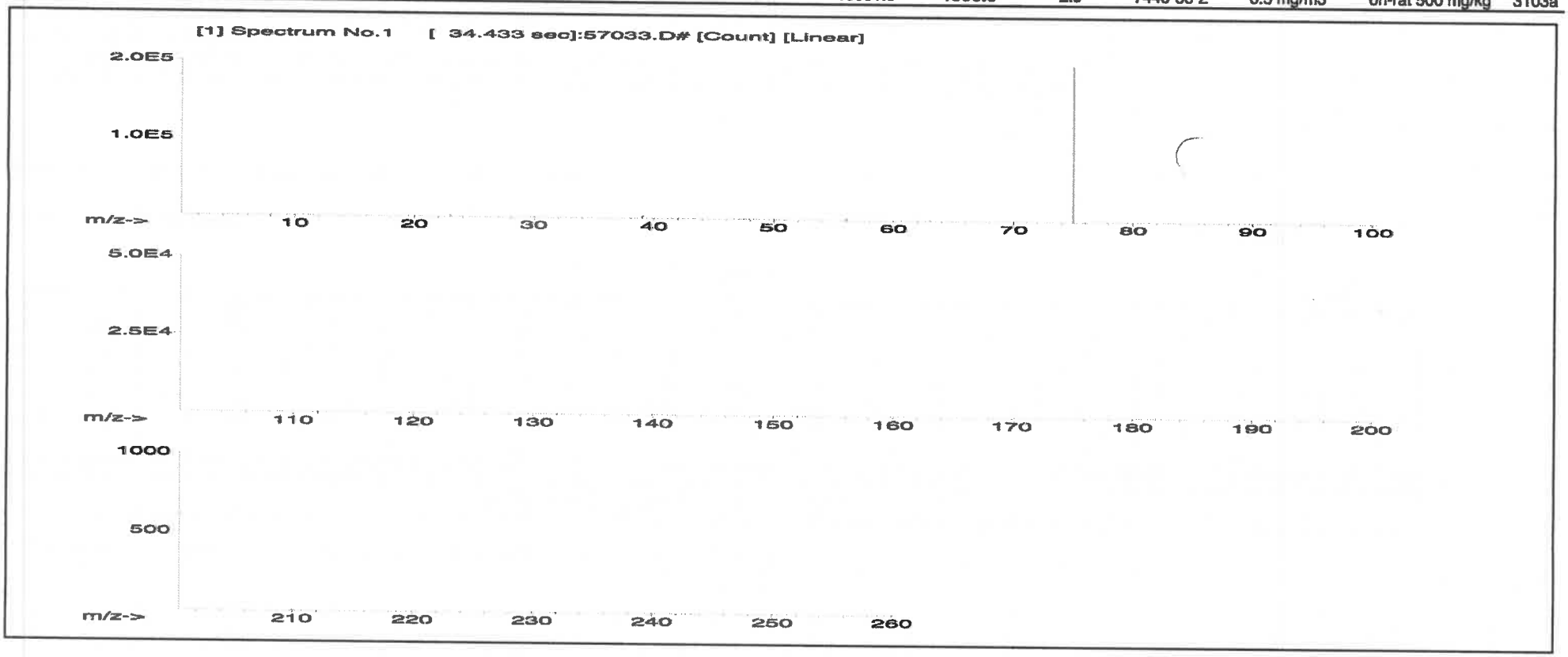
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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

A: 02/09/24 M.5814

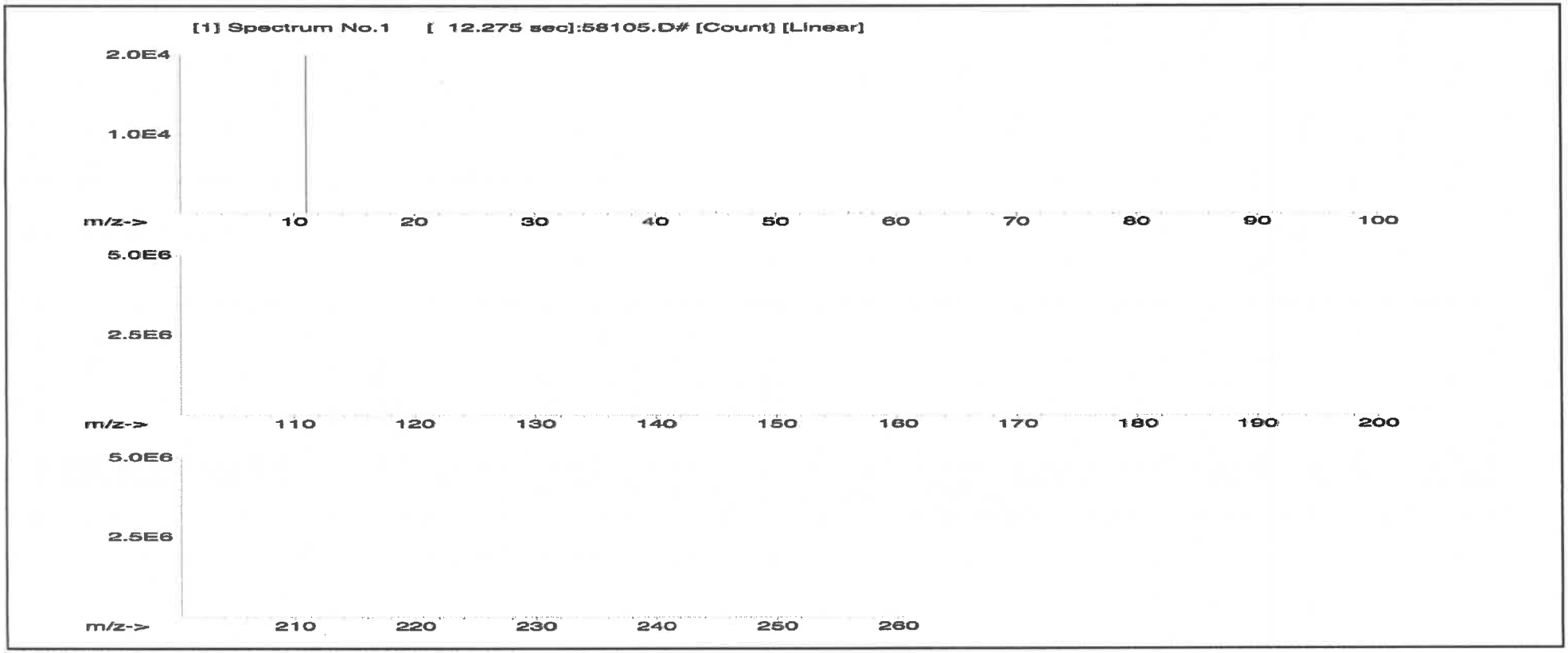
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Lot #**		
Lot Number:	**071123**	**Solvent:**	MKBQ8597V	Ammonium hydroxide	
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass 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:

* 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

R: 02/09/24 M5816

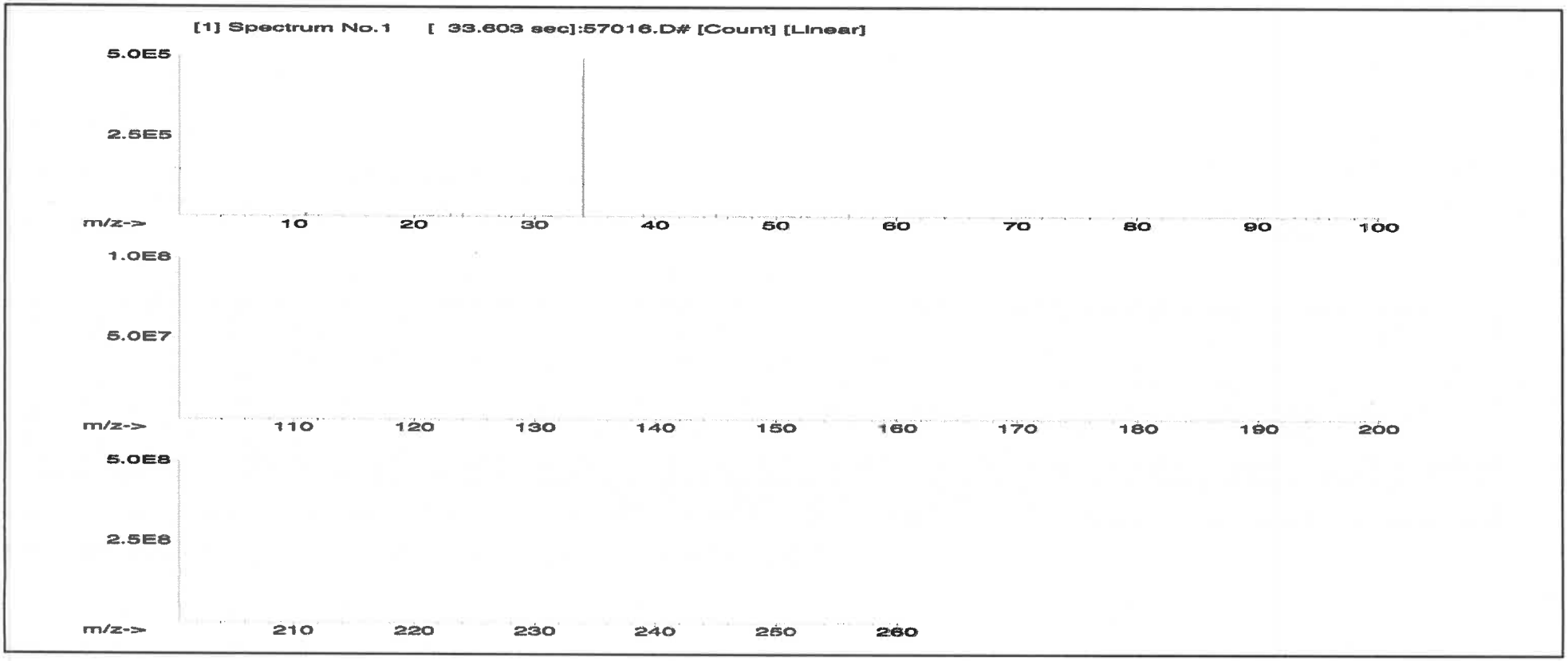
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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:

