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

DATA PACKAGE

METALS

PROJECT NAME : NWIRP BETHPAGE 112G08005-WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q2375

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

Table Of Contents for Q2375

1) METALS DATA 2

2) Signature Page 4

3) Case Narrative 5

4) Qualifier Page 6

5) Conformance/Non Conformance 7

6) QA Checklist 8

7) Chronicle 9

8) Hit Summary 10

9) Sample Data 11

- 9.1) RW8-SP100-20250619 12
- 9.2) RW8-SP303-20250619 13

10) METALS CALIBRATION DATA 14

- 10.1) Initial and Continuing Calibration Verification 15
- 10.2) CRDL Standard For AA & ICP 22
- 10.3) Initial and Continuing Calibration Blank Summary 23
- 10.4) Preparation Blank Summary 27
- 10.5) Interference Check Sample 28

11) METALS QC DATA 29

- 11.1) Matrix Spike Summary 30
- 11.2) Post Digest Spike Summary 32
- 11.3) Duplicate Sample Summary 33
- 11.4) Laboratory Control Sample Summary 35
- 11.5) ICP Serial Dilutions 36

12) METALS PREPARATION & INSTRUMENT DATA 37

- 12.1) ICP Interelement Correction Factors 38

13) PREPARATION & ANALYTICAL SUMMARY 43

- 13.1) Sample Preparation Summary 44
- 13.2) Analysis Run Log 45

14) METALS RAW DATA 47

- 14.1) METALS RAW DATA - ANALYTICAL 48
- 14.2) LB136255 48
- 14.3) LB136273 209
- 14.4) METALS RAW DATA - PREP 404
  - 14.4.1) PB168583 404

15) Analytical Runlogs 407

16) Standard Prep Logs 416
17) Shipping Document 556
17.1) Chain Of Custody 557
17.2) Lab Certificate 558

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

Cover Page

Order ID : Q2375

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
Q2375-01	RW8-SP100-20250619
Q2375-02	RW8-SP303-20250619

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

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 2:43 pm, Jun 30, 2025

Date: 6/30/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: NWIRP Bethpage 112G08005-WE13
Project Manager : Ernie Wu
Order ID # Q2375
Test Name: Metals Group4

A. Number of Samples and Date of Receipt:
2 Water samples were received on 06/19/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Metals Group4, SVOC-SIMGroup1, TDS and TSS. This data package contains results for Metals Group4.

C. Analytical Techniques:
The analysis of Metals Group4 was based on method 6010D and digestion based on method 3010 (waters).

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all parameters.
The Duplicate analysis met criteria for all parameters.
The Matrix Spike analysis met criteria for all parameters.
The Matrix Spike Duplicate analysis met criteria for all parameters.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

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 2:43 pm, Jun 30, 2025

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: Q2375 MATRIX: Water

METHOD: 6010D

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
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.			

ADDITIONAL COMMENTS: The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

APPROVED
By Nimisha Pandya, QA/QC Supervisor at 2:44 pm, Jun 30, 2025

QA REVIEW Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2375

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

QA Review Signature: MOHAMMAD AHMED **Date:** 06/30/2025

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

LAB CHRONICLE

OrderID:	Q2375	**OrderDate:**	6/19/2025 3:57:00 PM
Client:	Tetra Tech NUS, Inc.	**Project:**	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	**Location:**	D51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2375-01	**RW8-SP100-20250619**	**Water**			**06/19/25**			**06/19/25**
			Metals Group4	6010D		06/23/25	06/24/25	
Q2375-02	**RW8-SP303-20250619**	**Water**			**06/19/25**			**06/19/25**
			Metals Group4	6010D		06/23/25	06/24/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q2375 **Order ID:** Q2375

Client: Tetra Tech NUS, Inc. **Project ID:** NWIRP Bethpage 112G08005-WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW8-SP100-20250619									
Q2375-01	RW8-SP100-20250619	Water	Iron	823		11.7	40.0	50.0	ug/L
Client ID : RW8-SP303-20250619									
Q2375-02	RW8-SP303-20250619	Water	Iron	76.8		11.7	40.0	50.0	ug/L

SAMPLE DATA

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/19/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	06/19/25
Client Sample ID:	RW8-SP100-20250619	SDG No.:	Q2375
Lab Sample ID:	Q2375-01	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.
7439-89-6	Iron	823		1	11.7	40.0	50.0	ug/L	06/23/25 10:31	06/24/25 21:47	6010D	SW3010

Color Before:	light Brown	Clarity Before:	Cloudy	Texture:	
Color After:	ligh Btrown	Clarity After:	Clear	Artifacts:	
Comments:	Metals Group4				

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/19/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	06/19/25
Client Sample ID:	RW8-SP303-20250619	SDG No.:	Q2375
Lab Sample ID:	Q2375-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	76.8		1	11.7	40.0	50.0	ug/L	06/23/25 10:31	06/24/25 21:51	6010D	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	Metals Group4				

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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	3840	4000	96	90 - 110	P	06/24/2025	18:43	LB136255

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	4870	5000	98	90 - 110	P	06/24/2025	19:34	LB136255
CCV02	Iron	4880	5000	98	90 - 110	P	06/24/2025	20:37	LB136255
CCV03	Iron	4950	5000	99	90 - 110	P	06/24/2025	21:29	LB136255
CCV04	Iron	4860	5000	97	90 - 110	P	06/24/2025	22:22	LB136255

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
LLCCV01	Iron	105	100	105	80 - 120	P	06/24/2025	22:47	LB136255

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	4750	5000	95	90 - 110	P	06/24/2025	23:46	LB136255

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	4100	4000	103	90 - 110	P	06/25/2025	13:08	LB136273

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	92.0	100	92	80 - 120	P	06/25/2025	13:20	LB136273

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	5120	5000	102	90 - 110	P	06/25/2025	16:04	LB136273
CCV02	Iron	5120	5000	102	90 - 110	P	06/25/2025	16:57	LB136273
CCV03	Iron	5130	5000	103	90 - 110	P	06/25/2025	18:00	LB136273
CCV04	Iron	5150	5000	103	90 - 110	P	06/25/2025	18:55	LB136273
CCV05	Iron	5120	5000	102	90 - 110	P	06/25/2025	19:52	LB136273
CCV06	Iron	5040	5000	101	90 - 110	P	06/25/2025	20:46	LB136273
CCV07	Iron	5050	5000	101	90 - 110	P	06/25/2025	21:12	LB136273

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

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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	Iron	102	100	102	65 - 135	P	06/24/2025	19:12	LB136255
CRI01	Iron	107	100	107	65 - 135	P	06/25/2025	15:24	LB136273

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	19:08	LB136255

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	19:39	LB136255
CCB02	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	20:41	LB136255
CCB03	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	21:33	LB136255
CCB04	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	23:01	LB136255
CCB05	Iron	23.4	+/-50	U	80.0	100	P	06/24/2025	23:50	LB136255

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	14:53	LB136273

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	16:09	LB136273
CCB02	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	17:09	LB136273
CCB03	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	18:07	LB136273
CCB04	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	18:59	LB136273
CCB05	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	19:57	LB136273
CCB06	Iron	33.2	+/-50	J	80.0	100	P	06/25/2025	20:50	LB136273
CCB07	Iron	23.4	+/-50	U	80.0	100	P	06/25/2025	21:16	LB136273

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Instrument: P5

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168583BL		**WATER**		**Batch Number:**		**PB168583**		**Prep Date:**	**06/23/2025**	
	Iron	11.7	<25	U	40.0	50.0	P	06/24/2025	19:52	LB136255

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

ICS Source: EPA **Instrument ID:** P5

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	Iron	100000	100000	100	85600	116500	06/24/2025	19:17	LB136255
ICSAB01	Iron	99000	99000	100	84400	114500	06/24/2025	19:21	LB136255
ICSA01	Iron	104000	100000	104	85600	116500	06/25/2025	15:29	LB136273
ICSAB01	Iron	101000	99000	102	84400	114500	06/25/2025	15:51	LB136273

METAL QC DATA

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q2375

contract: TETR06 **lab code:** CHEM **case no.:** Q2375 **sas no.:** Q2375

matrix: Water **sample id:** Q2385-01 **client id:** A5311MS

Percent Solids for Sample: NA **Spiked ID:** Q2385-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	87 - 115	1910		286		1500	108		P

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q2375

contract: TETR06 **lab code:** CHEM **case no.:** Q2375 **sas no.:** Q2375

matrix: Water **sample id:** Q2385-01 **client id:** A5311MSD

Percent Solids for Sample: NA **Spiked ID:** Q2385-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	87 - 115	1880		286		1500	106		P

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

Metals
- 5b -

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Matrix: Water **Sample ID:** Q2385-01 **Client ID:** A5311DUP

Percent Solids for Sample: NA **Duplicate ID** Q2385-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	286		289		1		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: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Matrix: Water **Sample ID:** Q2385-01MS **Client ID:** A5311MSD

Percent Solids for Sample: NA **Duplicate ID** Q2385-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	1910		1880		2		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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168583BS							
Iron	ug/L	1500	1570		105	87 - 115	P

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

A5311L

Lab Name: Chemtech Consulting Group **Contract:** TETR06

Lab Code: CHEM **Lb No.:** lb136273 **Lab Sample ID :** Q2385-01L **SDG No.:** Q2375

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
Iron	286		292		2		P

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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
Iron	240.488	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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
Iron	240.488	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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
Iron	240.488	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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
Iron	240.488	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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q2375 **SAS No.:** Q2375

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
Iron	240.488	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: Tetra Tech NUS, Inc. **SDG No.:** Q2375

Contract: TETR06 **Lab Code:** CHEM **Method:**

Case No.: Q2375 **SAS No.:** Q2375

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168583**						
PB168583BL	PB168583BL	MB	WATER	06/23/2025	50.0	25.0	
PB168583BS	PB168583BS	LCS	WATER	06/23/2025	50.0	25.0	
Q2375-01	RW8-SP100-20250619	SAM	WATER	06/23/2025	50.0	25.0	
Q2375-02	RW8-SP303-20250619	SAM	WATER	06/23/2025	50.0	25.0	
Q2385-01DUP	A5311DUP	DUP	WATER	06/23/2025	50.0	25.0	
Q2385-01MS	A5311MS	MS	WATER	06/23/2025	50.0	25.0	
Q2385-01MSD	A5311MSD	MSD	WATER	06/23/2025	50.0	25.0	

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

Lab code: CHEM **Case no.:** Q2375 **Sas no.:** Q2375 **Sdg no.:** Q2375

Instrument id number: **Method:** **Run number:** LB136255

Start date: 06/24/2025 **End date:** 06/24/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1755	Fe
S1	S1	1	1800	Fe
S2	S2	1	1804	Fe
S3	S3	1	1829	Fe
S4	S4	1	1834	Fe
S5	S5	1	1838	Fe
ICV01	ICV01	1	1843	Fe
ICB01	ICB01	1	1908	Fe
CRI01	CRI01	1	1912	Fe
ICSA01	ICSA01	1	1917	Fe
ICSAB01	ICSAB01	1	1921	Fe
CCV01	CCV01	1	1934	Fe
CCB01	CCB01	1	1939	Fe
PB168583BL	PB168583BL	1	1952	Fe
PB168583BS	PB168583BS	1	1956	Fe
CCV02	CCV02	1	2037	Fe
CCB02	CCB02	1	2041	Fe
CCV03	CCV03	1	2129	Fe
CCB03	CCB03	1	2133	Fe
Q2375-01	RW8-SP100-20250619	1	2147	Fe
Q2375-02	RW8-SP303-20250619	1	2151	Fe
CCV04	CCV04	1	2222	Fe
LLCCV01	LLCCV01	1	2247	Fe
CCB04	CCB04	1	2301	Fe
CCV05	CCV05	1	2346	Fe
CCB05	CCB05	1	2350	Fe

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc. **Contract:** TETR06

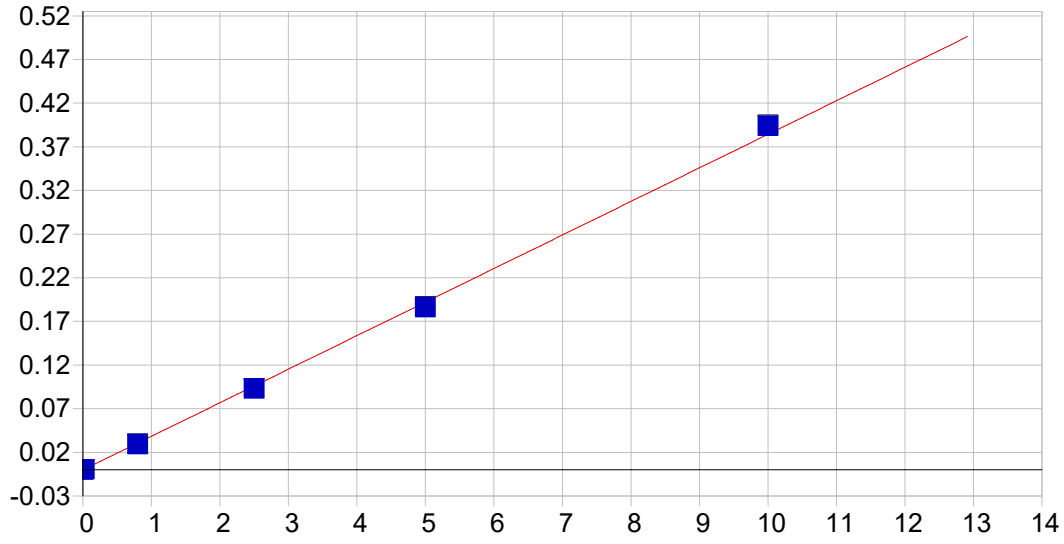
Lab code: CHEM **Case no.:** Q2375 **Sas no.:** Q2375 **Sdg no.:** Q2375

Instrument id number: **Method:** **Run number:** LB136273

Start date: 06/25/2025 **End date:** 06/25/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1223	Fe
S1	S1	1	1227	Fe
S2	S2	1	1232	Fe
S3	S3	1	1236	Fe
S4	S4	1	1240	Fe
S5	S5	1	1244	Fe
ICV01	ICV01	1	1308	Fe
LLICV01	LLICV01	1	1320	Fe
ICB01	ICB01	1	1453	Fe
CRI01	CRI01	1	1524	Fe
ICSA01	ICSA01	1	1529	Fe
ICSAB01	ICSAB01	1	1551	Fe
CCV01	CCV01	1	1604	Fe
CCB01	CCB01	1	1609	Fe
Q2385-01DUP	A5311DUP	1	1617	Fe
Q2385-01L	A5311L	5	1622	Fe
Q2385-01MS	A5311MS	1	1626	Fe
Q2385-01MSD	A5311MSD	1	1631	Fe
CCV02	CCV02	1	1657	Fe
CCB02	CCB02	1	1709	Fe
CCV03	CCV03	1	1800	Fe
CCB03	CCB03	1	1807	Fe
CCV04	CCV04	1	1855	Fe
CCB04	CCB04	1	1859	Fe
CCV05	CCV05	1	1952	Fe
CCB05	CCB05	1	1957	Fe
CCV06	CCV06	1	2046	Fe
CCB06	CCB06	1	2050	Fe
CCV07	CCV07	1	2112	Fe
CCB07	CCB07	1	2116	Fe

METAL
RAW DATA

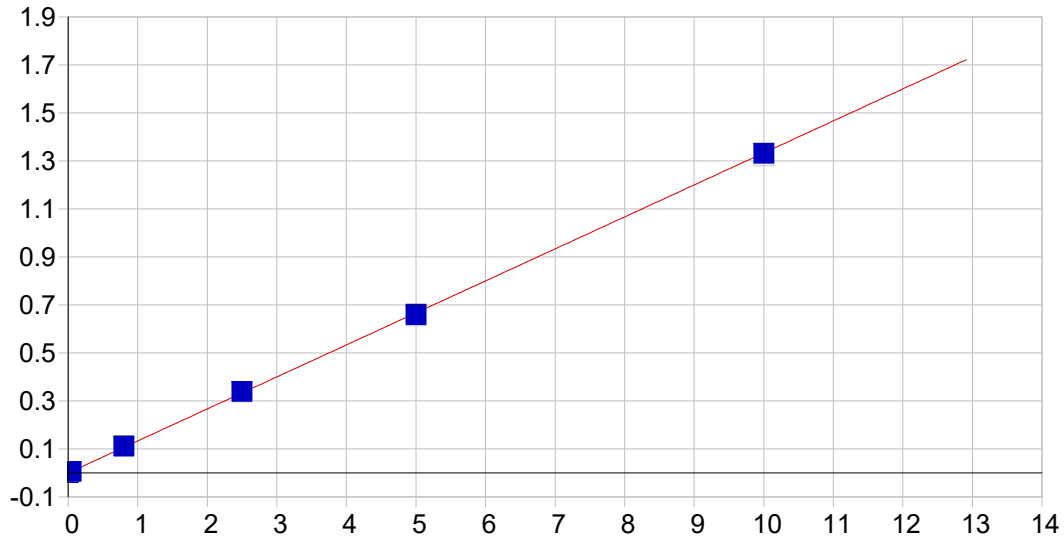


As 189.042 {479}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000082	Re-Slope:	1.000000
A1 (Gain):	0.038436	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999591	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.003320		
Predicted MQL:	0.011067		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.000	1
S1	.02000	.01876	-.001	-6.22	.00064	.000	1
S2	.80000	.76885	-.031	-3.89	.02946	.000	1
S3	2.5000	2.4214	-.079	-3.14	.09297	.000	1
S4	5.0000	4.8506	-.149	-2.99	.18633	.001	1
S5	10.000	10.260	.260	2.60	.39423	.001	1

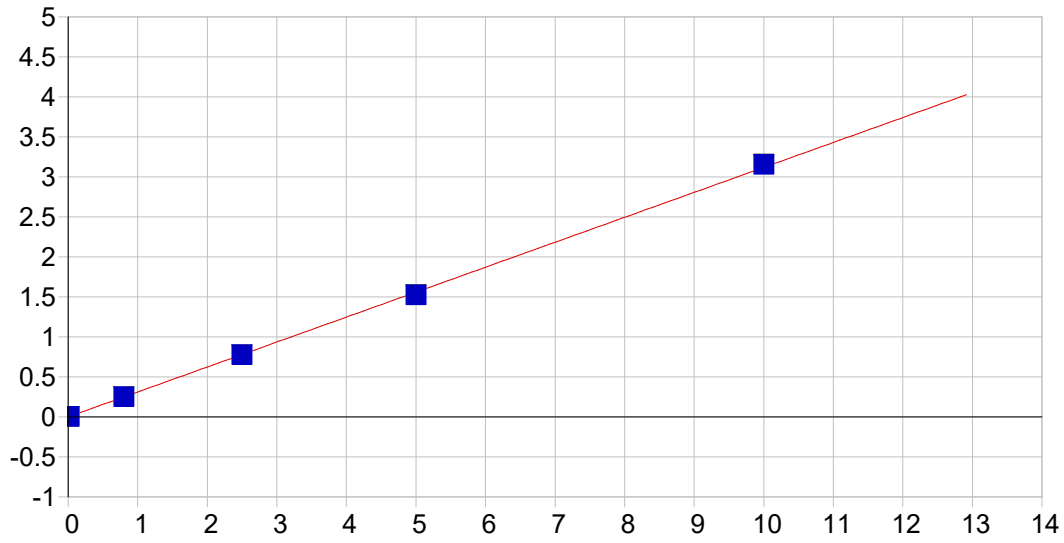


Tl 190.856 {477}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000035	Re-Slope:	1.000000
A1 (Gain):	0.133325	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000054		
Predicted MDL:	0.001655		
Predicted MQL:	0.005516		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00003	.000	1
S1	.04000	.03937	-.001	-1.59	.00509	.000	1
S2	.80000	.83418	.034	4.27	.11035	.000	1
S3	2.5000	2.5392	.039	1.57	.33590	.000	1
S4	5.0000	4.9440	-.056	-1.12	.65392	.002	1
S5	10.000	9.9832	-.017	-.168	1.3206	.001	1

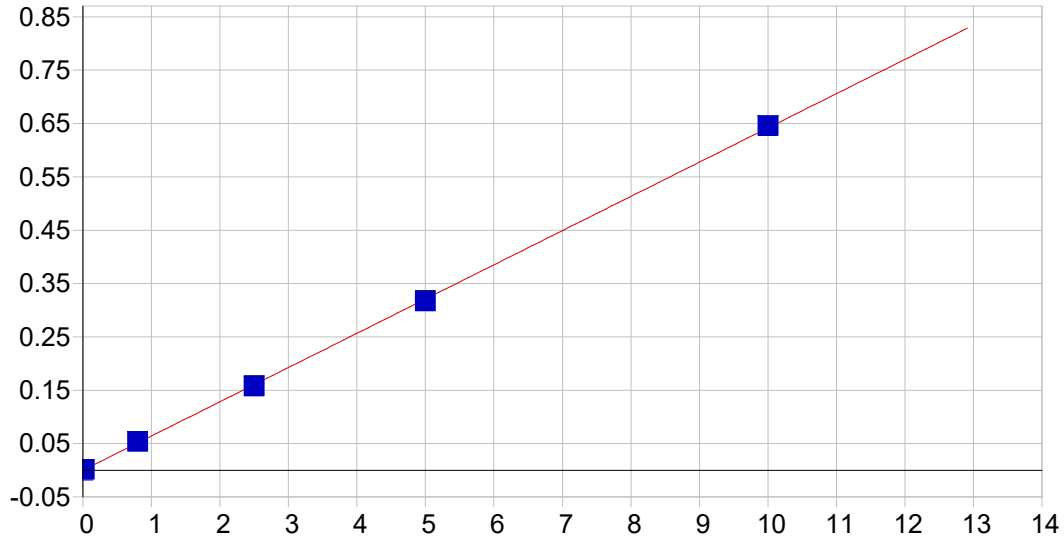


Pb 220.353 {453}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000155	Re-Slope:	1.000000
A1 (Gain):	0.311839	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999886	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.001427		
Predicted MQL:	0.004757		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00015	.000	1
S1	.01200	.01369	.002	14.1	.00435	.000	1
S2	.80000	.80543	.005	.679	.25110	.000	1
S3	2.5000	2.4882	-.012	-.472	.77537	.001	1
S4	5.0000	4.8885	-.111	-2.23	1.5232	.004	1
S5	10.000	10.116	.116	1.16	3.1520	.004	1

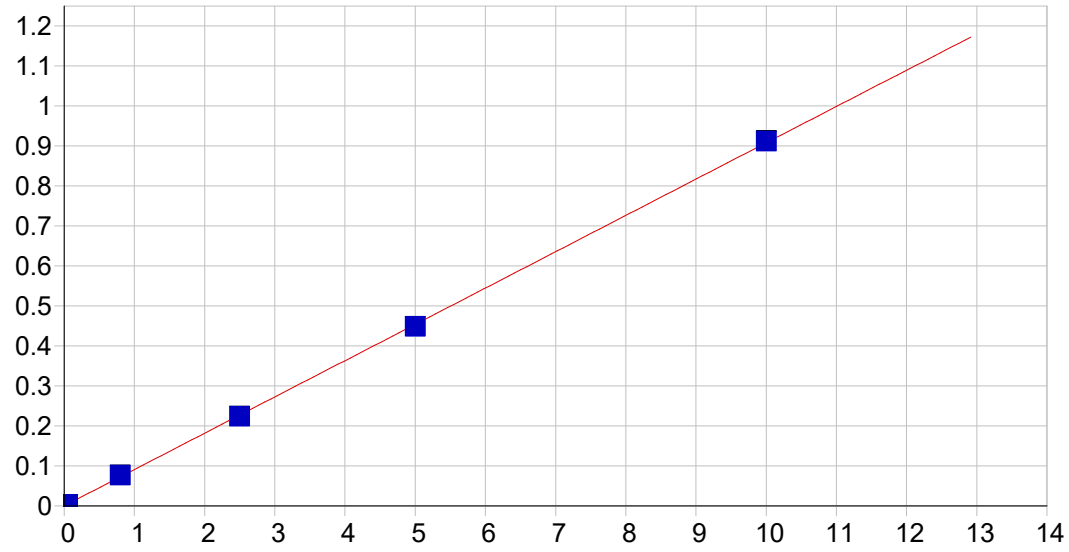


Se 196.090 {472}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000036	Re-Slope:	1.000000
A1 (Gain):	0.064183	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.003426		
Predicted MQL:	0.011419		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00004	.000	1
S1	.02000	.02270	.003	13.5	.00142	.000	1
S2	.80000	.83658	.037	4.57	.05363	.000	1
S3	2.5000	2.4586	-.041	-1.66	.15767	.000	1
S4	5.0000	4.9373	-.063	-1.25	.31667	.001	1
S5	10.000	10.065	.065	.649	.64559	.000	1

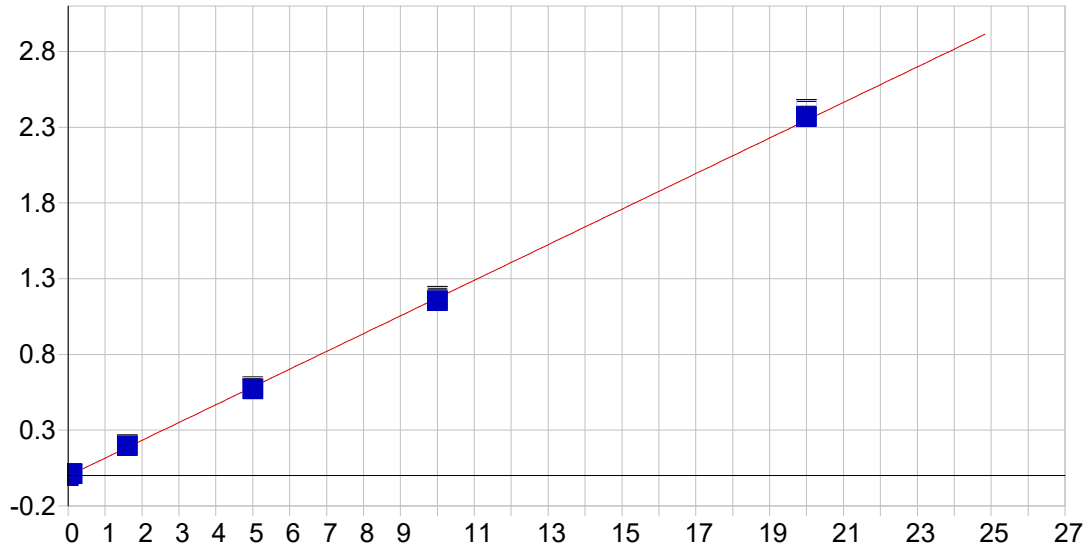


Sb 206.833 {463}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000149	Re-Slope:	1.000000
A1 (Gain):	0.090784	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.003017		
Predicted MQL:	0.010057		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00015	.000	1
S1	.05000	.05318	.003	6.37	.00493	.000	1
S2	.80000	.84237	.042	5.30	.07651	.000	1
S3	2.5000	2.4667	-.033	-1.33	.22374	.000	1
S4	5.0000	4.9414	-.059	-1.17	.44807	.000	1
S5	10.000	10.046	.046	.464	.91083	.002	1

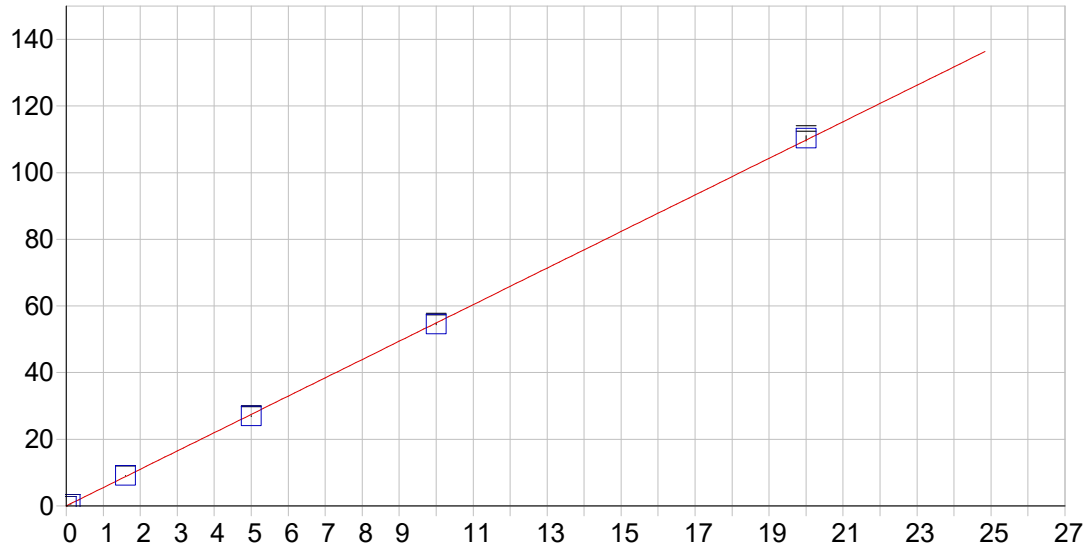


Al 396.152 { 85}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001546	Re-Slope:	1.000000
A1 (Gain):	0.117391	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999838	Status:	OK.
Std Error of Est:	0.000160		
Predicted MDL:	0.024572		
Predicted MQL:	0.081908		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00155	.005	1
S1	.10000	.10625	.006	6.25	.01180	.001	1
S2	1.6000	1.6871	.087	5.45	.20001	.004	1
S3	5.0000	4.8764	-.124	-2.47	.58182	.003	1
S4	10.000	9.8436	-.156	-1.56	1.1759	.007	1
S5	20.000	20.186	.186	.932	2.4119	.006	1

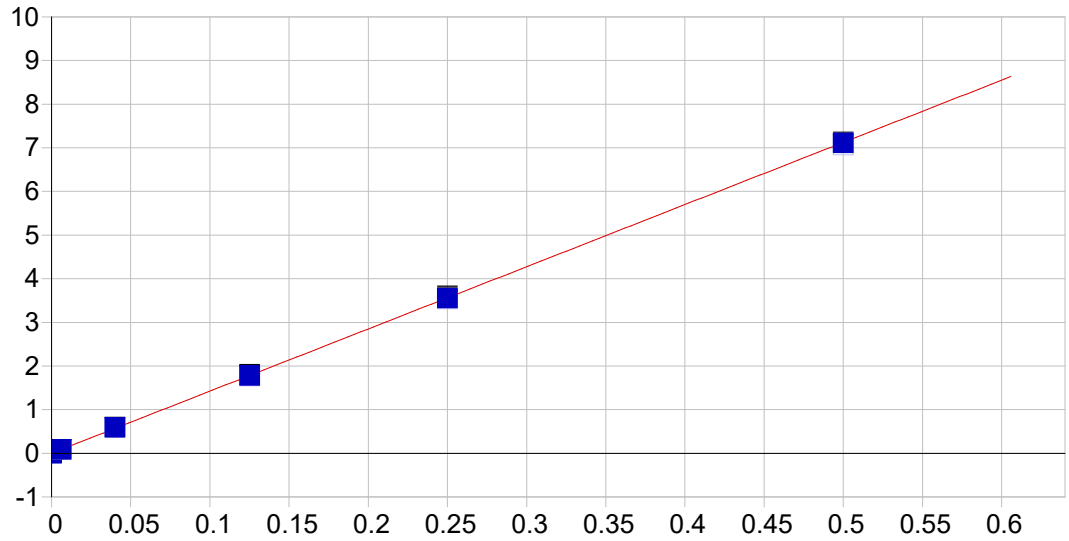


Ba 493.409 { 68}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.016953	Re-Slope:	1.000000
A1 (Gain):	5.488868	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.004435		
Predicted MDL:	0.000914		
Predicted MQL:	0.003048		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.01694	.004	1
S1	.10000	.10022	.000	.217	.56703	.006	1
S2	1.6000	1.6561	.056	3.51	9.1072	.036	1
S3	5.0000	4.9092	-.091	-1.82	26.963	.127	1
S4	10.000	9.9431	-.057	-.569	54.593	.211	1
S5	20.000	20.091	.091	.457	110.30	.846	1

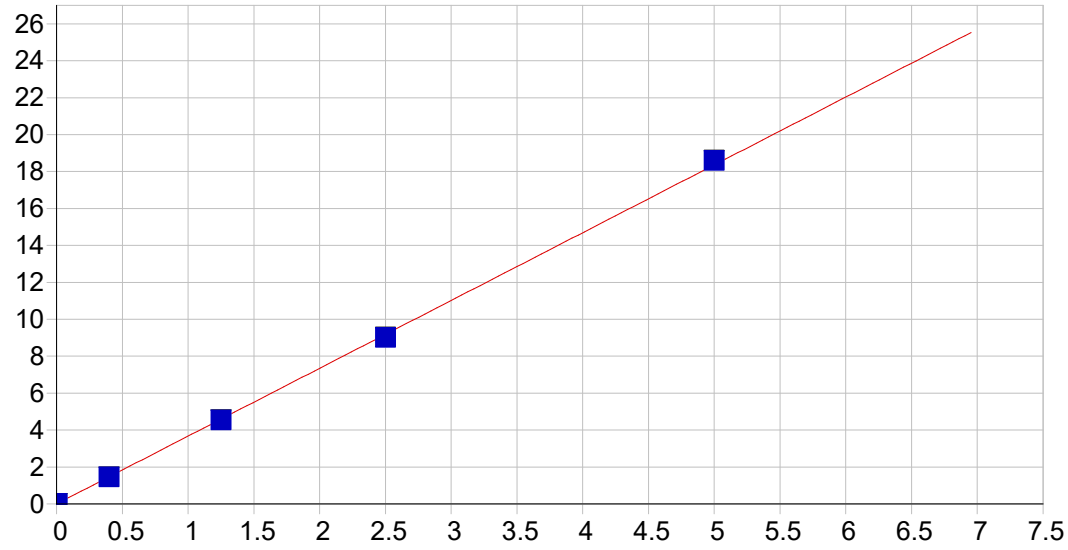


Be 234.861 {144}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001174	Re-Slope:	1.000000
A1 (Gain):	14.251453	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999959	Status:	OK.
Std Error of Est:	0.000367		
Predicted MDL:	0.000127		
Predicted MQL:	0.000424		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00118	.000	1
S1	.00600	.00611	.000	1.75	.08492	.002	1
S2	.04000	.04165	.002	4.13	.58862	.004	1
S3	.12500	.12488	-.000	-.092	1.7667	.027	1
S4	.25000	.24948	-.001	-.206	3.5306	.052	1
S5	.50000	.49887	-.001	-.225	7.0610	.025	1

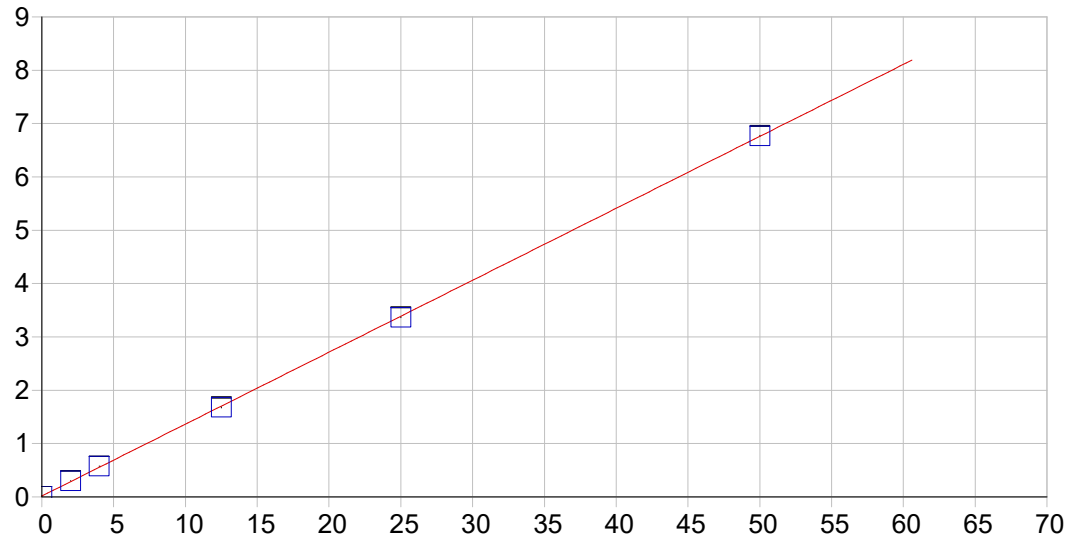


Cd 214.438 {457}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000251	Re-Slope:	1.000000
A1 (Gain):	3.671928	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.000478		
Predicted MDL:	0.000077		
Predicted MQL:	0.000255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00025	.000	1
S1	.00600	.00550	-.000	-8.26	.02048	.000	1
S2	.40000	.39530	-.005	-1.17	1.4519	.001	1
S3	1.2500	1.2384	-.012	-.932	4.5478	.010	1
S4	2.5000	2.4533	-.047	-1.87	9.0095	.023	1
S5	5.0000	5.0635	.063	1.27	18.595	.013	1

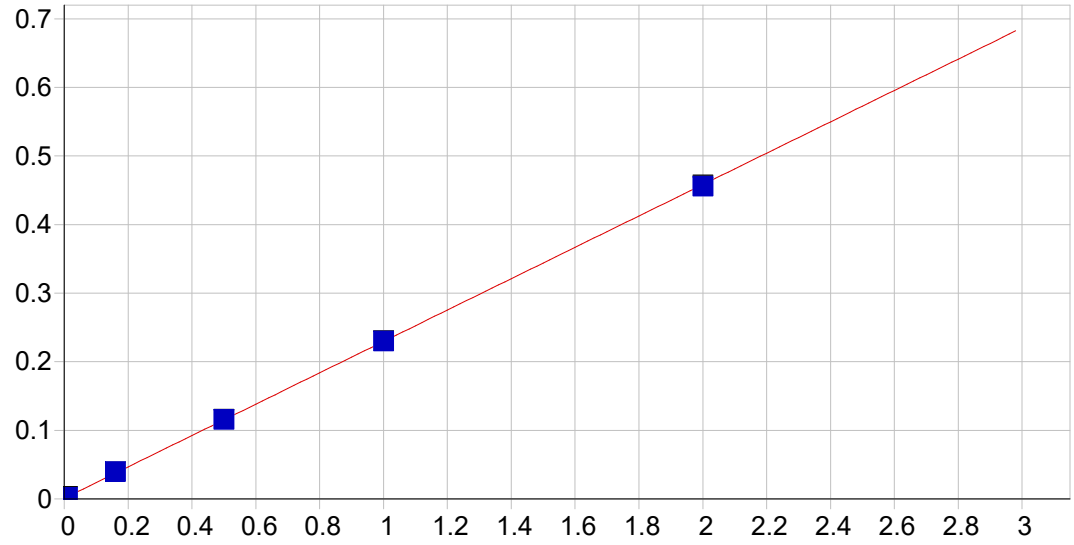


Ca 373.690 { 90}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.015234	Re-Slope:	1.000000
A1 (Gain):	0.134904	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000904		
Predicted MDL:	0.019352		
Predicted MQL:	0.064507		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00015	-.000	.000	.01521	.002	1
S1	2.0000	2.1155	.115	5.77	.30062	.003	1
S2	4.0000	4.1409	.141	3.52	.57386	.000	1
S3	12.500	12.330	-.170	-1.36	1.6787	.013	1
S4	25.000	24.844	-.156	-.623	3.3668	.009	1
S5	50.000	50.069	.069	.138	6.7697	.009	1

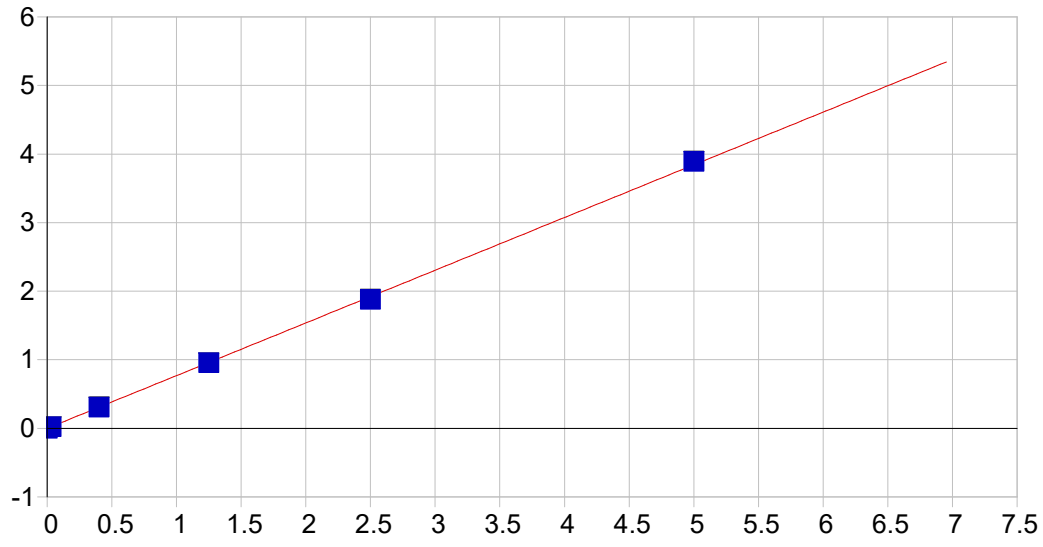


Cr 267.716 {126}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000892	Re-Slope:	1.000000
A1 (Gain):	0.228732	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.001003		
Predicted MQL:	0.003343		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00089	.000	1
S1	.01000	.00886	-.001	-11.4	.00292	.000	1
S2	.16000	.16947	.009	5.92	.03969	.000	1
S3	.50000	.50144	.001	.287	.11569	.000	1
S4	1.0000	1.0019	.002	.189	.23026	.000	1
S5	2.0000	1.9883	-.012	-.583	.45610	.002	1

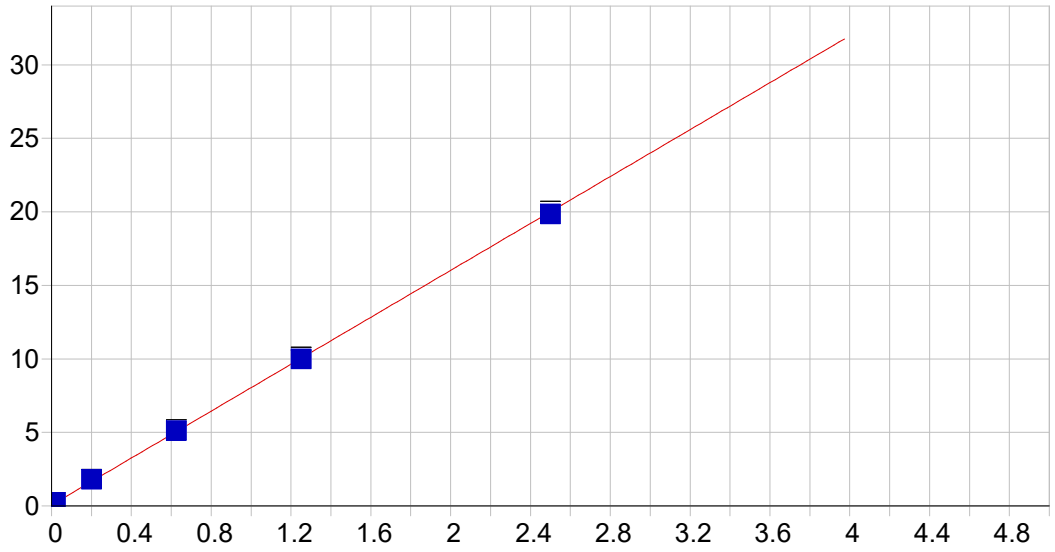


Co 228.616 {448}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000113	Re-Slope:	1.000000
A1 (Gain):	0.768548	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000242		
Predicted MDL:	0.000371		
Predicted MQL:	0.001237		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00011	.000	1
S1	.03000	.02997	-.000	-.115	.02301	.000	1
S2	.40000	.40180	.002	.449	.30929	.000	1
S3	1.2500	1.2404	-.010	-.767	.95460	.002	1
S4	2.5000	2.4433	-.057	-2.27	1.8802	.004	1
S5	5.0000	5.0645	.065	1.29	3.8971	.000	1

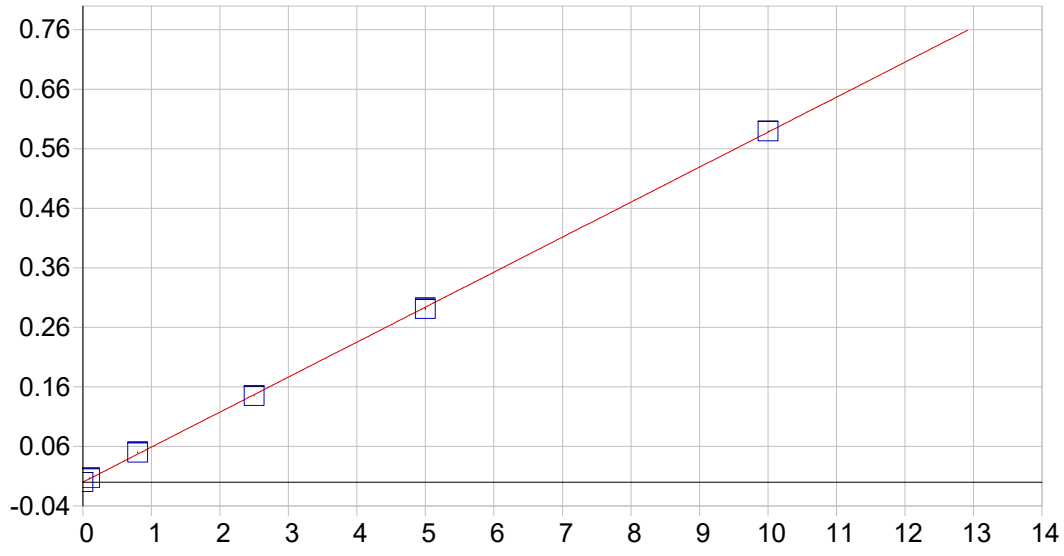


Cu 324.754 {104}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.064070	Re-Slope:	1.000000
A1 (Gain):	7.978787	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999807	Status:	OK.
Std Error of Est:	0.001841		
Predicted MDL:	0.000557		
Predicted MQL:	0.001855		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.06405	.003	1
S1	.02000	.02097	.001	4.87	.23148	.006	1
S2	.20000	.21705	.017	8.53	1.7967	.013	1
S3	.62500	.63245	.007	1.19	5.1127	.061	1
S4	1.2500	1.2447	-.005	-.422	10.000	.124	1
S5	2.5000	2.4798	-.020	-.808	19.860	.193	1

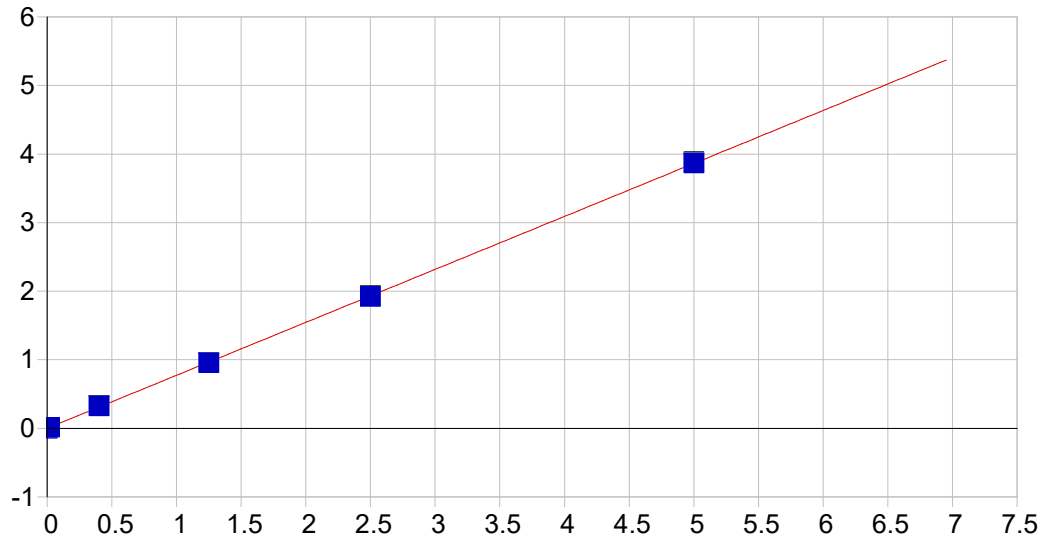


Fe 259.837 {130}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000087	Re-Slope:	1.000000
A1 (Gain):	0.058798	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999862	Status:	OK.
Std Error of Est:	0.000051		
Predicted MDL:	0.014969		
Predicted MQL:	0.049896		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00009	.000	1
S1	.10000	.11087	.011	10.9	.00661	.001	1
S2	.80000	.84757	.048	5.95	.04992	.001	1
S3	2.5000	2.4600	-.040	-1.60	.14473	.000	1
S4	5.0000	4.9568	-.043	-.865	.29153	.001	1
S5	10.000	10.025	.025	.248	.58953	.000	1

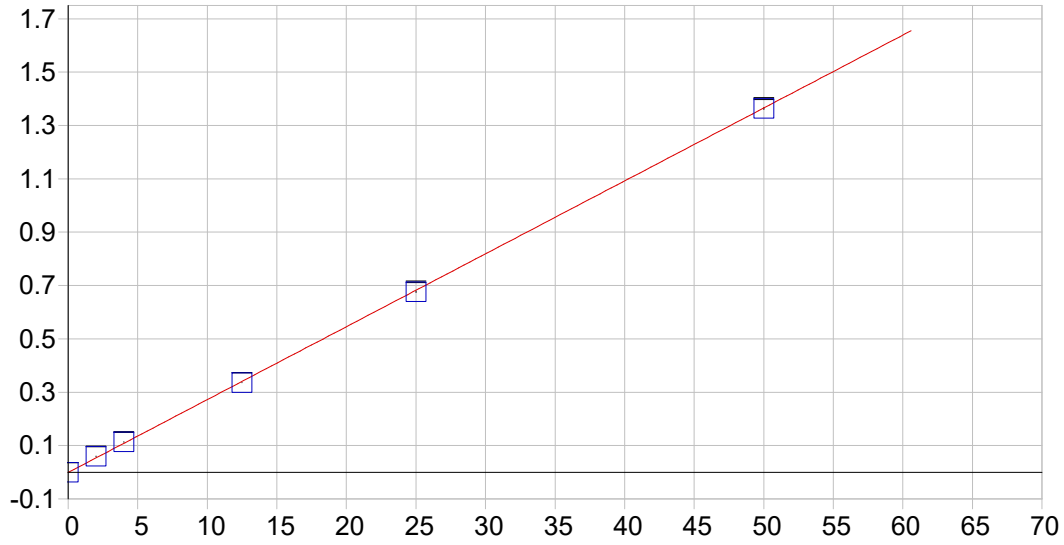


Mn 257.610 {131}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000430	Re-Slope:	1.000000
A1 (Gain):	0.772516	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000174		
Predicted MDL:	0.001055		
Predicted MQL:	0.003518		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00043	.001	1
S1	.02000	.02209	.002	10.5	.01753	.000	1
S2	.40000	.42163	.022	5.41	.32642	.003	1
S3	1.2500	1.2334	-.017	-1.33	.95415	.002	1
S4	2.5000	2.4862	-.014	-.551	1.9228	.009	1
S5	5.0000	5.0066	.007	.132	3.8716	.012	1

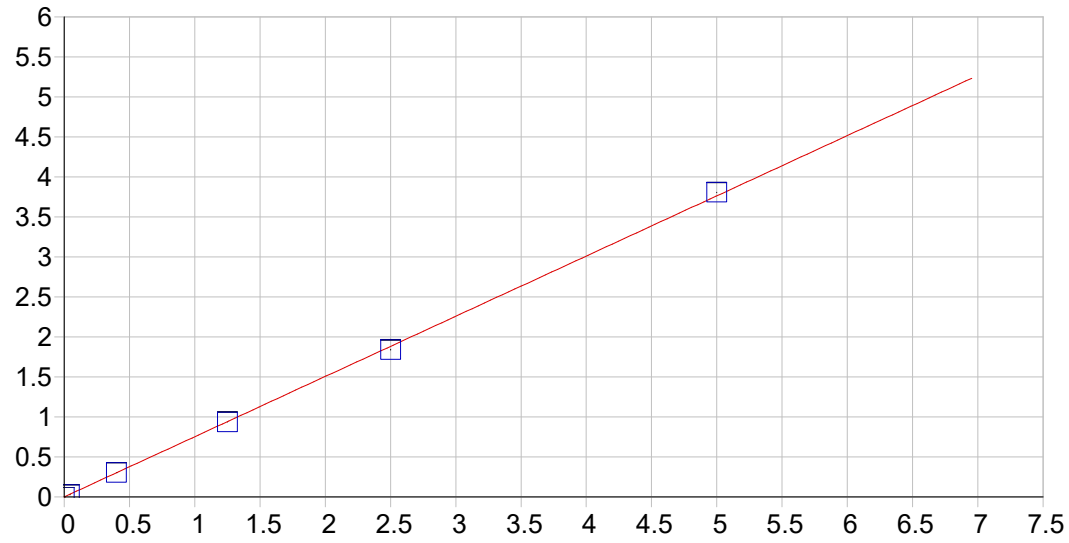


Mg 279.079 {121}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001004	Re-Slope:	1.000000
A1 (Gain):	0.027331	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	0.000306		
Predicted MDL:	0.040594		
Predicted MQL:	0.135313		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00029	-.000	.000	-.00101	.001	1
S1	2.0000	2.2333	.233	11.7	.06004	.001	1
S2	4.0000	4.2049	.205	5.12	.11392	.001	1
S3	12.500	12.330	-.170	-1.36	.33598	.001	1
S4	25.000	24.800	-.200	-.799	.67682	.003	1
S5	50.000	49.932	-.068	-.136	1.3637	.004	1

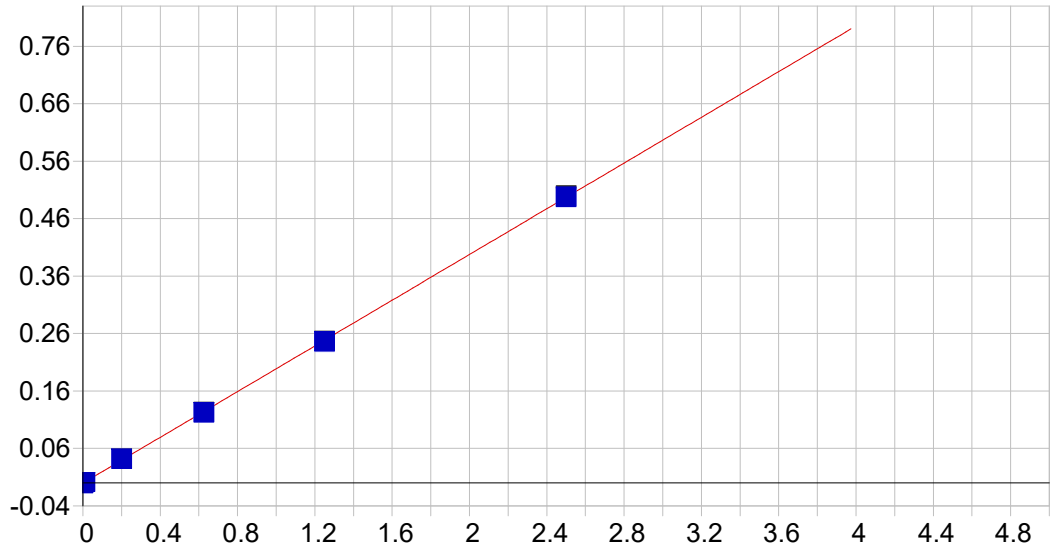


Ni 231.604 {446}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000199	Re-Slope:	1.000000
A1 (Gain):	0.752670	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.000258		
Predicted MDL:	0.000448		
Predicted MQL:	0.001492		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00020	.000	1
S1	.04000	.03875	-.001	-3.13	.02936	.001	1
S2	.40000	.40410	.004	1.02	.30435	.001	1
S3	1.2500	1.2454	-.005	-.366	.93760	.001	1
S4	2.5000	2.4448	-.055	-2.21	1.8404	.004	1
S5	5.0000	5.0569	.057	1.14	3.8064	.002	1

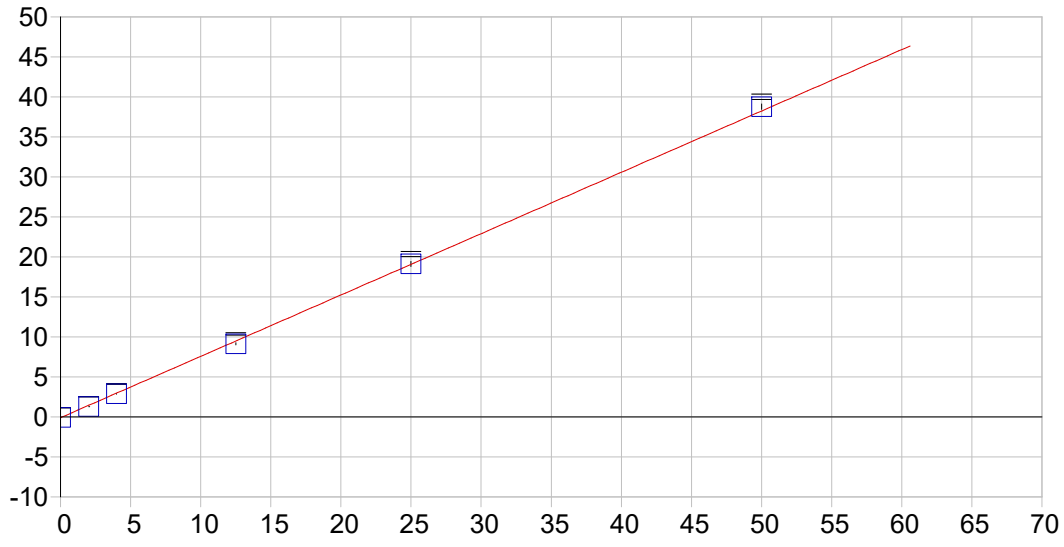


Ag 328.068 {103}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000255	Re-Slope:	1.000000
A1 (Gain):	0.198938	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999876	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.001308		
Predicted MQL:	0.004360		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00025	.000	1
S1	.01000	.00907	-.001	-9.28	.00154	.000	1
S2	.20000	.21307	.013	6.54	.04202	.000	1
S3	.62500	.61871	-.006	-1.01	.12249	.000	1
S4	1.2500	1.2383	-.012	-.935	.24542	.001	1
S5	2.5000	2.5058	.006	.233	.49689	.001	1

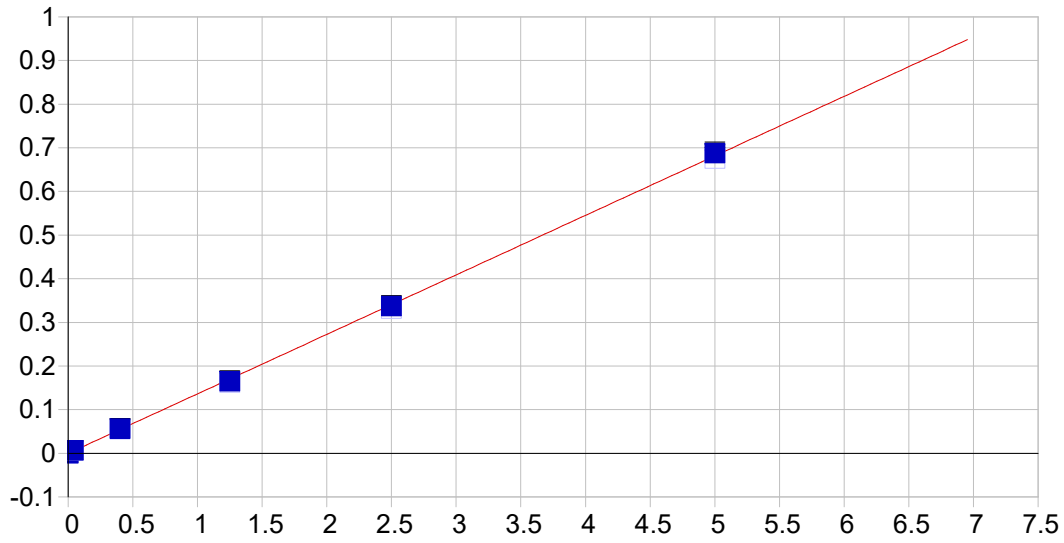


Na 818.326 { 41}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.098289	Re-Slope:	1.000000
A1 (Gain):	0.766806	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999748	Status:	OK.
Std Error of Est:	0.009104		
Predicted MDL:	0.016250		
Predicted MQL:	0.054165		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00028	.000	.000	-.09807	.010	1
S1	2.0000	1.8110	-.189	-9.45	1.2904	.007	1
S2	4.0000	3.9003	-.100	-2.49	2.8925	.039	1
S3	12.500	12.042	-.458	-3.67	9.1353	.132	1
S4	25.000	25.047	.047	.189	19.108	.314	1
S5	50.000	50.700	.700	1.40	38.779	.331	1

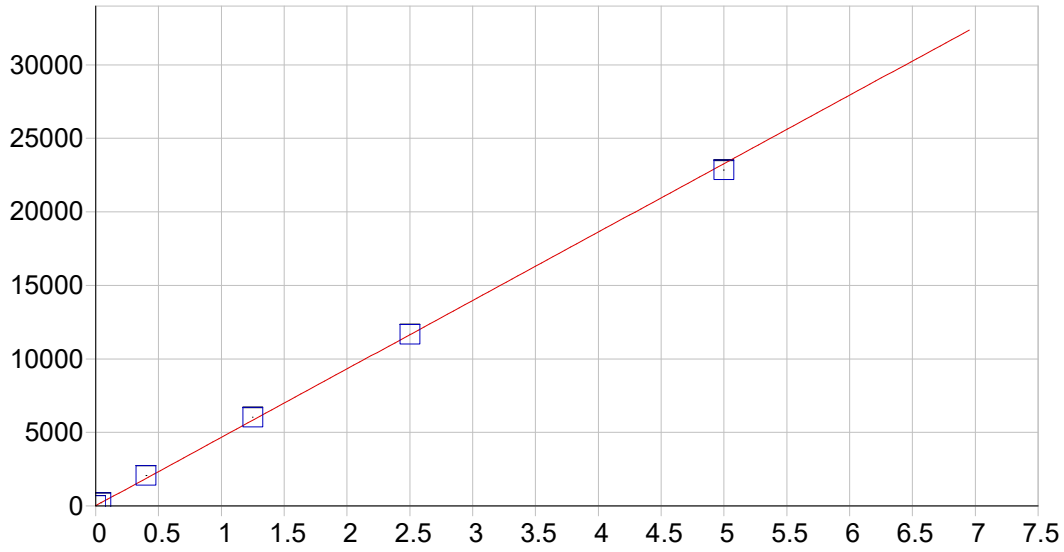


V 292.402 {115}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000187	Re-Slope:	1.000000
A1 (Gain):	0.136340	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999788	Status:	OK.
Std Error of Est:	0.000065		
Predicted MDL:	0.008264		
Predicted MQL:	0.027548		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00019	.001	1
S1	.04000	.04797	.008	19.9	.00612	.001	1
S2	.40000	.41215	.012	3.04	.05503	.001	1
S3	1.2500	1.2119	-.038	-3.05	.16201	.001	1
S4	2.5000	2.4746	-.025	-1.02	.33111	.002	1
S5	5.0000	5.0436	.044	.872	.67529	.003	1

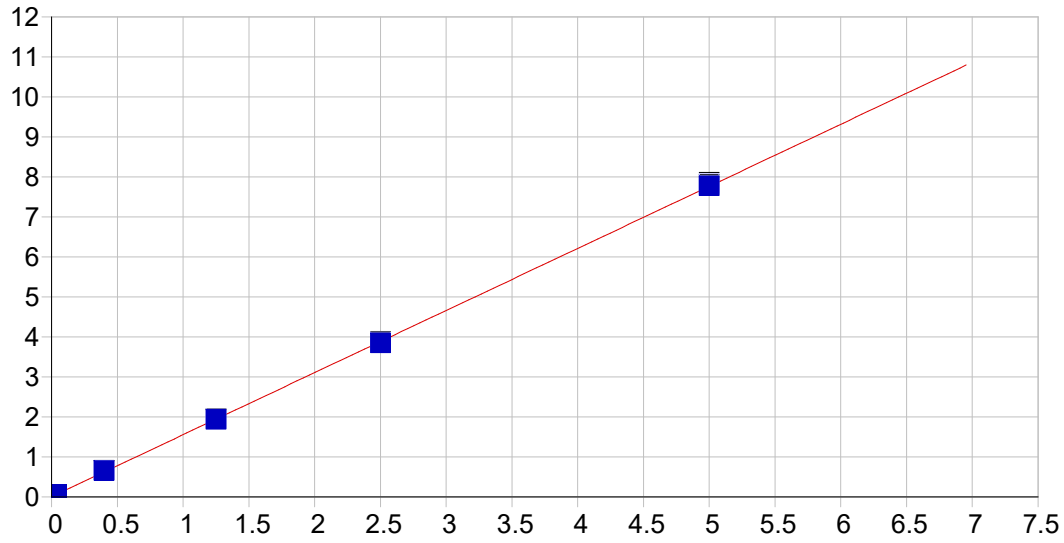


Zn 206.200 {464}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	12.385634	Re-Slope:	1.000000
A1 (Gain):	4653.788662	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999591	Status:	OK.
Std Error of Est:	3.124962		
Predicted MDL:	0.000264		
Predicted MQL:	0.000880		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	12.352	.842	1
S1	.04000	.04232	.002	5.79	209.32	.731	1
S2	.40000	.44134	.041	10.3	2066.3	4.36	1
S3	1.2500	1.2919	.042	3.35	6024.7	18.4	1
S4	2.5000	2.5064	.006	.257	11677.	17.0	1
S5	5.0000	4.9080	-.092	-1.84	22853.	31.4	1

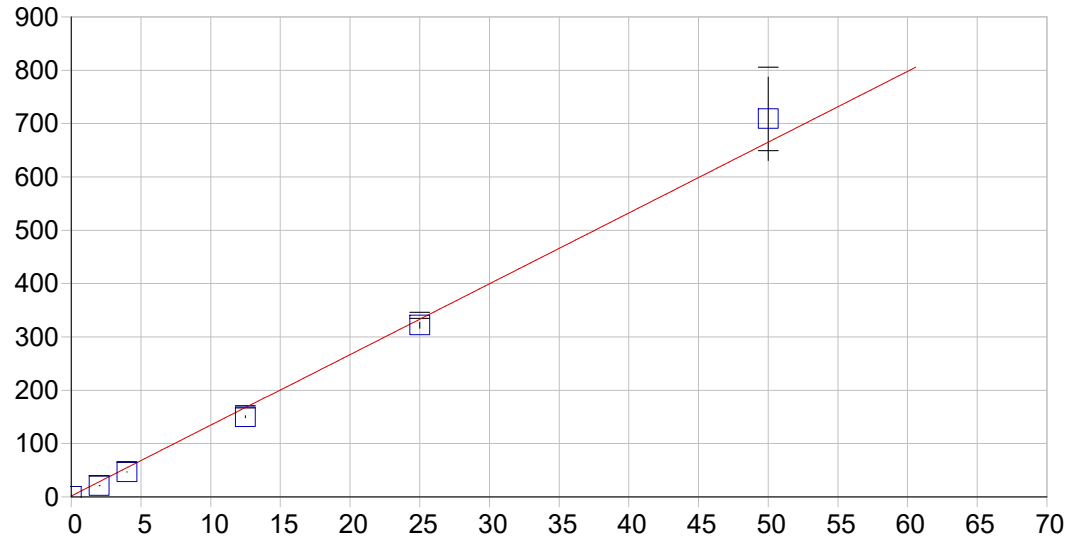


Zn 213.856 {158}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003223	Re-Slope:	1.000000
A1 (Gain):	1.552187	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000441		
Predicted MDL:	0.000519		
Predicted MQL:	0.001731		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00322	.000	1
S1	.04000	.04048	.000	1.20	.06651	.000	1
S2	.40000	.42048	.020	5.12	.66041	.002	1
S3	1.2500	1.2440	-.006	-.477	1.9483	.007	1
S4	2.5000	2.4752	-.025	-.993	3.8734	.012	1
S5	5.0000	5.0098	.010	.197	7.8359	.030	1

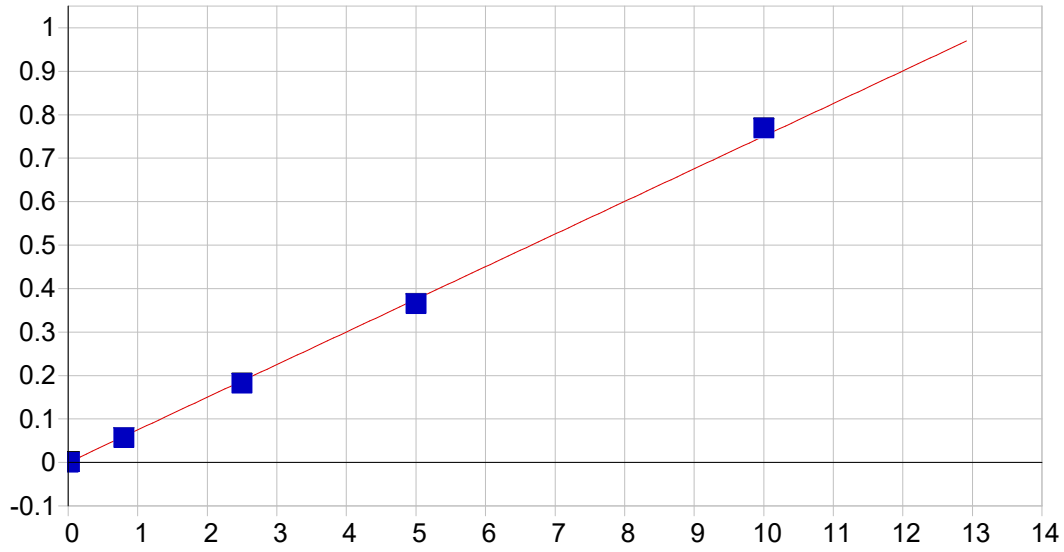


K 769.896 { 44}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.624910	Re-Slope:	1.000000
A1 (Gain):	13.269791	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996707	Status:	OK.
Std Error of Est:	0.571078		
Predicted MDL:	0.000967		
Predicted MQL:	0.003223		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00098	.001	.000	1.6379	.024	1
S1	2.0000	1.4625	-.537	-26.9	21.032	.111	1
S2	4.0000	3.4039	-.596	-14.9	46.793	.374	1
S3	12.500	11.194	-1.31	-10.4	150.16	2.11	1
S4	25.000	24.136	-.864	-3.46	321.90	5.64	1
S5	50.000	53.304	3.30	6.61	708.96	78.4	1

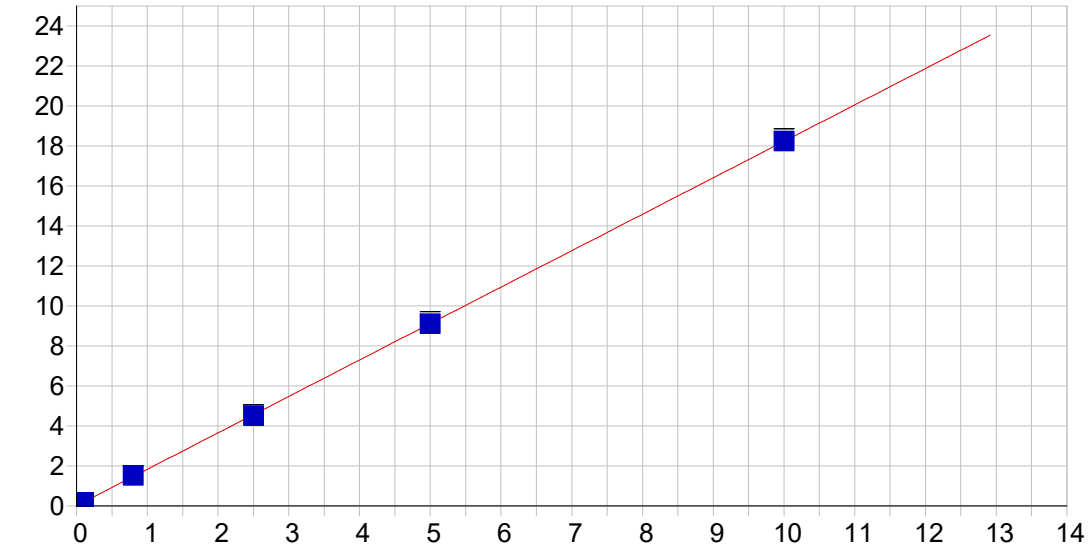


P 177.495 {490}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000047	Re-Slope:	1.000000
A1 (Gain):	0.075074	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999610	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.002027		
Predicted MQL:	0.006755		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.02000	.01696	-.003	-15.2	.00121	.000	1
S2	.80000	.76161	-.038	-4.80	.05699	.000	1
S3	2.5000	2.4279	-.072	-2.88	.18179	.000	1
S4	5.0000	4.8649	-.135	-2.70	.36431	.001	1
S5	10.000	10.249	.249	2.49	.76762	.000	1

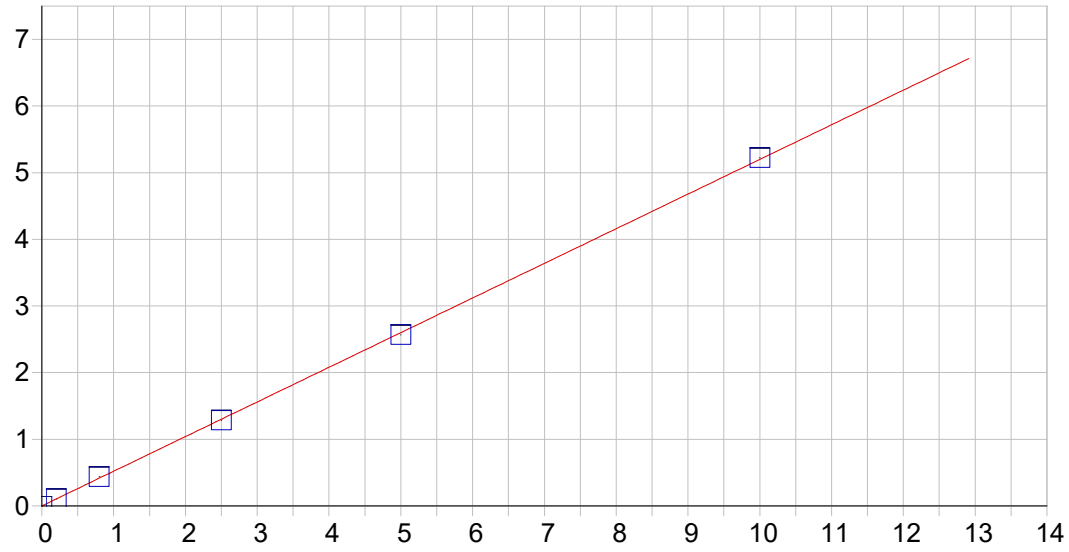


B 249.678 {135}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008957	Re-Slope:	1.000000
A1 (Gain):	1.822393	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000739		
Predicted MDL:	0.001291		
Predicted MQL:	0.004305		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00895	.002	1
S1	.10000	.09926	-.001	-.741	.18964	.004	1
S2	.80000	.82580	.026	3.23	1.5128	.012	1
S3	2.5000	2.4748	-.025	-1.01	4.5155	.049	1
S4	5.0000	4.9962	-.004	-.077	9.1070	.111	1
S5	10.000	10.004	.004	.040	18.226	.127	1

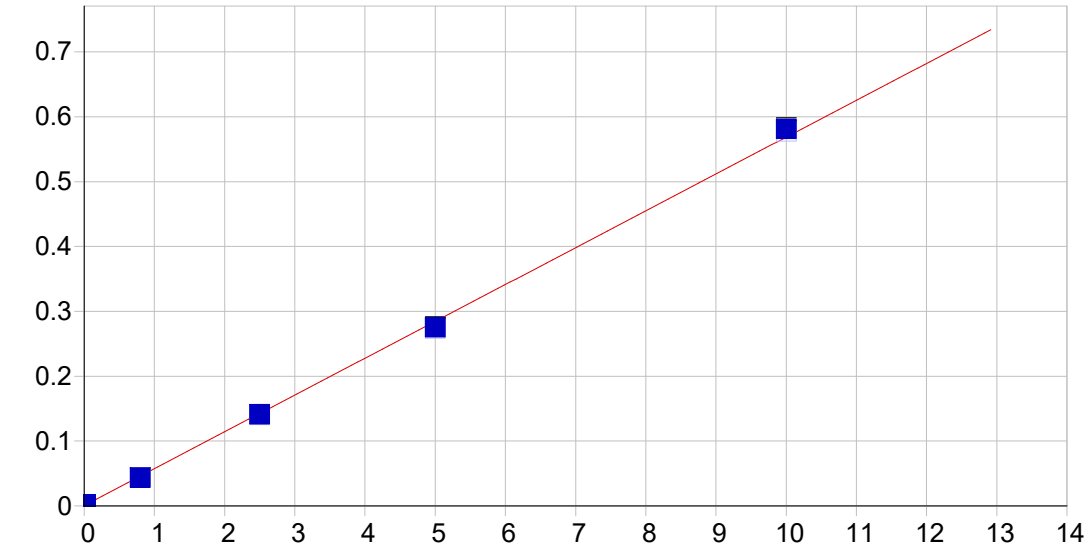


Mo 202.030 {467}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000379	Re-Slope:	1.000000
A1 (Gain):	0.519848	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000524		
Predicted MDL:	0.000461		
Predicted MQL:	0.001537		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00037	.000	1
S1	.20000	.20145	.001	.726	.10510	.000	1
S2	.80000	.84132	.041	5.16	.43773	.001	1
S3	2.5000	2.4725	-.027	-1.10	1.2857	.002	1
S4	5.0000	4.9392	-.061	-1.22	2.5680	.003	1
S5	10.000	10.046	.046	.455	5.2225	.005	1

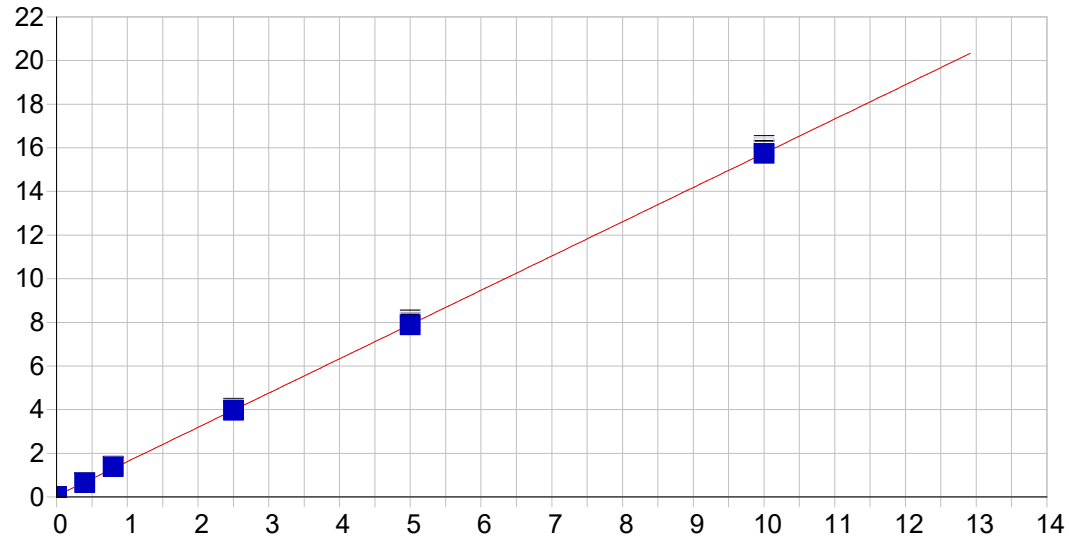


S 182.034 {485}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000562	Re-Slope:	1.000000
A1 (Gain):	0.056795	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999639	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.002783		
Predicted MQL:	0.009278		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00056	.000	1
S1	.02000	.02283	.003	14.1	.00177	.000	1
S2	.80000	.75720	-.043	-5.35	.04327	.000	1
S3	2.5000	2.4773	-.023	-.906	.14032	.000	1
S4	5.0000	4.8393	-.161	-3.21	.27353	.001	1
S5	10.000	10.224	.224	2.24	.57743	.002	1

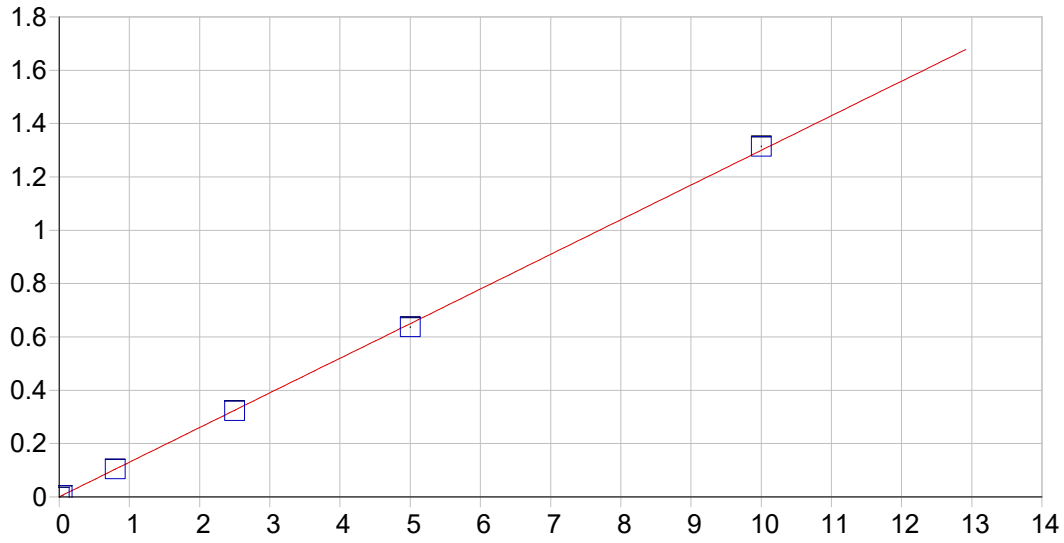


Si 251.611 {134}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.048107	Re-Slope:	1.000000
A1 (Gain):	1.570217	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.002304		
Predicted MDL:	0.001359		
Predicted MQL:	0.004530		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.04811	.001	1
S1	.40000	.38085	-.019	-4.79	.64978	.003	1
S2	.80000	.84563	.046	5.70	1.3962	.009	1
S3	2.5000	2.4900	-.010	-.399	4.0215	.042	1
S4	5.0000	4.9872	-.013	-.257	8.0060	.099	1
S5	10.000	9.9962	-.004	-.038	15.998	.108	1

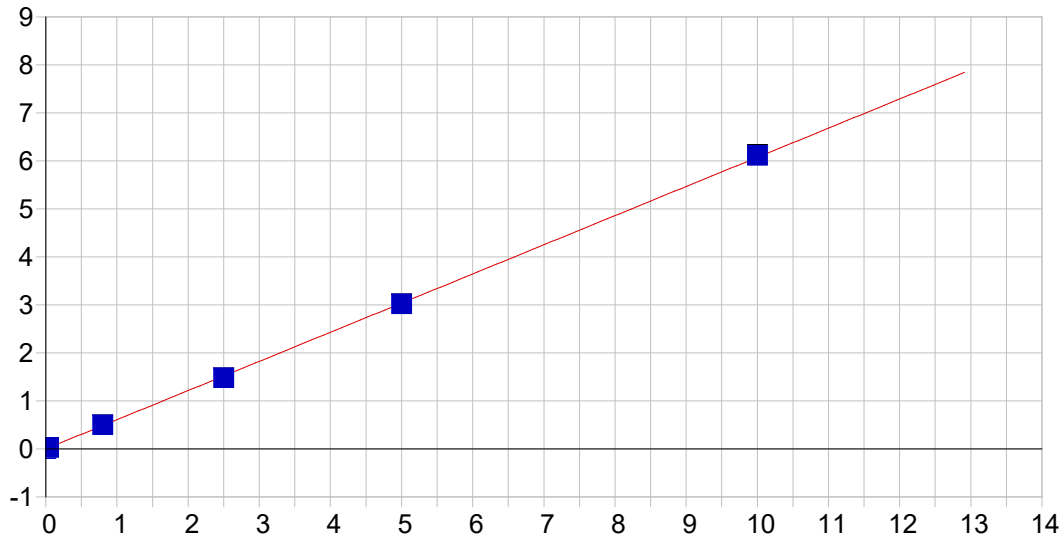


Sn 189.989 {478}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000188	Re-Slope:	1.000000
A1 (Gain):	0.129911	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000060		
Predicted MDL:	0.001025		
Predicted MQL:	0.003418		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00019	.000	1
S1	.04000	.03755	-.002	-6.12	.00507	.000	1
S2	.80000	.79866	-.001	-.168	.10394	.000	1
S3	2.5000	2.4869	-.013	-.523	.32327	.001	1
S4	5.0000	4.8999	-.100	-2.00	.63674	.002	1
S5	10.000	10.117	.117	1.17	1.3145	.002	1

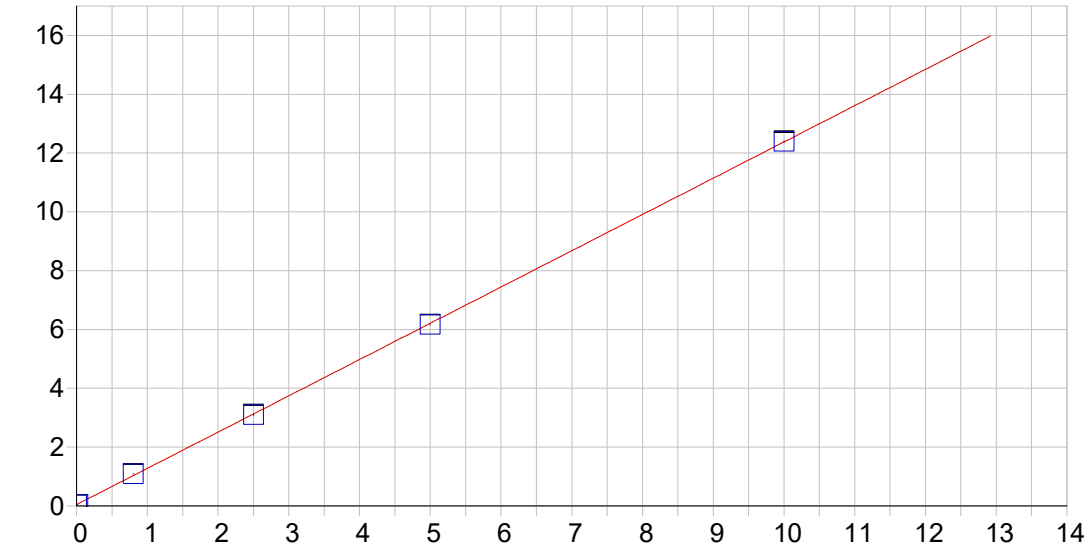


Ti 336.121 {100}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000597	Re-Slope:	1.000000
A1 (Gain):	0.607408	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000242		
Predicted MDL:	0.002872		
Predicted MQL:	0.009574		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00060	.001	1
S1	.04000	.03976	-.000	-.612	.02472	.001	1
S2	.80000	.82163	.022	2.70	.49942	.002	1
S3	2.5000	2.4409	-.059	-2.36	1.4825	.004	1
S4	5.0000	4.9688	-.031	-.624	3.0172	.007	1
S5	10.000	10.069	.069	.690	6.1135	.020	1

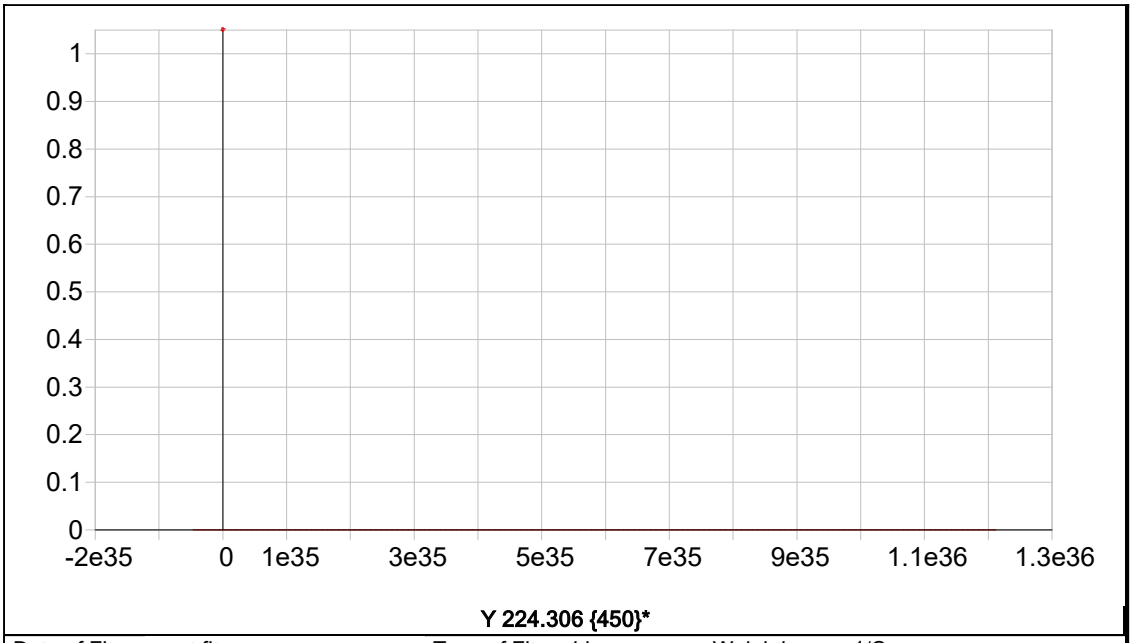


Li 670.784 { 50}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.042397	Re-Slope:	1.000000
A1 (Gain):	1.233675	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000490		
Predicted MDL:	0.005681		
Predicted MQL:	0.018935		

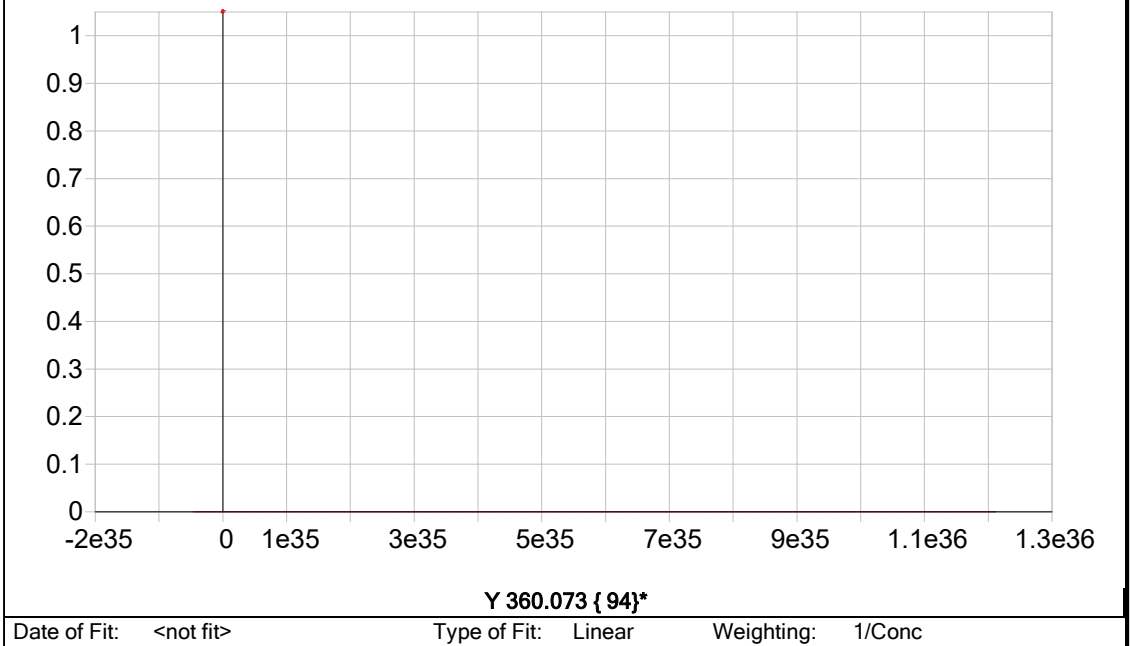
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.04240	.008	1
S5	10.000	10.011	.011	.108	12.392	.024	1
S4	5.0000	4.9702	-.030	-.597	6.1740	.013	1
S3	2.5000	2.4790	-.021	-.840	3.1007	.021	1
S2	.80000	.84661	.047	5.83	1.0868	.009	1
S1	.02000	.01340	-.007	-33.0	.05892	.008	1



Y 224.306 {450}*

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

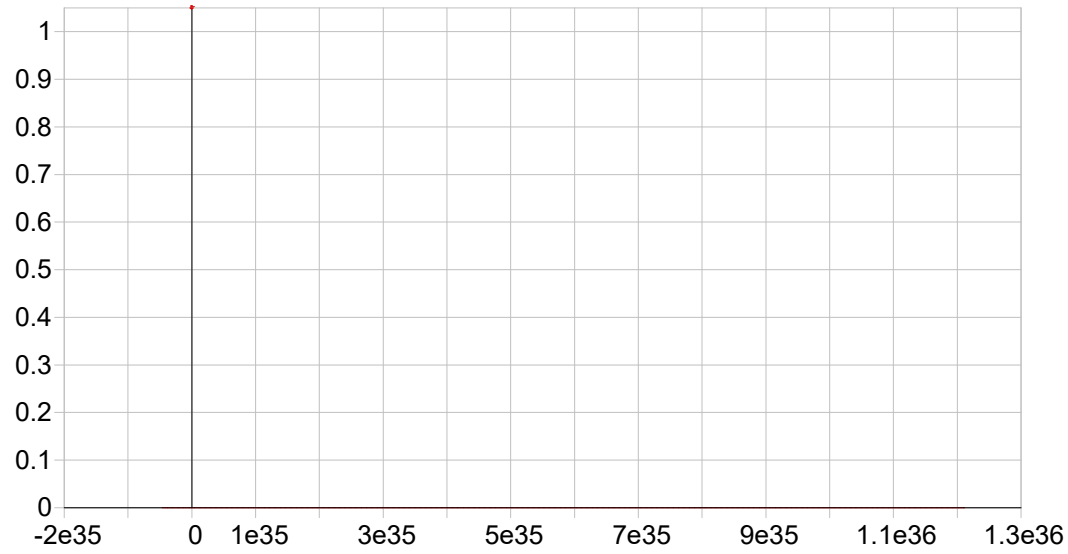


Y 360.073 { 94}*

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					

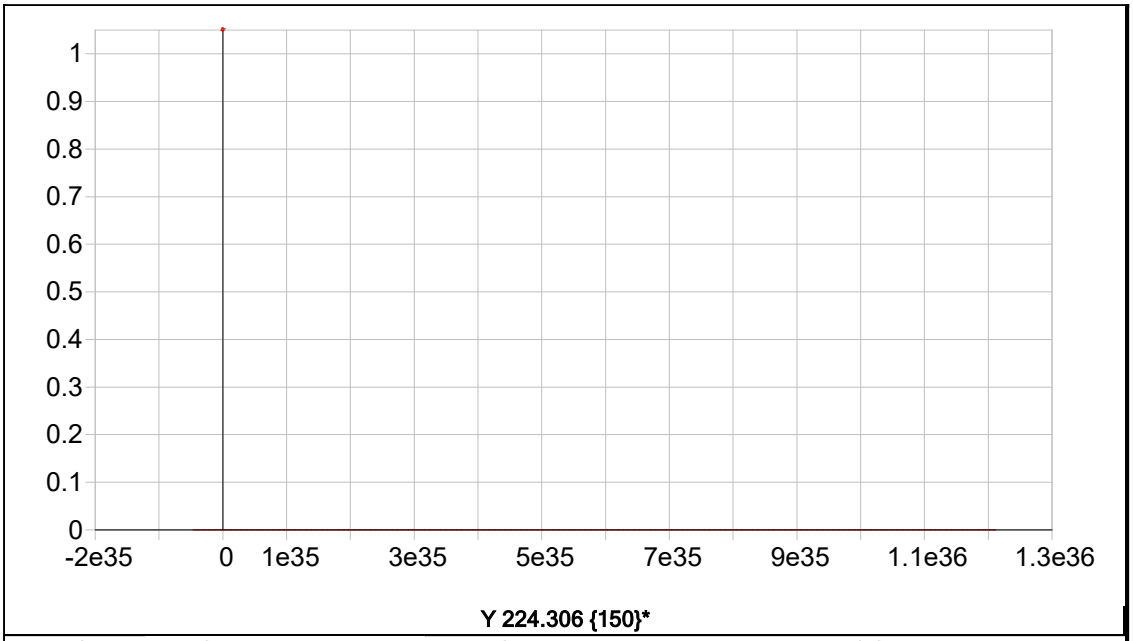
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

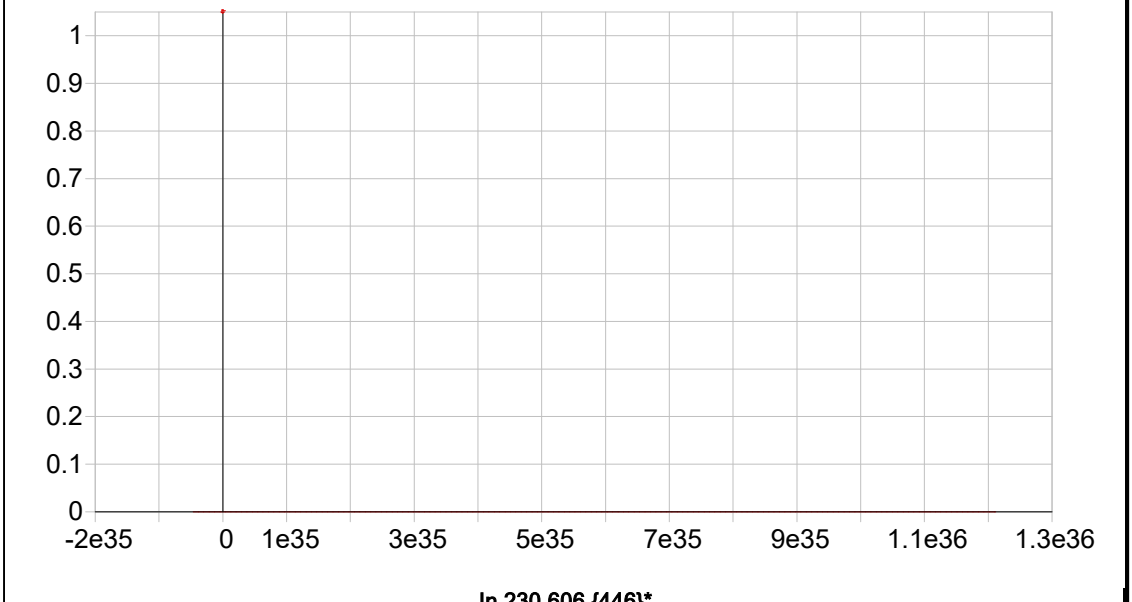


Y 224.306 {150}*

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



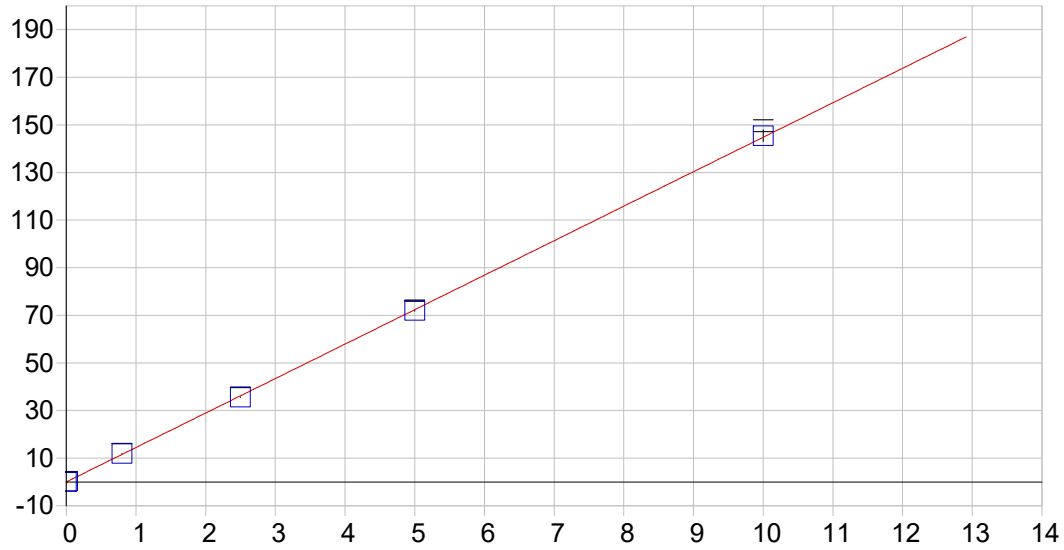
In 230.606 {446}*

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



Sr 407.771 { 83}

Date of Fit:	6/24/2025 18:40:09	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002831	Re-Slope:	1.000000
A1 (Gain):	14.480897	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.003575		
Predicted MDL:	0.000198		
Predicted MQL:	0.000660		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00283	.001	1
S1	.02000	.01989	-.000	-.545	.28521	.002	1
S2	.80000	.82673	.027	3.34	11.969	.041	1
S3	2.5000	2.4571	-.043	-1.72	35.578	.170	1
S4	5.0000	4.9696	-.030	-.607	71.962	.253	1
S5	10.000	10.047	.047	.467	145.48	2.53	1

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S0 Acquired: 6/24/2025 17:55:51 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**-.00008**	**-.00003**	**.00015**	**-.00004**	**.00015**	**-.00155**	**.01694**	**-.00118**
Stddev	.00010	.00006	.00020	.00017	.00012	.00483	.00390	.00029
%RSD	119.61	164.47	130.35	470.74	83.004	312.06	23.031	24.473
#1	-.00019	-.00007	.00034	.00006	.00028	.00372	.01606	-.00085
#2	-.00007	.00003	.00019	-.00023	.00003	-.00577	.01356	-.00138
#3	.00001	-.00007	-.00006	.00006	.00014	-.00259	.02121	-.00131

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00025**	**.01521**	**.00089**	**.00011**	**.06405**	**.00009**	**.00043**	**-.00101**
Stddev	.00009	.00205	.00004	.00017	.00348	.00047	.00090	.00075
%RSD	36.340	13.455	4.0833	153.74	5.4280	541.25	211.30	74.585
#1	.00017	.01499	.00089	.00025	.06161	.00002	-.00020	-.00060
#2	.00023	.01329	.00093	.00017	.06803	.00058	.00001	-.00188
#3	.00035	.01736	.00086	-.00008	.06251	-.00034	.00147	-.00055

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00020**	**-.00025**	**-.09807**	**-.00019**	**.00322**	**1.6379**	**-.00005**	**.00895**
Stddev	.00006	.00012	.01018	.00115	.00049	.0237	.00017	.00159
%RSD	29.984	46.778	10.382	612.27	15.213	1.4459	366.32	17.732
#1	.00026	-.00012	-.08863	.00113	.00281	1.6337	.00015	.01015
#2	.00014	-.00036	-.09673	-.00069	.00309	1.6634	-.00017	.00715
#3	.00020	-.00028	-.10886	-.00100	.00376	1.6167	-.00012	.00956

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00037**	**.00056**	**.04811**	**.00019**	**.00060**	**.04240**	**-.00283**
Stddev	.00006	.00011	.00141	.00006	.00062	.00843	.00103
%RSD	14.712	20.375	2.9401	34.106	103.64	19.888	36.211
#1	.00038	.00069	.04814	.00011	-.00001	.05148	-.00395
#2	.00032	.00049	.04950	.00022	.00123	.03480	-.00194
#3	.00043	.00051	.04667	.00023	.00057	.04093	-.00261

Sample Name: S0 Acquired: 6/24/2025 17:55:51 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**5124.5**	**41358.**	**2328.4**	**3637.2**	**5565.9**
Stddev	6.6	149.	18.0	20.1	8.4
%RSD	.12929	.36096	.77363	.55139	.15111
#1	5132.2	41245.	2322.7	3621.6	5575.2
#2	5120.3	41527.	2313.9	3659.8	5558.7
#3	5121.1	41302.	2348.6	3630.2	5564.0

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S1 Acquired: 6/24/2025 18:00:24 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**.00064**	**.00509**	**.00435**	**.00142**	**.00493**	**.01180**	**.56703**	**.08492**
Stddev	.00004	.00008	.00031	.00012	.00014	.00066	.00601	.00184
%RSD	6.5928	1.4873	7.1600	8.3617	2.8535	5.6006	1.0592	2.1639
#1	.00066	.00507	.00450	.00130	.00477	.01113	.57263	.08693
#2	.00059	.00503	.00455	.00142	.00499	.01245	.56069	.08333
#3	.00066	.00517	.00399	.00153	.00503	.01183	.56778	.08450

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02048**	**.30062**	**.00292**	**.02301**	**.23148**	**.00661**	**.01753**	**.06004**
Stddev	.00016	.00278	.00016	.00027	.00644	.00091	.00048	.00120
%RSD	.77413	.92568	5.4037	1.1876	2.7840	13.801	2.7374	2.0029
#1	.02040	.29991	.00305	.02277	.23886	.00576	.01701	.05899
#2	.02037	.29826	.00274	.02331	.22862	.00649	.01796	.06135
#3	.02066	.30369	.00297	.02295	.22697	.00757	.01761	.05977

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02936**	**.00154**	**1.2904**	**.00612**	**.06651**	**21.032**	**.00121**	**.18964**
Stddev	.00054	.00003	.0072	.00098	.00012	.111	.00005	.00359
%RSD	1.8553	1.6546	.55719	16.082	.17904	.53001	3.7285	1.8934
#1	.02977	.00155	1.2844	.00617	.06638	20.989	.00125	.18658
#2	.02874	.00151	1.2885	.00708	.06662	20.948	.00122	.18875
#3	.02958	.00156	1.2984	.00511	.06652	21.158	.00116	.19359

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10510**	**.00177**	**.64978**	**.00507**	**.02472**	**.05892**	**.28521**
Stddev	.00014	.00004	.00266	.00009	.00120	.00783	.00217
%RSD	.13483	2.5329	.40958	1.7007	4.8717	13.286	.75909
#1	.10513	.00182	.65169	.00507	.02538	.05840	.28358
#2	.10523	.00175	.64674	.00515	.02545	.06700	.28767
#3	.10495	.00174	.65091	.00498	.02333	.05137	.28438

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S1 Acquired: 6/24/2025 18:00:24 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	5139.4	40771.	2262.0	3595.8	5499.5
Stddev	6.4	272.	9.1	41.4	3.7
%RSD	.12503	.66729	.40213	1.1521	.06799
#1	5133.0	40723.	2272.4	3586.6	5498.8
#2	5139.3	40526.	2258.2	3559.7	5496.1
#3	5145.9	41064.	2255.5	3641.0	5503.5

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S2 Acquired: 6/24/2025 18:04:50 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**.02946**	**.11035**	**.25110**	**.05363**	**.07651**	**.20001**	**9.1072**	**.58862**
Stddev	.00005	.00019	.00047	.00021	.00011	.00356	.0363	.00399
%RSD	.15778	.17517	.18788	.39072	.14589	1.7800	.39903	.67752
#1	.02941	.11048	.25068	.05357	.07638	.19656	9.0670	.59228
#2	.02949	.11044	.25161	.05386	.07657	.20367	9.1168	.58922
#3	.02949	.11013	.25100	.05346	.07659	.19979	9.1377	.58437

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.4519**	**.57386**	**.03969**	**.30929**	**1.7967**	**.04992**	**.32642**	**.11392**
Stddev	.0013	.00046	.00016	.00018	.0129	.00081	.00301	.00134
%RSD	.08658	.08035	.40892	.05735	.71503	1.6264	.92190	1.1744
#1	1.4515	.57439	.03957	.30910	1.8105	.04934	.32380	.11258
#2	1.4509	.57364	.03962	.30945	1.7852	.05085	.32577	.11394
#3	1.4533	.57354	.03987	.30931	1.7943	.04958	.32971	.11525

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.30435**	**.04202**	**2.8925**	**.05503**	**.66041**	**46.793**	**.05699**	**1.5128**
Stddev	.00053	.00036	.0394	.00107	.00172	.374	.00016	.0117
%RSD	.17576	.85864	1.3629	1.9509	.26002	.79911	.28172	.77225
#1	.30496	.04165	2.9368	.05462	.66185	47.207	.05681	1.5261
#2	.30414	.04237	2.8613	.05423	.65851	46.480	.05710	1.5044
#3	.30396	.04205	2.8794	.05625	.66087	46.693	.05706	1.5078

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.43773**	**.04327**	**1.3962**	**.10394**	**.49942**	**1.0868**	**11.969**
Stddev	.00059	.00018	.0088	.00018	.00227	.0086	.041
%RSD	.13405	.42687	.63161	.17523	.45548	.79345	.34152
#1	.43708	.04348	1.4064	.10415	.49840	1.0794	11.934
#2	.43821	.04316	1.3910	.10382	.49783	1.0963	11.959
#3	.43791	.04315	1.3913	.10385	.50203	1.0849	12.014

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S2 Acquired: 6/24/2025 18:04:50 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**5070.0**	**40495.**	**2254.4**	**3588.0**	**5307.2**
Stddev	7.9	179.	13.7	20.0	10.3
%RSD	.15499	.44131	.60673	.55864	.19466
#1	5061.1	40646.	2246.1	3597.4	5295.6
#2	5072.6	40541.	2270.2	3601.5	5310.5
#3	5076.2	40298.	2246.9	3564.9	5315.5

Sample Name: S3 Acquired: 6/24/2025 18:29:59 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**.09297**	**.33590**	**.77537**	**.15767**	**.22374**	**.58182**	**26.963**	**1.7667**
Stddev	.00018	.00023	.00111	.00041	.00026	.00310	.127	.0271
%RSD	.19665	.06823	.14369	.26264	.11688	.53207	.46930	1.5317
#1	.09285	.33575	.77445	.15732	.22395	.58524	26.951	1.7801
#2	.09318	.33579	.77507	.15756	.22345	.57920	26.843	1.7356
#3	.09289	.33616	.77661	.15813	.22382	.58103	27.095	1.7845

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.5478**	**1.6787**	**.11569**	**.95460**	**5.1127**	**.14473**	**.95415**	**.33598**
Stddev	.0097	.0128	.00028	.00179	.0612	.00043	.00233	.00056
%RSD	.21374	.76273	.24001	.18747	1.1970	.29951	.24433	.16797
#1	4.5366	1.6886	.11564	.95255	5.1389	.14496	.95649	.33660
#2	4.5541	1.6642	.11599	.95541	5.0428	.14423	.95413	.33587
#3	4.5526	1.6832	.11544	.95584	5.1565	.14500	.95182	.33548

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.93760**	**.12249**	**9.1353**	**.16201**	**1.9483**	**150.16**	**.18179**	**4.5155**
Stddev	.00124	.00025	.1323	.00092	.0069	2.11	.00032	.0491
%RSD	.13183	.20107	1.4486	.56556	.35527	1.4071	.17694	1.0882
#1	.93618	.12224	9.2513	.16191	1.9558	152.34	.18169	4.5435
#2	.93815	.12251	8.9911	.16114	1.9422	148.12	.18154	4.4588
#3	.93846	.12273	9.1634	.16296	1.9469	150.04	.18215	4.5443

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.2857**	**.14032**	**4.0215**	**.32327**	**1.4825**	**3.1007**	**35.578**
Stddev	.0016	.00002	.0420	.00075	.0035	.0211	.170
%RSD	.12590	.01639	1.0443	.23220	.23693	.68081	.47823
#1	1.2864	.14034	4.0469	.32245	1.4859	3.1082	35.607
#2	1.2839	.14032	3.9730	.32394	1.4789	3.0768	35.395
#3	1.2869	.14030	4.0445	.32341	1.4826	3.1170	35.731

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S3 Acquired: 6/24/2025 18:29:59 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	5051.7	40235.	2242.1	3586.4	4960.4
Stddev	13.2	27.	24.9	6.6	19.5
%RSD	.26045	.06765	1.1103	.18342	.39349
#1	5064.9	40242.	2225.7	3593.0	4982.6
#2	5051.5	40205.	2270.7	3579.9	4945.8
#3	5038.6	40258.	2229.8	3586.2	4952.9

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S4 Acquired: 6/24/2025 18:34:18 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**.18633**	**.65392**	**1.5232**	**.31667**	**.44807**	**1.1759**	**54.593**	**3.5306**
Stddev	.00051	.00164	.0035	.00071	.00049	.0069	.211	.0517
%RSD	.27347	.25147	.23229	.22321	.11000	.58919	.38714	1.4630
#1	.18691	.65575	1.5267	.31748	.44799	1.1783	54.608	3.5109
#2	.18609	.65344	1.5234	.31628	.44859	1.1812	54.797	3.5892
#3	.18598	.65257	1.5196	.31624	.44761	1.1680	54.375	3.4916

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9.0095**	**3.3668**	**.23026**	**1.8802**	**10.000**	**.29153**	**1.9228**	**.67682**
Stddev	.0231	.0090	.00025	.0037	.124	.00136	.0093	.00278
%RSD	.25622	.26784	.10798	.19749	1.2363	.46708	.48335	.41126
#1	9.0357	3.3759	.22999	1.8845	10.020	.29275	1.9310	.67675
#2	9.0004	3.3666	.23047	1.8782	10.113	.29178	1.9247	.67964
#3	8.9923	3.3579	.23033	1.8780	9.8681	.29007	1.9127	.67407

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8404**	**.24542**	**19.108**	**.33111**	**3.8734**	**321.90**	**.36431**	**9.1070**
Stddev	.0043	.00057	.314	.00157	.0122	5.64	.00093	.1106
%RSD	.23635	.23176	1.6453	.47353	.31441	1.7521	.25622	1.2149
#1	1.8452	.24483	18.859	.33262	3.8652	315.40	.36483	9.0841
#2	1.8392	.24545	19.461	.33123	3.8676	325.47	.36487	9.2273
#3	1.8367	.24596	19.004	.32949	3.8874	324.84	.36323	9.0096

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.5680**	**.27353**	**8.0060**	**.63674**	**3.0172**	**6.1740**	**71.962**
Stddev	.0027	.00073	.0991	.00196	.0073	.0130	.253
%RSD	.10333	.26685	1.2378	.30711	.24342	.20998	.35169
#1	2.5702	.27425	7.9751	.63888	3.0172	6.1791	71.971
#2	2.5650	.27279	8.1168	.63629	3.0245	6.1836	72.210
#3	2.5688	.27354	7.9260	.63504	3.0098	6.1592	71.705

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S4 Acquired: 6/24/2025 18:34:18 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**4920.3**	**39375.**	**2192.6**	**3518.2**	**4858.9**
Stddev	5.1	150.	17.1	25.1	4.2
%RSD	.10409	.38118	.77777	.71439	.08612
#1	4924.4	39324.	2192.7	3518.5	4854.6
#2	4921.8	39544.	2175.5	3543.2	4859.3
#3	4914.5	39257.	2209.6	3492.9	4862.9

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S5 Acquired: 6/24/2025 18:38:37 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**.39423**	**1.3206**	**3.1520**	**.64559**	**.91083**	**2.4119**	**110.30**	**7.0610**
Stddev	.00051	.0008	.0036	.00034	.00176	.0061	.85	.0250
%RSD	.13017	.05797	.11378	.05194	.19354	.25406	.76701	.35430
#1	.39448	1.3211	3.1519	.64598	.91105	2.4064	109.41	7.0325
#2	.39457	1.3209	3.1556	.64539	.90896	2.4185	111.10	7.0793
#3	.39364	1.3197	3.1485	.64540	.91247	2.4106	110.38	7.0711

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**18.595**	**6.7697**	**.45610**	**3.8971**	**19.860**	**.58953**	**3.8716**	**1.3637**
Stddev	.013	.0095	.00159	.0004	.193	.00005	.0123	.0036
%RSD	.07068	.14028	.34789	.00992	.97378	.00782	.31864	.26560
#1	18.602	6.7620	.45752	3.8975	19.640	.58952	3.8576	1.3634
#2	18.602	6.7803	.45439	3.8973	20.006	.58949	3.8811	1.3675
#3	18.579	6.7669	.45641	3.8967	19.933	.58958	3.8761	1.3602

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.8064**	**.49689**	**38.779**	**.67529**	**7.8359**	**708.96**	**.76762**	**18.226**
Stddev	.0018	.00131	.331	.00304	.0298	78.43	.00043	.127
%RSD	.04831	.26380	.85333	.44949	.38078	11.063	.05591	.69559
#1	3.8063	.49840	39.058	.67180	7.8466	669.53	.76806	18.080
#2	3.8083	.49630	38.413	.67732	7.8022	799.28	.76760	18.308
#3	3.8046	.49598	38.864	.67674	7.8589	658.07	.76720	18.291

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.2225**	**.57743**	**15.998**	**1.3145**	**6.1135**	**12.392**	**145.48**
Stddev	.0049	.00177	.108	.0017	.0200	.024	2.53
%RSD	.09367	.30578	.67355	.12702	.32803	.19011	1.7367
#1	5.2257	.57814	15.875	1.3139	6.0923	12.373	144.41
#2	5.2169	.57874	16.047	1.3164	6.1322	12.419	148.37
#3	5.2249	.57543	16.073	1.3132	6.1160	12.385	143.67

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: S5 Acquired: 6/24/2025 18:38:37 Type: Cal
Method: METHOD 6010D, 200.7 M Mode: IR Corr. Factor: 1.000000
User: admin 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	**4736.2**	**38509.**	**2149.4**	**3406.7**	**4561.8**
Stddev	5.2	63.	17.8	9.4	7.6
%RSD	.10937	.16413	.82734	.27614	.16720
#1	4730.2	38444.	2169.2	3415.4	4555.8
#2	4739.5	38513.	2134.7	3408.1	4559.1
#3	4738.9	38570.	2144.5	3396.7	4570.4

Sample Name: ICV01 Acquired: 6/24/2025 18:43:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.702260**	**3.733310**	**3.735745**	**3.873910**	**4.022567**	**7.648523**
Stddev	.003750	.007629	.008337	.011614	.002929	.030861
%RSD	.1013019	.2043538	.2231642	.2998054	.0728024	.4034899
#1	3.702320	3.731133	3.735545	3.864577	4.022694	7.613216
#2	3.698480	3.727007	3.727510	3.870236	4.019577	7.670355
#3	3.705981	3.741792	3.744180	3.886917	4.025430	7.661999

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.630785**	**.2016781**	**1.894250**	**18.93997**	**.7838530**	**1.913486**
Stddev	.019948	.0007298	.002456	.04804	.0007119	.001842
%RSD	.2614084	.3618729	.1296304	.2536528	.0908242	.0962765
#1	7.613538	.2023971	1.893221	18.89898	.7836488	1.913059
#2	7.652630	.2009379	1.892476	18.99284	.7846447	1.911894
#3	7.626188	.2016993	1.897053	18.92809	.7832655	1.915504

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9986856**	**3.844045**	**1.912122**	**19.26969**	**1.914626**	**.9784232**
Stddev	.0067805	.005198	.005587	.04434	.001881	.0031577
%RSD	.6789384	.1352343	.2922069	.2301155	.0982649	.3227311
#1	1.006150	3.843145	1.907735	19.24165	1.914415	.9810025
#2	.992907	3.839355	1.918412	19.24661	1.912859	.9749017
#3	.997000	3.849634	1.910217	19.32081	1.916604	.9793656

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.41836**	**1.957534**	**1.954546**	**19.81607**	F **.0157706**	F **.0295099**
Stddev	.10394	.013228	.004437	.23912	.0029314	.0015642
%RSD	.5090413	.6757534	.2270098	1.206717	18.58747	5.300743
#1	20.52942	1.955233	1.949548	20.08684	.0124772	.0313138
#2	20.32342	1.971761	1.956069	19.63386	.0180941	.0286877
#3	20.40225	1.945607	1.958020	19.72752	.0167405	.0285281

Sample Name: ICV01 Acquired: 6/24/2025 18:43:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0013848	F .0176522	F .0049322	F .0018951	F -.001607	F .0348057
Stddev	.0003656	.0046269	.0002591	.0002107	.002820	.0034818
%RSD	26.39719	26.21160	5.252405	11.11620	175.4827	10.00355
#1	.0011373	.0176216	.0051794	.0017081	.000696	.0371124
#2	.0012124	.0130406	.0049545	.0021233	-.004752	.0308006
#3	.0018047	.0222943	.0046627	.0018540	-.000765	.0365040

Elem	Sr4077
Units	ppm
Avg	F .0010186
Stddev	.0001813
%RSD	17.79677
#1	.0008176
#2	.0011696
#3	.0010687

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5059.594	40420.61	2259.005	3590.726	5103.955
Stddev	14.120	142.42	15.211	2.939	8.817
%RSD	.2790750	.3523422	.6733628	.0818560	.1727526
#1	5075.200	40288.74	2241.443	3588.639	5113.875
#2	5047.702	40401.44	2268.057	3589.450	5097.010
#3	5055.881	40571.64	2267.514	3594.087	5100.979

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: ICB01 Acquired: 6/24/2025 19:08:26 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.000408**	**.0003242**	**.0003099**	**.0018950**	**.0053963**	**.0148066**	**-.001062**
Stddev	.000432	.0018084	.0010100	.0005040	.0027558	.0327609	.000675
%RSD	105.8356	557.7284	325.8817	26.59694	51.06872	221.2589	63.57620
#1	-.000841	-.000835	.0002755	.0014229	.0081020	.0005503	-.001380
#2	-.000404	.002408	.0013367	.0024257	.0054940	-.008411	-.001519
#3	.000022	-.000600	-.000682	.0018364	.0025929	.052280	-.000286

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000439**	**-.000051**	**-.022707**	**-.001614**	**.0000731**	**-.000490**	**.0008285**
Stddev	.0000778	.000040	.007960	.001062	.0000123	.000549	.0074936
%RSD	177.3268	79.38429	35.05755	65.80100	16.83746	112.0676	904.4846
#1	.0001101	-.000051	-.017050	-.002428	.0000827	-.000876	.0089884
#2	-.000042	-.000010	-.019261	-.002002	.0000592	-.000733	-.005745
#3	.000063	-.000091	-.031810	-.000413	.0000775	.000139	-.000758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023129**	**-.001878**	**-.000302**	**-.000786**	**.0176180**	**.0029385**	**-.001779**
Stddev	.0009567	.020293	.000423	.000850	.0248596	.0038861	.000497
%RSD	41.36272	1080.550	140.2213	108.0702	141.1036	132.2456	27.96377
#1	.0013482	.001119	.000115	-.001385	-.004762	.0040263	-.001968
#2	.0023290	-.023503	-.000732	-.001160	.044376	.0061649	-.001214
#3	.0032614	.016750	-.000289	.000186	.013240	-.001376	-.002154

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001793**	**-.001206**	**-.000524**	**.0001493**	**-.003948**	**-.006320**	**-.000998**
Stddev	.001670	.001437	.001738	.0005379	.001882	.000036	.001360
%RSD	93.12409	119.0967	331.5530	360.2934	47.67790	.5684727	136.2828
#1	-.002352	-.000093	-.002364	.0003724	-.006108	-.006361	-.002275
#2	-.003112	-.002828	.001089	-.000464	-.002657	-.006298	-.001149
#3	.000084	-.000697	-.000298	.000540	-.003079	-.006301	.000432

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: ICB01 Acquired: 6/24/2025 19:08:26 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001833**	**-.007706**	**-.000020**
Stddev	.001370	.001425	.000286
%RSD	74.70719	18.49451	1411.601
#1	-.001283	-.006064	-.000324
#2	-.000824	-.008435	.000020
#3	-.003392	-.008619	.000244

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5102.974**	**41683.95**	**2274.044**	**3683.727**	**5561.282**
Stddev	18.499	54.11	21.931	18.756	28.251
%RSD	.3625207	.1298030	.9643869	.5091451	.5080032
#1	5119.228	41625.04	2289.279	3693.274	5590.455
#2	5106.851	41731.43	2283.945	3695.787	5559.338
#3	5082.844	41695.39	2248.909	3662.118	5534.053

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CRI01 Acquired: 6/24/2025 19:12:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0178179**	**.0401211**	**.0124938**	**.0204536**	**.0575182**	**.0972057**
Stddev	.0020550	.0004938	.0002011	.0027727	.0025372	.0233758
%RSD	11.53345	1.230801	1.609364	13.55607	4.411097	24.04773
#1	.0190944	.0395882	.0127059	.0182004	.0548675	.0955321
#2	.0189120	.0402121	.0123059	.0196104	.0599242	.0747117
#3	.0154473	.0405631	.0124696	.0235501	.0577630	.1213732

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1003895**	**.0063383**	**.0056701**	**2.022015**	**.0091957**	**.0304913**
Stddev	.0004412	.0001347	.0000340	.009149	.0005222	.0004516
%RSD	.4394499	2.124592	.5994445	.4524734	5.678308	1.481146
#1	.1000047	.0063096	.0056434	2.014229	.0090266	.0307673
#2	.1002929	.0064850	.0056586	2.019725	.0087790	.0307365
#3	.1008710	.0062203	.0057084	2.032092	.0097814	.0299701

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0216714**	**.1020395**	**.0233007**	**2.227571**	**.0394886**	**.0089720**
Stddev	.0003407	.0179058	.0009133	.028986	.0004878	.0015399
%RSD	1.571880	17.54788	3.919633	1.301216	1.235162	17.16387
#1	.0214206	.1108334	.0235819	2.225722	.0389891	.0105477
#2	.0215343	.0814370	.0222799	2.199555	.0395129	.0074705
#3	.0220592	.1138480	.0240404	2.257437	.0399637	.0088978

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.862821**	**.0358687**	**.0401016**	**1.540829**	**.0178501**	**.1021710**
Stddev	.025668	.0113087	.0003233	.016499	.0019058	.0011555
%RSD	1.377911	31.52801	.8062748	1.070819	10.67650	1.130919
#1	1.892070	.0485357	.0403941	1.558542	.0166697	.1032546
#2	1.852347	.0322825	.0401564	1.538047	.0200487	.1009551
#3	1.844047	.0267879	.0397544	1.525897	.0168319	.1023034

Sample Name: CRI01 Acquired: 6/24/2025 19:12:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2070378	.0191485	.3847142	.0380264	.0396627	F .0130216
Stddev	.0005512	.0011129	.0031761	.0003920	.0028078	.0094059
%RSD	.2662169	5.812022	.8255646	1.030902	7.079282	72.23302
#1	.2069796	.0199060	.3853160	.0384420	.0418125	.0212658
#2	.2065181	.0196688	.3812803	.0376633	.0406897	.0027761
#3	.2076158	.0178708	.3875463	.0379738	.0364860	.0150228

Elem	Sr4077
Units	ppm
Avg	.0203119
Stddev	.0003044
%RSD	1.498636
#1	.0206308
#2	.0200244
#3	.0202804

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5072.000	41313.39	2248.877	3655.260	5452.974
Stddev	5.803	93.48	5.417	13.996	13.230
%RSD	.1144068	.2262777	.2408865	.3829013	.2426247
#1	5072.344	41301.19	2248.703	3641.814	5447.805
#2	5066.033	41226.60	2254.379	3654.219	5443.108
#3	5077.623	41412.37	2243.548	3669.748	5468.008

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: ICSA01 Acquired: 6/24/2025 19:17:18 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000060**	**.0049250**	**-.002653**	**.0016415**	**.0245826**	**252.0911**
Stddev	.004879	.0022802	.000892	.0010707	.0014993	1.4396
%RSD	8158.801	46.29887	33.64070	65.22705	6.099023	.5710744
#1	-.002010	.0027509	-.003454	.0025506	.0254935	250.4725
#2	.005492	.0072982	-.002814	.0019126	.0228522	252.5725
#3	-.003661	.0047258	-.001691	.0004613	.0254021	253.2283

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057974**	**.0013695**	**-.001323**	**237.5942**	**.0499353**	**.0264094**
Stddev	.0007393	.0001029	.000168	1.7585	.0012996	.0005125
%RSD	12.75207	7.514406	12.67097	.7401169	2.602570	1.940395
#1	.0064075	.0013034	-.001159	235.5679	.0504536	.0261177
#2	.0060094	.0014880	-.001317	238.4950	.0508957	.0270011
#3	.0049753	.0013170	-.001494	238.7199	.0484565	.0261095

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008973**	**100.0333**	**.0074933**	**248.7795**	**.0040118**	**-.009669**
Stddev	.000417	.8638	.0006044	2.1612	.0004451	.000462
%RSD	4.649110	.8634827	8.065379	.8687372	11.09533	4.775116
#1	-.009296	99.0622	.0073158	246.3137	.0044691	-.010081
#2	-.009120	100.3216	.0081666	249.6792	.0039863	-.009756
#3	-.008502	100.7160	.0069976	250.3455	.0035800	-.009170

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1937191**	**.0080204**	**.0093994**	**-.013080**	**.0059472**	**.0157785**
Stddev	.0119652	.0046141	.0008260	.000355	.0025587	.0027804
%RSD	6.176592	57.52972	8.788222	2.714207	43.02313	17.62180
#1	.1820794	.0050579	.0102916	-.013490	.0088847	.0161229
#2	.1930926	.0056665	.0092453	-.012871	.0042045	.0128418
#3	.2059852	.0133367	.0086612	-.012880	.0047523	.0183706

Sample Name: ICSA01 Acquired: 6/24/2025 19:17:18 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045294	.0159787	-.016709	.0088660	.0018983	.0016397
Stddev	.0005455	.0034515	.000626	.0015336	.0021188	.0009761
%RSD	12.04285	21.60039	3.749135	17.29802	111.6195	59.53069
#1	.0039301	.0119936	-.016087	.0094404	.0012708	.0026426
#2	.0049968	.0179306	-.016701	.0100296	.0001640	.0006927
#3	.0046614	.0180120	-.017340	.0071281	.0042600	.0015839

Elem	Sr4077
Units	ppm
Avg	F .0998554
Stddev	.0006559
%RSD	.6568053
#1	.0990992
#2	.1001984
#3	.1002687

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4631.100	36634.21	2177.844	3339.519	4406.282
Stddev	12.199	107.83	14.608	2.871	5.099
%RSD	.2634093	.2943507	.6707662	.0859818	.1157227
#1	4643.649	36567.96	2194.307	3342.492	4407.827
#2	4619.284	36758.64	2172.793	3336.762	4400.589
#3	4630.368	36576.04	2166.431	3339.302	4410.430

Sample Name: ICSAB01 Acquired: 6/24/2025 19:21:38 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0918700**	**.0954596**	**.0458635**	**.0539024**	**.6448003**	**250.2378**
Stddev	.0063391	.0022397	.0010342	.0017869	.0052389	1.1633
%RSD	6.900044	2.346191	2.255051	3.315134	.8124840	.4648782
#1	.0851604	.0974237	.0449494	.0556352	.6416615	249.6364
#2	.0977585	.0959346	.0456548	.0520658	.6508482	249.4982
#3	.0926912	.0930206	.0469861	.0540061	.6418911	251.5787

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5083789**	**.5131925**	**1.001610**	**233.9827**	**.5490186**	**.5168799**
Stddev	.0020600	.0040366	.003447	.8511	.0015564	.0012507
%RSD	.4052045	.7865595	.3441644	.3637339	.2834949	.2419702
#1	.5093333	.5158653	1.005588	234.1383	.5480485	.5183231
#2	.5060148	.5085492	.999738	233.0646	.5481933	.5161136
#3	.5097886	.5151631	.999503	234.7453	.5508139	.5162029

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4663748**	**99.04865**	**.4921647**	**245.7426**	**.9848527**	**.1837002**
Stddev	.0039721	.56126	.0029557	1.0690	.0028536	.0012994
%RSD	.8516951	.5666552	.6005448	.4349983	.2897523	.7073369
#1	.4685221	98.94737	.4893625	245.7973	.9870912	.1851906
#2	.4617913	98.54493	.4918787	244.6473	.9858274	.1828057
#3	.4688111	99.65366	.4952530	246.7831	.9816394	.1831042

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1797268**	**.5011983**	**1.025207**	**-.006323**	F **.0322112**	F **.0161203**
Stddev	.0153236	.0020358	.001464	.000750	.0004288	.0004963
%RSD	8.526067	.4061872	.1427995	11.86476	1.331208	3.078816
#1	.1711079	.5006298	1.026462	-.005733	.0319710	.0155740
#2	.1706535	.4995071	1.023598	-.007168	.0319564	.0162436
#3	.1974191	.5034579	1.025560	-.006069	.0327063	.0165434

Sample Name: ICSAB01 Acquired: 6/24/2025 19:21:38 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0050090	F .0190239	F -.016346	F .0082295	F -.002023	F -.002331
Stddev	.0008086	.0011244	.000348	.0011747	.001713	.002547
%RSD	16.14377	5.910464	2.126569	14.27482	84.64962	109.2413
#1	.0041421	.0183291	-.015960	.0068902	-.000074	.000247
#2	.0051419	.0184213	-.016634	.0090854	-.002708	-.002395
#3	.0057430	.0203211	-.016445	.0087129	-.003288	-.004845

Elem	Sr4077
Units	ppm
Avg	F .0990811
Stddev	.0004894
%RSD	.4939194
#1	.0986936
#2	.0989188
#3	.0996311

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4639.462	36776.06	2216.846	3345.184	4444.647
Stddev	12.517	161.13	16.644	7.940	14.260
%RSD	.2697850	.4381406	.7507775	.2373439	.3208378
#1	4625.423	36960.76	2217.859	3353.930	4428.885
#2	4649.456	36664.27	2232.960	3343.191	4456.654
#3	4643.507	36703.15	2199.719	3338.430	4448.400

Sample Name: ICSADLX20 Acquired: 6/24/2025 19:25:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.003942**	**-.001631**	**.0006620**	**-.001677**	**.0051956**	**12.81323**	**-.000361**
Stddev	.003703	.001500	.0009614	.001903	.0022136	.05595	.000341
%RSD	93.94077	91.96870	145.2286	113.5031	42.60529	.4366530	94.55807
#1	-.003859	.000010	.0001439	-.001014	.0026491	12.86701	.000032
#2	-.000281	-.002931	.0017712	-.000193	.0066602	12.81734	-.000534
#3	-.007685	-.001971	.0000707	-.003823	.0062775	12.75534	-.000581

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001422**	**-.000078**	**12.27780**	**.0017702**	**.0063520**	**-.000948**	**5.234738**
Stddev	.0001799	.000038	.03732	.0004518	.0001253	.000101	.004538
%RSD	126.4319	47.82784	.3039833	25.52197	1.971994	10.63096	.0866985
#1	-.000030	-.000072	12.29111	.0022616	.0064960	-.001050	5.239974
#2	.000329	-.000045	12.30665	.0013729	.0062677	-.000849	5.232292
#3	.000129	-.000119	12.23565	.0016760	.0062925	-.000945	5.231947

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025145**	**13.08047**	**-.000131**	**-.001264**	**.0331262**	**-.000147**	**-.000765**
Stddev	.0007110	.03297	.000602	.000970	.0235927	.003403	.000113
%RSD	28.27453	.2520859	460.9433	76.76532	71.22058	2322.705	14.80336
#1	.0018987	13.11847	.000155	-.002160	.0133030	.003630	-.000880
#2	.0023522	13.05948	-.000822	-.000234	.0268547	-.002977	-.000654
#3	.0032925	13.06345	.000275	-.001397	.0592209	-.001092	-.000760

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005315**	**.0022789**	**-.001336**	**.0012167**	**.0011400**	**-.008533**	**.0019507**
Stddev	.001077	.0010668	.000601	.0002901	.0006539	.002610	.0007033
%RSD	20.26589	46.81204	44.99321	23.84550	57.35867	30.58601	36.05145
#1	-.005879	.0016052	-.001003	.0015462	.0012888	-.005539	.0020537
#2	-.004073	.0035088	-.002030	.0011040	.0004246	-.009738	.0025968
#3	-.005994	.0017226	-.000975	.0009998	.0017068	-.010323	.0012017

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: ICSADLX20 Acquired: 6/24/2025 19:25:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000930**	**-.010674**	**.0053244**
Stddev	.002263	.003708	.0001422
%RSD	243.2239	34.74129	2.671580
#1	.000519	-.014953	.0054500
#2	-.003538	-.008396	.0051699
#3	.000228	-.008672	.0053533

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5029.275**	**40526.61**	**2248.849**	**3602.637**	**5276.631**
Stddev	31.315	147.14	12.498	14.389	33.160
%RSD	.6226533	.3630806	.5557545	.3994099	.6284406
#1	5056.401	40659.70	2239.370	3609.891	5303.945
#2	4995.005	40368.59	2244.164	3586.064	5239.734
#3	5036.419	40551.54	2263.012	3611.955	5286.212

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: ICSABDLX20 Acquired: 6/24/2025 19:30:22 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.000281**	**.0046227**	**.0034575**	**-.002863**	**.0362857**	**12.02175**	**.0222737**
Stddev	.001878	.0011738	.0012081	.001232	.0018793	.04723	.0006531
%RSD	667.9455	25.39099	34.94156	43.01407	5.179183	.3929062	2.932302
#1	-.001320	.0049677	.0025808	-.004265	.0360120	11.97033	.0217646
#2	-.001411	.0055852	.0048355	-.002367	.0345583	12.06320	.0220463
#3	.001887	.0033151	.0029562	-.001957	.0382869	12.03174	.0230101

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0250745**	**.0455320**	**11.51151**	**.0247143**	**.0283221**	**.0238710**	**4.908542**
Stddev	.0001687	.0000950	.05050	.0003071	.0002016	.0006970	.025738
%RSD	.6728124	.2086345	.4387133	1.242549	.7118255	2.919830	.5243429
#1	.0252132	.0456392	11.55856	.0246347	.0284200	.0231090	4.929977
#2	.0251236	.0454986	11.51782	.0250534	.0280902	.0244764	4.879997
#3	.0248867	.0454583	11.45815	.0244549	.0284560	.0240277	4.915651

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0267786**	**12.26934**	**.0457394**	**.0070040**	**.0268120**	**.0274696**	**.0471807**
Stddev	.0009157	.05621	.0002740	.0003131	.0326165	.0045519	.0007614
%RSD	3.419469	.4581637	.5989260	4.469773	121.6488	16.57078	1.613705
#1	.0257376	12.25320	.0460330	.0069270	.0373645	.0301616	.0466779
#2	.0271386	12.22297	.0454907	.0073484	-.009774	.0300333	.0468075
#3	.0274596	12.33186	.0456944	.0067367	.052846	.0222140	.0480566

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003574**	**.0003033**	**.0013119**	**.0056933**	**.0001827**	**-.004394**	**.0055255**
Stddev	.000212	.0023026	.0018120	.0006993	.0019852	.000796	.0003363
%RSD	5.925890	759.1753	138.1176	12.28275	1086.666	18.11571	6.086323
#1	-.003811	-.001899	.0002566	.0062076	.0021178	-.005175	.0054397
#2	-.003404	.002694	.0034042	.0059753	-.001849	-.003584	.0052404
#3	-.003507	.000115	.0002750	.0048970	.000279	-.004423	.0058963

Sample Name: ICSABDLX20 Acquired: 6/24/2025 19:30:22 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0055960	-.009880	.0048989
Stddev	.0007946	.002503	.0002024
%RSD	14.19932	25.33843	4.131888
#1	.0051827	-.009035	.0046812
#2	.0065121	-.012697	.0049339
#3	.0050932	-.007908	.0050815

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5029.690	40638.70	2253.662	3608.874	5285.908
Stddev	6.003	205.87	4.525	19.914	4.329
%RSD	.1193502	.5065842	.2007796	.5518020	.0818951
#1	5034.341	40435.63	2248.491	3603.140	5286.705
#2	5031.815	40847.26	2255.597	3631.026	5281.236
#3	5022.913	40633.20	2256.897	3592.457	5289.783

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV01 Acquired: 6/24/2025 19:34:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**4.862855**	**4.968828**	**4.914687**	**5.007493**	**5.005195**	**9.831458**	**9.869307**
Stddev	.007004	.007199	.013670	.013602	.009466	.028864	.042036
%RSD	.1440310	.1448744	.2781374	.2716277	.1891211	.2935881	.4259256
#1	4.870853	4.971415	4.930452	5.012533	5.015579	9.802715	9.830174
#2	4.857818	4.974375	4.906130	5.017856	5.002961	9.860442	9.913742
#3	4.859893	4.960693	4.907480	4.992091	4.997047	9.831216	9.864005

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2473785**	**2.471911**	**23.96245**	**.9852367**	**2.465501**	**1.207946**	**4.873379**
Stddev	.0034017	.007062	.11519	.0016677	.003779	.013024	.083170
%RSD	1.375112	.2857077	.4807156	.1692674	.1532837	1.078217	1.706615
#1	.2435108	2.479715	23.94939	.9833766	2.469200	1.193190	4.804048
#2	.2499059	2.470059	24.08361	.9857355	2.465657	1.217839	4.965595
#3	.2487189	2.465959	23.85434	.9865982	2.461647	1.212809	4.850492

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.440723**	**24.36941**	**2.462987**	**1.248340**	**24.00185**	**2.429164**	**2.493205**
Stddev	.013801	.10921	.004083	.000463	.41936	.012839	.005811
%RSD	.5654488	.4481343	.1657908	.0370899	1.747183	.5285338	.2330672
#1	2.431109	24.26146	2.467697	1.248659	23.52147	2.426115	2.491680
#2	2.456537	24.47983	2.460825	1.248551	24.18926	2.443253	2.488309
#3	2.434524	24.36693	2.460439	1.247809	24.29483	2.418123	2.499627

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.69372**	**4.911665**	**4.860542**	**5.002642**	**4.848464**	**4.802534**	**4.947844**
Stddev	.47792	.014498	.063022	.003696	.012173	.064444	.011486
%RSD	2.017078	.2951837	1.296596	.0738840	.2510596	1.341869	.2321353
#1	23.21785	4.928388	4.787880	5.006802	4.857527	4.729586	4.958572
#2	23.68965	4.903988	4.900316	4.999738	4.834629	4.851735	4.949232
#3	24.17366	4.902619	4.893431	5.001385	4.853238	4.826280	4.935727

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV01 Acquired: 6/24/2025 19:34:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.877766**	**4.923174**	**4.893390**
Stddev	.036801	.026926	.020361
%RSD	.7544682	.5469337	.4160865
#1	4.846246	4.901599	4.887866
#2	4.918208	4.953350	4.915944
#3	4.868843	4.914572	4.876362

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4840.653**	**39265.33**	**2223.830**	**3478.113**	**4819.870**
Stddev	5.377	30.18	18.584	14.525	8.246
%RSD	.1110880	.0768603	.8356550	.4175983	.1710924
#1	4838.360	39275.22	2245.023	3465.450	4816.150
#2	4846.797	39289.33	2210.320	3493.968	4829.321
#3	4836.802	39231.45	2216.148	3474.920	4814.140

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB01 Acquired: 6/24/2025 19:39:02 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.000167**	**-.000041**	**.0015126**	**-.000599**	**.0023089**	**-.011817**	**-.000686**
Stddev	.002234	.000492	.0005560	.004540	.0012059	.020378	.000484
%RSD	1341.319	1200.558	36.75705	757.7941	52.23009	172.4511	70.58212
#1	.001411	.000255	.0008858	-.005251	.0032420	-.011933	-.000161
#2	-.002722	.000231	.0019461	.003819	.0009472	.008620	-.000783
#3	.000812	-.000609	.0017061	-.000365	.0027375	-.032137	-.001114

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000131**	**.0000060**	**-.021213**	**-.001377**	**.0001507**	**-.000583**	**-.002712**
Stddev	.0000525	.0000237	.019480	.001108	.0002371	.000558	.003154
%RSD	401.4710	392.4062	91.83076	80.46968	157.3697	95.67288	116.2756
#1	.0000367	.0000263	-.018909	-.001535	.0003133	-.001108	.000885
#2	.0000497	-.000020	-.002988	-.000198	-.000121	.000003	-.005002
#3	-.000047	.000012	-.041743	-.002398	.000260	-.000644	-.004019

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020902**	**.0233233**	**.0000959**	**-.001792**	**.0487080**	**-.003291**	**-.001697**
Stddev	.0003295	.0428077	.0001718	.001337	.0101730	.006293	.000487
%RSD	15.76429	183.5401	179.1288	74.62642	20.88569	191.2312	28.69243
#1	.0019924	-.019981	-.000096	-.002273	.0384692	-.000932	-.001170
#2	.0018207	.065616	.000147	-.000281	.0588139	-.010423	-.001790
#3	.0024576	.024335	.000236	-.002821	.0488408	.001482	-.002131

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001018**	**.0003079**	**.0111169**	**.0000238**	**-.002559**	**-.006474**	**-.000791**
Stddev	.000647	.0019904	.0006003	.0001637	.002887	.000162	.000277
%RSD	63.52815	646.4201	5.399856	688.2588	112.8362	2.498558	34.99184
#1	-.001325	-.001946	.0112440	-.000101	-.002193	-.006607	-.000779
#2	-.001455	.001825	.0116435	.000209	.000128	-.006294	-.001073
#3	-.000275	.001045	.0104632	-.000037	-.005611	-.006521	-.000520

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB01 Acquired: 6/24/2025 19:39:02 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005805	.0027447	.0003026
Stddev	.0017152	.0038712	.0001738
%RSD	295.4824	141.0432	57.45967
#1	.0008440	-.001725	.0003114
#2	.0021486	.005006	.0001244
#3	-.001251	.004954	.0004718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5065.407	41491.79	2259.240	3653.409	5539.532
Stddev	10.247	419.54	22.659	23.274	6.877
%RSD	.2022935	1.011138	1.002934	.6370381	.1241384
#1	5066.675	41408.77	2255.685	3655.237	5545.156
#2	5054.585	41119.97	2238.570	3629.275	5531.865
#3	5074.961	41946.64	2283.467	3675.715	5541.573

Sample Name: PB168584BL Acquired: 6/24/2025 19:43:32 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004444**	**-.000863**	**-.000545**	**-.000752**	**.0009914**	**-.016683**	**-.001601**
Stddev	.0036081	.001515	.000197	.001878	.0005671	.018402	.001336
%RSD	811.9642	175.6041	36.09532	249.7787	57.20056	110.3048	83.45717
#1	.0031307	-.002607	-.000325	.001345	.0007554	-.013668	-.002412
#2	.0018592	-.000117	-.000703	-.002281	.0016383	.000025	-.000059
#3	-.003657	.000134	-.000608	-.001320	.0005804	-.036406	-.002330

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000007**	**-.000078**	**-.016684**	**-.001810**	**-.000413**	**-.001383**	**.0058791**
Stddev	.000037	.000014	.010725	.001056	.000313	.000301	.0086812
%RSD	559.8923	17.53429	64.28584	58.32885	75.89166	21.79115	147.6610
#1	-.000012	-.000078	-.004336	-.001254	-.000346	-.001589	.0122639
#2	.000032	-.000092	-.023686	-.003028	-.000755	-.001524	.0093793
#3	-.000041	-.000065	-.022029	-.001149	-.000139	-.001037	-.004006

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028587**	**.0248607**	**-.000343**	**-.000612**	**.0209117**	**.0006335**	**-.002172**
Stddev	.0003760	.0755307	.000124	.001150	.0144219	.0021124	.000599
%RSD	13.15277	303.8157	36.24091	188.0703	68.96575	333.4263	27.60342
#1	.0025012	.1115765	-.000389	.000691	.0204589	.0030724	-.002802
#2	.0032508	-.026570	-.000202	-.001488	.0355547	-.000555	-.001609
#3	.0028240	-.010425	-.000437	-.001038	.0067215	-.000617	-.002104

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006176**	**-.000375**	**.0025849**	**-.000224**	**-.003967**	**-.007563**	**-.001052**
Stddev	.001099	.002492	.0005683	.000471	.003434	.002217	.000709
%RSD	17.79608	663.8797	21.98404	210.0894	86.56330	29.31203	67.43640
#1	-.007396	-.000704	.0028154	-.000300	-.007930	-.007741	-.000822
#2	-.005263	.002265	.0030018	.000280	-.002110	-.005262	-.001847
#3	-.005869	-.002687	.0019377	-.000652	-.001862	-.009685	-.000486

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: PB168584BL Acquired: 6/24/2025 19:43:32 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0036864	-.012906	.0002639
Stddev	.0028358	.005993	.0002565
%RSD	76.92517	46.43366	97.19994
#1	.0038886	-.011773	.0003691
#2	.0007550	-.019384	.0004511
#3	.0064156	-.007561	-.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5049.939	41411.47	2286.414	3650.427	5520.099
Stddev	13.210	140.34	18.748	11.834	16.242
%RSD	.2615842	.3388911	.8199903	.3241861	.2942335
#1	5035.452	41559.15	2294.915	3664.049	5504.521
#2	5061.317	41395.42	2299.406	3644.561	5536.932
#3	5053.048	41279.85	2264.921	3642.672	5518.843

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: PB168584BS Acquired: 6/24/2025 19:48:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7320401**	**2.036135**	**.9701955**	**2.048834**	**.8197600**	**2.030717**
Stddev	.0023146	.003338	.0019026	.002551	.0040725	.008440
%RSD	.3161857	.1639386	.1961061	.1245142	.4967909	.4156083
#1	.7336110	2.039839	.9699258	2.050278	.8238060	2.034227
#2	.7293821	2.035209	.9722186	2.045889	.8198126	2.021089
#3	.7331272	2.033358	.9684421	2.050337	.8156615	2.036836

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2032795**	**.2127813**	**.1944077**	**.9872690**	**.4052979**	**.1987150**
Stddev	.0015523	.0006445	.0002582	.0221752	.0003171	.0004946
%RSD	.7636257	.3029046	.1328290	2.246119	.0782476	.2488845
#1	.2019786	.2133452	.1947018	.9617389	.4052462	.1981681
#2	.2049978	.2129201	.1943031	.9983302	.4050098	.1988463
#3	.2028621	.2120787	.1942182	1.001738	.4056377	.1991308

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3189930**	**3.207256**	**.2095590**	**2.093328**	**.4990406**	**.0775748**
Stddev	.0013734	.015005	.0011419	.067096	.0000737	.0013241
%RSD	.4305437	.4678582	.5448954	3.205238	.0147737	1.706800
#1	.3204502	3.193659	.2108472	2.066955	.4989697	.0770752
#2	.3177225	3.223355	.2091587	2.043426	.4991169	.0790760
#3	.3188063	3.204753	.2086712	2.169604	.4990351	.0765732

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.881242**	**.3034585**	**.2097443**	**8.385965**	**5.611770**	**.3000663**
Stddev	.019677	.0076763	.0009249	.008102	.005203	.0018516
%RSD	.6829496	2.529609	.4409833	.0966151	.0927135	.6170647
#1	2.875358	.2991435	.2107326	8.381085	5.616747	.3020357
#2	2.865177	.3123213	.2088994	8.395317	5.612196	.2983608
#3	2.903190	.2989106	.2096008	8.381491	5.606368	.2998026

Sample Name: PB168584BS Acquired: 6/24/2025 19:48:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4077317	F -.003185	.9140176	.6804155	.1991984	.2008581
Stddev	.0008934	.001433	.0020471	.0013076	.0045964	.0060344
%RSD	.2191125	44.99242	.2239701	.1921815	2.307426	3.004321
#1	.4077274	-.001607	.9160251	.6806649	.1958166	.2029883
#2	.4068404	-.004406	.9119331	.6790011	.1973469	.2055386
#3	.4086272	-.003543	.9140946	.6815804	.2044318	.1940475

Elem	Sr4077
Units	ppm
Avg	.2029167
Stddev	.0011337
%RSD	.5586902
#1	.2016096
#2	.2036322
#3	.2035084

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5004.730	41126.68	2262.203	3634.160	5338.742
Stddev	13.785	95.06	4.932	12.410	8.808
%RSD	.2754471	.2311314	.2179962	.3414920	.1649748
#1	5011.965	41193.97	2260.106	3632.130	5339.171
#2	5013.392	41168.12	2267.836	3647.460	5347.327
#3	4988.833	41017.93	2258.667	3622.890	5329.727

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: PB168583BL Acquired: 6/24/2025 19:52:22 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016449**	**.0006639**	**.0019445**	**.0026073**	**.0027182**	**-.005831**	**-.000565**
Stddev	.0026639	.0008219	.0004161	.0038039	.0022353	.021481	.001086
%RSD	161.9478	123.7977	21.40076	145.8930	82.23251	368.3796	192.3034
#1	.0031739	.0009299	.0023648	.0010277	.0031907	.007585	-.001549
#2	.0031918	.0013199	.0015327	.0069465	.0002845	.005529	-.000747
#3	-.001431	-.000258	.0019360	-.000152	.0046795	-.030607	.000601

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000081**	**-.000108**	**-.024122**	**-.000912**	**.0001189**	**-.000946**	**-.004358**
Stddev	.000046	.000072	.019028	.000499	.0000829	.000858	.010103
%RSD	56.97753	67.15300	78.88448	54.69470	69.71674	90.71258	231.8451
#1	-.000035	-.000184	-.045649	-.001485	.0000268	-.000579	-.010401
#2	-.000128	-.000099	-.017170	-.000674	.0001876	-.001927	-.009978
#3	-.000081	-.000040	-.009547	-.000576	.0001422	-.000333	.007306

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019959**	**-.001008**	**.0000595**	**-.001215**	**.0256602**	**-.001328**	**-.001651**
Stddev	.0007673	.008457	.0003058	.000203	.0196985	.004750	.000461
%RSD	38.44471	839.2828	514.2390	16.70753	76.76670	357.5854	27.90296
#1	.0018136	.003908	.0003846	-.001442	.0263967	.000845	-.002111
#2	.0013361	-.010773	.0000160	-.001155	.0056038	.001946	-.001653
#3	.0028379	.003842	-.000222	-.001050	.0449800	-.006776	-.001189

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003689**	**.0024435**	**-.000541**	**.0005959**	**-.002329**	**-.008125**	**-.000013**
Stddev	.002388	.0007897	.001352	.0005392	.004627	.000743	.000664
%RSD	64.72374	32.32054	250.0816	90.48613	198.6961	9.139298	5051.820
#1	-.002580	.0032008	-.002002	-.000027	-.003449	-.007553	-.000058
#2	-.006430	.0016249	-.000284	.000902	-.006292	-.008965	.000672
#3	-.002058	.0025048	.000665	.000913	.002756	-.007858	-.000654

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: PB168583BL Acquired: 6/24/2025 19:52:22 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000403**	**-.013261**	**.0000983**
Stddev	.001597	.003615	.0000906
%RSD	396.0609	27.26287	92.21511
#1	.001438	-.016576	.0000581
#2	-.001415	-.013800	.0002021
#3	-.001232	-.009406	.0000347

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5050.190**	**41283.81**	**2280.325**	**3635.565**	**5515.228**
Stddev	16.199	130.20	17.697	22.574	19.358
%RSD	.3207515	.3153884	.7760562	.6209126	.3510001
#1	5046.634	41138.43	2296.321	3613.533	5517.536
#2	5036.064	41323.29	2283.339	3634.517	5494.819
#3	5067.871	41389.70	2261.315	3658.644	5533.328

Sample Name: PB168583BS Acquired: 6/24/2025 19:56:51 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7287172**	**2.023138**	**.9612599**	**2.033206**	**.8220264**	**2.015215**
Stddev	.0012557	.006485	.0031121	.004940	.0022304	.035238
%RSD	.1723138	.3205257	.3237566	.2429418	.2713271	1.748620
#1	.7287131	2.019818	.9580520	2.027973	.8229969	2.048034
#2	.7299749	2.018985	.9642665	2.037788	.8236071	1.977974
#3	.7274635	2.030610	.9614613	2.033856	.8194752	2.019636

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2021212**	**.2115112**	**.1929669**	**.9851315**	**.4020873**	**.1969877**
Stddev	.0016070	.0020035	.0003808	.0108794	.0003669	.0004229
%RSD	.7950613	.9472424	.1973294	1.104361	.0912517	.2146642
#1	.2030304	.2125977	.1925545	.9768675	.4016647	.1966876
#2	.2030675	.2127367	.1930409	.9974574	.4022728	.1968042
#3	.2002657	.2091991	.1933053	.9810695	.4023245	.1974713

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3172856**	**3.142890**	**.2065727**	**2.060507**	**.4960430**	**.0764729**
Stddev	.0020479	.005590	.0009256	.045620	.0011825	.0009076
%RSD	.6454440	.1778528	.4480912	2.213998	.2383893	1.186867
#1	.3186803	3.148499	.2056007	2.013810	.4947030	.0770215
#2	.3182421	3.137320	.2074437	2.062746	.4969401	.0769720
#3	.3149345	3.142851	.2066735	2.104967	.4964860	.0754253

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.835361**	**.2979056**	**.2072819**	**8.281997**	**5.569146**	**.2991560**
Stddev	.011405	.0036100	.0009643	.071760	.018345	.0024050
%RSD	.4022458	1.211805	.4652145	.8664616	.3293973	.8039370
#1	2.844900	.2983953	.2080672	8.359555	5.549048	.3014478
#2	2.838454	.2940758	.2062056	8.268479	5.573400	.2993685
#3	2.822728	.3012459	.2075728	8.217958	5.584989	.2966518

Sample Name: PB168583BS Acquired: 6/24/2025 19:56:51 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4070811	F -.000591	.9116723	.6781830	.1947072	.2034027
Stddev	.0005839	.001340	.0098817	.0008664	.0052190	.0090737
%RSD	.1434278	226.9339	1.083908	.1277485	2.680435	4.460953
#1	.4066945	.000301	.9208920	.6779124	.1973128	.2137761
#2	.4067961	-.002132	.9128845	.6774842	.1981103	.1994911
#3	.4077528	.000059	.9012404	.6791524	.1886984	.1969408

Elem	Sr4077
Units	ppm
Avg	.2008009
Stddev	.0010833
%RSD	.5394625
#1	.2018849
#2	.2007994
#3	.1997184

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5029.810	41126.41	2256.318	3621.016	5363.054
Stddev	11.836	118.61	14.229	10.257	5.830
%RSD	.2353160	.2884116	.6306349	.2832514	.1087105
#1	5017.667	41256.20	2252.767	3627.472	5357.165
#2	5030.450	41099.38	2244.200	3626.387	5363.175
#3	5041.313	41023.64	2271.986	3609.189	5368.823

Sample Name: Q2380-01 Acquired: 6/24/2025 20:01:12 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0886636**	**-.009480**	**.8143115**	**.1329125**	**.0344637**	**174.6422**	**1.187660**
Stddev	.0026270	.004605	.0081384	.0021205	.0049712	.4560	.004913
%RSD	2.962867	48.57655	.9994157	1.595401	14.42446	.2610865	.4136596
#1	.0911060	-.010332	.8098937	.1308104	.0318729	175.1338	1.193022
#2	.0890003	-.013600	.8093374	.1328764	.0313230	174.2331	1.183376
#3	.0858845	-.004509	.8237034	.1350509	.0401952	174.5596	1.186582

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0161640**	**-.000657**	**26.22242**	**.2790341**	**.2437024**	**.3631466**	**398.6114**
Stddev	.0001153	.000057	.03262	.0008950	.0009112	.0047534	.6611
%RSD	.7134445	8.734026	.1244023	.3207485	.3738947	1.308955	.1658460
#1	.0162169	-.000626	26.25872	.2789746	.2435716	.3669805	399.3724
#2	.0162435	-.000723	26.19556	.2799574	.2428637	.3646313	398.1790
#3	.0160318	-.000622	26.21299	.2781704	.2446720	.3578280	398.2828

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.420951**	**80.52917**	**.4674690**	**-.030221**	**5.214494**	**.4407686**	**1.391926**
Stddev	.018696	.23773	.0021279	.000399	.061531	.0060221	.006346
%RSD	.1984531	.2952070	.4551994	1.320285	1.179991	1.366275	.4559165
#1	9.440854	80.78123	.4665771	-.030621	5.252387	.4458055	1.390463
#2	9.418243	80.49729	.4659321	-.029823	5.247596	.4424022	1.398875
#3	9.403757	80.30899	.4698977	-.030217	5.143498	.4340983	1.386439

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.45433**	**7.628673**	**.1467835**	**.0133216**	**1.601503**	**2.359060**	**.0650682**
Stddev	.32479	.045634	.0036111	.0009749	.002364	.041499	.0012387
%RSD	1.328133	.5981893	2.460126	7.318323	.1476428	1.759135	1.903731
#1	24.78418	7.621679	.1431320	.0135096	1.601139	2.392833	.0636890
#2	24.44394	7.586939	.1468656	.0122664	1.599341	2.371613	.0654295
#3	24.13486	7.677400	.1503527	.0141889	1.604028	2.312733	.0660861

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2380-01 Acquired: 6/24/2025 20:01:12 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.685673	.4319895	.1972413
Stddev	.009656	.0042965	.0004939
%RSD	.2619851	.9945929	.2503810
#1	3.696127	.4367838	.1976058
#2	3.677089	.4306974	.1966792
#3	3.683802	.4284872	.1974387

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5978.193	47973.66	2816.786	4322.824	4637.498
Stddev	17.003	176.49	24.957	11.306	23.619
%RSD	.2844151	.3678950	.8860090	.2615478	.5093098
#1	5969.748	48171.39	2795.674	4329.867	4633.334
#2	5997.765	47832.05	2810.354	4309.783	4662.922
#3	5967.066	47917.54	2844.329	4328.822	4616.238

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2380-03 Acquired: 6/24/2025 20:05:34 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0763435**	**-.008758**	**1.927122**	**.1010070**	**.0399036**	**162.8449**	**1.922534**
Stddev	.0067657	.000803	.012430	.0055977	.0002690	.5692	.005334
%RSD	8.862139	9.173563	.6450178	5.541904	.6740096	.3495467	.2774225
#1	.0729328	-.009091	1.913417	.1070345	.0400736	163.4626	1.928280
#2	.0841357	-.009341	1.937668	.0959718	.0400437	162.7304	1.921583
#3	.0719621	-.007841	1.930280	.1000147	.0395935	162.3415	1.917741

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137057**	**.0049148**	**156.6088**	**.3424504**	**.2238911**	**.6180284**	**374.3631**
Stddev	.0018650	.0001630	.2378	.0035506	.0011744	.0732880	1.1964
%RSD	13.60763	3.317419	.1518356	1.036827	.5245222	11.85835	.3195706
#1	.0146233	.0047690	156.8607	.3403001	.2233438	.6604067	375.4995
#2	.0115596	.0048844	156.5774	.3465486	.2230903	.5334028	374.4751
#3	.0149341	.0050908	156.3883	.3405024	.2252392	.6602758	373.1147

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.654386**	**82.90955**	**.4557706**	**-.029001**	**^ *****	**.3917389**	**2.462861**
Stddev	.017586	.29910	.0018008	.001293	-----	.0086594	.053274
%RSD	.2642736	.3607495	.3951059	4.457662	-----	2.210492	2.163089
#1	6.668841	83.19095	.4539127	-.028271	7.084157	.4016909	2.437085
#2	6.659510	82.94225	.4558908	-.030493	^ -----	.3859244	2.524120
#3	6.634808	82.59544	.4575083	-.028237	7.057079	.3876014	2.427377

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.98090**	**8.206514**	**.1677407**	**.0211540**	**6.255569**	**7.869230**	**.5233164**
Stddev	.26082	.210466	.0338187	.0007535	.173494	.897425	.0051602
%RSD	1.003885	2.564626	20.16129	3.562145	2.773436	11.40423	.9860602
#1	25.82200	7.969617	.1502810	.0215850	6.065693	8.407643	.5178611
#2	26.28192	8.371930	.2067208	.0202839	6.405829	6.833241	.5281195
#3	25.83880	8.277996	.1462205	.0215930	6.295184	8.366806	.5239686

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2380-03 Acquired: 6/24/2025 20:05:34 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**3.425285**	**.3760731**	**.7687433**
Stddev	.017255	.0009261	.0025671
%RSD	.5037517	.2462507	.3339275
#1	3.442331	.3770518	.7717047
#2	3.425695	.3759571	.7673728
#3	3.407829	.3752106	.7671523

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5417.643**	**42208.74**	**2682.198**	**3813.604**	**4300.368**
Stddev	219.149	5701.94	16.481	465.437	174.818
%RSD	4.045107	13.50891	.6144469	12.20464	4.065198
#1	5663.862	45315.20	2663.728	4062.525	4499.517
#2	5243.951	35628.13	2687.460	3276.639	4172.226
#3	5345.116	45682.89	2695.405	4101.649	4229.360

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2380-05 Acquired: 6/24/2025 20:09:53 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1686436**	**-.015985**	**1.069327**	**.0488348**	**.0239530**	**78.13040**	**.6437263**
Stddev	.0017216	.001455	.004689	.0032931	.0034885	.25201	.0029635
%RSD	1.020874	9.104850	.4384591	6.743408	14.56393	.3225566	.4603639
#1	.1682030	-.017666	1.065673	.0526217	.0245671	78.42115	.6465516
#2	.1671850	-.015147	1.067694	.0472401	.0201983	77.97462	.6406417
#3	.1705427	-.015143	1.074613	.0466426	.0270937	77.99542	.6439855

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062393**	**.0015616**	**34.83868**	**.1441409**	**.1029870**	**1.935168**	**176.0642**
Stddev	.0011629	.0000670	.10614	.0025820	.0009017	.250023	.6525
%RSD	18.63806	4.287388	.3046578	1.791310	.8755757	12.91994	.3705783
#1	.0070701	.0015029	34.95316	.1421141	.1030256	2.087590	176.6875
#2	.0067375	.0015473	34.81933	.1432607	.1020666	2.071294	175.3861
#3	.0049103	.0016345	34.74354	.1470479	.1038688	1.646620	176.1190

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.894162**	**38.60664**	**.1855781**	**-.012208**	**^ *****	**.3056616**	**1.517002**
Stddev	.021605	.05225	.0009813	.000886	-----	.0037763	.048207
%RSD	.5548112	.1353440	.5287657	7.261171	-----	1.235435	3.177787
#1	3.917348	38.65834	.1844485	-.011435	4.128660	.3056171	1.492376
#2	3.890544	38.60772	.1860661	-.012013	4.099234	.3019078	1.486082
#3	3.874594	38.55385	.1862198	-.013176	^ -----	.3094599	1.572548

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.415217**	**3.983306**	**.0878006**	**.0078093**	**1.870390**	**5.305707**	**.0694886**
Stddev	.136447	.102991	.0157572	.0005395	.065355	.653218	.0015757
%RSD	1.449217	2.585555	17.94655	6.907848	3.494168	12.31160	2.267623
#1	9.555407	3.929771	.0794399	.0072971	1.824706	5.716991	.0705210
#2	9.407395	3.918109	.0779859	.0083724	1.841214	5.647630	.0702700
#3	9.282850	4.102039	.1059761	.0077585	1.945251	4.552500	.0676749

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2380-05 Acquired: 6/24/2025 20:09:53 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**3.247784**	**.1598112**	**.2142967**
Stddev	.004989	.0073106	.0003503
%RSD	.1535980	4.574510	.1634589
#1	3.253517	.1678989	.2145325
#2	3.245402	.1578617	.2138942
#3	3.244433	.1536730	.2144635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5249.298**	**40510.91**	**2498.403**	**3612.884**	**4859.796**
Stddev	199.473	5717.95	19.409	492.728	184.186
%RSD	3.799995	14.11459	.7768706	13.63807	3.790002
#1	5378.940	43744.73	2475.997	3877.141	4979.566
#2	5349.354	43879.15	2509.133	3917.113	4952.115
#3	5019.601	33908.85	2510.078	3044.400	4647.707

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01 Acquired: 6/24/2025 20:14:16 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0714221	k -.046444	k .7003911	k .0588225	k .0409595	^ *****	^ *****
Stddev	.0337477	.006716	.0296902	.1131783	.0017636	-----	---
%RSD	47.25106	14.46032	4.239086	192.4064	4.305720	-----	---
#1	.0901746	-.040886	.7206568	.1259366	.0400484	194.4669	1.009695
#2	k .0324627	k -.053906	k .6663108	k -.071848	k .0429923	^ -----	^ ---
#3	.0916290	-.044539	.7142058	.122379	.0398378	192.4065	1.000388

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0149427	k .0060705	^ *****	k .2852929	k .3212471	k .4989777	^ *****
Stddev	.0020333	.0092303	-----	.0245412	.0076015	.0206061	---
%RSD	13.60730	152.0519	-----	8.602109	2.366261	4.129667	---
#1	.0139555	.0007558	52.52066	.2715104	.3180230	.5139855	400.315
#2	k .0172812	k .0167288	^ -----	k .3136272	k .3299293	k .4754836	^ ---
#3	.0135916	.0007270	51.83412	.2707412	.3157890	.5074639	395.926

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	56.92633	.3522582	k -.071163	3.454851	k .9934409	1.092225
Stddev	-----	.27116	.0011513	.071545	.022556	.0117211	.001340
%RSD	-----	.4763340	.3268367	100.5363	.6528783	1.179850	.1226618
#1	9.234983	57.22212	.3535339	-.028982	3.480069	1.006886	1.093649
#2	^ -----	56.86737	.3512964	k -.153770	3.436602	k .985373	1.090989
#3	9.138734	56.68951	.3519444	-.030738	3.447882	.988063	1.092037

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.00728	k 11.51584	k .0274291	.0092541	k 6.717386	k 6.432444	.0237633
Stddev	.18560	.10830	.2756454	.0002804	.043632	.065310	.0009906
%RSD	1.545725	.9404198	1004.938	3.029953	.6495347	1.015315	4.168434
#1	11.92738	11.61784	.1881557	.0089332	6.762114	6.445789	.0231386
#2	12.21944	k 11.40219	k -.290853	.0094518	k 6.674940	k 6.490050	.0249054
#3	11.87500	11.52748	.184985	.0093772	6.715104	6.361493	.0232458

Sample Name: Q2381-01 Acquired: 6/24/2025 20:14:16 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	^ *****	.1616976	.2180210
Stddev	-----	.0046951	.0017157
%RSD	-----	2.903646	.7869203
#1	6.761356	.1670520	.2185522
#2	^ -----	.1597563	.2194082
#3	6.693236	.1582844	.2161025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6000.099	50890.97	2972.884	4575.432	4464.059
Stddev	49.582	252.47	12.389	24.703	27.509
%RSD	.8263579	.4961046	.4167167	.5399152	.6162392
#1	6049.975	51178.41	2981.207	4603.398	4493.183
#2	5999.508	50705.12	2958.647	4556.581	4460.479
#3	5950.815	50789.38	2978.799	4566.316	4438.515

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01DUP Acquired: 6/24/2025 20:18:36 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0925184**	**-.044660**	**.7238209**	**.1250704**	**.0398094**	**195.3317**	**1.012290**
Stddev	.0063257	.000273	.0040898	.0002966	.0025638	.6183	.002504
%RSD	6.837226	.6116152	.5650266	.2371324	6.440074	.3165138	.2473675
#1	.0997539	-.044496	.7202315	.1253745	.0390729	195.9970	1.015129
#2	.0880344	-.044976	.7282734	.1250547	.0426608	194.7748	1.011345
#3	.0897670	-.044509	.7229579	.1247820	.0376945	195.2234	1.010395

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0136208**	**.0005829**	**52.68549**	**.2720723**	**.3203705**	**.5084200**	**400.7962**
Stddev	.0003649	.0001385	.14865	.0006309	.0003521	.0043126	1.2580
%RSD	2.679326	23.76397	.2821404	.2318840	.1098879	.8482331	.3138643
#1	.0136617	.0004906	52.85665	.2727883	.3205534	.5112604	401.8555
#2	.0139635	.0007422	52.58881	.2715979	.3199647	.5105421	399.4058
#3	.0132371	.0005159	52.61100	.2718308	.3205935	.5034576	401.1273

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.225974**	**57.28037**	**.3573573**	**-.031527**	**3.414583**	**1.012382**	**1.096076**
Stddev	.028458	.21687	.0017292	.001025	.025310	.004991	.000326
%RSD	.3084605	.3786174	.4838762	3.252279	.7412451	.4930342	.0297783
#1	9.258786	57.52881	.3556061	-.031872	3.443508	1.017886	1.096438
#2	9.211126	57.12891	.3590636	-.032335	3.403743	1.008149	1.095804
#3	9.208011	57.18338	.3574023	-.030374	3.396498	1.011110	1.095987

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.22567**	**11.52033**	**.2036945**	**.0093216**	**6.616610**	**8.445117**	**.0236659**
Stddev	2.77526	.18180	.0003287	.0002056	.080880	.079859	.0018929
%RSD	27.14017	1.578088	.1613512	2.205617	1.222384	.9456217	7.998274
#1	11.89179	11.40096	.2036909	.0094042	6.562590	8.494677	.0222419
#2	7.02193	11.72957	.2033677	.0094730	6.709597	8.487681	.0229419
#3	11.76328	11.43047	.2040250	.0090875	6.577642	8.352992	.0258139

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01DUP Acquired: 6/24/2025 20:18:36 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.031030	.1660426	.2190950
Stddev	.026869	.0052607	.0009251
%RSD	.3821443	3.168251	.4222180
#1	7.061455	.1649952	.2201623
#2	7.010557	.1717481	.2185244
#3	7.021078	.1613844	.2185982

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6081.920	50796.05	3009.537	4564.045	4505.451
Stddev	56.010	105.11	23.151	10.940	50.406
%RSD	.9209216	.2069191	.7692515	.2397030	1.118778
#1	6142.932	50774.14	2997.028	4563.439	4562.687
#2	6069.995	50703.62	2995.332	4553.421	4485.989
#3	6032.834	50910.38	3036.252	4575.276	4467.677

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01LX5 Acquired: 6/24/2025 20:32:51 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0211132**	**-.008492**	**.1340966**	**.0217912**	**.0104749**	**43.77419**	**.2321193**
Stddev	.0010328	.000521	.0015989	.0023629	.0016072	.13076	.0008588
%RSD	4.891698	6.129781	1.192318	10.84333	15.34357	.2987179	.3699747
#1	.0218452	-.007926	.1347465	.0243244	.0122538	43.63324	.2328252
#2	.0199319	-.008600	.1352681	.0196469	.0091274	43.89155	.2323695
#3	.0215626	-.008951	.1322751	.0214023	.0100434	43.79777	.2311632

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030644**	**-.000915**	**12.01416**	**.0624248**	**.0601009**	**.1137255**	**93.60077**
Stddev	.0005766	.000029	.06956	.0007467	.0003584	.0148997	.16062
%RSD	18.81672	3.221538	.5790157	1.196162	.5962661	13.10143	.1716002
#1	.0024382	-.000947	11.94215	.0632855	.0596873	.0965708	93.41533
#2	.0035734	-.000909	12.01935	.0619499	.0602952	.1234376	93.69089
#3	.0031817	-.000889	12.08099	.0620391	.0603201	.1211680	93.69611

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.171496**	**13.39994**	**.0632557**	**-.007458**	**^ *****	**.2342268**	**.2538230**
Stddev	.008203	.06459	.0007215	.001994	-----	.0007034	.0096518
%RSD	.3777462	.4820088	1.140567	26.73105	-----	.3002919	3.802571
#1	2.162332	13.32561	.0638024	-.009760	^ -----	.2348851	.2649379
#2	2.174006	13.43174	.0635267	-.006325	.8099756	.2334857	.2475581
#3	2.178151	13.44246	.0624379	-.006289	.7310104	.2343095	.2489728