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

R: 02/09/24 M5820

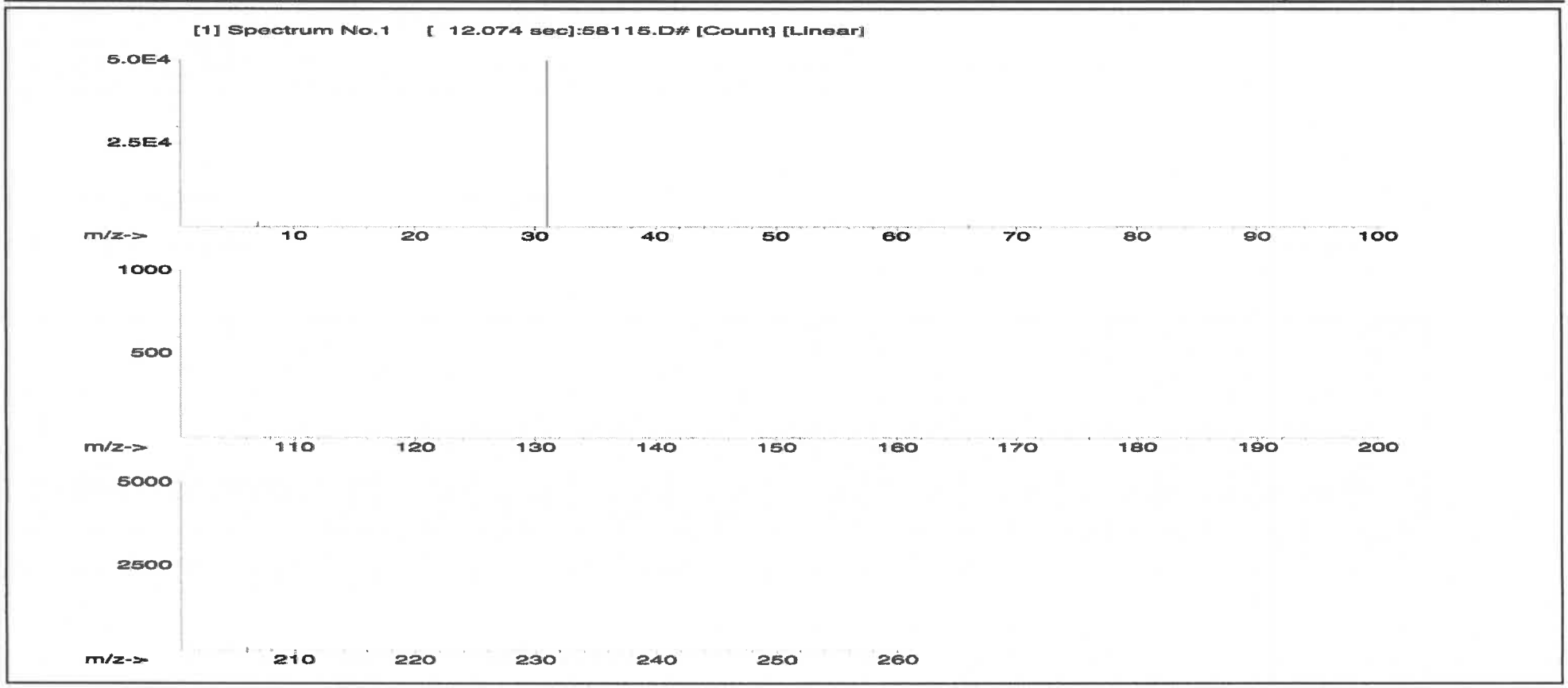
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).
* 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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MF884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

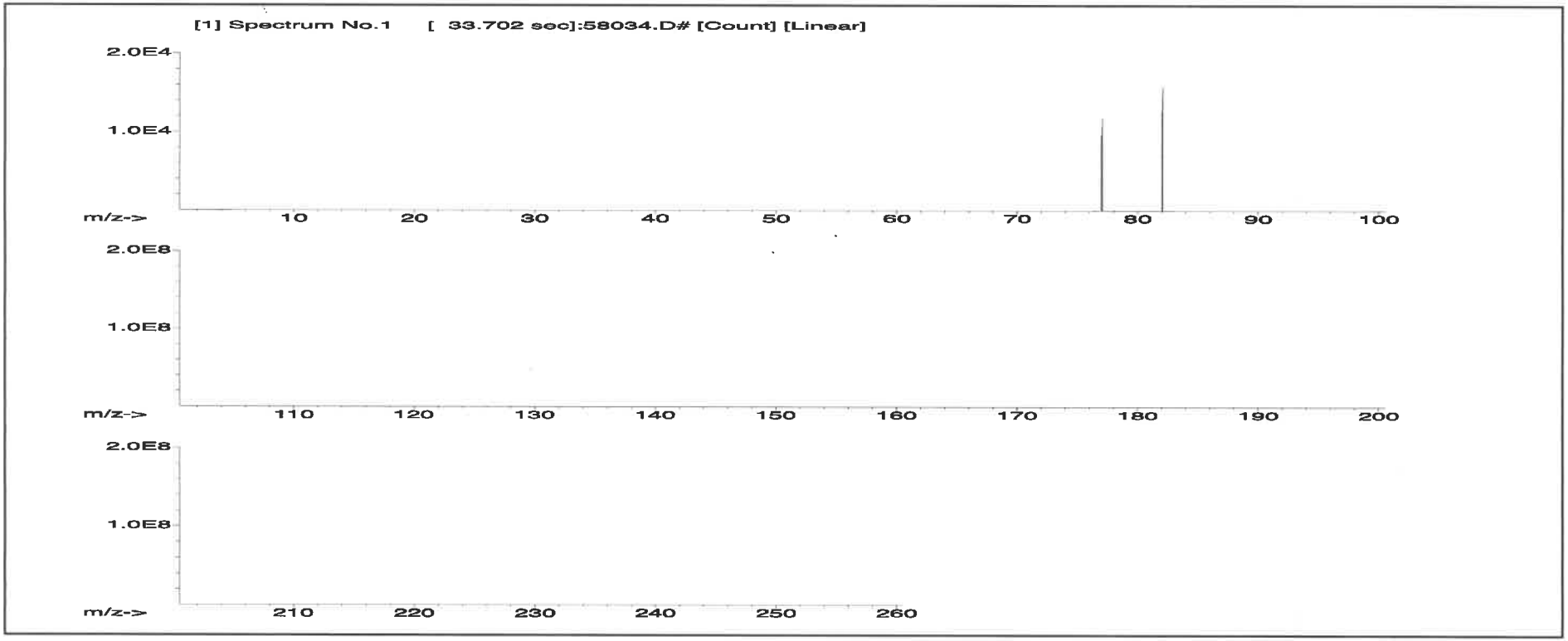
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5969 R: 06/11/24

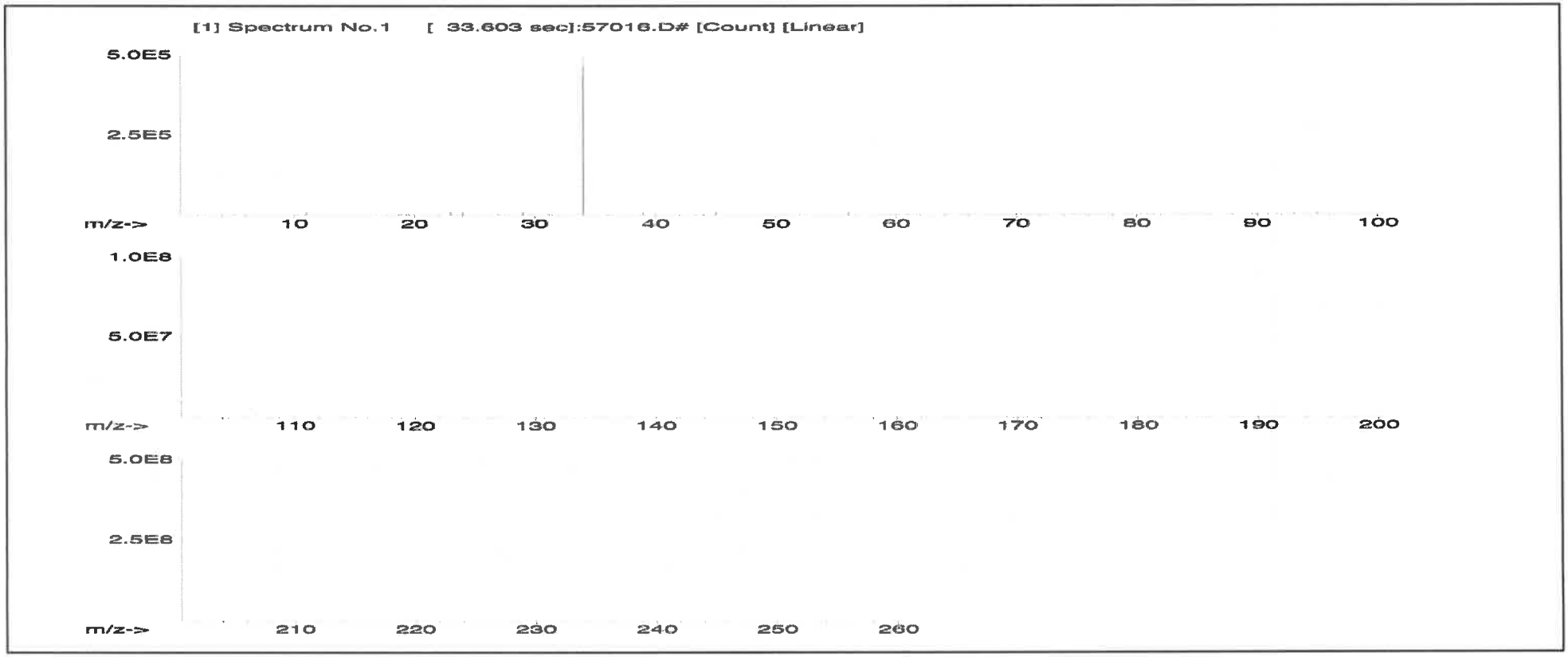
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11