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**^ *****	**1.969437**	**.0436358**	**.0027209**	**1.130053**	**.6408513**	**.0045589**
Stddev	-----	.028688	.0079077	.0005381	.018040	.0836109	.0006408
%RSD	-----	1.456667	18.12201	19.77780	1.596400	13.04685	14.05691
#1	^ -----	2.000757	.0527629	.0033416	1.149053	.5443059	.0038374
#2	2.148439	1.944433	.0388390	.0024343	1.113157	.6889456	.0047774
#3	2.142321	1.963121	.0393057	.0023866	1.127949	.6893023	.0050619

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01LX5 Acquired: 6/24/2025 20:32:51 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.453760	.0297466	.0502657
Stddev	.008181	.0048764	.0001109
%RSD	.5627185	16.39299	.2205354
#1	1.445331	.0353087	.0501624
#2	1.454281	.0277250	.0503828
#3	1.461667	.0262063	.0502519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5199.838	40057.62	2412.106	3572.122	5060.392
Stddev	119.353	5837.34	29.305	492.609	114.802
%RSD	2.295327	14.57236	1.214926	13.79037	2.268640
#1	5070.473	33317.79	2437.955	3003.315	4936.808
#2	5305.675	43352.61	2380.269	3853.800	5163.713
#3	5223.368	43502.45	2418.095	3859.250	5080.655

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV02 Acquired: 6/24/2025 20:37:08 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**4.883809**	**4.994201**	**4.934986**	**5.052964**	**5.049057**	**9.827353**	**9.906066**
Stddev	.003578	.008870	.005862	.003925	.003628	.025324	.020611
%RSD	.0732553	.1775987	.1187942	.0776788	.0718512	.2576934	.2080644
#1	4.882008	4.984071	4.928227	5.056460	5.044896	9.798829	9.900894
#2	4.887929	4.997960	4.938032	5.048718	5.050715	9.836037	9.888533
#3	4.881489	5.000573	4.938699	5.053714	5.051559	9.847193	9.928770

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2480439**	**2.479846**	**23.97322**	**.9797559**	**2.483913**	**1.203947**	**4.877877**
Stddev	.0026748	.001803	.05442	.0035109	.002620	.011633	.015043
%RSD	1.078379	.0727244	.2269840	.3583433	.1054935	.9662734	.3083978
#1	.2451403	2.478355	23.92465	.9758893	2.481431	1.191074	4.877185
#2	.2504077	2.479332	23.96299	.9806339	2.483656	1.213707	4.863192
#3	.2485837	2.481850	24.03203	.9827444	2.486652	1.207059	4.893255

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.435454**	**24.25507**	**2.483573**	**1.256979**	**23.83363**	**2.438860**	**2.491386**
Stddev	.006819	.08698	.001609	.002052	.15399	.011764	.003246
%RSD	.2800050	.3586249	.0647931	.1632507	.6461242	.4823537	.1302703
#1	2.431983	24.27560	2.482265	1.258608	23.65582	2.432337	2.487640
#2	2.431067	24.15966	2.483083	1.254675	23.92431	2.431802	2.493364
#3	2.443310	24.32996	2.485370	1.257655	23.92076	2.452440	2.493154

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.80258**	**4.943225**	**4.841138**	**5.062972**	**4.835752**	**4.815490**	**4.970124**
Stddev	.17443	.007486	.042112	.006324	.009259	.056473	.007400
%RSD	.7328389	.1514335	.8698682	.1249146	.1914639	1.172730	.1488933
#1	23.61470	4.947511	4.795135	5.058527	4.825406	4.753290	4.961703
#2	23.95940	4.934581	4.877785	5.060178	4.838592	4.863546	4.973081
#3	23.83365	4.947581	4.850493	5.070213	4.843259	4.829634	4.975589

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV02 Acquired: 6/24/2025 20:37:08 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.858121**	**4.922291**	**4.903676**
Stddev	.008986	.020325	.013727
%RSD	.1849700	.4129152	.2799255
#1	4.854380	4.911663	4.889972
#2	4.851610	4.909483	4.903632
#3	4.868374	4.945726	4.917425

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4794.868**	**39333.97**	**2231.467**	**3475.538**	**4803.834**
Stddev	10.212	229.34	10.668	12.063	7.672
%RSD	.2129879	.5830640	.4780550	.3470899	.1597023
#1	4793.742	39135.06	2243.638	3465.661	4802.713
#2	4805.597	39584.83	2223.740	3488.983	4812.005
#3	4785.265	39282.03	2227.022	3471.970	4796.784

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB02 Acquired: 6/24/2025 20:41:25 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**.0006594**	**.0000554**	**.0002681**	**.0013787**	**.0016007**	**.0013891**	**-.000515**
Stddev	.0006925	.0012359	.0005774	.0010440	.0007878	.0051551	.000316
%RSD	105.0130	2229.472	215.3800	75.72658	49.21687	371.1209	61.41966
#1	.0009138	.0014708	.0006902	.0001742	.0022180	.0033258	-.000401
#2	-.000124	-.000494	-.000390	.0019370	.0018707	-.004454	-.000873
#3	.001189	-.000810	.000504	.0020248	.0007134	.005295	-.000272

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000700**	**.0000192**	**-.029913**	**-.001426**	**.0002186**	**-.000400**	**.0118993**
Stddev	.0000496	.0001383	.019002	.000751	.0004932	.000761	.0033764
%RSD	70.94322	718.5883	63.52467	52.62613	225.6749	190.1266	28.37433
#1	.0000288	.0000778	-.049945	-.002293	.0003696	.000159	.0126434
#2	.0000561	-.000139	-.012144	-.001012	.0006186	-.000093	.0082130
#3	.0001251	.000119	-.027649	-.000974	-.000333	-.001267	.0148416

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018825**	**.0336279**	**.0003161**	**-.000605**	**.0156823**	**-.003196**	**-.001357**
Stddev	.0012879	.0171903	.0001069	.001089	.0122238	.001808	.000168
%RSD	68.41693	51.11916	33.81179	179.9204	77.94665	56.56374	12.34323
#1	.0022690	.0247403	.0004316	.000221	.0216190	-.005249	-.001208
#2	.0004455	.0534426	.0002206	-.000198	.0016239	-.002499	-.001326
#3	.0029329	.0227008	.0002961	-.001839	.0238039	-.001841	-.001539

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007269**	**.0005211**	**.0105663**	**.0001882**	**-.002061**	**-.007122**	**.0002437**
Stddev	.000953	.0013021	.0023414	.0002092	.002770	.001187	.0007449
%RSD	13.11447	249.9017	22.15908	111.1645	134.4505	16.66556	305.6133
#1	-.008137	-.000973	.0124294	.0003024	-.000429	-.008218	.0001862
#2	-.007421	.001416	.0113315	.0003154	-.005259	-.005861	.0010157
#3	-.006248	.001120	.0079381	-.000053	-.000493	-.007287	-.000471

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB02 Acquired: 6/24/2025 20:41:25 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000852**	**-.000425**	**.0003514**
Stddev	.003743	.002346	.0000347
%RSD	439.6112	551.7070	9.861546
#1	-.002328	-.002839	.0003891
#2	.003405	.001846	.0003208
#3	-.003631	-.000283	.0003444

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4982.521**	**41175.46**	**2253.759**	**3610.657**	**5462.049**
Stddev	11.597	245.14	3.763	17.306	6.267
%RSD	.2327585	.5953426	.1669525	.4793031	.1147454
#1	4993.720	40909.05	2249.664	3596.969	5469.257
#2	4983.280	41225.82	2257.064	3604.892	5459.001
#3	4970.563	41391.50	2254.549	3630.110	5457.888

Sample Name: Q2381-01MS Acquired: 6/24/2025 20:45:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8803146**	**1.881441**	**1.665433**	**1.641177**	**.6534627**	**192.5059**	**1.151461**
Stddev	.0064254	.003275	.002521	.001363	.0045073	.1720	.003580
%RSD	.7298996	.1740844	.1513437	.0830489	.6897517	.0893583	.3109010
#1	.8766592	1.879112	1.665484	1.641360	.6580057	192.6694	1.155590
#2	.8877337	1.880024	1.662887	1.639732	.6489920	192.3265	1.149218
#3	.8765508	1.885186	1.667927	1.642440	.6533906	192.5219	1.149575

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1657108**	**.1974133**	**52.41330**	**.5721501**	**.5147828**	**.7259662**	**397.3159**
Stddev	.0005343	.0001107	.16457	.0031540	.0000478	.0038510	.0672
%RSD	.3224080	.0560727	.3139895	.5512532	.0092946	.5304668	.0169131
#1	.1661815	.1972926	52.59799	.5756219	.5148321	.7286734	397.2449
#2	.1651301	.1975100	52.28221	.5694615	.5147365	.7215575	397.3245
#3	.1658209	.1974372	52.35972	.5713670	.5147798	.7276677	397.3785

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.276979**	**57.60819**	**.8472775**	**.0287693**	**5.292421**	**1.212410**	**1.235204**
Stddev	.014607	.05118	.0000407	.0006751	.040291	.011631	.002451
%RSD	.1574532	.0888426	.0048029	2.346752	.7612894	.9593640	.1984148
#1	9.293248	57.64470	.8472890	.0280515	5.315648	1.222984	1.236134
#2	9.272698	57.54969	.8472323	.0293916	5.245897	1.214295	1.232425
#3	9.264990	57.63019	.8473112	.0288648	5.315717	1.199951	1.237054

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.84982**	**16.77107**	**.3960941**	**.3168897**	**6.305755**	**4.335566**	**.7187087**
Stddev	.19093	.01151	.0007652	.0006655	.010103	.012273	.0023042
%RSD	.9618763	.0686462	.1931859	.2099944	.1602227	.2830814	.3206022
#1	20.06881	16.76154	.3968538	.3162515	6.316747	4.349619	.7161084
#2	19.76238	16.76781	.3953235	.3168380	6.303644	4.330133	.7204968
#3	19.71827	16.78386	.3961052	.3175794	6.296874	4.326948	.7195210

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01MS Acquired: 6/24/2025 20:45:55 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**6.519878**	**.3191290**	**.3628887**
Stddev	.006102	.0056589	.0003710
%RSD	.0935945	1.773222	.1022293
#1	6.526891	.3144095	.3632134
#2	6.516963	.3175751	.3624844
#3	6.515780	.3254025	.3629683

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6208.516**	**49995.18**	**2962.257**	**4485.683**	**4634.370**
Stddev	10.916	164.26	12.253	9.936	7.856
%RSD	.1758226	.3285462	.4136291	.2215129	.1695255
#1	6219.197	49877.75	2951.065	4474.401	4643.341
#2	6208.973	49924.91	2975.349	4489.518	4631.050
#3	6197.380	50182.89	2960.358	4493.131	4628.718

Sample Name: Q2381-01MSD Acquired: 6/24/2025 20:50:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8911535**	**1.856431**	**1.657494**	**1.656988**	**.6489042**	**190.4695**	**1.138299**
Stddev	.0108886	.008778	.012453	.038118	.0089373	.6467	.004086
%RSD	1.221858	.4728539	.7512985	2.300451	1.377286	.3395385	.3589375
#1	.8993896	1.860564	1.663905	1.674369	.6529870	191.1958	1.142581
#2	.8788082	1.846350	1.643142	1.613277	.6386547	189.9560	1.134443
#3	.8952628	1.862381	1.665435	1.683317	.6550708	190.2567	1.137873

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1761197**	**.1964187**	**51.77873**	**.5624636**	**.5086939**	**.7636957**	**393.3657**
Stddev	.0188637	.0019860	.29308	.0024623	.0014785	.0728027	1.4338
%RSD	10.71072	1.011079	.5660182	.4377714	.2906510	9.532953	.3644981
#1	.1645708	.1977070	52.11225	.5646849	.5082368	.7172445	394.2130
#2	.1659002	.1941317	51.56230	.5628899	.5074978	.7262422	391.7103
#3	.1978881	.1974176	51.66164	.5598160	.5103469	.8476004	394.1740

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.182680**	**57.01121**	**.8396176**	**.0273251**	**5.606967**	**1.208488**	**1.221668**
Stddev	.042901	.17287	.0037570	.0009834	.577625	.011025	.002166
%RSD	.4671930	.3032152	.4474709	3.598832	10.30191	.9122995	.1772636
#1	9.220113	57.14319	.8431193	.0267134	5.291798	1.216802	1.221769
#2	9.135864	56.81553	.8356489	.0268023	5.255482	1.195982	1.223782
#3	9.192062	57.07490	.8400845	.0284594	6.273621	1.212681	1.219454

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.22176**	**17.04655**	**.3854663**	**.3123074**	**6.439694**	**4.623230**	**.7138864**
Stddev	4.37220	.44041	.0107488	.0002566	.197453	.456903	.0076514
%RSD	22.74610	2.583594	2.788519	.0821792	3.066191	9.882770	1.071788
#1	19.49627	17.31602	.3907262	.3120180	6.563543	4.328372	.7194144
#2	14.71877	16.53831	.3925723	.3123968	6.211987	4.391773	.7051538
#3	23.45023	17.28531	.3731005	.3125074	6.543552	5.149545	.7170908

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01MSD Acquired: 6/24/2025 20:50:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.455026	.3148348	.3599097
Stddev	.030326	.0024839	.0012170
%RSD	.4698031	.7889586	.3381502
#1	6.487339	.3159227	.3611772
#2	6.427183	.3119926	.3587503
#3	6.450555	.3165892	.3598015

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6043.982	50523.55	2808.382	4529.278	4521.535
Stddev	204.109	210.58	278.596	13.480	153.366
%RSD	3.377057	.4167989	9.920145	.2976296	3.391911
#1	5907.738	50390.61	2972.033	4519.562	4418.067
#2	6278.653	50766.34	2966.410	4544.668	4697.736
#3	5945.556	50413.69	2486.704	4523.604	4448.802

Sample Name: Q2381-01A Acquired: 6/24/2025 20:54:27 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9158676**	**1.907594**	**1.702119**	**1.692030**	**.6620846**	**194.1506**	**1.162289**
Stddev	.0143240	.012973	.013822	.021976	.0053784	.4271	.002148
%RSD	1.563976	.6800518	.8120640	1.298802	.8123380	.2199716	.1848153
#1	.9322338	1.921527	1.717139	1.717397	.6677663	194.2126	1.160935
#2	.9097550	1.895864	1.699285	1.679923	.6614152	193.6959	1.161167
#3	.9056141	1.905391	1.689934	1.678769	.6570722	194.5433	1.164766

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1617728**	**.2019833**	**52.56859**	**.5724867**	**.5220968**	**.7054787**	**400.6805**
Stddev	.0109103	.0015836	.10161	.0015189	.0020897	.0469058	.2225
%RSD	6.744211	.7839998	.1932857	.2653226	.4002411	6.648783	.0555266
#1	.1675706	.2038069	52.54407	.5714899	.5245077	.7296024	400.9121
#2	.1491877	.2009549	52.48149	.5717354	.5208058	.6514206	400.6608
#3	.1685602	.2011881	52.68022	.5742349	.5209769	.7354131	400.4685

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.341717**	**58.16269**	**.8615182**	**.0279773**	**^ *****	**1.219115**	**1.257212**
Stddev	.009461	.06993	.0039888	.0002263	-----	.004952	.030491
%RSD	.1012785	.1202298	.4629917	.8089811	-----	.4062095	2.425271
#1	9.332667	58.09280	.8660867	.0279530	5.380830	1.223283	1.239671
#2	9.340942	58.16262	.8587271	.0277641	^ -----	1.213640	1.292420
#3	9.351541	58.23266	.8597408	.0282148	5.461759	1.220421	1.239546

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.50896**	**17.51468**	**.4049965**	**.3187421**	**6.596549**	**4.659536**	**.7310464**
Stddev	.48261	.26695	.0096491	.0008374	.098400	.355254	.0053904
%RSD	2.353169	1.524161	2.382508	.2627123	1.491695	7.624242	.7373527
#1	20.32778	17.82284	.3994204	.3197086	6.709762	4.824524	.7367342
#2	21.05594	17.35386	.4161382	.3182359	6.548297	4.251789	.7303918
#3	20.14315	17.36735	.3994307	.3182817	6.531588	4.902296	.7260132

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01A Acquired: 6/24/2025 20:54:27 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.618437	.3194854	.3668377
Stddev	.018995	.0017514	.0014011
%RSD	.2870006	.5481803	.3819303
#1	6.631353	.3184895	.3672299
#2	6.596627	.3184591	.3652823
#3	6.627331	.3215076	.3680008

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5876.789	46879.13	2887.533	4205.782	4373.961
Stddev	58.793	4835.55	56.478	439.326	46.685
%RSD	1.000428	10.31493	1.955915	10.44577	1.067349
#1	5809.449	49662.33	2929.168	4460.840	4321.312
#2	5903.005	41295.53	2823.245	3698.494	4390.256
#3	5917.914	49679.53	2910.185	4458.011	4410.315

Sample Name: Q2381-03 Acquired: 6/24/2025 20:58:45 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1884523**	**-.015103**	**7.939272**	**.1181461**	**.0768140**	**107.8612**	**1.530028**
Stddev	.0067358	.000727	.163021	.0027491	.0011108	.6071	.005591
%RSD	3.574282	4.813280	2.053353	2.326890	1.446069	.5628243	.3654308
#1	.1961914	-.015941	8.127153	.1171019	.0758246	107.7169	1.533648
#2	.1839110	-.014721	7.855417	.1212643	.0766018	107.3393	1.523588
#3	.1852545	-.014647	7.835248	.1160720	.0780155	108.5274	1.532848

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0208185**	**.0217567**	**42.67926**	**.4756264**	**.2032970**	**2.642221**	**378.9415**
Stddev	.0048964	.0005845	.29547	.0033148	.0033012	.546073	2.3128
%RSD	23.51945	2.686533	.6923022	.6969285	1.623811	20.66719	.6103420
#1	.0261273	.0224193	42.95214	.4733310	.2071049	3.224012	380.8046
#2	.0164798	.0215370	42.36547	.4794266	.2012434	2.140767	376.3529
#3	.0198483	.0213139	42.72017	.4741215	.2015426	2.561885	379.6671

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.981500**	**25.25894**	**.4088136**	**-.026792**	**7.389848**	**.5085300**	**8.262436**
Stddev	.025851	.29080	.0075355	.002796	1.377737	.0103204	.175456
%RSD	.6492815	1.151259	1.843270	10.43452	18.64364	2.029458	2.123543
#1	3.999233	25.55308	.4175027	-.025007	8.889566	.5172021	8.146764
#2	3.951839	24.97161	.4048668	-.030014	6.180323	.4971154	8.464320
#3	3.993429	25.25214	.4040711	-.025356	7.099655	.5112727	8.176223

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.28872**	**10.19702**	**.2480726**	**.0378712**	**5.086592**	**5.349272**	**.3436391**
Stddev	.68636	.39742	.0394397	.0008810	.218355	1.079346	.0086449
%RSD	6.670989	3.897449	15.89845	2.326400	4.292750	20.17743	2.515697
#1	11.07852	10.65590	.2068128	.0388662	5.338705	6.504226	.3536102
#2	9.83683	9.97106	.2853972	.0375575	4.957679	4.366150	.3390640
#3	9.95080	9.96408	.2520078	.0371900	4.963392	5.177440	.3382432

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-03 Acquired: 6/24/2025 20:58:45 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.890665	.0746221	.2639541
Stddev	.019552	.0074948	.0014004
%RSD	.6763813	10.04369	.5305286
#1	2.900189	.0767787	.2642716
#2	2.868176	.0662855	.2624223
#3	2.903630	.0808023	.2651684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5925.810	46072.64	2643.703	4117.765	4720.568
Stddev	213.164	4772.50	361.630	391.952	196.852
%RSD	3.597216	10.35864	13.67893	9.518565	4.170087
#1	5679.700	48725.30	2226.809	4335.645	4493.304
#2	6052.232	40563.10	2872.788	3665.280	4830.435
#3	6045.499	48929.53	2831.512	4352.369	4837.963

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-05RE Acquired: 6/24/2025 21:03:03 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1043392**	**-.026197**	**1.010588**	**.1261641**	**.0371761**	**192.1049**	**.6297829**
Stddev	.0038589	.003469	.008947	.0022848	.0056012	.5696	.0016520
%RSD	3.698367	13.24203	.8852776	1.810952	15.06660	.2965127	.2623115
#1	.1043494	-.030006	1.017190	.1285380	.0436342	192.4237	.6311312
#2	.1081930	-.025367	1.014168	.1239803	.0336418	192.4438	.6302774
#3	.1004754	-.023219	1.000406	.1259739	.0342524	191.4473	.6279401

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137754**	**-.002594**	**12.05235**	**.3959821**	**.1443945**	**.4088475**	**383.5355**
Stddev	.0015948	.000114	.02925	.0142919	.0006851	.0351119	1.1914
%RSD	11.57712	4.378901	.2427130	3.609233	.4744934	8.588015	.3106435
#1	.0145500	-.002564	12.02028	.3795026	.1447926	.4289001	384.6372
#2	.0119413	-.002499	12.07756	.4049826	.1436033	.3683046	383.6982
#3	.0148349	-.002720	12.05921	.4034612	.1447875	.4293379	382.2711

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.102467**	**25.15978**	**.2350043**	**-.029205**	**4.327182**	**.6650616**	**1.317301**
Stddev	.008551	.13254	.0011068	.005662	.434697	.0073508	.050581
%RSD	.2756352	.5267850	.4709850	19.38798	10.04572	1.105284	3.839735
#1	3.109540	25.31085	.2359332	-.022672	4.337717	.6679700	1.264305
#2	3.104897	25.10544	.2353002	-.032710	3.887313	.6705133	1.365059
#3	3.092963	25.06305	.2337797	-.032231	4.756514	.6567016	1.322540

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.75228**	**6.906915**	**.1260415**	**.0167699**	**2.838089**	**3.296846**	**.0758163**
Stddev	.48611	.165029	.0290392	.0002292	.066686	.299646	.0018471
%RSD	3.534763	2.389333	23.03944	1.366579	2.349696	9.088876	2.436229
#1	13.35678	7.030315	.1134554	.0165077	2.883678	3.435377	.0779240
#2	13.60507	6.970969	.1592505	.0168697	2.869037	2.952999	.0750451
#3	14.29498	6.719462	.1054186	.0169322	2.761551	3.502161	.0744797

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-05 Acquired: 6/24/2025 21:03:03 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.380486**	**.1007580**	**.0827047**
Stddev	.013240	.0049908	.0002573
%RSD	.3022595	4.953218	.3111038
#1	4.382577	.1058731	.0828008
#2	4.392557	.0959016	.0829002
#3	4.366325	.1004995	.0824132

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5549.325**	**43233.51**	**2666.799**	**3950.849**	**4641.003**
Stddev	143.147	5033.10	12.145	430.925	126.644
%RSD	2.579542	11.64166	.4554169	10.90714	2.728813
#1	5499.252	47309.68	2675.504	4263.484	4591.770
#2	5437.941	37607.85	2671.968	3459.284	4546.367
#3	5710.783	44783.01	2652.924	4129.778	4784.870

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2383-01RE Acquired: 6/24/2025 21:07:25 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0530827	k -.001261	k .1294120	s .0143078	s .0205352	^ *****	^ *****
Stddev	.0126144	.003930	.0072610	.0397180	.0025792	-----	---
%RSD	23.76368	311.7304	5.610767	277.5972	12.55986	-----	---
#1	.0580679	.002565	.1369020	.0426057	.0178839	89.02204	.769154
#2	.0624426	k -.005287	k .1289297	s .0314148	s .0230356	k 89.94441	.769959
#3	k .0387375	k -.001060	k .1224041	k -.031097	k .0206861	^ -----	^ ---

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0140646	k .0046069	^ *****	k .2872248	k .2018764	k .0939627	^ *****
Stddev	.0013973	.0034870	-----	.0102284	.0011930	.0195243	---
%RSD	9.934819	75.69026	-----	3.561125	.5909385	20.77880	---
#1	.0156290	.0027011	44.27026	.2840486	.2029378	.1101194	149.855
#2	k .0136244	.0024882	44.56491	.2789612	k .2005853	k .0995013	149.373
#3	k .0129404	k .0086315	^ -----	k .2986645	.2021060	k .0722675	^ -----

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	58.64974	.2831843	k -.027423	3.730552	k .2342187	1.859652
Stddev	-----	.17775	.0019718	.026943	.483771	.0097104	.031063
%RSD	-----	.3030783	.6962964	98.25082	12.96781	4.145873	1.670358
#1	5.573293	58.45405	.2835529	-.011231	4.213831	.2265932	1.863246
#2	5.552880	58.69396	.2810542	k -.012512	3.731536	k .2451505	1.826949
#3	^ -----	58.80121	.2849458	k -.058525	3.246290	k .2309124	1.888762

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.77992	k 16.37851	k .0241569	s .0143798	k 13.67151	k 2.079151	.0126091
Stddev	2.90979	.41979	.0940186	.0024934	.40788	.291011	.0008292
%RSD	13.35999	2.563078	389.2006	17.33939	2.983434	13.99664	6.576529
#1	25.13973	16.24856	.0746484	.0130439	13.53569	2.371848	.0134130
#2	20.12546	k 16.03906	k .0821424	s .0172564	k 13.34887	k 2.075750	.0126578
#3	20.07457	k 16.84792	k -.084320	.0128390	k 14.12997	1.789855	.0117566

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2383-01RE Acquired: 6/24/2025 21:07:25 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9392573	.0572254	^ *****
Stddev	.0028589	.0026050	-----
%RSD	.3043845	4.552118	-----
#1	.9424789	.0597528	.5441471
#2	.9370222	.0545493	.5446272
#3	.9382710	.0573740	^ -----

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	48245.50	2898.968	4346.770	4747.204
Stddev	-----	4446.93	373.711	360.967	148.551
%RSD	-----	9.217284	12.89119	8.304249	3.129229
#1	6611.908	46600.80	2468.592	4204.049	4816.540
#2	^ -----	53280.50	3086.904	4757.276	4848.410
#3	6276.744	44855.21	3141.407	4078.985	4576.662

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2384-01RE Acquired: 6/24/2025 21:11:48 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0310889	k -.055451	k .2172125	s .0941912	s .0318877	k 171.1737	.5662093
Stddev	.0030146	.003660	.0096903	.0066186	.0048693	.9419	.0022539
%RSD	9.696588	6.600998	4.461194	7.026807	15.27003	.5502708	.3980236
#1	.0277749	-.052239	.2227049	.0935088	.0290885	171.3566	.5638517
#2	.0336683	k -.059436	k .2060237	s .0879402	s .0375102	k 172.0108	.5663434
#3	.0318234	-.054679	.2229088	.1011246	.0290644	170.1538	.5683418

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0102234	-.003522	41.64349	.2033437	k .2468677	k .3636560	320.7455
Stddev	.0016782	.000187	.20062	.0016036	.0008313	.0471431	1.666
%RSD	16.41560	5.307683	.4817482	.7886201	.3367550	12.96365	.5195728
#1	.0097258	-.003368	41.61857	.2051358	.2475433	.3446877	319.3031
#2	k .0088502	-.003730	41.85540	.2020443	k .2459393	k .3289516	320.3621
#3	.0120941	-.003467	41.45650	.2028509	.2471205	.4173286	322.5701

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.056196	56.47228	.2804099	k -.028422	17.86539	k .7506297	.5122574
Stddev	.012143	.13256	.0025247	.001779	2.40350	.0115148	.0011555
%RSD	.2401657	.2347375	.9003456	6.260289	13.45339	1.534013	.2255768
#1	5.060588	56.53487	.2800970	-.030468	17.54220	.7474646	.5123717
#2	5.065533	56.56196	.2780563	k -.027559	15.63984	k .7410284	.5133515
#3	5.042468	56.32001	.2830764	-.027238	20.41414	.7633959	.5110489

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.74088	k 8.418237	k .0513679	s .0099947	k 9.427787	k 4.679682	-.007227
Stddev	2.37998	.149106	.0435067	.0009997	.174022	.650932	.001242
%RSD	14.21658	1.771220	84.69624	10.00277	1.845845	13.90976	17.19218
#1	16.15256	8.373252	.0648978	.0098873	9.373663	4.456711	-.005939
#2	14.71024	k 8.296804	k .0865021	s .0110438	k 9.287258	k 4.169536	-.007324
#3	19.35985	8.584656	.0027038	.0090530	9.622440	5.412799	-.008418

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2384-01RE Acquired: 6/24/2025 21:11:48 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.139815**	**.1237110**	**.1173288**
Stddev	.014631	.0031442	.0004071
%RSD	.1797494	2.541567	.3469987
#1	8.122925	.1229404	.1176073
#2	8.147913	.1210237	.1175175
#3	8.148607	.1271688	.1168615

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	**47477.28**	**2550.000**	**4298.763**	**4640.448**
Stddev	-----	37.80	335.365	25.010	96.376
%RSD	-----	.0796191	13.15155	.5817876	2.076858
#1	5938.916	47469.46	2665.587	4327.369	4681.772
#2	^ -----	47518.38	2812.284	4281.030	4709.271
#3	5751.216	47444.00	2172.130	4287.891	4530.302

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2386-01RE Acquired: 6/24/2025 21:16:09 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0947340	k -.025982	k 1.220801	.1305577	k .0422587	174.1260	1.77956
Stddev	.0056611	.003226	.013514	.0049629	.0024149	1.1639	.00504
%RSD	5.975746	12.41458	1.106986	3.801342	5.714541	.6684462	.283337
#1	.0882194	k -.029413	k 1.221778	.1355255	k .0449891	172.8200	1.77425
#2	.0984575	-.025521	1.233800	.1255996	.0413839	174.5043	1.78016
#3	.0975251	-.023011	1.206825	.1305480	.0404031	175.0537	1.784281

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0207406	.0058875	55.14366	s .5141701	.3050703	^ *****	431.4007
Stddev	.0058201	.0001395	.24790	.2871682	.0005481	-----	1.961
%RSD	28.06114	2.369546	.4495556	55.85081	.1796681	-----	.454785
#1	.0273658	.0058651	54.93286	s .8457234	.3049872	^ -----	433.558
#2	.0164516	.0060369	55.08134	.3528541	.3056552	.4474788	429.724
#3	.0184044	.0057606	55.41677	.3439328	.3045685	.4947376	430.918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.456132	104.2191	.6181500	s -.105875	12.47206	k .5409044	^ *****
Stddev	.032838	.3954	.0034937	.119293	2.99093	.0120305	-----
%RSD	.4404115	.3793758	.5651815	112.6729	23.98105	2.224137	-----
#1	7.493456	104.2450	.6174290	s -.243597	15.92560	k .5537508	^ -----
#2	7.431681	103.8114	.6219479	-.039348	10.72370	.5299031	2.731407
#3	7.443259	104.6009	.6150731	-.034682	10.76688	.5390594	2.639399

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.75949	k 10.72728	k .1634607	.0167314	7.364580	^ *****	.0258666
Stddev	7.68372	.30372	.0777286	.0003538	.215744	-----	.0023082
%RSD	22.76019	2.831276	47.55184	2.114847	2.929488	-----	8.923608
#1	42.62917	k 10.78772	k .0748013	.0167597	7.435860	^ -----	.0240556
#2	29.13433	10.99624	.2198883	.0163643	7.535664	4.061142	.0284657
#3	29.51498	10.39789	.1956925	.0170703	7.122215	4.376970	.0250786

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2386-01RE Acquired: 6/24/2025 21:16:09 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.710571**	**.5394622**	**.4778823**
Stddev	.004190	.0134312	.0016906
%RSD	.0889401	2.489746	.3537617
#1	4.715022	.5245069	.4759723
#2	4.709987	.5433830	.4784879
#3	4.706705	.5504968	.4791867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5750.388**	^ *****	**2614.021**	**4267.182**	**4350.867**
Stddev	191.838	-----	477.034	195.840	151.373
%RSD	3.336083	-----	18.24905	4.589443	3.479143
#1	5605.735	^ -----	2064.292	4398.573	4238.946
#2	5677.428	44065.89	2919.048	4042.096	4290.556
#3	5968.002	48608.89	2858.723	4360.879	4523.099

Sample Name: Q2388-01 Acquired: 6/24/2025 21:20:28 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0646679**	**-.022766**	**.2325959**	**.0521376**	**.0295045**	**86.92354**	**1.206280**
Stddev	.0041263	.002540	.0025742	.0079936	.0017890	3.84230	.066899
%RSD	6.380794	11.15714	1.106735	15.33171	6.063310	4.420316	5.545877
#1	.0604827	-.020450	.2299931	.0505068	.0276200	84.85598	1.169421
#2	.0647884	-.025482	.2326539	.0450851	.0311794	84.55774	1.165918
#3	.0687327	-.022365	.2351406	.0608208	.0297142	91.35690	1.283502

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0158818**	**-.001490**	**233.5153**	**.2284525**	**.1877600**	**.5750563**	**246.4232**
Stddev	.0044752	.000672	11.3062	.0023831	.0004161	.1462531	15.6164
%RSD	28.17801	45.11326	4.841754	1.043152	.2216087	25.43283	6.337215
#1	.0134615	-.001191	227.1939	.2297474	.1880860	.4893291	237.5439
#2	.0131381	-.001020	226.7836	.2299078	.1872913	.4919115	237.2709
#3	.0210460	-.002260	246.5685	.2257023	.1879027	.7439282	264.4547

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.911175**	**65.52703**	**.3254176**	**-.022526**	**5.365473**	**.3122666**	**.6374485**
Stddev	.393538	3.33079	.0005482	.005366	1.362250	.0180344	.0010233
%RSD	5.694233	5.083073	.1684674	23.82248	25.38918	5.775330	.1605236
#1	6.685443	63.64252	.3247934	-.026047	4.574311	.3150743	.6366956
#2	6.682491	63.56573	.3258209	-.025181	4.583654	.2929930	.6386136
#3	7.365591	69.37283	.3256386	-.016350	6.938454	.3287325	.6370365

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.52332**	**9.938265**	**.0825997**	**.0055333**	**1.476388**	**4.866788**	**.0042196**
Stddev	7.49674	.009925	.0353045	.0002061	.007030	1.304178	.0010253
%RSD	25.39262	.0998667	42.74167	3.725276	.4761676	26.79752	24.29816
#1	25.41975	9.941367	.1040151	.0054101	1.484081	4.102069	.0030474
#2	24.97422	9.927160	.1019326	.0054184	1.470297	4.125632	.0046616
#3	38.17599	9.946269	.0418513	.0057712	1.474787	6.372662	.0049497

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2388-01 Acquired: 6/24/2025 21:20:28 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.057695	.2082748	.3180945
Stddev	.275065	.0059731	.0158165
%RSD	5.438542	2.867899	4.972281
#1	4.899191	.2038037	.3095867
#2	4.898582	.2059622	.3083527
#3	5.375313	.2150584	.3363440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5877.119	48528.15	2558.172	4334.774	4461.062
Stddev	12.199	166.02	576.557	13.545	11.901
%RSD	.2075633	.3421006	22.53787	.3124627	.2667645
#1	5874.864	48380.93	2894.795	4327.431	4453.868
#2	5890.287	48495.44	2887.285	4326.487	4474.798
#3	5866.205	48708.09	1892.435	4350.405	4454.519

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2389-01 Acquired: 6/24/2025 21:24:52 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0503493**	**-.015078**	**.2783611**	**.1413121**	**.0305733**	**162.6973**	**1.905049**
Stddev	.0048167	.002518	.0029658	.0055681	.0026223	.3681	.004666
%RSD	9.566682	16.69870	1.065445	3.940312	8.577195	.2262285	.2449359
#1	.0557517	-.012172	.2773850	.1382400	.0283375	162.5007	1.901589
#2	.0487932	-.016598	.2760063	.1477395	.0334597	163.1219	1.910356
#3	.0465029	-.016465	.2816918	.1379567	.0299226	162.4693	1.903202

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176805**	**-.004131**	**16.71612**	**.2814220**	**.2377636**	**.3339718**	**438.2911**
Stddev	.0004153	.000025	.06239	.0010905	.0003511	.0041522	1.0292
%RSD	2.349027	.6135821	.3732294	.3874770	.1476731	1.243293	.2348124
#1	.0173193	-.004104	16.67445	.2819340	.2380583	.3325267	437.5340
#2	.0181343	-.004134	16.78785	.2801697	.2373751	.3386535	439.4629
#3	.0175879	-.004154	16.68605	.2821622	.2378573	.3307352	437.8763

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.08475**	**87.96624**	**.4731828**	**-.038146**	**9.112345**	**.4170623**	**.9350548**
Stddev	.02973	.30018	.0004568	.000822	.110980	.0111654	.0022292
%RSD	.2947761	.3412435	.0965268	2.154941	1.217912	2.677148	.2383987
#1	10.06028	87.68907	.4736898	-.037198	9.047778	.4282891	.9361666
#2	10.11783	88.28508	.4728034	-.038666	9.240493	.4059594	.9324885
#3	10.07614	87.92457	.4730551	-.038573	9.048765	.4169383	.9365095

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**34.99884**	**8.158646**	**.1875784**	**.0093733**	**.4583377**	**3.761898**	**.0049172**
Stddev	.26063	.003748	.0015740	.0000691	.0026288	.054671	.0004965
%RSD	.7446685	.0459329	.8390892	.7374663	.5735576	1.453281	10.09679
#1	34.84862	8.154320	.1884741	.0092940	.4613141	3.726239	.0054499
#2	35.29978	8.160876	.1857611	.0094209	.4563329	3.824841	.0044674
#3	34.84811	8.160743	.1885002	.0094050	.4573662	3.734614	.0048343

Sample Name: Q2389-01 Acquired: 6/24/2025 21:24:52 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.345573**	**.4543340**	**.1422910**
Stddev	.011113	.0049242	.0001297
%RSD	.2557362	1.083836	.0911794
#1	4.353059	.4596188	.1422583
#2	4.350856	.4535086	.1424339
#3	4.332804	.4498746	.1421806

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5955.348**	**48240.16**	**2786.560**	**4320.751**	**4605.372**
Stddev	16.034	358.15	9.484	42.733	9.185
%RSD	.2692300	.7424255	.3403453	.9890161	.1994505
#1	5941.663	48002.68	2793.890	4298.295	4603.638
#2	5972.989	48652.11	2775.849	4370.030	4615.301
#3	5951.391	48065.70	2789.941	4293.928	4597.177

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV03 Acquired: 6/24/2025 21:29:14 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**4.924450**	**5.067275**	**4.974937**	**5.142772**	**5.147394**	**9.817023**	**9.908738**
Stddev	.009312	.010818	.011247	.011997	.005144	.031029	.040302
%RSD	.1890887	.2134908	.2260697	.2332839	.0999368	.3160726	.4067270
#1	4.914444	5.055460	4.965717	5.131240	5.148373	9.794855	9.895885
#2	4.926047	5.069670	4.971628	5.141889	5.151978	9.852484	9.953899
#3	4.932861	5.076694	4.987468	5.155186	5.141831	9.803729	9.876431

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2617725**	**2.483313**	**24.11806**	**.9803318**	**2.502943**	**1.279509**	**4.952929**
Stddev	.0006530	.007057	.07552	.0012003	.006026	.004744	.009752
%RSD	.2494716	.2841732	.3131277	.1224355	.2407644	.3707779	.1968984
#1	.2617679	2.476843	24.03532	.9802077	2.498162	1.277293	4.952428
#2	.2611217	2.482257	24.18328	.9791984	2.500954	1.276279	4.962922
#3	.2624278	2.490838	24.13558	.9815893	2.509712	1.284956	4.943437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.430833**	**24.47783**	**2.499432**	**1.292221**	**26.29859**	**2.429113**	**2.542288**
Stddev	.006924	.06779	.006422	.000441	.05844	.011260	.009315
%RSD	.2848276	.2769328	.2569214	.0341125	.2222197	.4635422	.3664067
#1	2.427992	24.51643	2.494140	1.291746	26.29787	2.416199	2.539598
#2	2.438725	24.51750	2.497581	1.292617	26.24052	2.434261	2.552653
#3	2.425781	24.39956	2.506576	1.292301	26.35739	2.436878	2.534615

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.01669**	**5.024661**	**5.156101**	**5.107037**	**4.902672**	**5.159350**	**5.007135**
Stddev	.04954	.012296	.026240	.007037	.008128	.020842	.012206
%RSD	.1904275	.2447193	.5089166	.1377850	.1657796	.4039635	.2437804
#1	26.01873	5.010621	5.143061	5.099135	4.899752	5.149349	4.994498
#2	25.96617	5.029851	5.138935	5.109351	4.896409	5.145394	5.008046
#3	26.06519	5.033513	5.186307	5.112626	4.911857	5.183308	5.018860

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV03 Acquired: 6/24/2025 21:29:14 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.841650**	**4.959235**	**4.889206**
Stddev	.022458	.014041	.015705
%RSD	.4638400	.2831345	.3212236
#1	4.828080	4.952383	4.883798
#2	4.867572	4.975386	4.906900
#3	4.829297	4.949935	4.876919

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4765.538**	**39251.07**	**2164.563**	**3456.046**	**4792.898**
Stddev	20.801	49.96	6.804	12.812	18.033
%RSD	.4364908	.1272833	.3143400	.3707132	.3762472
#1	4784.411	39203.41	2162.929	3453.716	4811.908
#2	4743.235	39246.76	2172.035	3444.559	4776.034
#3	4768.967	39303.05	2158.724	3469.863	4790.751

Sample Name: CCB03 Acquired: 6/24/2025 21:33:31 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000900**	**-.000320**	**.0003768**	**.0026248**	**-.000925**	**.0001825**	**-.000099**
Stddev	.001098	.001209	.0001344	.0025273	.001829	.0228817	.001652
%RSD	122.0752	377.9448	35.66922	96.28540	197.7477	12538.89	1671.827
#1	-.001658	-.001073	.0005310	-.000125	-.002888	-.001541	.000167
#2	-.001401	-.000962	.0003155	.004845	.000731	.023877	-.001868
#3	.000360	.001075	.0002841	.003154	-.000618	-.021789	.001405

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000064**	**-.000071**	**-.024338**	**-.001192**	**-.000315**	**-.000151**	**.0140298**
Stddev	.0001303	.000080	.012827	.000482	.000094	.000788	.0070681
%RSD	2038.005	112.1666	52.70100	40.45089	30.02969	521.2708	50.37912
#1	.0000801	.000003	-.037821	-.000678	-.000277	.000757	.0101663
#2	-.000144	-.000155	-.022907	-.001264	-.000422	-.000557	.0097356
#3	.000083	-.000061	-.012288	-.001634	-.000245	-.000654	.0221875

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026155**	**.0170907**	**-.000135**	**-.001276**	**.0013003**	**.0053213**	**-.001614**
Stddev	.0003496	.0346778	.000423	.000706	.0187261	.0049052	.000700
%RSD	13.36588	202.9048	312.8539	55.35840	1440.177	92.18077	43.37383
#1	.0028751	.0516137	-.000028	-.001801	.0169428	.0078568	-.001432
#2	.0027534	-.017740	.000224	-.001553	.0064077	-.000333	-.001023
#3	.0022180	.017398	-.000602	-.000473	-.019450	.008440	-.002388

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005350**	**-.000427**	**.0093889**	**.0001439**	**-.001575**	**-.004895**	**-.000540**
Stddev	.001268	.000417	.0011291	.0002401	.000644	.000462	.000968
%RSD	23.70374	97.49092	12.02613	166.8358	40.91007	9.445427	179.0834
#1	-.006743	-.000558	.0101450	.0002325	-.000911	-.004363	-.001625
#2	-.004263	.000039	.0099306	-.000128	-.002197	-.005122	.000233
#3	-.005044	-.000764	.0080910	.000327	-.001615	-.005201	-.000228

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB03 Acquired: 6/24/2025 21:33:31 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.002110**	**.0085418**	**.0000734**
Stddev	.003285	.0086255	.0000755
%RSD	155.7104	100.9803	102.9048
#1	-.005736	-.001411	.0001303
#2	.000667	.013838	.0001021
#3	-.001260	.013198	-.000012

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4957.525**	**40906.39**	**2219.297**	**3570.934**	**5493.090**
Stddev	22.499	410.64	8.130	23.125	13.460
%RSD	.4538377	1.003842	.3663188	.6475795	.2450335
#1	4970.172	40573.26	2210.412	3549.438	5497.748
#2	4970.856	41365.17	2226.364	3595.400	5503.602
#3	4931.549	40780.75	2221.115	3567.964	5477.919

Sample Name: Q2372-01 Acquired: 6/24/2025 21:38:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1495490**	**.0010459**	**8.127809**	**.0554718**	**.0998405**	**193.5057**
Stddev	.0045359	.0027267	.223158	.0024116	.0015379	.4648
%RSD	3.033073	260.7048	2.745616	4.347411	1.540392	.2402012
#1	.1511580	.0035064	8.023150	.0527543	.0997176	193.5733
#2	.1530612	-.001886	8.384062	.0573570	.1014362	193.0108
#3	.1444280	.001517	7.976216	.0563042	.0983677	193.9330

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.567222**	**.0104578**	**.1098253**	**486.5017**	**4.686945**	**.1792646**
Stddev	.010754	.0002334	.0032836	1.6968	.022066	.0024712
%RSD	.2354639	2.231999	2.989816	.3487656	.4707963	1.378527
#1	4.573760	.0101948	.1082572	487.9749	4.671405	.1779005
#2	4.554810	.0106405	.1135990	484.6465	4.712202	.1821172
#3	4.573096	.0105381	.1076198	486.8838	4.677228	.1777761

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.824416**	**181.7240**	**7.465264**	**141.1101**	**8.619401**	**-.012680**
Stddev	.035902	.5262	.007611	.2392	.116653	.000443
%RSD	1.271118	.2895479	.1019520	.1695111	1.353375	3.497229
#1	2.810318	181.9664	7.471886	141.0261	8.565089	-.012203
#2	2.797703	181.1203	7.456949	140.9243	8.753306	-.012757
#3	2.865227	182.0853	7.466957	141.3800	8.539807	-.013080

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**264.5670**	**.3558222**	**10.89725**	**86.52881**	**9.060793**	**3.297722**
Stddev	18.0036	.0021667	.02240	6.44487	.305352	.040275
%RSD	6.804932	.6089343	.2055546	7.448235	3.370039	1.221310
#1	252.1899	.3580082	10.91554	80.21793	8.920127	3.266819
#2	256.2905	.3557830	10.90396	86.26870	9.411126	3.283076
#3	285.2205	.3536752	10.87227	93.09980	8.851126	3.343271

Sample Name: Q2372-01 Acquired: 6/24/2025 21:38:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0441695	F 445.9845	F 94.57141	.0364898	2.938449	.3279218
Stddev	.0005206	14.8872	.65153	.0024666	.012042	.0034254
%RSD	1.178544	3.338047	.6889274	6.759626	.4098243	1.044563
#1	.0435754	438.5448	95.22571	.0343894	2.950982	.3314146
#2	.0443873	463.1251	93.92269	.0392059	2.926966	.3245681
#3	.0445458	436.2836	94.56583	.0358740	2.937400	.3277828

Elem	Sr4077
Units	ppm
Avg	2.820822
Stddev	.004937
%RSD	.1750190
#1	2.825775
#2	2.815901
#3	2.820790

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5053.760	41560.88	2557.177	3728.497	4073.698
Stddev	55.646	135.43	29.800	43.860	66.927
%RSD	1.101087	.3258607	1.165356	1.176341	1.642901
#1	5103.122	41518.87	2573.076	3693.697	4121.767
#2	4993.455	41712.34	2575.655	3777.763	3997.259
#3	5064.703	41451.44	2522.798	3714.033	4102.067

Sample Name: Q2372-02 Acquired: 6/24/2025 21:42:40 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1501512**	**.0156658**	**20.14280**	**.1123944**	**.1414163**	**321.7581**
Stddev	.0036263	.0012209	.20013	.0056333	.0016300	.7665
%RSD	2.415128	7.793163	.9935784	5.012093	1.152598	.2382358
#1	.1541369	.0170755	20.27722	.1079882	.1399486	320.8943
#2	.1470465	.0149535	20.23840	.1104536	.1431705	322.0228
#3	.1492702	.0149684	19.91280	.1187416	.1411297	322.3572

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.821409**	**.0191914**	**.3955478**	**229.7941**	**7.486612**	**.3347890**
Stddev	.006556	.0021911	.0045538	1.1618	.039468	.0017008
%RSD	.1715507	11.41727	1.151264	.5055793	.5271857	.5080239
#1	3.824972	.0216671	.3997545	231.1356	7.464429	.3360264
#2	3.813844	.0175018	.3961766	229.1269	7.463226	.3354911
#3	3.825412	.0184051	.3907123	229.1198	7.532181	.3328495

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.624374**	**328.9850**	**6.613846**	**109.3626**	**11.74171**	**-.021850**
Stddev	.587076	2.1696	.032658	1.0589	.06509	.000499
%RSD	8.862362	.6594752	.4937800	.9682346	.5543459	2.284881
#1	7.287995	331.3552	6.651029	110.4770	11.80107	-.021324
#2	6.172717	327.0974	6.589818	108.3697	11.75194	-.021908
#3	6.412409	328.5022	6.600689	109.2411	11.67210	-.022317

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**70.49604**	**.5900807**	F **50.41424**	**92.42139**	F **20.64251**	**.5894790**
Stddev	5.76320	.0078687	1.58546	21.13057	.44205	.0191043
%RSD	8.175207	1.333489	3.144861	22.86329	2.141465	3.240877
#1	76.94648	.5924413	48.89469	116.7843	21.15290	.6113032
#2	65.85369	.5813019	50.28975	81.3957	20.39379	.5757825
#3	68.68794	.5964988	52.05827	79.0841	20.38086	.5813514

Sample Name: Q2372-02 Acquired: 6/24/2025 21:42:40 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0617746	F 38.71885	F 100.6205	.0716247	4.359586	.4397721
Stddev	.0001958	.88344	9.0580	.0014406	.008124	.0131097
%RSD	.3169551	2.281682	9.002164	2.011369	.1863547	2.981022
#1	.0616814	39.72931	110.8048	.0708958	4.360756	.4246415
#2	.0619996	38.09241	93.4650	.0732841	4.350940	.4469330
#3	.0616428	38.33482	97.5917	.0706941	4.367062	.4477418

Elem	Sr4077
Units	ppm
Avg	1.394998
Stddev	.000911
%RSD	.0653180
#1	1.394406
#2	1.396047
#3	1.394541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5576.780	47955.26	2793.255	4305.711	4080.077
Stddev	152.279	182.89	238.837	18.363	105.138
%RSD	2.730581	.3813696	8.550484	.4264704	2.576861
#1	5439.864	48003.54	2521.738	4311.326	3980.337
#2	5740.785	47753.08	2970.870	4285.196	4189.889
#3	5549.691	48109.17	2887.157	4320.610	4070.007

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2375-01 Acquired: 6/24/2025 21:47:26 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003398**	**-.001196**	**.0102465**	**-.000120**	**.0028239**	**.0732920**	**.0035332**
Stddev	.002810	.002478	.0008452	.001653	.0014205	.0214954	.0012907
%RSD	82.70898	207.1615	8.248734	1377.221	50.30406	29.32836	36.52994
#1	-.000191	.000623	.0107030	.001700	.0041534	.0653694	.0021355
#2	-.004571	-.004019	.0107653	-.000534	.0029910	.0976242	.0046800
#3	-.005431	-.000193	.0092712	-.001526	.0013271	.0568824	.0037841

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000040**	**-.000071**	**3.995073**	**-.000842**	**.0085759**	**.0068913**	**1.646336**
Stddev	.000171	.000062	.185082	.001049	.0003799	.0029792	.071854
%RSD	421.9111	86.76861	4.632753	124.6212	4.429680	43.23101	4.364490
#1	-.000061	-.000078	3.788837	-.001371	.0082945	.0055067	1.566448
#2	-.000200	-.000006	4.146722	.000366	.0084253	.0048565	1.705683
#3	.000139	-.000129	4.049659	-.001521	.0090081	.0103109	1.666878

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0169530**	**1.612853**	**.0159905**	**-.000318**	**14.81427**	**-.001095**	**.0357738**
Stddev	.0009745	.057253	.0004268	.000685	2.89038	.005043	.0018731
%RSD	5.747998	3.549812	2.668876	215.1146	19.51077	460.4466	5.235999
#1	.0168457	1.561282	.0164006	.000179	13.12077	-.006899	.0348370
#2	.0160367	1.674461	.0155489	-.001099	13.17038	.001386	.0379305
#3	.0179767	1.602815	.0160221	-.000035	18.15167	.002227	.0345539

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	**.0073224**	**.0158698**	**.0008850**	**4.434351**	**6.762259**	**.0003403**
Stddev	-----	.0014044	.0050066	.0004706	.015018	1.485773	.0001181
%RSD	-----	19.18016	31.54830	53.16842	.3386630	21.97154	34.71240
#1	.8925932	.0058207	.0136646	.0004825	4.448877	6.148819	.0002189
#2	^ -----	.0075430	.0123442	.0007702	4.435290	5.681432	.0003472
#3	1.287075	.0086034	.0216005	.0014024	4.418886	8.456527	.0004549

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2375-01 Acquired: 6/24/2025 21:47:26 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009354	-.019649	.0239316
Stddev	.0003004	.002381	.0010798
%RSD	32.11157	12.11656	4.512180
#1	.0010086	-.016915	.0228901
#2	.0011923	-.020761	.0250461
#3	.0006052	-.021269	.0238587

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4967.256	38149.16	2055.473	3332.037	5486.098
Stddev	18.582	5184.22	326.754	401.807	12.788
%RSD	.3740982	13.58935	15.89680	12.05890	.2330950
#1	4987.131	41098.53	2323.976	3562.136	5498.928
#2	4964.323	32163.15	2150.782	2868.075	5486.013
#3	4950.315	41185.80	1691.661	3565.898	5473.353

Sample Name: Q2375-02 Acquired: 6/24/2025 21:51:52 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004411**	**-.001405**	**.0047979**	**.0007886**	**.0045102**	**.0116096**	**.0044107**
Stddev	.003050	.002317	.0008041	.0018787	.0006585	.0105042	.0003030
%RSD	69.14521	164.9470	16.75919	238.2413	14.60012	90.47910	6.868508
#1	-.007648	.000960	.0045064	.0020869	.0050776	.0166073	.0044649
#2	-.003996	-.003672	.0057070	-.001366	.0046649	-.000460	.0046829
#3	-.001590	-.001503	.0041802	.001644	.0037882	.018682	.0040843

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000189**	**-.000079**	**3.890183**	**-.001747**	**.0078315**	**.0018635**	**.1536224**
Stddev	.000120	.000040	.012393	.000377	.0002773	.0003513	.0075778
%RSD	63.46163	50.45713	.3185830	21.59494	3.540656	18.85059	4.932754
#1	-.000253	-.000034	3.881377	-.002126	.0081410	.0019136	.1622887
#2	-.000263	-.000095	3.904356	-.001372	.0076058	.0021870	.1482433
#3	-.000051	-.000108	3.884818	-.001743	.0077476	.0014899	.1503351

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0184845**	**1.553911**	**.0081723**	**-.000540**	**11.75428**	**.0040447**	**.0167469**
Stddev	.0007306	.013948	.0004759	.000700	.06910	.0061253	.0005262
%RSD	3.952295	.8976116	5.822921	129.7008	.5878689	151.4401	3.142297
#1	.0178998	1.568214	.0087163	-.000506	11.69783	.0111170	.0162685
#2	.0182503	1.540347	.0078330	-.001256	11.83134	.0004290	.0166618
#3	.0193035	1.553172	.0079677	.000143	11.73367	.0005881	.0173105

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7942600**	**.0165060**	**.0126456**	**.0007350**	**2.800302**	**5.787890**	**.0002932**
Stddev	.0041589	.0023998	.0020592	.0002364	.004689	.035664	.0007939
%RSD	.5236219	14.53892	16.28393	32.16330	.1674467	.6161792	270.7775
#1	.7938156	.0144652	.0135743	.0005121	2.801649	5.751772	.0005605
#2	.7986233	.0159029	.0140769	.0007099	2.795088	5.823082	.0009190
#3	.7903412	.0191498	.0102856	.0009829	2.804171	5.788815	-.000600

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2375-02 Acquired: 6/24/2025 21:51:52 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000028	-.027914	.0240839
Stddev	.002063	.008078	.0002097
%RSD	7469.986	28.93750	.8706305
#1	-.002024	-.023132	.0239732
#2	.002095	-.023370	.0243257
#3	-.000154	-.037240	.0239528

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4961.036	41410.72	2254.253	3605.957	5439.413
Stddev	4.053	170.51	12.649	13.184	6.323
%RSD	.0817020	.4117494	.5611216	.3656197	.1162376
#1	4956.381	41214.34	2255.903	3595.278	5434.944
#2	4962.942	41496.69	2240.861	3601.901	5446.647
#3	4963.784	41521.13	2265.997	3620.693	5436.648

Sample Name: Q2382-01 Acquired: 6/24/2025 21:56:18 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161436	-.015312	.1278091	-.006372	.0273256	66.33804
Stddev	.0005878	.001546	.0017396	.003711	.0032630	.63635
%RSD	3.641259	10.09618	1.361132	58.24178	11.94123	.9592554
#1	.0158600	-.014856	.1297734	-.010548	.0307361	66.05641
#2	.0168195	-.017035	.1271907	-.003450	.0270074	65.89110
#3	.0157514	-.014046	.1264630	-.005119	.0242334	67.06661

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4232379	.0044548	.0004219	279.5493	.1469679	.1023736
Stddev	.0034437	.0008677	.0000943	1.8500	.0039701	.0004047
%RSD	.8136493	19.47860	22.33935	.6617775	2.701334	.3953572
#1	.4198151	.0042185	.0004794	278.4803	.1472550	.1022102
#2	.4231968	.0054162	.0003132	278.4820	.1428621	.1028344
#3	.4267020	.0037297	.0004733	281.6855	.1507867	.1020760

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2161482	76.54569	4.658381	71.30645	.1853022	-.005721
Stddev	.0386276	.68267	.028219	.57280	.0004489	.001111
%RSD	17.87090	.8918522	.6057587	.8032875	.2422451	19.42293
#1	.2003578	75.76157	4.625970	70.69146	.1854623	-.004699
#2	.2601694	77.00780	4.677488	71.40313	.1847952	-.005559
#3	.1879173	76.86771	4.671684	71.82475	.1856491	-.006903

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	442.7779	.2037946	.7738188	50.00940	6.528962	.3581286
Stddev	150.5739	.0038120	.0104523	6.80672	.042322	.0472387
%RSD	34.00665	1.870496	1.350736	13.61089	.6482185	13.19043
#1	458.6388	.2077787	.7651354	46.71912	6.537439	.3365842
#2	584.7935	.2001820	.7709011	57.83613	6.483042	.4122986
#3	284.9013	.2034233	.7854198	45.47296	6.566403	.3255029

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2382-01 Acquired: 6/24/2025 21:56:18 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0414583	21.00232	F 96.20878	.0058029	3.250138	.0708246
Stddev	.0001310	.16569	12.83572	.0021899	.041744	.0065218
%RSD	.3159271	.7889044	13.34153	37.73739	1.284363	9.208327
#1	.0416047	21.05754	89.07732	.0076078	3.221882	.0729090
#2	.0414181	20.81608	111.0267	.0033668	3.230446	.0635154
#3	.0413522	21.13335	88.5223	.0064341	3.298085	.0760494

Elem	Sr4077
Units	ppm
Avg	1.745093
Stddev	.013238
%RSD	.7585890
#1	1.734784
#2	1.740472
#3	1.760022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4654.949	37107.71	2206.361	3418.844	4133.848
Stddev	104.273	1835.11	295.647	106.312	85.462
%RSD	2.240054	4.945364	13.39977	3.109601	2.067360
#1	4623.651	38136.05	2394.250	3504.946	4108.037
#2	4771.287	38198.06	1865.575	3451.570	4229.239
#3	4569.909	34989.00	2359.256	3300.016	4064.266

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01 Acquired: 6/24/2025 22:00:57 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.014966**	**-.002919**	**.0121779**	**-.018318**	**.0113318**	**.1474108**
Stddev	.005163	.000766	.0017821	.003552	.0015371	.0368928
%RSD	34.50173	26.25278	14.63371	19.38916	13.56469	25.02722
#1	-.015162	-.003264	.0126828	-.014775	.0122356	.1762962
#2	-.020028	-.002041	.0136530	-.021878	.0095570	.1600847
#3	-.009707	-.003452	.0101978	-.018300	.0122028	.1058516

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1163147**	**-.000002**	**.0000437**	**64.56197**	**.0000085**	**.0155542**
Stddev	.0002821	.000105	.0000614	.07759	.0008137	.0005990
%RSD	.2425173	6618.332	140.4671	.1201714	9586.652	3.851291
#1	.1161433	.000037	.0001136	64.65153	-.000720	.0148754
#2	.1166403	-.000121	.0000189	64.51530	.000887	.0160086
#3	.1161605	.000079	-.000001	64.51909	-.000142	.0157787

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029821**	**.5963656**	**.0563720**	**30.54822**	**.0018395**	**-.001501**
Stddev	.0001519	.0201070	.0004404	.20271	.0002847	.000362
%RSD	5.093441	3.371589	.7812888	.6635743	15.47834	24.09974
#1	.0031574	.6193958	.0568315	30.69860	.0016597	-.001498
#2	.0028941	.5823015	.0559535	30.62836	.0016910	-.001141
#3	.0028946	.5873995	.0563309	30.31769	.0021678	-.001864

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.46854**	**.0055790**	**.0082596**	**3.395198**	**.0487116**	**.1926159**
Stddev	.53966	.0085349	.0004267	.024047	.0018361	.0002720
%RSD	.6388932	152.9818	5.165775	.7082522	3.769400	.1412104
#1	84.90816	.0072846	.0085499	3.422931	.0496936	.1924303
#2	83.86625	.0131323	.0084591	3.382515	.0498480	.1924893
#3	84.63120	-.003680	.0077697	3.380149	.0465933	.1929281

Sample Name: Q2385-01 Acquired: 6/24/2025 22:00:57 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037661	11.23209	F 16.08966	.0041635	.0060508	-.021918
Stddev	.0007639	.00265	.05765	.0009644	.0015190	.002813
%RSD	20.28438	.0235600	.3582976	23.16243	25.10374	12.83294
#1	.0036712	11.23278	16.11740	.0045081	.0060407	-.024694
#2	.0045731	11.22916	16.02338	.0049083	.0045369	-.021990
#3	.0030541	11.23432	16.12819	.0030742	.0075748	-.019070

Elem	Sr4077
Units	ppm
Avg	.1990357
Stddev	.0010087
%RSD	.5067745
#1	.1999298
#2	.1992350
#3	.1979422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4698.695	38692.41	2227.877	3410.575	4839.056
Stddev	14.161	149.79	13.739	3.024	12.485
%RSD	.3013820	.3871400	.6167076	.0886617	.2580079
#1	4714.731	38589.99	2213.538	3413.269	4853.466
#2	4693.447	38864.33	2240.926	3411.153	4832.219
#3	4687.908	38622.90	2229.167	3407.305	4831.483

Sample Name: Q2385-01DUP Acquired: 6/24/2025 22:05:21 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.015964**	**-.002181**	**.0109643**	**-.022123**	**.0105275**	**.1813835**
Stddev	.002027	.002273	.0006814	.001942	.0042349	.0261761
%RSD	12.69710	104.1924	6.214350	8.776854	40.22707	14.43138
#1	-.014707	-.004150	.0102000	-.022584	.0086547	.1648284
#2	-.018302	.000306	.0115081	-.023793	.0075519	.2115617
#3	-.014883	-.002699	.0111848	-.019993	.0153759	.1677605

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1150912**	**-.000072**	**-.000046**	**63.83241**	**.0002325**	**.0154171**
Stddev	.0007485	.000047	.000085	.36234	.0008415	.0001392
%RSD	.6503371	64.91714	184.3426	.5676459	361.8675	.9031131
#1	.1148608	-.000113	-.000018	63.60709	.0011881	.0152929
#2	.1159278	-.000083	-.000141	64.25038	-.000093	.0153908
#3	.1144850	-.000021	.000021	63.63975	-.000398	.0155676

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022849**	**.5796774**	**.0566800**	**30.28534**	**.0016948**	**-.001076**
Stddev	.0006071	.0319019	.0009949	.20478	.0005392	.001760
%RSD	26.57028	5.503387	1.755347	.6761537	31.81731	163.5794
#1	.0020866	.5699063	.0558398	30.10797	.0020869	-.002786
#2	.0018017	.6153221	.0564216	30.50945	.0010799	-.001174
#3	.0029664	.5538038	.0577787	30.23860	.0019177	.000731

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**83.67681**	**.0048816**	**.0079240**	**3.357832**	**.0507684**	**.1919059**
Stddev	.21435	.0072747	.0005644	.022071	.0006237	.0030814
%RSD	.2561692	149.0218	7.123174	.6572994	1.228606	1.605699
#1	83.47323	.0120012	.0085333	3.334192	.0501539	.1883659
#2	83.90052	-.002539	.0078199	3.377898	.0514010	.1939864
#3	83.65667	.005183	.0074189	3.361406	.0507502	.1933654

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01DUP Acquired: 6/24/2025 22:05:21 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037284	11.02307	F 15.86902	.0045121	.0078143	-.022623
Stddev	.0004757	.00986	.12191	.0004287	.0026503	.007480
%RSD	12.75784	.0894724	.7682416	9.500352	33.91561	33.06136
#1	.0040247	11.02307	15.74526	.0043387	.0051646	-.017701
#2	.0031798	11.01321	15.98899	.0041973	.0078131	-.031230
#3	.0039809	11.03294	15.87282	.0050003	.0104652	-.018938

Elem	Sr4077
Units	ppm
Avg	.1966186
Stddev	.0006444
%RSD	.3277189
#1	.1964849
#2	.1973193
#3	.1960516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4768.133	39087.38	2237.450	3438.886	4914.341
Stddev	4.686	338.83	4.331	27.341	13.078
%RSD	.0982738	.8668599	.1935712	.7950594	.2661292
#1	4763.455	38803.74	2238.063	3413.078	4900.108
#2	4772.826	39462.59	2241.443	3467.538	4917.083
#3	4768.119	38995.82	2232.846	3436.042	4925.830

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01LX5 Acquired: 6/24/2025 22:09:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008031**	**-.000368**	**.0038253**	**-.004542**	**.0063958**	**.0290184**	**.0225071**
Stddev	.004200	.000714	.0006037	.003887	.0013242	.0229911	.0007096
%RSD	52.29958	193.8310	15.78246	85.57470	20.70438	79.22962	3.152783
#1	-.007165	.000148	.0031604	-.008917	.0067190	.0478938	.0233234
#2	-.004331	-.000070	.0039763	-.003221	.0075284	.0034134	.0221608
#3	-.012596	-.001183	.0043392	-.001488	.0049399	.0357479	.0220372

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000112**	**-.000105**	**12.80587**	**-.001139**	**.0062380**	**.0004436**	**.1249511**
Stddev	.0000899	.000096	.03541	.000504	.0001852	.0005177	.0109970
%RSD	801.3012	91.39377	.2765503	44.26314	2.969377	116.6974	8.801004
#1	-.000048	-.000053	12.79867	-.000589	.0063760	.0000442	.1135691
#2	-.000033	-.000215	12.77461	-.001250	.0060275	.0010284	.1257667
#3	.000115	-.000047	12.84433	-.001579	.0063105	.0002581	.1355176

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0124396**	**6.164182**	**.0000549**	**-.000792**	**16.63939**	**.0087732**	**.0023738**
Stddev	.0001791	.068796	.0004100	.000289	.03739	.0009160	.0002667
%RSD	1.440094	1.116065	747.3633	36.53755	.2247146	10.44102	11.23395
#1	.0124074	6.219949	.0000893	-.000855	16.66994	.0078885	.0024541
#2	.0122787	6.185294	-.000371	-.001045	16.65055	.0097176	.0025910
#3	.0126327	6.087304	.000447	-.000476	16.59769	.0087136	.0020762

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5294443**	**.0084306**	**.0387472**	**.0012782**	**2.155785**	**3.292045**	**-.000221**
Stddev	.0013750	.0028577	.0008472	.0002119	.002049	.013567	.000414
%RSD	.2597089	33.89644	2.186405	16.57413	.0950241	.4121052	187.0635
#1	.5301967	.0058258	.0394791	.0010800	2.157104	3.306661	-.000486
#2	.5302789	.0114873	.0378192	.0012530	2.156827	3.289619	-.000432
#3	.5278573	.0079787	.0389432	.0015015	2.153425	3.279855	.000256

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01LX5 Acquired: 6/24/2025 22:09:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000581**	**.0470645**	**.0393498**
Stddev	.002687	.0056643	.0000662
%RSD	462.4800	12.03506	.1683503
#1	.001330	.0481232	.0394183
#2	.000581	.0521248	.0393450
#3	-.003654	.0409457	.0392860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4889.440**	**40336.28**	**2262.541**	**3546.911**	**5183.788**
Stddev	13.654	119.99	2.040	9.170	5.982
%RSD	.2792576	.2974655	.0901756	.2585317	.1153919
#1	4905.066	40451.59	2261.082	3553.706	5190.659
#2	4883.447	40345.14	2264.873	3550.546	5180.969
#3	4879.808	40212.11	2261.670	3536.481	5179.738

Sample Name: Q2385-01MS Acquired: 6/24/2025 22:14:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7861421**	**2.000224**	**1.001172**	**2.029368**	**.8777613**	**2.271355**
Stddev	.0010402	.005042	.000341	.008288	.0016383	.027485
%RSD	.1323160	.2520963	.0340460	.4084061	.1866471	1.210088
#1	.7852315	2.005482	1.000912	2.037916	.8795543	2.265970
#2	.7872757	1.995428	1.001046	2.021367	.8773873	2.246962
#3	.7859191	1.999763	1.001558	2.028822	.8763424	2.301135

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3263481**	**.2116739**	**.2043790**	**66.13811**	**.4178207**	**.2212111**
Stddev	.0020315	.0024306	.0000819	.17628	.0017895	.0003576
%RSD	.6225037	1.148261	.0400819	.2665282	.4282941	.1616637
#1	.3252269	.2096049	.2044723	65.94418	.4198865	.2208100
#2	.3251243	.2110662	.2043455	66.18153	.4168282	.2213267
#3	.3286932	.2143507	.2043191	66.28862	.4167474	.2214966

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3095175**	**3.766106**	**.2611142**	**32.68140**	**.5148677**	**.0759560**
Stddev	.0025536	.049331	.0004339	.22524	.0004327	.0009576
%RSD	.8250346	1.309877	.1661522	.6891944	.0840372	1.260674
#1	.3074671	3.709162	.2608763	32.57108	.5153411	.0768377
#2	.3087075	3.795861	.2608513	32.53258	.5147692	.0749373
#3	.3123779	3.793294	.2616150	32.94053	.5144927	.0760928

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**87.98487**	**.3258362**	**.2218333**	**14.54000**	**6.205693**	**.4764909**
Stddev	1.00645	.0062336	.0013393	.18602	.004681	.0050318
%RSD	1.143886	1.913099	.6037605	1.279401	.0754242	1.056019
#1	87.28830	.3323413	.2224162	14.34133	6.210897	.4724849
#2	87.52754	.3199153	.2203013	14.56861	6.204357	.4748493
#3	89.13878	.3252521	.2227825	14.71006	6.201826	.4821385

Sample Name: Q2385-01MS Acquired: 6/24/2025 22:14:10 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4480158	11.21758	F 17.11963	.7501949	.2104699	.1837150
Stddev	.0006771	.01359	.15787	.0004617	.0018231	.0019438
%RSD	.1511370	.1211644	.9221545	.0615457	.8662072	1.058067
#1	.4487961	11.22469	16.99880	.7505593	.2084294	.1857165
#2	.4476683	11.22614	17.06183	.7503498	.2110417	.1835941
#3	.4475829	11.20191	17.29825	.7496757	.2119386	.1818345

Elem	Sr4077
Units	ppm
Avg	.4034861
Stddev	.0008478
%RSD	.2101183
#1	.4026801
#2	.4034080
#3	.4043702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4714.770	38850.09	2208.257	3427.240	4831.822
Stddev	12.173	93.74	24.887	3.922	10.421
%RSD	.2581963	.2412925	1.126981	.1144406	.2156646
#1	4726.393	38930.67	2231.409	3424.470	4842.316
#2	4715.803	38747.21	2211.423	3425.522	4831.675
#3	4702.113	38872.40	2181.939	3431.728	4821.476

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01MSD Acquired: 6/24/2025 22:18:29 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7492769**	**1.912949**	**.9576705**	**1.933913**	**.8360714**	**2.176225**
Stddev	.0029583	.000902	.0020185	.005930	.0008647	.019981
%RSD	.3948199	.0471772	.2107737	.3066259	.1034254	.9181512
#1	.7525211	1.911965	.9555083	1.927672	.8370212	2.160704
#2	.7485810	1.913142	.9579980	1.934596	.8353298	2.198770
#3	.7467286	1.913739	.9595053	1.939472	.8358632	2.169202

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3145175**	**.2024265**	**.1952255**	**64.26313**	**.3992620**	**.2110975**
Stddev	.0011866	.0010987	.0004800	.39939	.0015014	.0003371
%RSD	.3772819	.5427698	.2458687	.6214971	.3760451	.1597049
#1	.3152871	.2012879	.1948021	64.28320	.3991807	.2108810
#2	.3131509	.2025113	.1951274	63.85408	.4008025	.2114859
#3	.3151144	.2034804	.1957469	64.65211	.3978030	.2109256

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2960956**	**3.611074**	**.2512006**	**31.90479**	**.4912278**	**.0707052**
Stddev	.0010922	.037514	.0002672	.17494	.0003246	.0023752
%RSD	.3688740	1.038853	.1063649	.5483045	.0660817	3.359245
#1	.2948975	3.652920	.2514921	31.70584	.4912293	.0733039
#2	.2963535	3.599847	.2511421	31.97400	.4909025	.0686465
#3	.2970358	3.580456	.2509674	32.03453	.4915517	.0701653

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**85.80528**	**.3032223**	**.2113810**	**13.87729**	**5.926516**	**.4601286**
Stddev	.55474	.0062173	.0003892	.01711	.008762	.0017504
%RSD	.6465138	2.050412	.1841008	.1232770	.1478387	.3804171
#1	85.16472	.2986540	.2117905	13.87737	5.916482	.4583286
#2	86.12619	.3007102	.2113365	13.86014	5.932655	.4602326
#3	86.12494	.3103026	.2110161	13.89435	5.930411	.4618247

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2385-01MSD Acquired: 6/24/2025 22:18:29 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4273787	10.90348	F 16.66230	.7147379	.2033119	.1708533
Stddev	.0008496	.02950	.06603	.0003908	.0020360	.0026000
%RSD	.1987931	.2705772	.3963136	.0546801	1.001404	1.521782
#1	.4264115	10.86947	16.59483	.7143379	.2052133	.1738506
#2	.4280047	10.91877	16.66528	.7147569	.2011638	.1695033
#3	.4277199	10.92219	16.72679	.7151188	.2035585	.1692059

Elem	Sr4077
Units	ppm
Avg	.3892500
Stddev	.0005703
%RSD	.1465148
#1	.3891260
#2	.3887518
#3	.3898721

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4788.854	39429.53	2243.339	3486.996	4907.366
Stddev	21.758	67.52	10.973	6.240	25.493
%RSD	.4543384	.1712417	.4891274	.1789570	.5194903
#1	4764.191	39468.19	2254.386	3481.543	4877.984
#2	4805.336	39351.56	2243.187	3485.642	4923.616
#3	4797.033	39468.82	2232.442	3493.802	4920.498

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV04 Acquired: 6/24/2025 22:22:48 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**4.890777**	**5.024867**	**4.955744**	**5.055615**	**5.070738**	**9.916541**	**9.963051**
Stddev	.009588	.004033	.012867	.015651	.011301	.026337	.020043
%RSD	.1960376	.0802693	.2596368	.3095704	.2228595	.2655893	.2011684
#1	4.881168	5.022927	4.946358	5.046056	5.060397	9.944102	9.975008
#2	4.900344	5.029504	4.970411	5.073676	5.082801	9.913893	9.974232
#3	4.890820	5.022170	4.950462	5.047113	5.069015	9.891627	9.939912

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2477857**	**2.489067**	**23.97893**	**.9803117**	**2.493897**	**1.208480**	**4.855960**
Stddev	.0011074	.006324	.05426	.0018905	.003191	.006924	.018095
%RSD	.4469366	.2540717	.2262806	.1928481	.1279424	.5729555	.3726249
#1	.2472802	2.485546	24.03507	.9781413	2.491126	1.202412	4.835092
#2	.2490557	2.496368	23.97494	.9811946	2.497385	1.216022	4.867303
#3	.2470212	2.485287	23.92677	.9815993	2.493179	1.207005	4.865484

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.423396**	**24.20640**	**2.490022**	**1.261651**	**23.64690**	**2.429787**	**2.498945**
Stddev	.008831	.27863	.003728	.003212	.14566	.020794	.002504
%RSD	.3644195	1.151070	.1497091	.2546196	.6159964	.8558024	.1002097
#1	2.426406	24.01010	2.486436	1.262652	23.48615	2.446322	2.497449
#2	2.430330	24.52531	2.493877	1.258057	23.77014	2.436597	2.497549
#3	2.413454	24.08378	2.489754	1.264244	23.68439	2.406442	2.501836

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.51086**	**4.977217**	**4.846254**	**5.077358**	**4.826203**	**4.894461**	**5.000916**
Stddev	.26173	.011658	.030861	.008509	.020927	.039760	.015605
%RSD	1.113224	.2342360	.6368085	.1675927	.4336089	.8123455	.3120502
#1	23.33557	4.969724	4.813058	5.069037	4.805971	4.850101	4.995365
#2	23.38529	4.990649	4.874074	5.086044	4.847761	4.926890	5.018538
#3	23.81171	4.971278	4.851630	5.076993	4.824876	4.906390	4.988845

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV04 Acquired: 6/24/2025 22:22:48 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.874186**	**4.998645**	**4.924262**
Stddev	.012834	.009972	.016357
%RSD	.2633101	.1994939	.3321693
#1	4.883334	4.996614	4.936077
#2	4.879709	5.009477	4.931116
#3	4.859515	4.989846	4.905593

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4797.635**	**39565.52**	**2238.023**	**3490.035**	**4807.625**
Stddev	8.127	147.79	9.303	7.285	5.389
%RSD	.1694048	.3735302	.4156624	.2087386	.1120833
#1	4789.809	39538.18	2248.566	3488.256	4802.270
#2	4797.062	39725.07	2230.970	3498.045	4807.559
#3	4806.033	39433.30	2234.534	3483.804	4813.047

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: LLCCV01 Acquired: 6/24/2025 22:47:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: LLCCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0197930**	**.0390759**	**.0111373**	**.0206208**	**.0547946**	**.0963184**	**.0960257**
Stddev	.0018558	.0014859	.0011571	.0013131	.0006807	.0039863	.0004097
%RSD	9.376213	3.802700	10.38960	6.368016	1.242230	4.138702	.4266710
#1	.0208002	.0400808	.0123758	.0216439	.0552741	.0943706	.0956681
#2	.0209275	.0373691	.0100838	.0210785	.0540156	.1009041	.0964728
#3	.0176514	.0397780	.0109524	.0191401	.0550943	.0936804	.0959363

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060511**	**.0054623**	**1.880513**	**.0082836**	**.0291886**	**.0204698**	**.1051480**
Stddev	.0001220	.0000774	.021685	.0002143	.0002895	.0004923	.0180924
%RSD	2.015643	1.416674	1.153169	2.587063	.9917236	2.404931	17.20658
#1	.0060144	.0054561	1.881892	.0085267	.0294358	.0200597	.0842596
#2	.0059517	.0055426	1.858171	.0082018	.0292599	.0203341	.1152953
#3	.0061872	.0053882	1.901476	.0081222	.0288702	.0210157	.1158892

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0228581**	**2.094696**	**.0381366**	**.0094499**	**1.686988**	**.0355886**	**.0385086**
Stddev	.0004121	.061912	.0001704	.0010594	.021034	.0084911	.0005106
%RSD	1.802916	2.955634	.4468994	11.21026	1.246827	23.85904	1.325868
#1	.0229480	2.032064	.0383173	.0083948	1.705828	.0311032	.0383734
#2	.0232179	2.155861	.0379787	.0105135	1.664294	.0453818	.0390732
#3	.0224085	2.096161	.0381137	.0094414	1.690842	.0302809	.0380792

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.833260**	**.0177855**	**.0940479**	**.1994992**	**.0182362**	**.3562559**	**.0364659**
Stddev	.005847	.0010417	.0010653	.0000785	.0066220	.0011660	.0005999
%RSD	.3189339	5.857219	1.132728	.0393457	36.31238	.3272962	1.645013
#1	1.838064	.0173374	.0928568	.1995898	.0106689	.3567442	.0358062
#2	1.826750	.0189763	.0943772	.1994539	.0229701	.3549251	.0366131
#3	1.834966	.0170427	.0949096	.1994539	.0210697	.3570983	.0369785

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: LLCCV01 Acquired: 6/24/2025 22:47:01 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: LLCCV01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0386785	.0158323	.0192757
Stddev	.0009189	.0081190	.0002804
%RSD	2.375752	51.28147	1.454871
#1	.0395832	.0195527	.0192412
#2	.0377460	.0065197	.0190142
#3	.0387064	.0214245	.0195718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4922.609	40641.81	2249.572	3574.626	5351.584
Stddev	7.798	68.35	11.674	4.574	11.678
%RSD	.1584166	.1681737	.5189575	.1279694	.2182113
#1	4913.671	40710.94	2250.494	3579.224	5338.112
#2	4926.134	40574.27	2260.758	3574.579	5358.809
#3	4928.022	40640.21	2237.464	3570.076	5357.832

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB04 Acquired: 6/24/2025 23:01:40 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.001527**	**-.000204**	**-.000819**	**.0035079**	**.0022133**	**-.008217**	**-.001024**
Stddev	.002795	.000864	.001544	.0038615	.0018269	.007067	.000165
%RSD	183.0593	424.3377	188.5280	110.0791	82.54075	86.00505	16.07175
#1	.000399	.000332	.000620	.0053588	.0040816	-.005035	-.001211
#2	-.004733	-.001200	-.000628	-.000931	.0021274	-.016316	-.000903
#3	-.000247	.000257	-.002449	.006096	.0004309	-.003301	-.000957

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000135**	**-.000004**	**-.027545**	**-.002069**	**-.000226**	**-.000736**	**-.005284**
Stddev	.000114	.000087	.012088	.001336	.000320	.000457	.015523
%RSD	84.07372	2269.026	43.88670	64.56806	141.3775	62.17561	293.7738
#1	-.000251	.000086	-.014036	-.002420	-.000189	-.001255	-.004449
#2	-.000133	-.000089	-.037343	-.000593	-.000563	-.000562	.009804
#3	-.000023	-.000009	-.031255	-.003194	.000073	-.000391	-.021208

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013932**	**.0241257**	**-.000100**	**-.000606**	**.0156501**	**-.001669**	**-.001621**
Stddev	.0006304	.0170283	.000264	.000683	.0095504	.006304	.000331
%RSD	45.24684	70.58170	263.1051	112.7037	61.02471	377.8463	20.40461
#1	.0009717	.0393591	.000097	.000168	.0231227	-.008316	-.001242
#2	.0010900	.0272756	.000001	-.001124	.0189375	-.000915	-.001772
#3	.0021180	.0057423	-.000400	-.000862	.0048902	.004225	-.001850

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011386**	**-.000755**	**-.004227**	**.0001521**	**-.002832**	**-.008970**	**-.000910**
Stddev	.002900	.001393	.000792	.0002874	.000733	.000278	.000492
%RSD	25.47241	184.4057	18.74465	188.9632	25.88832	3.095857	54.07087
#1	-.014734	-.000431	-.005139	.0002388	-.002253	-.008661	-.000403
#2	-.009724	-.002282	-.003839	-.000169	-.002586	-.009048	-.000943
#3	-.009699	.000447	-.003704	.000386	-.003656	-.009200	-.001386

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB04 Acquired: 6/24/2025 23:01:40 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006132	-.009497	.0001018
Stddev	.0024574	.002998	.0000973
%RSD	400.7717	31.56633	95.57215
#1	-.000842	-.012684	-.000004
#2	-.000769	-.006734	.000187
#3	.003450	-.009072	.000123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4923.157	40684.27	2239.584	3569.775	5390.886
Stddev	9.257	312.00	23.507	25.809	5.825
%RSD	.1880282	.7668928	1.049600	.7229733	.1080454
#1	4930.236	40324.00	2265.494	3540.126	5397.217
#2	4912.682	40863.92	2219.624	3587.201	5385.754
#3	4926.554	40864.89	2233.633	3581.999	5389.688

Sample Name: Q2385-01A Acquired: 6/24/2025 23:06:16 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7417322**	**1.887343**	**.9458778**	**1.907620**	**.8154627**	**2.137812**
Stddev	.0022964	.000282	.0013792	.005632	.0007167	.025151
%RSD	.3096003	.0149664	.1458142	.2952626	.0878910	1.176498
#1	.7398543	1.887500	.9443188	1.907518	.8157916	2.166735
#2	.7442924	1.887017	.9469391	1.902038	.8159558	2.121067
#3	.7410499	1.887513	.9463753	1.913302	.8146405	2.125636

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3123904**	**.2019170**	**.1924832**	**64.16377**	**.3929535**	**.2093314**
Stddev	.0019629	.0017333	.0000725	.15126	.0007903	.0003198
%RSD	.6283409	.8584329	.0376720	.2357461	.2011259	.1527568
#1	.3111739	.2035941	.1925669	64.28084	.3920791	.2095025
#2	.3146549	.2020245	.1924436	64.21749	.3931643	.2089625
#3	.3113425	.2001324	.1924391	63.99298	.3936170	.2095292

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2956845**	**3.571466**	**.2479304**	**31.70736**	**.4857597**	**.0701798**
Stddev	.0020886	.017916	.0016780	.22079	.0005958	.0007217
%RSD	.7063534	.5016517	.6767831	.6963398	.1226487	1.028317
#1	.2978465	3.555330	.2491517	31.48123	.4853143	.0696512
#2	.2955291	3.568321	.2486225	31.92239	.4855285	.0698862
#3	.2936780	3.590746	.2460172	31.71845	.4864365	.0710020

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**85.92089**	**.2977002**	**.2104788**	**13.94437**	**5.856871**	**.4611036**
Stddev	.45223	.0054234	.0006024	.08426	.001746	.0031418
%RSD	.5263365	1.821771	.2862206	.6042857	.0298035	.6813569
#1	86.35694	.2935399	.2111108	13.85961	5.857972	.4604966
#2	85.95169	.3038340	.2104145	14.02813	5.857781	.4645045
#3	85.45405	.2957265	.2099111	13.94537	5.854858	.4583096

Sample Name: Q2385-01A Acquired: 6/24/2025 23:06:16 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4180774	10.86282	F 16.75575	.6965690	.1996116	.1681037
Stddev	.0002369	.02607	.10517	.0029061	.0022142	.0040384
%RSD	.0566712	.2399523	.6276795	.4172065	1.109246	2.402357
#1	.4181048	10.87307	16.85505	.6988305	.2014230	.1705410
#2	.4178279	10.83318	16.76664	.6932912	.1971433	.1634421
#3	.4182994	10.88219	16.64555	.6975852	.2002684	.1703279

Elem	Sr4077
Units	ppm
Avg	.3871560
Stddev	.0003170
%RSD	.0818776
#1	.3868112
#2	.3874349
#3	.3872219

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4734.507	38974.38	2197.530	3444.597	4864.780
Stddev	12.042	242.19	4.329	15.854	11.790
%RSD	.2543433	.6214006	.1969954	.4602489	.2423601
#1	4725.126	39227.43	2202.258	3461.059	4855.804
#2	4730.310	38950.94	2196.571	3443.303	4860.404
#3	4748.086	38744.76	2193.760	3429.431	4878.133

Sample Name: Q2383-01 Acquired: 6/24/2025 23:10:42 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0614333**	**.0019731**	**.1390559**	**.0401636**	**.0175135**	**91.26545**	**.7779629**
Stddev	.0024400	.0009214	.0017279	.0017314	.0023325	.17502	.0014130
%RSD	3.971701	46.69902	1.242578	4.310867	13.31841	.1917690	.1816282
#1	.0594101	.0015814	.1404608	.0400023	.0148413	91.06800	.7765351
#2	.0607469	.0030257	.1371266	.0385186	.0191418	91.40149	.7793607
#3	.0641430	.0013123	.1395803	.0419701	.0185572	91.32685	.7779928

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137675**	**.0025962**	**44.84699**	**.2788606**	**.2040481**	**.1012003**	**149.1387**
Stddev	.0001732	.0000218	.10996	.0013823	.0002325	.0006784	.2816
%RSD	1.258267	.8396683	.2451929	.4957081	.1139328	.6703678	.1888095
#1	.0138142	.0025711	44.72004	.2772658	.2042708	.1017417	148.8260
#2	.0135757	.0026079	44.90810	.2796008	.2038070	.1014199	149.3723
#3	.0139126	.0026097	44.91281	.2797152	.2040666	.1004393	149.2178

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.553748**	**58.39571**	**.2851225**	**-.013043**	**3.709068**	**.2371549**	**1.846895**
Stddev	.001741	.13160	.0005907	.000589	.008131	.0034222	.000881
%RSD	.0313528	.2253591	.2071820	4.516968	.2192271	1.443038	.0476988
#1	5.551745	58.32972	.2853889	-.013454	3.703599	.2346850	1.847329
#2	5.554902	58.31015	.2844454	-.013307	3.705192	.2410612	1.845882
#3	5.554597	58.54724	.2855330	-.012368	3.718412	.2357183	1.847475

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.02203**	**16.40561**	**.0859030**	**.0132818**	**13.54437**	**2.081955**	**.0129079**
Stddev	.03643	.02703	.0026166	.0001423	.01892	.009528	.0021431
%RSD	.1819473	.1647749	3.045980	1.071475	.1397073	.4576657	16.60335
#1	20.04644	16.39699	.0886587	.0134312	13.52392	2.086988	.0140059
#2	19.98016	16.38393	.0855981	.0131478	13.54796	2.087913	.0104382
#3	20.03949	16.43590	.0834522	.0132663	13.56125	2.070966	.0142794

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2383-01 Acquired: 6/24/2025 23:10:42 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9417069	.0526361	.5515832
Stddev	.0011187	.0037571	.0013120
%RSD	.1187911	7.137831	.2378668
#1	.9422917	.0533030	.5500754
#2	.9424121	.0485902	.5524653
#3	.9404171	.0560151	.5522089

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6578.920	53708.63	3120.973	4767.445	4804.987
Stddev	9.882	306.36	6.222	15.975	8.240
%RSD	.1502005	.5704107	.1993565	.3350835	.1714822
#1	6576.787	54004.33	3127.429	4777.154	4813.296
#2	6570.280	53728.95	3115.015	4776.173	4796.819
#3	6589.694	53392.62	3120.474	4749.007	4804.847

Sample Name: Q2384-01 Acquired: 6/24/2025 23:15:12 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0420713	-.054344	.2231425	.0949486	.0273132	173.5195	.5710743
Stddev	.0066198	.002205	.0037263	.0009873	.0036538	1.0003	.0043215
%RSD	15.73477	4.056857	1.669915	1.039780	13.37726	.5764542	.7567302
#1	.0439066	-.056819	.2242120	.0948799	.0294173	172.5249	.5680892
#2	.0475798	-.053625	.2262171	.0959684	.0230942	174.5253	.5760298
#3	.0347275	-.052589	.2189984	.0939974	.0294281	173.5082	.5691040

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089516	-.003613	42.13288	.2031506	.2502228	.3306306	319.5032
Stddev	.0003876	.000132	.24414	.0009085	.0008865	.0033448	1.9423
%RSD	4.329552	3.642969	.5794602	.4471838	.3542963	1.011654	.6079169
#1	.0085179	-.003554	41.86608	.2030057	.2511273	.3329238	317.8932
#2	.0090732	-.003764	42.34514	.2041227	.2493554	.3267926	321.6604
#3	.0092639	-.003522	42.18743	.2023232	.2501857	.3321754	318.9560

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.057274	56.05303	.2838805	-.029306	15.54525	.7484276	.5170668
Stddev	.018323	.24981	.0007176	.000705	.07641	.0043456	.0008949
%RSD	.3623085	.4456711	.2527909	2.407147	.4915497	.5806240	.1730675
#1	5.038493	55.79163	.2841570	-.029314	15.56206	.7534332	.5160418
#2	5.075102	56.28937	.2844188	-.030007	15.61185	.7462273	.5174654
#3	5.058225	56.07808	.2830658	-.028596	15.46183	.7456223	.5176930

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.15177	8.568845	.0955774	.0098639	9.504891	4.106050	-.008630
Stddev	.81665	.115990	.0052114	.0004569	.143553	.020830	.001925
%RSD	5.770678	1.353625	5.452491	4.632002	1.510310	.5072980	22.30767
#1	14.68088	8.701737	.0952866	.0102140	9.670644	4.123210	-.009597
#2	14.56319	8.487963	.1009281	.0093470	9.420597	4.082875	-.006413
#3	13.21123	8.516834	.0905176	.0100306	9.423433	4.112066	-.009881

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2384-01 Acquired: 6/24/2025 23:15:12 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.186471	.1165973	.1189392
Stddev	.050900	.0021259	.0008156
%RSD	.6217566	1.823260	.6857069
#1	8.131692	.1151024	.1180716
#2	8.232306	.1190310	.1196902
#3	8.195414	.1156586	.1190558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5836.812	47487.51	2825.591	4260.415	4611.483
Stddev	145.623	306.93	3.970	18.886	113.250
%RSD	2.494903	.6463466	.1405052	.4432889	2.455831
#1	5669.779	47599.62	2829.363	4276.753	4481.266
#2	5937.093	47140.28	2821.448	4239.737	4686.997
#3	5903.564	47722.63	2825.963	4264.756	4666.186

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2386-01 Acquired: 6/24/2025 23:19:38 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0966359**	**-.021637**	**1.243388**	**.1221319**	**.0404881**	**176.7870**	**1.802641**
Stddev	.0006455	.002079	.013878	.0027772	.0022263	.2869	.003732
%RSD	.6680168	9.609264	1.116153	2.273971	5.498618	.1622993	.2070323
#1	.0958927	-.019300	1.227498	.1189428	.0384621	176.7765	1.804579
#2	.0970572	-.023281	1.253129	.1234342	.0428715	176.5055	1.798339
#3	.0969579	-.022331	1.249537	.1240187	.0401309	177.0791	1.805005

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0174811**	**.0058928**	**55.61735**	**.3510031**	**.3096684**	**.4708414**	**429.4783**
Stddev	.0015686	.0003186	.05801	.0035438	.0020699	.0371221	.8437
%RSD	8.972910	5.406440	.1043014	1.009610	.6684211	7.884210	.1964395
#1	.0185772	.0055523	55.56928	.3484673	.3076806	.4957351	429.3382
#2	.0156843	.0061837	55.60098	.3550523	.3095129	.4281740	428.7134
#3	.0181816	.0059423	55.68178	.3494898	.3118116	.4886151	430.3832

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.433058**	**104.2348**	**.6260034**	**-.040667**	**10.30585**	**.5239675**	**2.694934**
Stddev	.016657	.3006	.0034730	.001551	.69313	.0074881	.028459
%RSD	.2240907	.2884222	.5547916	3.813626	6.725591	1.429124	1.056015
#1	7.434486	104.0112	.6220807	-.039486	10.76410	.5282367	2.674029
#2	7.415733	104.1166	.6272428	-.042424	9.50845	.5153212	2.727344
#3	7.448955	104.5766	.6286866	-.040092	10.64500	.5283447	2.683427

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.85977**	**10.87269**	**.2262510**	**.0164356**	**7.372900**	**4.134621**	**.0267512**
Stddev	.42140	.21159	.0225387	.0004360	.156503	.338120	.0013991
%RSD	1.411253	1.946100	9.961822	2.653048	2.122684	8.177783	5.230211
#1	29.60143	10.62836	.2089973	.0164585	7.192286	4.349198	.0274421
#2	30.34604	10.99602	.2517517	.0159885	7.457992	3.744856	.0251410
#3	29.63184	10.99368	.2180039	.0168597	7.468423	4.309809	.0276706

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2386-01 Acquired: 6/24/2025 23:19:38 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.733604**	**.5462581**	**.4840167**
Stddev	.005954	.0012581	.0008187
%RSD	.1257730	.2303057	.1691549
#1	4.735758	.5466308	.4838547
#2	4.726873	.5472877	.4832911
#3	4.738181	.5448557	.4849043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5851.722**	**46006.59**	**2893.507**	**4126.252**	**4423.868**
Stddev	73.823	4326.69	7.357	373.925	65.994
%RSD	1.261568	9.404506	.2542501	9.062091	1.491769
#1	5936.067	48738.92	2900.308	4373.465	4500.060
#2	5798.858	41018.13	2885.699	3696.077	4384.664
#3	5820.241	48262.72	2894.515	4309.213	4386.879

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01RE Acquired: 6/24/2025 23:24:04 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0915705	-.050068	.7252975	.1208418	.0392182	199.5224
Stddev	.0031263	.003596	.0088977	.0066614	.0005705	.9925
%RSD	3.414071	7.181602	1.226771	5.512480	1.454636	.4974167
#1	.0896594	-.051205	.7355658	.1135918	.0390234	199.7306
#2	.0898739	-.046041	.7204629	.1222415	.0398606	198.4423
#3	.0951783	-.052958	.7198636	.1266921	.0387707	200.3942

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.026085	.0144571	.0003229	53.05020	.2783970	.3246675
Stddev	.001811	.0036301	.0001073	.13535	.0038096	.0014057
%RSD	.1764738	25.10919	33.23986	.2551419	1.368402	.4329565
#1	1.023994	.0110547	.0004287	52.96052	.2800750	.3262772
#2	1.027126	.0182785	.0002142	52.98418	.2810795	.3236819
#3	1.027135	.0140381	.0003258	53.20589	.2740364	.3240435

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5212644	399.8849	9.168828	57.34133	.3619448	-.037134
Stddev	.0953692	1.6583	.035642	.32042	.0013642	.003484
%RSD	18.29574	.4146854	.3887278	.5587897	.3769188	9.381571
#1	.4283118	398.4308	9.131872	57.00909	.3631706	-.038266
#2	.6188792	401.6908	9.202991	57.64845	.3604751	-.039910
#3	.5166023	399.5329	9.171620	57.36646	.3621889	-.033225

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	1.010715	1.142443	13.58836	11.62402	.2151641
Stddev	-----	.000239	.029227	2.26007	.32498	.0566433
%RSD	-----	.0236450	2.558292	16.63241	2.795753	26.32562
#1	^ -----	1.010591	1.171954	12.11882	11.99820	.2657161
#2	^ -----	1.010991	1.141866	16.19082	11.41238	.1539460
#3	3.565510	1.010564	1.113508	12.45544	11.46148	.2258303

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01RE Acquired: 6/24/2025 23:24:04 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089686	6.572258	F 14.90688	.0214389	7.399257	.1646207
Stddev	.0003816	.203833	3.13040	.0004257	.011107	.0035231
%RSD	4.255181	3.101421	20.99967	1.985691	.1501163	2.140128
#1	.0089497	6.807301	12.09890	.0210937	7.395971	.1606133
#2	.0085968	6.444057	18.28212	.0219146	7.390163	.1672308
#3	.0093594	6.465416	14.33962	.0213085	7.411637	.1660181

Elem	Sr4077
Units	ppm
Avg	.2220541
Stddev	.0005262
%RSD	.2369822
#1	.2218869
#2	.2216318
#3	.2226436

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6130.899	45155.92	2740.311	4141.496	4558.590
Stddev	218.255	4953.14	451.378	387.231	164.911
%RSD	3.559923	10.96897	16.47178	9.350038	3.617586
#1	5878.888	40253.84	3030.833	3722.180	4368.174
#2	6255.069	45055.32	2220.297	4216.697	4652.417
#3	6258.739	50158.59	2969.803	4485.611	4655.179

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2372-02DLX20 Acquired: 6/24/2025 23:28:30 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000656	k -.001686	.9457732	-.000641	k .0165951	20.68703	.2454197
Stddev	.005768	.001881	.0077905	.004289	.0047605	.04014	.0013465
%RSD	878.9206	111.5281	.8237217	669.0174	28.68617	.1940284	.548570
#1	-.004050	k -.000847	.9372351	.002353	k .0207417	20.65144	.245562
#2	-.003923	-.000372	.9475891	.001278	.0176469	20.67912	.246688
#3	.006004	-.003841	.9524954	-.005554	.0113966	20.73054	.2440077

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012196	.0175083	15.01239	s .6542084	.0213404	.4141076	21.38878
Stddev	.0000657	.0001628	.08155	.3153537	.0001512	.0037934	.1183
%RSD	5.383999	.9299423	.5431931	48.20387	.7083948	.9160473	.553107
#1	.0011490	.0173229	15.07781	s 1.018348	.0214348	.4100193	21.4280
#2	.0012309	.0175735	15.03833	.472224	.0211660	.4175136	21.4824
#3	.0012789	.0176283	14.92103	.472054	.0214203	.4147899	21.25584

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4375784	7.277708	.5466460	s -.007351	3.989683	k .0350107	^ *****
Stddev	.0016733	.074668	.0009390	.006367	.072553	.0150809	-----
%RSD	.3824096	1.025985	.1717710	86.61523	1.818512	43.07509	-----
#1	.4375344	7.221869	.5460786	s -.014703	4.072127	k .0204221	^ -----
#2	.4392733	7.362521	.5461295	-.003620	3.935570	.0340701	4.242982
#3	.4359275	7.248734	.5477298	-.003730	3.961352	.0505399	4.213553

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	.9093547	k .0368580	.0049064	1.649446	^ *****	.0047728
Stddev	-----	.0232227	.0013659	.0002137	.052025	-----	.0012416
%RSD	-----	2.553750	3.705713	4.354999	3.154064	-----	26.01310
#1	^ -----	.8830024	k .0356263	.0049090	1.589742	^ -----	.0050525
#2	3.521972	.9182346	.0366207	.0051187	1.673541	6.532390	.0058507
#3	3.602812	.9268272	.0383269	.0046914	1.685054	6.523139	.0034153

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2372-02DLX20 Acquired: 6/24/2025 23:28:30 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2758062	.0293901	.0910151
Stddev	.0024614	.0039172	.0001019
%RSD	.8924320	13.32813	.1119602
#1	.2766262	.0337499	.0911019
#2	.2777528	.0261671	.0910404
#3	.2730394	.0282533	.0909029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4747.628	^ *****	2322.959	3604.046	4892.219
Stddev	190.022	-----	10.782	28.125	189.091
%RSD	4.002462	-----	.4641397	.7803698	3.865139
#1	4967.031	^ -----	2335.179	3582.106	5110.546
#2	4635.679	40868.54	2314.786	3594.279	4785.384
#3	4640.173	40903.83	2318.914	3635.752	4780.727

Sample Name: Q2375-01DLX5 Acquired: 6/24/2025 23:32:53 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002771**	**-.000346**	**.0028486**	**.0018237**	**.0026408**	**-.004701**	**.0002432**
Stddev	.002275	.001294	.0008287	.0003707	.0009833	.008223	.0004286
%RSD	82.12069	373.5086	29.09112	20.32668	37.23440	174.9063	176.2221
#1	-.004538	.001142	.0022889	.0022495	.0015057	-.011705	-.000250
#2	-.000204	-.000981	.0024563	.0015730	.0031874	-.006752	.000455
#3	-.003570	-.001201	.0038005	.0016487	.0032294	.004353	.000524

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000151**	**-.000042**	**.8264982**	**-.001533**	**.0017276**	**.0002403**	**.3731601**
Stddev	.000140	.000058	.0079933	.000433	.0004817	.0003607	.0105995
%RSD	92.58008	140.2054	.9671289	28.24040	27.88101	150.1476	2.840469
#1	-.000208	-.000041	.8341750	-.001141	.0012080	.0005743	.3663555
#2	.000008	.000016	.8270976	-.001461	.0018156	.0002887	.3677520
#3	-.000254	-.000101	.8182221	-.001998	.0021592	-.000142	.3853727

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048542**	**.3278811**	**.0029568**	**-.001915**	**2.506645**	**.0052884**	**.0052531**
Stddev	.0003572	.0353789	.0002097	.000453	.008914	.0023534	.0001912
%RSD	7.358555	10.79018	7.090309	23.64705	.3556032	44.50179	3.640505
#1	.0044417	.3597973	.0029277	-.002127	2.511417	.0055949	.0050963
#2	.0050590	.3340065	.0031795	-.001395	2.512157	.0074736	.0051967
#3	.0050618	.2898394	.0027633	-.002223	2.496361	.0027967	.0054661

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1260923**	**.0004890**	**-.002362**	**.0002596**	**.9305140**	**1.300289**	**-.000239**
Stddev	.0005226	.0017384	.000475	.0003797	.0187184	.004228	.000447
%RSD	.4144453	355.4727	20.09318	146.2330	2.011622	.3251650	187.3253
#1	.1257517	-.000945	-.001999	.0005902	.9179704	1.303423	.000256
#2	.1266940	.002423	-.002188	.0003436	.9215420	1.301965	-.000356
#3	.1258312	-.000011	-.002899	-.000155	.9520295	1.295480	-.000616

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2375-01DLX5 Acquired: 6/24/2025 23:32:53 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003195	-.011721	.0051754
Stddev	.0024050	.002030	.0000171
%RSD	752.7772	17.32105	.3310309
#1	.0030894	-.010145	.0051952
#2	-.001238	-.014012	.0051666
#3	-.000893	-.011007	.0051645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4945.278	41558.50	2287.270	3639.817	5416.454
Stddev	50.399	93.51	8.262	6.449	65.294
%RSD	1.019138	.2250057	.3612242	.1771774	1.205473
#1	4971.293	41659.38	2290.170	3646.495	5447.717
#2	4977.353	41541.39	2277.949	3639.331	5460.239
#3	4887.187	41474.72	2293.691	3633.624	5341.407

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01DLX5 Acquired: 6/24/2025 23:37:24 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0241689**	**-.009010**	**.1498711**	**.0309951**	**.0143350**	**49.44389**	**.2567224**
Stddev	.0034277	.001703	.0006723	.0012655	.0003445	.05765	.0005808
%RSD	14.18230	18.90441	.4485537	4.083039	2.403347	.1165931	.2262458
#1	.0246217	-.010604	.1504752	.0313614	.0142953	49.44475	.2567212
#2	.0205373	-.007215	.1491468	.0295868	.0140120	49.50111	.2573038
#3	.0273478	-.009211	.1499912	.0320371	.0146976	49.38582	.2561422

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036437**	**-.000937**	**13.39013**	**.0671926**	**.0672723**	**.1324687**	**101.3820**
Stddev	.0001463	.000063	.05582	.0009900	.0002938	.0014307	.2289
%RSD	4.013611	6.707450	.4168791	1.473316	.4367739	1.080003	.2257682
#1	.0035008	-.000983	13.43429	.0661761	.0676115	.1338518	101.6035
#2	.0036372	-.000866	13.40872	.0672481	.0671088	.1309948	101.3961
#3	.0037931	-.000963	13.32739	.0681537	.0670966	.1325597	101.1464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.340852**	**14.72664**	**.0717370**	**-.008716**	**.8931290**	**.2541584**	**.2753860**
Stddev	.004059	.05433	.0004506	.001965	.0171601	.0024894	.0047268
%RSD	.1734104	.3689466	.6280883	22.54542	1.921346	.9794590	1.716423
#1	2.343405	14.72520	.0718291	-.010903	.8859698	.2559567	.2748893
#2	2.342979	14.78168	.0712475	-.008148	.8807077	.2552013	.2709271
#3	2.336171	14.67304	.0721344	-.007098	.9127095	.2513172	.2803415

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.429558**	**2.225867**	**.0530734**	**.0028309**	**1.235540**	**3.638072**	**.0054186**
Stddev	.016274	.008475	.0025406	.0001898	.003935	.009947	.0010522
%RSD	.6698206	.3807583	4.786890	6.705924	.3184616	.2734209	19.41830
#1	2.446853	2.223894	.0511172	.0026464	1.234713	3.648920	.0064232
#2	2.414547	2.235155	.0521582	.0028209	1.239823	3.635915	.0043245
#3	2.427274	2.218552	.0559448	.0030256	1.232085	3.629380	.0055080

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2381-01DLX5 Acquired: 6/24/2025 23:37:24 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.836101	.0368083	.0553807
Stddev	.003093	.0003125	.0001366
%RSD	.1684355	.8491387	.2465770
#1	1.837231	.0370591	.0552577
#2	1.838469	.0369077	.0555277
#3	1.832602	.0364581	.0553568

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5220.741	42658.07	2419.989	3788.160	5050.321
Stddev	20.638	202.94	12.939	27.596	16.352
%RSD	.3953156	.4757314	.5346752	.7284701	.3237773
#1	5239.162	42785.47	2405.547	3795.592	5063.846
#2	5198.437	42764.69	2423.895	3811.278	5032.149
#3	5224.623	42424.04	2430.526	3757.609	5054.969

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2372-02DL2X100 Acquired: 6/24/2025 23:41:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001636**	**-.000303**	**.1892458**	**.0000005**	**.0044744**	**4.278530**	**.0495040**
Stddev	.001609	.000862	.0010542	.0015741	.0017588	.007074	.0003279
%RSD	98.31248	284.2551	.5570282	305328.3	39.30774	.1653429	.6623413
#1	-.002213	.000674	.1897570	.0001715	.0041252	4.286589	.0496156
#2	-.002877	-.000953	.1880335	-.001652	.0029163	4.275657	.0491349
#3	.000181	-.000631	.1899469	.001482	.0063815	4.273345	.0497615

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002423**	**.0034169**	**3.122261**	**.0960617**	**.0045574**	**.0874082**	**4.481552**
Stddev	.0001440	.0000560	.033641	.0010380	.0002100	.0009118	.015512
%RSD	59.40048	1.639369	1.077468	1.080567	4.608824	1.043091	.3461357
#1	.0003030	.0033906	3.091052	.0958153	.0044852	.0866655	4.469642
#2	.0003460	.0034813	3.157897	.0972008	.0047941	.0871334	4.499093
#3	.0000780	.0033789	3.117835	.0951691	.0043930	.0884258	4.475920

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0924142**	**1.516718**	**.1091858**	**-.002312**	**.7824440**	**.0043046**	**.8771757**
Stddev	.0023344	.038681	.0003117	.000549	.0150321	.0040217	.0013725
%RSD	2.526013	2.550292	.2854306	23.76091	1.921172	93.42835	.1564662
#1	.0912151	1.475635	.1090648	-.001682	.7653802	.0003877	.8762372
#2	.0909230	1.552436	.1095398	-.002686	.7882218	.0084234	.8765391
#3	.0951044	1.522084	.1089528	-.002569	.7937299	.0041026	.8787509

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6282301**	**.1709353**	**.0038348**	**.0009709**	**.3102464**	**1.366506**	**.0004641**
Stddev	.0029000	.0024873	.0004506	.0001791	.0013122	.008251	.0008906
%RSD	.4616216	1.455132	11.75070	18.44568	.4229628	.6038041	191.8984
#1	.6284162	.1736003	.0043551	.0009611	.3097120	1.361389	.0010306
#2	.6252415	.1686753	.0035715	.0007969	.3117415	1.362105	-.000562
#3	.6310326	.1705303	.0035778	.0011547	.3092857	1.376025	.000924

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: Q2372-02DL2X100 Acquired: 6/24/2025 23:41:44 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0600581	-.001474	.0188416
Stddev	.0019966	.005908	.0001656
%RSD	3.324434	400.6951	.8788819
#1	.0622961	-.003699	.0188015
#2	.0594187	-.005948	.0186998
#3	.0584596	.005223	.0190236

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4978.243	41152.36	2277.425	3622.095	5334.161
Stddev	2.744	93.99	6.952	6.102	2.322
%RSD	.0551123	.2283889	.3052491	.1684548	.0435256
#1	4977.062	41111.86	2284.542	3619.278	5336.839
#2	4976.288	41085.42	2277.082	3617.912	5332.940
#3	4981.380	41259.81	2270.651	3629.097	5332.705

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV05 Acquired: 6/24/2025 23:46:07 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin 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	**4.828729**	**4.972086**	**4.899779**	**5.001188**	**5.019043**	**9.767214**	**9.841078**
Stddev	.005986	.008753	.010227	.011102	.004222	.021393	.017188
%RSD	.1239646	.1760527	.2087291	.2219783	.0841172	.2190245	.1746569
#1	4.821995	4.967808	4.890764	4.993059	5.014559	9.791581	9.855771
#2	4.830748	4.966294	4.897681	4.996668	5.022942	9.758543	9.845286
#3	4.833445	4.982156	4.910893	5.013836	5.019627	9.751518	9.822177

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2451526**	**2.463707**	**23.68682**	**.9632236**	**2.468095**	**1.189296**	**4.748971**
Stddev	.0012068	.004150	.03999	.0023610	.003474	.003010	.016752
%RSD	.4922621	.1684389	.1688295	.2451130	.1407580	.2530545	.3527579
#1	.2450617	2.459500	23.66096	.9658078	2.464294	1.189678	4.764698
#2	.2464022	2.463822	23.73288	.9626837	2.468883	1.192096	4.750861
#3	.2439938	2.467797	23.66662	.9611793	2.471107	1.186114	4.731354

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.372866**	**23.69540**	**2.465168**	**1.251700**	**23.38201**	**2.397038**	**2.473424**
Stddev	.002770	.04833	.001967	.001255	.12390	.014785	.004452
%RSD	.1167295	.2039517	.0797984	.1002393	.5299058	.6168184	.1800074
#1	2.371366	23.68726	2.463543	1.251522	23.28176	2.403817	2.476712
#2	2.376062	23.65166	2.464606	1.250544	23.52053	2.380079	2.475201
#3	2.371170	23.74728	2.467355	1.253035	23.34373	2.407220	2.468357

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.43604**	**4.926050**	**4.779856**	**5.028584**	**4.749163**	**4.791154**	**4.939540**
Stddev	.20853	.007536	.011975	.006212	.001710	.013070	.009362
%RSD	.8897802	.1529809	.2505213	.1235288	.0360145	.2727924	.1895254
#1	23.22244	4.919634	4.771654	5.021997	4.750836	4.782333	4.938807
#2	23.63910	4.924167	4.793597	5.029418	4.747417	4.806169	4.930566
#3	23.44657	4.934349	4.774316	5.034336	4.749237	4.784960	4.949246

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCV05 Acquired: 6/24/2025 23:46:07 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.792848**	**4.866678**	**4.855455**
Stddev	.001056	.009429	.008083
%RSD	.0220420	.1937549	.1664789
#1	4.793768	4.876020	4.863631
#2	4.791694	4.866849	4.855266
#3	4.793083	4.857164	4.847468

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4807.876**	**39575.46**	**2245.855**	**3493.898**	**4826.908**
Stddev	.144	13.31	9.220	4.244	.811
%RSD	.0029962	.0336349	.4105280	.1214810	.0168090
#1	4807.834	39564.07	2253.389	3489.077	4826.038
#2	4807.757	39572.21	2235.573	3495.542	4827.042
#3	4808.036	39590.09	2248.602	3497.074	4827.644

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB05 Acquired: 6/24/2025 23:50:24 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001885**	**.0009014**	**.0009365**	**.0032681**	**.0030531**	**.0009928**	**.0006495**
Stddev	.001173	.0011604	.0010213	.0039782	.0020004	.0330972	.0003589
%RSD	62.20262	128.7320	109.0552	121.7261	65.51986	3333.729	55.26103
#1	-.000534	.0012513	-.000181	.0071422	.0052895	-.032483	.0005220
#2	-.002478	-.000394	.001169	.0034688	.0024349	.001764	.0010547
#3	-.002643	.001847	.001822	-.000807	.0014348	.033698	.0003717

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000066**	**.0000416**	**-.014831**	**-.000930**	**.0000261**	**-.001359**	**.0186130**
Stddev	.0001009	.0000805	.019452	.000872	.0003071	.000150	.0108606
%RSD	1521.594	193.3559	131.1572	93.74300	1176.288	11.06403	58.34944
#1	.0000822	.0001064	-.020787	-.000185	.0003572	-.001425	.0260376
#2	.0000457	.0000670	-.030608	-.001889	-.000249	-.001187	.0061481
#3	-.000108	-.000048	.006903	-.000717	-.000030	-.001465	.0236533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020164**	**-.002640**	**-.000184**	**-.001345**	**.0009157**	**.0037319**	**-.001409**
Stddev	.0015153	.049453	.000194	.001323	.0016621	.0032312	.000248
%RSD	75.14811	1872.897	105.4726	98.35155	181.5181	86.58408	17.60974
#1	.0004395	.054260	.000030	-.002510	.0001381	.0042812	-.001288
#2	.0034615	-.035265	-.000235	.000093	-.000215	.0066531	-.001695
#3	.0021483	-.026916	-.000348	-.001617	.002824	.0002612	-.001245

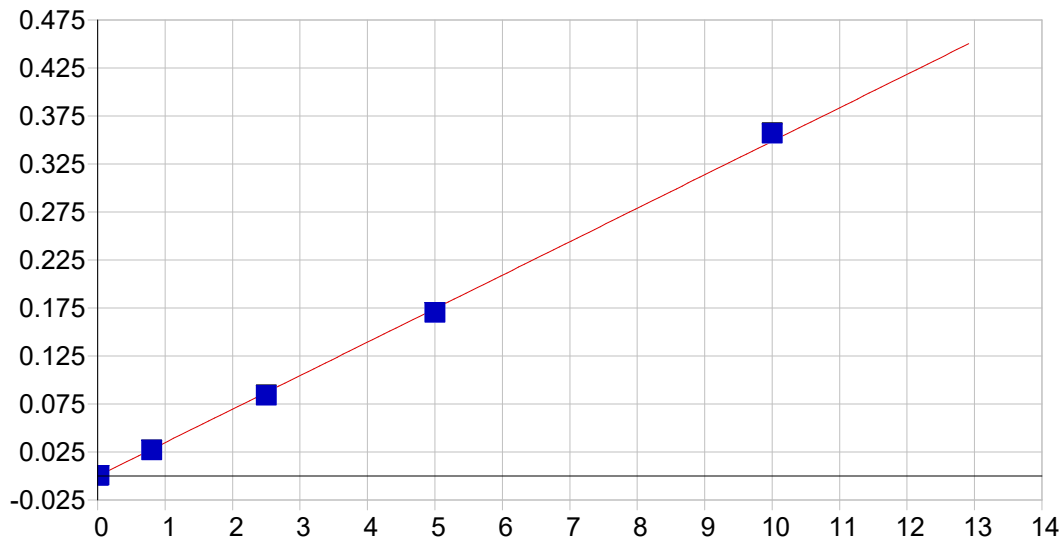
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.012723**	**-.000263**	**.0078246**	**-.000045**	**-.003577**	**-.007448**	**-.000492**
Stddev	.000918	.000786	.0012373	.000165	.000560	.000438	.001555
%RSD	7.213838	298.8150	15.81322	361.8201	15.66480	5.876303	315.8656
#1	-.012479	.000124	.0089186	.000021	-.003652	-.007014	.000355
#2	-.011953	-.001168	.0080734	.000076	-.004096	-.007441	.000455
#3	-.013739	.000255	.0064817	-.000233	-.002983	-.007889	-.002287

Reviewed By:jaswal
On:6/30/2025 2:47:18 AM
Inst Id :P5
LB :LB136255

Sample Name: CCB05 Acquired: 6/24/2025 23:50:24 Type: Unk
Method: METHOD 6010D, 200.7 M Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001955	-.004567	.0003670
Stddev	.001947	.007838	.0001595
%RSD	99.59565	171.6074	43.45007
#1	.000119	.002394	.0001880
#2	-.002240	-.003040	.0004938
#3	-.003744	-.013057	.0004194

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4881.092	40448.80	2239.385	3544.236	5367.433
Stddev	20.157	73.34	18.528	2.712	18.370
%RSD	.4129519	.1813240	.8273760	.0765187	.3422569
#1	4875.886	40532.66	2227.809	3545.427	5362.676
#2	4903.341	40417.10	2229.591	3546.149	5387.714
#3	4864.050	40396.63	2260.755	3541.132	5351.909

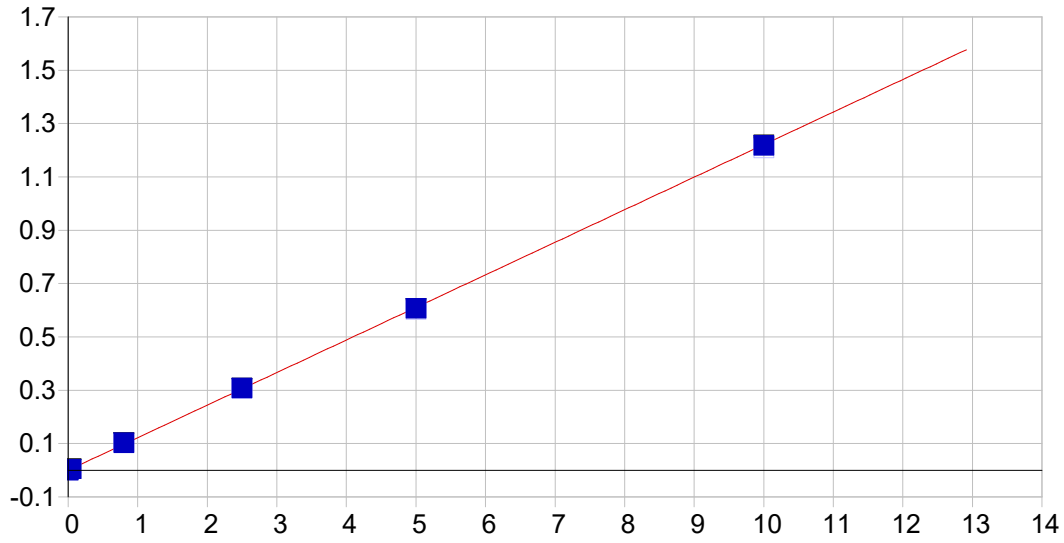


As 189.042 {479}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000117	Re-Slope:	1.000000
A1 (Gain):	0.034877	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999659	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.003532		
Predicted MQL:	0.011772		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00012	.000	1
S1	.02000	.02001	.000	.054	.00058	.000	1
S2	.80000	.77385	-.026	-3.27	.02687	.000	1
S3	2.5000	2.4080	-.092	-3.68	.08385	.000	1
S4	5.0000	4.8832	-.117	-2.34	.17017	.000	1
S5	10.000	10.235	.235	2.35	.35679	.000	1

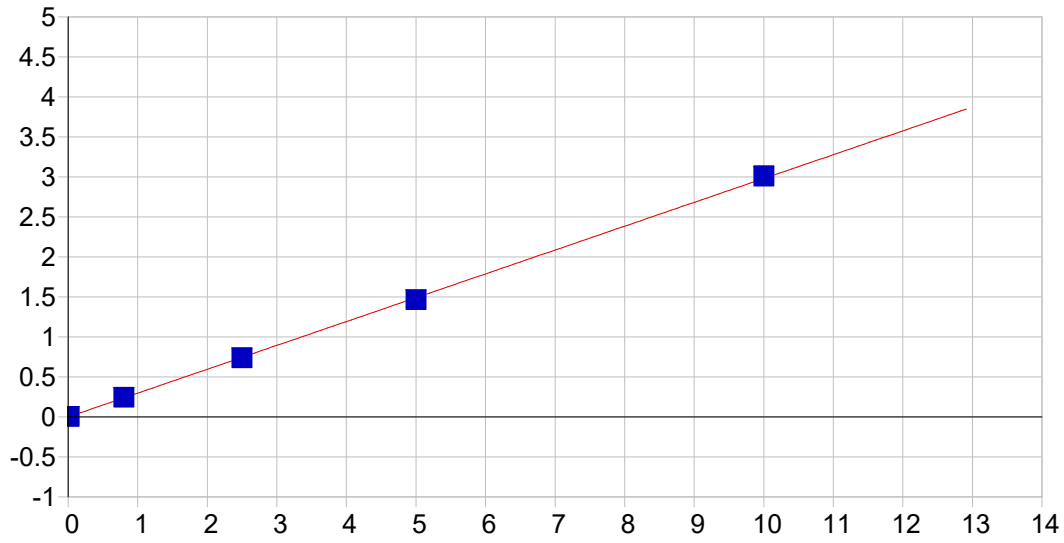


Tl 190.856 {477}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000032	Re-Slope:	1.000000
A1 (Gain):	0.122105	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.001741		
Predicted MQL:	0.005802		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00003	.000	1
S1	.04000	.04021	.000	.533	.00483	.000	1
S2	.80000	.84089	.041	5.11	.10195	.000	1
S3	2.5000	2.5199	.020	.795	.30534	.001	1
S4	5.0000	4.9700	-.030	-.600	.60213	.000	1
S5	10.000	9.9690	-.031	-.310	1.2078	.002	1

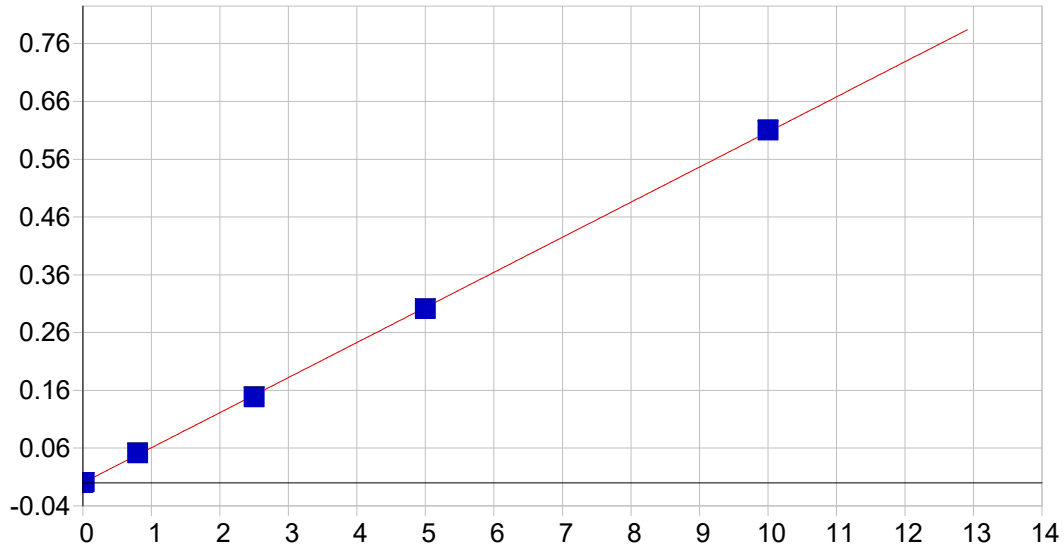


Pb 220.353 {453}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000030	Re-Slope:	1.000000
A1 (Gain):	0.297976	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.001470		
Predicted MQL:	0.004900		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00003	.000	1
S1	.01200	.01368	.002	14.0	.00403	.000	1
S2	.80000	.82063	.021	2.58	.24435	.000	1
S3	2.5000	2.4705	-.029	-1.18	.73552	.001	1
S4	5.0000	4.9116	-.088	-1.77	1.4622	.001	1
S5	10.000	10.096	.096	.956	3.0056	.002	1

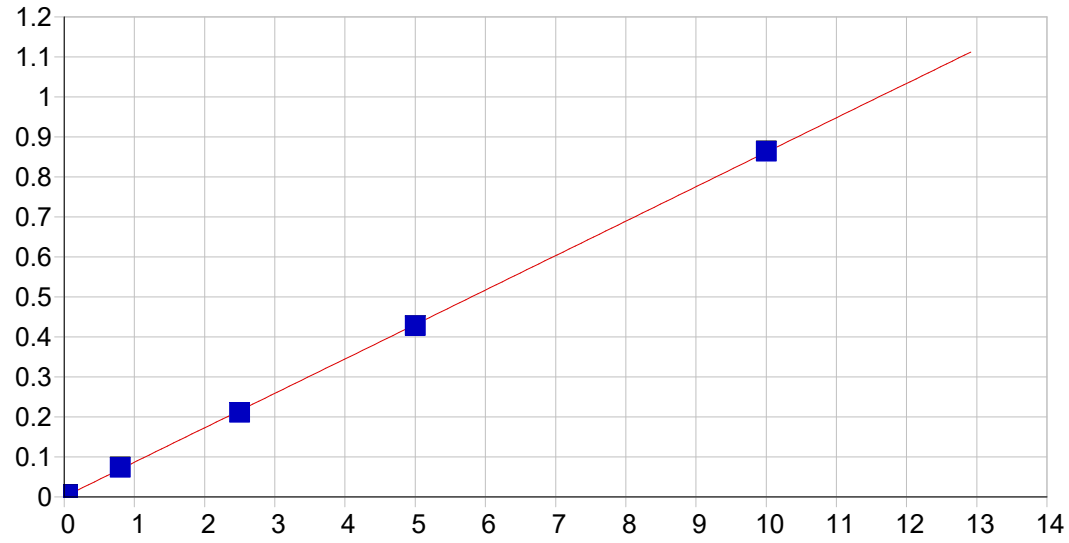


Se 196.090 {472}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.060716	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.003616		
Predicted MQL:	0.012054		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00000	.000	1
S1	.02000	.02143	.001	7.15	.00130	.000	1
S2	.80000	.84751	.048	5.94	.05143	.000	1
S3	2.5000	2.4426	-.057	-2.30	.14821	.000	1
S4	5.0000	4.9624	-.038	-.752	.30112	.000	1
S5	10.000	10.046	.046	.461	.60960	.001	1

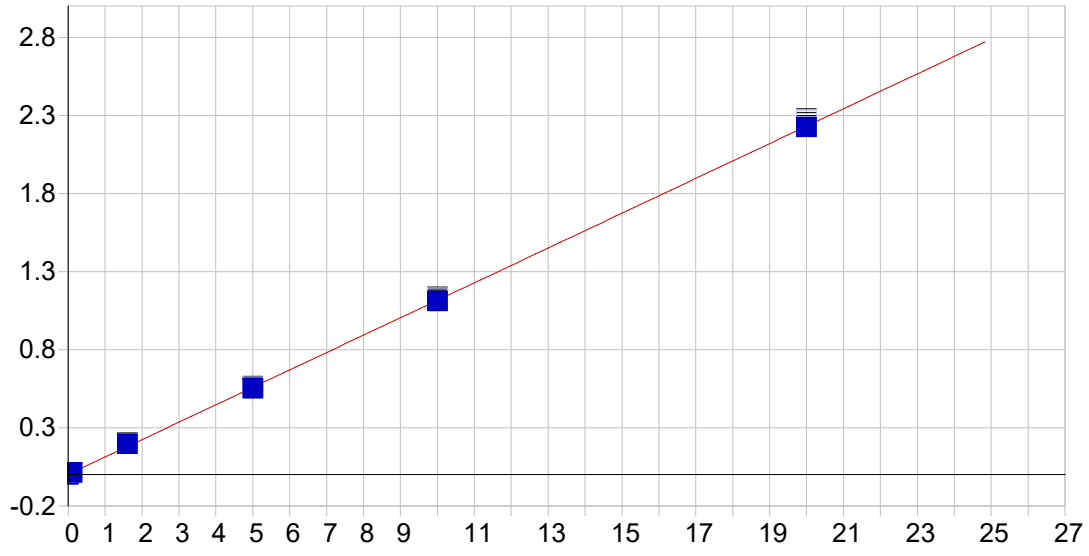


Sb 206.833 {463}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000501	Re-Slope:	1.000000
A1 (Gain):	0.086101	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999850	Status:	OK.
Std Error of Est:	0.000055		
Predicted MDL:	0.003171		
Predicted MQL:	0.010571		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00050	.000	1
S1	.05000	.05463	.005	9.26	.00516	.000	1
S2	.80000	.85307	.053	6.63	.07385	.000	1
S3	2.5000	2.4460	-.054	-2.16	.21077	.000	1
S4	5.0000	4.9644	-.036	-.713	.42728	.000	1
S5	10.000	10.032	.032	.320	.86296	.000	1

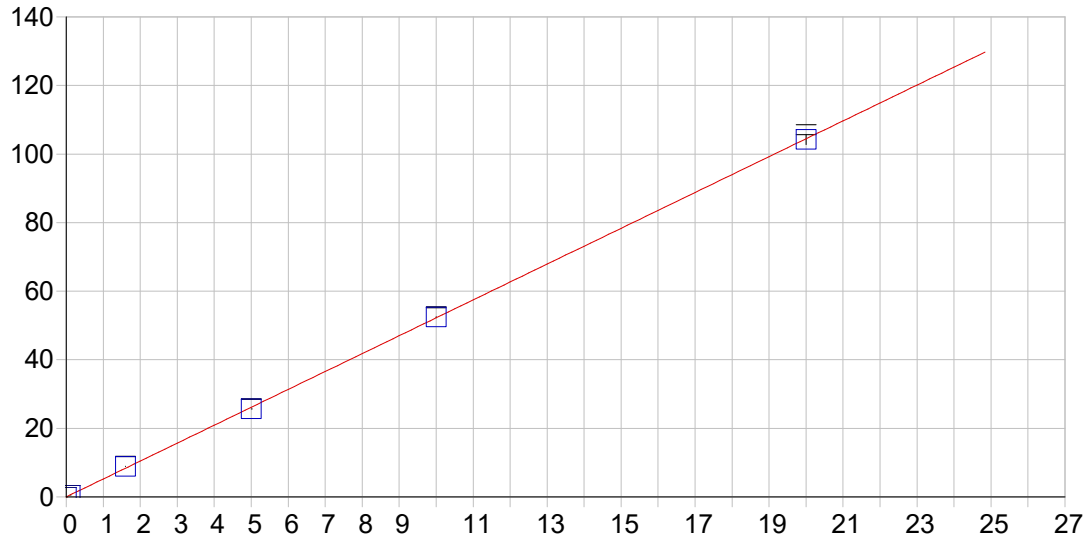


Al 396.152 { 85}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001401	Re-Slope:	1.000000
A1 (Gain):	0.111501	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999770	Status:	OK.
Std Error of Est:	0.000181		
Predicted MDL:	0.026327		
Predicted MQL:	0.087756		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00140	.002	1
S1	.10000	.10499	.005	4.99	.01394	.003	1
S2	1.6000	1.7607	.161	10.0	.20104	.003	1
S3	5.0000	4.9380	-.062	-1.24	.56237	.004	1
S4	10.000	9.9557	-.044	-.443	1.1322	.006	1
S5	20.000	19.940	-.060	-.298	2.2663	.012	1

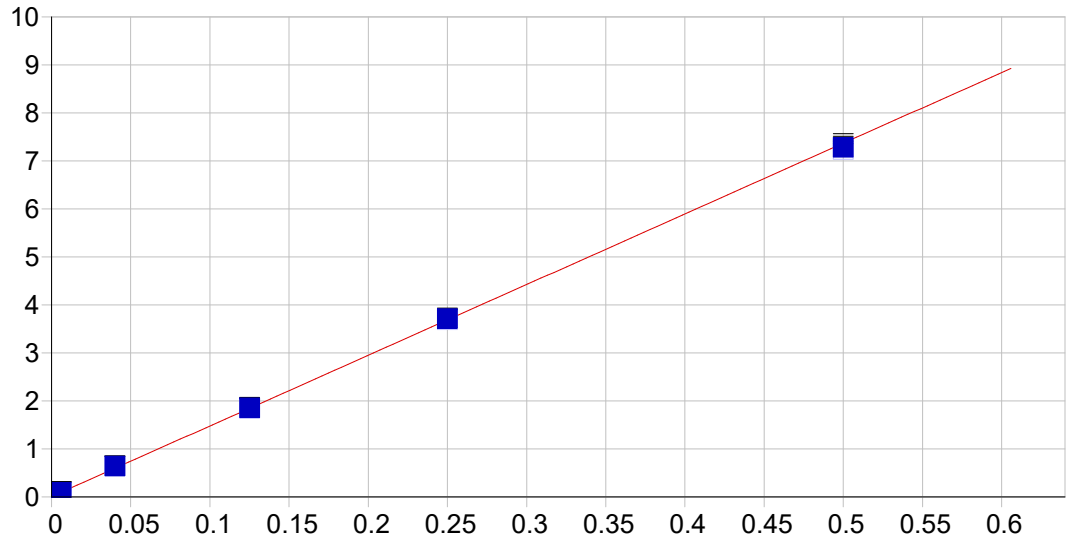


Ba 493.409 { 68}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.017872	Re-Slope:	1.000000
A1 (Gain):	5.222005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999890	Status:	OK.
Std Error of Est:	0.005738		
Predicted MDL:	0.000978		
Predicted MQL:	0.003260		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.01782	.004	1
S1	.10000	.10547	.005	5.47	.56865	.002	1
S2	1.6000	1.6974	.097	6.09	8.8817	.036	1
S3	5.0000	4.9101	-.090	-1.80	25.658	.018	1
S4	10.000	10.033	.033	.326	52.408	.142	1
S5	20.000	19.954	-.046	-.228	104.22	1.48	1

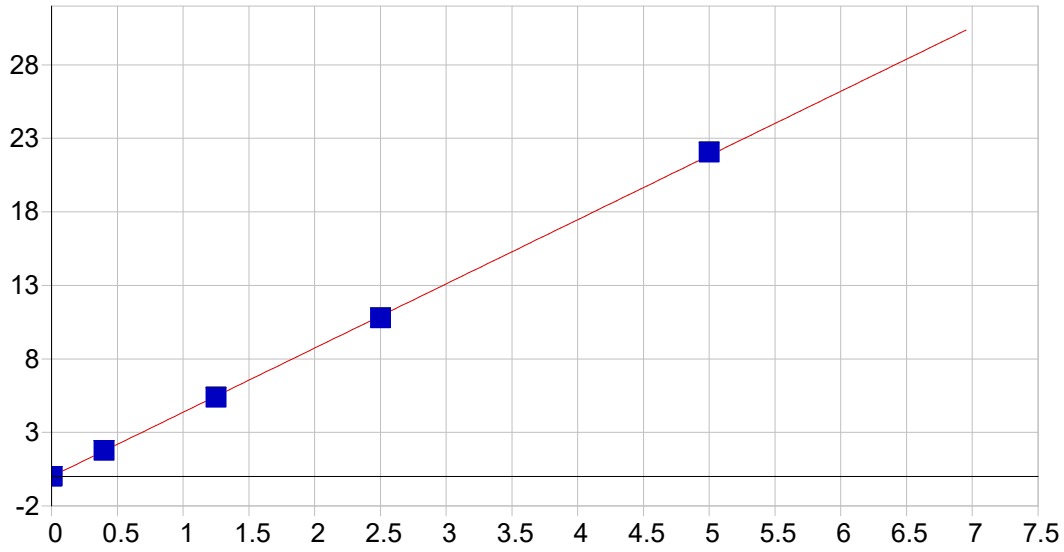


Be 234.861 {144}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005841	Re-Slope:	1.000000
A1 (Gain):	14.725163	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999785	Status:	OK.
Std Error of Est:	0.000873		
Predicted MDL:	0.000130		
Predicted MQL:	0.000433		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00583	.001	1
S1	.00600	.00652	.001	8.71	.10094	.003	1
S2	.04000	.04324	.003	8.10	.63864	.006	1
S3	.12500	.12552	.001	.416	1.8419	.012	1
S4	.25000	.25164	.002	.657	3.6868	.017	1
S5	.50000	.49408	-.006	-1.18	7.2321	.077	1

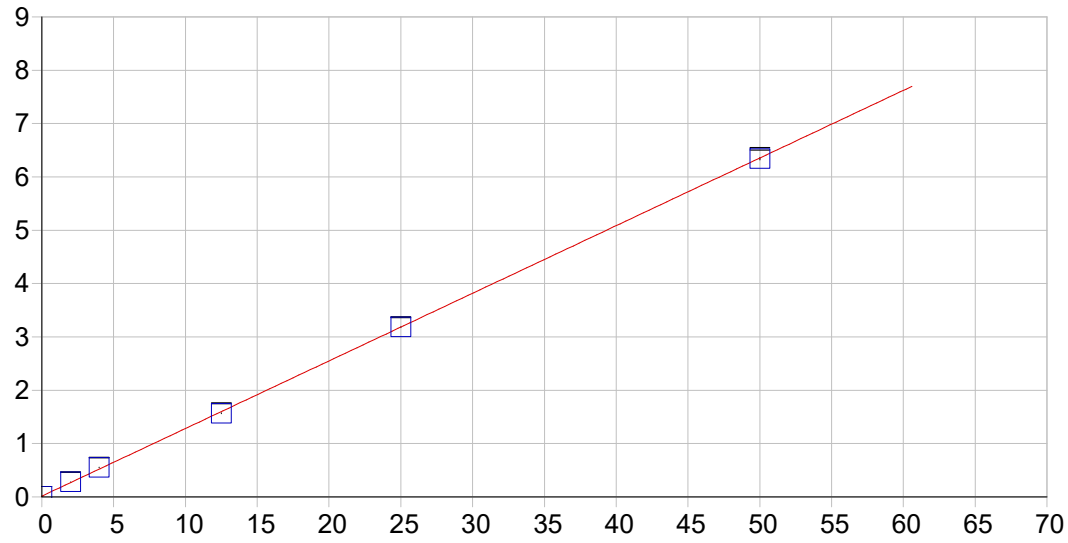


Cd 214.438 {457}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	4.367400	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	0.000456		
Predicted MDL:	0.000066		
Predicted MQL:	0.000219		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00000	.000	1
S1	.00600	.00591	-.000	-1.55	.02582	.000	1
S2	.40000	.40311	.003	.777	1.7607	.001	1
S3	1.2500	1.2302	-.020	-1.59	5.3731	.018	1
S4	2.5000	2.4683	-.032	-1.27	10.781	.011	1
S5	5.0000	5.0485	.049	.971	22.051	.021	1

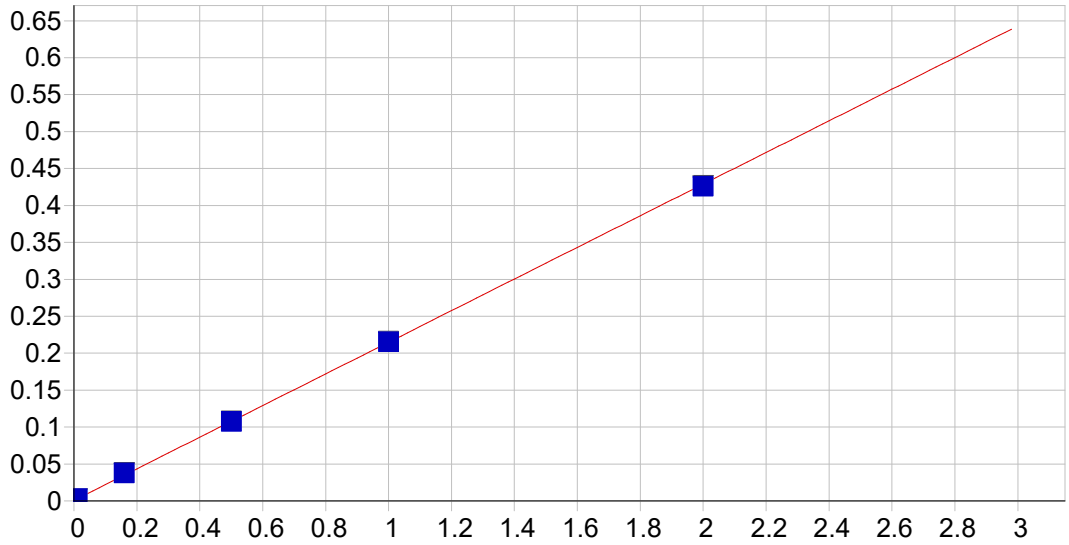


Ca 373.690 { 90}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014296	Re-Slope:	1.000000
A1 (Gain):	0.126796	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999876	Status:	OK.
Std Error of Est:	0.001058		
Predicted MDL:	0.020962		
Predicted MQL:	0.069872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00017	-.000	.000	.01427	.000	1
S1	2.0000	2.1002	.100	5.01	.28059	.004	1
S2	4.0000	4.2313	.231	5.78	.55081	.005	1
S3	12.500	12.258	-.242	-1.94	1.5686	.010	1
S4	25.000	24.996	-.004	-.018	3.1836	.011	1
S5	50.000	49.915	-.085	-.170	6.3433	.025	1

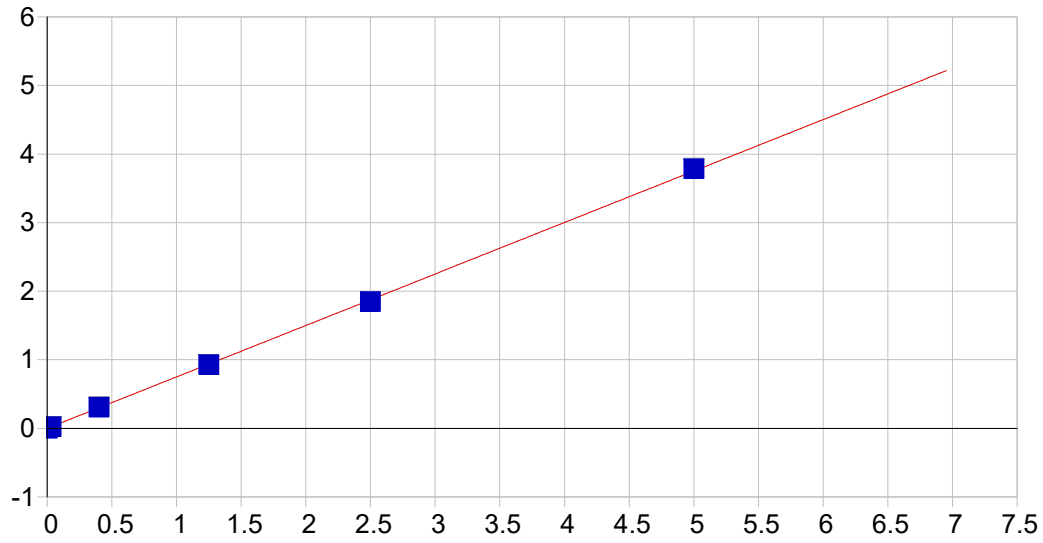


Cr 267.716 {126}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000639	Re-Slope:	1.000000
A1 (Gain):	0.214121	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999847	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.001072		
Predicted MQL:	0.003572		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00064	.000	1
S1	.01000	.01064	.001	6.42	.00292	.000	1
S2	.16000	.17243	.012	7.77	.03759	.000	1
S3	.50000	.49914	-.001	-.172	.10761	.000	1
S4	1.0000	1.0024	.002	.244	.21547	.001	1
S5	2.0000	1.9854	-.015	-.732	.42613	.001	1

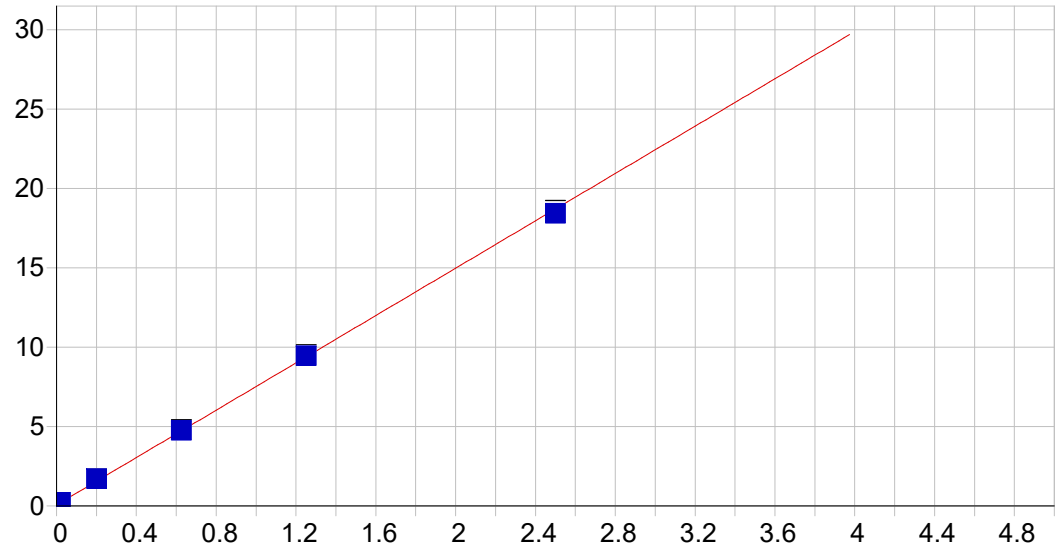


Co 228.616 {448}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000203	Re-Slope:	1.000000
A1 (Gain):	0.750261	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000188		
Predicted MDL:	0.000368		
Predicted MQL:	0.001227		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00020	.000	1
S1	.03000	.03108	.001	3.60	.02339	.000	1
S2	.40000	.40910	.009	2.28	.30750	.001	1
S3	1.2500	1.2367	-.013	-1.06	.92920	.003	1
S4	2.5000	2.4599	-.040	-1.60	1.8481	.001	1
S5	5.0000	5.0432	.043	.864	3.7885	.006	1

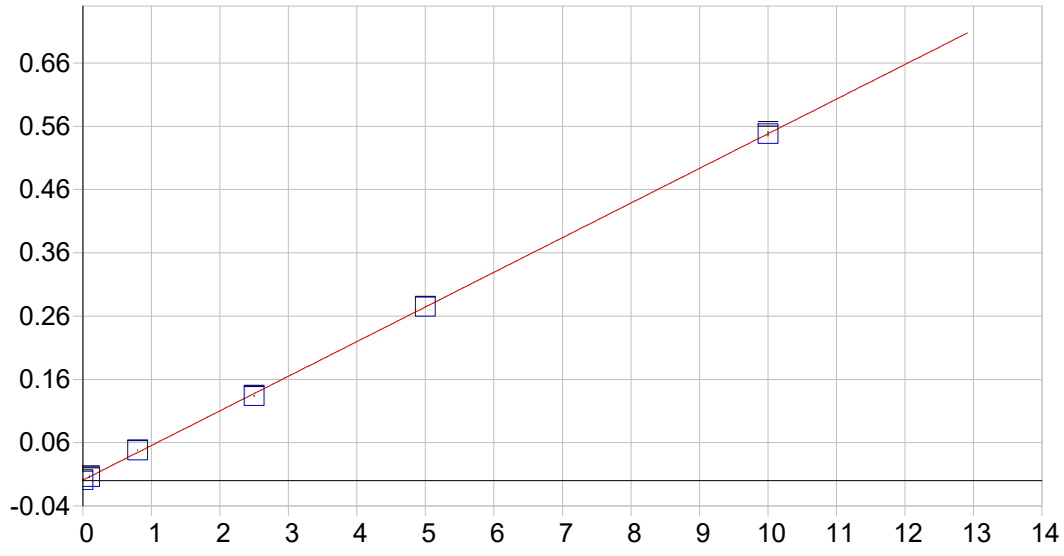


Cu 324.754 {104}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.063613	Re-Slope:	1.000000
A1 (Gain):	7.459118	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999677	Status:	OK.
Std Error of Est:	0.002227		
Predicted MDL:	0.000609		
Predicted MQL:	0.002029		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.06358	.001	1
S1	.02000	.02208	.002	10.4	.22841	.007	1
S2	.20000	.22046	.020	10.2	1.7088	.012	1
S3	.62500	.62924	.004	.678	4.7594	.036	1
S4	1.2500	1.2603	.010	.821	9.4686	.053	1
S5	2.5000	2.4629	-.037	-1.48	18.444	.183	1

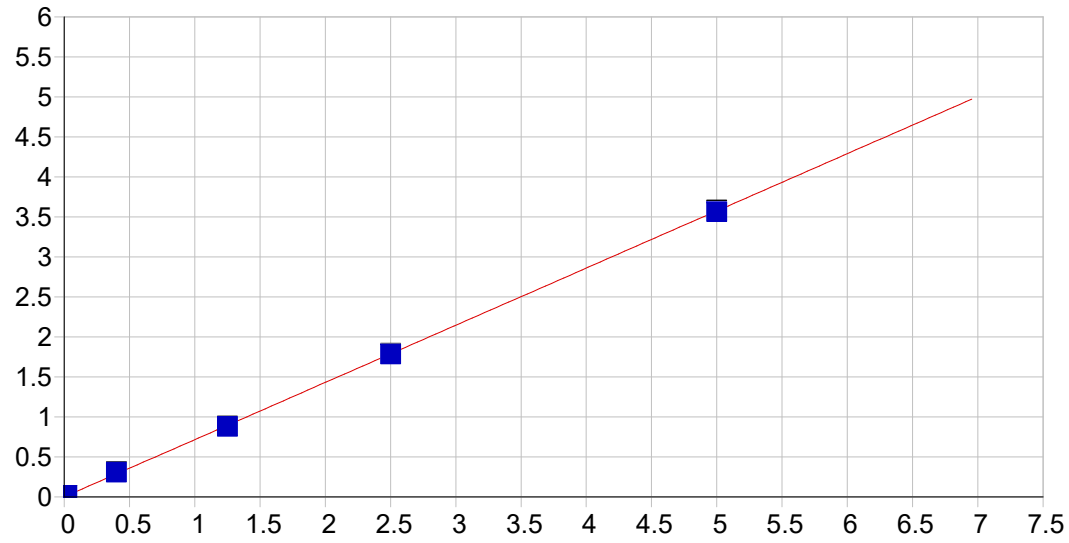


Fe 259.837 {130}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000779	Re-Slope:	1.000000
A1 (Gain):	0.054744	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000055		
Predicted MDL:	0.016259		
Predicted MQL:	0.054197		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00078	.001	1
S1	.10000	.09712	-.003	-2.88	.00610	.001	1
S2	.80000	.86275	.063	7.84	.04801	.000	1
S3	2.5000	2.4325	-.067	-2.70	.13395	.001	1
S4	5.0000	5.0079	.008	.157	.27493	.000	1
S5	10.000	9.9997	-.000	-.003	.54821	.003	1

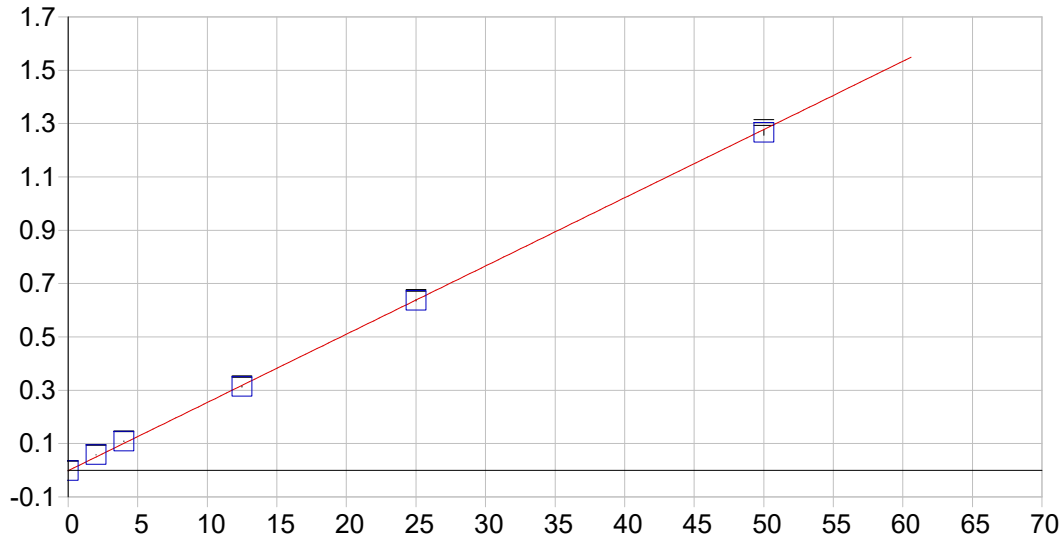


Mn 257.610 {131}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000766	Re-Slope:	1.000000
A1 (Gain):	0.714944	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999805	Status:	OK.
Std Error of Est:	0.000234		
Predicted MDL:	0.001160		
Predicted MQL:	0.003867		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00076	.000	1
S1	.02000	.02370	.004	18.5	.01774	.001	1
S2	.40000	.43210	.032	8.03	.30995	.001	1
S3	1.2500	1.2314	-.019	-1.49	.88196	.001	1
S4	2.5000	2.4965	-.003	-.140	1.7872	.007	1
S5	5.0000	4.9863	-.014	-.275	3.5689	.017	1

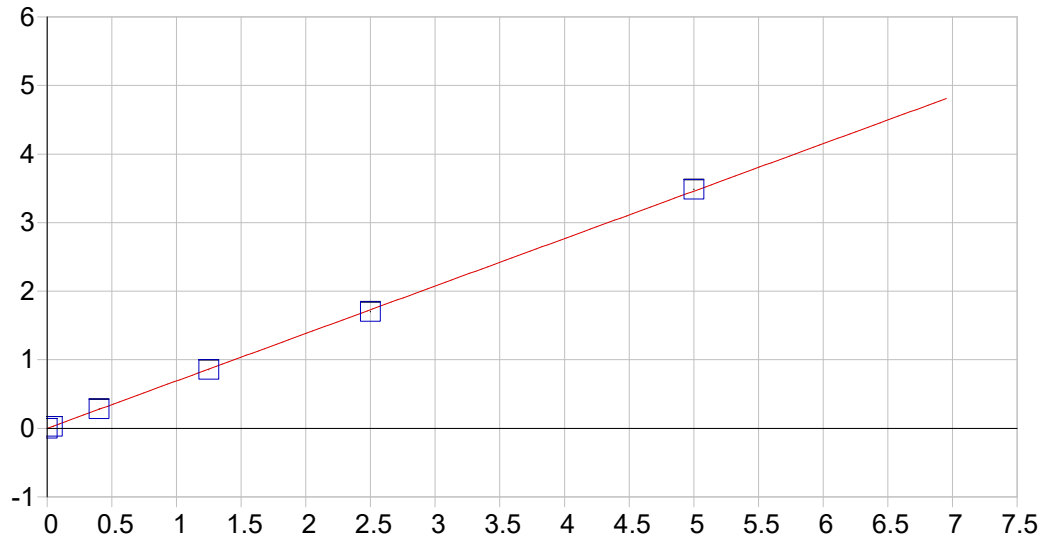


Mg 279.079 {121}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001503	Re-Slope:	1.000000
A1 (Gain):	0.025583	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999544	Status:	OK.
Std Error of Est:	0.000409		
Predicted MDL:	0.044362		
Predicted MQL:	0.147872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00044	-.000	.000	-.00151	.001	1
S1	2.0000	2.3296	.330	16.5	.05809	.001	1
S2	4.0000	4.3135	.313	7.84	.10885	.001	1
S3	12.500	12.319	-.181	-1.45	.31365	.003	1
S4	25.000	24.961	-.039	-.154	.63708	.003	1
S5	50.000	49.577	-.423	-.847	1.2668	.011	1

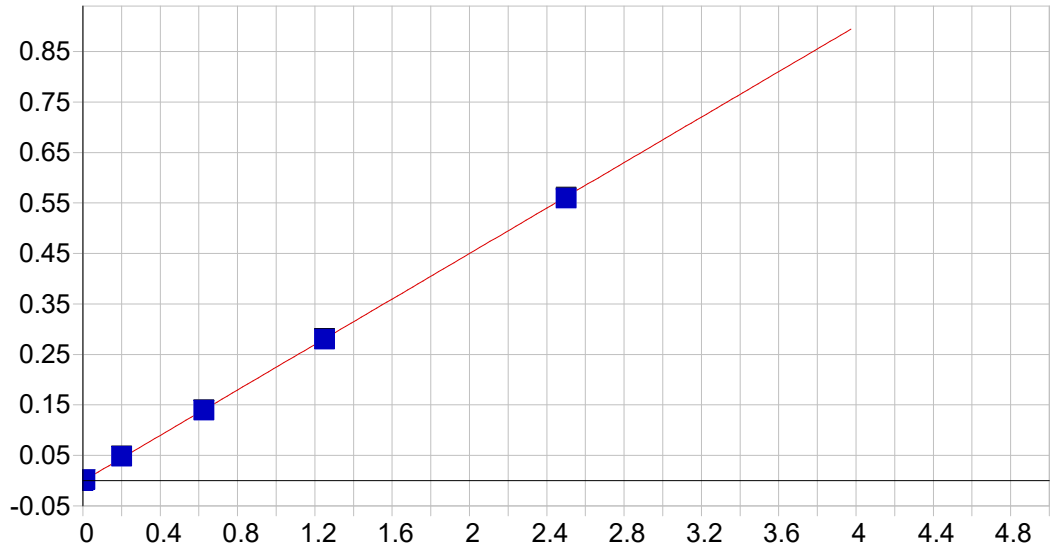


Ni 231.604 {446}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear
Weighting:	1/Conc		

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.691780	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000201		
Predicted MDL:	0.000473		
Predicted MQL:	0.001578		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00002	.000	1
S1	.04000	.04065	.001	1.63	.02814	.000	1
S2	.40000	.41122	.011	2.80	.28449	.000	1
S3	1.2500	1.2378	-.012	-.972	.85634	.003	1
S4	2.5000	2.4601	-.040	-1.60	1.7019	.003	1
S5	5.0000	5.0402	.040	.804	3.4867	.004	1

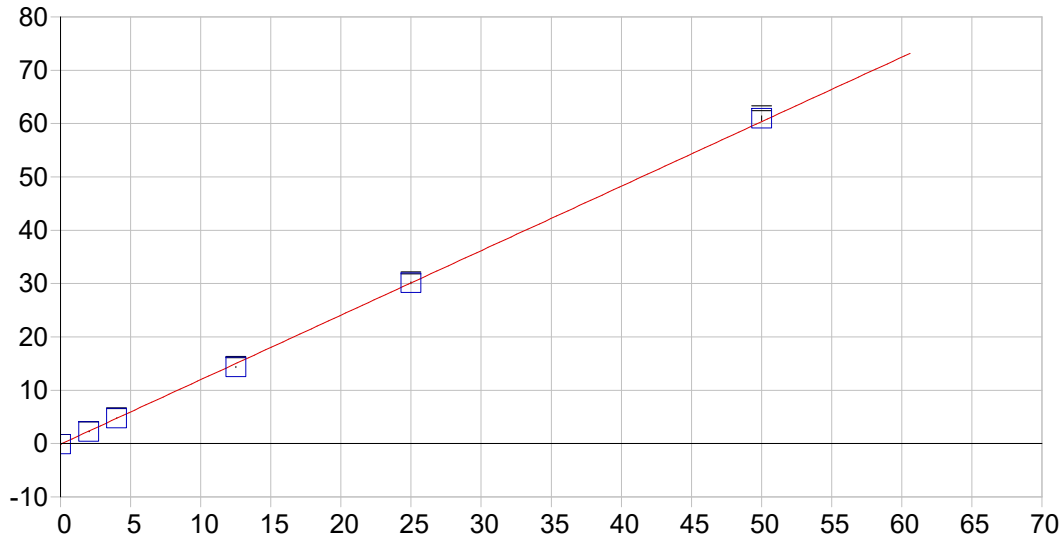


Ag 328.068 {103}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000551	Re-Slope:	1.000000
A1 (Gain):	0.225189	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999838	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.001241		
Predicted MQL:	0.004136		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00055	.001	1
S1	.01000	.01045	.000	4.47	.00179	.000	1
S2	.20000	.21660	.017	8.30	.04810	.000	1
S3	.62500	.62287	-.002	-.340	.13933	.000	1
S4	1.2500	1.2476	-.002	-.189	.27964	.001	1
S5	2.5000	2.4874	-.013	-.502	.55806	.002	1

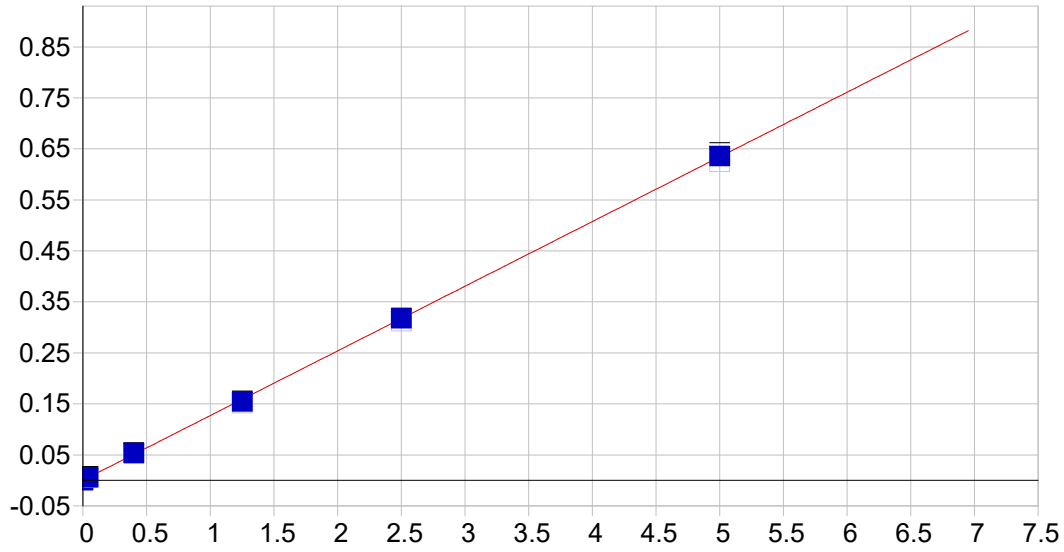


Na 818.326 { 41}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.113027	Re-Slope:	1.000000
A1 (Gain):	1.209335	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.011615		
Predicted MDL:	0.012110		
Predicted MQL:	0.040367		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00011	.000	.000	-.11290	.023	1
S1	2.0000	1.9392	-.061	-3.04	2.2321	.012	1
S2	4.0000	4.0295	.030	.738	4.7600	.047	1
S3	12.500	11.965	-.535	-4.28	14.357	.104	1
S4	25.000	25.028	.028	.111	30.154	.173	1
S5	50.000	50.538	.538	1.08	61.005	.426	1

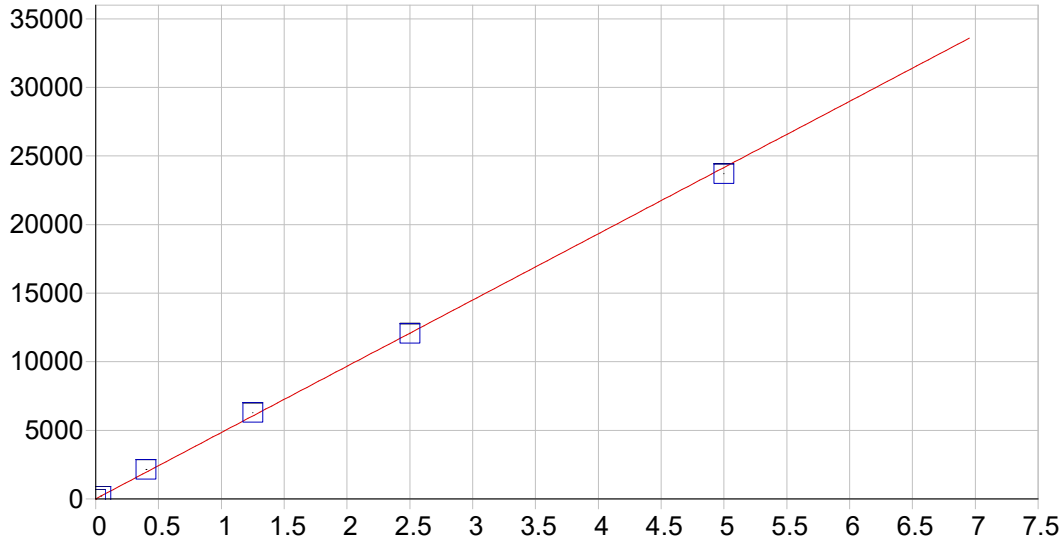


V 292.402 {115}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000372	Re-Slope:	1.000000
A1 (Gain):	0.126790	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.009007		
Predicted MQL:	0.030023		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00037	.002	1
S1	.04000	.04178	.002	4.44	.00545	.002	1
S2	.40000	.41850	.019	4.63	.05253	.001	1
S3	1.2500	1.2157	-.034	-2.74	.15169	.001	1
S4	2.5000	2.5028	.003	.112	.31204	.001	1
S5	5.0000	5.0112	.011	.225	.62443	.007	1

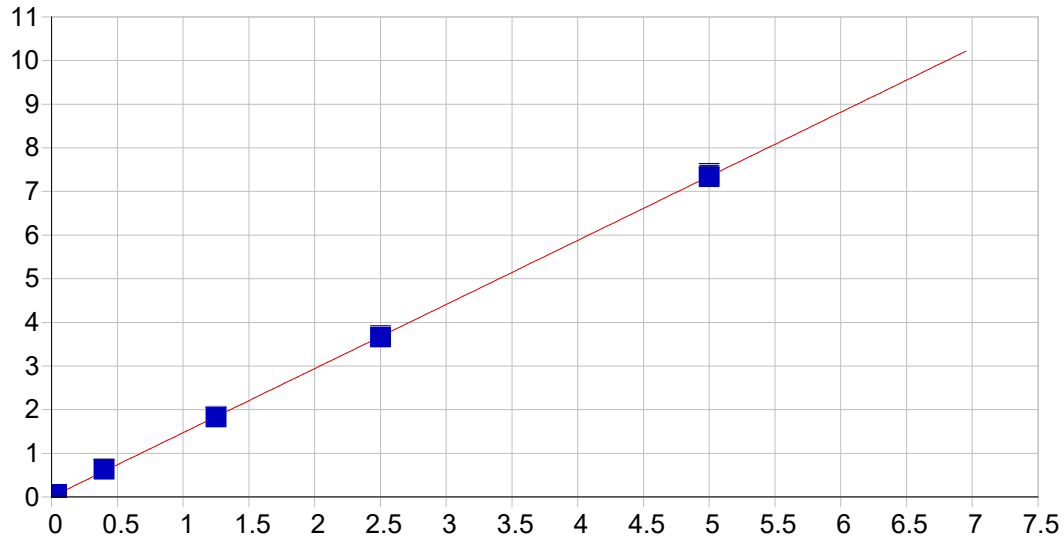


Zn 206.200 {464}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	9.241117	Re-Slope:	1.000000
A1 (Gain):	4830.468138	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999517	Status:	OK.
Std Error of Est:	3.526107		
Predicted MDL:	0.000260		
Predicted MQL:	0.000868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	9.2005	.902	1
S1	.04000	.04322	.003	8.05	218.02	.992	1
S2	.40000	.44379	.044	10.9	2152.9	4.93	1
S3	1.2500	1.3010	.051	4.08	6293.5	12.4	1
S4	2.5000	2.4956	-.004	-.178	12064.	21.3	1
S5	5.0000	4.9065	-.094	-1.87	23710.	14.9	1

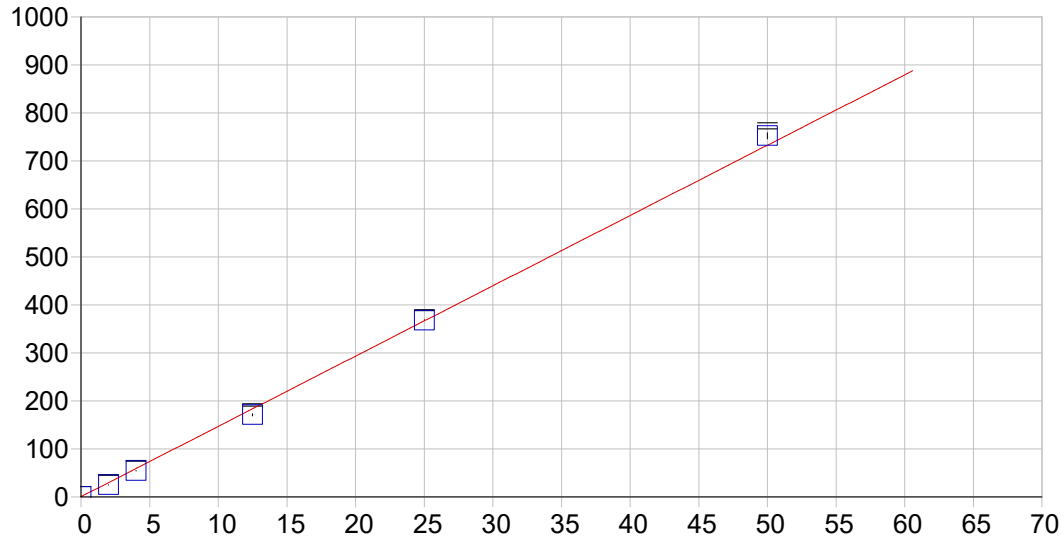


Zn 213.856 {158}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002548	Re-Slope:	1.000000
A1 (Gain):	1.469018	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999900	Status:	OK.
Std Error of Est:	0.000490		
Predicted MDL:	0.000546		
Predicted MQL:	0.001820		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00254	.001	1
S1	.04000	.04164	.002	4.10	.06414	.001	1
S2	.40000	.42592	.026	6.48	.63250	.003	1
S3	1.2500	1.2426	-.007	-.595	1.8413	.003	1
S4	2.5000	2.4885	-.011	-.460	3.6849	.009	1
S5	5.0000	4.9914	-.009	-.173	7.3884	.023	1

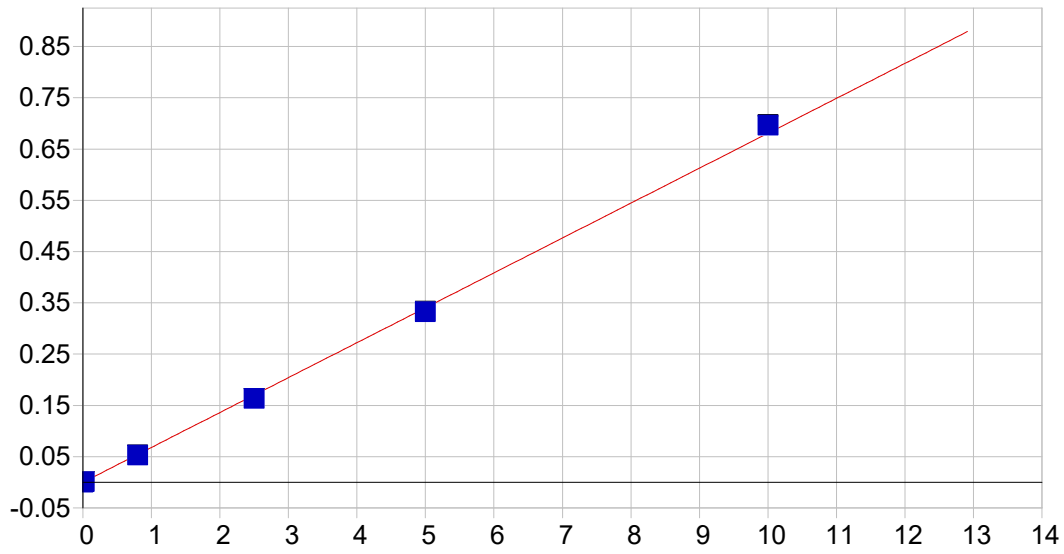


K 769.896 { 44}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.433244	Re-Slope:	1.000000
A1 (Gain):	14.644817	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999101	Status:	OK.
Std Error of Est:	0.328657		
Predicted MDL:	0.000938		
Predicted MQL:	0.003125		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00054	.001	.000	.44118	.013	1
S1	2.0000	1.6801	-.320	-16.0	25.038	.110	1
S2	4.0000	3.7010	-.299	-7.48	54.633	.421	1
S3	12.500	11.652	-.848	-6.78	171.08	2.24	1
S4	25.000	25.115	.115	.461	368.24	.982	1
S5	50.000	51.351	1.35	2.70	752.46	6.46	1