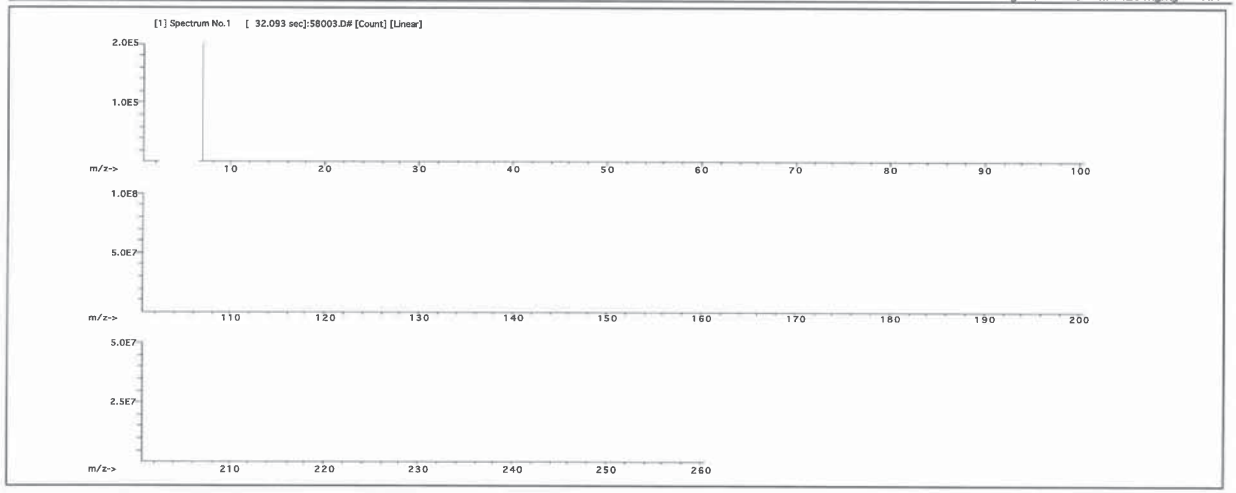
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.016 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	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
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).

MS978, MS979

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24

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 865.01

ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGT11
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	TI Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**1002 ± 4 µg/mL**
	ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/MM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{Char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{Char\ i})^2 \,/\, (\Sigma(1/u_{Char\ i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{Char} = [\Sigma((w_i)^2\,(u_{Char\ i})^2)]^{½}$ where $u_{Char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\,(u_{Char\ a})$$

X_a = mean of Assay Method A with

$u_{Char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{Char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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 for months in 1% 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: 800.669.5798; 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 property 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 Kozlkowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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

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

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

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24
MS-997

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

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

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

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

R! 08/22/24 M6058, M6059

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:	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

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

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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 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->1/13/25
M6128

Part Number: 58025
Lot Number: 101124
Description: Manganese (Mn)
Expiration Date: 101127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

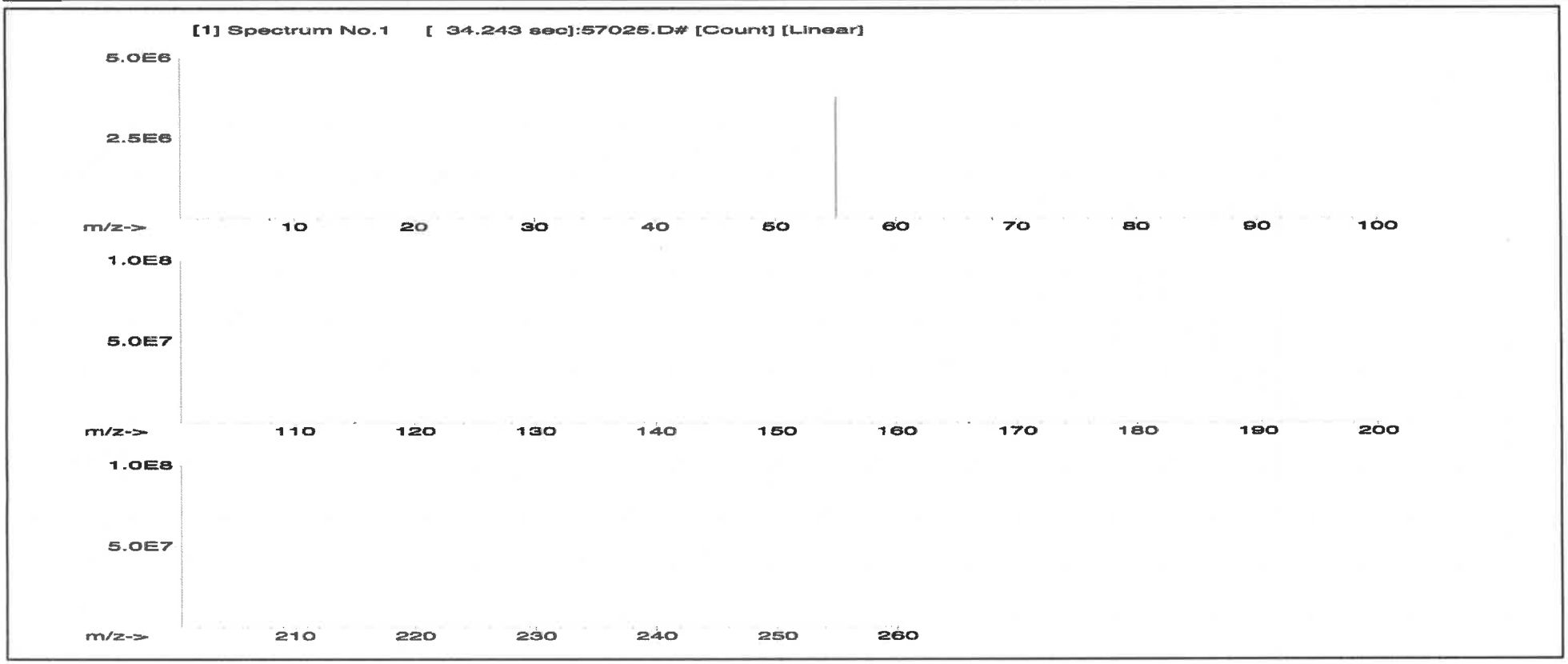
		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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

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:

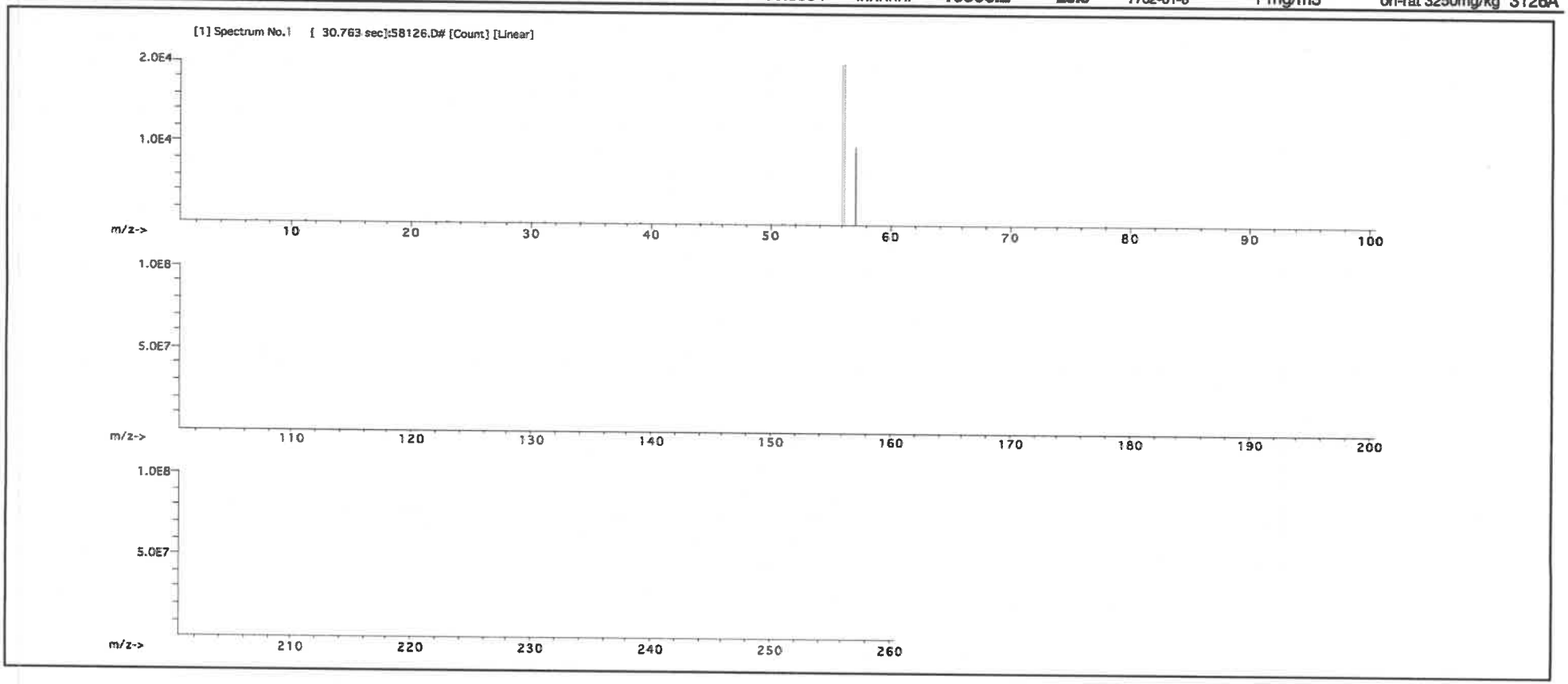
Part Number: 58126 R->1|B|2S
Lot Number: 011025
Description: Iron (Fe) M6140
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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:

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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**57119**		**Lot #**		
Lot Number:	**103024**		**Solvent:**	24002546	Nitric Acid
Description:	**Potassium (K)**	M6141 M6142 M6143	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			