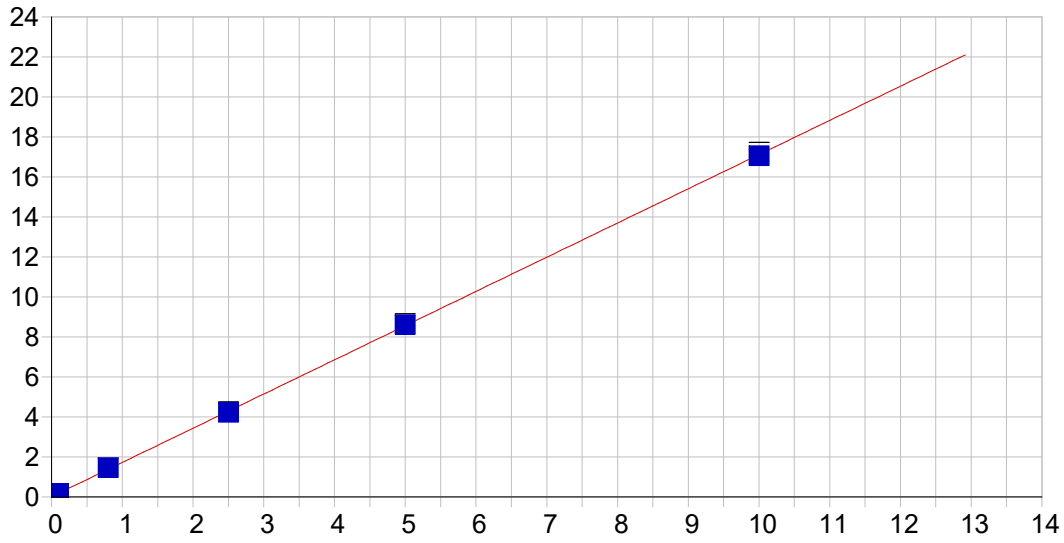


P 177.495 {490}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000134	Re-Slope:	1.000000
A1 (Gain):	0.068090	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999657	Status:	OK.
Std Error of Est:	0.000042		
Predicted MDL:	0.002157		
Predicted MQL:	0.007190		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00013	.000	1
S1	.02000	.01877	-.001	-6.13	.00113	.000	1
S2	.80000	.77573	-.024	-3.03	.05256	.000	1
S3	2.5000	2.4017	-.098	-3.93	.16300	.000	1
S4	5.0000	4.8907	-.109	-2.19	.33209	.001	1
S5	10.000	10.233	.233	2.33	.69507	.001	1

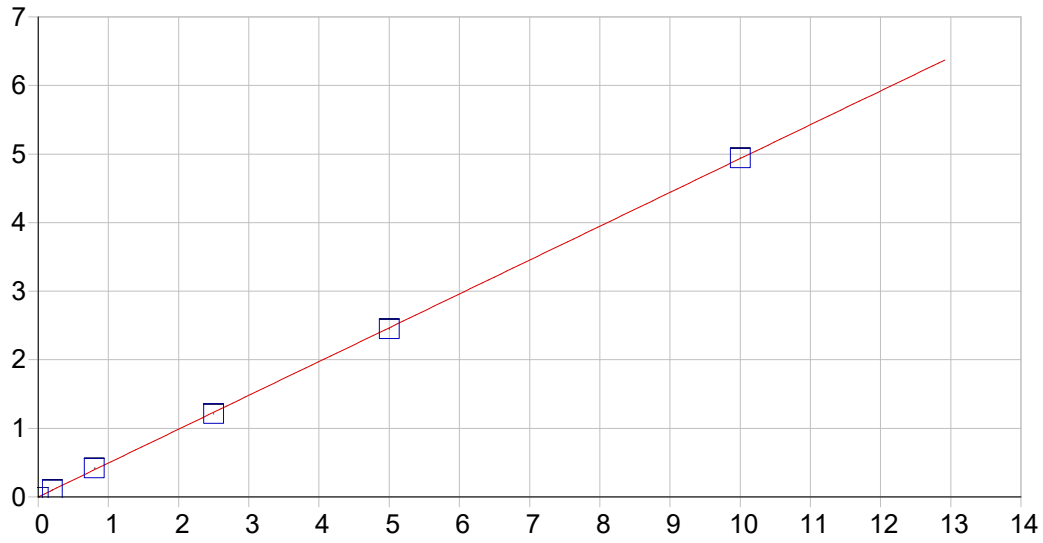


B 249.678 {135}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013202	Re-Slope:	1.000000
A1 (Gain):	1.710212	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.001201		
Predicted MDL:	0.001407		
Predicted MQL:	0.004691		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.01319	.002	1
S1	.10000	.10586	.006	5.86	.19405	.003	1
S2	.80000	.84037	.040	5.05	1.4494	.008	1
S3	2.5000	2.4593	-.041	-1.63	4.2158	.032	1
S4	5.0000	5.0268	.027	.536	8.6036	.049	1
S5	10.000	9.9677	-.032	-.323	17.047	.180	1

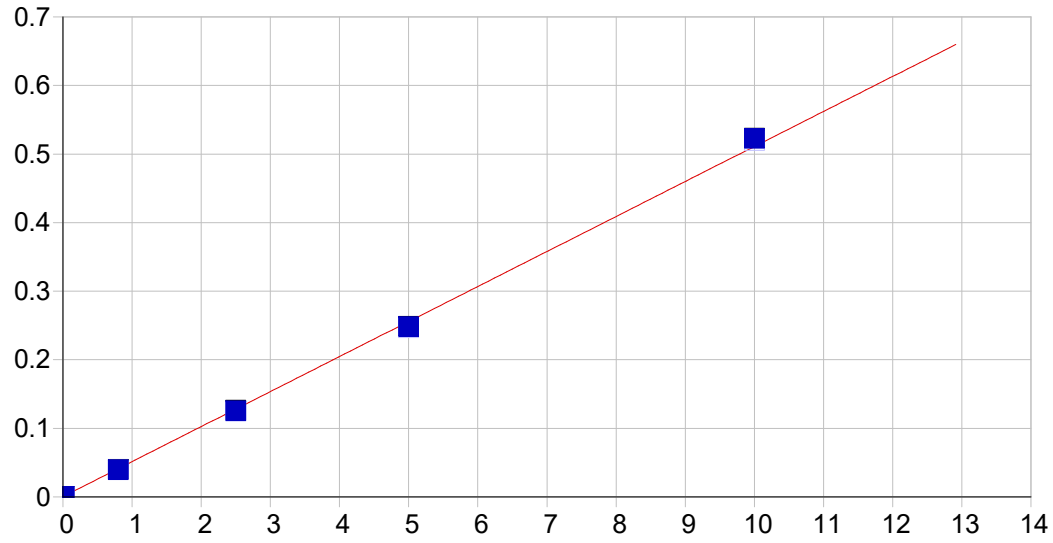


Mo 202.030 {467}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000424	Re-Slope:	1.000000
A1 (Gain):	0.493315	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000615		
Predicted MDL:	0.000484		
Predicted MQL:	0.001614		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00041	.000	1
S1	.20000	.21168	.012	5.84	.10485	.000	1
S2	.80000	.85257	.053	6.57	.42101	.000	1
S3	2.5000	2.4558	-.044	-1.77	1.2119	.004	1
S4	5.0000	4.9648	-.035	-.705	2.4496	.003	1
S5	10.000	10.015	.015	.152	4.9411	.004	1

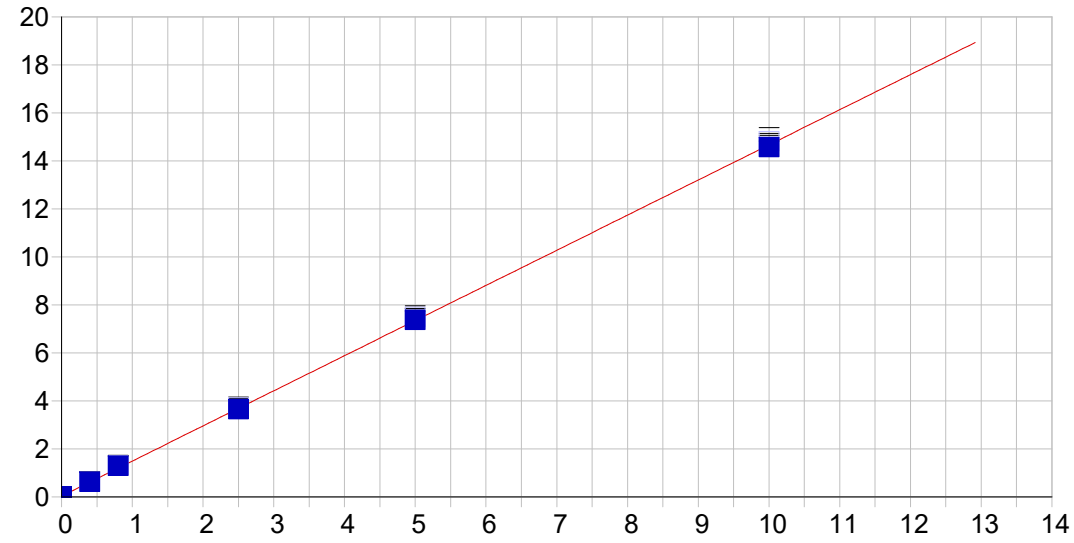


S 182.034 {485}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000432	Re-Slope:	1.000000
A1 (Gain):	0.051060	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999672	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.002981		
Predicted MQL:	0.009937		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00043	.000	1
S1	.02000	.01977	-.000	-1.13	.00136	.000	1
S2	.80000	.76613	-.034	-4.23	.03928	.000	1
S3	2.5000	2.4523	-.048	-1.91	.12480	.001	1
S4	5.0000	4.8533	-.147	-2.93	.24654	.001	1
S5	10.000	10.228	.228	2.28	.51931	.000	1

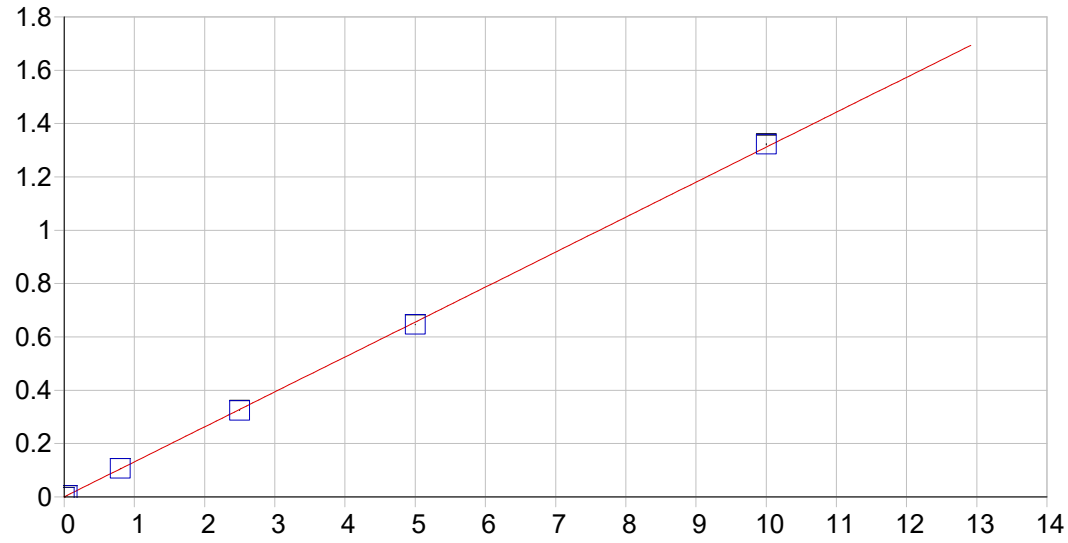


Si 251.611 {134}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.029879	Re-Slope:	1.000000
A1 (Gain):	1.463784	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999854	Status:	OK.
Std Error of Est:	0.002688		
Predicted MDL:	0.001498		
Predicted MQL:	0.004993		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00004	-.000	.000	.02983	.002	1
S1	.40000	.40918	.009	2.30	.63224	.007	1
S2	.80000	.86143	.061	7.68	1.3098	.011	1
S3	2.5000	2.4776	-.022	-.897	3.7157	.030	1
S4	5.0000	5.0177	.018	.354	7.4931	.050	1
S5	10.000	9.9342	-.066	-.658	14.808	.159	1

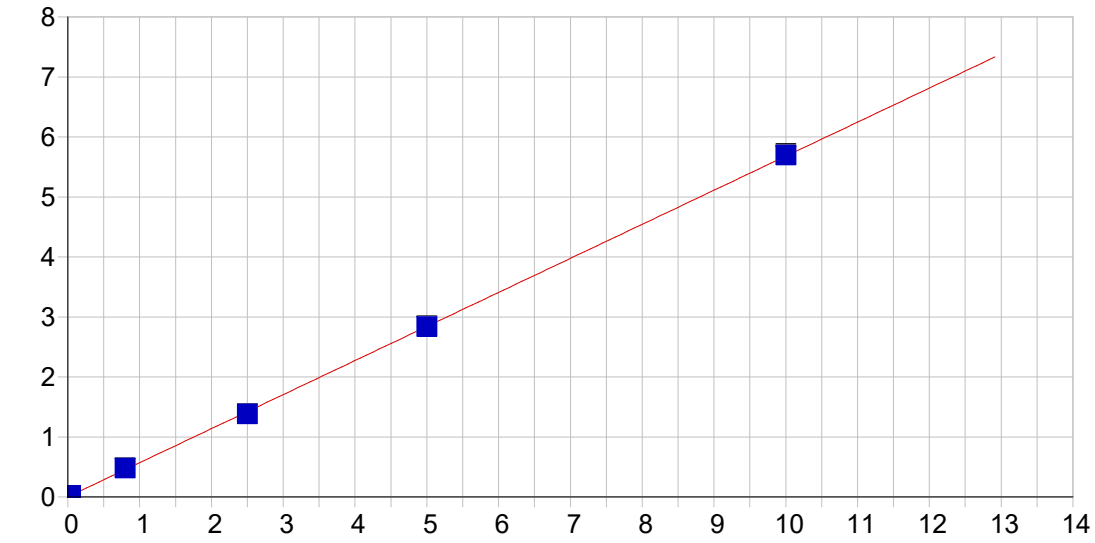


Sn 189.989 {478}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000302	Re-Slope:	1.000000
A1 (Gain):	0.131099	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.001013		
Predicted MQL:	0.003377		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00030	.000	1
S1	.04000	.03909	-.001	-2.27	.00543	.000	1
S2	.80000	.81330	.013	1.66	.10692	.000	1
S3	2.5000	2.4724	-.028	-1.10	.32443	.001	1
S4	5.0000	4.9289	-.071	-1.42	.64647	.001	1
S5	10.000	10.086	.086	.864	1.3226	.002	1

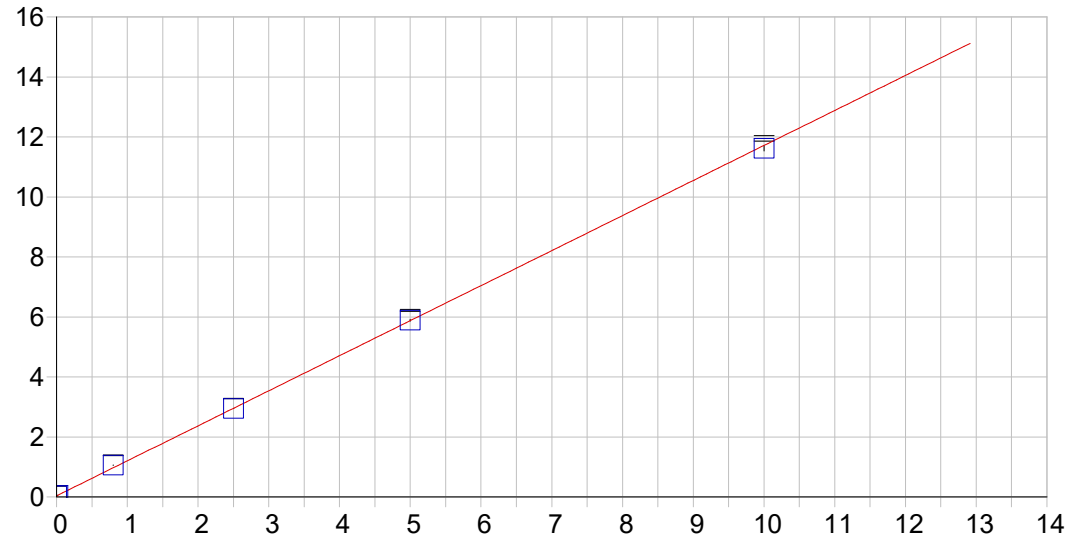


Ti 336.121 {100}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001902	Re-Slope:	1.000000
A1 (Gain):	0.567677	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000271		
Predicted MDL:	0.003126		
Predicted MQL:	0.010419		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00190	.001	1
S1	.04000	.03975	-.000	-.617	.02445	.001	1
S2	.80000	.83775	.038	4.72	.47725	.003	1
S3	2.5000	2.4309	-.069	-2.76	1.3812	.002	1
S4	5.0000	4.9991	-.001	-.019	2.8383	.008	1
S5	10.000	10.032	.032	.325	5.6943	.021	1

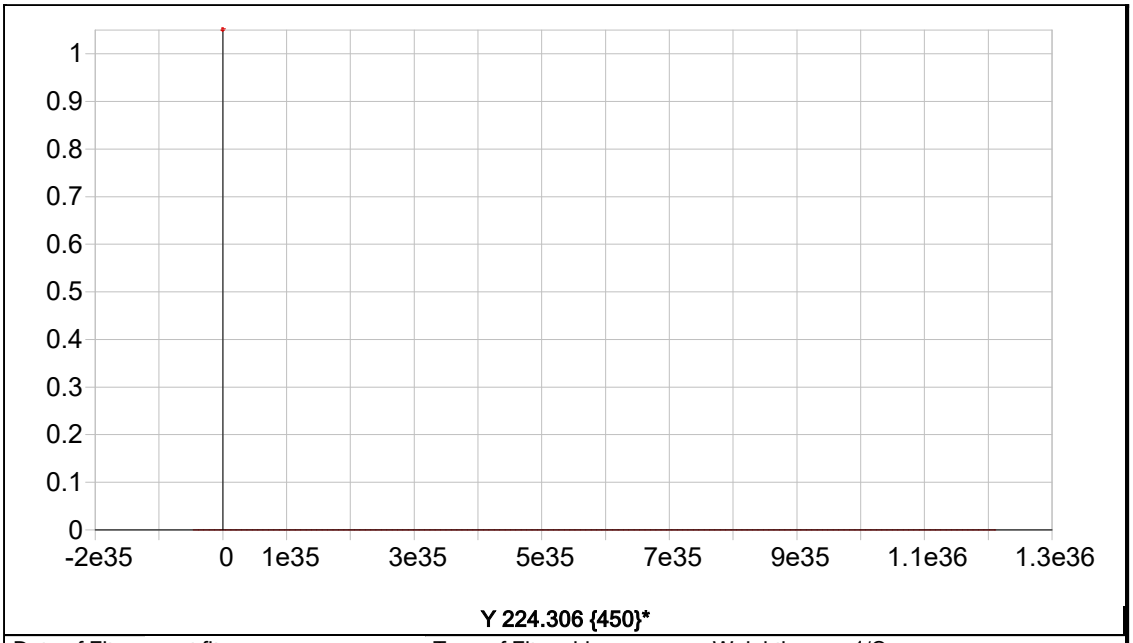


Li 670.784 { 50}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.033593	Re-Slope:	1.000000
A1 (Gain):	1.168060	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999789	Status:	OK.
Std Error of Est:	0.000563		
Predicted MDL:	0.006122		
Predicted MQL:	0.020407		

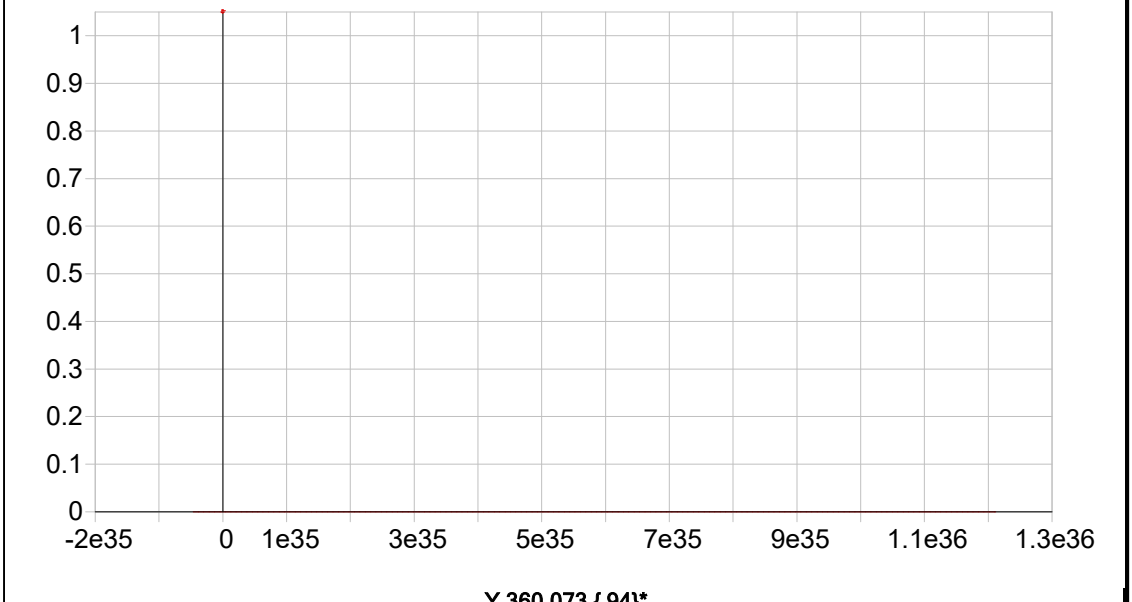
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.03359	.007	1
S5	10.000	9.9199	-.080	-.801	11.621	.087	1
S4	5.0000	5.0117	.012	.235	5.8876	.029	1
S3	2.5000	2.4951	-.005	-.196	2.9480	.009	1
S2	.80000	.87469	.075	9.34	1.0553	.008	1
S1	.02000	.01861	-.001	-6.94	.05533	.006	1



Y 224.306 {450}*

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

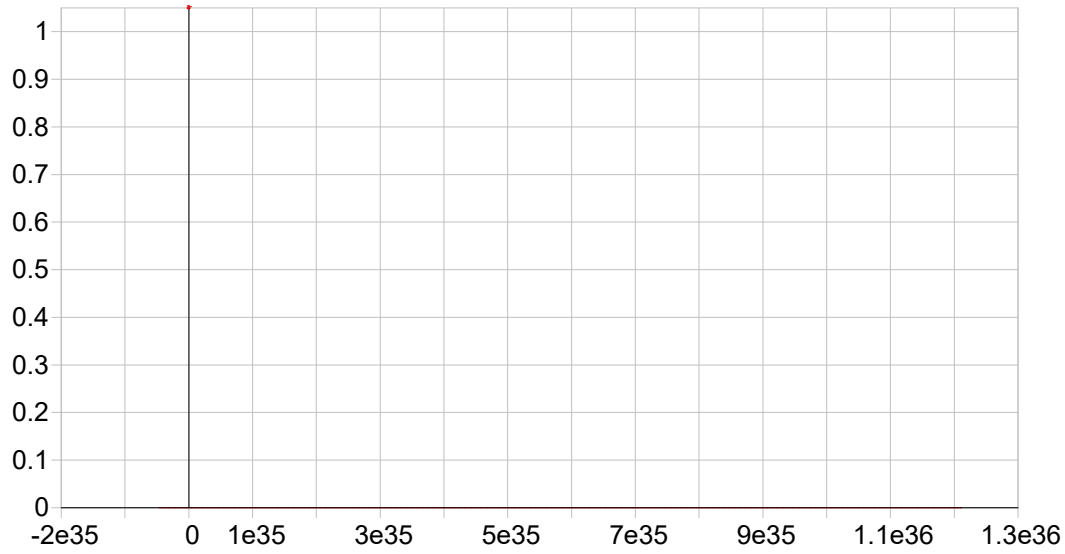


Y 360.073 { 94}*

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					

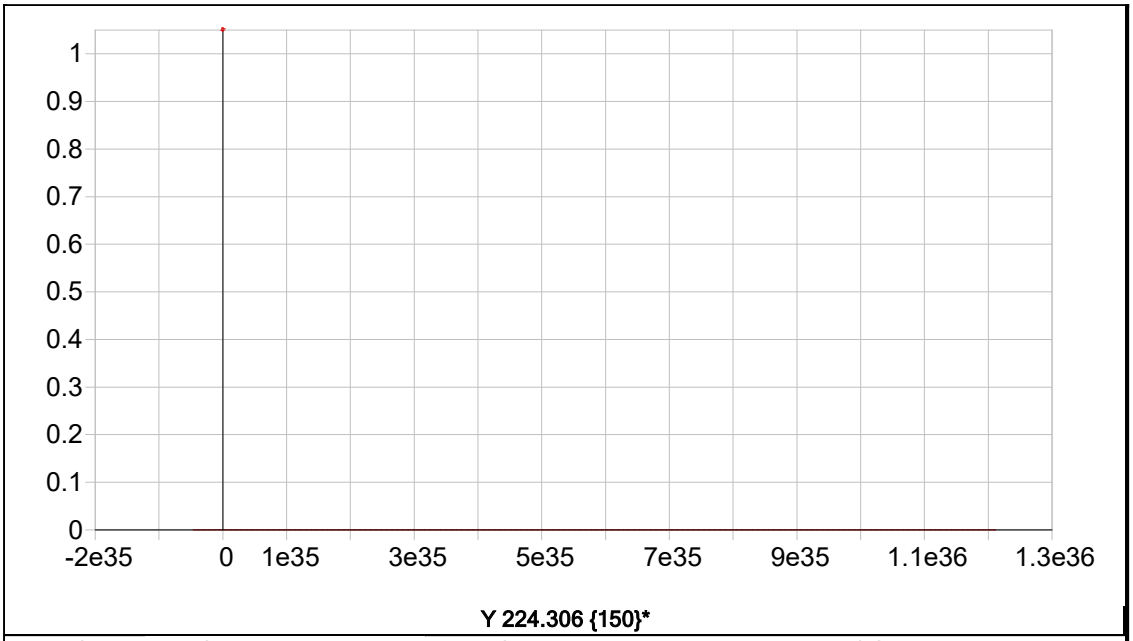
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

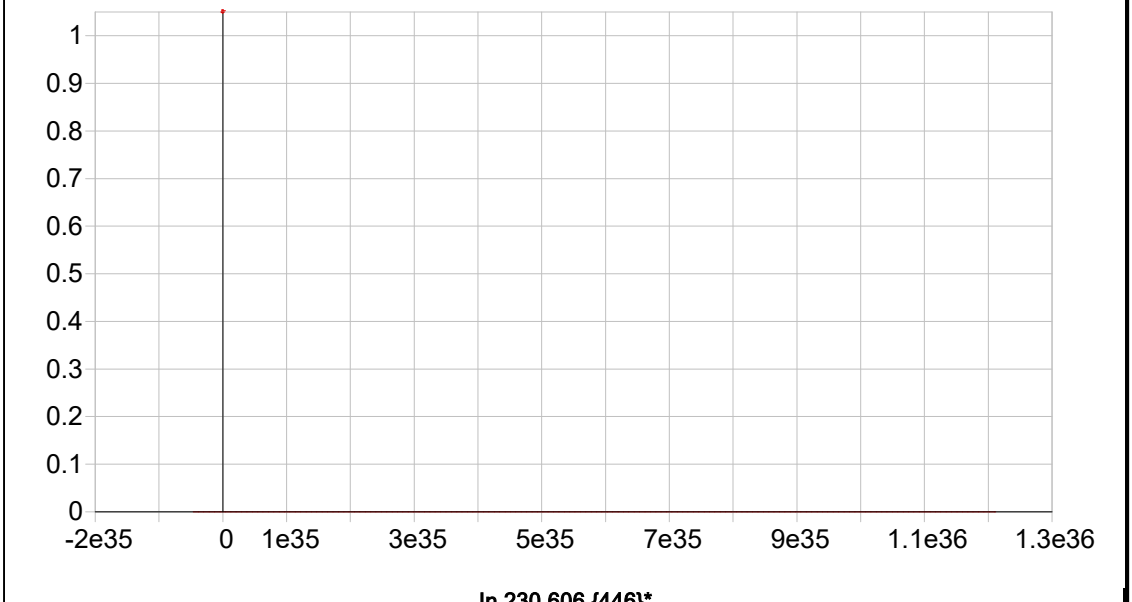
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

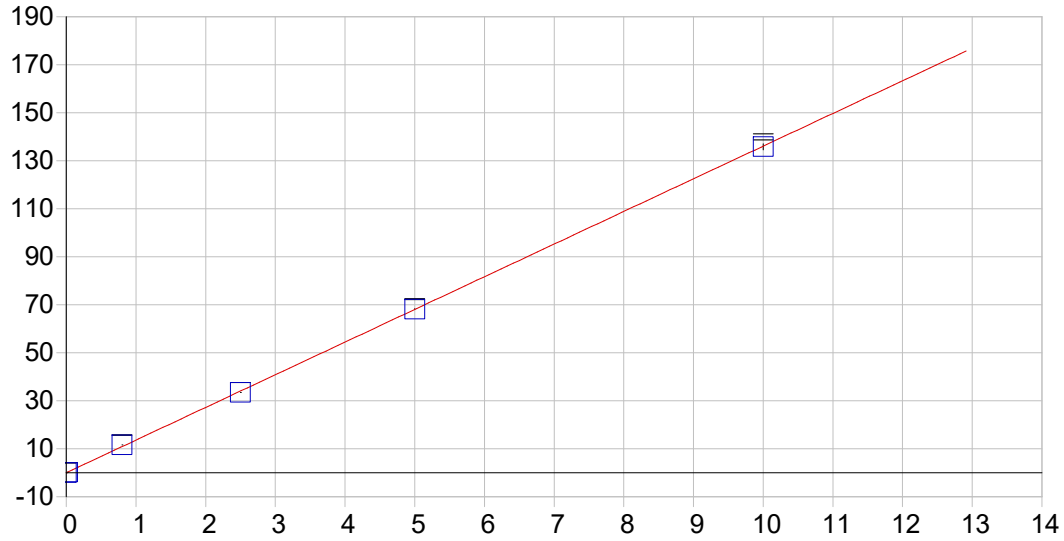


In 230.606 {446}*

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



Sr 407.771 { 83}

Date of Fit:	6/25/2025 13:00:22	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001010	Re-Slope:	1.000000
A1 (Gain):	13.609549	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.004775		
Predicted MDL:	0.000215		
Predicted MQL:	0.000716		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00098	.004	1
S1	.02000	.02105	.001	5.25	.28748	.003	1
S2	.80000	.85161	.052	6.45	11.591	.038	1
S3	2.5000	2.4591	-.041	-1.63	33.469	.013	1
S4	5.0000	5.0085	.008	.169	68.164	.216	1
S5	10.000	9.9797	-.020	-.203	135.82	1.30	1

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S0 Acquired: 6/25/2025 12:23:08 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00012**	**.00003**	**.00003**	**.00000**	**.00050**	**.00140**	**.01782**	**.00583**
Stddev	.00013	.00013	.00018	.00022	.00011	.00249	.00355	.00112
%RSD	108.62	409.21	614.90	18e6	21.330	177.81	19.941	19.202
#1	-.00006	-.00012	.00010	-.00000	.00043	.00170	.02185	.00530
#2	-.00003	.00011	-.00018	.00023	.00062	.00372	.01645	.00507
#3	-.00026	.00011	.00017	-.00022	.00045	-.00122	.01515	.00711

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00000**	**.01427**	**.00064**	**.00020**	**.06358**	**.00078**	**.00076**	**-.00151**
Stddev	.00025	.00019	.00014	.00029	.00109	.00147	.00017	.00116
%RSD	7540.7	1.3055	21.307	141.90	1.7188	188.53	21.703	76.872
#1	.00024	.01406	.00073	.00051	.06391	.00215	.00093	-.00166
#2	.00003	.01435	.00070	.00016	.06236	.00096	.00060	-.00028
#3	-.00026	.01441	.00048	-.00006	.06447	-.00077	.00076	-.00260

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00002**	**-.00055**	**-.11290**	**.00037**	**.00254**	**.44118**	**-.00013**	**.01319**
Stddev	.00004	.00055	.02305	.00185	.00060	.01333	.00002	.00227
%RSD	290.21	99.433	20.416	496.54	23.543	3.0225	12.109	17.216
#1	-.00002	-.00084	-.09355	-.00096	.00186	.44407	-.00012	.01107
#2	.00000	.00008	-.13840	-.00040	.00297	.42663	-.00015	.01290
#3	.00007	-.00089	-.10675	.00248	.00280	.45283	-.00014	.01559

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00041**	**.00043**	**.02983**	**.00030**	**.00190**	**.03359**	**.00098**
Stddev	.00032	.00010	.00247	.00010	.00090	.00691	.00427
%RSD	77.465	22.919	8.2902	32.020	47.370	20.577	434.53
#1	.00075	.00039	.03048	.00027	.00169	.03557	.00101
#2	.00012	.00054	.02709	.00023	.00289	.03930	-.00330
#3	.00037	.00036	.03191	.00041	.00113	.02591	.00524

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S0 Acquired: 6/25/2025 12:23:08 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	5138.7	41515.	2279.7	3651.0	5792.0
Stddev	9.7	64.	11.6	9.4	7.1
%RSD	.18840	.15529	.51074	.25873	.12234
#1	5128.7	41561.	2281.8	3649.9	5784.3
#2	5148.1	41441.	2290.1	3642.1	5793.6
#3	5139.4	41543.	2267.1	3660.9	5798.1

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S1 Acquired: 6/25/2025 12:27:39 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**.00058**	**.00483**	**.00403**	**.00130**	**.00516**	**.01394**	**.56865**	**.10094**
Stddev	.00009	.00011	.00044	.00007	.00019	.00289	.00226	.00261
%RSD	16.137	2.2789	10.833	5.6810	3.7216	20.746	.39674	2.5861
#1	.00065	.00486	.00390	.00121	.00527	.01644	.56949	.09804
#2	.00062	.00471	.00368	.00133	.00494	.01460	.56609	.10170
#3	.00047	.00492	.00452	.00135	.00527	.01077	.57037	.10309

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02582**	**.28059**	**.00292**	**.02339**	**.22841**	**.00610**	**.01774**	**.05809**
Stddev	.00031	.00399	.00020	.00027	.00662	.00136	.00113	.00072
%RSD	1.1860	1.4222	6.8722	1.1429	2.8984	22.243	6.3648	1.2399
#1	.02551	.28181	.00314	.02363	.23110	.00689	.01689	.05753
#2	.02582	.28382	.00288	.02310	.23326	.00687	.01731	.05891
#3	.02612	.27613	.00275	.02344	.22087	.00453	.01902	.05784

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02814**	**.00179**	**2.2321**	**.00545**	**.06414**	**25.038**	**.00113**	**.19405**
Stddev	.00008	.00013	.0123	.00226	.00128	.110	.00007	.00254
%RSD	.29778	7.0281	.54950	41.390	1.9967	.44109	6.4289	1.3068
#1	.02817	.00192	2.2222	.00723	.06509	24.946	.00117	.19678
#2	.02820	.00166	2.2458	.00291	.06465	25.161	.00105	.19176
#3	.02804	.00178	2.2282	.00621	.06269	25.009	.00118	.19362

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10485**	**.00136**	**.63224**	**.00543**	**.02445**	**.05533**	**.28748**
Stddev	.00033	.00008	.00748	.00008	.00125	.00606	.00294
%RSD	.31891	6.0441	1.1825	1.3832	5.1239	10.946	1.0218
#1	.10515	.00127	.63755	.00551	.02355	.06230	.28409
#2	.10491	.00143	.63549	.00539	.02588	.05241	.28924
#3	.10449	.00139	.62369	.00538	.02391	.05129	.28911

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S1 Acquired: 6/25/2025 12:27:39 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	5108.2	41605.	2292.8	3665.8	5713.9
Stddev	9.3	84.	5.1	15.7	12.7
%RSD	.18156	.20284	.22114	.42808	.22236
#1	5114.0	41662.	2296.6	3664.2	5724.6
#2	5097.5	41646.	2287.1	3682.3	5699.9
#3	5113.1	41508.	2294.8	3651.0	5717.3

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S2 Acquired: 6/25/2025 12:32:02 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**.02687**	**.10195**	**.24435**	**.05143**	**.07385**	**.20104**	**8.8817**	**.63864**
Stddev	.00011	.00034	.00034	.00016	.00034	.00315	.0359	.00589
%RSD	.41540	.33046	.13737	.30813	.45967	1.5679	.40467	.92151
#1	.02699	.10196	.24398	.05156	.07421	.20403	8.8588	.63466
#2	.02677	.10228	.24463	.05125	.07378	.20135	8.8633	.63586
#3	.02685	.10160	.24443	.05148	.07354	.19775	8.9231	.64540

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.7607**	**.55081**	**.03759**	**.30750**	**1.7088**	**.04801**	**.30995**	**.10885**
Stddev	.0009	.00532	.00036	.00065	.0121	.00031	.00147	.00135
%RSD	.05111	.96658	.94895	.21210	.70528	.65405	.47509	1.2434
#1	1.7600	.55171	.03799	.30743	1.7161	.04783	.30992	.10730
#2	1.7603	.54509	.03729	.30819	1.6949	.04783	.30849	.10942
#3	1.7617	.55563	.03749	.30689	1.7155	.04837	.31144	.10982

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.28449**	**.04810**	**4.7600**	**.05253**	**.63250**	**54.633**	**.05256**	**1.4494**
Stddev	.00013	.00036	.0471	.00076	.00347	.421	.00016	.0083
%RSD	.04460	.75643	.98846	1.4475	.54796	.77129	.29895	.57640
#1	.28436	.04830	4.7460	.05335	.62850	54.552	.05244	1.4474
#2	.28461	.04833	4.7216	.05238	.63440	54.259	.05251	1.4422
#3	.28450	.04768	4.8125	.05185	.63461	55.089	.05274	1.4585

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.42101**	**.03928**	**1.3098**	**.10692**	**.47725**	**1.0553**	**11.591**
Stddev	.00031	.00039	.0112	.00019	.00303	.0080	.037
%RSD	.07277	.99479	.85739	.17908	.63471	.75396	.32357
#1	.42092	.03918	1.3093	.10686	.47691	1.0463	11.575
#2	.42135	.03895	1.2988	.10714	.47440	1.0613	11.564
#3	.42076	.03971	1.3212	.10678	.48043	1.0583	11.634

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S2 Acquired: 6/25/2025 12:32:02 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	5108.3	41282.	2292.7	3631.2	5563.9
Stddev	19.2	15.	14.9	11.1	13.4
%RSD	.37585	.03546	.64901	.30618	.24026
#1	5110.1	41294.	2296.8	3643.0	5563.6
#2	5088.3	41266.	2305.1	3620.9	5550.8
#3	5126.5	41286.	2276.2	3629.8	5577.5

Sample Name: S3 Acquired: 6/25/2025 12:36:17 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**.08385**	**.30534**	**.73552**	**.14821**	**.21077**	**.56237**	**25.658**	**1.8419**
Stddev	.00035	.00063	.00116	.00037	.00017	.00379	.018	.0123
%RSD	.41562	.20747	.15731	.24763	.07832	.67401	.07172	.66598
#1	.08354	.30461	.73497	.14785	.21059	.56267	25.658	1.8496
#2	.08378	.30571	.73474	.14821	.21090	.56600	25.640	1.8277
#3	.08423	.30570	.73685	.14859	.21084	.55843	25.677	1.8482

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.3731**	**1.5686**	**.10761**	**.92920**	**4.7594**	**.13395**	**.88196**	**.31365**
Stddev	.0184	.0101	.00029	.00334	.0358	.00114	.00136	.00252
%RSD	.34307	.64739	.26929	.35951	.75295	.85207	.15425	.80364
#1	5.3552	1.5740	.10795	.92554	4.7714	.13526	.88322	.31639
#2	5.3720	1.5568	.10745	.92996	4.7192	.13336	.88052	.31143
#3	5.3920	1.5748	.10744	.93209	4.7878	.13322	.88214	.31313

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.85634**	**.13933**	**14.357**	**.15169**	**1.8413**	**171.08**	**.16300**	**4.2158**
Stddev	.00281	.00012	.104	.00118	.0032	2.24	.00034	.0316
%RSD	.32849	.08537	.72293	.78001	.17113	1.3113	.20820	.74893
#1	.85350	.13942	14.385	.15035	1.8448	173.65	.16287	4.2170
#2	.85638	.13937	14.242	.15258	1.8387	169.51	.16275	4.1837
#3	.85913	.13920	14.443	.15213	1.8403	170.08	.16339	4.2468

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.2119**	**.12480**	**3.7157**	**.32443**	**1.3812**	**2.9480**	**33.469**
Stddev	.0037	.00065	.0299	.00092	.0021	.0093	.013
%RSD	.30302	.52079	.80455	.28408	.14941	.31397	.03831
#1	1.2087	.12414	3.7300	.32359	1.3794	2.9583	33.476
#2	1.2111	.12481	3.6813	.32429	1.3807	2.9404	33.454
#3	1.2159	.12544	3.7357	.32542	1.3834	2.9454	33.476

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S3 Acquired: 6/25/2025 12:36:17 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**5199.8**	**41714.**	**2344.4**	**3688.6**	**5318.8**
Stddev	8.2	231.	16.7	17.7	3.1
%RSD	.15791	.55269	.71269	.47907	.05757
#1	5196.7	41462.	2330.3	3668.2	5321.4
#2	5209.1	41769.	2362.9	3699.1	5319.5
#3	5193.6	41913.	2339.9	3698.6	5315.4

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S4 Acquired: 6/25/2025 12:40:35 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**.17017**	**.60213**	**1.4622**	**.30112**	**.42728**	**1.1322**	**52.408**	**3.6868**
Stddev	.00018	.00041	.0011	.00040	.00012	.0061	.142	.0167
%RSD	.10329	.06776	.07814	.13434	.02817	.53905	.27019	.45171
#1	.17036	.60256	1.4632	.30140	.42742	1.1386	52.245	3.6783
#2	.17001	.60175	1.4610	.30066	.42721	1.1316	52.476	3.6761
#3	.17012	.60207	1.4626	.30130	.42722	1.1264	52.503	3.7060

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**10.781**	**3.1836**	**.21547**	**1.8481**	**9.4686**	**.27493**	**1.7872**	**.63708**
Stddev	.011	.0113	.00058	.0011	.0534	.00045	.0074	.00282
%RSD	.10148	.35348	.26917	.05838	.56363	.16356	.41296	.44339
#1	10.792	3.1714	.21541	1.8493	9.4599	.27516	1.7822	.63660
#2	10.770	3.1860	.21609	1.8472	9.4201	.27522	1.7838	.63453
#3	10.780	3.1935	.21493	1.8477	9.5258	.27441	1.7957	.64011

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.7019**	**.27964**	**30.154**	**.31204**	**3.6849**	**368.24**	**.33209**	**8.6036**
Stddev	.0026	.00121	.173	.00087	.0085	.98	.00089	.0488
%RSD	.15085	.43298	.57300	.27832	.23096	.26655	.26808	.56773
#1	1.7048	.28005	30.083	.31155	3.6876	367.42	.33312	8.5836
#2	1.6998	.28058	30.028	.31153	3.6918	367.98	.33156	8.5679
#3	1.7010	.27827	30.351	.31305	3.6754	369.33	.33159	8.6592

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.4496**	**.24654**	**7.4931**	**.64647**	**2.8383**	**5.8876**	**68.164**
Stddev	.0032	.00062	.0504	.00052	.0079	.0294	.216
%RSD	.12850	.24966	.67280	.08018	.27944	.49929	.31705
#1	2.4532	.24676	7.4710	.64690	2.8293	5.8629	67.916
#2	2.4476	.24585	7.4575	.64589	2.8416	5.8798	68.310
#3	2.4480	.24703	7.5508	.64661	2.8441	5.9201	68.266

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S4 Acquired: 6/25/2025 12:40:35 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	**4974.1**	**40263.**	**2251.5**	**3569.1**	**5114.5**
Stddev	10.4	159.	11.5	23.2	11.9
%RSD	.20920	.39454	.50859	.64862	.23288
#1	4968.1	40347.	2262.5	3570.7	5108.8
#2	4968.1	40080.	2252.4	3545.2	5106.6
#3	4986.1	40363.	2239.6	3591.4	5128.2

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S5 Acquired: 6/25/2025 12:44:53 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	.35679	1.2078	3.0056	.60960	.86296	2.2663	104.22	7.2321
Stddev	.00045	.0022	.0020	.00070	.00044	.0117	1.48	.0774
%RSD	.12531	.18549	.06551	.11468	.05114	.51733	1.4194	1.0702
#1	.35638	1.2052	3.0037	.61028	.86250	2.2565	103.81	7.1762
#2	.35671	1.2093	3.0076	.60965	.86302	2.2630	102.99	7.1997
#3	.35727	1.2089	3.0054	.60888	.86337	2.2793	105.86	7.3204

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	22.051	6.3433	.42613	3.7885	18.444	.54821	3.5689	1.2668
Stddev	.021	.0255	.00115	.0062	.183	.00349	.0166	.0114
%RSD	.09713	.40168	.26937	.16453	.99384	.63635	.46602	.89879
#1	22.035	6.3283	.42492	3.7815	18.346	.54492	3.5531	1.2596
#2	22.075	6.3290	.42628	3.7935	18.331	.54783	3.5673	1.2608
#3	22.042	6.3727	.42720	3.7905	18.656	.55187	3.5862	1.2799

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.4867	.55806	61.005	.62443	7.3884	752.46	.69507	17.047
Stddev	.0045	.00180	.426	.00677	.0233	6.46	.00131	.180
%RSD	.12779	.32249	.69893	1.0841	.31487	.85840	.18826	1.0540
#1	3.4861	.55601	60.917	.61756	7.3650	753.04	.69370	16.988
#2	3.4915	.55878	60.629	.62463	7.4115	745.73	.69519	16.905
#3	3.4826	.55939	61.468	.63110	7.3889	758.61	.69631	17.249

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.9411	.51931	14.808	1.3226	5.6943	11.621	135.82
Stddev	.0035	.00040	.159	.0022	.0209	.087	1.30
%RSD	.07166	.07737	1.0712	.16575	.36659	.74827	.95710
#1	4.9416	.51977	14.721	1.3206	5.6713	11.536	134.83
#2	4.9443	.51901	14.712	1.3249	5.6995	11.617	135.34
#3	4.9373	.51915	14.991	1.3223	5.7121	11.709	137.29

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: S5 Acquired: 6/25/2025 12:44:53 Type: Cal
Method: METHOD 6010D, 200.7(v27) Mode: IR Corr. Factor: 1.000000
User: admin 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	4869.6	39760.	2243.2	3497.7	4877.1
Stddev	5.9	48.	17.7	15.0	8.6
%RSD	.12069	.12100	.79073	.42936	.17654
#1	4872.0	39771.	2250.1	3507.3	4882.5
#2	4862.9	39707.	2256.4	3480.4	4867.2
#3	4873.9	39801.	2223.0	3505.3	4881.6

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICV01 Acquired: 6/25/2025 13:08:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.962825**	**3.954424**	**3.992403**	**4.085336**	**4.214041**	**8.068110**	**8.174399**
Stddev	.012886	.013365	.014385	.009671	.007351	.037381	.056657
%RSD	.3251725	.3379860	.3603190	.2367236	.1744339	.4633148	.6930970
#1	3.960567	3.952899	3.988680	4.089202	4.212757	8.108349	8.239435
#2	3.951217	3.941886	3.980245	4.074330	4.207416	8.034465	8.135741
#3	3.976690	3.968486	4.008284	4.092477	4.221949	8.061516	8.148021

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2071274**	**2.016901**	**20.12686**	**.8312224**	**2.046691**	**1.056846**	**4.102633**
Stddev	.0026382	.007859	.09105	.0037239	.007131	.015302	.009411
%RSD	1.273698	.3896469	.4523673	.4480068	.3484027	1.447934	.2293994
#1	.2094507	2.015868	20.19406	.8271819	2.044672	1.071669	4.100952
#2	.2042594	2.009610	20.16330	.8345167	2.040788	1.041105	4.112772
#3	.2076721	2.025225	20.02324	.8319687	2.054614	1.057764	4.094176

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026524**	**20.31734**	**2.044139**	**1.017235**	**20.05179**	**2.044864**	**2.062200**
Stddev	.007382	.06276	.008159	.000846	.20135	.011786	.003330
%RSD	.3642515	.3089093	.3991242	.0831883	1.004143	.5763651	.1614961
#1	2.034391	20.38696	2.046277	1.017141	20.22995	2.056330	2.063671
#2	2.025432	20.29997	2.035124	1.016439	19.83334	2.032782	2.064541
#3	2.019750	20.26510	2.051016	1.018124	20.09208	2.045479	2.058387

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.50303**	**.0185298**	**3.925645**	**3.997328**	**.0441857**	**3.692600**	**3.958003**
Stddev	.16871	.0014355	.055724	.009619	.0016567	.059225	.016830
%RSD	.8650564	7.747002	1.419494	.2406405	3.749285	1.603889	.4252050
#1	19.69372	.0199787	3.980102	3.996666	.0423200	3.744388	3.950017
#2	19.37316	.0185025	3.868734	3.988056	.0447526	3.628026	3.946653
#3	19.44220	.0171081	3.928099	4.007261	.0454844	3.705385	3.977339

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICV01 Acquired: 6/25/2025 13:08:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.942083	.0104361	.0003316
Stddev	.011369	.0074890	.0001370
%RSD	.2884122	71.76032	41.31058
#1	3.954932	.0157620	.0004543
#2	3.933325	.0136733	.0003566
#3	3.937993	.0018731	.0001838

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5074.112	40937.97	2314.876	3612.429	5288.606
Stddev	18.534	287.15	20.561	30.633	23.440
%RSD	.3652739	.7014192	.8882003	.8479842	.4432205
#1	5060.644	41080.56	2291.690	3623.137	5277.378
#2	5095.250	40607.44	2330.891	3577.879	5315.548
#3	5066.441	41125.92	2322.047	3636.270	5272.892

Sample Name: LLICV01 Acquired: 6/25/2025 13:20:39 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0203240**	**.0416941**	**.0131814**	**.0228059**	**.0555280**	**.0990071**	**.1063330**
Stddev	.0049461	.0006605	.0007467	.0029697	.0010750	.0111082	.0011501
%RSD	24.33655	1.584111	5.664581	13.02172	1.936050	11.21956	1.081597
#1	.0191219	.0423723	.0140272	.0206989	.0552018	.0865804	.1072057
#2	.0257604	.0410529	.0126138	.0262024	.0567283	.1079725	.1050297
#3	.0160896	.0416569	.0129031	.0215164	.0546537	.1024685	.1067636

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066228**	**.0059335**	**2.098003**	**.0101032**	**.0310674**	**.0220222**	**.0919711**
Stddev	.0000352	.0000750	.016869	.0008258	.0005599	.0011751	.0210809
%RSD	.5315427	1.264017	.8040662	8.173498	1.802220	5.335841	22.92119
#1	.0066350	.0058521	2.082213	.0098291	.0316665	.0213645	.0883119
#2	.0066502	.0059487	2.096020	.0094493	.0309780	.0213232	.1146421
#3	.0065831	.0059998	2.115776	.0110312	.0305575	.0233789	.0729594

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0239544**	**2.339203**	**.0413590**	**.0106409**	**1.919963**	**.0365334**	**.0420951**
Stddev	.0004597	.082954	.0006522	.0003019	.023139	.0106146	.0000879
%RSD	1.918923	3.546252	1.577013	2.837624	1.205204	29.05452	.2087689
#1	.0234293	2.253062	.0420669	.0107052	1.910504	.0380146	.0421739
#2	.0242840	2.345994	.0412276	.0109055	1.903051	.0463295	.0420003
#3	.0241499	2.418553	.0407824	.0103120	1.946333	.0252560	.0421111

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.695636**	**.0196231**	**.1053701**	**.2131824**	**.0216797**	**.4067938**	**.0384456**
Stddev	.012788	.0006206	.0019110	.0003426	.0030939	.0047881	.0002542
%RSD	.7541676	3.162743	1.813637	.1607112	14.27099	1.177030	.6611493
#1	1.682683	.0202693	.1034333	.2130384	.0249771	.4031215	.0386169
#2	1.695975	.0190317	.1054227	.2129352	.0188404	.4050506	.0381535
#3	1.708252	.0195681	.1072543	.2135735	.0212215	.4122092	.0385663

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: LLICV01 Acquired: 6/25/2025 13:20:39 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0393669	.0215176	.0208410
Stddev	.0018992	.0108063	.0003603
%RSD	4.824259	50.22098	1.728991
#1	.0413829	.0222695	.0208309
#2	.0376115	.0319284	.0204858
#3	.0391061	.0103550	.0212062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5196.222	41958.92	2325.810	3698.794	5793.603
Stddev	16.881	80.22	23.342	5.657	18.620
%RSD	.3248699	.1911905	1.003627	.1529299	.3213946
#1	5178.799	41872.37	2340.976	3692.466	5773.324
#2	5212.503	41973.60	2337.524	3703.359	5809.930
#3	5197.364	42030.79	2298.930	3700.558	5797.555

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICB01 Acquired: 6/25/2025 14:53:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**.0012575**	**-.000610**	**.0007956**	**-.000376**	**-.001802**	**-.017457**	**-.000952**
Stddev	.0023684	.000767	.0015549	.003868	.001472	.016926	.000676
%RSD	188.3433	125.8047	195.4356	1030.027	81.69584	96.95941	70.97991
#1	.0026279	.000207	.0000416	-.004268	-.000999	.000737	-.000957
#2	-.001477	-.001315	-.000239	.003468	-.000905	-.032737	-.000274
#3	.002622	-.000722	.002584	-.000327	-.003501	-.020370	-.001626

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000541**	**-.000002**	**-.028326**	**-.000100**	**-.000104**	**-.001221**	**-.010347**
Stddev	.0000546	.000043	.015042	.001134	.000143	.000577	.028537
%RSD	100.9997	1839.452	53.10107	1132.513	138.2987	47.29898	275.8075
#1	.0000542	.000013	-.045648	.000926	.000053	-.001677	-.042747
#2	-.000001	-.000051	-.018561	-.001317	-.000136	-.000572	.011054
#3	.000109	.000031	-.020770	.000091	-.000228	-.001413	.000652

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013989**	**-.011566**	**.0003966**	**-.001063**	**.0377364**	**-.005960**	**-.001389**
Stddev	.0001736	.017449	.0004103	.001135	.0153168	.003575	.000393
%RSD	12.40680	150.8724	103.4524	106.7637	40.58889	59.98437	28.28179
#1	.0014630	-.028531	.0007447	.000247	.0221699	-.002979	-.001044
#2	.0012024	-.012497	-.000056	-.001679	.0382487	-.004977	-.001816
#3	.0015314	.006331	.000501	-.001758	.0527906	-.009924	-.001305

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029573**	**.0018417**	**-.006996**	**-.000190**	**-.003786**	**.0030898**	**-.001837**
Stddev	.0014722	.0010116	.001055	.000440	.005026	.0008293	.000521
%RSD	49.78277	54.92725	15.08052	231.6572	132.7363	26.84129	28.34150
#1	.0045657	.0009869	-.007535	-.000127	-.005755	.0039147	-.002166
#2	.0016763	.0029586	-.005781	-.000658	.001926	.0022562	-.002109
#3	.0026300	.0015796	-.007673	.000215	-.007530	.0030985	-.001237

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICB01 Acquired: 6/25/2025 14:53:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000727**	**-.004635**	**-.000288**
Stddev	.003884	.003154	.000122
%RSD	534.3072	68.05112	42.52980
#1	.001587	-.007667	-.000415
#2	.001442	-.004867	-.000170
#3	-.005210	-.001371	-.000279

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5216.031**	**42225.55**	**2322.429**	**3699.768**	**5905.745**
Stddev	17.883	104.16	14.780	6.635	15.448
%RSD	.3428496	.2466765	.6364103	.1793229	.2615809
#1	5195.501	42285.69	2320.318	3705.312	5888.649
#2	5228.220	42285.69	2308.818	3701.573	5918.703
#3	5224.373	42105.28	2338.151	3692.417	5909.883

Sample Name: CRI01 Acquired: 6/25/2025 15:24:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0164643**	**.0367597**	**.0132439**	**.0203430**	**.0496322**	**.1029832**	**.0993570**
Stddev	.0006160	.0025287	.0006800	.0026749	.0028463	.0095089	.0006656
%RSD	3.741672	6.879056	5.134398	13.14880	5.734733	9.233487	.6698979
#1	.0169450	.0355422	.0138884	.0204020	.0524074	.1098772	.0988055
#2	.0157699	.0396669	.0125332	.0229879	.0497693	.0921352	.0991692
#3	.0166781	.0350701	.0133101	.0176391	.0467198	.1069373	.1000963

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064312**	**.0055938**	**1.996597**	**.0089756**	**.0298826**	**.0220516**	**.1065851**
Stddev	.0001909	.0000369	.010836	.0008970	.0001870	.0004314	.0133159
%RSD	2.968851	.6597115	.5427030	9.994193	.6258498	1.956243	12.49319
#1	.0064985	.0056193	1.990197	.0080040	.0296979	.0225157	.1170164
#2	.0065794	.0055515	2.009107	.0097724	.0298781	.0216630	.0915866
#3	.0062157	.0056105	1.990486	.0091502	.0300719	.0219760	.1111522

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0243025**	**2.154880**	**.0386091**	**.0097125**	**1.871616**	**.0428185**	**.0396749**
Stddev	.0011672	.035918	.0003200	.0005155	.007480	.0064938	.0006947
%RSD	4.802636	1.666819	.8288296	5.307170	.3996465	15.16588	1.750898
#1	.0229605	2.196350	.0389300	.0096987	1.879217	.0437716	.0398711
#2	.0248666	2.133626	.0386073	.0092041	1.871369	.0487830	.0402504
#3	.0250805	2.134664	.0382900	.0102348	1.864263	.0359008	.0389032

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.943410**	**.0190986**	**.0942140**	**.1925917**	**.0204292**	**.3882390**	**.0362985**
Stddev	.005208	.0015452	.0009142	.0007238	.0020979	.0035570	.0001461
%RSD	.2679842	8.090841	.9703856	.3758492	10.26915	.9161937	.4024816
#1	1.938420	.0173302	.0932678	.1917768	.0226932	.3845703	.0361524
#2	1.948812	.0197774	.0942816	.1928385	.0200437	.3884741	.0364446
#3	1.942999	.0201883	.0950926	.1931600	.0185509	.3916727	.0362984

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CRI01 Acquired: 6/25/2025 15:24:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0342171	.0099566	.0208884
Stddev	.0051681	.0006515	.0001220
%RSD	15.10370	6.542959	.5842461
#1	.0401846	.0106114	.0210017
#2	.0312204	.0099499	.0207592
#3	.0312463	.0093086	.0209043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5190.052	41862.50	2270.426	3675.074	5792.995
Stddev	14.050	162.09	6.705	19.640	19.566
%RSD	.2707178	.3871897	.2952997	.5344138	.3377442
#1	5205.241	41676.22	2278.155	3652.450	5811.057
#2	5187.395	41971.42	2266.958	3685.021	5795.715
#3	5177.519	41939.85	2266.167	3687.751	5772.211

Sample Name: ICSA01 Acquired: 6/25/2025 15:29:03 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000862**	**.0031834**	**.0000316**	**.0019279**	**.0237386**	**260.8626**
Stddev	.002384	.0016564	.0029634	.0009143	.0002838	1.5811
%RSD	276.4524	52.03155	9376.861	47.42696	1.195440	.6061191
#1	-.002397	.0032506	-.000310	.0011047	.0235490	259.3019
#2	.001884	.0048051	-.002746	.0017669	.0240649	260.8227
#3	-.002074	.0014944	.003151	.0029120	.0236020	262.4634

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056398**	**.0011308**	**-.002305**	**247.6853**	**.0523614**	**.0226037**
Stddev	.0004644	.0000705	.000161	.8814	.0007575	.0009710
%RSD	8.235157	6.230635	6.980606	.3558378	1.446721	4.295888
#1	.0052420	.0010975	-.002346	246.7158	.0527171	.0218523
#2	.0055273	.0010831	-.002128	248.4382	.0528756	.0237002
#3	.0061502	.0012117	-.002442	247.9019	.0514915	.0222588

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.009163**	**104.3441**	**.0075790**	**258.8012**	**.0046450**	**-.007285**
Stddev	.000173	.4249	.0012137	1.3951	.0002654	.001083
%RSD	1.884097	.4071976	16.01359	.5390493	5.714086	14.85993
#1	-.008981	103.8537	.0069112	257.2795	.0047251	-.006083
#2	-.009182	104.5767	.0089799	259.1045	.0043487	-.008183
#3	-.009325	104.6019	.0068459	260.0197	.0048611	-.007589

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2074202**	**.0034824**	**.0128675**	**.0061520**	**.0077755**	F **.0122571**
Stddev	.0141109	.0060120	.0007804	.0009650	.0004455	.0015979
%RSD	6.803044	172.6381	6.064750	15.68523	5.730019	13.03650
#1	.2061765	.0017106	.0124358	.0061322	.0076417	.0109189
#2	.2221118	-.001445	.0123984	.0071268	.0074122	.0140263
#3	.1939723	.010181	.0137684	.0051971	.0082726	.0118260

Sample Name: ICSA01 Acquired: 6/25/2025 15:29:03 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044646	.0178590	-.005321	.0069839	-.003332	-.002568
Stddev	.0006088	.0038429	.001032	.0017304	.002161	.006152
%RSD	13.63671	21.51820	19.39593	24.77672	64.85463	239.5893
#1	.0051136	.0168850	-.006317	.0051794	-.005156	-.000343
#2	.0043742	.0145969	-.005392	.0086292	-.003897	.002163
#3	.0039061	.0220953	-.004256	.0071433	-.000945	-.009523

Elem	Sr4077
Units	ppm
Avg	F .1041335
Stddev	.0002657
%RSD	.2551716
#1	.1039998
#2	.1039612
#3	.1044395

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4757.946	37239.82	2229.012	3356.322	4691.883
Stddev	10.348	38.87	8.190	10.269	11.973
%RSD	.2174967	.1043905	.3674268	.3059614	.2551756
#1	4759.653	37282.08	2238.052	3368.179	4686.454
#2	4767.335	37231.80	2222.088	3350.470	4705.608
#3	4746.851	37205.58	2226.894	3350.316	4683.586

Sample Name: ICSAB01 Acquired: 6/25/2025 15:51:07 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0924485**	**.0960573**	**.0494085**	**.0480616**	**.6165195**	**249.1496**	**.5008605**
Stddev	.0046458	.0012622	.0035599	.0037942	.0045518	.5944	.0010072
%RSD	5.025314	1.313965	7.205021	7.894363	.7383133	.2385518	.2010867
#1	.0874313	.0969879	.0503934	.0522306	.6163016	248.6225	.5000365
#2	.0966016	.0946207	.0454598	.0448109	.6120805	249.7938	.5005618
#3	.0933127	.0965633	.0523722	.0471432	.6211763	249.0326	.5019833

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5228616**	**.9847231**	**238.5953**	**.5551693**	**.5067142**	**.4825025**	**100.5378**
Stddev	.0022191	.0023977	.9547	.0022872	.0014708	.0011465	.0561
%RSD	.4244168	.2434913	.4001279	.4119757	.2902586	.2376196	.0558254
#1	.5225220	.9832950	238.9524	.5575399	.5054548	.4833672	100.6004
#2	.5252310	.9833830	239.3199	.5549920	.5063571	.4829382	100.5210
#3	.5208319	.9874913	237.5135	.5529759	.5083306	.4812019	100.4920

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4978503**	**248.8034**	**.9681476**	**.2057874**	**.2085419**	**.4883955**	**1.017660**
Stddev	.0010340	.5108	.0008716	.0006119	.0233183	.0091993	.002540
%RSD	.2076963	.2053074	.0900255	.2973199	11.18158	1.883583	.2495733
#1	.4978869	248.7607	.9673309	.2050859	.2330999	.4938597	1.016783
#2	.4988655	249.3342	.9680466	.2062108	.1867015	.4935523	1.020522
#3	.4967984	248.3153	.9690653	.2060656	.2058243	.4777745	1.015675

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047919**	**.0151969**	**.9543055**	**.9681129**	**.0264094**	**.8797157**	**.9822175**
Stddev	.0006730	.0020893	.0036373	.0007905	.0079751	.0022286	.0016087
%RSD	14.04416	13.74838	.3811479	.0816510	30.19784	.2533273	.1637856
#1	.0052512	.0156755	.9547525	.9680817	.0237251	.8810823	.9838919
#2	.0051050	.0170054	.9576987	.9673384	.0353804	.8809206	.9806837
#3	.0040194	.0129098	.9504654	.9689185	.0201229	.8771441	.9820768

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICSAB01 Acquired: 6/25/2025 15:51:07 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9663671	-.007250	.0997880
Stddev	.0036890	.003779	.0004827
%RSD	.3817373	52.12046	.4837462
#1	.9673652	-.011203	.0992583
#2	.9694544	-.003675	.1002032
#3	.9622818	-.006871	.0999024

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4749.022	37067.50	2189.435	3345.329	4699.921
Stddev	7.557	187.91	12.986	18.387	9.488
%RSD	.1591213	.5069526	.5931113	.5496301	.2018788
#1	4747.667	37018.89	2192.984	3346.282	4704.877
#2	4757.164	36908.67	2175.043	3326.485	4705.904
#3	4742.234	37274.95	2200.276	3363.221	4688.981

Sample Name: ICSADLX20 Acquired: 6/25/2025 15:55:23 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.003646**	**-.000176**	**.0030691**	**-.004147**	**.0004840**	**13.20946**	**-.001323**
Stddev	.002904	.000726	.0004590	.003915	.0005866	.10142	.000677
%RSD	79.64196	412.8597	14.95603	94.40826	121.1846	.7678112	51.18042
#1	-.006029	.000662	.0026122	-.008092	.0009102	13.22458	-.001821
#2	-.004498	-.000609	.0035302	-.000263	.0007269	13.10132	-.000552
#3	-.000412	-.000581	.0030647	-.004086	-.000185	13.30247	-.001596

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001299**	**-.000065**	**12.96935**	**.0019254**	**.0054997**	**-.000908**	**5.522287**
Stddev	.0001014	.000023	.08252	.0001860	.0001795	.000807	.022131
%RSD	78.05389	36.25788	.6362583	9.660520	3.264460	88.85980	.4007577
#1	.0002428	-.000068	12.93355	.0019824	.0057064	-.000042	5.520958
#2	.0000463	-.000086	12.91078	.0020762	.0054095	-.001043	5.500850
#3	.0001007	-.000040	13.06373	.0017175	.0053831	-.001638	5.545052

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045396**	**13.76586**	**-.000267**	**-.000304**	**.0412034**	**-.000674**	**-.000239**
Stddev	.0007756	.10616	.000663	.001368	.0021077	.001369	.000308
%RSD	17.08436	.7711872	248.6561	449.4986	5.115264	203.1886	128.7600
#1	.0040238	13.76624	.000440	.001272	.0432530	.000663	.000114
#2	.0054315	13.65950	-.000875	-.001001	.0413151	-.002073	-.000449
#3	.0041635	13.87182	-.000365	-.001183	.0390421	-.000612	-.000383

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025693**	**.0010024**	**-.004280**	**.0009020**	**.0022833**	**.0085685**	**-.000431**
Stddev	.0016945	.0020870	.001264	.0002401	.0034705	.0011813	.000992
%RSD	65.95302	208.2054	29.53770	26.61821	151.9929	13.78671	230.0937
#1	.0045195	.0015034	-.005237	.0011440	.0055055	.0086591	-.001564
#2	.0017313	.0027933	-.002847	.0008982	-.001391	.0073445	-.000014
#3	.0014570	-.001290	-.004757	.0006639	.002736	.0097019	.000284

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICSADLX20 Acquired: 6/25/2025 15:55:23 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003633	-.005784	.0051309
Stddev	.001350	.000963	.0002508
%RSD	37.15560	16.64295	4.888111
#1	-.002075	-.004818	.0050917
#2	-.004377	-.005790	.0049021
#3	-.004448	-.006743	.0053991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5130.615	41184.91	2242.311	3635.143	5569.132
Stddev	8.168	34.27	14.365	7.028	5.290
%RSD	.1591982	.0832108	.6406214	.1933423	.0949905
#1	5122.738	41178.05	2236.139	3640.882	5563.523
#2	5130.062	41154.58	2258.730	3627.304	5574.031
#3	5139.046	41222.09	2232.064	3637.243	5569.842

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICSABDLX20 Acquired: 6/25/2025 15:59:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.001272**	**.0053282**	**.0037606**	**-.002398**	**.0327764**	**12.75971**	**.0236657**
Stddev	.000451	.0005694	.0007280	.003487	.0030124	.05503	.0011352
%RSD	35.46667	10.68605	19.35888	145.4229	9.190805	.4312408	4.796638
#1	-.001671	.0047069	.0031186	-.003023	.0356127	12.79008	.0247003
#2	-.001362	.0058252	.0045515	.001359	.0331022	12.79285	.0224514
#3	-.000783	.0054524	.0036116	-.005529	.0296144	12.69619	.0238455

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0272745**	**.0477884**	**12.46893**	**.0293280**	**.0296130**	**.0258927**	**5.282262**
Stddev	.0001439	.0000821	.10616	.0005942	.0002934	.0004679	.035738
%RSD	.5274630	.1716880	.8513880	2.025924	.9907694	1.807183	.6765637
#1	.0272397	.0477902	12.50016	.0297661	.0292912	.0259202	5.266291
#2	.0274325	.0477054	12.55596	.0286517	.0296821	.0254116	5.323201
#3	.0271511	.0478695	12.35065	.0295662	.0298657	.0263462	5.257295

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0272951**	**13.15778**	**.0481112**	**.0093544**	**.0527713**	**.0286250**	**.0508927**
Stddev	.0008566	.10923	.0004465	.0010598	.0031115	.0063066	.0006159
%RSD	3.138284	.8301343	.9280397	11.32962	5.896211	22.03163	1.210274
#1	.0268481	13.16978	.0483688	.0101700	.0539839	.0250638	.0501865
#2	.0282828	13.26052	.0483691	.0097367	.0492361	.0249047	.0513187
#3	.0267545	13.04306	.0475956	.0081565	.0550940	.0359067	.0511730

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051332**	**.0039120**	**.0020355**	**.0060574**	**-.001270**	**.0077492**	**.0042794**
Stddev	.0001946	.0017406	.0016688	.0002873	.001621	.0016269	.0011852
%RSD	3.790169	44.49412	81.98733	4.743426	127.6013	20.99415	27.69449
#1	.0049141	.0047894	.0028372	.0060273	.000535	.0090702	.0052945
#2	.0051998	.0019073	.0001171	.0063585	-.002599	.0082455	.0029770
#3	.0052857	.0050392	.0031522	.0057862	-.001746	.0059320	.0045667

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: ICSABDLX20 Acquired: 6/25/2025 15:59:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0040230	-.011815	.0049469
Stddev	.0014379	.004845	.0001268
%RSD	35.74309	41.00971	2.562871
#1	.0053524	-.016602	.0049442
#2	.0042198	-.006913	.0048214
#3	.0024968	-.011931	.0050750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5114.167	40789.18	2228.613	3607.666	5549.819
Stddev	14.694	130.07	22.048	2.445	8.432
%RSD	.2873216	.3188800	.9893277	.0677687	.1519391
#1	5130.835	40772.86	2232.233	3605.033	5559.517
#2	5108.586	40668.04	2204.979	3608.101	5545.728
#3	5103.082	40926.64	2248.627	3609.864	5544.213

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV01 Acquired: 6/25/2025 16:04:46 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**5.030441**	**5.071379**	**5.057282**	**5.090193**	**5.106576**	**10.08175**	**10.14984**
Stddev	.015131	.004535	.009498	.018006	.008790	.06915	.06068
%RSD	.3007857	.0894198	.1878175	.3537432	.1721377	.6859084	.5978387
#1	5.030054	5.066372	5.047434	5.071736	5.099105	10.07012	10.13529
#2	5.015508	5.072554	5.058025	5.091129	5.104360	10.15598	10.21648
#3	5.045762	5.075211	5.066388	5.107712	5.116262	10.01915	10.09776

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2658781**	**2.529202**	**25.52230**	**1.035315**	**2.533277**	**1.312768**	**5.124582**
Stddev	.0033585	.005069	.13497	.001974	.004647	.015640	.021470
%RSD	1.263163	.2004159	.5288505	.1906710	.1834550	1.191402	.4189520
#1	.2633806	2.524190	25.42331	1.033211	2.528763	1.298744	5.122620
#2	.2696962	2.529090	25.67605	1.037126	2.533021	1.329635	5.146966
#3	.2645576	2.534326	25.46755	1.035610	2.538048	1.309926	5.104162

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.557210**	**25.39251**	**2.520577**	**1.281630**	**25.59675**	**2.560200**	**2.559411**
Stddev	.012179	.20842	.004049	.001655	.24822	.007784	.005326
%RSD	.4762756	.8207938	.1606465	.1291337	.9697144	.3040380	.2081032
#1	2.553456	25.26863	2.518237	1.279792	25.35727	2.558425	2.559875
#2	2.570825	25.63313	2.518241	1.282096	25.85286	2.553457	2.564490
#3	2.547349	25.27575	2.525253	1.283002	25.58013	2.568718	2.553868

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.62855**	**5.080746**	**5.206731**	**5.100459**	**5.066851**	**5.188267**	**5.073118**
Stddev	.36096	.005244	.061021	.006680	.021308	.067511	.006066
%RSD	1.408419	.1032089	1.171970	.1309741	.4205320	1.301233	.1195682
#1	25.44427	5.075111	5.145370	5.095624	5.042564	5.118998	5.069321
#2	26.04445	5.081645	5.267407	5.097671	5.082404	5.253872	5.069919
#3	25.39692	5.085483	5.207416	5.108081	5.075586	5.191931	5.080113

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV01 Acquired: 6/25/2025 16:04:46 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.126793**	**5.043306**	**5.154213**
Stddev	.022916	.024601	.027398
%RSD	.4469784	.4877897	.5315699
#1	5.119496	5.046371	5.147497
#2	5.152469	5.066230	5.184345
#3	5.108415	5.017316	5.130797

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4985.144**	**40038.65**	**2210.494**	**3537.537**	**5117.578**
Stddev	9.729	77.25	20.149	10.767	7.819
%RSD	.1951603	.1929439	.9115359	.3043627	.1527902
#1	4974.296	39952.05	2223.139	3531.895	5108.689
#2	4993.096	40063.39	2187.258	3530.763	5123.392
#3	4988.039	40100.49	2221.085	3549.952	5120.654

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB01 Acquired: 6/25/2025 16:09:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.001617**	**-.000762**	**.0016372**	**.0003534**	**-.000315**	**-.016657**	**-.000755**
Stddev	.003257	.000684	.0010278	.0028865	.000861	.012066	.000746
%RSD	201.3655	89.71645	62.78004	816.7205	273.3389	72.43849	98.71970
#1	.001937	-.000586	.0004848	.0033600	-.001298	-.012771	-.000399
#2	-.004458	-.000183	.0024592	.0000961	.000048	-.030187	-.001612
#3	-.002331	-.001516	.0019675	-.002396	.000305	-.007012	-.000254

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001073**	**.0001535**	**-.010515**	**.0004490**	**.0000978**	**-.000147**	**-.012704**
Stddev	.0000887	.0000020	.011751	.0004558	.0000920	.000997	.003912
%RSD	82.62896	1.319560	111.7593	101.5184	94.09807	677.9736	30.79307
#1	.0001357	.0001533	-.017414	.0009389	.0001771	.000533	-.016805
#2	.0000079	.0001516	.003054	.0000374	.0001194	.000317	-.009013
#3	.0001783	.0001556	-.017184	.0003708	-.000003	-.001291	-.012294

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011181**	**.0240848**	**.0020102**	**-.000810**	**.0501540**	**-.003810**	**-.001012**
Stddev	.0007264	.0187493	.0003551	.000138	.0118791	.009396	.000631
%RSD	64.96863	77.84683	17.66426	17.00440	23.68529	246.6248	62.37201
#1	.0010242	.0457344	.0018825	-.000651	.0369240	-.013983	-.001594
#2	.0004432	.0133302	.0017367	-.000890	.0536325	.004545	-.000341
#3	.0018869	.0131898	.0024115	-.000889	.0599056	-.001992	-.001100

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054205**	**.0014423**	**.0094978**	**.0004718**	**.0001305**	**.0053472**	**-.001283**
Stddev	.0002587	.0006907	.0008402	.0002071	.0023523	.0013181	.000989
%RSD	4.771640	47.88938	8.846561	43.89443	1802.603	24.64994	77.09765
#1	.0056925	.0012821	.0089828	.0006834	-.000470	.0062609	-.002381
#2	.0051776	.0008458	.0090433	.0004625	.002725	.0059444	-.001002
#3	.0053915	.0021991	.0104674	.0002695	-.001863	.0038362	-.000465

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB01 Acquired: 6/25/2025 16:09:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.002164**	**-.005240**	**-.000133**
Stddev	.003387	.001750	.000210
%RSD	156.5519	33.39786	157.8167
#1	.001532	-.005894	-.000330
#2	-.005121	-.003258	-.000156
#3	-.002901	-.006570	.000088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5166.014**	**41665.14**	**2223.370**	**3640.708**	**5830.405**
Stddev	10.961	83.29	10.252	1.963	11.567
%RSD	.2121735	.1999042	.4610898	.0539123	.1983882
#1	5154.541	41572.64	2222.755	3640.130	5817.227
#2	5176.379	41688.60	2213.439	3642.895	5838.879
#3	5167.123	41734.19	2233.915	3639.099	5835.108

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01 Acquired: 6/25/2025 16:13:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.012402**	**-.002130**	**.0064519**	**-.017254**	**.0072310**	**.1273699**
Stddev	.003812	.001146	.0009766	.002208	.0005616	.0275585
%RSD	30.73900	53.79187	15.13646	12.79812	7.767206	21.63655
#1	-.016772	-.001146	.0060563	-.016764	.0070401	.1255304
#2	-.009753	-.001856	.0075643	-.019666	.0078632	.1558020
#3	-.010683	-.003388	.0057352	-.015332	.0067896	.1007772

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1134432**	**.0000374**	**.0000837**	**66.61500**	**.0002505**	**.0144956**
Stddev	.0017151	.0001421	.0000160	.18327	.0011998	.0003927
%RSD	1.511864	380.4938	19.11487	.2751197	478.9779	2.708864
#1	.1115977	-.000124	.0000658	66.40351	.0015928	.0140500
#2	.1149882	.000091	.0000887	66.72716	-.000717	.0146461
#3	.1137436	.000145	.0000966	66.71434	-.000124	.0147908

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034856**	**.5719967**	**.0562107**	**31.13265**	**.0020593**	**-.000468**
Stddev	.0007405	.0146687	.0005589	.16191	.0004065	.001120
%RSD	21.24517	2.564482	.9942754	.5200678	19.73743	239.1804
#1	.0039447	.5572223	.0568186	31.05766	.0022070	.000295
#2	.0038807	.5722103	.0560943	31.31846	.0015997	-.001755
#3	.0026313	.5865575	.0557192	31.02182	.0023713	.000055

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**88.34787**	**-.005440**	**.0082468**	**3.627351**	**.0492713**	**.2021043**
Stddev	.72434	.009917	.0001762	.041035	.0023129	.0013006
%RSD	.8198715	182.3077	2.136416	1.131257	4.694259	.6435067
#1	88.07638	.005658	.0080756	3.617543	.0466711	.2013968
#2	89.16873	-.013435	.0082372	3.672400	.0510993	.2036053
#3	87.79849	-.008542	.0084276	3.592109	.0500436	.2013109

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01 Acquired: 6/25/2025 16:13:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031976	11.31801	F 16.83059	.0021954	.0014218	-.017888
Stddev	.0001413	.01340	.20072	.0005926	.0008966	.008590
%RSD	4.418464	.1183720	1.192575	26.99269	63.06492	48.02229
#1	.0031967	11.32482	16.76341	.0016970	.0012466	-.014269
#2	.0030568	11.32663	17.05628	.0020386	.0023930	-.027696
#3	.0033393	11.30257	16.67208	.0028506	.0006256	-.011700

Elem	Sr4077
Units	ppm
Avg	.2009733
Stddev	.0007775
%RSD	.3868560
#1	.2002317
#2	.2017823
#3	.2009059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5076.489	40374.01	2243.200	3557.046	5353.901
Stddev	9.057	168.45	15.918	25.662	12.493
%RSD	.1784030	.4172336	.7096269	.7214441	.2333526
#1	5082.917	40358.72	2253.675	3548.350	5360.968
#2	5066.132	40549.59	2224.882	3585.926	5339.476
#3	5080.420	40213.72	2251.042	3536.862	5361.259

Sample Name: Q2385-01DUP Acquired: 6/25/2025 16:17:59 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.012574**	**-.002939**	**.0067294**	**-.019223**	**.0068620**	**.1257128**
Stddev	.002231	.002090	.0009926	.002380	.0010490	.0050603
%RSD	17.74550	71.08595	14.75035	12.38339	15.28751	4.025295
#1	-.012832	-.000568	.0071850	-.017181	.0079717	.1215312
#2	-.014665	-.003740	.0055908	-.021837	.0058865	.1242692
#3	-.010225	-.004510	.0074124	-.018650	.0067279	.1313381

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1145771**	**.0000012**	**-.000011**	**67.13114**	**.0005663**	**.0143172**
Stddev	.0009142	.0001199	.000050	.24359	.0005051	.0002832
%RSD	.7978694	10012.81	442.2793	.3628560	89.19179	1.978155
#1	.1135415	.0000272	-.000028	67.36141	.0011403	.0141016
#2	.1149178	-.000130	.000045	67.15590	.0003681	.0146380
#3	.1152720	.000106	-.000050	66.87612	.0001903	.0142121

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032992**	**.5789514**	**.0581686**	**31.08991**	**.0015914**	**.0006438**
Stddev	.0003053	.0091180	.0009365	.06017	.0004427	.0013304
%RSD	9.252203	1.574918	1.609928	.1935507	27.81484	206.6617
#1	.0031597	.5748621	.0571105	31.13773	.0020910	-.000424
#2	.0036493	.5893982	.0585046	31.02235	.0014351	.002134
#3	.0030887	.5725940	.0588907	31.10966	.0012481	.000221

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**89.14310**	**-.004647**	**.0085853**	**3.664693**	**.0509921**	**.2027621**
Stddev	.37525	.002133	.0003673	.009615	.0009368	.0026024
%RSD	.4209547	45.91171	4.277638	.2623605	1.837166	1.283490
#1	88.78759	-.007018	.0087220	3.654349	.0502178	.2011514
#2	89.53538	-.004038	.0081693	3.673357	.0520334	.2013704
#3	89.10634	-.002884	.0088646	3.666372	.0507251	.2057644

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01DUP Acquired: 6/25/2025 16:17:59 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029290	11.30681	F 16.93654	.0025942	.0021923	-.022557
Stddev	.0002177	.01182	.02164	.0006593	.0027383	.001918
%RSD	7.430796	.1045249	.1277501	25.41333	124.9042	8.501300
#1	.0030889	11.30074	16.91312	.0021909	.0050232	-.024148
#2	.0026811	11.29927	16.94072	.0033551	-.000443	-.020428
#3	.0030169	11.32043	16.95578	.0022368	.001997	-.023095

Elem	Sr4077
Units	ppm
Avg	.2012725
Stddev	.0005861
%RSD	.2912061
#1	.2011407
#2	.2007636
#3	.2019134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5076.211	40457.37	2230.106	3568.751	5354.779
Stddev	14.119	201.45	10.573	17.878	10.753
%RSD	.2781365	.4979312	.4741084	.5009551	.2008162
#1	5084.048	40577.70	2238.733	3578.117	5362.122
#2	5084.673	40224.80	2218.311	3548.136	5359.779
#3	5059.912	40569.61	2233.275	3580.001	5342.436

Sample Name: Q2385-01LX5 Acquired: 6/25/2025 16:22:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008466**	**-.000905**	**.0028645**	**-.007919**	**.0018033**	**.0024993**	**.0217265**
Stddev	.003689	.001371	.0005300	.002605	.0009460	.0395474	.0012353
%RSD	43.57252	151.3887	18.50185	32.89116	52.45767	1582.337	5.685469
#1	-.012720	.000379	.0023272	-.006522	.0019224	.0479240	.0227670
#2	-.006522	-.000747	.0033868	-.010924	.0026842	-.016158	.0203613
#3	-.006156	-.002348	.0028794	-.006310	.0008035	-.024268	.0220511

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000010**	**.0000351**	**13.62326**	**-.000268**	**.0055072**	**-.000055**	**.1167401**
Stddev	.000085	.0000163	.04822	.001005	.0003248	.000858	.0075938
%RSD	843.9612	46.42359	.3539292	374.6656	5.897862	1570.539	6.504878
#1	-.000091	.0000281	13.57522	.000872	.0057686	-.000989	.1249594
#2	.000078	.0000235	13.62289	-.000654	.0051436	.000698	.1099850
#3	-.000017	.0000537	13.67165	-.001023	.0056095	.000128	.1152758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0144257**	**6.497063**	**.0002080**	**-.000054**	**17.95776**	**-.001402**	**.0006749**
Stddev	.0006846	.041312	.0003921	.000119	.20577	.002788	.0006677
%RSD	4.746036	.6358618	188.5586	218.7098	1.145883	198.8337	98.92762
#1	.0149073	6.488234	.0003977	.000074	17.72915	-.004621	-.000075
#2	.0147278	6.460879	-.000243	-.000161	18.01596	.000132	.001205
#3	.0136419	6.542077	.000469	-.000075	18.12816	.000282	.000895

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6094256**	**.0114553**	**.0402510**	**.0004740**	**2.225812**	**3.570971**	**-.000238**
Stddev	.0082410	.0016523	.0006023	.0006123	.006132	.056091	.000457
%RSD	1.352262	14.42441	1.496307	129.1697	.2754829	1.570759	192.0248
#1	.6007735	.0105467	.0398150	.0001090	2.232581	3.508956	-.000125
#2	.6103209	.0104566	.0399997	.0011809	2.224224	3.585799	.000152
#3	.6171825	.0133625	.0409382	.0001321	2.220630	3.618159	-.000742

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01LX5 Acquired: 6/25/2025 16:22:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000028	.0064703	.0409235
Stddev	.001501	.0079083	.0001924
%RSD	5375.147	122.2246	.4702353
#1	.001296	.0101567	.0409108
#2	-.001659	.0118625	.0407378
#3	.000279	-.002608	.0411220

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5135.769	41378.01	2245.808	3636.655	5600.889
Stddev	13.135	189.55	30.622	15.881	10.814
%RSD	.2557554	.4580994	1.363505	.4367047	.1930833
#1	5150.933	41254.67	2280.579	3635.487	5613.225
#2	5128.466	41283.09	2233.985	3621.390	5596.405
#3	5127.910	41596.27	2222.861	3653.089	5593.039