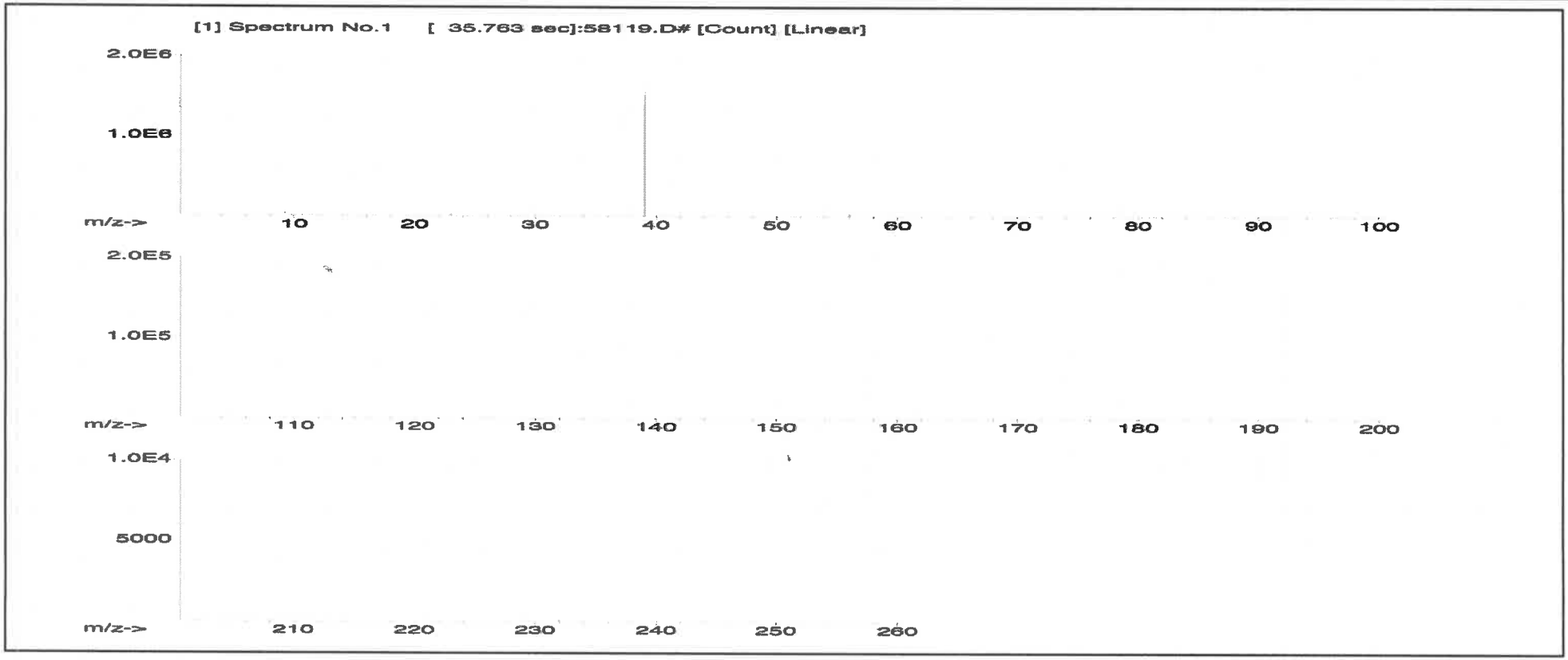
Giovanni Esposito

Formulated By:	Giovanni Esposito	103024

Pedro Rentas

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 58111
Lot Number: 072424
Description: Sodium (Na)

MG144

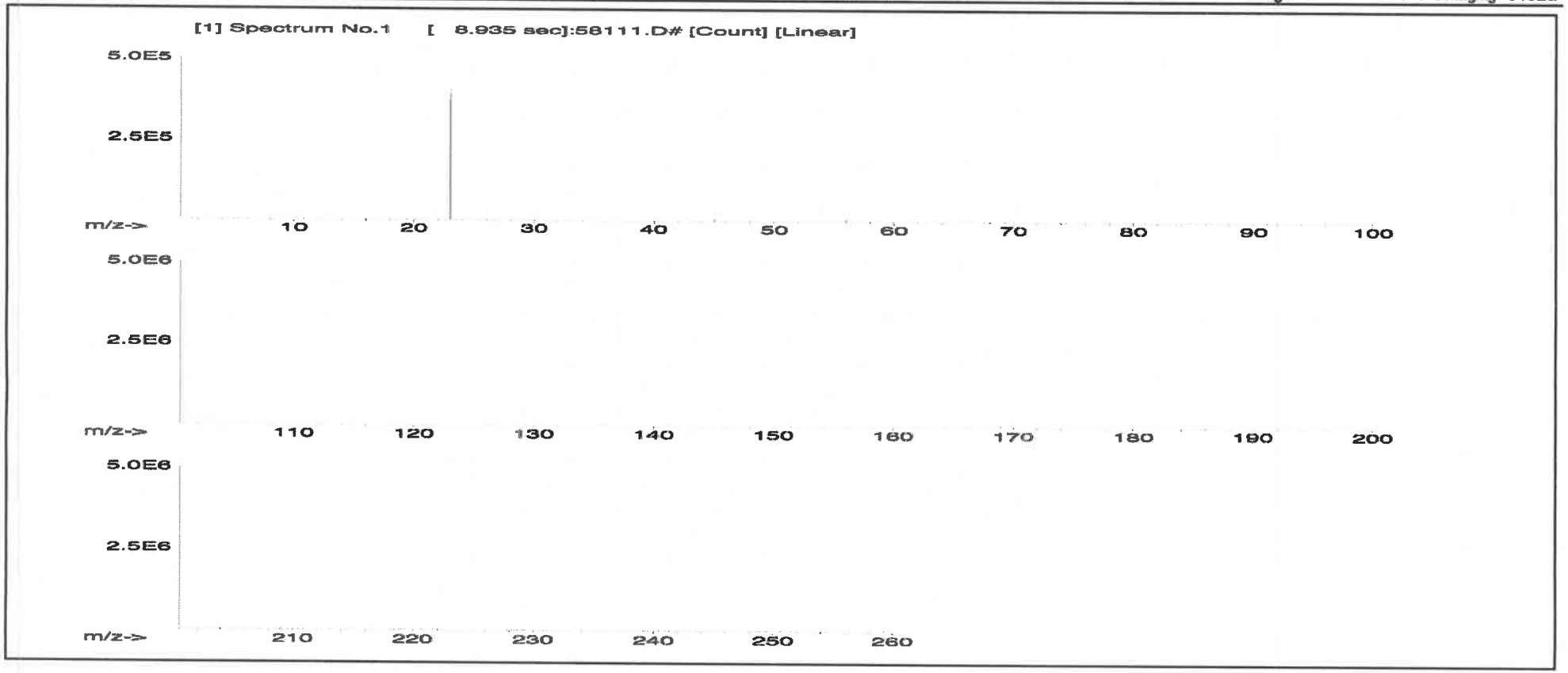
Expiration Date: 072427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2 ± 0.10 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
		5E-05	Balance 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	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.
* 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:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

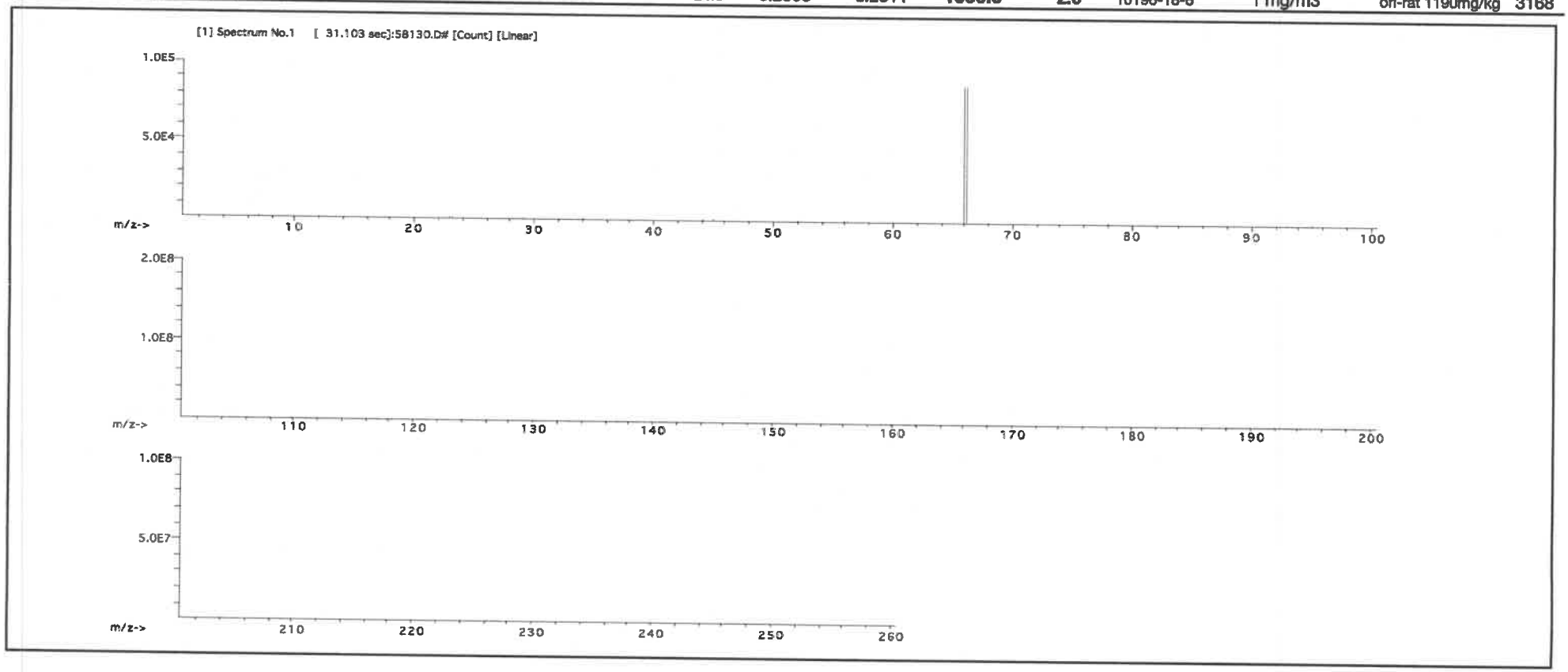
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

		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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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, Biosciences Production

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

M-5162

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 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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.