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01MS Acquired: 6/25/2025 16:26:48 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7809564**	**1.942972**	**.9778740**	**1.964197**	**.8412036**	**2.220440**
Stddev	.0029578	.003757	.0037469	.007540	.0008535	.013825
%RSD	.3787444	.1933531	.3831679	.3838577	.1014617	.6226239
#1	.7814734	1.939433	.9761104	1.955606	.8405453	2.204879
#2	.7777742	1.942570	.9821773	1.967268	.8408975	2.225135
#3	.7836217	1.946914	.9753343	1.969716	.8421679	2.231305

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3219921**	**.2168928**	**.1996072**	**68.22863**	**.4234959**	**.2156779**
Stddev	.0011602	.0012856	.0003253	.16381	.0002970	.0001779
%RSD	.3603171	.5927362	.1629725	.2400860	.0701277	.0825054
#1	.3228310	.2155298	.1996919	68.40251	.4237886	.2157766
#2	.3224772	.2170648	.1998817	68.20616	.4235042	.2157847
#3	.3206681	.2180837	.1992479	68.07721	.4231948	.2154725

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3233552**	**3.823979**	**.2665717**	**33.50666**	**.5004038**	**.0691506**
Stddev	.0023742	.027800	.0031952	.12855	.0006448	.0011033
%RSD	.7342523	.7269891	1.198616	.3836681	.1288517	1.595547
#1	.3215170	3.854077	.2640906	33.65239	.5001510	.0682458
#2	.3225129	3.818597	.2654474	33.45824	.5011367	.0688263
#3	.3260358	3.799264	.2701771	33.40934	.4999238	.0703797

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**91.54572**	**.3175488**	**.2181821**	**15.03651**	**6.103326**	**.4960473**
Stddev	.42229	.0101835	.0004902	.09335	.006313	.0031571
%RSD	.4612851	3.206897	.2246891	.6208118	.1034425	.6364554
#1	91.11988	.3262795	.2176600	15.12282	6.110601	.4946227
#2	91.55293	.3063619	.2182535	14.93744	6.099287	.4996657
#3	91.96436	.3200051	.2186326	15.04928	6.100089	.4938535

Sample Name: Q2385-01MS Acquired: 6/25/2025 16:26:48 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4317713**	**11.40075**	F **17.86115**	**.7278788**	**.2115428**	**.1797533**
Stddev	.0012217	.00934	.08674	.0016620	.0017476	.0106941
%RSD	.2829477	.0818936	.4856363	.2283365	.8261380	5.949298
#1	.4304109	11.40146	17.77263	.7274860	.2114862	.1758970
#2	.4321281	11.39107	17.86483	.7264484	.2133180	.1918407
#3	.4327748	11.40971	17.94599	.7297020	.2098241	.1715222

Elem	Sr4077
Units	ppm
Avg	**.4093833**
Stddev	.0010503
%RSD	.2565588
#1	.4105720
#2	.4089975
#3	.4085806

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5054.236**	**40584.26**	**2244.619**	**3581.833**	**5308.551**
Stddev	1.428	126.49	5.863	14.028	5.615
%RSD	.0282538	.3116774	.2611857	.3916410	.1057634
#1	5054.614	40478.83	2242.802	3567.030	5303.220
#2	5055.436	40724.52	2251.175	3594.929	5308.023
#3	5052.657	40549.44	2239.880	3583.539	5314.411

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01MSD Acquired: 6/25/2025 16:31:07 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7650604**	**1.904243**	**.9559188**	**1.919236**	**.8257474**	**2.110504**
Stddev	.0026584	.003287	.0026976	.006409	.0012546	.052217
%RSD	.3474744	.1726122	.2821980	.3339595	.1519368	2.474133
#1	.7677116	1.903659	.9530570	1.915326	.8271957	2.059393
#2	.7650747	1.901288	.9562844	1.926633	.8250553	2.108359
#3	.7623949	1.907783	.9584149	1.915749	.8249914	2.163760

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3164699**	**.2138956**	**.1951583**	**67.75341**	**.4176798**	**.2112540**
Stddev	.0012407	.0007478	.0004116	.24506	.0008260	.0002113
%RSD	.3920523	.3495998	.2108932	.3616900	.1977622	.1000164
#1	.3152886	.2147147	.1948579	67.60570	.4185996	.2114918
#2	.3177626	.2137228	.1949896	68.03628	.4174386	.2111828
#3	.3163585	.2132494	.1956274	67.61825	.4170013	.2110876

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3183688**	**3.752612**	**.2618703**	**33.09403**	**.4884085**	**.0594941**
Stddev	.0012182	.013825	.0002905	.15975	.0007996	.0015496
%RSD	.3826245	.3684227	.1109157	.4827102	.1637066	2.604551
#1	.3195512	3.739750	.2616247	32.99755	.4881877	.0597755
#2	.3184374	3.767233	.2617952	33.27842	.4892952	.0578231
#3	.3171178	3.750852	.2621909	33.00611	.4877425	.0608837

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**90.89277**	**.3157070**	**.2158654**	**14.81470**	**5.958785**	**.4895114**
Stddev	.41591	.0076359	.0002122	.06621	.002466	.0030070
%RSD	.4575781	2.418669	.0983198	.4468979	.0413868	.6142942
#1	91.35512	.3182423	.2157690	14.87837	5.956295	.4884216
#2	90.77408	.3071260	.2161087	14.81951	5.958835	.4929114
#3	90.54912	.3217529	.2157184	14.74622	5.961226	.4872012

Sample Name: Q2385-01MSD Acquired: 6/25/2025 16:31:07 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4228384	11.28402	F 17.80183	.7146904	.2097918	.1846290
Stddev	.0006337	.00991	.08405	.0016349	.0025533	.0028855
%RSD	.1498627	.0878480	.4721480	.2287575	1.217085	1.562873
#1	.4232748	11.27280	17.88907	.7151292	.2079772	.1842137
#2	.4221116	11.28771	17.79505	.7160611	.2086866	.1876997
#3	.4231288	11.29157	17.72138	.7128809	.2127115	.1819736

Elem	Sr4077
Units	ppm
Avg	.4010432
Stddev	.0008276
%RSD	.2063635
#1	.4004574
#2	.4019900
#3	.4006822

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5047.760	40394.15	2229.483	3558.935	5305.216
Stddev	4.787	28.86	6.007	8.145	2.809
%RSD	.0948370	.0714344	.2694453	.2288486	.0529563
#1	5048.079	40423.80	2226.026	3566.295	5304.923
#2	5042.821	40366.16	2226.004	3550.184	5302.565
#3	5052.379	40392.49	2236.420	3560.325	5308.161

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01A Acquired: 6/25/2025 16:35:25 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7317133**	**1.825317**	**.9175749**	**1.838502**	**.7804699**	**2.096798**
Stddev	.0011847	.007800	.0054751	.002794	.0037347	.031736
%RSD	.1619138	.4273433	.5966940	.1519624	.4785249	1.513533
#1	.7305247	1.834321	.9227133	1.835573	.7797825	2.129103
#2	.7328941	1.821003	.9181955	1.838794	.7845006	2.065664
#3	.7317210	1.820626	.9118160	1.841138	.7771266	2.095628

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3060266**	**.2054933**	**.1874438**	**67.02124**	**.3998625**	**.2026313**
Stddev	.0017183	.0019317	.0002400	.21137	.0012181	.0006630
%RSD	.5614743	.9400045	.1280298	.3153760	.3046357	.3271746
#1	.3045692	.2053232	.1876919	67.20214	.4004216	.2025697
#2	.3055894	.2075043	.1874268	66.78890	.4007007	.2033229
#3	.3079212	.2036523	.1872128	67.07269	.3984652	.2020013

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3064003**	**3.621357**	**.2542426**	**32.72955**	**.4696944**	**.0676088**
Stddev	.0038643	.018928	.0019641	.08235	.0012880	.0007489
%RSD	1.261193	.5226774	.7725132	.2516108	.2742196	1.107670
#1	.3076351	3.641655	.2523489	32.79588	.4706983	.0680392
#2	.3094963	3.604190	.2541088	32.63738	.4701428	.0680432
#3	.3020695	3.618227	.2562701	32.75540	.4682422	.0667441

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**89.91237**	**.2900058**	**.2086275**	**14.33721**	**5.723878**	**.4767401**
Stddev	.56149	.0025798	.0006733	.11000	.008655	.0059569
%RSD	.6244904	.8895866	.3227271	.7672141	.1512094	1.249499
#1	89.98924	.2919985	.2083666	14.40219	5.733778	.4761086
#2	90.43147	.2870917	.2093922	14.39923	5.720111	.4829876
#3	89.31641	.2909270	.2081236	14.21021	5.717745	.4711242

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2385-01A Acquired: 6/25/2025 16:35:25 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3978076	11.19486	F 17.64734	.6719896	.1984615	.1726757
Stddev	.0007577	.02424	.16673	.0029044	.0023188	.0035345
%RSD	.1904554	.2165525	.9447848	.4322162	1.168389	2.046920
#1	.3978995	11.22245	17.64804	.6738511	.1958893	.1767154
#2	.3985150	11.18514	17.81371	.6734748	.1991037	.1701526
#3	.3970082	11.17698	17.48026	.6686429	.2003916	.1711590

Elem	Sr4077
Units	ppm
Avg	.3929592
Stddev	.0008279
%RSD	.2106799
#1	.3938062
#2	.3921518
#3	.3929198

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5049.990	40511.58	2226.175	3564.152	5311.171
Stddev	20.074	91.69	9.647	8.687	17.006
%RSD	.3975037	.2263392	.4333435	.2437440	.3201988
#1	5051.711	40468.60	2225.155	3562.927	5307.712
#2	5029.110	40616.87	2217.078	3573.387	5296.161
#3	5069.147	40449.27	2236.291	3556.142	5329.641

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2354-05DLX5 Acquired: 6/25/2025 16:39:45 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006775**	**-.001149**	**1.416373**	**-.005456**	**.0082684**	**.4862359**	**.0426054**
Stddev	.002943	.001206	.003461	.004066	.0017711	.0177119	.0008750
%RSD	43.43519	104.9223	.2443771	74.52601	21.41978	3.642659	2.053629
#1	-.007522	-.001813	1.416928	-.008918	.0079404	.4754325	.0415951
#2	-.003531	.000243	1.412667	-.000978	.0101805	.5066767	.0431089
#3	-.009273	-.001878	1.419523	-.006472	.0066842	.4765984	.0431123

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000512**	**.0029548**	**19.97838**	**.0020063**	**.0098972**	**.1099224**	**3.753138**
Stddev	.0001177	.0001012	.09940	.0004536	.0001319	.0008397	.024082
%RSD	229.8800	3.426695	.4975565	22.60643	1.332973	.7639358	.6416491
#1	.0001872	.0028841	20.05890	.0019828	.0100082	.1107136	3.727041
#2	-.000017	.0029095	20.00896	.0024712	.0099320	.1100123	3.757869
#3	-.000017	.0030708	19.86727	.0015650	.0097513	.1090414	3.774502

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3573921**	**1.676051**	**.0073876**	**.0000229**	**23.22983**	**-.001506**	**.6726661**
Stddev	.0015472	.093299	.0003104	.0003126	.20502	.006621	.0053543
%RSD	.4329243	5.566607	4.201555	1368.083	.8825914	439.6850	.7959842
#1	.3591163	1.655614	.0077448	-.000294	23.30390	.003256	.6685056
#2	.3561247	1.777874	.0072343	.000332	23.38753	.001293	.6707857
#3	.3569352	1.594664	.0071836	.000030	22.99806	-.009067	.6787069

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**115.1181**	**.2351611**	**.0074351**	**.0033090**	**2.465014**	**2.967350**	**.0020266**
Stddev	.7541	.0009686	.0003884	.0001552	.003229	.033808	.0006287
%RSD	.6550546	.4118707	5.223499	4.691294	.1310109	1.139343	31.02084
#1	115.5254	.2356994	.0071004	.0034876	2.468627	2.972340	.0023887
#2	115.5809	.2340430	.0078609	.0032332	2.464005	2.998386	.0023906
#3	114.2479	.2357410	.0073440	.0032063	2.462409	2.931324	.0013007

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2354-05DLX5 Acquired: 6/25/2025 16:39:45 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0211445	.0279533	.0846697
Stddev	.0019269	.0033190	.0005351
%RSD	9.113157	11.87351	.6320247
#1	.0220207	.0305638	.0849094
#2	.0224777	.0242180	.0850431
#3	.0189352	.0290781	.0840566

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5101.733	40543.52	2263.922	3595.235	5305.263
Stddev	6.959	329.86	16.659	36.026	10.281
%RSD	.1363983	.8135922	.7358322	1.002052	.1937863
#1	5103.830	40730.64	2256.600	3616.203	5296.000
#2	5093.967	40737.27	2252.179	3615.866	5303.464
#3	5107.403	40162.65	2282.988	3553.636	5316.324

Sample Name: Q2355-02 Acquired: 6/25/2025 16:44:17 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003659**	**-.002733**	**.0059349**	**-.000419**	**.0004528**	**-.005626**	**.1353602**
Stddev	.001475	.001996	.0020833	.000108	.0025856	.029483	.0015493
%RSD	40.30538	73.01088	35.10244	25.85804	571.0073	524.0150	1.144572
#1	-.005235	-.001822	.0066751	-.000500	.0007831	.017718	.1336178
#2	-.002312	-.001356	.0075471	-.000296	-.002282	.004161	.1365827
#3	-.003430	-.005022	.0035826	-.000461	.002857	-.038758	.1358800

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000143**	**.0000543**	**.7050401**	**-.000526**	**.0006398**	**.0023451**	**-.003964**
Stddev	.000075	.0000302	.0165865	.001104	.0003262	.0001636	.014135
%RSD	52.13697	55.62911	2.352557	209.9823	50.98103	6.975613	356.5885
#1	-.000075	.0000194	.7111840	-.000025	.0002648	.0022942	.001768
#2	-.000132	.0000727	.6862583	-.001792	.0007973	.0025280	.006404
#3	-.000223	.0000708	.7176781	.000239	.0008574	.0022129	-.020064

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044508**	**.1308654**	**.0013936**	**-.000775**	**302.5004**	**-.006388**	**.1600217**
Stddev	.0007228	.0037536	.0002170	.001026	1.6393	.003761	.0005984
%RSD	16.24045	2.868270	15.56833	132.4082	.5419059	58.87328	.3739448
#1	.0052498	.1294194	.0012187	-.001959	304.2063	-.004995	.1606865
#2	.0042602	.1351269	.0013257	-.000172	300.9371	-.010646	.1595262
#3	.0038423	.1280499	.0016364	-.000192	302.3577	-.003522	.1598525

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2308946**	**.0164419**	**.0400515**	**.0003079**	**.3157042**	**.0397480**	**.0010784**
Stddev	.0021108	.0007476	.0005079	.0004602	.0017693	.0010117	.0003627
%RSD	.9141967	4.546726	1.268218	149.4787	.5604298	2.545185	33.63709
#1	.2305700	.0168560	.0394699	-.000203	.3138797	.0387961	.0006830
#2	.2289650	.0168909	.0404075	.000437	.3158204	.0408103	.0013957
#3	.2331490	.0155789	.0402773	.000690	.3174126	.0396377	.0011564

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2355-02 Acquired: 6/25/2025 16:44:17 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001963	-.022161	.0029076
Stddev	.002700	.011116	.0000956
%RSD	137.5324	50.15951	3.288387
#1	-.000686	-.032807	.0029882
#2	-.000138	-.023047	.0028020
#3	-.005064	-.010629	.0029326

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5043.656	39825.15	2267.625	3561.737	5191.229
Stddev	5.269	181.03	8.900	21.441	6.993
%RSD	.1044677	.4545745	.3925024	.6019721	.1347038
#1	5048.273	39661.20	2263.215	3551.891	5191.343
#2	5037.916	39794.82	2277.870	3546.988	5184.180
#3	5044.778	40019.43	2261.791	3586.333	5198.164

Sample Name: Q2362-04 Acquired: 6/25/2025 16:48:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005252**	**.0013409**	**.0018136**	**-.000299**	**-.000902**	**.1348629**	**.4255724**
Stddev	.000932	.0021425	.0011955	.002555	.001714	.0208933	.0018065
%RSD	17.74661	159.7825	65.91925	853.9014	189.9558	15.49228	.4244945
#1	-.004457	-.000028	.0017584	.002388	-.001765	.1469711	.4235433
#2	-.006278	.000241	.0030357	-.002698	.001071	.1107374	.4261676
#3	-.005023	.003810	.0006466	-.000588	-.002013	.1468801	.4270062

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001420**	**.0002221**	**8.024574**	**.0007563**	**.0081430**	**.2218321**	**2.392725**
Stddev	.0001159	.0000360	.027137	.0010386	.0004496	.0035762	.020799
%RSD	81.60649	16.19865	.3381779	137.3285	5.521455	1.612102	.8692480
#1	.0002110	.0002359	7.999695	-.000428	.0083136	.2178259	2.399631
#2	.0000082	.0002491	8.020514	.001513	.0084824	.2229682	2.369351
#3	.0002067	.0001812	8.053512	.001183	.0076331	.2247022	2.409192

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.818210**	**.6854398**	**.0027118**	**.0005273**	**339.4627**	**-.019735**	**.0889411**
Stddev	.006820	.0367839	.0006528	.0011886	3.2532	.011000	.0002545
%RSD	.1786061	5.366462	24.07292	225.4313	.9583430	55.73697	.2861594
#1	3.818503	.6526159	.0023912	-.000824	336.0585	-.009665	.0891695
#2	3.811248	.6785067	.0022813	.000995	339.7894	-.031473	.0886667
#3	3.824878	.7251969	.0034629	.001411	342.5403	-.018066	.0889871

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.617694**	**.0196465**	**.0224537**	**.0012526**	**.5162210**	**.8236272**	**.0025606**
Stddev	.066297	.0013706	.0003255	.0003776	.0008613	.0131001	.0012466
%RSD	1.435724	6.976572	1.449577	30.14801	.1668419	1.590533	48.68512
#1	4.541255	.0198974	.0228295	.0015833	.5161165	.8087051	.0012828
#2	4.652272	.0181677	.0222604	.0013333	.5171297	.8289416	.0037735
#3	4.659553	.0208743	.0222712	.0008411	.5154167	.8332350	.0026254

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2362-04 Acquired: 6/25/2025 16:48:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009958	-.020796	.0550590
Stddev	.0043360	.005929	.0002615
%RSD	435.4163	28.51137	.4750188
#1	-.003195	-.021238	.0553534
#2	.000718	-.014659	.0548537
#3	.005464	-.026492	.0549698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5091.993	40071.72	2271.181	3593.789	5184.211
Stddev	5.079	276.31	22.517	30.938	10.858
%RSD	.0997463	.6895286	.9914276	.8608698	.2094412
#1	5090.521	39838.56	2297.000	3571.198	5191.117
#2	5087.813	39999.69	2255.616	3581.117	5171.696
#3	5097.646	40376.91	2260.926	3629.051	5189.820

Sample Name: Q2364-04DLX5 Acquired: 6/25/2025 16:53:26 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068389**	**.0012701**	**.5550031**	**.0133673**	**.0052893**	**25.92773**
Stddev	.0011120	.0004903	.0044305	.0020153	.0029774	.05698
%RSD	16.26016	38.60372	.7982847	15.07640	56.29111	.2197612
#1	.0064786	.0007767	.5593136	.0126367	.0075853	25.89186
#2	.0080865	.0012762	.5552342	.0118191	.0019252	25.99343
#3	.0059518	.0017573	.5504616	.0156459	.0063574	25.89789

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3164701**	**.0021717**	**.0163879**	**9.258885**	**.3793265**	**.0411230**
Stddev	.0022690	.0000492	.0002349	.063702	.0026435	.0005553
%RSD	.7169587	2.267314	1.433278	.6880095	.6968860	1.350333
#1	.3186267	.0021309	.0166414	9.186029	.3804774	.0417314
#2	.3166804	.0022264	.0163449	9.304085	.3811994	.0409940
#3	.3141034	.0021577	.0161775	9.286541	.3763027	.0406436

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4114728**	**36.64689**	**.4310601**	**4.068398**	**.1942167**	**.0063486**
Stddev	.0012862	.05075	.0030570	.032505	.0022795	.0001672
%RSD	.3125831	.1384726	.7091803	.7989540	1.173680	2.633999
#1	.4128994	36.62174	.4334287	4.050633	.1967638	.0061555
#2	.4111171	36.70529	.4321424	4.105913	.1935179	.0064450
#3	.4104019	36.61362	.4276092	4.048647	.1923684	.0064453

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4923548**	**.0577169**	F **24.36706**	**1.391575**	**2.242019**	**.0047218**
Stddev	.0267576	.0043586	.06459	.008070	.021838	.0005583
%RSD	5.434625	7.551748	.2650710	.5799162	.9740441	11.82414
#1	.4910648	.0579017	24.42976	1.400514	2.264899	.0048629
#2	.4662655	.0532688	24.30073	1.389386	2.239760	.0041065
#3	.5197342	.0619802	24.37070	1.384826	2.221398	.0051961

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2364-04DLX5 Acquired: 6/25/2025 16:53:26 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037091	15.22552	2.085955	.0276841	.2243183	.0884936
Stddev	.0003772	.12192	.007080	.0002737	.0014306	.0109320
%RSD	10.16964	.8007449	.3394082	.9886586	.6377609	12.35342
#1	.0038645	15.33166	2.089964	.0274503	.2236861	.0997493
#2	.0032790	15.25254	2.090120	.0279852	.2259561	.0878144
#3	.0039837	15.09236	2.077780	.0276167	.2233127	.0779170

Elem	Sr4077
Units	ppm
Avg	.0814716
Stddev	.0001594
%RSD	.1956612
#1	.0813337
#2	.0814349
#3	.0816461

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5399.784	43155.03	2352.476	3823.052	5698.311
Stddev	12.094	143.28	1.063	18.119	12.158
%RSD	.2239685	.3320066	.0451789	.4739531	.2133646
#1	5386.242	43055.39	2351.360	3814.083	5686.334
#2	5403.600	43319.23	2352.592	3843.907	5697.955
#3	5409.509	43090.46	2353.476	3811.166	5710.643

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV02 Acquired: 6/25/2025 16:57:42 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**5.025881**	**5.048312**	**5.046533**	**5.089688**	**5.103786**	**10.16313**	**10.15688**
Stddev	.007988	.003075	.005983	.007527	.003685	.03540	.05992
%RSD	.1589459	.0609129	.1185545	.1478795	.0721940	.3483316	.5899842
#1	5.025072	5.050331	5.052454	5.083412	5.100064	10.19219	10.09889
#2	5.018328	5.049833	5.040490	5.098033	5.107432	10.12370	10.15317
#3	5.034243	5.044773	5.046656	5.087618	5.103862	10.17349	10.21857

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2669428**	**2.528835**	**25.61832**	**1.038405**	**2.530522**	**1.319991**	**5.120656**
Stddev	.0003316	.000542	.00710	.002067	.001218	.002386	.000632
%RSD	.1242329	.0214219	.0276973	.1990157	.0481325	.1807845	.0123349
#1	.2672175	2.528211	25.61016	1.038871	2.531108	1.321687	5.121238
#2	.2665744	2.529099	25.62302	1.040199	2.529122	1.317262	5.120745
#3	.2670364	2.529193	25.62179	1.036145	2.531336	1.321024	5.119984

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.566330**	**25.54287**	**2.511704**	**1.286427**	**25.65072**	**2.561033**	**2.558511**
Stddev	.009674	.10507	.002785	.001803	.09184	.013964	.004376
%RSD	.3769636	.4113408	.1108663	.1401874	.3580315	.5452310	.1710371
#1	2.560959	25.43660	2.511929	1.284545	25.75674	2.545887	2.563544
#2	2.560532	25.54532	2.508814	1.288139	25.59568	2.563815	2.556382
#3	2.577498	25.64669	2.514370	1.286598	25.59975	2.573396	2.555607

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.62059**	**5.086536**	**5.229096**	**5.097348**	**5.073459**	**5.229122**	**5.071007**
Stddev	.07962	.002520	.011897	.004042	.005725	.013543	.006361
%RSD	.3107463	.0495522	.2275108	.0792948	.1128432	.2589847	.1254290
#1	25.69312	5.083645	5.234864	5.093354	5.069661	5.243495	5.075074
#2	25.63323	5.088270	5.215414	5.101436	5.070672	5.216600	5.063677
#3	25.53540	5.087695	5.237008	5.097254	5.080044	5.227270	5.074270

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV02 Acquired: 6/25/2025 16:57:42 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.149685**	**5.079061**	**5.167105**
Stddev	.019342	.022327	.021662
%RSD	.3755888	.4395877	.4192360
#1	5.129027	5.057392	5.145476
#2	5.152661	5.077797	5.167039
#3	5.167365	5.101993	5.188800

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5006.173**	**40218.04**	**2209.854**	**3557.382**	**5141.422**
Stddev	17.334	194.65	9.691	17.271	15.745
%RSD	.3462539	.4839888	.4385563	.4855085	.3062452
#1	5000.791	40041.44	2198.744	3538.951	5134.022
#2	4992.169	40185.94	2214.246	3560.000	5130.739
#3	5025.560	40426.75	2216.572	3573.195	5159.504

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB02 Acquired: 6/25/2025 17:09:06 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**-.000524**	**-.001203**	**.0015629**	**.0000026**	**-.001261**	**-.021651**	**-.001279**
Stddev	.001542	.001134	.0017195	.0027297	.000891	.008718	.000793
%RSD	294.5399	94.30325	110.0228	104904.5	70.63413	40.26676	61.99701
#1	-.001845	-.002226	.0002891	.0027003	-.002268	-.019699	-.000824
#2	-.000896	.000017	.0035188	.0000655	-.000938	-.031179	-.002194
#3	.001171	-.001399	.0008807	-.002758	-.000577	-.014074	-.000818

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000186**	**-.000037**	**-.029709**	**-.000201**	**-.000046**	**-.000181**	**-.002810**
Stddev	.0002669	.000040	.015875	.000261	.000035	.000514	.014472
%RSD	1435.103	105.4602	53.43659	129.4634	75.95804	283.3475	514.9366
#1	.0002938	-.000025	-.045789	.000098	-.000034	.000369	-.019503
#2	.0000011	-.000082	-.014047	-.000377	-.000019	-.000649	.004857
#3	-.000239	-.000006	-.029289	-.000325	-.000085	-.000264	.006214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029693**	**.0364257**	**-.000091**	**.0000220**	**.0610504**	**-.008763**	**-.000934**
Stddev	.0006161	.0283205	.000182	.0003038	.0083258	.004327	.000562
%RSD	20.74831	77.74862	200.1331	1383.076	13.63751	49.37737	60.10262
#1	.0022579	.0228957	-.000301	.0000003	.0634540	-.008712	-.000305
#2	.0033290	.0689735	.000004	-.000270	.0679100	-.013115	-.001385
#3	.0033210	.0174079	.000024	.000336	.0517873	-.004461	-.001112

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043338**	**.0014209**	**-.000531**	**-.000220**	**-.003008**	**.0028171**	**-.001577**
Stddev	.0004515	.0009744	.000424	.000185	.001734	.0012085	.001358
%RSD	10.41836	68.57568	79.95055	83.95542	57.63352	42.89775	86.11444
#1	.0047621	.0023569	-.000553	-.000392	-.001451	.0014248	-.002384
#2	.0043771	.0004122	-.000096	-.000025	-.002697	.0035948	-.000009
#3	.0038622	.0014936	-.000943	-.000242	-.004876	.0034315	-.002340

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB02 Acquired: 6/25/2025 17:09:06 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002715	-.004171	-.000146
Stddev	.004481	.001468	.000132
%RSD	165.0399	35.19815	90.45055
#1	.002179	-.005857	-.000044
#2	-.006617	-.003176	-.000099
#3	-.003709	-.003480	-.000294

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5202.429	41821.19	2226.942	3669.794	5863.199
Stddev	26.715	269.42	7.444	18.937	26.672
%RSD	.5135129	.6442102	.3342484	.5160339	.4549043
#1	5199.588	42089.67	2219.209	3682.630	5861.766
#2	5177.248	41550.85	2227.561	3648.045	5837.273
#3	5230.452	41823.06	2234.058	3678.708	5890.559

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2364-04DL2X10 Acquired: 6/25/2025 17:15:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015350**	**.0004015**	**.2654410**	**.0050421**	**.0020221**	**12.45118**	**.1513357**
Stddev	.0020126	.0015094	.0011196	.0024167	.0022760	.03266	.0006764
%RSD	131.1216	375.9624	.4218011	47.93037	112.5556	.2623261	.4469553
#1	.0029313	.0021118	.2641766	.0070290	.0022138	12.44101	.1520562
#2	.0024456	-.000744	.2658396	.0057457	.0041962	12.48771	.1507143
#3	-.000772	-.000163	.2663068	.0023517	-.000344	12.42480	.1512367

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011151**	**.0078428**	**4.462244**	**.1821170**	**.0198749**	**.1990552**	**17.56608**
Stddev	.0000572	.0000965	.020075	.0011016	.0001784	.0010934	.06085
%RSD	5.127769	1.230989	.4498831	.6049071	.8976016	.5492759	.3464284
#1	.0011806	.0077379	4.474181	.1810444	.0197863	.1987246	17.62969
#2	.0010747	.0079280	4.473484	.1832455	.0200802	.2002757	17.56013
#3	.0010901	.0078623	4.439067	.1820611	.0197581	.1981653	17.50842

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2105153**	**1.949718**	**.0925810**	**.0029500**	**.2165119**	**.0261513**	**12.33573**
Stddev	.0011433	.065431	.0003133	.0009653	.0076139	.0117240	.00512
%RSD	.5430763	3.355921	.3383996	32.72217	3.516604	44.83147	.0415070
#1	.2117086	1.921332	.0922257	.0026373	.2082193	.0396515	12.34162
#2	.2094296	2.024548	.0926999	.0040329	.2181292	.0202733	12.33236
#3	.2104077	1.903274	.0928175	.0021798	.2231871	.0185291	12.33321

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6299201**	**1.065103**	**.0015688**	**.0023672**	**7.176811**	**1.017605**	**.0121785**
Stddev	.0024691	.003178	.0005316	.0001660	.012146	.005772	.0003336
%RSD	.3919641	.2984088	33.88773	7.011265	.1692381	.5672004	2.739354
#1	.6291708	1.063075	.0010076	.0022591	7.166911	1.022781	.0117967
#2	.6326770	1.068766	.0020648	.0022842	7.190365	1.018653	.0123249
#3	.6279126	1.063468	.0016340	.0025583	7.173159	1.011381	.0124139

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2364-04DL2X10 Acquired: 6/25/2025 17:15:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1094289	.0115941	.0388780
Stddev	.0037469	.0058536	.0001150
%RSD	3.424027	50.48793	.2958391
#1	.1106521	.0183498	.0387457
#2	.1052233	.0080259	.0389345
#3	.1124113	.0084068	.0389538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5313.661	42316.07	2275.333	3745.850	5752.132
Stddev	8.911	214.61	10.907	13.817	7.184
%RSD	.1676979	.5071662	.4793453	.3688608	.1248984
#1	5322.196	42530.08	2279.515	3756.567	5759.455
#2	5304.417	42100.86	2262.955	3730.256	5745.095
#3	5314.371	42317.25	2283.530	3750.728	5751.846

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2380-03DLX5 Acquired: 6/25/2025 17:24:32 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107031**	**-.002767**	**.3967451**	**.0162016**	**.0099198**	**40.01810**	**.4677397**
Stddev	.0022753	.000793	.0012257	.0025375	.0013611	.13409	.0004750
%RSD	21.25862	28.65768	.3089276	15.66195	13.72101	.3350609	.1015619
#1	.0086443	-.003378	.3956361	.0139515	.0088647	39.86349	.4672299
#2	.0131460	-.003051	.3965381	.0189519	.0094386	40.08828	.4678194
#3	.0103189	-.001871	.3980611	.0157013	.0114561	40.10253	.4681699

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037474**	**-.000647**	**40.05387**	**.0850563**	**.0493198**	**.1704152**	**94.99177**
Stddev	.0001391	.000019	.07330	.0007673	.0002282	.0007642	.18105
%RSD	3.710766	2.967055	.1830150	.9020703	.4626401	.4484354	.1905961
#1	.0036483	-.000625	40.12299	.0858416	.0495245	.1695552	94.79197
#2	.0036874	-.000657	39.97700	.0850187	.0493610	.1710163	95.03839
#3	.0039064	-.000658	40.06162	.0843085	.0490738	.1706740	95.14495

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.690328**	**21.41219**	**.0906962**	**-.004633**	**1.864665**	**.0876470**	**.5853266**
Stddev	.006389	.05909	.0004175	.000485	.005555	.0068646	.0027288
%RSD	.3779461	.2759838	.4603445	10.47685	.2979057	7.832077	.4661996
#1	1.682951	21.43921	.0911064	-.004848	1.867426	.0955415	.5884651
#2	1.694055	21.45294	.0907103	-.004077	1.868297	.0843162	.5835159
#3	1.693976	21.34442	.0902717	-.004974	1.858270	.0830834	.5839986

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.356912**	**1.595872**	**.0295659**	**.0051807**	**1.197699**	**4.196588**	**.1036389**
Stddev	.018018	.000187	.0010293	.0004886	.000484	.002076	.0008992
%RSD	.3363585	.0117430	3.481221	9.431951	.0403964	.0494703	.8676382
#1	5.366682	1.595693	.0306990	.0049943	1.198047	4.195418	.1029563
#2	5.367934	1.596067	.0286888	.0057351	1.197147	4.195360	.1046577
#3	5.336118	1.595855	.0293100	.0048127	1.197904	4.198985	.1033026

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2380-03DLX5 Acquired: 6/25/2025 17:24:32 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8798757	.0823355	.1934544
Stddev	.0019817	.0044900	.0003522
%RSD	.2252229	5.453274	.1820583
#1	.8805133	.0772371	.1935436
#2	.8776537	.0840698	.1937535
#3	.8814601	.0856997	.1930662

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5307.972	42205.76	2317.452	3744.534	5359.525
Stddev	27.064	57.07	4.081	12.614	27.164
%RSD	.5098743	.1352079	.1761057	.3368627	.5068381
#1	5318.241	42143.27	2321.895	3730.064	5374.677
#2	5328.399	42218.91	2316.591	3753.205	5375.734
#3	5277.276	42255.11	2313.870	3750.335	5328.165

Sample Name: Q2380-05DLX5 Acquired: 6/25/2025 17:28:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0373095**	**-.003050**	**.2182843**	**.0111987**	**.0032110**	**18.01565**	**.1431307**
Stddev	.0009910	.001356	.0043147	.0021006	.0019166	.05232	.0012491
%RSD	2.656059	44.45888	1.976628	18.75710	59.68887	.2904130	.8726904
#1	.0361652	-.004182	.2232336	.0105930	.0019327	18.07149	.1443678
#2	.0378874	-.003421	.2163043	.0135356	.0022856	18.00769	.1418699
#3	.0378758	-.001547	.2153150	.0094676	.0054147	17.96777	.1431545

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013633**	**-.000289**	**8.228135**	**.0341693**	**.0210181**	**.5033359**	**41.00979**
Stddev	.0000938	.000041	.037104	.0006107	.0004972	.0077932	.02698
%RSD	6.876836	14.11727	.4509441	1.787152	2.365762	1.548321	.0657968
#1	.0014209	-.000269	8.220974	.0335977	.0215846	.5072123	40.98951
#2	.0012551	-.000262	8.268298	.0348127	.0208155	.5084308	41.04042
#3	.0014139	-.000336	8.195133	.0340975	.0206541	.4943646	40.99944

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9139643**	**9.176934**	**.0365691**	**-.001937**	**.9783951**	**.0635066**	**.3307318**
Stddev	.0025880	.083538	.0010444	.001628	.0211185	.0077196	.0011311
%RSD	.2831618	.9103048	2.856002	84.07087	2.158488	12.15553	.3419906
#1	.9148247	9.248784	.0376571	-.002732	.9933836	.0546163	.3312222
#2	.9110557	9.085270	.0364756	-.003015	.9875594	.0673929	.3315350
#3	.9160125	9.196748	.0355745	-.000064	.9542425	.0685108	.3294383

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.846424**	**.7826923**	**.0101131**	**.0013716**	**.3540551**	**2.297711**	**.0128766**
Stddev	.027346	.0133292	.0016981	.0004605	.0064978	.045601	.0013519
%RSD	1.481003	1.702992	16.79077	33.57458	1.835259	1.984612	10.49879
#1	1.860880	.7967986	.0086934	.0018812	.3592187	2.320166	.0138051
#2	1.863508	.7809707	.0096517	.0009852	.3561875	2.327730	.0134991
#3	1.814885	.7703076	.0119941	.0012484	.3467590	2.245237	.0113256

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2380-05DLX5 Acquired: 6/25/2025 17:28:50 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7660754	.0248744	.0496339
Stddev	.0080778	.0045215	.0001501
%RSD	1.054441	18.17718	.3025174
#1	.7737597	.0197135	.0495026
#2	.7668119	.0281388	.0496014
#3	.7576545	.0267708	.0497976

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5270.808	41956.87	2276.280	3713.999	5592.979
Stddev	3.530	126.50	20.566	4.985	6.005
%RSD	.0669667	.3015041	.9034898	.1342113	.1073679
#1	5274.447	42031.28	2270.133	3717.454	5589.009
#2	5267.399	42028.51	2259.488	3716.258	5590.041
#3	5270.579	41810.80	2299.218	3708.285	5599.887

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01 Acquired: 6/25/2025 17:33:11 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1029942**	**-.044656**	**.7732142**	**.1380190**	**.0381708**	**208.0025**	**1.049287**
Stddev	.0020102	.001770	.0024817	.0008753	.0025175	.4717	.002736
%RSD	1.951751	3.964218	.3209587	.6342155	6.595296	.2267739	.2607936
#1	.1007758	-.043262	.7704741	.1389774	.0366462	208.2776	1.049771
#2	.1046949	-.044057	.7753106	.1372617	.0367898	208.2720	1.051750
#3	.1035119	-.046648	.7738579	.1378179	.0410766	207.4578	1.046342

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0141888**	**-.004768**	**59.65948**	**.2924086**	**.3077037**	**.5789691**	**423.8994**
Stddev	.0001352	.000074	.24500	.0001981	.0004959	.0010587	.8717
%RSD	.9526312	1.556905	.4106668	.0677373	.1611704	.1828671	.2056294
#1	.0142722	-.004825	59.81380	.2926279	.3071915	.5794069	424.1491
#2	.0142613	-.004795	59.78766	.2923551	.3077379	.5797387	424.6190
#3	.0140328	-.004684	59.37698	.2922428	.3081816	.5777617	422.9302

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.800332**	**58.83682**	**.3501254**	**-.026663**	**2.561905**	**1.069675**	**1.158435**
Stddev	.027084	.13098	.0005763	.000580	.018410	.006837	.001958
%RSD	.2763589	.2226230	.1646045	2.174615	.7185977	.6391709	.1690543
#1	9.803268	58.91240	.3494709	-.026120	2.582943	1.075831	1.159409
#2	9.825830	58.91248	.3503489	-.027274	2.548742	1.070876	1.159716
#3	9.771901	58.68557	.3505566	-.026595	2.554031	1.062316	1.156181

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.61622**	**12.18064**	**.1812499**	**.0090382**	**6.771959**	**12.28324**	**.0210690**
Stddev	.13673	.01923	.0013815	.0008466	.008244	.03172	.0013212
%RSD	1.177044	.1578683	.7621803	9.366674	.1217395	.2582097	6.270580
#1	11.77121	12.15852	.1797545	.0092515	6.764072	12.30879	.0214217
#2	11.56479	12.18999	.1815168	.0097577	6.771284	12.29319	.0221780
#3	11.51267	12.19341	.1824784	.0081054	6.780519	12.24774	.0196073

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01 Acquired: 6/25/2025 17:33:11 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.222911	.1454867	.2178621
Stddev	.019690	.0034193	.0006339
%RSD	.2726000	2.350275	.2909613
#1	7.231768	.1456104	.2177571
#2	7.236616	.1420073	.2185420
#3	7.200348	.1488426	.2172873

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6656.829	52615.07	3003.260	4719.451	5094.960
Stddev	22.663	27.33	6.524	5.763	18.168
%RSD	.3404519	.0519443	.2172372	.1221057	.3565865
#1	6681.339	52593.02	2998.691	4722.918	5114.799
#2	6652.515	52645.65	3000.357	4712.799	5090.947
#3	6636.632	52606.55	3010.732	4722.637	5079.135

Sample Name: Q2381-01DUP Acquired: 6/25/2025 17:37:31 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1049439**	**-.043364**	**.7760182**	**.1361102**	**.0439058**	**205.6460**	**1.038880**
Stddev	.0015605	.000729	.0069524	.0022415	.0025321	.1387	.000469
%RSD	1.487004	1.679984	.8959007	1.646845	5.767006	.0674663	.0451898
#1	.1046929	-.043149	.7735088	.1335732	.0467039	205.4859	1.039391
#2	.1066147	-.042768	.7706689	.1369345	.0432410	205.7230	1.038781
#3	.1035241	-.044176	.7838769	.1378228	.0417724	205.7293	1.038467

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0131817**	**-.004527**	**58.63893**	**.2925280**	**.3062967**	**.5393003**	**418.5089**
Stddev	.0014616	.000266	.09909	.0050078	.0028053	.0563046	.7106
%RSD	11.08776	5.868295	.1689896	1.711905	.9158681	10.44031	.1698036
#1	.0140245	-.004589	58.53404	.2891638	.3047715	.5695168	417.7271
#2	.0114941	-.004756	58.73097	.2982832	.3045844	.4743379	418.6840
#3	.0140266	-.004235	58.65179	.2901371	.3095341	.5740461	419.1157

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.690575**	**58.23170**	**.3497224**	**-.028675**	**^ *****	**1.057284**	**1.162172**
Stddev	.012274	.14174	.0028861	.003020	-----	.011331	.022389
%RSD	.1266545	.2434140	.8252547	10.53313	-----	1.071720	1.926514
#1	9.676433	58.07827	.3477675	-.026840	2.543797	1.068043	1.147155
#2	9.698439	58.35777	.3483625	-.032161	^ -----	1.058353	1.187905
#3	9.696855	58.25905	.3530372	-.027024	2.523361	1.045457	1.151454

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.43466**	**12.50285**	**.2010794**	**.0094556**	**6.993917**	**11.48461**	**.0222138**
Stddev	.09401	.15626	.0284388	.0001219	.081383	1.13895	.0012193
%RSD	.8221394	1.249795	14.14308	1.289225	1.163628	9.917214	5.488816
#1	11.48322	12.48681	.1822583	.0095954	6.972502	12.15338	.0208103
#2	11.49445	12.35522	.2337943	.0093711	6.925383	10.16953	.0228190
#3	11.32630	12.66651	.1871857	.0094004	7.083867	12.13094	.0230120

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DUP Acquired: 6/25/2025 17:37:31 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**7.133074**	**.1455320**	**.2144680**
Stddev	.008823	.0030275	.0008586
%RSD	.1236965	2.080306	.4003227
#1	7.125497	.1460712	.2141237
#2	7.142761	.1482537	.2138350
#3	7.130965	.1422711	.2154453

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6302.748**	**49584.69**	**3044.649**	**4472.333**	**4822.101**
Stddev	56.752	6034.12	4.971	501.729	56.570
%RSD	.9004343	12.16932	.1632790	11.21851	1.173134
#1	6358.890	53035.32	3039.198	4770.257	4874.219
#2	6303.950	42617.19	3048.933	3893.065	4830.143
#3	6245.405	53101.56	3045.817	4753.677	4761.941

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LX5 Acquired: 6/25/2025 17:41:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0252406	k -.009591	.1594636	.0323845	k .0087454	51.54446	.2611899
Stddev	.0036853	.001569	.0014530	.0029987	.0008601	.35632	.0008961
%RSD	14.60049	16.36084	.9111689	9.259691	9.834409	.6912772	.343208
#1	.0218047	k -.011235	.1581170	.0352025	k .0077892	51.16422	.2609083
#2	.0291327	-.008109	.1610036	.0292330	.0094558	51.59849	.2604678
#3	.0247843	-.009430	.1592702	.0327180	.0089912	51.87068	.2621932

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041133	-.001912	14.99100	s .1235920	.0641429	.1572755	107.5867
Stddev	.0007003	.000012	.03152	.0858501	.0001646	.0156288	.320
%RSD	17.02454	.6357559	.2102510	69.46250	.2565787	9.937193	.298035
#1	.0049166	-.001899	14.97167	s .2227207	.0641812	.1751980	107.266
#2	.0037917	-.001912	14.97397	.0734327	.0639625	.1464852	107.586
#3	.0036316	-.001924	15.02738	.0746225	.0642849	.1501432	107.907

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.499882	15.07249	.0702520	s -.030738	.7250456	k .2673689	.2878667
Stddev	.007479	.10373	.0004567	.042504	.0787299	.0081764	.0009120
%RSD	.2991914	.6882060	.6501153	138.2790	10.85861	3.058108	.3168272
#1	2.492498	14.98845	.0707761	s -.079775	.8134699	k .2742155	.2883843
#2	2.507454	15.04060	.0699394	-.007969	.6625508	.2695757	.2884023
#3	2.499694	15.18842	.0700405	-.004469	.6991161	.2583156	.2868136

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	2.367183	k .0358619	.0020315	1.298327	^ *****	.0036372
Stddev	-----	.005123	.0113587	.0004221	.000587	-----	.0005404
%RSD	-----	.2163985	31.67354	20.77762	.0451779	-----	14.85829
#1	^ -----	2.372810	k .0228146	.0015666	1.297933	^ -----	.0034132
#2	2.325130	2.362791	.0435456	.0021374	1.299001	3.685015	.0042536
#3	2.394516	2.365950	.0412256	.0023906	1.298046	3.753278	.0032447

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LX5 Acquired: 6/25/2025 17:41:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.800953	.0217383	.0543637
Stddev	.006947	.0054123	.0002815
%RSD	.3857183	24.89764	.5178718
#1	1.808059	.0270335	.0540507
#2	1.794178	.0219655	.0544439
#3	1.800621	.0162160	.0545964

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5492.405	^ *****	2267.394	3869.270	5441.682
Stddev	21.525	-----	236.235	11.358	20.655
%RSD	.3919044	-----	10.41881	.2935390	.3795633
#1	5479.014	^ -----	1994.913	3861.009	5423.644
#2	5517.234	43555.08	2414.717	3864.578	5464.214
#3	5480.966	43740.45	2392.552	3882.222	5437.190

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MS Acquired: 6/25/2025 17:46:11 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .8813841	s 1.800863	s 1.777521	s 1.636568	s .2457774	k 233.5675	1.26328
Stddev	.0540529	.105046	.104889	.228078	.0416627	.8393	.00312
%RSD	6.132727	5.833077	5.900852	13.93635	16.95138	.3593262	.247211
#1	.8500841	1.742362	1.714848	1.502141	.2231710	233.9581	1.26538
#2	s .9437989	s 1.922134	s 1.898611	s 1.899911	s .2938569	k 234.1403	1.26476
#3	.8502694	1.738093	1.719103	1.507653	.2203044	232.6041	1.25969

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .1647207	^ *****	54.69282	k .6050651	s .5540612	k .8208704	507.334
Stddev	.0042499	-----	.30729	.0016147	.0442561	.0162425	2.295
%RSD	2.580035	-----	.5618500	.2668640	7.987585	1.978692	.452408
#1	.1670997	.1818397	54.92977	.6067557	.5283899	.8297033	509.186
#2	k .1598142	^ -----	54.80309	k .6049008	s .6051636	k .8021256	508.050
#3	.1672483	.1823241	54.34562	.6035388	.5286302	.8307824	504.766

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 10.30726	60.86561	s .8968163	k .0221568	5.295606	k 1.499596	k 1.369239
Stddev	.06039	.21969	.0602393	.0017506	.063512	.015427	.008167
%RSD	.5859225	.3609365	6.717013	7.900832	1.199331	1.028719	.5964875
#1	10.35187	61.02005	.8615318	.0239708	5.361439	1.511599	1.360718
#2	k 10.33136	60.96267	s .9663722	k .0220223	5.234703	k 1.504992	k 1.377000
#3	10.23853	60.61411	.8625450	.0204774	5.290676	1.482196	1.369999

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.08641	^ *****	k .3736875	s .3033180	s 6.954019	k 10.85660	s .6486110
Stddev	.28145	-----	.0047824	.0511994	.462125	.21014	.0408685
%RSD	1.401216	-----	1.279786	16.87977	6.645434	1.935588	6.300931
#1	19.79814	18.03930	.3749968	.2737707	6.672702	11.00622	.6256554
#2	20.10056	^ -----	k .3776789	s .3624379	s 7.487366	k 10.61635	s .6957961
#3	20.36052	18.02930	.3683868	.2737453	6.701988	10.94722	.6243814

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MS Acquired: 6/25/2025 17:46:11 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	k 7.810947	.3096013	.3746031
Stddev	.036817	.0046025	.0015542
%RSD	.4713499	1.486595	.4148949
#1	7.843104	.3042945	.3758804
#2	k 7.818950	.3125026	.3750562
#3	7.770787	.3120068	.3728727

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	51065.19	2991.533	4598.155	^ *****
Stddev	-----	1557.53	19.729	113.358	-----
%RSD	-----	3.050075	.6595023	2.465286	-----
#1	6581.085	51674.85	2986.454	4667.489	4977.678
#2	^ -----	49295.05	2974.840	4467.340	^ -----
#3	6567.377	52225.66	3013.305	4659.637	4967.462

Sample Name: Q2381-01MSD Acquired: 6/25/2025 17:50:28 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9287737**	**1.912219**	**1.795191**	**1.646233**	**.2451716**	**236.6834**
Stddev	.0241228	.012388	.011497	.041856	.0021330	1.0081
%RSD	2.597277	.6478381	.6404419	2.542529	.8700063	.4259127
#1	.9166585	1.909180	1.797365	1.626566	.2440649	237.4821
#2	.9131096	1.901634	1.782762	1.617832	.2438194	237.0174
#3	.9565529	1.925844	1.805446	1.694300	.2476305	235.5507

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.282964**	**.1976174**	**.2016103**	**59.40214**	**.6143234**	**.5313564**
Stddev	.002859	.0342214	.0025414	.22623	.0022874	.0023633
%RSD	.2228283	17.31698	1.260567	.3808478	.3723528	.4447596
#1	1.284972	.1775099	.2013297	59.29525	.6165629	.5313150
#2	1.284229	.1782116	.1992208	59.66201	.6144165	.5290141
#3	1.279691	.2371308	.2042804	59.24916	.6119908	.5337401

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8968103**	**433.7464**	**9.918063**	**61.72850**	**.8989263**	**.0328948**
Stddev	.1450320	.7650	.013184	.19712	.0045962	.0011674
%RSD	16.17198	.1763774	.1329263	.3193284	.5113022	3.548950
#1	.8100690	433.6053	9.907214	61.61242	.8967719	.0317440
#2	.8161195	434.5722	9.932736	61.61699	.8958029	.0328623
#3	1.064242	433.0618	9.914239	61.95610	.9042040	.0340781

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.971043**	**1.325963**	**1.353199**	**23.86448**	F **19.21100**	**.4506473**
Stddev	.988090	.010300	.002974	4.05968	.56807	.0112464
%RSD	16.54804	.7768228	.2197890	17.01138	2.956984	2.495617
#1	5.381752	1.331048	1.355822	21.50473	19.06807	.4585760
#2	5.419594	1.332732	1.353808	21.53655	18.72804	.4555900
#3	7.111782	1.314108	1.349968	28.55215	19.83688	.4377760

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSD Acquired: 6/25/2025 17:50:28 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2937210	6.783356	12.86620	.6846930	7.869542	.3399795
Stddev	.0006879	.212587	2.18557	.0067156	.018660	.0083662
%RSD	.2342008	3.133956	16.98691	.9808134	.2371129	2.460805
#1	.2930097	6.732674	11.56337	.6803096	7.879958	.3494285
#2	.2937707	6.600690	11.64579	.6813450	7.880668	.3369959
#3	.2943828	7.016704	15.38943	.6924244	7.847999	.3335141

Elem	Sr4077
Units	ppm
Avg	.4058130
Stddev	.0014971
%RSD	.3689143
#1	.4064150
#2	.4069155
#3	.4041087

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6279.197	51264.40	2724.213	4598.899	4743.958
Stddev	263.891	165.43	419.730	23.891	205.275
%RSD	4.202620	.3226957	15.40738	.5194846	4.327094
#1	6241.405	51084.89	2969.212	4571.855	4704.376
#2	6559.947	51297.59	2963.866	4607.709	4966.142
#3	6036.240	51410.72	2239.560	4617.135	4561.355

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01A Acquired: 6/25/2025 17:55:18 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .9532522	s 1.954199	s 1.812775	s 1.806714	s .7240884	k 206.7111
Stddev	.0524030	.101873	.091113	.249862	.1218765	6.8980
%RSD	5.497290	5.213044	5.026178	13.82963	16.83172	3.337036
#1	.9288206	1.906379	1.785716	1.673208	.6533840	198.9738
#2	.9175264	1.885033	1.738256	1.651966	.6540624	212.2179
#3	s 1.013410	s 2.071185	s 1.914353	s 2.094969	s .8648187	k 208.9415

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.192877	k .1823540	^ *****	59.31208	k .6040054	s .5327872
Stddev	.033932	.0400505	-----	1.89180	.0041811	.0400457
%RSD	2.844575	21.96302	-----	3.189572	.6922203	7.516256
#1	1.155638	.2248826	.2009770	57.18285	.6030980	.5109126
#2	1.222048	.1768228	.1940479	60.79944	.6003525	.5084430
#3	1.200945	k .1453567	^ -----	59.95394	k .6085656	s .5790059

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .8431628	419.5386	k 9.789883	59.42149	s .8859746	k .0330383
Stddev	.1769397	11.2730	.271176	1.65403	.0534387	.0031310
%RSD	20.98523	2.687006	2.769962	2.783554	6.031631	9.477033
#1	1.032081	406.9985	9.487585	57.55962	.8589338	.0294321
#2	.816084	428.8319	10.01173	60.72106	.8514608	.0350652
#3	k .681323	422.7853	k 9.87033	59.98379	s .9475294	k .0346176

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.903429	k 1.289470	k 1.312770	21.98101	^ *****	k .3945114
Stddev	.983465	.043289	.019859	2.94727	-----	.0377433
%RSD	20.05667	3.357141	1.512733	13.40827	-----	9.567107
#1	5.967567	1.242523	1.300955	25.38367	18.62093	.3511967
#2	4.714737	1.327807	1.301658	20.33322	18.08534	.4119929
#3	4.027980	k 1.298082	k 1.335698	20.22615	^ -----	k .4203445

Sample Name: Q2381-01A Acquired: 6/25/2025 17:55:18 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .3474579	s 7.051829	kF 14.27358	s .7537983	k 7.293233	.3037637
Stddev	.0590384	.399190	3.08673	.0417884	.222019	.0138948
%RSD	16.99152	5.660804	21.62546	5.543716	3.044182	4.574208
#1	.3121141	6.928692	17.57621	.7412284	7.044007	.2886618
#2	.3146457	6.728714	13.78302	.7197377	7.469877	.3160066
#3	s .4156139	s 7.498080	k 11.46151	s .8004290	k 7.365816	.3066228

Elem	Sr4077
Units	ppm
Avg	.3685143
Stddev	.0116175
%RSD	3.152531
#1	.3555169
#2	.3778883
#3	.3721377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	48503.68	2731.726	4360.090	^ *****
Stddev	-----	5613.19	348.009	473.869	-----
%RSD	-----	11.57272	12.73953	10.86832	-----
#1	6516.282	52060.59	2330.019	4662.765	4966.752
#2	6530.359	51417.68	2923.437	4603.520	4997.636
#3	^ -----	42032.76	2941.723	3813.983	^ -----

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV03 Acquired: 6/25/2025 18:00:27 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**5.114729**	**5.066128**	**5.069023**	**5.179954**	**5.146240**	**10.16344**	**10.21337**
Stddev	.090573	.023762	.037073	.103415	.041853	.09001	.02134
%RSD	1.770829	.4690345	.7313694	1.996455	.8132693	.8855951	.2089402
#1	5.184347	5.081111	5.095107	5.259296	5.179909	10.16118	10.21959
#2	5.012329	5.038730	5.026584	5.062995	5.099381	10.25456	10.23092
#3	5.147509	5.078542	5.085377	5.217570	5.159430	10.07458	10.18962

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2578349**	**2.547958**	**25.65230**	**1.041177**	**2.531633**	**1.271750**	**5.132335**
Stddev	.0113016	.020455	.08313	.012021	.005278	.064161	.015281
%RSD	4.383287	.8027801	.3240831	1.154514	.2084920	5.045123	.2977335
#1	.2675778	2.561500	25.67771	1.043303	2.532094	1.329352	5.129195
#2	.2454445	2.524428	25.71976	1.028235	2.526140	1.202598	5.148941
#3	.2604823	2.557945	25.55942	1.051993	2.536666	1.283299	5.118867

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.562898**	**25.63740**	**2.522667**	**1.300362**	**25.51918**	**2.566986**	**2.602777**
Stddev	.009442	.11713	.008362	.021809	2.26607	.018415	.080588
%RSD	.3684027	.4568603	.3314572	1.677139	8.879881	.7173748	3.096234
#1	2.564559	25.60406	2.526938	1.289423	25.64011	2.562474	2.580775
#2	2.571400	25.76758	2.513033	1.286189	23.19507	2.587238	2.535475
#3	2.552736	25.54056	2.528031	1.325476	27.72237	2.551247	2.692081

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.91633**	**5.214162**	**5.038712**	**5.106949**	**5.200978**	**5.108223**	**5.092083**
Stddev	2.32620	.105874	.233837	.010738	.135713	.277819	.036294
%RSD	8.642356	2.030516	4.640815	.2102599	2.609377	5.438654	.7127445
#1	25.27942	5.294337	5.226210	5.110861	5.302143	5.269816	5.118972
#2	25.89044	5.094147	4.776697	5.094804	5.046750	4.787429	5.050801
#3	29.57913	5.254001	5.113228	5.115182	5.254040	5.267425	5.106478

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV03 Acquired: 6/25/2025 18:00:27 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.137188**	**5.035673**	**5.193752**
Stddev	.019694	.047765	.015784
%RSD	.3833566	.9485348	.3039028
#1	5.127679	5.066000	5.194880
#2	5.159832	5.060407	5.208943
#3	5.124054	4.980614	5.177435

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4785.328**	**35801.58**	**2068.444**	**3189.774**	**4916.374**
Stddev	184.704	4049.24	184.851	320.573	189.045
%RSD	3.859801	11.31021	8.936724	10.05002	3.845207
#1	4660.173	39840.29	2191.739	3511.108	4791.328
#2	4997.464	35822.56	2157.689	3188.247	5133.850
#3	4698.347	31741.90	1855.903	2869.968	4823.943

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB03 Acquired: 6/25/2025 18:07:39 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002604**	**-.001841**	**-.000035**	**.0012202**	**.0010596**	**.0220657**
Stddev	.000704	.001217	.001753	.0029540	.0013287	.0292336
%RSD	27.01852	66.09824	5067.499	242.0838	125.4021	132.4843
#1	-.001886	-.000553	.000739	.0044709	.0000920	.0526414
#2	-.002633	-.001998	-.002041	.0004899	.0005122	.0191651
#3	-.003293	-.002972	.001199	-.001300	.0025745	-.005609

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001048**	**.0000643**	**.0000447**	**-.007490**	**-.000320**	**.0002296**
Stddev	.0007420	.0001460	.0000653	.022556	.000716	.0001164
%RSD	708.2448	227.2066	146.0394	301.1525	223.3547	50.71095
#1	-.000738	-.000039	.0000588	-.033442	.000317	.0003246
#2	.000661	.000231	-.000026	.003580	-.001094	.0002644
#3	.000391	.000000	.000102	.007392	-.000184	.0000997

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001792**	**.0118282**	**.0015319**	**.0148539**	**.0004233**	**-.000007**
Stddev	.0000419	.0125428	.0012275	.0487884	.0003378	.001639
%RSD	23.38724	106.0409	80.12518	328.4547	79.79751	25034.60
#1	.0001310	.0116685	.0024609	-.038109	.0007586	-.001873
#2	.0001989	-.000634	.0001404	.024708	.0000830	.001201
#3	.0002076	.024450	.0019945	.057963	.0004284	.000652

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0487683**	**.0003801**	**-.001157**	**.0058101**	**.0017258**	**.0048844**
Stddev	.0120418	.0101091	.000149	.0007624	.0032834	.0015556
%RSD	24.69188	2659.968	12.85607	13.12128	190.2591	31.84927
#1	.0349151	.0018191	-.001287	.0056532	.0022187	.0066019
#2	.0567302	.0096925	-.000995	.0051383	-.001776	.0044812
#3	.0546597	-.010372	-.001190	.0066387	.004735	.0035700

Sample Name: CCB03 Acquired: 6/25/2025 18:07:39 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000243**	**-.000512**	**.0049254**	**-.001248**	**-.000977**	F **-.014279**
Stddev	.000608	.001215	.0008364	.000918	.003668	.004924
%RSD	250.2336	237.3070	16.98155	73.58849	375.5904	34.48314
#1	-.000941	-.000160	.0058563	-.000874	.001856	-.015092
#2	.000168	-.001864	.0046826	-.002294	-.005120	-.018746
#3	.000044	.000488	.0042373	-.000576	.000334	-.009000

Elem	Sr4077
Units	ppm
Avg	**.0001682**
Stddev	.0000616
%RSD	36.64952
#1	.0001143
#2	.0002354
#3	.0001548

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5197.740**	**41688.04**	**2213.268**	**3658.886**	**5854.014**
Stddev	7.934	92.04	9.174	14.598	9.880
%RSD	.1526342	.2207935	.4145084	.3989617	.1687675
#1	5200.891	41719.90	2202.770	3670.903	5860.096
#2	5188.715	41584.29	2217.288	3642.641	5842.614
#3	5203.614	41759.91	2219.746	3663.112	5859.331

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2367-04 Acquired: 6/25/2025 18:12:09 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.020523**	**.0054483**	**.0081255**	**-.022325**	**.0084018**	**.0367576**	**.4554493**
Stddev	.001672	.0001782	.0010535	.006635	.0010700	.0290408	.0012957
%RSD	8.147601	3.271105	12.96520	29.71956	12.73510	79.00640	.2844822
#1	-.021897	.0053600	.0072540	-.014949	.0094334	.0097426	.4543984
#2	-.018661	.0053316	.0078262	-.024216	.0072971	.0674701	.4568970
#3	-.021011	.0056535	.0092962	-.027808	.0084749	.0330601	.4550526

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000387**	**.0003230**	**90.43569**	**.0031722**	**.0228030**	**.0181161**	**.4384643**
Stddev	.000003	.0000480	.17641	.0009742	.0000446	.0006681	.0333169
%RSD	.8053409	14.85260	.1950720	30.71125	.1956483	3.687716	7.598542
#1	-.000388	.0003327	90.35969	.0026706	.0228395	.0188875	.4004854
#2	-.000384	.0003654	90.63737	.0025510	.0228163	.0177417	.4521420
#3	-.000390	.0002709	90.31002	.0042950	.0227533	.0177193	.4627656

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.443131**	**16.66060**	**.0051477**	**-.000332**	**382.6577**	**-.006061**	**.0872932**
Stddev	.010487	.14735	.0001513	.001715	2.5178	.007350	.0002449
%RSD	.2360345	.8844429	2.939051	515.9314	.6579716	121.2591	.2805341
#1	4.435588	16.49186	.0051302	.000933	385.4214	-.008266	.0874253
#2	4.455107	16.76387	.0053069	.000354	380.4944	-.012056	.0874436
#3	4.438698	16.72608	.0050059	-.002285	382.0574	.002139	.0870106

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.480648**	**.0321563**	**.0363894**	**.0023137**	**1.039478**	**1.703459**	**.0065950**
Stddev	.016868	.0035461	.0014440	.0005253	.004794	.006320	.0003801
%RSD	.6799882	11.02759	3.968103	22.70300	.4611554	.3709971	5.762901
#1	2.495195	.0281814	.0362780	.0027076	1.038057	1.708680	.0069630
#2	2.484591	.0332924	.0350043	.0025163	1.044821	1.705264	.0062039
#3	2.462158	.0349951	.0378858	.0017173	1.035555	1.696433	.0066180

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2367-04 Acquired: 6/25/2025 18:12:09 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.005242**	**-.030634**	**.3357722**
Stddev	.001793	.008758	.0016490
%RSD	34.21145	28.58987	.4910949
#1	-.003293	-.021206	.3354559
#2	-.006822	-.038517	.3375564
#3	-.005611	-.032179	.3343043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4996.976**	**39563.28**	**2246.953**	**3542.981**	**4971.326**
Stddev	4.858	154.54	8.858	16.995	3.356
%RSD	.0972190	.3906154	.3942396	.4796761	.0675158
#1	5002.439	39723.57	2239.480	3562.512	4974.192
#2	4993.143	39551.07	2244.641	3534.865	4967.633
#3	4995.345	39415.21	2256.738	3531.565	4972.152

Sample Name: Q2386-02 Acquired: 6/25/2025 18:16:40 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.014767**	**.0004601**	**.0116575**	**-.010540**	**.0028539**	**.0770888**	**.5134334**
Stddev	.002489	.0018720	.0027830	.003341	.0023480	.0121289	.0039033
%RSD	16.85824	406.8631	23.87327	31.70327	82.27386	15.73361	.7602287
#1	-.015570	.0018395	.0084466	-.006700	.0054929	.0906711	.5172975
#2	-.011975	-.001671	.0131500	-.012787	.0020727	.0732558	.5094921
#3	-.016755	.001212	.0133758	-.012133	.0009961	.0673396	.5135105

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001859**	**.0027410**	**27.38281**	**.0033241**	**.0196134**	**.0230732**	**.0400879**
Stddev	.0000680	.0000165	.24658	.0003191	.0002434	.0009214	.0121964
%RSD	36.57395	.6004076	.9004827	9.600591	1.240976	3.993229	30.42409
#1	.0002628	.0027566	27.58515	.0031344	.0198696	.0231562	.0508584
#2	.0001337	.0027424	27.10816	.0036925	.0195855	.0221131	.0268446
#3	.0001612	.0027238	27.45511	.0031453	.0193852	.0239502	.0425608

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.887235**	**4.484677**	**.0103270**	**.0000895**	**338.7368**	**-.011681**	**.4001682**
Stddev	.016618	.022248	.0000117	.0007505	1.9517	.002134	.0010243
%RSD	.8805434	.4960959	.1134651	838.4251	.5761574	18.27005	.2559552
#1	1.895514	4.471628	.0103162	.0008280	340.9874	-.013631	.3990301
#2	1.868104	4.510366	.0103394	.0001129	337.5114	-.012012	.4010159
#3	1.898087	4.472036	.0103253	-.000672	337.7116	-.009401	.4004587

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.082496**	**.0193385**	**.1042106**	**.0014141**	**1.753309**	**2.091439**	**.0013935**
Stddev	.031570	.0011980	.0013796	.0002367	.001671	.024290	.0009989
%RSD	1.515978	6.194843	1.323834	16.73972	.0953128	1.161412	71.68574
#1	2.094454	.0179828	.1055689	.0012892	1.751383	2.098727	.0011416
#2	2.046694	.0197781	.1028107	.0016871	1.754172	2.064339	.0005446
#3	2.106341	.0202546	.1042521	.0012660	1.754372	2.111251	.0024942

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2386-02 Acquired: 6/25/2025 18:16:40 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003002	-.028579	.1398624
Stddev	.0040078	.003811	.0010267
%RSD	1335.225	13.33528	.7340809
#1	.0045612	-.032933	.1408319
#2	-.000267	-.025852	.1387867
#3	-.003394	-.026951	.1399684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5114.318	40231.30	2283.035	3602.562	5187.396
Stddev	14.199	157.11	19.949	19.223	12.274
%RSD	.2776390	.3905237	.8737714	.5336042	.2366148
#1	5099.293	40332.45	2277.154	3616.877	5176.397
#2	5116.146	40050.30	2305.262	3580.712	5185.156
#3	5127.514	40311.16	2266.687	3610.095	5200.636

Sample Name: Q2392-01 Acquired: 6/25/2025 18:21:12 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0498807**	**-.009493**	**.1837934**	**.0182013**	**.0120077**	**25.45466**	**.5295080**
Stddev	.0042259	.001325	.0008518	.0009761	.0026803	.16877	.0022317
%RSD	8.472093	13.95484	.4634443	5.362522	22.32138	.6630062	.4214741
#1	.0512726	-.009424	.1840826	.0172890	.0089647	25.30918	.5279560
#2	.0532352	-.010850	.1828346	.0180843	.0130404	25.41513	.5285024
#3	.0451344	-.008204	.1844629	.0192305	.0140181	25.63969	.5320656

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096163**	**-.001493**	**38.96649**	**.0642095**	**.0747131**	**.4188453**	**80.12615**
Stddev	.0001128	.000065	.20384	.0004256	.0000263	.0001039	.35951
%RSD	1.172979	4.331004	.5231200	.6628545	.0351599	.0248063	.4486815
#1	.0095038	-.001507	38.87187	.0640497	.0746898	.4188881	79.84682
#2	.0096156	-.001422	38.82715	.0646919	.0747080	.4189209	79.99985
#3	.0097294	-.001549	39.20045	.0638870	.0747416	.4187268	80.53176

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4738254**	**3.711295**	**.1100384**	**-.003428**	**2.499617**	**.2190268**	**.1859646**
Stddev	.0042164	.039635	.0001798	.001226	.013642	.0039496	.0011019
%RSD	.8898712	1.067961	.1633972	35.75395	.5457589	1.803270	.5925337
#1	.4703832	3.666770	.1099822	-.003221	2.503797	.2188834	.1847938
#2	.4725646	3.742727	.1098934	-.002319	2.484374	.2230462	.1861188
#3	.4785284	3.724387	.1102396	-.004744	2.510679	.2151508	.1869814

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.833958**	**2.086927**	**.0454457**	**.0174284**	**5.178718**	**4.594427**	**.0096728**
Stddev	.026345	.002866	.0007909	.0000841	.007812	.026983	.0005133
%RSD	.4515798	.1373325	1.740227	.4826239	.1508421	.5873000	5.306401
#1	5.828322	2.084447	.0460441	.0174373	5.177370	4.601850	.0093555
#2	5.810888	2.086269	.0457439	.0173401	5.171667	4.564509	.0102650
#3	5.862665	2.090064	.0445491	.0175077	5.187115	4.616921	.0093979

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2392-01 Acquired: 6/25/2025 18:21:12 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.386101	.0622658	.7762568
Stddev	.004518	.0023025	.0027718
%RSD	.3259535	3.697917	.3570683
#1	1.383242	.0619103	.7739093
#2	1.383752	.0601617	.7755465
#3	1.391310	.0647254	.7793146

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5905.968	47407.21	2549.271	4188.700	5597.876
Stddev	13.452	301.67	8.123	28.527	7.102
%RSD	.2277634	.6363405	.3186450	.6810539	.1268767
#1	5900.333	47739.57	2553.797	4219.755	5598.931
#2	5896.251	47331.36	2554.124	4182.686	5590.305
#3	5921.321	47150.71	2539.894	4163.659	5604.392

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DLX5 Acquired: 6/25/2025 18:29:57 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0242026**	**-.010449**	**.1659279**	**.0338441**	**.0110357**	**55.65605**	**.2840446**
Stddev	.0014508	.000459	.0045440	.0029097	.0030827	.23685	.0007744
%RSD	5.994446	4.390798	2.738545	8.597330	27.93419	.4255540	.2726418
#1	.0236934	-.010142	.1711536	.0304851	.0133768	55.92877	.2833876
#2	.0230750	-.010229	.1637234	.0355884	.0075429	55.53750	.2848985
#3	.0258394	-.010977	.1629067	.0354589	.0121874	55.50190	.2838479

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038829**	**-.002102**	**16.18333**	**.0782150**	**.0663106**	**.1598966**	**115.8054**
Stddev	.0001438	.000060	.02797	.0005938	.0008918	.0001640	.4647
%RSD	3.704062	2.874202	.1728600	.7591791	1.344935	.1025807	.4012469
#1	.0037302	-.002149	16.15277	.0787864	.0673390	.1597333	116.2830
#2	.0039026	-.002034	16.20769	.0782575	.0658424	.1598950	115.7783
#3	.0040158	-.002122	16.18951	.0776011	.0657504	.1600613	115.3549

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.698680**	**16.33542**	**.0727117**	**-.005759**	**.7265742**	**.2797321**	**.3075708**
Stddev	.009421	.14250	.0011046	.000648	.0130788	.0068287	.0014934
%RSD	.3490882	.8723290	1.519101	11.25294	1.800062	2.441160	.4855573
#1	2.709082	16.17212	.0738398	-.005784	.7357233	.2766381	.3081440
#2	2.696233	16.39965	.0726631	-.006395	.7324052	.2875602	.3086927
#3	2.690723	16.43450	.0716323	-.005099	.7115941	.2749981	.3058757

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.523855**	**2.477158**	**.0436233**	**.0024518**	**1.358568**	**3.497421**	**.0045835**
Stddev	.006374	.030711	.0004925	.0002935	.020932	.010386	.0006897
%RSD	.2525529	1.239778	1.128938	11.96993	1.540739	.2969709	15.04729
#1	2.518737	2.511578	.0432943	.0025580	1.381814	3.500718	.0046111
#2	2.530995	2.467338	.0441895	.0026775	1.352679	3.505758	.0052591
#3	2.521833	2.452558	.0433860	.0021201	1.341212	3.485786	.0038805

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DLX5 Acquired: 6/25/2025 18:29:57 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.930382	.0348072	.0586731
Stddev	.005564	.0033558	.0004039
%RSD	.2882199	9.641064	.6884410
#1	1.936515	.0323664	.0591262
#2	1.928975	.0386340	.0583508
#3	1.925658	.0334213	.0585423

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5510.944	43897.24	2387.200	3910.545	5442.541
Stddev	12.472	74.71	13.400	8.456	18.788
%RSD	.2263104	.1701974	.5613366	.2162286	.3452060
#1	5505.017	43900.34	2402.434	3911.598	5428.387
#2	5525.274	43970.35	2381.927	3918.425	5463.856
#3	5502.540	43821.03	2377.238	3901.612	5435.378

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DUPDLX5 Acquired: 6/25/2025 18:34:13 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0232325**	**-.008742**	**.1654146**	**.0350565**	**.0088409**	**54.26819**	**.2755099**
Stddev	.0016159	.000459	.0032212	.0027215	.0012022	.14917	.0011456
%RSD	6.955437	5.255219	1.947336	7.763129	13.59816	.2748669	.4158237
#1	.0234595	-.008780	.1684093	.0373648	.0086710	54.10248	.2767379
#2	.0247229	-.008265	.1658276	.0357490	.0077327	54.31037	.2753220
#3	.0215151	-.009182	.1620068	.0320557	.0101191	54.39173	.2744699

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039331**	**-.001953**	**15.75984**	**.0763305**	**.0665060**	**.1552998**	**112.7328**
Stddev	.0001168	.000026	.01895	.0007061	.0011017	.0008748	.1675
%RSD	2.970434	1.329782	.1202699	.9250156	1.656583	.5632710	.1485918
#1	.0039095	-.001946	15.76640	.0759055	.0676825	.1543529	112.5781
#2	.0038299	-.001982	15.73848	.0771456	.0663367	.1554689	112.9107
#3	.0040599	-.001931	15.77464	.0759406	.0654987	.1560778	112.7097

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.628108**	**15.84859**	**.0718048**	**-.006862**	**.7114202**	**.2769827**	**.3015074**
Stddev	.007325	.04476	.0008079	.000383	.0087712	.0012106	.0008526
%RSD	.2787234	.2824069	1.125204	5.585049	1.232914	.4370805	.2827739
#1	2.622395	15.80421	.0726563	-.006454	.7019580	.2782947	.3023450
#2	2.625564	15.89371	.0717091	-.006917	.7192792	.2759087	.3006406
#3	2.636366	15.84784	.0710489	-.007214	.7130234	.2767447	.3015367

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.442197**	**2.445575**	**.0429968**	**.0023771**	**1.338141**	**3.383599**	**.0055996**
Stddev	.005565	.014128	.0016418	.0004195	.012192	.032309	.0007327
%RSD	.2278818	.5776777	3.818422	17.64614	.9111164	.9548818	13.08520
#1	2.436628	2.460590	.0444217	.0026721	1.349529	3.351426	.0060088
#2	2.447759	2.443590	.0433674	.0018969	1.339614	3.416043	.0047537
#3	2.442205	2.432545	.0412014	.0025624	1.325279	3.383328	.0060363

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DUPDLX5 Acquired: 6/25/2025 18:34:13 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.883334	.0278094	.0572324
Stddev	.004833	.0037259	.0002330
%RSD	.2565998	13.39782	.4071889
#1	1.878504	.0319372	.0571614
#2	1.888169	.0267957	.0574927
#3	1.883327	.0246953	.0570431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5492.258	43545.52	2392.702	3868.144	5417.380
Stddev	7.778	50.42	23.009	10.141	4.850
%RSD	.1416183	.1157885	.9616211	.2621688	.0895191
#1	5496.908	43573.42	2418.952	3879.825	5417.038
#2	5496.588	43487.31	2383.132	3863.005	5422.391
#3	5483.279	43575.82	2376.023	3861.600	5412.710

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LDLX25 Acquired: 6/25/2025 18:38:30 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066005**	**-.002567**	**.0320014**	**.0062284**	**.0004899**	**10.67847**	**.0512165**
Stddev	.0015420	.002533	.0012450	.0027692	.0007020	.05819	.0009310
%RSD	23.36255	98.66479	3.890608	44.46046	143.2821	.5449651	1.817684
#1	.0059043	-.005372	.0333939	.0076426	.0005606	10.66769	.0520367
#2	.0083678	-.000448	.0316145	.0080048	.0011539	10.74130	.0502046
#3	.0055292	-.001881	.0309957	.0030377	-.000245	10.62642	.0514083

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007362**	**-.000453**	**3.046243**	**.0143876**	**.0125483**	**.0315213**	**22.05927**
Stddev	.0001115	.000020	.031533	.0008053	.0004649	.0004332	.09291
%RSD	15.14026	4.457808	1.035158	5.596965	3.704965	1.374422	.4211977
#1	.0006932	-.000444	3.052658	.0152397	.0121274	.0317665	22.03152
#2	.0006528	-.000476	3.074075	.0136392	.0124703	.0310211	22.16290
#3	.0008628	-.000439	3.011995	.0142837	.0130473	.0317764	21.98340

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5198728**	**3.174414**	**.0133250**	**-.000678**	**.1773637**	**.0464793**	**.0579044**
Stddev	.0051749	.038620	.0003669	.000528	.0098451	.0100117	.0002869
%RSD	.9954230	1.216610	2.753096	77.82843	5.550803	21.54014	.4955410
#1	.5180141	3.144403	.0136936	-.000897	.1886658	.0354509	.0577537
#2	.5257204	3.217986	.0129599	-.001061	.1706526	.0489911	.0582353
#3	.5158840	3.160853	.0133214	-.000076	.1727728	.0549959	.0577243

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4267767**	**.4440798**	**.0036932**	**.0002342**	**.2404811**	**.7674790**	**.0000753**
Stddev	.0027399	.0013468	.0004768	.0000191	.0030400	.0160500	.0006584
%RSD	.6420066	.3032911	12.91114	8.155320	1.264126	2.091268	873.8848
#1	.4262837	.4428954	.0039851	.0002124	.2370914	.7615490	.0002605
#2	.4243167	.4455449	.0031430	.0002478	.2413862	.7552377	.0006212
#3	.4297297	.4437992	.0039516	.0002424	.2429657	.7856502	-.000656

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LDLX25 Acquired: 6/25/2025 18:38:30 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3628508	-.009216	.0110601
Stddev	.0036998	.005495	.0000660
%RSD	1.019640	59.61996	.5967016
#1	.3634328	-.006274	.0109918
#2	.3662250	-.015555	.0111236
#3	.3588945	-.005819	.0110648

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5411.800	43234.86	2299.349	3822.345	5836.128
Stddev	6.655	329.08	.449	31.150	7.586
%RSD	.1229756	.7611464	.0195071	.8149449	.1299788
#1	5419.467	43373.59	2299.697	3827.363	5844.831
#2	5407.517	42859.13	2299.506	3788.991	5830.919
#3	5408.416	43471.86	2298.842	3850.681	5832.635

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDLX5 Acquired: 6/25/2025 18:42:54 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1806922**	**.3964255**	**.3714630**	**.4069599**	**.0627198**	**61.27612**	**.3346964**
Stddev	.0054253	.0020278	.0033430	.0068727	.0010170	.38698	.0020455
%RSD	3.002492	.5115250	.8999574	1.688782	1.621534	.6315298	.6111459
#1	.1778083	.3967165	.3742190	.4135643	.0638813	61.34062	.3339065
#2	.1869504	.3982921	.3724256	.4074681	.0622892	61.62680	.3370191
#3	.1773180	.3942679	.3677443	.3998472	.0619889	60.86095	.3331637

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0475459**	**.0380834**	**15.26645**	**.1607061**	**.1114416**	**.2277941**	**124.5001**
Stddev	.0009139	.0003779	.08475	.0017348	.0010393	.0036511	.4653
%RSD	1.922238	.9922283	.5551544	1.079484	.9326091	1.602817	.3737284
#1	.0467360	.0384096	15.19551	.1620946	.1125540	.2237412	124.4121
#2	.0485368	.0381712	15.36030	.1612623	.1112754	.2308262	125.0031
#3	.0473648	.0376694	15.24355	.1587614	.1104954	.2288150	124.0851

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.712701**	**16.55759**	**.1806061**	**.0084937**	**1.512587**	**.3616213**	**.3548463**
Stddev	.008922	.07362	.0025297	.0006867	.022457	.0069552	.0010051
%RSD	.3288851	.4446555	1.400701	8.084606	1.484701	1.923343	.2832490
#1	2.712428	16.60816	.1830272	.0092597	1.497581	.3551443	.3549333
#2	2.721756	16.59149	.1808109	.0082883	1.538405	.3689722	.3558051
#3	2.703919	16.47313	.1779802	.0079332	1.501774	.3607476	.3538006

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.601013**	**3.727596**	**.1064239**	**.0736334**	**1.322928**	**3.221123**	**.1347926**
Stddev	.037044	.033397	.0017562	.0011475	.013492	.052850	.0013035
%RSD	.8051301	.8959488	1.650164	1.558456	1.019880	1.640717	.9670320
#1	4.588700	3.752549	.1083780	.0749249	1.337418	3.170365	.1362936
#2	4.642646	3.740582	.1059161	.0732442	1.320638	3.275841	.1341385
#3	4.571694	3.689656	.1049776	.0727310	1.310727	3.217164	.1339457

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDLX5 Acquired: 6/25/2025 18:42:54 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.048439**	**.0760673**	**.1033947**
Stddev	.012228	.0050492	.0007158
%RSD	.5969577	6.637817	.6923179
#1	2.043708	.0763857	.1035876
#2	2.062326	.0708664	.1039943
#3	2.039283	.0809498	.1026022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5516.964**	**43815.74**	**2369.520**	**3899.520**	**5415.910**
Stddev	5.251	414.79	20.737	33.203	4.026
%RSD	.0951869	.9466621	.8751500	.8514549	.0743340
#1	5518.972	43385.94	2375.305	3868.037	5413.733
#2	5520.916	43847.62	2346.505	3896.314	5413.441
#3	5511.005	44213.67	2386.750	3934.209	5420.555

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDDLX5 Acquired: 6/25/2025 18:47:10 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .1810041	s .3992845	s .3723133	s .4402779	s .0657445	k 63.84402	.350429
Stddev	.0045553	.0236609	.0207013	.0584302	.0149201	.89413	.004780
%RSD	2.516669	5.925812	5.560194	13.27121	22.69410	1.400499	1.36410
#1	s .1859470	s .4266055	s .3962122	s .5066230	s .0825947	k 64.68545	.354382
#2	.1769750	.3857234	.3599426	.3964831	.0542107	63.94144	.351789
#3	.1800902	.3855247	.3607851	.4177276	.0604282	62.90516	.3451165

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0497110	s .0382052	15.98883	k .1635437	s .1128206	k .2358302	129.7682
Stddev	.0126162	.0026678	.25213	.0054537	.0099762	.0590577	1.903
%RSD	25.37912	6.982849	1.576891	3.334704	8.842542	25.04246	1.46681
#1	k .0383104	s .0412828	16.20009	k .1698405	s .1243382	k .1826193	131.218
#2	.0632655	.0365505	16.05669	.1603239	.1072428	.2993715	130.472
#3	.0475570	.0367822	15.70972	.1604665	.1068808	.2254998	127.612

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 2.827264	17.28858	s .1814899	k .0104306	^ *****	k .3884975	k .3678533
Stddev	.039856	.31077	.0120561	.0014240	-----	.0079269	.0227046
%RSD	1.409699	1.797540	6.642836	13.65221	-----	2.040400	6.172186
#1	k 2.862089	17.51835	s .1953438	k .0120609	^ -----	k .3975149	k .3940414
#2	2.835908	17.41241	.1757466	.0094302	1.932411	.3826282	.3558235
#3	2.783796	16.93499	.1733792	.0098007	1.495461	.3853496	.3536948

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	s 3.788159	k .1094529	s .0792484	s 1.350431	k 3.349125	s .1349323
Stddev	-----	.193553	.0071382	.0139186	.070960	.818187	.0085135
%RSD	-----	5.109412	6.521715	17.56324	5.254600	24.42988	6.309450
#1	^ -----	s 4.001886	k .1170677	s .0953026	s 1.427872	k 2.631982	s .1447611
#2	5.972052	3.624698	.1029133	.0718739	1.288527	4.240341	.1301783
#3	4.518076	3.737893	.1083777	.0705688	1.334895	3.175053	.1298576

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDDLX5 Acquired: 6/25/2025 18:47:10 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	k 2.145639	.0732927	.1079846
Stddev	.039827	.0050558	.0012776
%RSD	1.856197	6.898113	1.183093
#1	k 2.179519	.0786751	.1090916
#2	2.155632	.0725594	.1082756
#3	2.101767	.0686436	.1065867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	39564.10	2173.888	3549.987	^ *****
Stddev	-----	6916.75	328.149	541.699	-----
%RSD	-----	17.48238	15.09500	15.25918	-----
#1	^ -----	31577.96	2347.339	2924.518	^ -----
#2	5488.447	43470.40	1795.414	3857.368	5414.635
#3	5080.970	43643.93	2378.912	3868.077	5017.084

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01ADLX5 Acquired: 6/25/2025 18:51:24 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .1768662	s .3990822	s .3581987	s .4396848	s .1785504	k 53.11329	.3089772
Stddev	.0128421	.0257263	.0246759	.0628931	.0301191	.28287	.0029485
%RSD	7.260897	6.446374	6.888899	14.30412	16.86869	.5325791	.954164
#1	s .1916304	s .4287266	s .3865659	s .5122871	s .2133232	k 53.43991	.3108127
#2	.1706812	.3859183	.3463347	.4048716	.1606194	52.95201	.3105428
#3	.1682871	.3826017	.3416955	.4018957	.1617085	52.94796	.3055766

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0462175	s .0379290	15.59736	k .1587382	s .1057898	k .2157925	110.9460
Stddev	.0100889	.0031382	.07682	.0041311	.0103718	.0464634	.745
%RSD	21.82928	8.273801	.4925033	2.602441	9.804193	21.53150	.6717041
#1	k .0370479	s .0415490	15.68217	k .1591786	s .1177639	k .1722084	111.1381
#2	.0570253	.0362586	15.57749	.1626315	.1000046	.2646800	111.5751
#3	.0445792	.0359793	15.53244	.1544046	.0996008	.2104891	110.1233

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 2.603299	15.82624	s .1706578	k .0100235	^ *****	k .3318094	k .3434573
Stddev	.009986	.14079	.0130140	.0003724	-----	.0033290	.0160493
%RSD	.3835958	.8896126	7.625793	3.715210	-----	1.003291	4.672856
#1	k 2.605438	15.91352	s .1856315	k .0104496	^ -----	k .3298939	k .3546286
#2	2.612042	15.90139	.1642684	.0097604	1.519575	.3356534	.3506772
#3	2.592416	15.66382	.1620734	.0098605	1.237144	.3298809	.3250662

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	s 3.569005	k .0984771	s .0847332	s 1.306663	k 3.720977	s .1470711
Stddev	-----	.271185	.0032631	.0140332	.100926	.747465	.0120221
%RSD	-----	7.598345	3.313576	16.56162	7.723977	20.08786	8.174362
#1	^ -----	s 3.881003	k .1021479	s .1009129	s 1.422776	k 3.074154	s .1605627
#2	5.178990	3.436123	.0959054	.0774146	1.257234	4.539281	.1431561
#3	4.123256	3.389890	.0973782	.0758722	1.239978	3.549495	.1374945

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01ADLX5 Acquired: 6/25/2025 18:51:24 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	k 1.885356	.0614418	.0964893
Stddev	.013447	.0042738	.0003867
%RSD	.7132223	6.955859	.4007342
#1	k 1.891873	.0655779	.0966025
#2	1.894302	.0617050	.0968067
#3	1.869892	.0570425	.0960587

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	39646.99	2264.952	3579.121	^ *****
Stddev	-----	5658.49	272.526	438.041	-----
%RSD	-----	14.27219	12.03229	12.23878	-----
#1	^ -----	33284.01	2396.455	3093.690	^ -----
#2	5620.850	41542.80	1951.611	3698.760	5576.900
#3	5622.664	44114.16	2446.790	3944.912	5588.625

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV04 Acquired: 6/25/2025 18:55:38 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**5.006425**	**5.022404**	**5.028659**	**5.062847**	**5.093262**	**10.21454**	**10.20851**
Stddev	.007300	.003602	.006223	.014521	.008369	.02625	.06558
%RSD	.1458043	.0717219	.1237542	.2868197	.1643125	.2569634	.6424294
#1	5.002718	5.018377	5.024180	5.047662	5.084124	10.22531	10.26744
#2	5.001723	5.025318	5.026031	5.064279	5.095108	10.23368	10.22023
#3	5.014834	5.023518	5.035765	5.076599	5.100554	10.18462	10.13786

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2692173**	**2.525698**	**25.56938**	**1.044971**	**2.520272**	**1.329768**	**5.149204**
Stddev	.0022224	.005080	.12706	.011952	.003008	.007488	.017996
%RSD	.8255224	.2011232	.4969295	1.143720	.1193656	.5630930	.3494964
#1	.2698294	2.521160	25.66568	1.037538	2.516841	1.332306	5.169922
#2	.2710695	2.524748	25.61709	1.058757	2.521519	1.335658	5.140240
#3	.2667529	2.531186	25.42537	1.038618	2.522456	1.321341	5.137450

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.551423**	**25.63072**	**2.512099**	**1.282596**	**25.87668**	**2.552644**	**2.560696**
Stddev	.011980	.08706	.002611	.016782	.11870	.021855	.026946
%RSD	.4695350	.3396802	.1039178	1.308449	.4586996	.8561588	1.052301
#1	2.563855	25.65888	2.510599	1.269064	25.99635	2.573465	2.539787
#2	2.550462	25.70022	2.510585	1.301375	25.87470	2.554581	2.591106
#3	2.539953	25.53307	2.515114	1.277350	25.75898	2.529885	2.551195

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.57766**	**5.096909**	**5.271911**	**5.083751**	**5.061870**	**5.269522**	**5.051038**
Stddev	.28919	.009759	.028593	.004928	.009428	.027940	.007858
%RSD	1.130632	.1914661	.5423581	.0969326	.1862619	.5302168	.1555780
#1	25.84314	5.086607	5.285024	5.078772	5.051084	5.263632	5.042348
#2	25.62032	5.098108	5.291594	5.088627	5.065981	5.299938	5.053123
#3	25.26950	5.106014	5.239114	5.083854	5.068545	5.244997	5.057644

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV04 Acquired: 6/25/2025 18:55:38 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.130176	5.043999	5.182703
Stddev	.032438	.042423	.031878
%RSD	.6322901	.8410519	.6150842
#1	5.159213	5.079629	5.210808
#2	5.136147	5.055298	5.189237
#3	5.095168	4.997071	5.148064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5017.587	40075.28	2174.456	3547.337	5151.556
Stddev	16.067	311.93	16.135	27.525	17.495
%RSD	.3202146	.7783512	.7420367	.7759219	.3396011
#1	5012.125	40228.43	2157.500	3562.583	5145.551
#2	5035.673	39716.38	2176.249	3515.563	5171.262
#3	5004.963	40281.02	2189.621	3563.866	5137.854

Sample Name: CCB04 Acquired: 6/25/2025 18:59:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010237**	**-.001215**	**.0008541**	**.0006186**	**-.003460**	**-.007652**
Stddev	.0056120	.000694	.0004279	.0002241	.002552	.038633
%RSD	548.2386	57.09619	50.09912	36.23203	73.74526	504.8598
#1	.0073929	-.000674	.0011984	.0003760	-.000758	-.018876
#2	-.001127	-.001998	.0003750	.0006617	-.005829	.035350
#3	-.003195	-.000975	.0009888	.0008180	-.003795	-.039431

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000430**	**-.000052**	**.0001251**	**-.024275**	**.0007894**	**.0000594**
Stddev	.000721	.000126	.0000181	.011987	.0015738	.0002683
%RSD	167.6048	242.6390	14.46495	49.37963	199.3670	451.6019
#1	-.000212	-.000138	.0001402	-.010434	-.000154	.0003672
#2	-.001235	.000093	.0001299	-.031219	.002606	-.000064
#3	.000156	-.000111	.0001050	-.031173	-.000084	-.000125

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000577**	**.0008978**	**.0008629**	**.0491862**	**.0003245**	**-.000633**
Stddev	.000939	.0214200	.0010070	.0237143	.0006470	.000812
%RSD	162.7665	2385.897	116.7061	48.21345	199.3694	128.2265
#1	-.001408	-.023748	.0011490	.0219109	.0001014	.000195
#2	.000442	.015020	-.000256	.0607222	-.000181	-.001428
#3	-.000765	.011422	.001696	.0649253	.001054	-.000667

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0426203**	**-.007823**	**-.001297**	**.0075601**	**.0011318**	**.0104960**
Stddev	.0013776	.005419	.000354	.0012517	.0004329	.0011060
%RSD	3.232338	69.26732	27.26653	16.55662	38.24467	10.53692
#1	.0421523	-.012615	-.000920	.0088841	.0016198	.0117491
#2	.0441709	-.008912	-.001349	.0074003	.0009817	.0096563
#3	.0415376	-.001943	-.001621	.0063960	.0007941	.0100826

Sample Name: CCB04 Acquired: 6/25/2025 18:59:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003859**	**.0008977**	**.0046722**	**-.001197**	**-.000730**	F **-.017316**
Stddev	.0003874	.0000510	.0012481	.000319	.001242	.002249
%RSD	100.3853	5.684009	26.71359	26.69217	170.0950	12.98948
#1	.0008257	.0009526	.0048054	-.001452	-.001448	-.014744
#2	.0000954	.0008517	.0033629	-.000839	-.001446	-.018288
#3	.0002365	.0008888	.0058484	-.001300	.000704	-.018915

Elem	Sr4077
Units	ppm
Avg	**.0001388**
Stddev	.0001739
%RSD	125.2631
#1	.0002460
#2	.0002322
#3	-.000062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5158.497**	**41568.93**	**2185.961**	**3646.593**	**5818.191**
Stddev	2.949	130.05	7.491	11.673	9.432
%RSD	.0571752	.3128650	.3426984	.3201134	.1621188
#1	5161.211	41639.17	2188.836	3643.598	5826.149
#2	5158.923	41418.86	2177.458	3636.709	5820.653
#3	5155.358	41648.77	2191.588	3659.472	5807.772

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2426-01 Acquired: 6/25/2025 19:04:23 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008840**	**-.002762**	**.0837008**	**-.015978**	**.0099436**	**5.117058**
Stddev	.002375	.002199	.0006512	.002033	.0028178	.066736
%RSD	26.87054	79.60389	.7780571	12.72503	28.33792	1.304185
#1	-.007559	-.005300	.0829489	-.015167	.0068247	5.160887
#2	-.007380	-.001545	.0840718	-.018291	.0107004	5.040253
#3	-.011581	-.001441	.0840819	-.014475	.0123057	5.150034

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1635395**	**.0003913**	**.0003046**	**84.90387**	**.0166246**	**.0211191**
Stddev	.0010266	.0000272	.0000867	.10804	.0004273	.0008449
%RSD	.6277133	6.961928	28.44694	.1272507	2.570517	4.000519
#1	.1645262	.0004012	.0002741	84.94727	.0171051	.0220888
#2	.1624773	.0003604	.0002373	84.78088	.0164814	.0207267
#3	.1636150	.0004121	.0004024	84.98346	.0162872	.0205417

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2353037**	**15.79872**	**.2732575**	**28.39236**	**.0157288**	**-.000182**
Stddev	.0098614	.11602	.0010293	.12131	.0006207	.000292
%RSD	4.190940	.7343866	.3766740	.4272786	3.946194	160.2506
#1	.2290140	15.92775	.2723878	28.53131	.0150431	.000153
#2	.2466691	15.70299	.2729909	28.33825	.0162524	-.000382
#3	.2302280	15.76541	.2743939	28.30751	.0158908	-.000318

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**153.3747**	**.0091089**	**.5539410**	**10.23824**	**2.003284**	**.0796655**
Stddev	22.4639	.0084501	.0021540	.55848	.040506	.0029828
%RSD	14.64643	92.76733	.3888424	5.454818	2.021979	3.744200
#1	140.6101	-.000235	.5562355	10.04062	1.956546	.0784998
#2	179.3127	.016215	.5536250	10.86866	2.028200	.0830551
#3	140.2013	.011347	.5519625	9.80544	2.025105	.0774415

Sample Name: Q2426-01 Acquired: 6/25/2025 19:04:23 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056929	7.845767	F 22.01097	.0239421	.2483649	-.021846
Stddev	.0005490	.141246	.83060	.0004226	.0098086	.007420
%RSD	9.643653	1.800285	3.773587	1.765265	3.949264	33.96744
#1	.0062822	7.682833	21.67894	.0244153	.2579306	-.029291
#2	.0056007	7.933532	22.95623	.0238088	.2383302	-.014451
#3	.0051959	7.920937	21.39775	.0236022	.2488339	-.021795

Elem	Sr4077
Units	ppm
Avg	.3168068
Stddev	.0009131
%RSD	.2882155
#1	.3178144
#2	.3160342
#3	.3165717

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4851.622	40906.46	2193.619	3633.507	4952.921
Stddev	31.090	80.84	91.856	18.222	34.052
%RSD	.6408220	.1976229	4.187410	.5015017	.6875202
#1	4870.559	40995.42	2249.472	3649.799	4969.172
#2	4815.741	40837.49	2087.604	3613.830	4913.788
#3	4868.567	40886.47	2243.781	3636.892	4975.804

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2426-02 Acquired: 6/25/2025 19:09:00 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006510**	**-.002999**	**.1057412**	**-.021132**	**.0127283**	**6.742347**
Stddev	.001788	.001844	.0033802	.000699	.0004107	.028239
%RSD	27.46306	61.47126	3.196695	3.305728	3.226516	.4188298
#1	-.008331	-.005120	.1096144	-.021840	.0123850	6.759489
#2	-.006442	-.002094	.1042229	-.020443	.0131832	6.757798
#3	-.004757	-.001783	.1033864	-.021113	.0126165	6.709755

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1997345**	**.0005399**	**.0002956**	**101.1236**	**.0232414**	**.0235818**
Stddev	.0005196	.0001391	.0000706	.2416	.0003168	.0006130
%RSD	.2601337	25.76368	23.89458	.2389342	1.363074	2.599415
#1	.1991878	.0006823	.0003078	101.1249	.0235844	.0242862
#2	.1997938	.0005331	.0003593	101.3645	.0229598	.0232901
#3	.2002219	.0004043	.0002197	100.8813	.0231799	.0231692

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2503292**	**20.93206**	**.4088437**	**31.83254**	**.0185281**	**.0004013**
Stddev	.0058188	.07096	.0003693	.06511	.0002029	.0007912
%RSD	2.324452	.3390053	.0903254	.2045449	1.094817	197.1436
#1	.2460884	21.01002	.4090078	31.75888	.0187233	.0005273
#2	.2479364	20.87124	.4084208	31.88242	.0185426	-.000445
#3	.2569629	20.91492	.4091025	31.85632	.0183184	.001122

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**152.9420**	**.0027476**	**.7079807**	**12.04223**	**2.615750**	**.0831295**
Stddev	10.0157	.0095406	.0010909	.48644	.073139	.0018732
%RSD	6.548665	347.2407	.1540906	4.039474	2.796105	2.253334
#1	163.2767	.0122492	.7088085	11.83268	2.700204	.0821105
#2	143.2792	-.006832	.7083892	11.69568	2.573712	.0819868
#3	152.2701	.002825	.7067445	12.59833	2.573335	.0852913

Sample Name: Q2426-02 Acquired: 6/25/2025 19:09:00 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069377	8.394744	F 25.17073	.0103165	.3191503	-.019835
Stddev	.0004286	.227797	.63680	.0004929	.0036291	.002112
%RSD	6.178459	2.713566	2.529920	4.778137	1.137126	10.64774
#1	.0064428	8.657708	24.69676	.0101566	.3176194	-.018329
#2	.0071937	8.268627	24.92086	.0108695	.3232940	-.022249
#3	.0071765	8.257897	25.89457	.0099233	.3165374	-.018926

Elem	Sr4077
Units	ppm
Avg	.3599910
Stddev	.0010471
%RSD	.2908717
#1	.3608779
#2	.3602593
#3	.3588359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5099.301	40891.93	2232.852	3628.350	5171.979
Stddev	35.619	228.52	35.192	26.317	66.091
%RSD	.6985034	.5588334	1.576103	.7253189	1.277868
#1	5059.279	40788.39	2261.877	3617.073	5096.633
#2	5111.105	40733.51	2242.969	3609.551	5199.150
#3	5127.520	41153.89	2193.709	3658.427	5220.153

Sample Name: Q2388-04 Acquired: 6/25/2025 19:13:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.015297**	**.0039013**	**.0083395**	**-.028598**	**.0123578**	**-.001490**	**.6499696**
Stddev	.002058	.0018203	.0005908	.002577	.0028200	.028395	.0065109
%RSD	13.45298	46.65767	7.084819	9.011088	22.81954	1905.534	1.001716
#1	-.017080	.0040513	.0076730	-.031570	.0153707	.025135	.6560701
#2	-.013045	.0056419	.0087989	-.027246	.0097817	.001768	.6431142
#3	-.015767	.0020107	.0085467	-.026979	.0119208	-.031373	.6507244

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000613**	**.0005610**	**201.2886**	**.0027966**	**.0248284**	**.0025401**	**.0613424**
Stddev	.000071	.0000307	2.4658	.0000558	.0001368	.0015857	.0176340
%RSD	11.63381	5.465765	1.225016	1.994721	.5510555	62.42736	28.74689
#1	-.000614	.0005280	202.9593	.0028406	.0249725	.0018172	.0559383
#2	-.000684	.0005662	198.4565	.0027339	.0247002	.0043584	.0810461
#3	-.000541	.0005887	202.4499	.0028155	.0248125	.0014446	.0470428

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.884968**	**2.391634**	**.0042350**	**-.000149**	**349.8114**	**-.010755**	**.0413056**
Stddev	.043458	.014549	.0007505	.000667	31.0451	.002004	.0007337
%RSD	1.118619	.6083458	17.72083	447.5234	8.874818	18.63327	1.776305
#1	3.917531	2.400603	.0042464	.000494	333.6948	-.008552	.0404640
#2	3.835621	2.399451	.0049798	-.000838	385.6004	-.012469	.0418108
#3	3.901753	2.374846	.0034789	-.000103	330.1391	-.011246	.0416419

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.666626**	**.0038587**	**.0080728**	**.0029079**	**.5705481**	**.8484916**	**.0060928**
Stddev	.140519	.0033054	.0024805	.0002207	.0061602	.0713356	.0007196
%RSD	8.431353	85.66074	30.72652	7.590594	1.079705	8.407340	11.81096
#1	1.608806	.0029073	.0054515	.0028989	.5653478	.8405826	.0055460
#2	1.826831	.0075355	.0103832	.0026918	.5689452	.9234520	.0069080
#3	1.564242	.0011334	.0083837	.0031329	.5773514	.7814401	.0058242

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2388-04 Acquired: 6/25/2025 19:13:36 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.003409**	**-.031873**	**.1982643**
Stddev	.001843	.002660	.0023497
%RSD	54.07707	8.346162	1.185156
#1	-.003991	-.031087	.1997694
#2	-.001345	-.034838	.1955567
#3	-.004891	-.029695	.1994669

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5026.620**	**39764.76**	**2145.943**	**3543.924**	**4952.370**
Stddev	62.087	615.51	172.722	58.774	58.901
%RSD	1.235156	1.547889	8.048791	1.658455	1.189354
#1	5051.682	40220.13	2236.037	3590.078	4980.039
#2	5072.258	40009.65	1946.800	3563.938	4992.341
#3	4955.920	39064.49	2254.991	3477.757	4884.728

Sample Name: Q2389-04 Acquired: 6/25/2025 19:18:08 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003437	k -.001641	.0006092	-.003104	k .0009328	.1550772	.288249
Stddev	.001874	.001681	.0014365	.003673	.0005735	.0165392	.002241
%RSD	54.52268	102.4635	235.7895	118.3334	61.48419	10.66512	.777546
#1	-.004205	k -.000756	.0022516	.000848	k .0009707	.1360597	.289732
#2	-.004805	-.000587	-.000011	-.003748	.0003412	.1661011	.289344
#3	-.001301	-.003580	-.000413	-.006412	.0014864	.1630708	.285670

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006707	.0000411	8.089010	s .0005978	.0043832	.0137868	.015058
Stddev	.0000595	.0001047	.036423	.0003108	.0002181	.0043022	.007422
%RSD	8.863977	254.5755	.4502769	51.98537	4.974847	31.20552	49.2948
#1	.0007366	-.000061	8.127556	s .0008174	.0043074	.0187331	.015328
#2	.0006211	.000148	8.055166	.0007338	.0042132	.0117129	.022342
#3	.0006543	.000036	8.084309	.0002422	.0046291	.0109143	.007503

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2129342	3.468252	.0031634	s .0005296	368.8406	k -.007993	.0880281
Stddev	.0007631	.057041	.0007625	.0007836	69.9885	.003006	.0001048
%RSD	.3583616	1.644666	24.10264	147.9491	18.97528	37.60901	.1190066
#1	.2137413	3.435726	.0026229	s -.000084	449.6536	k -.009043	.0880453
#2	.2122245	3.534116	.0028319	.000261	329.0141	-.004603	.0881232
#3	.2128369	3.434914	.0040356	.001412	327.8540	-.010333	.0879158

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.357446	.0110869	k .0293108	.0006953	.9626745	1.321165	-.000531
Stddev	.339724	.0023379	.0053382	.0003361	.0316121	.210542	.000997
%RSD	14.41066	21.08680	18.21250	48.33763	3.283780	15.93609	187.6828
#1	2.736054	.0112466	k .0353747	.0008310	.9991482	1.563861	-.001462
#2	2.257048	.0133408	.0253204	.0009423	.9431812	1.212147	.000521
#3	2.079237	.0086733	.0272373	.0003126	.9456941	1.187488	-.000653

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2389-04 Acquired: 6/25/2025 19:18:08 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0014103	-.029506	.0509471
Stddev	.0059598	.004590	.0004291
%RSD	422.5994	15.55707	.8422619
#1	.0082921	-.034744	.0504621
#2	-.002024	-.026188	.0512773
#3	-.002037	-.027585	.0511020

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5027.535	^ *****	2115.701	3626.572	5079.872
Stddev	228.904	-----	304.796	16.704	232.898
%RSD	4.553011	-----	14.40640	.4606136	4.584728
#1	4763.331	^ -----	1764.261	3617.215	4810.987
#2	5152.972	40396.88	2275.048	3645.858	5218.458
#3	5166.302	40398.60	2307.794	3616.644	5210.172

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2391-04 Acquired: 6/25/2025 19:22:42 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068805**	**.0039271**	**.0097520**	**-.031195**	**.0672873**	**-.003440**
Stddev	.0025045	.0013625	.0013299	.001274	.0013395	.026844
%RSD	36.40037	34.69393	13.63767	4.085069	1.990789	780.4013
#1	.0074122	.0023778	.0106396	-.030260	.0678194	.022911
#2	.0041528	.0044651	.0103935	-.032646	.0682791	-.002479
#3	.0090764	.0049384	.0082229	-.030678	.0657635	-.030751

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0657584**	**-.000021**	**.0010056**	^ *****	**.0027381**	**.0302485**
Stddev	.0009957	.000151	.0000861	-----	.0008622	.0005359
%RSD	1.514220	725.7560	8.561656	-----	31.48758	1.771556
#1	.0647989	.000114	.0011026	^ -----	.0019050	.0306727
#2	.0667868	-.000184	.0009384	175.6702	.0026828	.0304267
#3	.0656893	.000007	.0009757	175.4183	.0036266	.0296463

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1058732**	**1.083018**	**.1274931**	**8.333586**	**.0081745**	**.0008378**
Stddev	.0033677	.007908	.0018083	.083986	.0007522	.0013173
%RSD	3.180877	.7301711	1.418344	1.007797	9.202221	157.2379
#1	.1096546	1.073939	.1262587	8.262511	.0086524	-.000617
#2	.1047677	1.086712	.1295688	8.426263	.0085636	.001179
#3	.1031971	1.088403	.1266519	8.311986	.0073074	.001951

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**479.1332**	**-.010597**	**.0473831**	**16.88395**	**.0245497**	F **81.66031**
Stddev	127.7621	.007658	.0002511	.30470	.0011900	.93414
%RSD	26.66526	72.26256	.5298266	1.804691	4.847362	1.143934
#1	331.6155	-.009524	.0473539	17.23335	.0234996	82.68052
#2	551.4558	-.003533	.0476474	16.67338	.0243072	80.84691
#3	554.3282	-.018735	.0471479	16.74514	.0258423	81.45350

Sample Name: Q2391-04 Acquired: 6/25/2025 19:22:42 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0468006	F 33.39742	1.694020	.0057546	-.001755	-.005793
Stddev	.0007881	.69470	.020552	.0011464	.001914	.000809
%RSD	1.683864	2.080113	1.213186	19.92070	109.0155	13.96753
#1	.0462335	33.00535	1.717452	.0070179	-.003955	-.004861
#2	.0464678	34.19952	1.685551	.0047806	-.000834	-.006205
#3	.0477005	32.98738	1.679055	.0054653	-.000477	-.006313

Elem	Sr4077
Units	ppm
Avg	^ *****
Stddev	-----
%RSD	-----
#1	^ -----
#2	.5192567
#3	.5174158

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4691.092	37244.14	2159.309	3359.337	4686.359
Stddev	133.644	243.75	39.007	1.008	134.744
%RSD	2.848887	.6544589	1.806469	.0299927	2.875246
#1	4760.104	37319.02	2114.725	3358.885	4757.263
#2	4537.050	37441.66	2187.150	3360.491	4530.968
#3	4776.120	36971.73	2176.050	3358.634	4770.847

Sample Name: Q2394-04 Acquired: 6/25/2025 19:29:56 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba493
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003220	k -.002307	k .0026766	s -.001335	s .0004620	k .2872437	.3128987
Stddev	.004711	.001664	.0014649	.002164	.0034023	.0053143	.0063295
%RSD	146.2840	72.14235	54.72940	162.0534	736.4933	1.850094	2.022695
#1	-.005601	-.002510	.0041287	-.003770	-.001121	.2847592	.3102677
#2	-.006266	k -.000550	k .0011993	s -.000603	s .004367	k .2933451	.3083098
#3	.002206	-.003860	.0027019	.000367	-.001861	.2836266	.3201188

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe259
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .0006107	.0001468	5.448673	.0000799	k .0137262	k .0115091	.1746361
Stddev	.0001798	.0000569	.049344	.0002778	.0001218	.0029380	.0081397
%RSD	29.44215	38.74673	.9056195	347.5285	.8872225	25.52791	4.661025
#1	.0007582	.0001763	5.392175	.0000418	.0138463	.0148872	.1836097
#2	k .0004104	.0001830	5.483313	.0003748	k .0136028	k .0095499	.1677271
#3	.0006634	.0000813	5.470529	-.000177	.0137295	.0100901	.1725720

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn213
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5134361	4.002662	.0056241	k .0005704	355.4339	k .0010951	.1024770
Stddev	.0009459	.023847	.0000772	.0002087	48.8681	.0085469	.0012199
%RSD	.1842204	.5957847	1.373234	36.59579	13.74885	780.5026	1.190412
#1	.5123978	4.020922	.0056585	.0003609	411.8598	-.001229	.1023181
#2	.5136618	3.975682	.0055356	k .0005719	326.8037	k -.006049	.1013444
#3	.5142486	4.011383	.0056781	.0007784	327.6382	.010564	.1037686

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6292478	k .0089154	k .2168357	s .0005860	k .5293469	k .6410875	.0006900
Stddev	.0923511	.0013925	.0366473	.0006882	.0133055	.0899150	.0008256
%RSD	14.67643	15.61950	16.90094	117.4442	2.513579	14.02539	119.6477
#1	.7357617	.0084173	.2591239	.0004571	.5151114	.7446315	.0012532
#2	.5715396	k .0104885	k .1943491	s .0013295	k .5314598	k .5827051	-.000258
#3	.5804420	.0078405	.1970342	-.000029	.5414696	.5959260	.001075

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2394-04 Acquired: 6/25/2025 19:29:56 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0043267	-.026893	.0474239
Stddev	.0044479	.002908	.0000654
%RSD	102.7991	10.81418	.1378494
#1	-.000344	-.026004	.0473488
#2	.008511	-.024532	.0474547
#3	.004813	-.030141	.0474682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	40486.19	2112.632	3629.441	5016.802
Stddev	-----	148.23	278.848	10.469	146.896
%RSD	-----	.3661343	13.19907	.2884437	2.928087
#1	5118.667	40324.66	1791.670	3618.274	5181.378
#2	^ -----	40517.91	2295.324	3631.016	4970.075
#3	4853.141	40615.99	2250.903	3639.034	4898.952

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2399-04 Acquired: 6/25/2025 19:34:27 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.017754**	**-.001648**	**.0108166**	**-.026148**	**.0070322**	**.2088446**	**.3347595**
Stddev	.003520	.003769	.0005457	.003344	.0021263	.0073189	.0008421
%RSD	19.82488	228.7034	5.044889	12.78974	30.23648	3.504484	.2515595
#1	-.014241	-.000920	.0106247	-.025365	.0058631	.2100850	.3357303
#2	-.021280	.001704	.0103927	-.029815	.0094865	.2154641	.3342265
#3	-.017742	-.005728	.0114323	-.023265	.0057470	.2009847	.3343217

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002839**	**.0001718**	**91.76576**	**.0083178**	**.0178863**	**.0125078**	**.1256021**
Stddev	.0001751	.0000909	.40597	.0005868	.0007893	.0015720	.0049296
%RSD	61.65672	52.90706	.4423950	7.054218	4.412978	12.56797	3.924732
#1	.0001609	.0002174	92.19176	.0077169	.0182599	.0134539	.1273004
#2	.0002066	.0002309	91.72217	.0083473	.0184195	.0106932	.1294580
#3	.0004844	.0000672	91.38335	.0088894	.0169795	.0133763	.1200479

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1745937**	**11.01608**	**.0100876**	**-.000271**	**365.7987**	**.0009331**	**.1117378**
Stddev	.0016459	.03095	.0002382	.001570	154.8643	.0099013	.0021306
%RSD	.9427201	.2809162	2.361755	579.6497	42.33593	1061.103	1.906803
#1	.1739353	11.04942	.0098427	.001541	410.4465	.0121902	.1108414
#2	.1733789	11.01055	.0101016	-.001127	193.5153	-.002965	.1102019
#3	.1764669	10.98827	.0103185	-.001226	493.4345	-.006426	.1141702

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	**.0167913**	**.1479287**	**.0030135**	**1.553584**	**2.203699**	**.0039198**
Stddev	-----	.0010292	.0130652	.0002744	.017646	.175606	.0012504
%RSD	-----	6.129287	8.832122	9.105304	1.135857	7.968685	31.89876
#1	2.347795	.0177379	.1582407	.0027398	1.566498	2.289394	.0051720
#2	2.038226	.0156957	.1332361	.0032886	1.560777	2.001699	.0026713
#3	^ -----	.0169403	.1523093	.0030119	1.533477	2.320005	.0039162

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2399-04 Acquired: 6/25/2025 19:34:27 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0063794	-.029505	.5374349
Stddev	.0035823	.005602	.0024098
%RSD	56.15422	18.98809	.4483945
#1	.0103131	-.030715	.5398626
#2	.0033045	-.034403	.5373986
#3	.0055208	-.023396	.5350434

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4708.007	37260.66	2016.146	3372.070	4667.533
Stddev	18.820	4524.04	305.675	343.913	16.932
%RSD	.3997515	12.14160	15.16135	10.19887	.3627645
#1	4729.310	40114.47	2035.067	3595.717	4680.642
#2	4693.633	39623.05	2311.920	3544.435	4648.416
#3	4701.079	32044.45	1701.450	2976.059	4673.540

Sample Name: Q2399-08 Acquired: 6/25/2025 19:39:01 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.016907**	**-.002438**	**.0072604**	**-.017745**	**.0038715**	**.1012291**	**.2939415**
Stddev	.001141	.002234	.0020522	.001974	.0018266	.0148276	.0013974
%RSD	6.748716	91.60432	28.26560	11.12535	47.18042	14.64753	.4753895
#1	-.015790	-.001514	.0070685	-.018971	.0028454	.1140904	.2923881
#2	-.016861	-.000816	.0053109	-.018797	.0059804	.0850109	.2950962
#3	-.018071	-.004986	.0094018	-.015468	.0027887	.1045858	.2943402

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002942**	**.0002827**	**51.87294**	**.0005837**	**.0146362**	**.0458685**	**.0387392**
Stddev	.0003193	.0000467	.29582	.0010468	.0003981	.0093081	.0206649
%RSD	108.5265	16.50139	.5702741	179.3315	2.719921	20.29296	53.34364
#1	.0000624	.0003290	52.21173	-.000578	.0142447	.0403715	.0178862
#2	.0006584	.0002357	51.74135	.001453	.0150406	.0566156	.0391206
#3	.0001619	.0002833	51.66575	.000877	.0146232	.0406184	.0592108

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1717009**	**13.21298**	**.0032240**	**-.000684**	**426.8182**	**-.001918**	**.1006326**
Stddev	.0010124	.04293	.0002064	.001213	75.4813	.010971	.0005708
%RSD	.5896395	.3249197	6.402760	177.1682	17.68464	571.8821	.5671948
#1	.1728697	13.24676	.0030400	-.002020	373.9289	-.007231	.1011109
#2	.1711389	13.16467	.0034472	.000347	513.2584	.010698	.1007861
#3	.1710942	13.22752	.0031850	-.000381	393.2673	-.009222	.1000008

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.170668**	**.0346098**	**.1088925**	**.0017326**	**.6866513**	**1.582426**	**.0026378**
Stddev	.201121	.0023659	.0190571	.0003713	.0024500	.278035	.0008601
%RSD	17.18004	6.835775	17.50087	21.43125	.3568090	17.57018	32.60738
#1	1.054386	.0363478	.1001138	.0017813	.6845609	1.423454	.0023657
#2	1.402903	.0355660	.1307569	.0020771	.6893474	1.903469	.0036011
#3	1.054715	.0319155	.0958069	.0013393	.6860456	1.420356	.0019467

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2399-08 Acquired: 6/25/2025 19:39:01 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001578**	**-.026749**	**.1988241**
Stddev	.002735	.006900	.0008374
%RSD	173.2859	25.79660	.4211951
#1	.001098	-.020297	.1997257
#2	-.004369	-.034024	.1980705
#3	-.001464	-.025926	.1986760

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4822.660**	**40480.20**	**2109.592**	**3615.805**	**4800.735**
Stddev	29.363	318.13	332.259	34.045	24.697
%RSD	.6088606	.7858782	15.74990	.9415586	.5144434
#1	4825.413	40152.90	2279.389	3588.995	4800.070
#2	4850.550	40499.41	1726.746	3604.310	4825.758
#3	4792.017	40788.28	2322.641	3654.109	4776.378

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2405-04 Acquired: 6/25/2025 19:43:33 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005997**	**-.002509**	**.0034386**	**-.001237**	**.0001355**	**.0725632**	**.3617854**
Stddev	.003731	.001388	.0006421	.001781	.0013771	.0291362	.0022013
%RSD	62.22172	55.33433	18.67381	143.9633	1016.124	40.15282	.6084468
#1	-.010125	-.003847	.0027515	-.000969	-.001147	.1061802	.3613311
#2	-.005000	-.001075	.0040235	.000395	-.000038	.0545968	.3598466
#3	-.002865	-.002606	.0035407	-.003137	.001591	.0569127	.3641783

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003090**	**.0001452**	**5.930000**	**.0000658**	**.0043801**	**.0181134**	**-.004095**
Stddev	.0001093	.0001258	.024511	.0004219	.0000449	.0003729	.014917
%RSD	35.37569	86.62832	.4133438	641.4820	1.024908	2.058781	364.2498
#1	.0004352	.0001667	5.911152	.0001847	.0043307	.0177474	-.010581
#2	.0002508	.0000100	5.921138	-.000403	.0043914	.0181000	.012967
#3	.0002412	.0002588	5.957710	.000415	.0044183	.0184929	-.014671

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0505164**	**1.121696**	**.0010982**	**.0003924**	**354.2645**	**-.002169**	**.0861525**
Stddev	.0007520	.019680	.0002046	.0005771	6.6493	.012417	.0006640
%RSD	1.488601	1.754501	18.62781	147.0850	1.876935	572.3968	.7707540
#1	.0511532	1.101734	.0013293	.0004264	346.6161	.007575	.0854406
#2	.0496868	1.122272	.0010253	-.000201	357.5062	-.016150	.0862619
#3	.0507094	1.141082	.0009401	.000952	358.6713	.002067	.0867551

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.597882**	**.0138479**	**.0728512**	**.0005959**	**.7618521**	**.6442283**	**-.001373**
Stddev	.036542	.0007811	.0017180	.0000991	.0047366	.0155049	.001671
%RSD	2.286886	5.640667	2.358204	16.62716	.6217194	2.406733	121.7517
#1	1.570930	.0137784	.0730815	.0004950	.7669541	.6323071	-.001321
#2	1.583243	.0131039	.0710297	.0006930	.7610075	.6386210	.000272
#3	1.639474	.0146614	.0744424	.0005998	.7575946	.6617567	-.003070

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2405-04 Acquired: 6/25/2025 19:43:33 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001292**	**-.036966**	**.0369922**
Stddev	.003284	.001176	.0005055
%RSD	254.0890	3.181251	1.366592
#1	-.003925	-.037220	.0367566
#2	-.002340	-.037994	.0366475
#3	.002387	-.035683	.0375726

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5145.892**	**40156.98**	**2278.844**	**3600.564**	**5233.929**
Stddev	19.809	152.13	28.706	19.875	23.204
%RSD	.3849468	.3788361	1.259692	.5519992	.4433376
#1	5123.551	39996.66	2300.318	3583.475	5207.138
#2	5161.312	40174.95	2289.976	3595.843	5246.976
#3	5152.812	40299.32	2246.239	3622.375	5247.672

Sample Name: PB168571TB Acquired: 6/25/2025 19:48:09 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001172**	**-.002218**	**.0007303**	**.0038646**	**-.001765**	**-.020975**	**-.001510**
Stddev	.003095	.000407	.0006955	.0036177	.001956	.024902	.000955
%RSD	264.1100	18.34123	95.22910	93.61107	110.8351	118.7259	63.23904
#1	.001302	-.002235	.0008874	.0034796	-.002297	-.022124	-.000459
#2	-.000175	-.001802	-.000030	.0004548	.000402	.004483	-.002325
#3	-.004643	-.002615	.001334	.0076594	-.003400	-.045283	-.001745

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000137**	**-.000077**	**-.036302**	**.0003777**	**.0001850**	**.0000912**	**-.000761**
Stddev	.000034	.000046	.020594	.0019715	.0003297	.0006425	.006492
%RSD	25.03747	60.24101	56.72852	521.9678	178.1778	704.7127	852.6874
#1	-.000176	-.000031	-.026269	.0026425	.0004497	-.000641	-.000962
#2	-.000123	-.000123	-.022648	-.000554	-.000184	.000561	-.007151
#3	-.000112	-.000076	-.059990	-.000955	.000290	.000354	.005828

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078995**	**.0253936**	**.0006680**	**.0010139**	**264.7887**	**-.007653**	**.0003148**
Stddev	.0013965	.0442198	.0004045	.0011597	.6184	.009710	.0005695
%RSD	17.67849	174.1379	60.55636	114.3862	.2335508	126.8814	180.9219
#1	.0089782	.0709630	.0009153	-.000058	264.8610	.001672	-.000027
#2	.0063221	-.017340	.0002012	.000855	264.1374	-.006924	-.000001
#3	.0083982	.022558	.0008876	.002245	265.3679	-.017706	.000972

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0692028**	**.0004101**	**.0264736**	**.0001321**	**.0486926**	**-.000087**	**-.001264**
Stddev	.0021141	.0013758	.0006193	.0003156	.0018753	.001471	.000852
%RSD	3.054946	335.5298	2.339517	238.9596	3.851390	1688.262	67.40385
#1	.0704652	.0019894	.0259281	.0001296	.0486330	-.001600	-.001568
#2	.0703810	-.000231	.0271469	.0004490	.0468478	.001337	-.001923
#3	.0667621	-.000529	.0263458	-.000182	.0505970	.000002	-.000302

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: PB168571TB Acquired: 6/25/2025 19:48:09 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000032**	**-.029015**	**-.000123**
Stddev	.001277	.000734	.000088
%RSD	4049.978	2.529340	71.09799
#1	-.000643	-.029840	-.000126
#2	.001436	-.028433	-.000210
#3	-.000888	-.028772	-.000035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5175.015**	**40948.85**	**2275.131**	**3649.310**	**5333.865**
Stddev	3.506	19.52	2.658	17.689	4.647
%RSD	.0677534	.0476603	.1168493	.4847339	.0871218
#1	5175.939	40930.36	2272.091	3629.936	5328.648
#2	5177.966	40946.92	2276.285	3664.602	5337.559
#3	5171.139	40969.25	2277.018	3653.392	5335.390

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV05 Acquired: 6/25/2025 19:52:47 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin 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	**5.065220**	**5.063290**	**5.077366**	**5.121326**	**5.148134**	**10.30761**	**10.31725**
Stddev	.034188	.015271	.023297	.036894	.019547	.04812	.02955
%RSD	.6749548	.3016020	.4588393	.7203966	.3796815	.4668593	.2863736
#1	5.044494	5.061399	5.076667	5.113006	5.135387	10.27443	10.30208
#2	5.046486	5.049053	5.054427	5.089304	5.138377	10.28560	10.29837
#3	5.104680	5.079418	5.101005	5.161670	5.170638	10.36280	10.35130

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2708961**	**2.547436**	**25.75949**	**1.045538**	**2.544470**	**1.342510**	**5.121733**
Stddev	.0020415	.011829	.11543	.003779	.009869	.012092	.042978
%RSD	.7536204	.4643478	.4481140	.3614232	.3878439	.9006682	.8391211
#1	.2688440	2.545079	25.72497	1.049827	2.541540	1.331144	5.072637
#2	.2729269	2.536963	25.66526	1.042700	2.536399	1.355215	5.152549
#3	.2709175	2.560266	25.88825	1.044087	2.555472	1.341172	5.140012

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.557553**	**25.61063**	**2.532840**	**1.286669**	**26.11757**	**2.565474**	**2.569738**
Stddev	.012478	.14650	.011620	.008281	.23410	.014248	.005401
%RSD	.4878900	.5720114	.4587867	.6436232	.8963493	.5553837	.2101643
#1	2.549844	25.44943	2.533016	1.295308	25.92897	2.556426	2.572656
#2	2.550865	25.64683	2.521133	1.278799	26.37959	2.558098	2.573052
#3	2.571949	25.73564	2.544372	1.285900	26.04416	2.581898	2.563506

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.57218**	**5.153556**	**5.353887**	**5.139474**	**5.136031**	**5.321567**	**5.107918**
Stddev	.03029	.025489	.061968	.020768	.024258	.064743	.019727
%RSD	.1184675	.4945890	1.157445	.4040951	.4723117	1.216619	.3861952
#1	25.54220	5.151305	5.296767	5.131987	5.143880	5.257099	5.102477
#2	25.57156	5.129268	5.419770	5.123487	5.108820	5.386582	5.091483
#3	25.60278	5.180096	5.345123	5.162947	5.155393	5.321018	5.129794

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV05 Acquired: 6/25/2025 19:52:47 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.190163**	**5.280307**	**5.242984**
Stddev	.024755	.007870	.019245
%RSD	.4769566	.1490531	.3670636
#1	5.165341	5.289351	5.234114
#2	5.190299	5.276553	5.229774
#3	5.214850	5.275016	5.265065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5065.907**	**40909.89**	**2206.804**	**3614.378**	**5203.005**
Stddev	5.084	305.56	14.557	24.737	3.384
%RSD	.1003603	.7469105	.6596382	.6844091	.0650461
#1	5066.797	40733.17	2223.603	3593.321	5201.869
#2	5060.436	41262.72	2198.890	3641.621	5200.335
#3	5070.487	40733.78	2197.917	3608.190	5206.812

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB05 Acquired: 6/25/2025 19:57:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000878**	**-.000035**	**.0005948**	**.0002870**	**-.001956**	**-.018647**
Stddev	.002727	.001327	.0009674	.0011418	.002875	.005568
%RSD	310.4606	3765.099	162.6295	397.8496	146.9802	29.86032
#1	-.000723	-.000251	.0017096	.0004713	.001091	-.019728
#2	.001768	-.001241	.0000984	-.000936	-.002339	-.012618
#3	-.003679	.001386	-.000024	.001325	-.004620	-.023595

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001283**	**-.000005**	**.0000336**	**-.018526**	**-.000291**	**.0001590**
Stddev	.000982	.000201	.0000411	.013871	.000455	.0003481
%RSD	76.54157	3872.305	122.2062	74.87201	156.0608	218.8655
#1	-.002310	-.000119	.0000783	-.010302	.000143	.0002435
#2	-.000354	-.000123	-.000003	-.034541	-.000764	-.000224
#3	-.001185	.000226	.000025	-.010736	-.000253	.000457

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000054**	**-.002585**	**.0010292**	**.0205680**	**.0001040**	**.0002132**
Stddev	.000838	.024858	.0005670	.0526728	.0001439	.0004834
%RSD	1543.686	961.4824	55.09509	256.0910	138.4735	226.7515
#1	-.000346	-.029989	.0016731	-.006784	.0002010	.0001134
#2	.000891	.003717	.0008098	-.012802	-.000061	-.000213
#3	-.000708	.018515	.0006046	.081290	.000172	.000739

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0850778**	**-.007028**	**-.001003**	**.0073181**	**.0000788**	**.0319058**
Stddev	.0194360	.004757	.000093	.0008023	.0008965	.0001105
%RSD	22.84502	67.68978	9.258595	10.96385	1137.427	.3461985
#1	.0996825	-.012426	-.000957	.0067550	.0011097	.0320238
#2	.0925329	-.003449	-.001109	.0069626	-.000355	.0318889
#3	.0630178	-.005208	-.000941	.0082368	-.000518	.0318048

Sample Name: CCB05 Acquired: 6/25/2025 19:57:04 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000084**	**-.000859**	**.0041074**	**-.001159**	**-.001006**	F **.0164261**
Stddev	.000052	.001343	.0013384	.000676	.001450	.0040745
%RSD	62.48475	156.2937	32.58543	58.28435	144.0988	24.80519
#1	-.000028	-.001869	.0049072	-.001897	-.002518	.0210368
#2	-.000091	.000665	.0025622	-.001009	.000372	.0149321
#3	-.000132	-.001374	.0048526	-.000571	-.000872	.0133095

Elem	Sr4077
Units	ppm
Avg	**.0001409**
Stddev	.0000552
%RSD	39.16020
#1	.0001398
#2	.0001967
#3	.0000863

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5414.496**	**43757.69**	**2308.243**	**3844.992**	**6083.921**
Stddev	11.607	160.71	20.532	15.499	10.879
%RSD	.2143738	.3672745	.8895190	.4030910	.1788221
#1	5410.040	43796.12	2328.436	3837.827	6076.433
#2	5405.776	43895.70	2308.906	3862.777	6078.930
#3	5427.670	43581.25	2287.388	3834.372	6096.401

Sample Name: PB168613BL Acquired: 6/25/2025 20:01:34 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000483**	**-.000487**	**.0009304**	**.0019702**	**-.002632**	**.0053239**	**-.001573**
Stddev	.001922	.000928	.0010264	.0020396	.002511	.0262040	.001019
%RSD	398.3222	190.5770	110.3253	103.5248	95.38786	492.1995	64.79910
#1	.001652	-.001402	.0019848	-.000153	-.002769	.0203472	-.002402
#2	-.001022	.000453	-.000066	.003915	-.000056	.0205581	-.000435
#3	-.002078	-.000511	.000872	.002149	-.005071	-.024934	-.001880

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000082**	**.0000669**	**-.044312**	**-.001158**	**-.000089**	**-.000016**	**-.011930**
Stddev	.000057	.0000750	.022306	.001215	.000246	.000287	.016700
%RSD	69.67653	112.1508	50.33769	104.8809	277.4252	1773.277	139.9834
#1	-.000045	.0001501	-.018561	-.001986	-.000300	-.000343	-.030526
#2	-.000052	.0000045	-.056748	-.001725	-.000148	.000101	.001788
#3	-.000147	.0000460	-.057628	.000236	.000181	.000194	-.007052

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037966**	**.0400268**	**-.000132**	**.0013859**	**.0816868**	**-.010249**	**-.000375**
Stddev	.0006051	.0222331	.000349	.0003774	.0119451	.010840	.000460
%RSD	15.93711	55.54555	265.5003	27.23283	14.62302	105.7681	122.6747
#1	.0032860	.0487990	.000270	.0012634	.0883458	-.022382	.000094
#2	.0044649	.0565355	-.000369	.0010850	.0888181	-.006850	-.000394
#3	.0036389	.0147458	-.000296	.0018094	.0678965	-.001516	-.000825

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068015**	**.0013797**	**.0181627**	**-.000033**	**.0005665**	**.0075370**	**-.001642**
Stddev	.0005625	.0017746	.0007137	.000332	.0026435	.0017798	.000702
%RSD	8.269680	128.6272	3.929585	1006.741	466.6787	23.61365	42.73219
#1	.0071005	.0029527	.0186464	-.000257	.0021310	.0055133	-.001116
#2	.0071512	-.000544	.0184987	.000348	-.002486	.0088588	-.001371
#3	.0061526	.001730	.0173430	-.000189	.002054	.0082390	-.002439

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: PB168613BL Acquired: 6/25/2025 20:01:34 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.001334**	**-.006225**	**.0000652**
Stddev	.002329	.006217	.0002028
%RSD	174.5584	99.87077	311.0007
#1	-.000089	-.005700	.0001916
#2	.000108	-.000287	.0001727
#3	-.004021	-.012688	-.000169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5425.911**	**43663.44**	**2326.478**	**3826.780**	**6106.302**
Stddev	11.152	171.54	19.886	12.190	12.190
%RSD	.2055257	.3928760	.8547657	.3185388	.1996256
#1	5413.434	43861.35	2317.945	3833.508	6092.320
#2	5429.394	43557.32	2312.282	3812.708	6114.698
#3	5434.906	43571.65	2349.206	3834.122	6111.888

Sample Name: PB168613BS Acquired: 6/25/2025 20:06:03 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7232583**	**1.962754**	**.9486105**	**1.971423**	**.7987644**	**1.988872**	**.1989380**
Stddev	.0035183	.002925	.0018918	.001115	.0034099	.030881	.0007149
%RSD	.4864472	.1490089	.1994234	.0565452	.4268917	1.552702	.3593443
#1	.7210879	1.960156	.9468206	1.970179	.8018196	2.009475	.1995705
#2	.7213694	1.965922	.9484212	1.971759	.7950858	1.953366	.1981624
#3	.7273176	1.962184	.9505898	1.972331	.7993878	2.003777	.1990812

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2181971**	**.1890265**	**1.014386**	**.4065894**	**.1933965**	**.3315136**	**3.150061**
Stddev	.0018001	.0001985	.006775	.0022568	.0004884	.0030474	.023248
%RSD	.8249828	.1049848	.6678507	.5550506	.2525280	.9192450	.7380281
#1	.2198657	.1887995	1.011832	.4090607	.1933700	.3337443	3.123216
#2	.2162894	.1891668	1.009261	.4060696	.1929219	.3280414	3.163504
#3	.2184361	.1891134	1.022067	.4046378	.1938976	.3327551	3.163462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2081350**	**2.069299**	**.4825365**	**.0762803**	**2.931354**	**.2953789**	**.2059843**
Stddev	.0011580	.019309	.0005421	.0007006	.036650	.0057687	.0002137
%RSD	.5563692	.9331388	.1123514	.9184849	1.250278	1.952975	.1037611
#1	.2094708	2.056035	.4819105	.0765689	2.971708	.3015111	.2061906
#2	.2075192	2.091452	.4828476	.0754814	2.900136	.2900600	.2059984
#3	.2074151	2.060411	.4828515	.0767904	2.922219	.2945658	.2057638

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.449765**	**5.539167**	**.3204654**	**.3988428**	**.0011679**	**.9676541**	**.6690466**
Stddev	.083011	.003832	.0018509	.0003939	.0018774	.0103404	.0011347
%RSD	.9824036	.0691725	.5775612	.0987485	160.7488	1.068607	.1696003
#1	8.533127	5.535158	.3216145	.3983883	.0033238	.9735485	.6682169
#2	8.367110	5.542792	.3183303	.3990578	-.000107	.9557143	.6703396
#3	8.449057	5.539550	.3214514	.3990824	.000287	.9736994	.6685832

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: PB168613BS Acquired: 6/25/2025 20:06:03 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1977977	.1951461	.2044650
Stddev	.0030731	.0026960	.0004856
%RSD	1.553640	1.381539	.2374971
#1	.1975534	.1943676	.2049460
#2	.2009856	.1981458	.2039750
#3	.1948541	.1929251	.2044740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5354.938	43084.81	2289.298	3791.204	5869.488
Stddev	5.640	74.27	13.054	9.134	4.408
%RSD	.1053215	.1723899	.5702030	.2409265	.0750946
#1	5360.195	43005.88	2278.876	3787.731	5873.568
#2	5348.981	43095.23	2303.939	3784.315	5864.813
#3	5355.637	43153.33	2285.079	3801.565	5870.082

Sample Name: Q2409-02 Acquired: 6/25/2025 20:10:24 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011700**	**-.001244**	**.0303441**	**-.009285**	**.0125145**	**.4112920**	**.1499915**
Stddev	.004572	.001246	.0019297	.003066	.0017050	.0242806	.0022793
%RSD	39.07543	100.1982	6.359257	33.01683	13.62427	5.903494	1.519621
#1	-.013398	-.001626	.0310421	-.012684	.0106410	.4356761	.1474569
#2	-.015181	-.002255	.0318277	-.008442	.0129274	.4110836	.1506450
#3	-.006522	.000149	.0281626	-.006729	.0139751	.3871162	.1518728

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000078**	**.0131912**	**34.14211**	**.0020254**	**.0123917**	**.0185621**	**.1843085**
Stddev	.0000311	.0001685	.20930	.0008280	.0002092	.0005023	.0005432
%RSD	397.6847	1.277423	.6130168	40.87933	1.688615	2.705821	.2947475
#1	-.000012	.0132307	33.90184	.0024917	.0124391	.0190245	.1837482
#2	.000044	.0130065	34.23972	.0010694	.0121628	.0180277	.1843446
#3	-.000008	.0133365	34.28477	.0025150	.0125732	.0186340	.1848329

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012824**	**2.978351**	**.0025494**	**.0002450**	**394.0711**	**-.007308**	**.1129728**
Stddev	.0010991	.041533	.0002031	.0008963	3.5175	.000366	.0008103
%RSD	1.085146	1.394496	7.966194	365.9095	.8925942	5.009368	.7172212
#1	.1022142	2.930582	.0023151	.0011336	390.3735	-.007281	.1137796
#2	.1000703	3.005920	.0026745	.0002602	397.3754	-.007686	.1121591
#3	.1015626	2.998552	.0026588	-.000659	394.4644	-.006955	.1129796

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.272856**	**.1385323**	**.0295691**	**.0018631**	**1.562598**	**1.584455**	**.0017064**
Stddev	.005741	.0015336	.0026223	.0001265	.004871	.011828	.0003214
%RSD	.4510066	1.107012	8.868492	6.787345	.3117354	.7465089	18.83578
#1	1.266813	.1383788	.0265412	.0017301	1.558998	1.571444	.0020006
#2	1.273519	.1370812	.0311013	.0019818	1.560655	1.587366	.0013633
#3	1.278236	.1401368	.0310649	.0018773	1.568141	1.594556	.0017553

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02 Acquired: 6/25/2025 20:10:24 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0068859	-.031719	.2205210
Stddev	.0056263	.004952	.0014184
%RSD	81.70644	15.61107	.6432225
#1	.0005066	-.033776	.2189201
#2	.0111399	-.026070	.2216211
#3	.0090113	-.035310	.2210219

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5085.807	39754.90	2246.647	3570.841	5124.031
Stddev	29.899	82.30	20.014	7.583	25.305
%RSD	.5878971	.2070174	.8908600	.2123624	.4938410
#1	5111.433	39694.41	2269.331	3562.890	5146.012
#2	5093.031	39848.62	2239.133	3577.993	5129.712
#3	5052.958	39721.66	2231.477	3571.639	5096.369

Sample Name: Q2409-02DUP Acquired: 6/25/2025 20:14:56 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.013244**	**-.003118**	**.0308565**	**-.012294**	**.0111816**	**.4109959**	**.1463340**
Stddev	.001035	.000296	.0010696	.004633	.0026105	.0134086	.0005379
%RSD	7.817670	9.483470	3.466306	37.68356	23.34682	3.262462	.3675652
#1	-.012049	-.002813	.0320316	-.008986	.0083258	.4260286	.1468820
#2	-.013868	-.003403	.0299398	-.010307	.0134451	.4066898	.1458068
#3	-.013814	-.003138	.0305980	-.017588	.0117738	.4002694	.1463132

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000072**	**.0129763**	**33.21601**	**.0038483**	**.0120639**	**.0165445**	**.1999050**
Stddev	.000016	.0000268	.08525	.0003746	.0002907	.0009642	.0157375
%RSD	22.80363	.2066499	.2566429	9.734810	2.409834	5.827879	7.872518
#1	-.000057	.0129509	33.31073	.0042458	.0118558	.0170870	.1898666
#2	-.000071	.0130043	33.14546	.0035017	.0119397	.0171152	.2180426
#3	-.000089	.0129738	33.19184	.0037975	.0123961	.0154313	.1918056

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0992150**	**2.871521**	**.0038011**	**-.000444**	**383.5830**	**-.005721**	**.1102232**
Stddev	.0016257	.006873	.0003641	.000293	2.7354	.006455	.0004870
%RSD	1.638592	.2393402	9.577660	65.96561	.7131192	112.8337	.4418362
#1	.1010581	2.868429	.0037192	-.000168	384.3114	-.013156	.1106604
#2	.0979848	2.879396	.0034850	-.000413	380.5571	-.002462	.1103109
#3	.0986020	2.866737	.0041992	-.000752	385.8804	-.001545	.1096983

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.234791**	**.1337745**	**.0243428**	**.0021426**	**1.504541**	**1.557125**	**.0012512**
Stddev	.008602	.0019551	.0019287	.0006373	.003620	.010061	.0004387
%RSD	.6966638	1.461469	7.922929	29.74537	.2406116	.6461364	35.06282
#1	1.240083	.1315305	.0265192	.0017744	1.507152	1.562406	.0007531
#2	1.224865	.1346834	.0228458	.0017750	1.500408	1.545523	.0014203
#3	1.239425	.1351098	.0236633	.0028785	1.506062	1.563446	.0015802

Sample Name: Q2409-02DUP Acquired: 6/25/2025 20:14:56 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0102731	-.028229	.2148469
Stddev	.0024173	.001815	.0011328
%RSD	23.53049	6.431026	.5272638
#1	.0098969	-.027255	.2160075
#2	.0128564	-.027108	.2137441
#3	.0080659	-.030323	.2147891

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5162.349	40530.02	2306.572	3638.123	5206.290
Stddev	9.553	211.77	8.222	16.573	12.800
%RSD	.1850598	.5225055	.3564475	.4555319	.2458539
#1	5169.618	40633.74	2306.128	3633.462	5220.054
#2	5151.529	40286.38	2315.006	3624.380	5194.744
#3	5165.901	40669.94	2298.581	3656.527	5204.072

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02LX5 Acquired: 6/25/2025 20:19:26 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003822**	**-.001181**	**.0067597**	**-.002992**	**.0022091**	**.0862676**	**.0296231**
Stddev	.002227	.000608	.0015319	.001211	.0030583	.0261042	.0003745
%RSD	58.27163	51.48340	22.66222	40.48220	138.4409	30.25952	1.264174
#1	-.003992	-.000480	.0052468	-.001734	-.000885	.0764024	.0292315
#2	-.001514	-.001493	.0083099	-.004150	.002281	.0665338	.0296598
#3	-.005959	-.001570	.0067223	-.003091	.005231	.1158667	.0299778

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000619**	**.0025638**	**6.876763**	**.0005246**	**.0037283**	**.0037294**	**.0371106**
Stddev	.0000253	.0000260	.008076	.0008253	.0003636	.0004552	.0133840
%RSD	40.92110	1.015556	.1174375	157.3139	9.751768	12.20566	36.06518
#1	.0000848	.0025843	6.879099	.0013690	.0038611	.0035811	.0293320
#2	.0000347	.0025726	6.867777	-.000280	.0040068	.0042402	.0294348
#3	.0000661	.0025345	6.883414	.000485	.0033170	.0033668	.0525651

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0231888**	**.6136950**	**.0004763**	**.0002453**	**89.73311**	**-.004243**	**.0213545**
Stddev	.0007936	.0507480	.0001463	.0015708	.22270	.005462	.0005512
%RSD	3.422244	8.269252	30.71958	640.3280	.2481812	128.7358	2.581323
#1	.0236216	.5948097	.0005588	.0014893	89.91112	-.008881	.0219123
#2	.0236719	.5750974	.0003074	-.001520	89.48339	.001778	.0208101
#3	.0222729	.6711780	.0005627	.000766	89.80483	-.005625	.0213411

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2195511**	**.0258209**	**.0061563**	**.0003926**	**.2991525**	**.3402811**	**-.000885**
Stddev	.0007956	.0007461	.0012566	.0003135	.0035557	.0033046	.000459
%RSD	.3623915	2.889690	20.41170	79.84206	1.188600	.9711498	51.84935
#1	.2204083	.0263297	.0047407	.0007139	.2984105	.3429059	-.000472
#2	.2194087	.0249644	.0065883	.0003763	.2960263	.3365700	-.001379
#3	.2188362	.0261687	.0071400	.0000876	.3030206	.3413673	-.000805

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02LX5 Acquired: 6/25/2025 20:19:26 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006674	.0241347	.0444882
Stddev	.0021613	.0018185	.0001099
%RSD	323.8710	7.534765	.2470561
#1	-.000298	.0260134	.0446151
#2	-.000843	.0240077	.0444234
#3	.003143	.0223830	.0444262

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5211.437	41503.44	2272.790	3668.558	5491.696
Stddev	5.574	35.92	3.231	2.209	1.354
%RSD	.1069626	.0865453	.1421735	.0602099	.0246609
#1	5205.075	41494.49	2272.139	3668.826	5490.591
#2	5213.771	41472.85	2276.297	3666.228	5491.289
#3	5215.465	41542.99	2269.933	3670.621	5493.207

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02MS Acquired: 6/25/2025 20:23:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8195769**	**1.914413**	**1.024070**	**2.005265**	**.8356818**	**2.433035**	**.3446023**
Stddev	.0035018	.001800	.004640	.006744	.0035452	.010032	.0003943
%RSD	.4272632	.0940489	.4531307	.3363379	.4242254	.4123155	.1144183
#1	.8161388	1.914372	1.018861	2.004883	.8379982	2.425705	.3441735
#2	.8194529	1.912633	1.027761	1.998720	.8316006	2.428931	.3446839
#3	.8231390	1.916233	1.025589	2.012193	.8374466	2.444468	.3449493

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2138486**	**.2200219**	**33.05322**	**.4221380**	**.2165770**	**.3262101**	**3.313712**
Stddev	.0002943	.0007956	.11926	.0013631	.0003329	.0017315	.038114
%RSD	.1376049	.3615775	.3608080	.3228958	.1537241	.5308043	1.150190
#1	.2139334	.2191859	32.91556	.4207003	.2162152	.3265461	3.276514
#2	.2135213	.2201100	33.12501	.4234115	.2166453	.3243352	3.311941
#3	.2140912	.2207697	33.11910	.4223022	.2168704	.3277491	3.352680

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2963966**	**4.762388**	**.5138627**	**.0764911**	**368.8736**	**.3090861**	**.3129739**
Stddev	.0025419	.039421	.0018275	.0004111	2.0237	.0059946	.0016141
%RSD	.8576113	.8277580	.3556388	.5374665	.5486197	1.939448	.5157162
#1	.2939479	4.718566	.5119804	.0769657	369.8955	.3160004	.3122876
#2	.2962193	4.794966	.5139776	.0762455	366.5427	.3059099	.3148177
#3	.2990225	4.773631	.5156300	.0762621	370.1825	.3053479	.3118164

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.00556**	**6.529449**	**.3060247**	**.4221794**	**1.423625**	**2.435478**	**.7338516**
Stddev	.08570	.014036	.0025070	.0006624	.009194	.004919	.0006922
%RSD	.6118797	.2149623	.8192246	.1569094	.6458103	.2019794	.0943258
#1	13.93167	6.517807	.3083374	.4214788	1.415827	2.432959	.7330527
#2	13.98550	6.525506	.3033605	.4227957	1.421285	2.432329	.7342717
#3	14.09951	6.545035	.3063761	.4222636	1.433762	2.441147	.7342305

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02MS Acquired: 6/25/2025 20:23:53 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2163961	.1614637	.4085712
Stddev	.0020021	.0055815	.0018970
%RSD	.9252077	3.456814	.4643106
#1	.2152999	.1617526	.4064992
#2	.2151815	.1668951	.4089916
#3	.2187070	.1557433	.4102227

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5139.466	40528.72	2276.804	3623.066	5185.770
Stddev	8.553	273.57	4.354	27.764	17.479
%RSD	.1664234	.6750021	.1912435	.7663207	.3370512
#1	5148.988	40675.76	2281.333	3642.214	5205.950
#2	5136.977	40213.07	2276.430	3591.224	5175.962
#3	5132.434	40697.31	2272.649	3635.759	5175.398

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02MSD Acquired: 6/25/2025 20:28:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8253045**	**1.942973**	**1.035527**	**2.029862**	**.8450577**	**2.473420**	**.3378570**
Stddev	.0012376	.006730	.003497	.002023	.0019893	.033260	.0007410
%RSD	.1499617	.3464015	.3377385	.0996575	.2354076	1.344686	.2193280
#1	.8238769	1.935538	1.031513	2.031586	.8454960	2.510600	.3370018
#2	.8260745	1.944730	1.037148	2.030365	.8467914	2.446498	.3382633
#3	.8259622	1.948651	1.037920	2.027635	.8428858	2.463162	.3383061

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2137200**	**.2220455**	**31.30900**	**.4250779**	**.2189184**	**.3284190**	**3.336276**
Stddev	.0020129	.0006332	.13155	.0011533	.0007071	.0025631	.013524
%RSD	.9418338	.2851789	.4201730	.2713073	.3229947	.7804481	.4053730
#1	.2159319	.2213430	31.18444	.4260015	.2190302	.3307672	3.333648
#2	.2119957	.2222210	31.29600	.4254468	.2181621	.3256847	3.350921
#3	.2132325	.2225724	31.44658	.4237853	.2195629	.3288050	3.324258

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2930266**	**4.616552**	**.5208578**	**.0761466**	**350.0736**	**.3120951**	**.3100513**
Stddev	.0027426	.039491	.0006482	.0007722	1.5963	.0056207	.0005322
%RSD	.9359662	.8554129	.1244485	1.014139	.4560032	1.800950	.1716346
#1	.2920170	4.580353	.5201236	.0752814	351.8481	.3175680	.3104182
#2	.2909319	4.658667	.5210989	.0767660	349.6187	.3123800	.3102946
#3	.2961310	4.610637	.5213509	.0763926	348.7542	.3063375	.3094409

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.76083**	**6.592864**	**.3048398**	**.4284896**	**1.339696**	**2.359093**	**.7432612**
Stddev	.18953	.018125	.0006661	.0004622	.009574	.019582	.0005821
%RSD	1.377348	.2749145	.2185079	.1078652	.7146464	.8300615	.0783210
#1	13.97929	6.573112	.3040707	.4279611	1.330458	2.376505	.7430734
#2	13.64023	6.608732	.3052258	.4286892	1.339055	2.337894	.7439140
#3	13.66297	6.596747	.3052230	.4288184	1.349574	2.362880	.7427961

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02MSD Acquired: 6/25/2025 20:28:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2169687	.1639622	.4008756
Stddev	.0025793	.0049093	.0015568
%RSD	1.188811	2.994196	.3883458
#1	.2196714	.1585862	.3991142
#2	.2145336	.1650928	.4020674
#3	.2167010	.1682077	.4014451

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5134.047	40705.77	2294.137	3636.508	5186.177
Stddev	7.695	285.27	14.130	30.347	11.112
%RSD	.1498828	.7008011	.6159257	.8345022	.2142700
#1	5129.549	40590.22	2279.233	3623.715	5180.767
#2	5129.660	40496.40	2295.837	3614.653	5178.805
#3	5142.932	41030.68	2307.340	3671.157	5198.958

Sample Name: Q2409-02A Acquired: 6/25/2025 20:32:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7923953**	**1.846496**	**.9880268**	**1.945960**	**.7992477**	**2.345864**	**.3416654**
Stddev	.0031992	.003311	.0032911	.003827	.0036013	.016612	.0003342
%RSD	.4037364	.1793332	.3330973	.1966744	.4505815	.7081457	.0978057
#1	.7888923	1.843440	.9857388	1.941630	.8034053	2.334423	.3414975
#2	.7951624	1.850014	.9917986	1.947364	.7972403	2.364918	.3420502
#3	.7931314	1.846035	.9865431	1.948888	.7970976	2.338250	.3414485

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2044544**	**.2136157**	**34.03629**	**.4130568**	**.2096093**	**.3140566**	**3.218612**
Stddev	.0012244	.0008387	.10266	.0035828	.0005247	.0009378	.033610
%RSD	.5988552	.3925984	.3016118	.8673943	.2503228	.2986252	1.044225
#1	.2032902	.2132514	33.92993	.4124756	.2097569	.3129755	3.227916
#2	.2057312	.2145749	34.13479	.4098001	.2100444	.3146514	3.246589
#3	.2043417	.2130209	34.04415	.4168947	.2090266	.3145430	3.181330

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2917618**	**4.764973**	**.5008810**	**.0709373**	**383.8120**	**.3061106**	**.3112351**
Stddev	.0009957	.052271	.0012660	.0007889	2.4475	.0017067	.0034549
%RSD	.3412788	1.096986	.2527554	1.112117	.6376739	.5575566	1.110048
#1	.2906161	4.712635	.5004281	.0700695	382.2791	.3046758	.3130243
#2	.2922508	4.817177	.5023112	.0716112	382.5224	.3079980	.3072526
#3	.2924185	4.765106	.4999037	.0711311	386.6347	.3056579	.3134284

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.57536**	**6.337918**	**.2948598**	**.4030311**	**1.490466**	**2.438734**	**.7034272**
Stddev	.10861	.019818	.0027056	.0006138	.005342	.002370	.0010957
%RSD	.8000453	.3126892	.9175935	.1523019	.3583839	.0971954	.1557600
#1	13.57265	6.331471	.2930098	.4036928	1.488173	2.437644	.7042086
#2	13.46814	6.360157	.2936044	.4029202	1.496571	2.437105	.7038982
#3	13.68531	6.322126	.2979650	.4024803	1.486653	2.441453	.7021748

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2409-02A Acquired: 6/25/2025 20:32:52 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2052880	.1607420	.4090920
Stddev	.0049414	.0014708	.0006843
%RSD	2.407042	.9149926	.1672753
#1	.2001609	.1592606	.4083397
#2	.2056832	.1622019	.4096774
#3	.2100199	.1607636	.4092590

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5141.782	40454.89	2284.183	3628.337	5182.597
Stddev	33.511	414.74	18.935	40.993	27.920
%RSD	.6517463	1.025203	.8289580	1.129788	.5387308
#1	5123.329	40567.48	2302.425	3619.870	5169.764
#2	5121.554	40801.71	2285.499	3672.902	5163.400
#3	5180.465	39995.47	2264.624	3592.239	5214.626

Sample Name: Q2381-01DL2X10 Acquired: 6/25/2025 20:37:21 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0115877**	**-.005693**	**.0749357**	**.0137393**	**.0063210**	**24.96500**	**.1257814**
Stddev	.0035027	.000321	.0019367	.0041189	.0014915	.19315	.0021568
%RSD	30.22787	5.630956	2.584437	29.97898	23.59649	.7736836	1.714688
#1	.0081004	-.006022	.0756239	.0152290	.0056500	25.17827	.1274781
#2	.0151056	-.005676	.0727489	.0169060	.0080302	24.91490	.1265118
#3	.0115569	-.005382	.0764342	.0090828	.0052828	24.80184	.1233543

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016011**	**-.000927**	**7.206007**	**.0349479**	**.0299193**	**.0700648**	**51.29196**
Stddev	.0000677	.000032	.081271	.0001547	.0001472	.0014317	.34054
%RSD	4.226164	3.480166	1.127822	.4426915	.4918148	2.043340	.6639340
#1	.0015254	-.000963	7.288844	.0349387	.0297562	.0716985	51.67730
#2	.0016224	-.000916	7.202778	.0351071	.0299598	.0690289	51.16717
#3	.0016556	-.000902	7.126398	.0347980	.0300420	.0694670	51.03142

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.193271**	**7.229690**	**.0316875**	**-.003141**	**.4536551**	**.1243317**	**.1380614**
Stddev	.007903	.052724	.0006828	.001126	.0314930	.0063544	.0005772
%RSD	.6623209	.7292650	2.154723	35.83092	6.942053	5.110817	.4180526
#1	1.200927	7.271044	.0319449	-.003526	.4809464	.1291662	.1386985
#2	1.193745	7.170319	.0322042	-.004024	.4608229	.1171344	.1379123
#3	1.185142	7.247705	.0309134	-.001874	.4191961	.1266944	.1375735

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.025941**	**1.075399**	**.0209883**	**.0012917**	**.5901713**	**1.538608**	**.0019477**
Stddev	.002482	.003743	.0007385	.0001913	.0038877	.011463	.0010206
%RSD	.2418825	.3480910	3.518454	14.80799	.6587415	.7450163	52.40377
#1	1.028724	1.079515	.0209671	.0010890	.5930821	1.551832	.0031023
#2	1.023959	1.072199	.0217372	.0014690	.5857562	1.531502	.0015747
#3	1.025141	1.074483	.0202607	.0013172	.5916755	1.532489	.0011660

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DL2X10 Acquired: 6/25/2025 20:37:21 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8608121	.0452186	.0261393
Stddev	.0102041	.0033179	.0001565
%RSD	1.185408	7.337465	.5986450
#1	.8725948	.0461572	.0262810
#2	.8548869	.0415325	.0261655
#3	.8549546	.0479661	.0259713

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5526.346	44132.20	2427.210	3912.566	5767.002
Stddev	9.183	93.22	10.341	8.733	11.326
%RSD	.1661622	.2112302	.4260643	.2232016	.1963864
#1	5520.091	44238.97	2415.284	3922.525	5753.965
#2	5536.888	44066.99	2433.708	3906.217	5774.411
#3	5522.059	44090.65	2432.636	3908.955	5772.630

Sample Name: Q2381-01DUPDL2X10 Acquired: 6/25/2025 20:41:40 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135769**	**-.004797**	**.0726464**	**.0139233**	**.0035946**	**25.03961**	**.1266362**
Stddev	.0024349	.001629	.0010872	.0039425	.0021225	.11539	.0006483
%RSD	17.93383	33.94776	1.496531	28.31609	59.04548	.4608190	.5119423
#1	.0110584	-.004220	.0716369	.0111117	.0028809	25.03592	.1261327
#2	.0137540	-.006636	.0725048	.0184298	.0019210	25.15680	.1273677
#3	.0159184	-.003536	.0737974	.0122283	.0059820	24.92611	.1264081

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018351**	**-.000952**	**7.164607**	**.0349740**	**.0290466**	**.0725692**	**51.39271**
Stddev	.0002007	.000058	.078163	.0001694	.0002915	.0006007	.21362
%RSD	10.93688	6.081234	1.090959	.4844307	1.003595	.8277790	.4156652
#1	.0016840	-.000979	7.155954	.0350419	.0289164	.0725825	51.56750
#2	.0020628	-.000992	7.246736	.0350990	.0293805	.0731631	51.45604
#3	.0017585	-.000886	7.091130	.0347812	.0288429	.0719619	51.15458

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.191463**	**7.253413**	**.0308117**	**-.003595**	**.3694820**	**.1211413**	**.1379459**
Stddev	.003674	.046674	.0004419	.000515	.0125613	.0020087	.0013100
%RSD	.3083653	.6434701	1.434268	14.33312	3.399712	1.658136	.9496144
#1	1.194989	7.301120	.0312996	-.003351	.3668510	.1215858	.1394487
#2	1.187657	7.251271	.0304382	-.003247	.3831504	.1189475	.1370460
#3	1.191742	7.207847	.0306973	-.004187	.3584445	.1228904	.1373428

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.032789**	**1.057480**	**.0189941**	**.0012603**	**.5764053**	**1.575581**	**.0017752**
Stddev	.010000	.009835	.0023345	.0002608	.0066764	.009957	.0016610
%RSD	.9682428	.9299944	12.29051	20.68888	1.158282	.6319297	93.56612
#1	1.034571	1.068834	.0167597	.0011258	.5838513	1.568815	.0010549
#2	1.041777	1.051621	.0214172	.0015608	.5744120	1.587014	.0005959
#3	1.022017	1.051986	.0188055	.0010943	.5709526	1.570913	.0036748

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01DUPDL2X10 Acquired: 6/25/2025 20:41:40 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8559557	.0196937	.0261278
Stddev	.0033899	.0025296	.0003670
%RSD	.3960395	12.84448	1.404776
#1	.8571197	.0168357	.0261440
#2	.8586103	.0216448	.0264865
#3	.8521371	.0206004	.0257529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5537.160	44607.40	2391.204	3946.394	5789.737
Stddev	10.051	92.75	15.600	5.051	12.792
%RSD	.1815274	.2079330	.6523992	.1279868	.2209505
#1	5546.805	44638.30	2404.228	3951.650	5803.781
#2	5537.928	44503.14	2373.915	3945.955	5786.682
#3	5526.746	44680.76	2395.469	3941.577	5778.749

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV06 Acquired: 6/25/2025 20:46:01 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.077502**	**5.113290**	**5.097572**	**5.158745**	**5.170578**	**10.16140**	**10.23090**
Stddev	.006558	.006681	.006740	.011798	.011530	.05636	.00515
%RSD	.1291485	.1306570	.1322157	.2287006	.2229877	.5546312	.0502951
#1	5.076856	5.115316	5.105096	5.172321	5.180991	10.20392	10.22875
#2	5.071292	5.105831	5.095530	5.150971	5.158187	10.18281	10.23677
#3	5.084359	5.118724	5.092089	5.152943	5.172555	10.09748	10.22717

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2672953**	**2.553527**	**25.42788**	**1.028384**	**2.552751**	**1.328825**	**5.037058**
Stddev	.0016131	.002410	.07809	.002482	.001552	.007978	.016975
%RSD	.6034943	.0943845	.3070984	.2413460	.0607781	.6004004	.3369991
#1	.2658216	2.555997	25.45301	1.025556	2.554095	1.322340	5.042333
#2	.2690187	2.551182	25.49032	1.030199	2.551053	1.337734	5.050769
#3	.2670456	2.553400	25.34033	1.029398	2.553104	1.326401	5.018072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.511910**	**25.23691**	**2.548096**	**1.270928**	**25.64946**	**2.543062**	**2.568029**
Stddev	.007948	.09221	.002243	.002076	.19168	.001587	.005690
%RSD	.3164252	.3653953	.0880294	.1633104	.7472884	.0624187	.2215650
#1	2.512993	25.13050	2.550565	1.269768	25.43326	2.542241	2.561996
#2	2.519261	25.28673	2.546184	1.273324	25.71652	2.544891	2.568794
#3	2.503475	25.29350	2.547539	1.269692	25.79860	2.542052	2.573298

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.23760**	**5.188772**	**5.287417**	**5.151901**	**5.157447**	**5.289511**	**5.109184**
Stddev	.03415	.003600	.038797	.006461	.008327	.036024	.003839
%RSD	.1353050	.0693793	.7337694	.1254092	.1614521	.6810397	.0751429
#1	25.27627	5.192703	5.243712	5.155814	5.160461	5.249993	5.113610
#2	25.22492	5.185637	5.317792	5.144444	5.148033	5.320514	5.107189
#3	25.21160	5.187975	5.300746	5.155446	5.163847	5.298027	5.106753

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV06 Acquired: 6/25/2025 20:46:01 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.119043	5.080556	5.185032
Stddev	.012446	.013228	.008648
%RSD	.2431346	.2603747	.1667825
#1	5.121594	5.077064	5.189634
#2	5.130016	5.095180	5.190405
#3	5.105519	5.069424	5.175056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5137.735	41739.18	2262.642	3676.013	5267.085
Stddev	10.546	226.92	10.632	19.222	9.200
%RSD	.2052596	.5436552	.4698799	.5229107	.1746761
#1	5125.648	41528.68	2262.931	3655.809	5257.565
#2	5142.505	41709.31	2251.869	3678.157	5267.761
#3	5145.054	41979.56	2273.127	3694.074	5275.928

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB06 Acquired: 6/25/2025 20:50:17 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001244**	**-.001317**	**.0005682**	**-.000154**	**-.001528**	**-.021980**
Stddev	.001406	.002181	.0012081	.002026	.003406	.026221
%RSD	113.0315	165.6075	212.6188	1315.913	222.8712	119.2951
#1	.000008	-.003106	.0009836	.001986	-.005447	-.015272
#2	-.000974	.001112	-.000793	-.002042	.000151	.000236
#3	-.002765	-.001956	.001514	-.000406	.000712	-.050903

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002020**	**-.000022**	**.0000977**	**-.017513**	F **.0091737**	**-.000023**
Stddev	.000090	.000159	.0000566	.018893	.0004328	.000420
%RSD	4.466497	716.7263	57.87800	107.8813	4.717350	1827.877
#1	-.002120	-.000202	.0001326	-.039327	.0088341	.000214
#2	-.001945	.000097	.0000325	-.006866	.0090261	.000225
#3	-.001996	.000039	.0001281	-.006346	.0096609	-.000508

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000150**	**.0331743**	**.0019137**	**.0545837**	**.0002719**	**-.000246**
Stddev	.000400	.0102104	.0014014	.0291000	.0002551	.001033
%RSD	266.6931	30.77793	73.23210	53.31263	93.81502	420.0877
#1	-.000426	.0435881	.0035284	.0855745	.0000299	-.001192
#2	-.000334	.0327545	.0011984	.0503353	.0002476	-.000402
#3	.000309	.0231803	.0010142	.0278415	.0005382	.000856

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0664756**	**-.005715**	**.0000082**	**.0062007**	**.0004037**	**.0105569**
Stddev	.0130323	.003092	.0008190	.0011988	.0019434	.0003158
%RSD	19.60457	54.09494	9957.189	19.33276	481.4158	2.991169
#1	.0801938	-.009161	.0009338	.0057337	.0000669	.0102754
#2	.0542594	-.003184	-.000287	.0075626	-.001349	.0104969
#3	.0649737	-.004800	-.000622	.0053056	.002493	.0108983

Sample Name: CCB06 Acquired: 6/25/2025 20:50:17 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000774	.0001111	.0013457	-.000653	-.001302	-.005601
Stddev	.0003102	.0011243	.0007466	.000742	.000207	.004920
%RSD	400.6796	1011.709	55.48019	113.5697	15.87018	87.83116
#1	.0001831	.0007713	.0021677	.000194	-.001159	-.011282
#2	-.000272	.0007491	.0011599	-.000966	-.001539	-.002721
#3	.000321	-.001187	.0007096	-.001188	-.001208	-.002801

Elem	Sr4077
Units	ppm
Avg	.0000653
Stddev	.0001869
%RSD	286.1874
#1	.0002724
#2	-.000091
#3	.000014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5356.310	43643.78	2348.409	3818.813	6029.352
Stddev	11.807	73.96	21.159	13.341	21.548
%RSD	.2204264	.1694633	.9009756	.3493584	.3573811
#1	5342.992	43558.57	2372.497	3804.402	6006.664
#2	5360.448	43681.47	2339.903	3830.733	6031.853
#3	5365.491	43691.30	2332.827	3821.304	6049.541

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LDL2X50 Acquired: 6/25/2025 20:54:47 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064436**	**-.000435**	**.0156957**	**.0054776**	**-.001854**	**5.477221**	**.0255588**
Stddev	.0030472	.001594	.0007450	.0009725	.001485	.052708	.0004690
%RSD	47.29058	366.2398	4.746347	17.75456	80.10156	.9623115	1.834874
#1	.0093917	-.000570	.0152827	.0047713	-.003112	5.514900	.0256277
#2	.0066328	.001222	.0152486	.0050746	-.002234	5.416989	.0259895
#3	.0033061	-.001957	.0165557	.0065868	-.000216	5.499774	.0250592

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003666**	**-.000221**	**1.541279**	**.0088471**	**.0062590**	**.0150142**	**11.17438**
Stddev	.0001330	.000018	.017226	.0009065	.0001422	.0011081	.07644
%RSD	36.26604	8.112014	1.117612	10.24681	2.271966	7.380141	.6840434
#1	.0003822	-.000213	1.547209	.0081342	.0061081	.0138683	11.17482
#2	.0002266	-.000242	1.521872	.0098674	.0063906	.0150940	11.09772
#3	.0004911	-.000209	1.554756	.0085396	.0062781	.0160801	11.25059

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2646093**	**1.643725**	**.0077418**	**-.000537**	**.1226091**	**.0202983**	**.0286044**
Stddev	.0031659	.082235	.0008967	.000294	.0128760	.0066513	.0004949
%RSD	1.196454	5.002939	11.58256	54.65484	10.50163	32.76797	1.730056
#1	.2682147	1.702878	.0087175	-.000507	.1094317	.0279517	.0285192
#2	.2633301	1.549819	.0075542	-.000260	.1232347	.0170273	.0291363
#3	.2622832	1.678477	.0069537	-.000845	.1351608	.0159158	.0281576

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2004392**	**.2176047**	**.0058342**	**.0004104**	**.1165834**	**.3761051**	**-.000103**
Stddev	.0027881	.0025226	.0008053	.0005497	.0019290	.0101393	.000450
%RSD	1.391013	1.159260	13.80345	133.9538	1.654594	2.695864	438.1412
#1	.2018263	.2201744	.0049258	.0007740	.1162669	.3840237	-.000304
#2	.1972296	.2175078	.0064606	-.000222	.1186510	.3646774	-.000416
#3	.2022617	.2151320	.0061163	.000679	.1148322	.3796143	.000413

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01LDL2X50 Acquired: 6/25/2025 20:54:47 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1852101	-.002473	.0056446
Stddev	.0017534	.005485	.0002936
%RSD	.9467055	221.7900	5.202075
#1	.1868949	-.007741	.0058408
#2	.1833953	.003206	.0053070
#3	.1853401	-.002884	.0057859

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5416.486	43494.51	2336.561	3828.448	5943.874
Stddev	18.056	221.06	20.960	25.125	15.680
%RSD	.3333565	.5082412	.8970245	.6562649	.2638043
#1	5430.971	43500.54	2340.755	3822.284	5957.254
#2	5396.257	43270.50	2355.106	3806.980	5926.620
#3	5422.231	43712.49	2313.821	3856.082	5947.748

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDL2X10 Acquired: 6/25/2025 20:59:14 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0815583**	**.1809354**	**.1683926**	**.1920540**	**.0265683**	**28.32078**	**.1544337**
Stddev	.0027522	.0010306	.0008172	.0021856	.0023589	.06318	.0011065
%RSD	3.374546	.5695930	.4852941	1.138011	8.878408	.2230877	.7164829
#1	.0843593	.1803637	.1681041	.1940769	.0239781	28.37118	.1531991
#2	.0814581	.1803173	.1693149	.1923494	.0271339	28.24990	.1547661
#3	.0788575	.1821251	.1677588	.1897357	.0285930	28.34127	.1553359

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0213835**	**.0168621**	**6.913799**	**.0730506**	**.0503092**	**.1033569**	**56.85901**
Stddev	.0000668	.0001899	.033745	.0004981	.0003511	.0004050	.10915
%RSD	.3124550	1.126100	.4880789	.6818518	.6978479	.3918189	.1919696
#1	.0213497	.0166445	6.934935	.0727692	.0499311	.1035007	56.92497
#2	.0213404	.0169941	6.874882	.0727569	.0503717	.1036704	56.73302
#3	.0214605	.0169477	6.931580	.0736257	.0506249	.1028997	56.91905

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.232807**	**7.591187**	**.0821579**	**.0033114**	**.7014020**	**.1648233**	**.1643482**
Stddev	.009511	.024731	.0006454	.0009940	.0046878	.0121836	.0013380
%RSD	.7714872	.3257838	.7855890	30.01703	.6683479	7.391935	.8141252
#1	1.240667	7.563055	.0814197	.0033585	.7003054	.1730956	.1657296
#2	1.222235	7.609502	.0826159	.0022947	.7065408	.1705420	.1642566
#3	1.235521	7.601003	.0824380	.0042810	.6973596	.1508323	.1630583

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.901508**	**1.657944**	**.0552894**	**.0346557**	**.5831119**	**1.463431**	**.0594017**
Stddev	.006349	.011693	.0016355	.0002029	.0027345	.004530	.0009350
%RSD	.3339067	.7052421	2.958147	.5854499	.4689526	.3095425	1.574058
#1	1.896239	1.644732	.0539583	.0345938	.5802259	1.460119	.0585724
#2	1.899727	1.666959	.0547948	.0344911	.5856643	1.461582	.0604150
#3	1.908557	1.662140	.0571152	.0348824	.5834456	1.468593	.0592176

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDL2X10 Acquired: 6/25/2025 20:59:14 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9345975	.0258493	.0474076
Stddev	.0049463	.0048091	.0001190
%RSD	.5292398	18.60452	.2509862
#1	.9378376	.0294601	.0475331
#2	.9289042	.0203902	.0473934
#3	.9370507	.0276976	.0472964

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5510.168	44209.32	2403.694	3908.234	5727.477
Stddev	10.248	53.55	11.349	12.172	22.482
%RSD	.1859923	.1211259	.4721283	.3114330	.3925246
#1	5521.846	44222.02	2416.135	3901.370	5753.262
#2	5502.667	44255.37	2401.037	3922.287	5711.985
#3	5505.992	44150.56	2393.909	3901.044	5717.183

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDDL2X10 Acquired: 6/25/2025 21:03:32 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0789701	.1805750	.1639170	.1872386	.0266117	27.81253	.1516212
Stddev	.0036035	.0006754	.0021092	.0014500	.0015174	.05592	.0005155
%RSD	4.563082	.3740267	1.286734	.7744068	5.701965	.2010519	.3400184
#1	.0831233	.1811408	.1659295	.1881712	.0258670	27.78072	.1515562
#2	.0766737	.1807569	.1617229	.1855681	.0256105	27.87709	.1521662
#3	.0771134	.1798272	.1640987	.1879766	.0283576	27.77978	.1511412

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0212426	.0166172	6.788546	.0723776	.0497992	.1019734	55.86331
Stddev	.0001375	.0000800	.034480	.0002309	.0001795	.0013054	.11595
%RSD	.6473996	.4815976	.5079098	.3190321	.3604911	1.280125	.2075547
#1	.0213949	.0166441	6.821480	.0726054	.0495919	.1029756	55.83296
#2	.0212054	.0165272	6.791452	.0721437	.0499009	.1024473	55.76556
#3	.0211275	.0166803	6.752705	.0723837	.0499048	.1004972	55.99142

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.213892	7.495682	.0813913	.0036375	.6876652	.1590399	.1616626
Stddev	.002748	.023271	.0003739	.0013424	.0115984	.0043174	.0003045
%RSD	.2264019	.3104576	.4594165	36.90517	1.686635	2.714652	.1883588
#1	1.216766	7.520102	.0817917	.0051865	.6883740	.1630668	.1617882
#2	1.211290	7.473762	.0813309	.0028126	.6757287	.1595716	.1613154
#3	1.213621	7.493182	.0810512	.0029134	.6988929	.1544813	.1618843

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.881356	1.638269	.0495407	.0342316	.5733974	1.450702	.0597126
Stddev	.010719	.002702	.0009573	.0006408	.0038171	.011434	.0002558
%RSD	.5697378	.1649195	1.932336	1.872109	.6656949	.7881976	.4283983
#1	1.891364	1.637699	.0495580	.0336535	.5763709	1.458176	.0600059
#2	1.882658	1.635898	.0485749	.0341207	.5690930	1.456390	.0595358
#3	1.870046	1.641211	.0504892	.0349207	.5747282	1.437539	.0595960

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01MSDDL2X10 Acquired: 6/25/2025 21:03:32 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9181492	.0334702	.0465930
Stddev	.0044659	.0032169	.0001412
%RSD	.4864080	9.611134	.3030992
#1	.9220664	.0371834	.0464310
#2	.9132860	.0315285	.0466581
#3	.9190951	.0316987	.0466900

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5497.426	44341.11	2384.265	3913.495	5726.477
Stddev	5.833	102.50	10.370	9.862	4.051
%RSD	.1060954	.2311671	.4349511	.2520087	.0707335
#1	5498.720	44371.07	2373.083	3909.754	5724.059
#2	5502.503	44425.29	2386.144	3924.680	5724.218
#3	5491.056	44226.96	2393.567	3906.050	5731.153

Sample Name: Q2381-01ADL2X10 Acquired: 6/25/2025 21:07:49 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0828518**	**.1788518**	**.1583556**	**.1932097**	**.0743627**	**23.78400**	**.1372026**
Stddev	.0016592	.0008986	.0015121	.0034200	.0014162	.06768	.0012109
%RSD	2.002673	.5024171	.9548888	1.770113	1.904422	.2845435	.8825748
#1	.0824227	.1795332	.1566220	.1921368	.0728328	23.86134	.1385043
#2	.0846835	.1791887	.1594023	.1970376	.0756277	23.73560	.1361096
#3	.0814493	.1778334	.1590426	.1904548	.0746276	23.75507	.1369939

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0206462**	**.0165076**	**6.817990**	**.1108090**	**.0468983**	**.0967457**	**48.76480**
Stddev	.0001330	.0000872	.031531	.0006007	.0004658	.0008585	.12733
%RSD	.6441689	.5283693	.4624749	.5420803	.9931947	.8873357	.2611070
#1	.0207794	.0164680	6.784795	.1111958	.0471542	.0977369	48.76013
#2	.0205134	.0164472	6.847541	.1101170	.0471800	.0962465	48.89440
#3	.0206457	.0166076	6.821633	.1111141	.0463606	.0962536	48.63988

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.146797**	**7.070438**	**.1020952**	**.0030900**	**.5771806**	**.1480430**	**.1498315**
Stddev	.003275	.049709	.0002458	.0010057	.0210859	.0039159	.0002441
%RSD	.2855714	.7030549	.2407152	32.54605	3.653256	2.645099	.1629297
#1	1.150460	7.125415	.1023377	.0035765	.5752091	.1466342	.1496900
#2	1.144152	7.028662	.1021016	.0019336	.5571497	.1450264	.1496910
#3	1.145778	7.057237	.1018464	.0037599	.5991829	.1524684	.1501133

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.757809**	**1.555171**	**.0466463**	**.0418120**	**.5633445**	**1.634287**	**.0631997**
Stddev	.019041	.002763	.0006739	.0003065	.0034322	.019555	.0004899
%RSD	1.083215	.1776940	1.444804	.7331447	.6092595	1.196529	.7751204
#1	1.769301	1.553276	.0469974	.0415805	.5654018	1.652446	.0632788
#2	1.768296	1.553895	.0470721	.0421597	.5593823	1.636830	.0636452
#3	1.735830	1.558342	.0458693	.0416958	.5652495	1.613585	.0626751

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: Q2381-01ADL2X10 Acquired: 6/25/2025 21:07:49 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8280343	.0287505	.0426100
Stddev	.0031314	.0027530	.0002673
%RSD	.3781691	9.575632	.6272653
#1	.8267444	.0308037	.0429166
#2	.8316045	.0256221	.0424264
#3	.8257538	.0298256	.0424869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5495.088	44458.90	2404.177	3935.945	5751.234
Stddev	14.424	179.78	2.338	27.211	12.836
%RSD	.2624818	.4043825	.0972453	.6913370	.2231814
#1	5507.438	44623.42	2401.766	3961.461	5761.170
#2	5479.236	44486.29	2404.330	3939.065	5736.742
#3	5498.591	44266.99	2406.434	3907.309	5755.789

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV07 Acquired: 6/25/2025 21:12:06 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.039088**	**5.079636**	**5.058560**	**5.123115**	**5.123160**	**10.08318**	**10.14672**
Stddev	.007314	.003980	.005549	.010487	.007992	.05452	.02899
%RSD	.1451439	.0783537	.1096856	.2047035	.1560048	.5407523	.2857503
#1	5.034420	5.078174	5.063935	5.121861	5.117556	10.07715	10.12693
#2	5.035327	5.076593	5.052853	5.134172	5.132312	10.14046	10.18000
#3	5.047517	5.084140	5.058892	5.113311	5.119611	10.03192	10.13323

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2593795**	**2.535626**	**24.97968**	**1.019922**	**2.533120**	**1.291897**	**5.050552**
Stddev	.0012507	.001509	.12283	.002212	.000756	.004568	.019543
%RSD	.4821687	.0594969	.4917334	.2168653	.0298304	.3535867	.3869448
#1	.2602920	2.535320	24.87926	1.019935	2.532416	1.295481	5.072403
#2	.2598925	2.534294	25.11664	1.022128	2.533026	1.293455	5.034744
#3	.2579539	2.537264	24.94316	1.017704	2.533919	1.286753	5.044510

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.484128**	**24.84848**	**2.540385**	**1.248891**	**25.18918**	**2.519776**	**2.555512**
Stddev	.004019	.06790	.001188	.007136	.12815	.023869	.003824
%RSD	.1617719	.2732461	.0467585	.5714211	.5087692	.9472559	.1496308
#1	2.480171	24.92347	2.539284	1.243856	25.29967	2.547336	2.553650
#2	2.488206	24.83080	2.540227	1.257058	25.21920	2.506196	2.559910
#3	2.484008	24.79118	2.541643	1.245759	25.04869	2.505796	2.552976

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.91525**	**5.157088**	**5.157611**	**5.110411**	**5.095492**	**5.164253**	**5.070820**
Stddev	.38353	.004700	.025360	.007728	.011440	.021629	.004463
%RSD	1.539349	.0911343	.4916968	.1512159	.2245104	.4188217	.0880138
#1	25.26003	5.152999	5.178491	5.101489	5.107647	5.180600	5.067229
#2	24.98357	5.162223	5.164951	5.114942	5.093896	5.172431	5.075817
#3	24.50215	5.156042	5.129391	5.114804	5.084935	5.139727	5.069415

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCV07 Acquired: 6/25/2025 21:12:06 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.055666	5.033640	5.122903
Stddev	.023901	.005515	.020094
%RSD	.4727543	.1095531	.3922310
#1	5.041244	5.027790	5.108148
#2	5.083255	5.038743	5.145787
#3	5.042499	5.034386	5.114773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5142.449	41778.97	2292.997	3673.060	5274.920
Stddev	14.737	109.97	9.838	15.133	18.205
%RSD	.2865799	.2632169	.4290496	.4120099	.3451237
#1	5154.918	41837.37	2286.204	3681.915	5285.645
#2	5146.245	41652.13	2288.508	3655.586	5285.215
#3	5126.186	41847.43	2304.279	3681.679	5253.900

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB07 Acquired: 6/25/2025 21:16:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024608**	**-.000794**	**.0007053**	**-.000554**	**-.001693**	**-.007747**	**-.000961**
Stddev	.0017886	.001354	.0013207	.003121	.002309	.016167	.000595
%RSD	72.68393	170.5891	187.2582	563.5264	136.4171	208.6973	61.97147
#1	.0012840	.000462	.0016221	.001174	-.000797	-.026400	-.000755
#2	.0045190	-.002228	-.000808	.001321	.000034	.002221	-.001632
#3	.0015793	-.000616	.001302	-.004157	-.004316	.000939	-.000495

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000168**	**.0001282**	**-.029750**	**-.000859**	**.0002501**	**.0025200**	**-.000269**
Stddev	.0000922	.0000219	.005655	.000271	.0003759	.0002301	.013062
%RSD	549.0275	17.08826	19.00959	31.59817	150.3029	9.131483	4864.726
#1	.0001139	.0001187	-.034825	-.001170	.0004412	.0024011	.008288
#2	-.000070	.0001532	-.030770	-.000733	.0004920	.0023736	-.015303
#3	.000006	.0001126	-.023654	-.000673	-.000183	.0027852	.006210

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049685**	**.0589056**	**.0010032**	**-.000026**	**.0534467**	**-.005184**	**-.000120**
Stddev	.0006660	.0330544	.0001988	.001850	.0196798	.010543	.000579
%RSD	13.40499	56.11429	19.81767	7159.151	36.82133	203.3819	482.3233
#1	.0053635	.0207882	.0012103	-.000420	.0377052	-.017167	-.000587
#2	.0053425	.0762623	.0008139	.001989	.0471243	.002664	-.000300
#3	.0041996	.0796662	.0009853	-.001647	.0755107	-.001048	.000527

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045476**	**-.000550**	**.0109845**	**.0003698**	**-.000536**	**.0113185**	**-.000242**
Stddev	.0011709	.000775	.0007815	.0001440	.002577	.0026948	.000568
%RSD	25.74724	140.8727	7.114099	38.95106	480.8406	23.80872	234.4261
#1	.0040464	-.000427	.0101002	.0003692	.002429	.0140222	.000344
#2	.0037108	.000156	.0115818	.0002260	-.001804	.0113008	-.000790
#3	.0058857	-.001380	.0112717	.0005141	-.002233	.0086327	-.000281

Reviewed By:jaswal
On:6/26/2025 3:29:22 PM
Inst Id :P5
LB :LB136273

Sample Name: CCB07 Acquired: 6/25/2025 21:16:22 Type: Unk
Method: METHOD 6010D, 200.7(v27) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000438**	**-.005844**	**-.000002**
Stddev	.001571	.007270	.000155
%RSD	358.4998	124.4021	6622.613
#1	-.000855	-.011299	.000166
#2	-.001759	-.008642	-.000140
#3	.001299	.002409	-.000033

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5292.435**	**43154.25**	**2311.538**	**3773.423**	**5967.949**
Stddev	8.419	200.34	6.902	25.720	5.080
%RSD	.1590723	.4642330	.2985792	.6815986	.0851256
#1	5283.158	43048.35	2315.952	3758.730	5962.223
#2	5294.560	43385.31	2315.079	3803.121	5969.709
#3	5299.589	43029.10	2303.585	3758.418	5971.915

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168583

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 #2 2. N/A

Start Digest Date: 06/23/2025 **Time :** 10:31 **Temp :** 96 °C

End Digest Date: 06/23/2025 **Time :** 13:40 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SLDG.