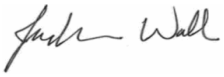
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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

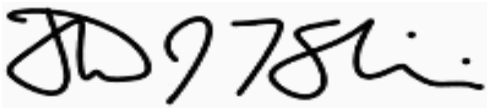
- Sealed TCT Bag Open Date: _____

- 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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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

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

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.

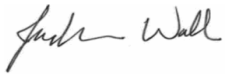
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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

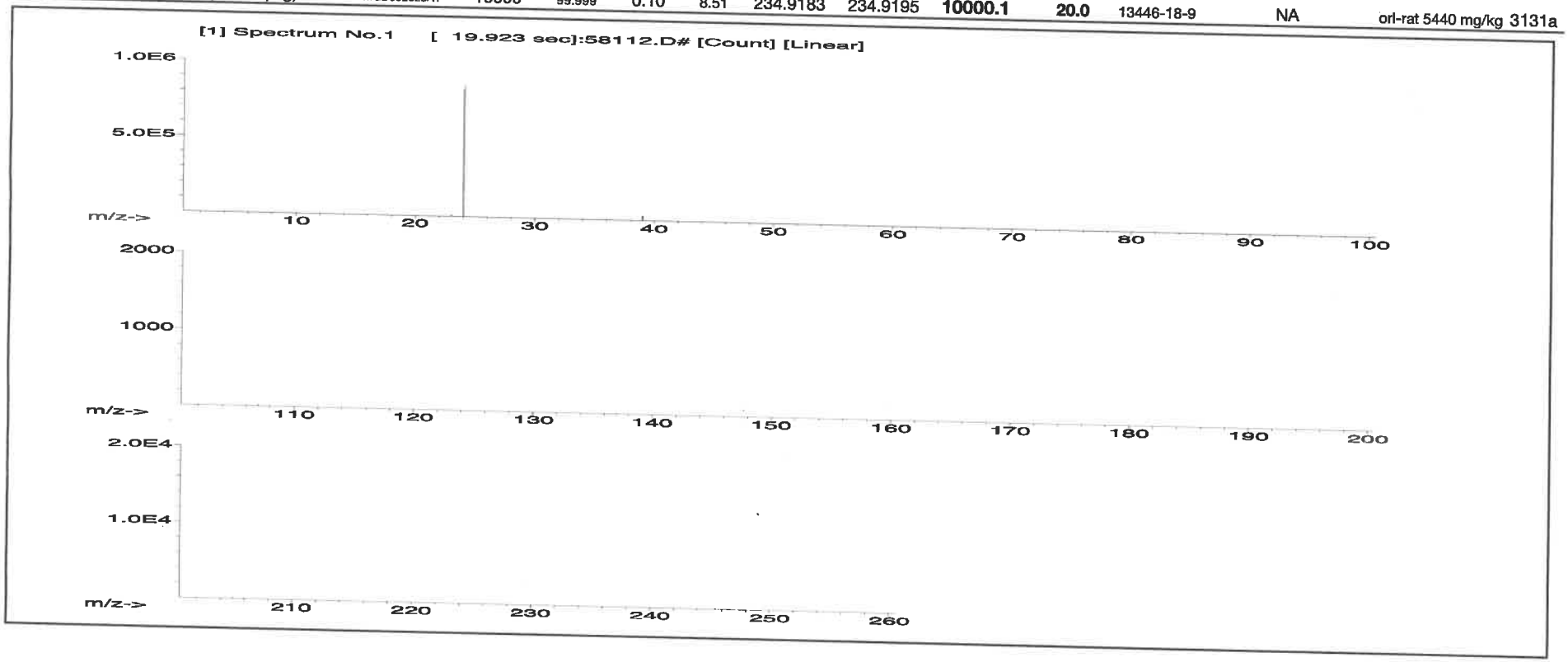
Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	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
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6174
R->5/5/24

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:	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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

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

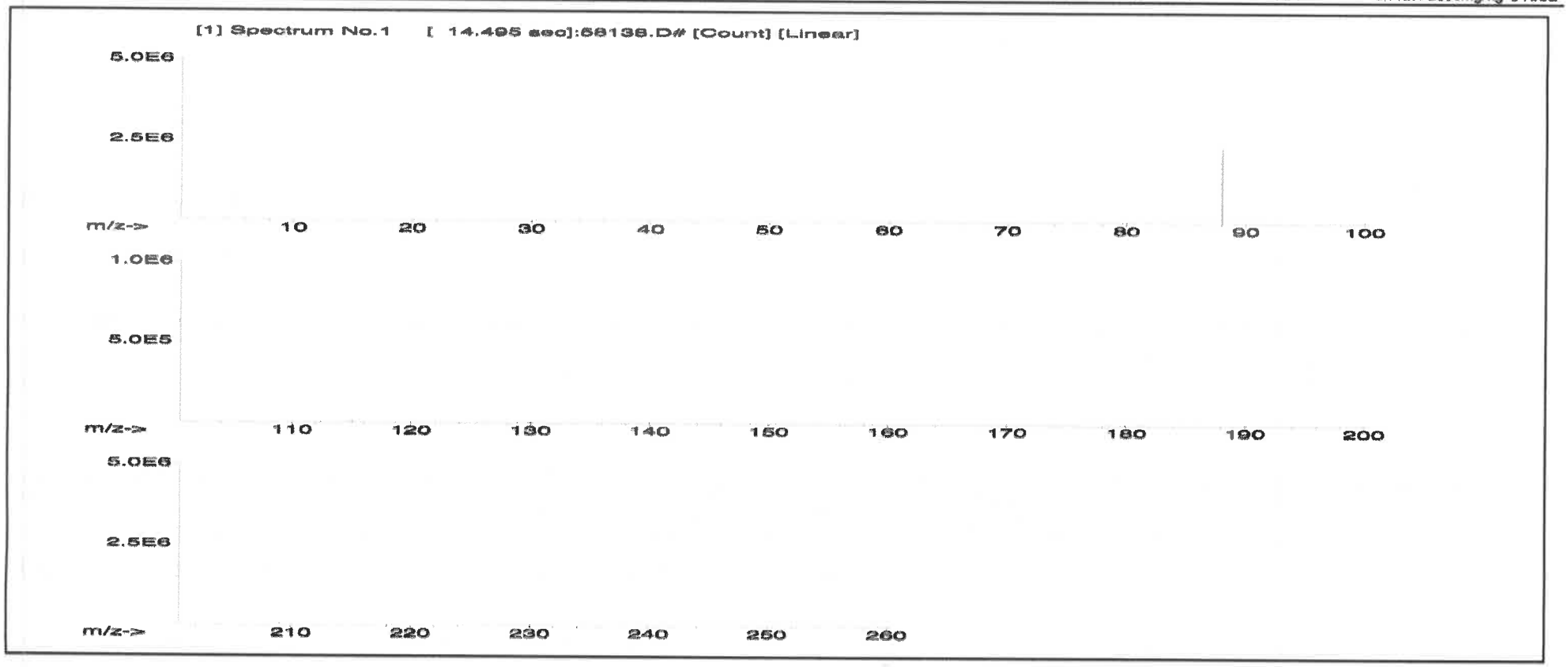
CERTIFIED WEIGHT REPORT:

R->8/6/29

Part Number:	**57038**		**Lot #**		
Lot Number:	**092724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Strontium (Sr)**				
	M6176	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	092727				
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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

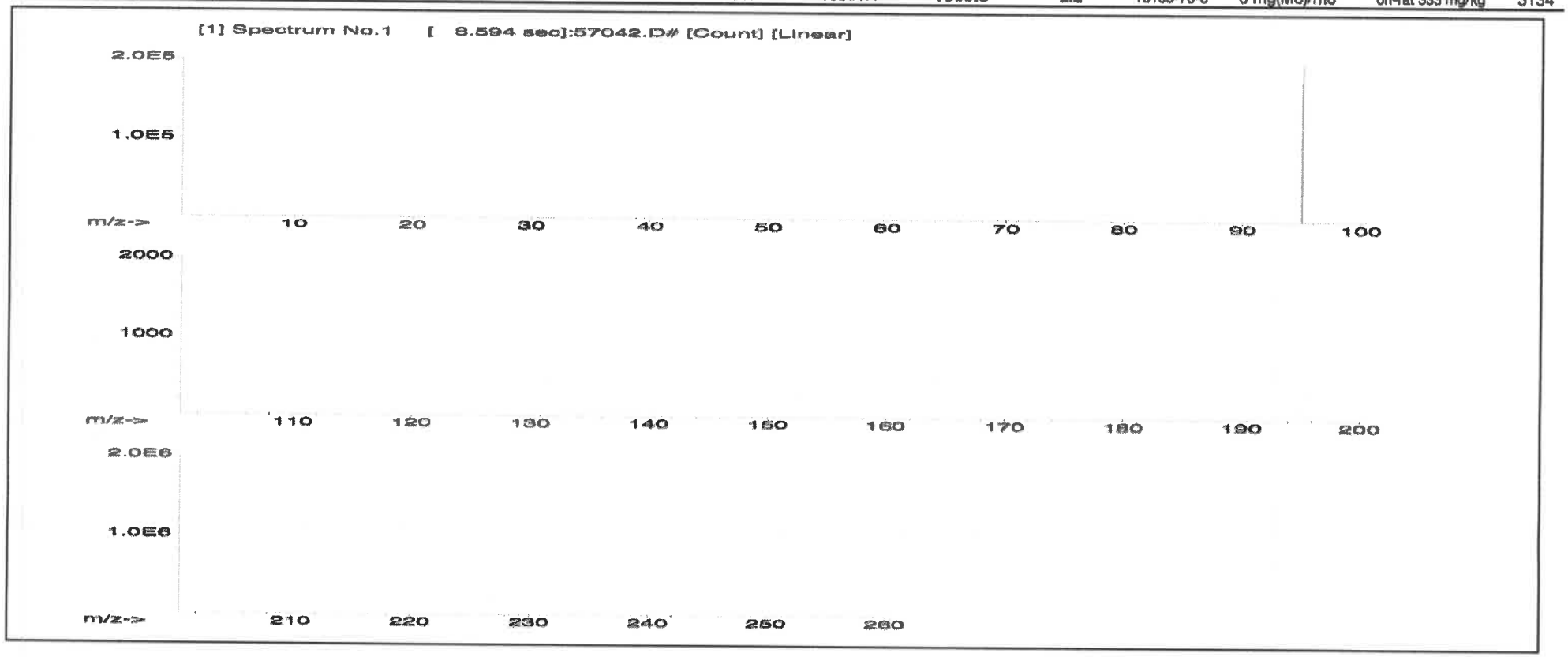
Part Number: 57042
Lot Number: 080525
Description: Molybdenum (Mo)

Expiration Date: 080528
Recommended Storage: Ambient (15 - 30 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 1999.41

Lot #	Solvent:			
MKBQ8597V	Ammonium hydroxide			
080525	ASTM Type 1 Water			
0.5%	10.0 (mL)	Ammonium hydroxide		
			5E-05	Balance Uncertainty
			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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<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

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>8/6/28
M6178

Part Number:	**57082**		**Lot #**		
Lot Number:	**031525**	**Solvent:**	24014457	Nitric Acid	
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		

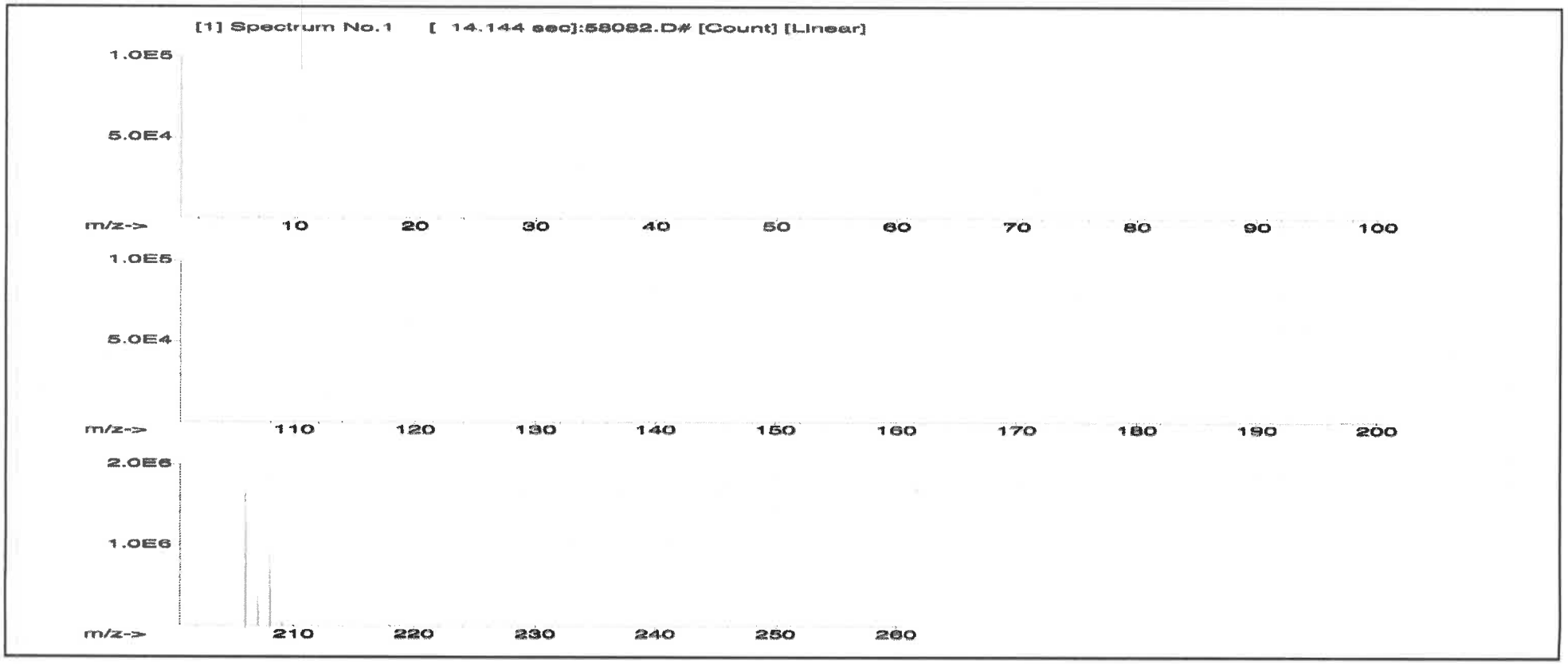
Giovanni Esposito

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	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.
* 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
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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	<	0.004600	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

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

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

Certificate of Analysis

Refine your results. Redefine your industry.

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).

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-7/22/25

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, Cerium, Thallium,	Aluminum, Selenium,
	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, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, 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

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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

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 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

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,

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.

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6027

R1 8/05/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

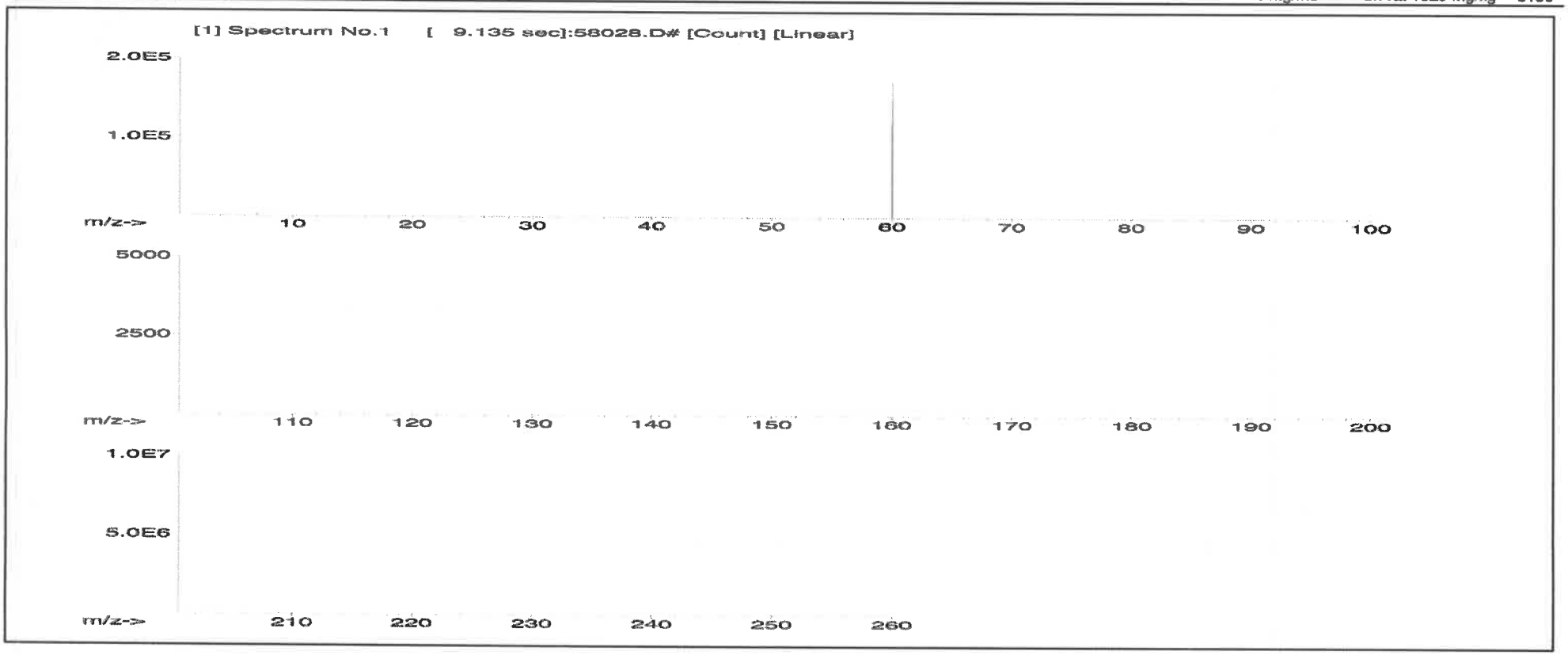
CERTIFIED WEIGHT REPORT:

Part Number:	**57028**
Lot Number:	**062024**
Description:	**Nickel (Ni)**
Expiration Date:	062027
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	**1000**
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	2000.07

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

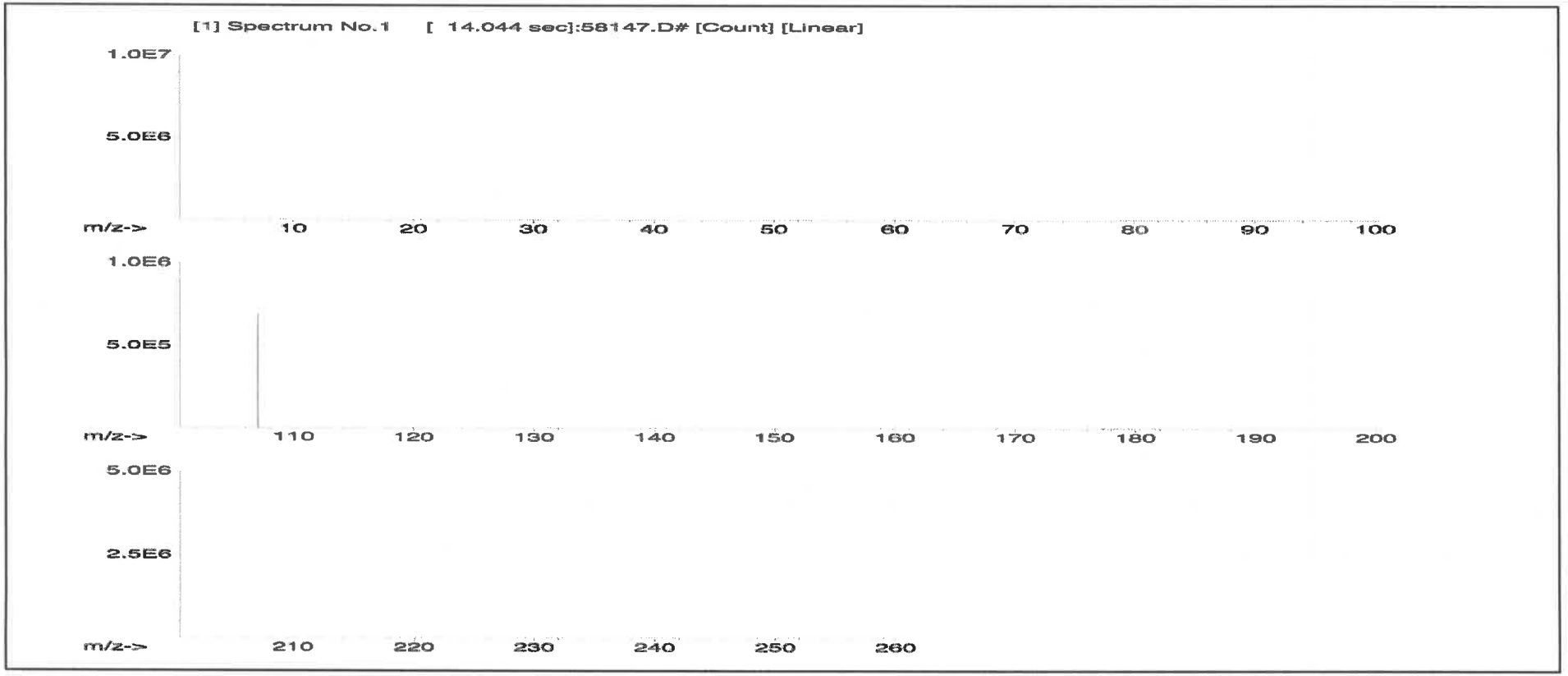
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

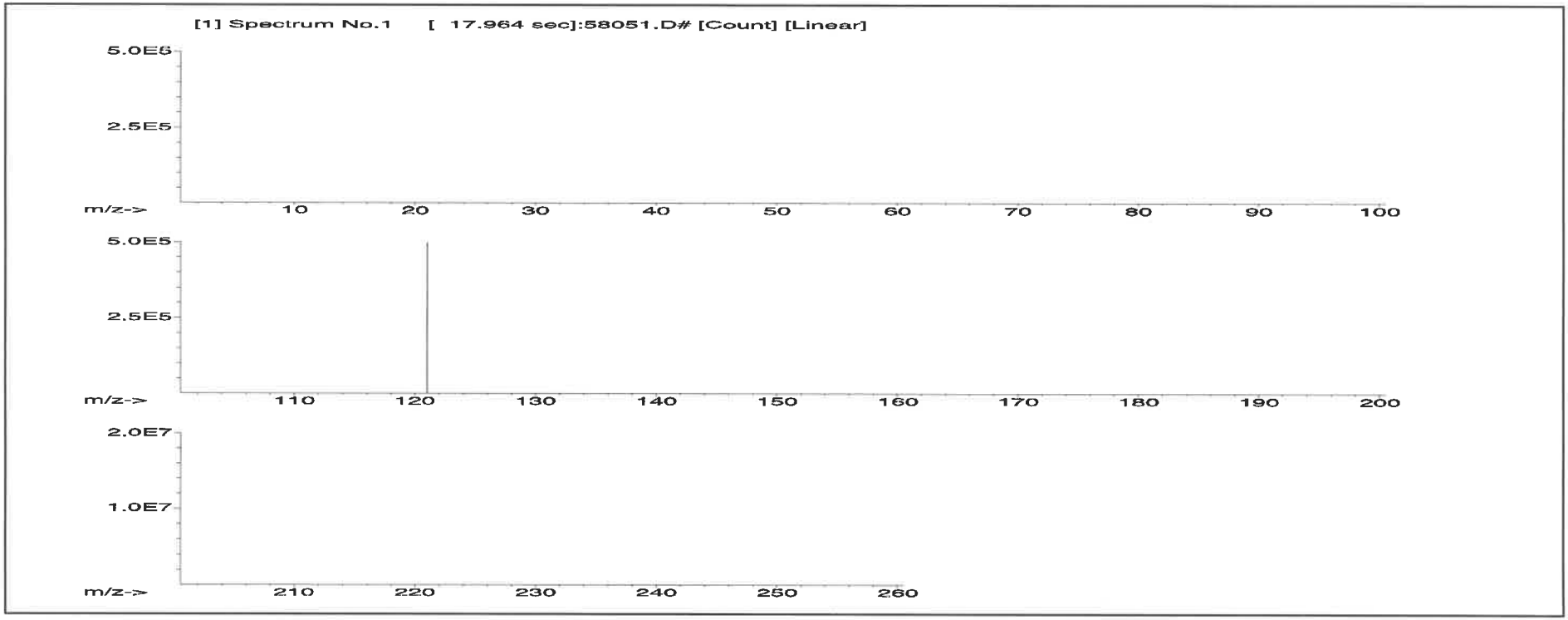
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6023

R ! 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (Tl)

Expiration Date: 062727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.1

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.10	Flask Uncertainty	

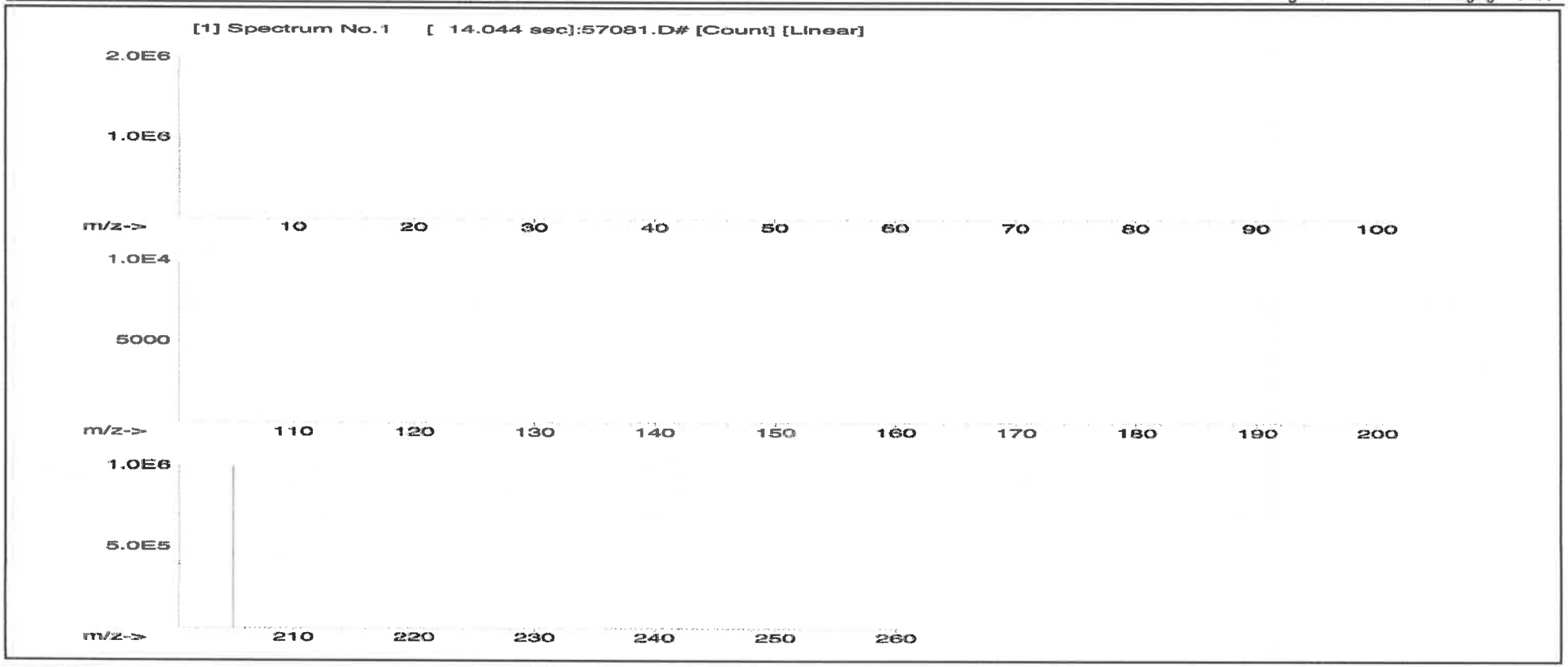
Aleah O'Brady

Formulated By: Aleah O'Brady 062724

Pedro Rentas

Reviewed By: Pedro L. Rentas 062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* 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

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

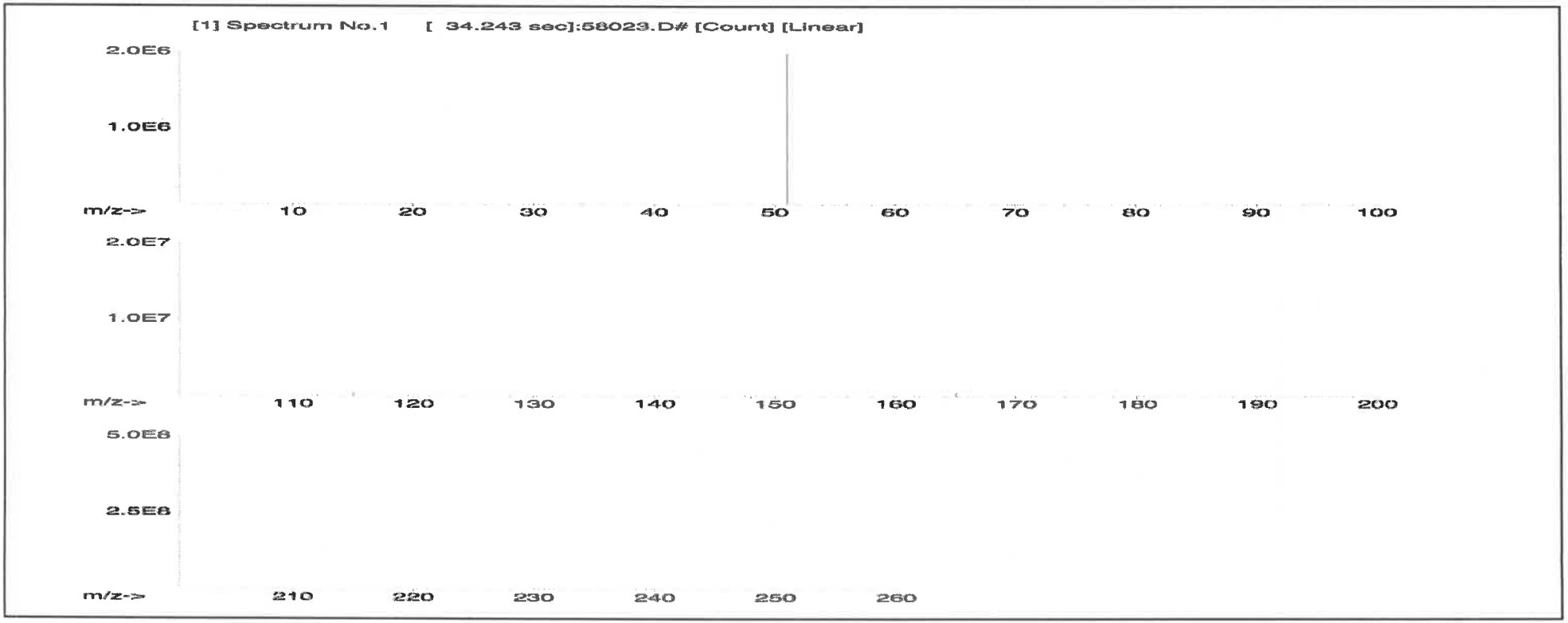
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q2815
COC Number 2045327

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME:
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

❑ Level 1 (Results Only) ❑ Level 4 (QC + Full Raw Data)
❑ Level 2 (Results + QC) ❑ NJ Reduced ❑ US EPA CLP
❑ Level 3 (Results + QC + Raw Data) ❑ NYS ASP A ❑ NYS ASP B
❑ Other _____
❑ EDD FORMAT _____

ANALYSIS

1: VOC 2: SVOC 3: Metals 4: 5: 6: 7: 8: 9:

PRESERVATIVES

COMMENTS ← Specify Preservatives: A-HCl, B-HN03, C-H2SO4, D-NaOH, E-ICE, F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	TW-705R-S	GW		4	8/6/25	1121	3	2	1								
2.	[illegible]																
3.	TW-10PC-W	GW		4	8/6/25	01:30	3	2	1								
4.	TW-10P-E	GW		4	8/6/25	01:40	3	2	1								
5.	TW-10P-S	GW		4	8/6/25	01:50	3	2	1								
6.	TW 10P-W	GW		4	8/6/25	2:00	3	2	1								
7.	TW-10P-N	GW		4	8/6/25	2:10	3	2	1								
8.	TW-88H-E	GW		4	8/7/25	8:35	3	2	1								
9.	TW-88H-N	GW		4	8/7/25	8:45	3	2	1								
10.	TW-88H-W	GW		4	8/7/25	10:10	3	2	1								

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1 GMS	6:01	1. 8.8.25
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT X COOLER TEMP 3.5 °C
Comments:

Page _____ of

CLIENT: ❑ Hand Delivered ❑ Other

Shipment Complete ❑ YES ❑ NO

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
www.chemtech.net

ALLIANCE PROJECT NO. Q2815
QUOTE NO.
COC Number 2045328

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY:
ADDRESS:
CITY STATE: ZIP:
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME:
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) ______ DAYS*
HARDCOPY (DATA PACKAGE): ______ DAYS*
EDD: ______ 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 ______

ANALYSIS

1 Joe; 2 6010; 3 Metals; 4; 5; 6; 7; 8; 9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	TW-88H-S	GW		X	8/7/25	11:10	3	2	1								
2.	TW-22M-W	GW		X	8/8/25	1110	3	2	1	3							
3.	TW-22M-S	GW		X	8/8/25	1123	3	2	1								
4.	TW-22M-E	GW		X	8/8/25	1133	3	2	1								
5.	TW-22M-N	GW		X	8/8/25	1143	3	2	1								
6.																	
7.																	
8.																	
9.																	
10.																	

COMMENTS: ← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	6:01	1. [signature] 8·8·25
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ☒ COOLER TEMP 3.5 °C
Comments:

Page ____ of

CLIENT: ❑ Hand Delivered ❑ Other

Shipment Complete ❑ YES ❑ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

From: Yazmeen Gomez
Sent: Monday, August 11, 2025 2:55 PM
To: 'Daniel Ligon'
Cc: 'Alfred Smith'; Jordan Hedvat
Subject: RE: Bottleware Order - USACE018-44
Attachments: q2815.pdf; q2814.pdf

Good afternoon,

A few things -

- Below mentions Filtered and Unfiltered for 8 GW samples, however, we only received three unpreserved metals bottles - TW-84SB-E, TW-17M-W, and TW-11M-W.
- 8 samples not listed on the COC were received – TW-17M-E, TW-17M-S, TW-84SB-S, TW-84SB-W, TW-11M-W, TW-11M-E, TW-11M-S, TW-11M-N.
- PCB and PESTICIDE are not mentioned the GW COC's however, I went off the below request and do have PEST and PCB logged for some of the samples.
- Once I sign off the login summaries will be sent to you – please confirm everything looks good, or if anything needs to be updated.

Best Regards,

Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Sent: Friday, August 1, 2025 11:03 AM
To: Jordan Hedvat <Jordan.Hedvat@AllianceTG.com>; Daniel Ligon <DLigon@firstenvironment.com>
Cc: Alfred Smith <asmith@firstenvironment.com>
Subject: RE: Bottleware Order - USACE018-44

Hi Daniel,

Bottle order delivery for today confirmed.

Best Regards,

Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Jordan Hedvat <Jordan.Hedvat@alliancetg.com>
Sent: Friday, August 1, 2025 8:14 AM
To: Daniel Ligon <DLigon@firstenvironment.com>
Cc: Alfred Smith <asmith@firstenvironment.com>; Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Subject: Re: Bottleware Order - USACE018-44

Hi Daniel,

We will process the bottle order for delivery. Do you need TeraCore or Encores for VOC soil? If not we will provide jars for those tests as well. Please reach out if we can help with anything else.

Regards,

Jordan

Jordan Hedvat
Account Executive, Environmental Laboratories
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3144
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Daniel Ligon <DLigon@firstenvironment.com>
Sent: Thursday, July 31, 2025 4:53 PM
To: Jordan Hedvat <Jordan.Hedvat@alliancetg.com>
Cc: Alfred Smith <asmith@firstenvironment.com>
Subject: Bottleware Order - USACE018-44

Hi Jordan – I have a bottleware order for some sampling we have next week in Long Island, NY. We'd like to have this delivered tomorrow if possible – sorry for the late email. First thing Monday morning would work as well for delivery to our office in Butler. See the following for # of samples we need with the parameters:

- 48x soil VOCs via EPA Method 8260
- 48x soil SVOCs via EPA Method 8270

- 8x soil Pesticides/PCBs via EPA Methods 8081/8082
- 8x soil TAL Metals (filtered and unfiltered)
- 48x groundwater VOCs via EPA Method 8260
- 48x groundwater SVOCs via EPA Method 8270
- 8x groundwater Pesticides/PCBs via EPA Methods 8081/8082
- 8x groundwater TAL Metals (filtered and unfiltered)
- 3 soil, 3 groundwater field duplicates
- 6 field blanks
- Trip blanks in every cooler

Let me know if this can be accommodated. Thanks!

Daniel Ligon
Environmental Specialist

First Environment, Inc.
10 Park Place, Bldg 1A, Suite 504
Butler, NJ 07405
Ph: 973-334-0003 ext. 224
Cell: 973-873-8515
DLigon@firstenvironment.com
www.firstenvironment.com

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2815 FIRS02
Client Name : First Environment, Inc.
Client Contact : Al Smith
Invoice Name : First Environment, Inc.
Invoice Contact : Al Smith

Order Date : 8/11/2025 10:33:09 AM
Project Name : USACE018-44 DOD
Receive DateTime : 8/8/2025 6:01:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2815-01	TW-705R-S	Water	08/06/2025	11:21					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-02	TW-10PC-W	Water	08/06/2025	01:30					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-03	TW-10P-E	Water	08/06/2025	01:40					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-04	TW-10P-S	Water	08/06/2025	01:50					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-05	TW-10P-W	Water	08/06/2025	02:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-06	TW-10P-N	Water	08/06/2025	02:10					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-07	TW-88H-E	Water	08/07/2025	08:35					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-08	TW-88H-N	Water	08/07/2025	08:45					

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2815 FIRS02
Client Name : First Environment, Inc.
Client Contact : Al Smith
Invoice Name : First Environment, Inc.
Invoice Contact : Al Smith

Order Date : 8/11/2025 10:33:09 AM
Project Name : USACE018-44 DOD
Receive DateTime : 8/8/2025 6:01:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-09	TW-88H-W	Water	08/07/2025	11:10					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-10	TW-88H-S	Water	08/07/2025	11:10					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-11	TW-22M-W	Water	08/08/2025	11:10					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-12	TW-22M-S	Water	08/08/2025	11:23					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-13	TW-22M-E	Water	08/08/2025	11:33					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-14	TW-22M-N	Water	08/08/2025	11:43					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-15	TW-17M-E	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2815 FIRS02
Client Name : First Environment, Inc.
Client Contact : Al Smith
Invoice Name : First Environment, Inc.
Invoice Contact : Al Smith

Order Date : 8/11/2025 10:33:09 AM
Project Name : USACE018-44 DOD
Receive DateTime : 8/8/2025 6:01:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2815-16	TW-17M-S	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-17	TW-84SB-S	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-18	TW-84SB-W	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-19	DUP	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-20	TW-11M-W	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-21	TW-11M-E	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-22	TW-11M-S	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q2815-23	TW-11M-N	Water	08/08/2025	00:00					

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2815 FIRS02
Client Name : First Environment, Inc.
Client Contact : Al Smith
Invoice Name : First Environment, Inc.
Invoice Contact : Al Smith

Order Date : 8/11/2025 10:33:09 AM
Project Name : USACE018-44 DOD
Receive DateTime : 8/8/2025 6:01:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
Q2815-24	TB	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
Q2815-26	FB	Water	08/08/2025	00:00					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	

Relinguished By : AJ
Date / Time : 8/11/25 1305

Received By : Sam
Date / Time : 08/11/25 13:05

Rq # 4

Storage Area : VOA Refridgerator Room