Supervisor Signature: JSP

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6007
LFS-2	0.25	M6015
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 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/23/25 14:40	SKS. met. dig	JSP / Met Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB168583

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB168583BL	PBW583	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	1
PB168583BS	LCS583	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	2
Q2372-01	GAV1W	<2	50	25	Brown	ligh Btrown	Cloudy	Clear	N/A	3
Q2372-02	GAV2W	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	4
Q2375-01	RW8-SP100-20250619	<2	50	25	light Brown	ligh Btrown	Cloudy	Clear	N/A	5
Q2375-02	RW8-SP303-20250619	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	6
Q2382-01	FMI109	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	7
Q2385-01	A5311	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	8
Q2385-01MS	A5311MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	10
Q2385-01MSD	A5311MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	11
Q2385-01DUP	A5311DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	9

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB168583 **WorkList ID :** 190320 **Department :** Digestion **Date :** 06-23-2025 09:52:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2372-01	GAV1W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	GENV01	D51	06/19/2025	6010D
Q2372-02	GAV2W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	GENV01	D51	06/19/2025	6010D
Q2375-01	RW8-SP100-20250619	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D51	06/19/2025	6010D
Q2375-02	RW8-SP303-20250619	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D51	06/19/2025	6010D
Q2382-01	FMI109	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	PSEG03	D51	06/20/2025	6010D
Q2385-01	A5311	Water	Metals PSEG Group2	1:1 HNO3 to pH < 2	PSEG03	D51	06/20/2025	6010D

406 of 558

Date/Time 06/23/25 10:05
Raw Sample Received by: SPS.met.dlg
Raw Sample Relinquished by: JT (SM)

Date/Time 06/23/25 11:05
Raw Sample Received by: JT (SM)
Raw Sample Relinquished by: 5105.met.dlg

Q2375-METALS

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136255

Review By	Janvi	Review On	6/25/2025 7:44:51 PM
Supervise By	jaswal	Supervise On	6/30/2025 2:47:18 AM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	
LCS Standard	
Chk Standard	MP85876,MP85877

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	06/24/25 17:55		Jaswal	OK
2	S1	S1	CAL2	06/24/25 18:00		Jaswal	OK
3	S2	S2	CAL3	06/24/25 18:04		Jaswal	OK
4	S3	S3	CAL4	06/24/25 18:29		Jaswal	OK
5	S4	S4	CAL5	06/24/25 18:34		Jaswal	OK
6	S5	S5	CAL6	06/24/25 18:38		Jaswal	OK
7	ICV01	ICV01	ICV	06/24/25 18:43	ICV fail for Mo	Jaswal	OK
8	ICB01	ICB01	ICB	06/24/25 19:08		Jaswal	OK
9	CRI01	CRI01	CRDL	06/24/25 19:12		Jaswal	OK
10	ICSA01	ICSA01	ICSA	06/24/25 19:17		Jaswal	OK
11	ICSAB01	ICSAB01	ICSAB	06/24/25 19:21		Jaswal	OK
12	ICSADL	ICSADL	ICSA	06/24/25 19:25		Jaswal	OK
13	ICSABDL	ICSABDL	ICSAB	06/24/25 19:30		Jaswal	OK
14	CCV01	CCV01	CCV	06/24/25 19:34		Jaswal	OK
15	CCB01	CCB01	CCB	06/24/25 19:39		Jaswal	OK
16	PB168584BL	PB168584BL	MB	06/24/25 19:43		Jaswal	OK
17	PB168584BS	PB168584BS	LCS	06/24/25 19:48		Jaswal	OK
18	PB168583BL	PB168583BL	MB	06/24/25 19:52		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136255

Review By	Janvi	Review On	6/25/2025 7:44:51 PM
Supervise By	jaswal	Supervise On	6/30/2025 2:47:18 AM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	
LCS Standard	
Chk Standard	MP85876,MP85877

19	PB168583BS	PB168583BS	LCS	06/24/25 19:56		Jaswal	OK
20	Q2380-01	72-11948	SAM	06/24/25 20:01		Jaswal	OK
21	Q2380-03	VNJ-211	SAM	06/24/25 20:05	Na oversaturated	Jaswal	Dilution
22	Q2380-05	RBR-200059	SAM	06/24/25 20:09	Na oversaturated	Jaswal	Dilution
23	Q2381-01	291431	SAM	06/24/25 20:14	Bad Injection	Jaswal	Not Ok
24	Q2381-01DUP	291431DUP	DUP	06/24/25 20:18	NOT USE	Jaswal	Not Ok
25	Q2381-01L	291431L	SD	06/24/25 20:32	NOT USE	Jaswal	Not Ok
26	CCV02	CCV02	CCV	06/24/25 20:37		Jaswal	OK
27	CCB02	CCB02	CCB	06/24/25 20:41		Jaswal	OK
28	Q2381-01MS	291431MS	MS	06/24/25 20:45	NOT USE	Jaswal	Not Ok
29	Q2381-01MSD	291431MSD	MSD	06/24/25 20:50	NOT USE	Jaswal	Not Ok
30	Q2381-01A	291431A	PS	06/24/25 20:54	NOT USE	Jaswal	Not Ok
31	Q2381-03	VNJ-207	SAM	06/24/25 20:58		Jaswal	OK
32	Q2381-05	72-11929	SAM	06/24/25 21:03		Jaswal	OK
33	Q2383-01RE	RT-5376RE	SAM	06/24/25 21:07	NOT USE	Jaswal	Not Ok
34	Q2384-01RE	OK-01-6202025RE	SAM	06/24/25 21:11	NOT USE	Jaswal	Not Ok
35	Q2386-01RE	SU-1-062025RE	SAM	06/24/25 21:16	NOT USE	Jaswal	Not Ok
36	Q2388-01	TP-12	SAM	06/24/25 21:20		Jaswal	OK
37	Q2389-01	MH-J-I	SAM	06/24/25 21:24		Jaswal	OK
38	CCV03	CCV03	CCV	06/24/25 21:29		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136255

Review By	Janvi	Review On	6/25/2025 7:44:51 PM
Supervise By	jaswal	Supervise On	6/30/2025 2:47:18 AM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	
LCS Standard	
Chk Standard	MP85876,MP85877

39	CCB03	CCB03	CCB	06/24/25 21:33		Jaswal	OK
40	Q2372-01	GAV1W	SAM	06/24/25 21:38		Jaswal	OK
41	Q2372-02	GAV2W	SAM	06/24/25 21:42	Zn high	Jaswal	Dilution
42	Q2375-01	RW8-SP100-2025061	SAM	06/24/25 21:47		Jaswal	OK
43	Q2375-02	RW8-SP303-2025061	SAM	06/24/25 21:51		Jaswal	OK
44	Q2382-01	FMI109	SAM	06/24/25 21:56		Jaswal	OK
45	Q2385-01	A5311	SAM	06/24/25 22:00	ICV fail for Mo	Jaswal	Not Ok
46	Q2385-01DUP	A5311DUP	DUP	06/24/25 22:05	ICV fail for Mo	Jaswal	Not Ok
47	Q2385-01L	A5311L	SD	06/24/25 22:09	ICV fail for Mo	Jaswal	Not Ok
48	Q2385-01MS	A5311MS	MS	06/24/25 22:14	ICV fail for Mo	Jaswal	Not Ok
49	Q2385-01MSD	A5311MSD	MSD	06/24/25 22:18	ICV fail for Mo	Jaswal	Not Ok
50	CCV04	CCV04	CCV	06/24/25 22:22		Jaswal	OK
51	LLCCV01	LLCCV01	LLCCV	06/24/25 22:47		Jaswal	OK
52	CCB04	CCB04	CCB	06/24/25 23:01		Jaswal	OK
53	Q2385-01A	A5311A	PS	06/24/25 23:06	ICV fail for Mo	Jaswal	Not Ok
54	Q2383-01	RT-5376	SAM	06/24/25 23:10		Jaswal	OK
55	Q2384-01	OK-01-6202025	SAM	06/24/25 23:15		Jaswal	OK
56	Q2386-01	SU-1-062025	SAM	06/24/25 23:19		Jaswal	OK
57	Q2381-01RE	291431RE	SAM	06/24/25 23:24	NOT USE	Jaswal	Not Ok
58	Q2372-02DL	GAV2WDL	SAM	06/24/25 23:28	NOT USE	Jaswal	Not Ok

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136255

Review By	Janvi	Review On	6/25/2025 7:44:51 PM
Supervise By	jaswal	Supervise On	6/30/2025 2:47:18 AM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	
LCS Standard	
Chk Standard	MP85876,MP85877

59	Q2375-01DL	RW8-SP100-2025061	SAM	06/24/25 23:32	NOT USE	Jaswal	Not Ok
60	Q2381-01DL	291431DL	SAM	06/24/25 23:37	NOT USE	Jaswal	Not Ok
61	Q2372-02DL2	GAV2WDL2	SAM	06/24/25 23:41	100x for Zn	Jaswal	Confirms
62	CCV05	CCV05	CCV	06/24/25 23:46		Jaswal	OK
63	CCB05	CCB05	CCB	06/24/25 23:50		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136273

Review By	Janvi	Review On	6/26/2025 11:24:19 AM
Supervise By	jaswal	Supervise On	6/26/2025 3:29:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	06/25/25 12:23		Jaswal	OK
2	S1	S1	CAL2	06/25/25 12:27		Jaswal	OK
3	S2	S2	CAL3	06/25/25 12:32		Jaswal	OK
4	S3	S3	CAL4	06/25/25 12:36		Jaswal	OK
5	S4	S4	CAL5	06/25/25 12:40		Jaswal	OK
6	S5	S5	CAL6	06/25/25 12:44		Jaswal	OK
7	ICV01	ICV01	ICV	06/25/25 13:08	ICV fail for Sb,Cu (200.7) (95-105)	Jaswal	OK
8	LLICV01	LLICV01	LLICV	06/25/25 13:20		Jaswal	OK
9	ICB01	ICB01	ICB	06/25/25 14:53		Jaswal	OK
10	CRI01	CRI01	CRDL	06/25/25 15:24		Jaswal	OK
11	ICSA01	ICSA01	ICSA	06/25/25 15:29		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	06/25/25 15:51		Jaswal	OK
13	ICSADL	ICSADL	ICSA	06/25/25 15:55		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	06/25/25 15:59		Jaswal	OK
15	CCV01	CCV01	CCV	06/25/25 16:04		Jaswal	OK
16	CCB01	CCB01	CCB	06/25/25 16:09		Jaswal	OK
17	Q2385-01	A5311	SAM	06/25/25 16:13		Jaswal	OK
18	Q2385-01DUP	A5311DUP	DUP	06/25/25 16:17		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136273

Review By	Janvi	Review On	6/26/2025 11:24:19 AM
Supervise By	jaswal	Supervise On	6/26/2025 3:29:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

19	Q2385-01L	A5311L	SD	06/25/25 16:22		Jaswal	OK
20	Q2385-01MS	A5311MS	MS	06/25/25 16:26		Jaswal	OK
21	Q2385-01MSD	A5311MSD	MSD	06/25/25 16:31		Jaswal	OK
22	Q2385-01A	A5311A	PS	06/25/25 16:35		Jaswal	OK
23	Q2354-05DL	3311DL	SAM	06/25/25 16:39	5X for K	Jaswal	Confirms
24	Q2355-02	3897	SAM	06/25/25 16:44		Jaswal	OK
25	Q2362-04	TP-11	SAM	06/25/25 16:48		Jaswal	OK
26	Q2364-04DL	GAV2BDL	SAM	06/25/25 16:53	5X for Zn,Still high	Jaswal	Dilution
27	CCV02	CCV02	CCV	06/25/25 16:57		Jaswal	OK
28	CCB02	CCB02	CCB	06/25/25 17:09		Jaswal	OK
29	Q2364-04DL2	GAV2BDL2	SAM	06/25/25 17:15	10X for Zn	Jaswal	Confirms
30	Q2380-03DL	VNJ-211DL	SAM	06/25/25 17:24	5X for Na	Jaswal	Confirms
31	Q2380-05DL	RBR-200059DL	SAM	06/25/25 17:28	5X for Na	Jaswal	Confirms
32	Q2381-01	291431	SAM	06/25/25 17:33		Jaswal	Not Ok
33	Q2381-01DUP	291431DUP	DUP	06/25/25 17:37	Na oversaturated	Jaswal	Not Ok
34	Q2381-01L	291431L	SD	06/25/25 17:41	Bad Injection	Jaswal	Not Ok
35	Q2381-01MS	291431MS	MS	06/25/25 17:46	Bad Injection	Jaswal	Not Ok
36	Q2381-01MSD	291431MSD	MSD	06/25/25 17:50		Jaswal	Not Ok
37	Q2381-01A	291431A	PS	06/25/25 17:55	Bad Injection	Jaswal	Not Ok
38	CCV03	CCV03	CCV	06/25/25 18:00		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136273

Review By	Janvi	Review On	6/26/2025 11:24:19 AM
Supervise By	jaswal	Supervise On	6/26/2025 3:29:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

39	CCB03	CCB03	CCB	06/25/25 18:07		Jaswal	OK
40	Q2367-04	EP-4	SAM	06/25/25 18:12		Jaswal	OK
41	Q2386-02	SU-1-062025	SAM	06/25/25 18:16		Jaswal	OK
42	Q2392-01	S-1	SAM	06/25/25 18:21		Jaswal	OK
43	Q2381-01DL	291431DL	SAM	06/25/25 18:29	Not use	Jaswal	Not Ok
44	Q2381-01DUPDL	291431DUPDL	DUP	06/25/25 18:34	Not use	Jaswal	Not Ok
45	Q2381-01LDL	291431LDL	SD	06/25/25 18:38	Not use	Jaswal	Not Ok
46	Q2381-01MSDL	291431MSDL	MS	06/25/25 18:42	Not use	Jaswal	Not Ok
47	Q2381-01MSDDL	291431MSDDL	MSD	06/25/25 18:47	Not use	Jaswal	Not Ok
48	Q2381-01ADL	291431ADL	PS	06/25/25 18:51	Not use	Jaswal	Not Ok
49	CCV04	CCV04	CCV	06/25/25 18:55		Jaswal	OK
50	CCB04	CCB04	CCB	06/25/25 18:59		Jaswal	OK
51	Q2426-01	001-WILLETS-PT-BL\	SAM	06/25/25 19:04		Jaswal	OK
52	Q2426-02	002-35th-Ave(May)	SAM	06/25/25 19:09		Jaswal	OK
53	Q2388-04	TP-12	SAM	06/25/25 19:13		Jaswal	OK
54	Q2389-04	MH-J-I	SAM	06/25/25 19:18	Bad Injection	Jaswal	Not Ok
55	Q2391-01	AUD-1623	SAM	06/25/25 19:22		Jaswal	OK
56	Q2394-04	MH-K/L	SAM	06/25/25 19:29	Bad Injection	Jaswal	Not Ok
57	Q2399-04	TP-13	SAM	06/25/25 19:34		Jaswal	OK
58	Q2399-08	EP-7	SAM	06/25/25 19:39		Jaswal	OK

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136273

Review By	Janvi	Review On	6/26/2025 11:24:19 AM
Supervise By	jaswal	Supervise On	6/26/2025 3:29:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

59	Q2405-04	MH-M/N	SAM	06/25/25 19:43		Jaswal	OK
60	PB168571TB	PB168571TB	MB	06/25/25 19:48		Jaswal	OK
61	CCV05	CCV05	CCV	06/25/25 19:52		Jaswal	OK
62	CCB05	CCB05	CCB	06/25/25 19:57		Jaswal	OK
63	PB168613BL	PB168613BL	MB	06/25/25 20:01	CCB fail for Cr	Jaswal	Not Ok
64	PB168613BS	PB168613BS	LCS	06/25/25 20:06	CCB fail for Cr	Jaswal	Not Ok
65	Q2409-02	COP-SOIL-PILE	SAM	06/25/25 20:10	CCB fail for Cr	Jaswal	Not Ok
66	Q2409-02DUP	COP-SOIL-PILEDUP	DUP	06/25/25 20:14	CCB fail for Cr	Jaswal	Not Ok
67	Q2409-02L	COP-SOIL-PILEL	SD	06/25/25 20:19	CCB fail for Cr	Jaswal	Not Ok
68	Q2409-02MS	COP-SOIL-PILEMS	MS	06/25/25 20:23	CCB fail for Cr	Jaswal	Not Ok
69	Q2409-02MSD	COP-SOIL-PILEMSD	MSD	06/25/25 20:28	CCB fail for Cr	Jaswal	Not Ok
70	Q2409-02A	COP-SOIL-PILEA	PS	06/25/25 20:32	CCB fail for Cr	Jaswal	Not Ok
71	Q2381-01DL2	291431DL2	SAM	06/25/25 20:37	CCB fail for Cr	Jaswal	Not Ok
72	Q2381-01DUPDL2	291431DUPDL2	DUP	06/25/25 20:41	CCB fail for Cr	Jaswal	Not Ok
73	CCV06	CCV06	CCV	06/25/25 20:46		Jaswal	OK
74	CCB06	CCB06	CCB	06/25/25 20:50	Fail for Cr	Jaswal	OK
75	Q2381-01LDL2	291431LDL2	SD	06/25/25 20:54	CCB fail for Cr	Jaswal	Not Ok
76	Q2381-01MSDL2	291431MSDL2	MS	06/25/25 20:59	CCB fail for Cr	Jaswal	Not Ok
77	Q2381-01MSDDL2	291431MSDDL2	MSD	06/25/25 21:03	CCB fail for Cr	Jaswal	Not Ok
78	Q2381-01ADL2	291431ADL2	PS	06/25/25 21:07	CCB fail for Cr	Jaswal	Not Ok

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB136273

Review By	Janvi	Review On	6/26/2025 11:24:19 AM
Supervise By	jaswal	Supervise On	6/26/2025 3:29:22 PM

STD. NAME	STD REF.#
ICAL Standard	MP85867,MP85897,MP85871,MP85870,MP85869,MP85868
ICV Standard	MP85934
CCV Standard	MP85875
ICSA Standard	MP85873,MP85874
CRI Standard	MP85897
LCS Standard	
Chk Standard	MP85876,MP85877

79	CCV07	CCV07	CCV	06/25/25 21:12		Jaswal	OK
80	CCB07	CCB07	CCB	06/25/25 21:16		Jaswal	OK

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

Prep Standard - Chemical Standard Summary

Order ID : Q2375

Test : Metals Group4

Prepbatch ID : PB168583,

Sequence ID/Qc Batch ID: LB136255,LB136255,LB136255,LB136273,

Standard ID :
MP85156,MP85867,MP85868,MP85869,MP85870,MP85871,MP85873,MP85874,MP85875,MP85876,MP85877,MP85896,MP85897,MP85934,

Chemical ID :
M5466,M5467,M5471,M5658,M5697,M5747,M5748,M5798,M5799,M5800,M5801,M5811,M5814,M5820,M5942,M5962,M5969,M5970,M5984,M5985,M5996,M5997,M6007,M6015,M6021,M6023,M6028,M6030,M6032,M6077,M6127,M6128,M6137,M6138,M6142,M6144,M6145,M6146,M6151,M6152,M6155,M6158,M6159,M6162,M6163,M6164,M6165,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	08/18/2025	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
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85867	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6162 = Final Quantity: 2500.000 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)	MP85868	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5471 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5970 + 5.00000ml of M5996 + 5.00000ml of M5997 + 5.00000ml of M6077 + 5.00000ml of M6146 + 455.00000ml of MP85867 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85869	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 50.00000ml of MP85867 + 50.00000ml of MP85868 = 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	MP85870	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 25.00000ml of MP85868 + 75.00000ml of MP85867 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
908	ICP AES S2/CRI MINERALS ONLY STD	MP85871	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 8.00000ml of MP85868 + 92.00000ml of MP85867 = 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
904	ICP AES ICSA SOLN	MP85873	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85867 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85874	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 10.00000ml of M6152 + 10.00000ml of M6155 + 80.00000ml of MP85867 = 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
911	ICP AES CCV SOLN	MP85875	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 50.00000ml of MP85867 + 50.00000ml of MP85868 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85876	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6162 = 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
903	ICP AES RINSE SOLN	MP85877	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 200.00000ml of M6162 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85896	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5969 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5942 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M6137 + 90.03000ml of MP85867 = 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
2951	ICP AES S1/CRI WORK STD	MP85897	06/02/2025	06/25/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/14/2025

FROM 2.00000ml of MP85896 + 90.03000ml of MP85867 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP85934	06/10/2025	06/25/2025	Sarabjit Jaswal	METALS_SCALE_1 (M SC-1)	METALS_PIPETTE_3 (A)	Mohan Bera 06/16/2025

FROM 0.20000ml of M6163 + 0.20000ml of M6164 + 0.20000ml of M6165 + 49.40000ml of MP85867 = Final Quantity: 50.000 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 #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

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.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

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.	/ 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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

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.	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.	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 #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	08/05/2024 / kareem	06/14/2024 / Jaswal	M5984

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-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	05/07/2024 / JANVI	02/22/2024 / kareem	M5996

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	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

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	T2-MEB723367	05/27/2026	05/27/2025 / Janvi	05/14/2024 / Jaswal	M6007

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	U2-MEB731108	03/17/2028	06/19/2025 / MOHAN	05/14/2024 / Jaswal	M6015

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.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

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	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

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	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

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

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.	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	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

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	06/30/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

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.	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	05/22/2029	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	06/01/2028	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	01/02/2030	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

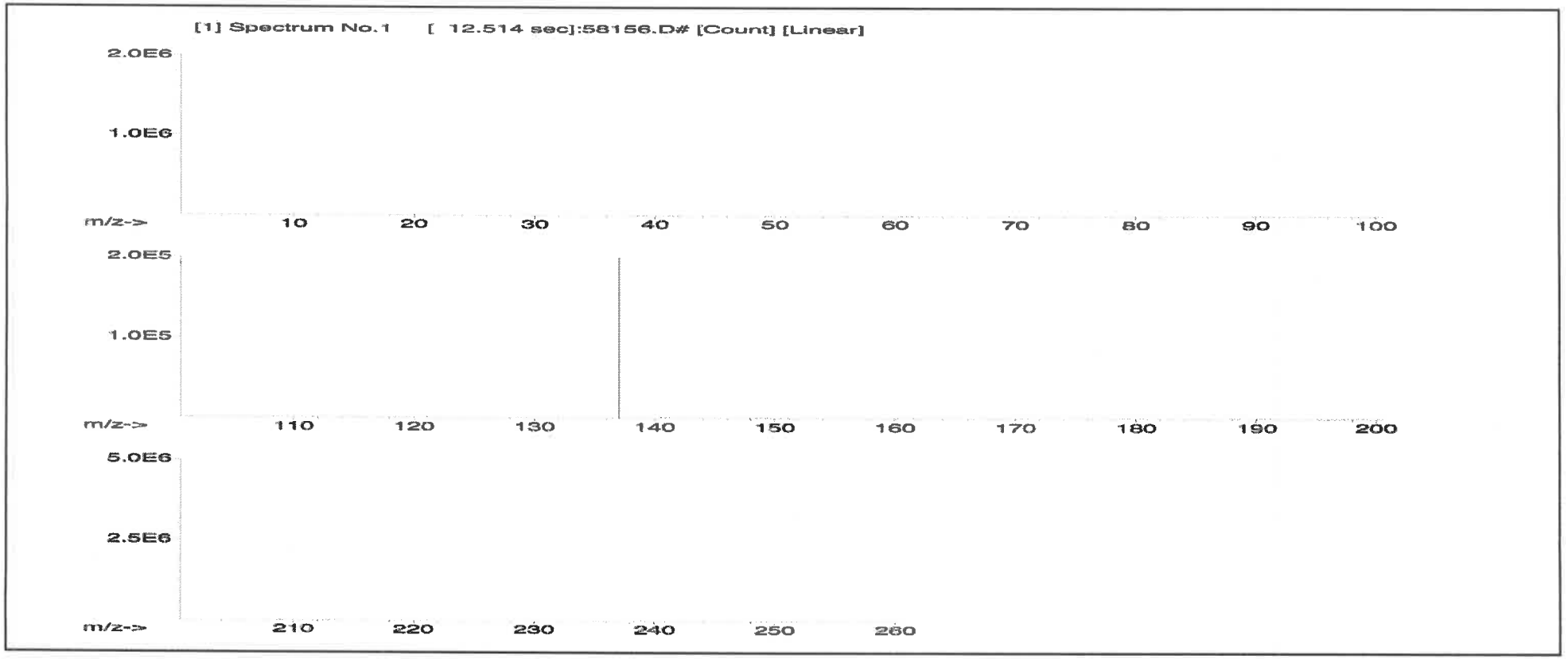
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**010924**				
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		

Lot #

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:

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		

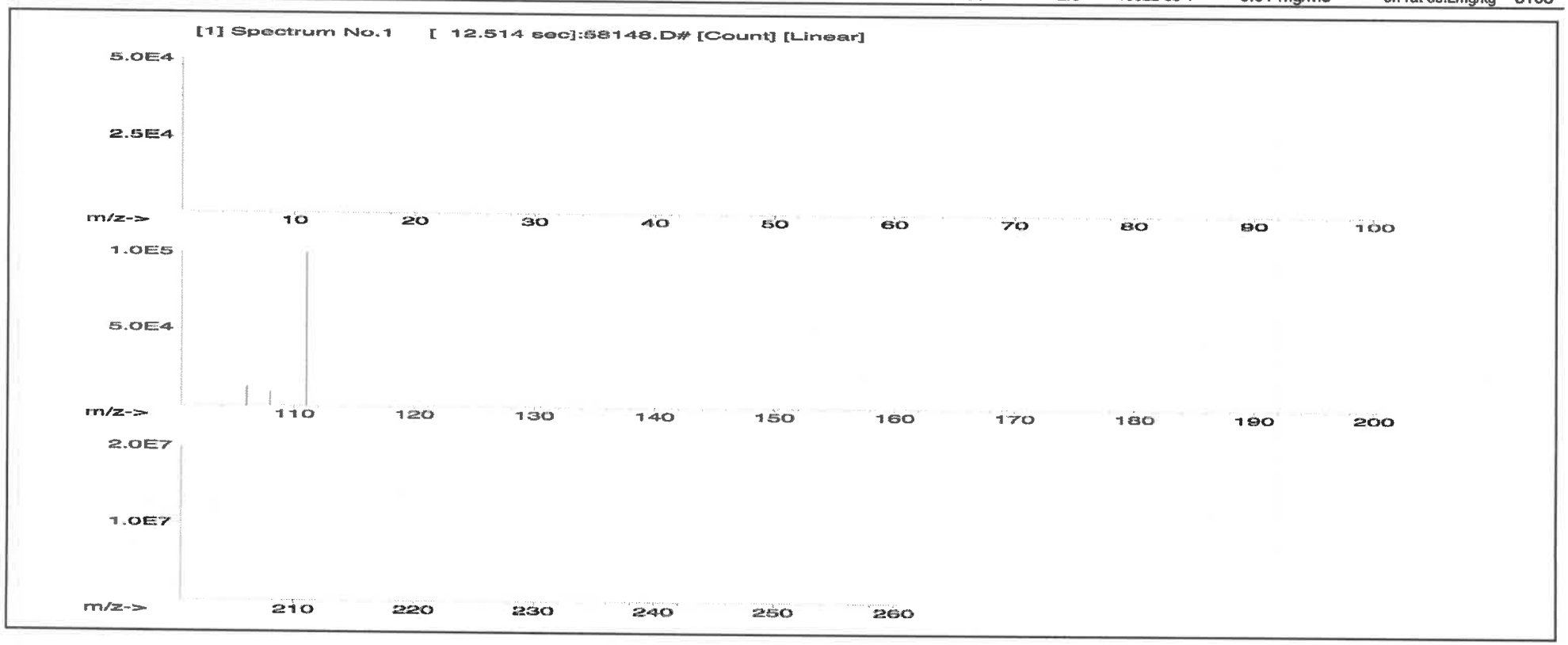
Aleah O'Brady

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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**58126**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**051523**			
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty	

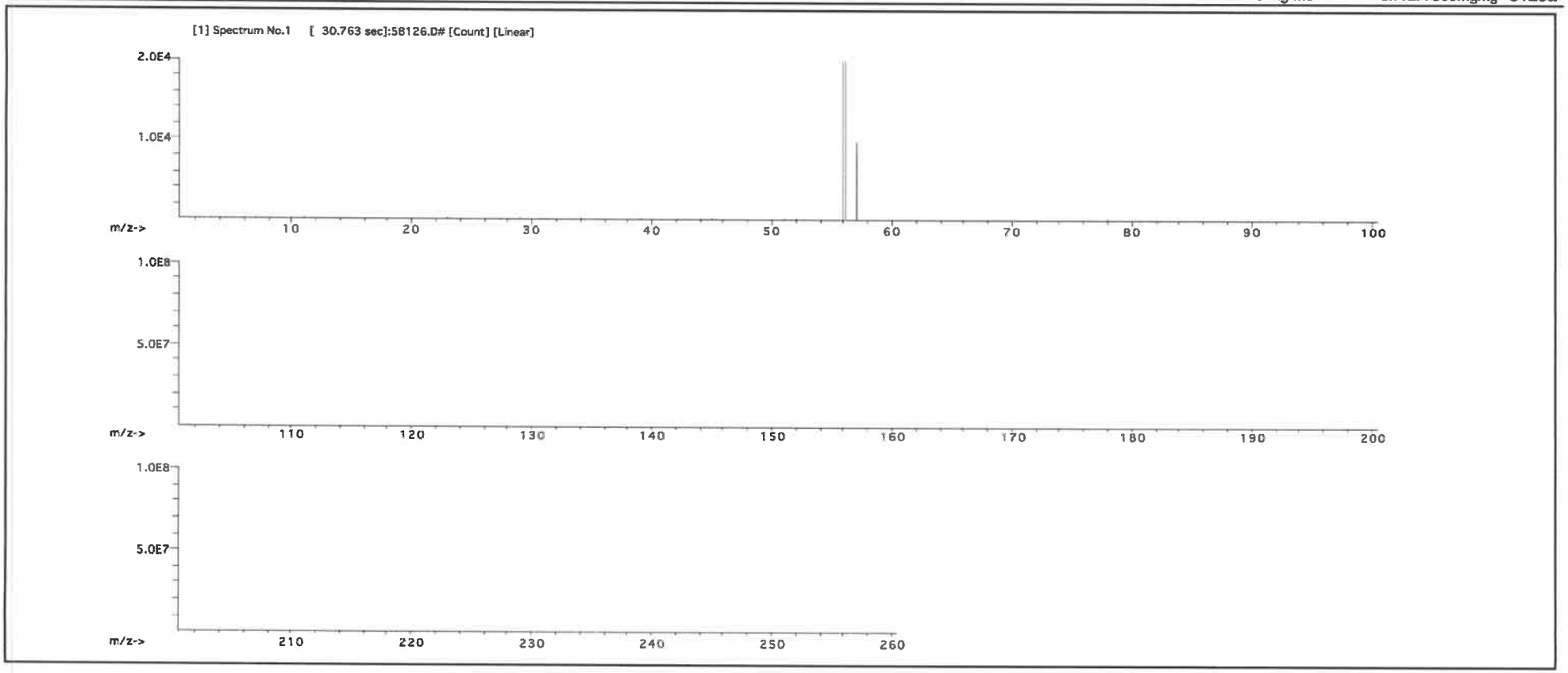
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* 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

RD:05/14/2024

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:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

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	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
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	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
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	Traceable to 3152A	S2-NA700842
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	IC 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

- 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**

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 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

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

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 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
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 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 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
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

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

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M 5466

Certified Reference Material CRM

R: 03/01/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

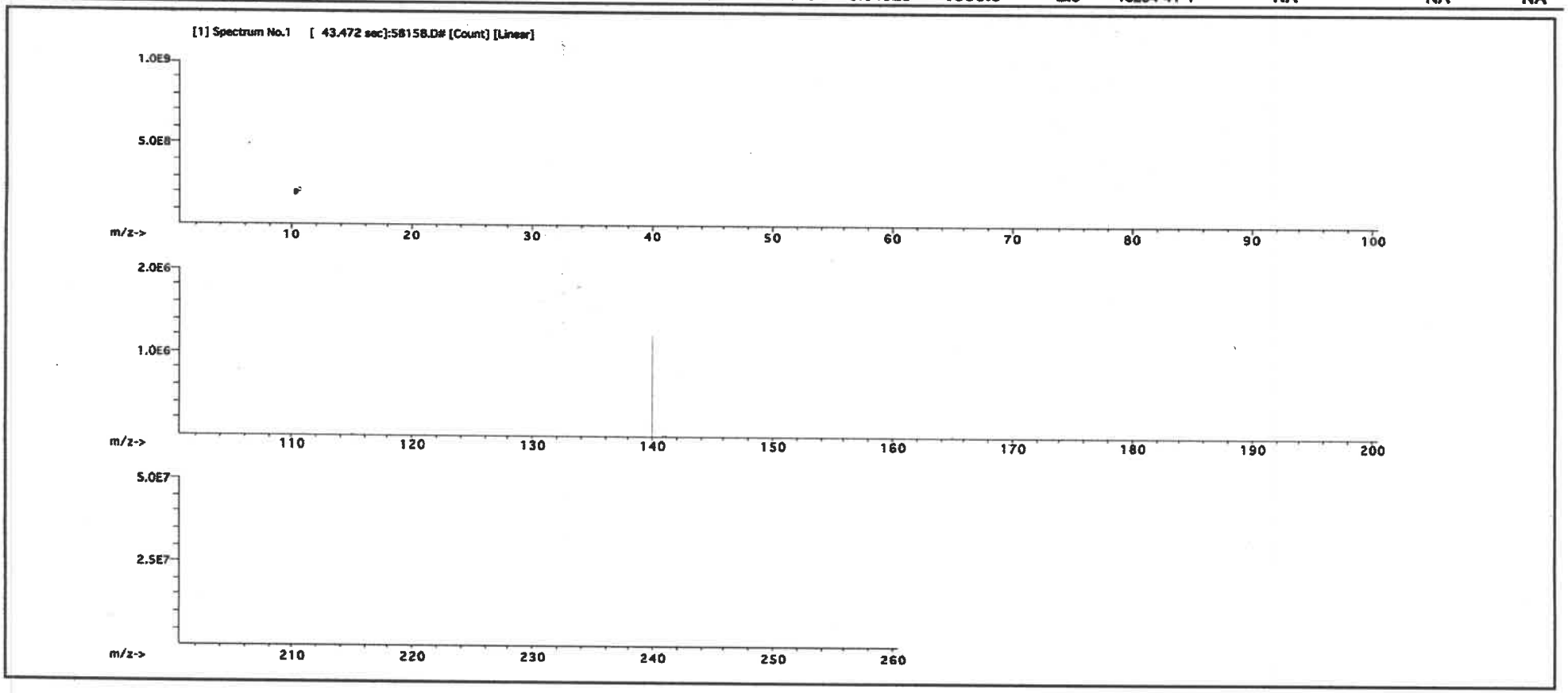
Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

	Lot #			
Solvent:	20510011	Nitric Acid	5E-05	Balance Uncertainty
2%	20.0 (mL)	Nitric Acid		

Formulated By: Lawrence Barry 061322
Reviewed By: Pedro L. Rentas 061322

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	3.04923	1000.0	2.0	10294-41-4	NA	NA	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 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

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)

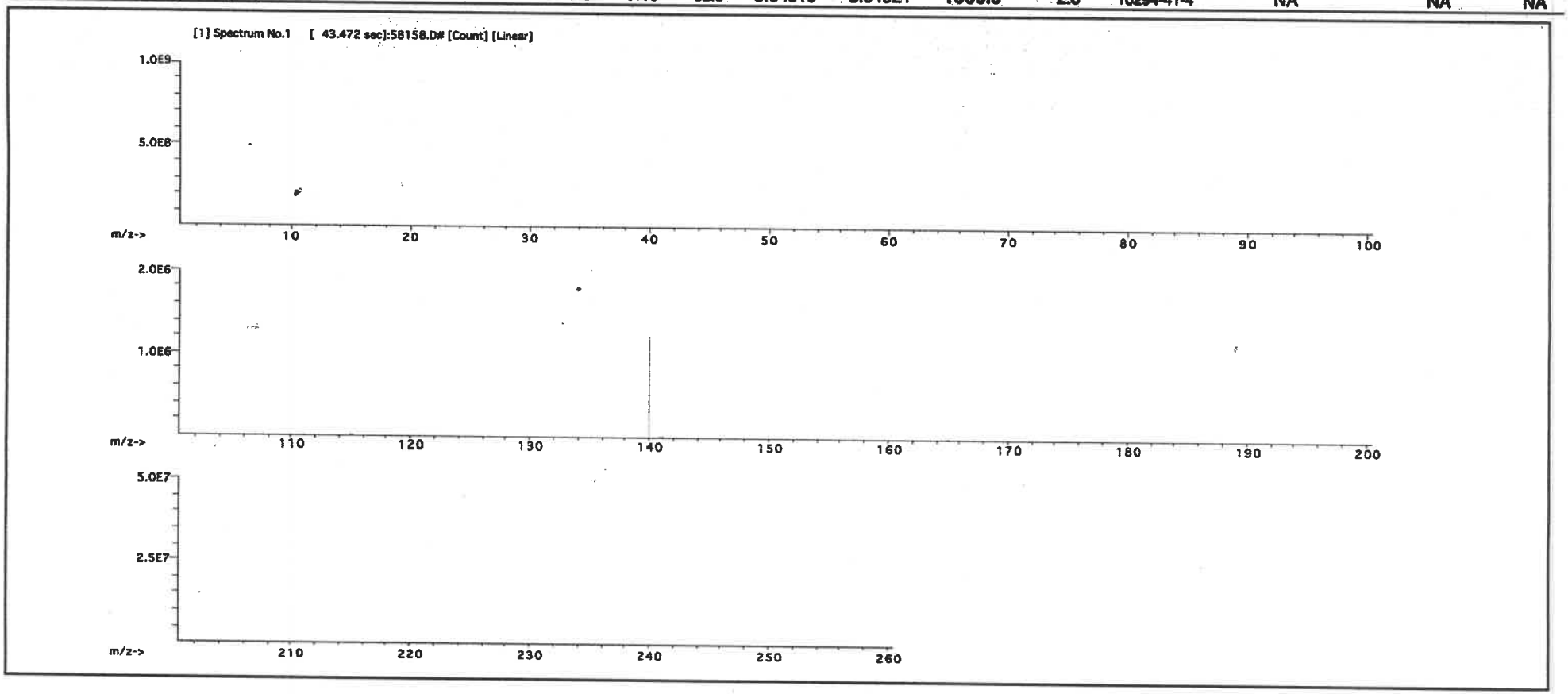
Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

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



2023-METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	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

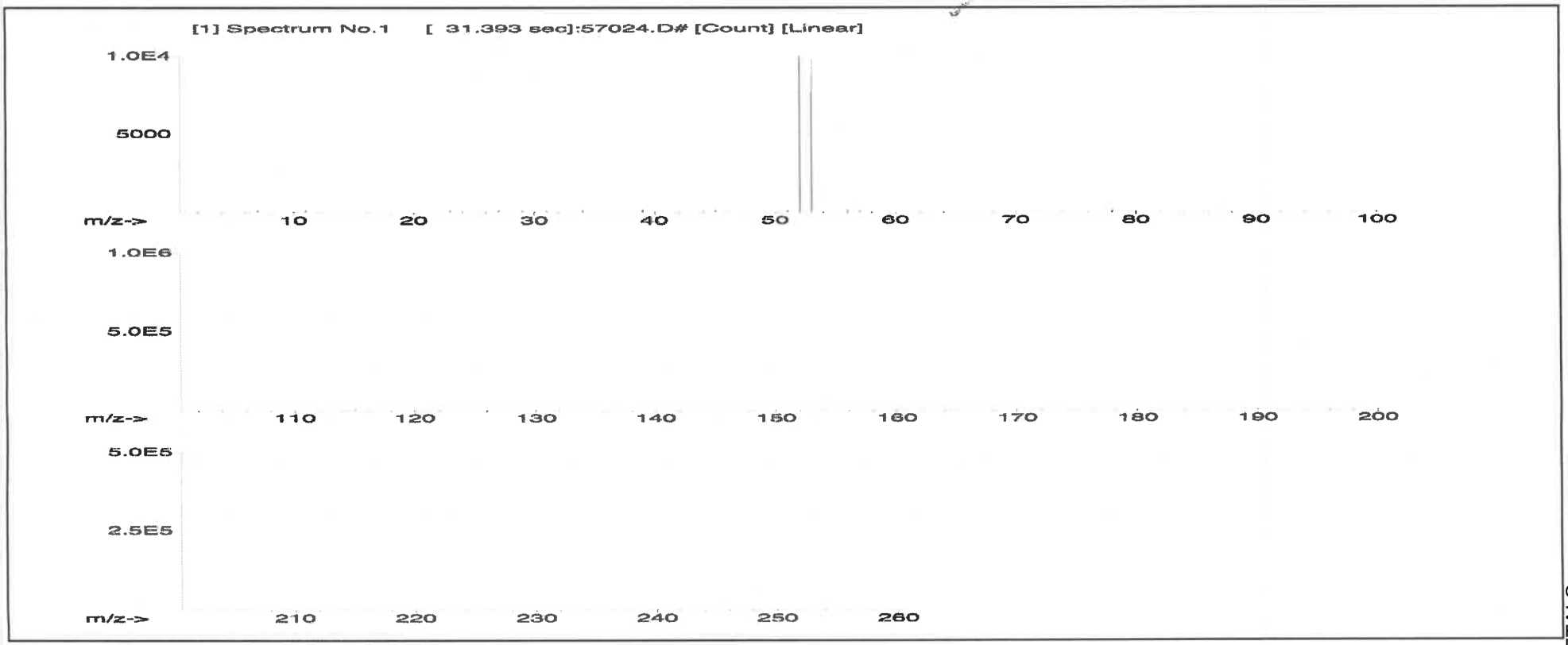
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

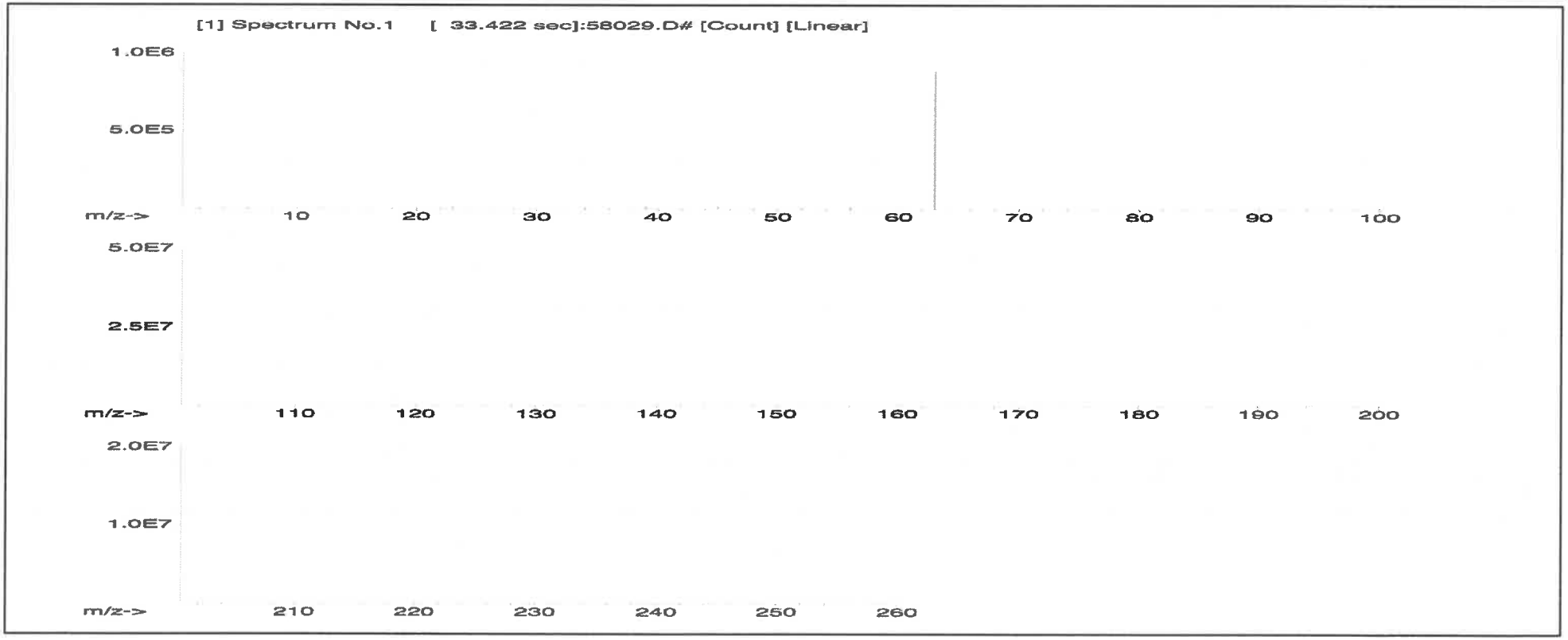
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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 M5747

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

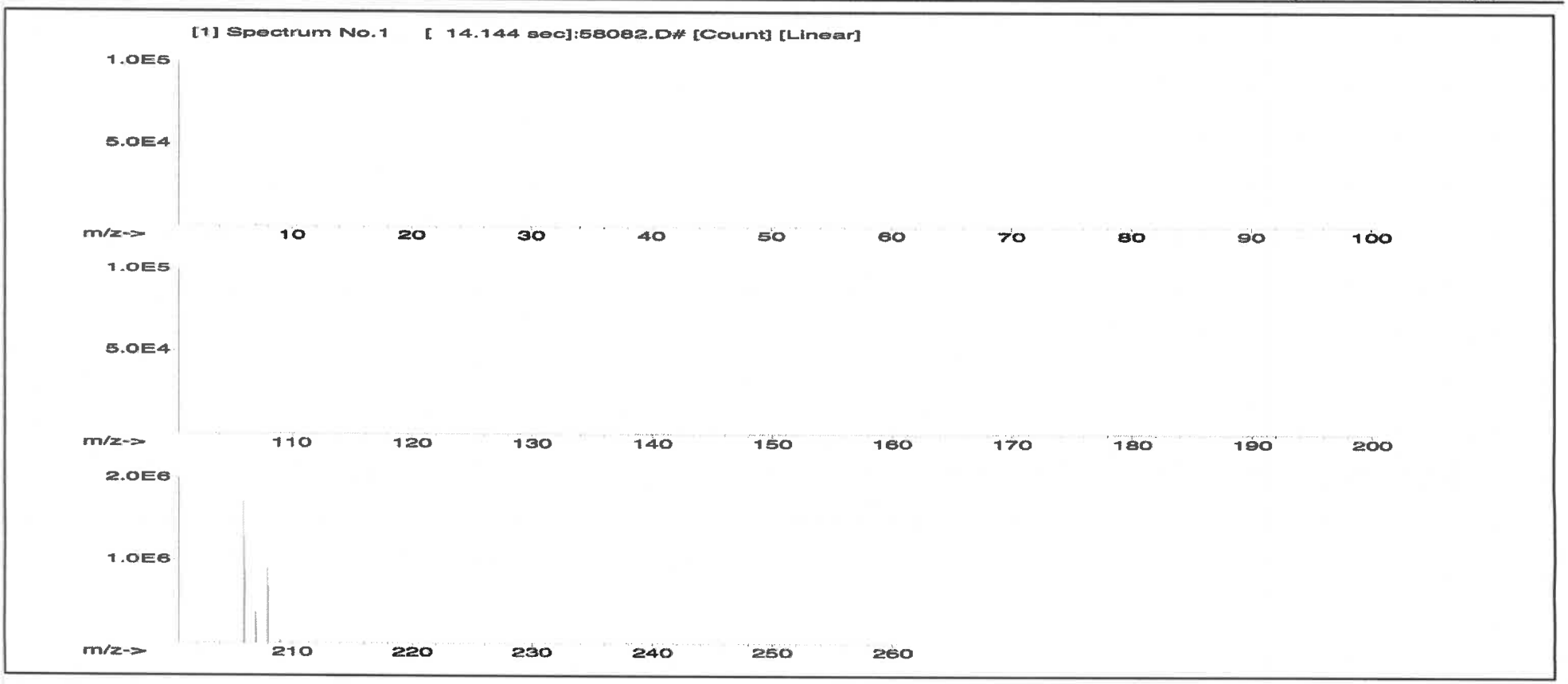
Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

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	4.80071	4.80077	**1000.0**	**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	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

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: 12/20/23 M5748

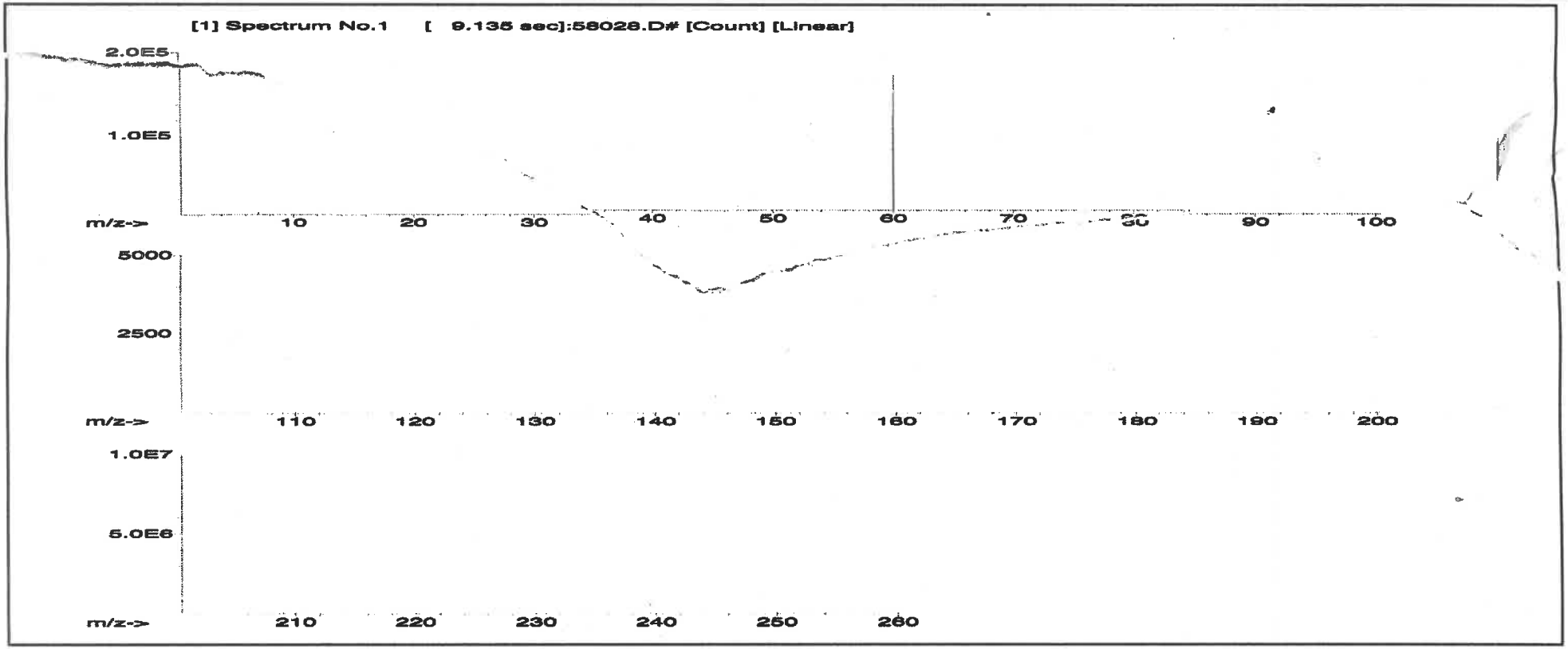
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

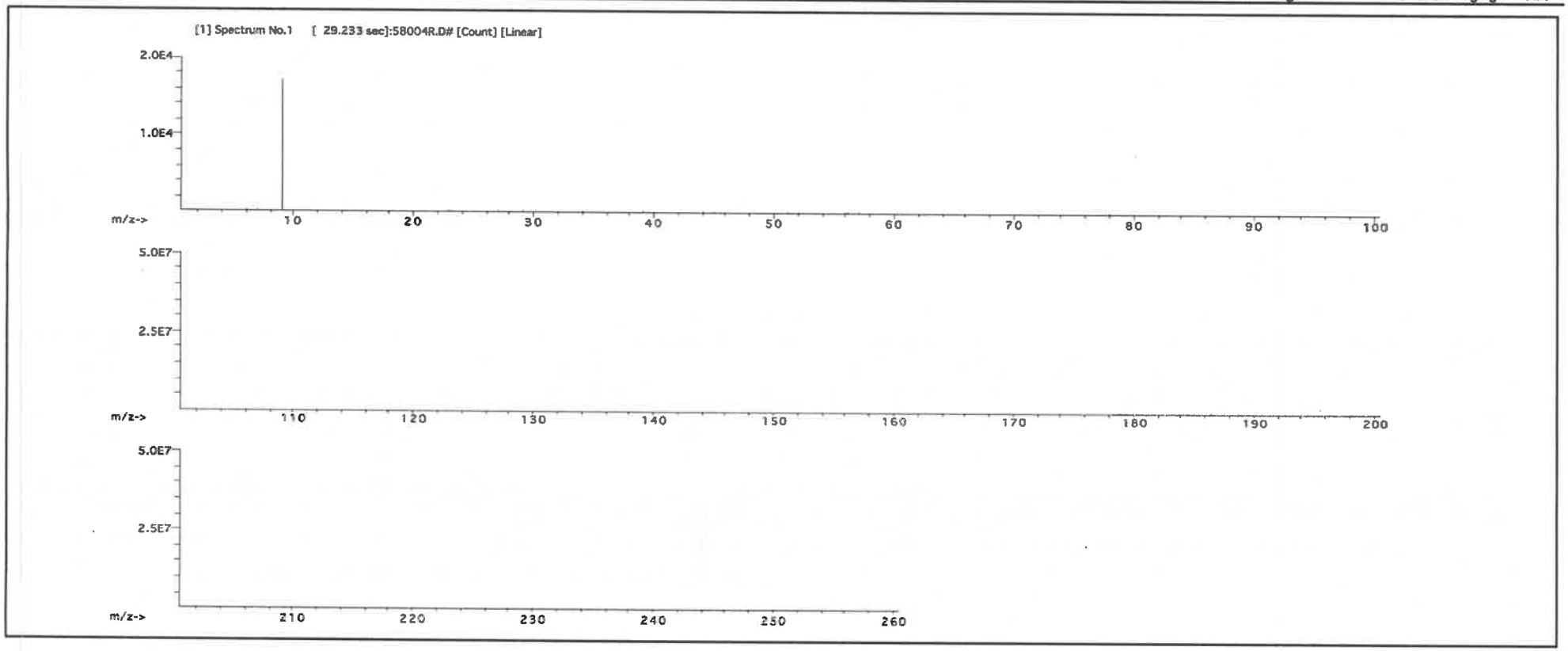
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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 IM5799

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

BA

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

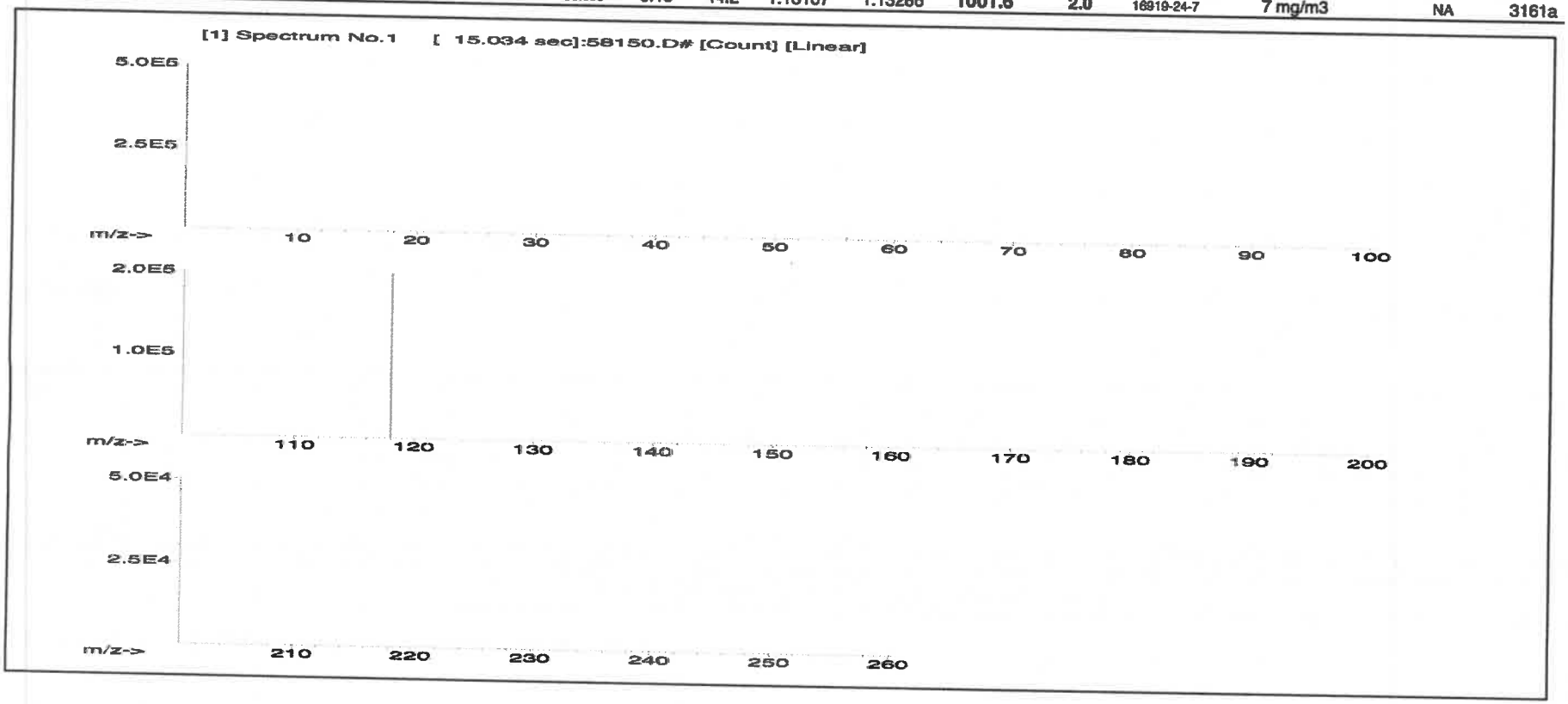
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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

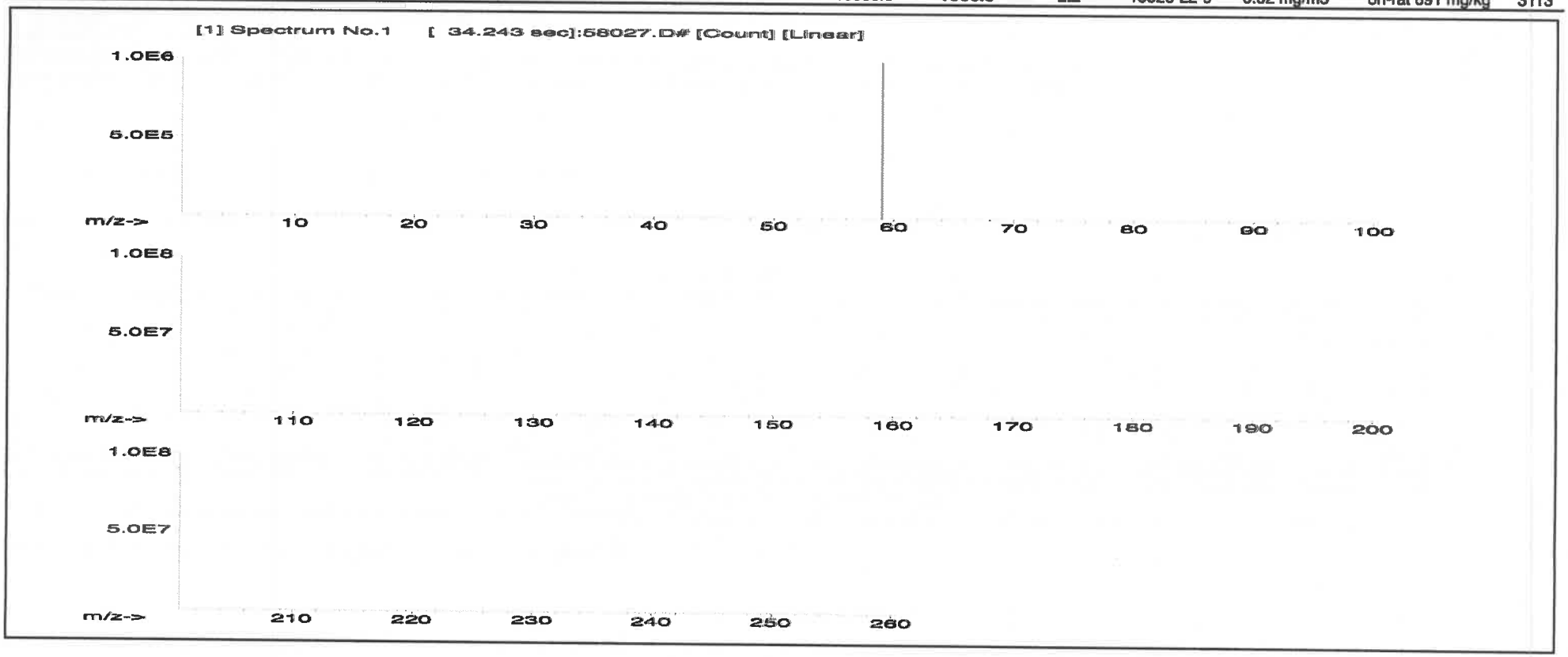
CERTIFIED WEIGHT REPORT:

		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

R: 02/09/24 M5801 BH

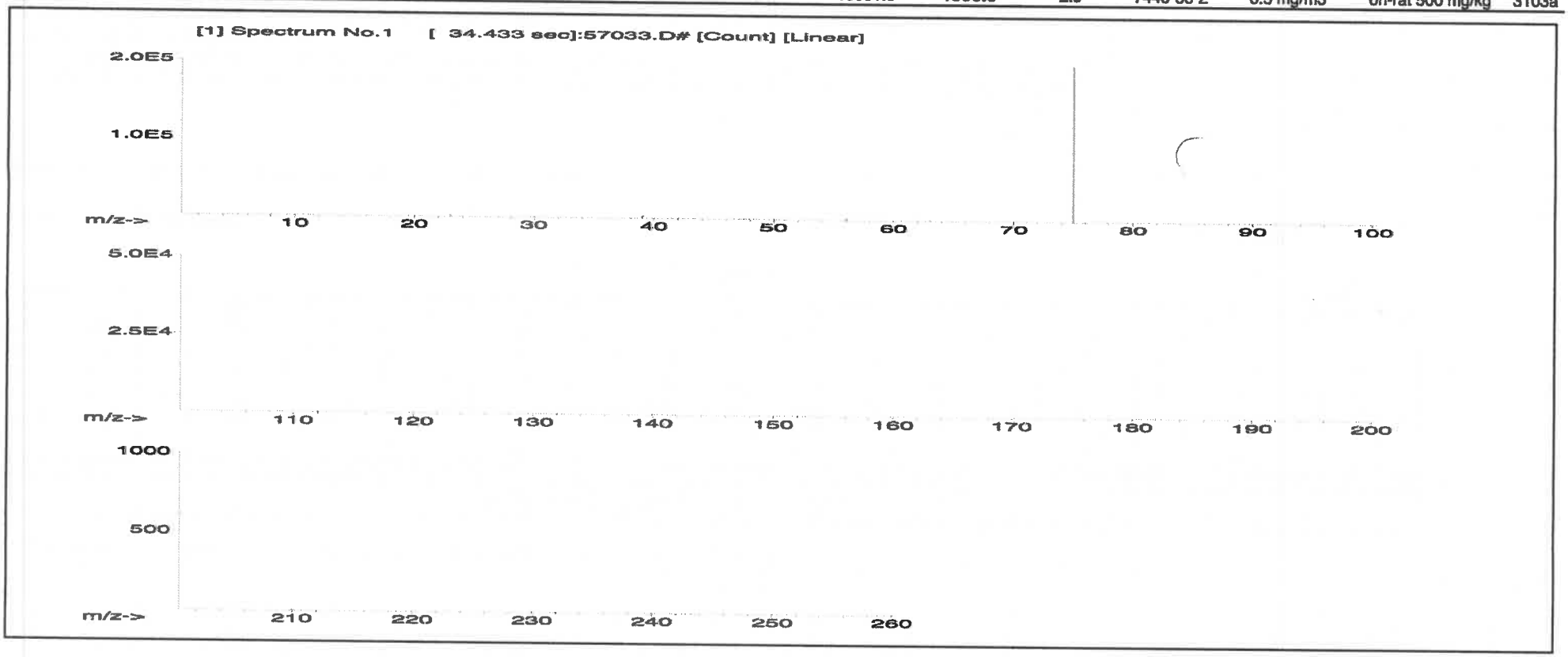
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
Description:	**Arsenic (As)**				
		2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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 Number: 071123
Description: Boron (B)

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

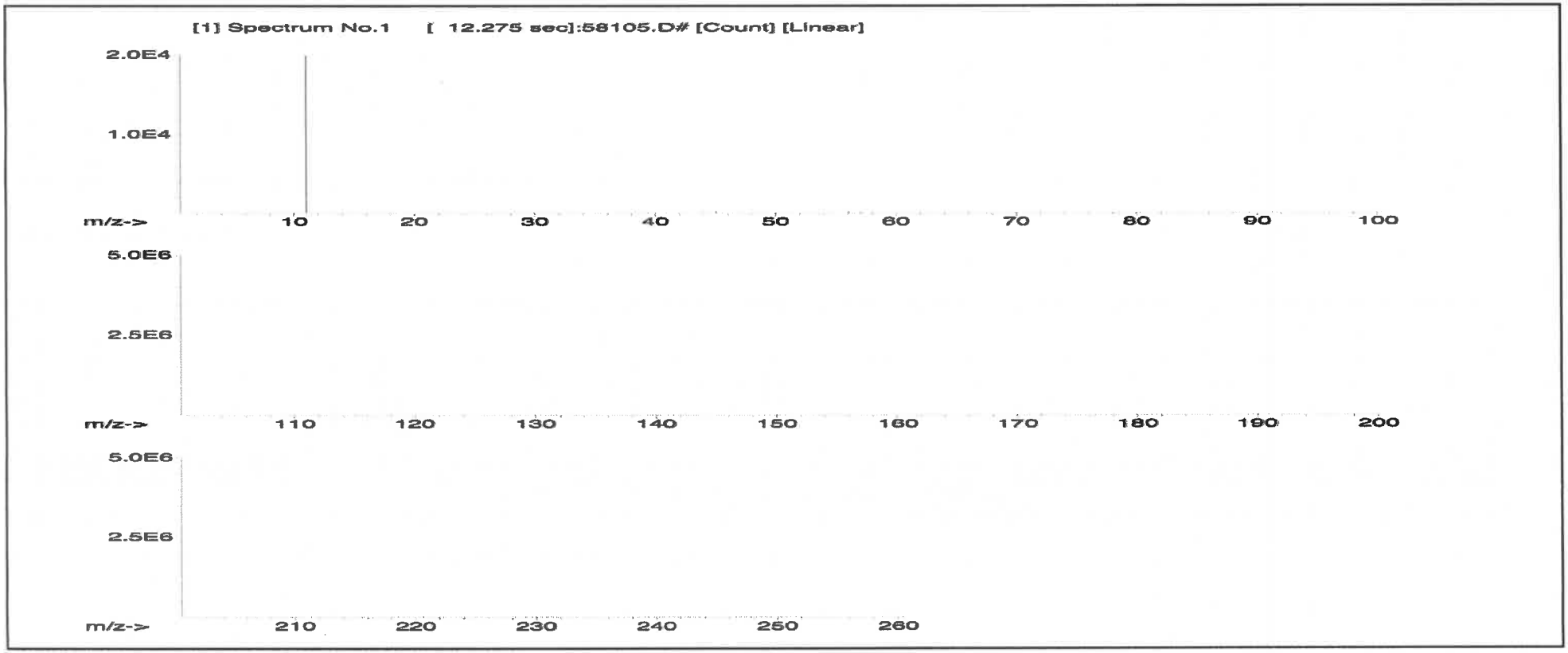
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Lot #			
Solvent:	MKBQ8597V	Ammonium hydroxide	
	2.0%	40.0 (mL)	Ammonium hydroxide

5E-05 Balance 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 M5820

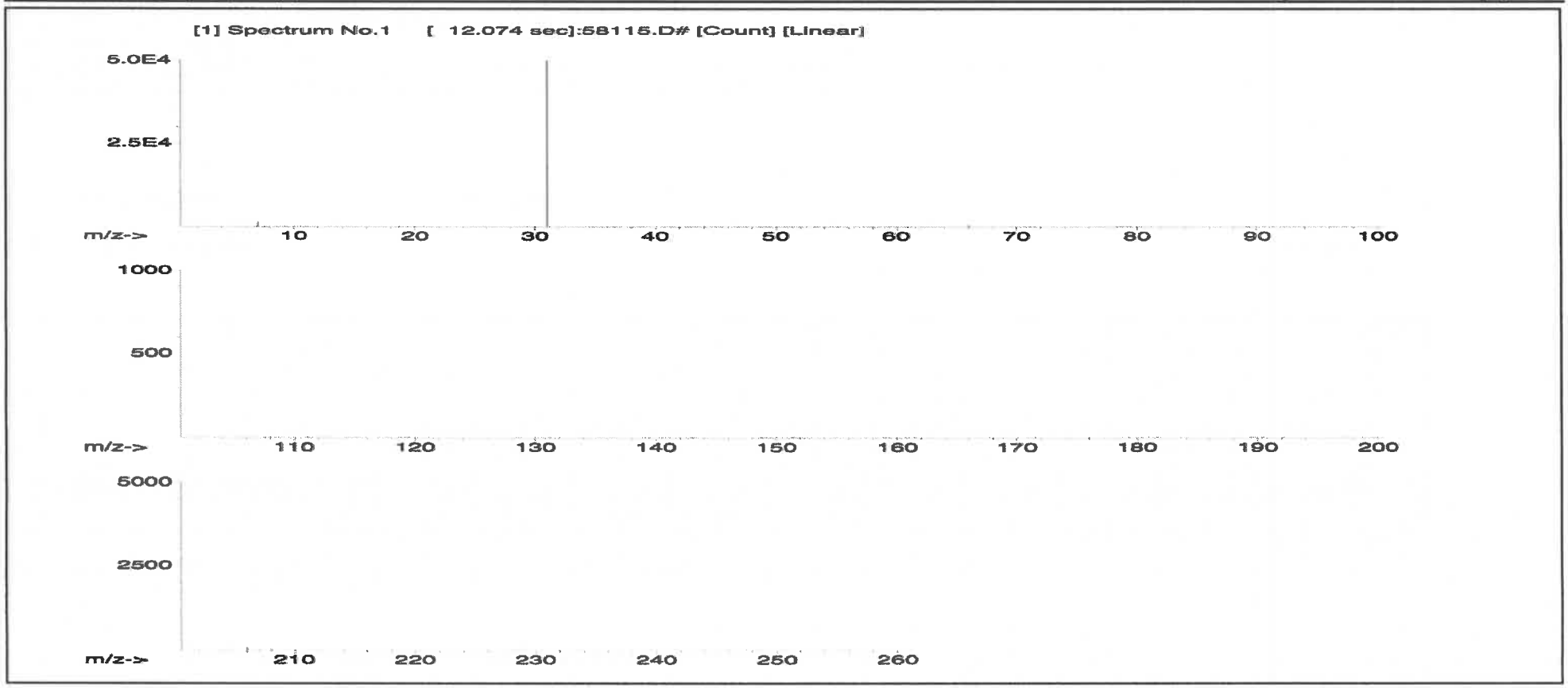
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57015**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**091123**			
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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 02/22/24 M5942

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:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

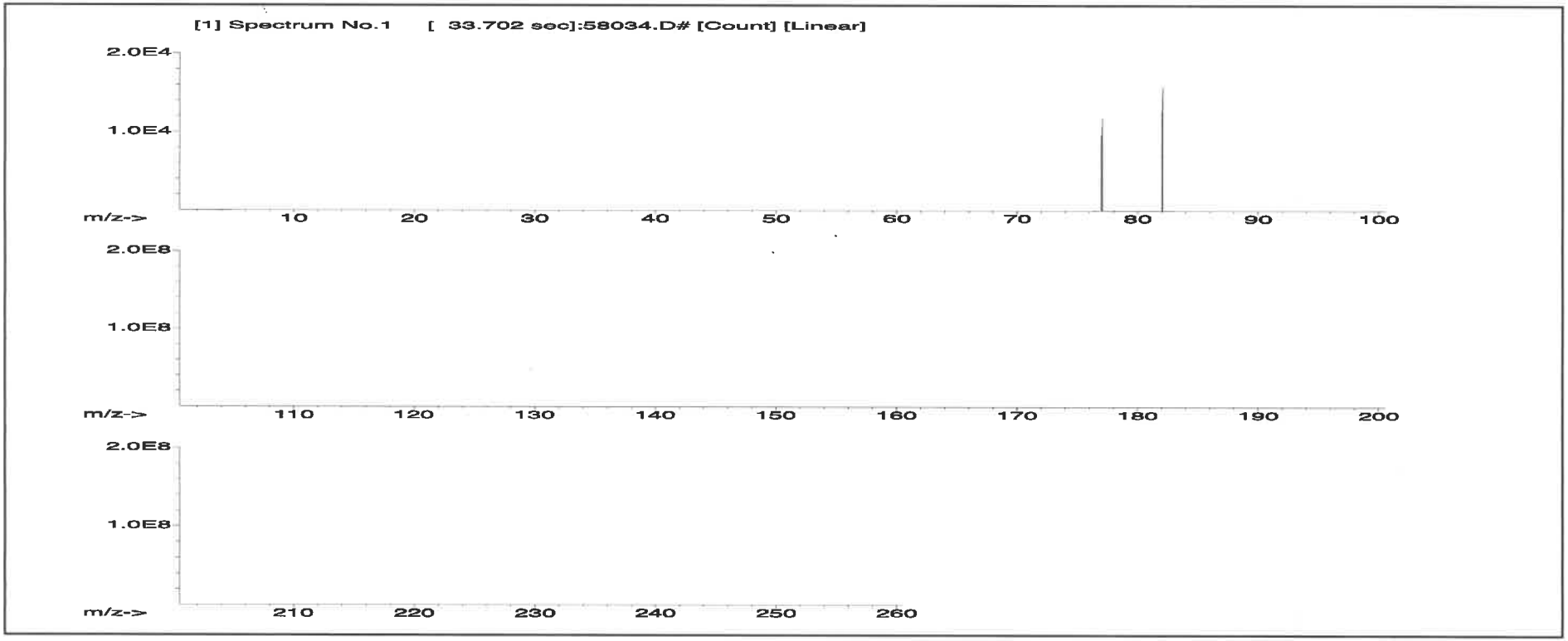
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

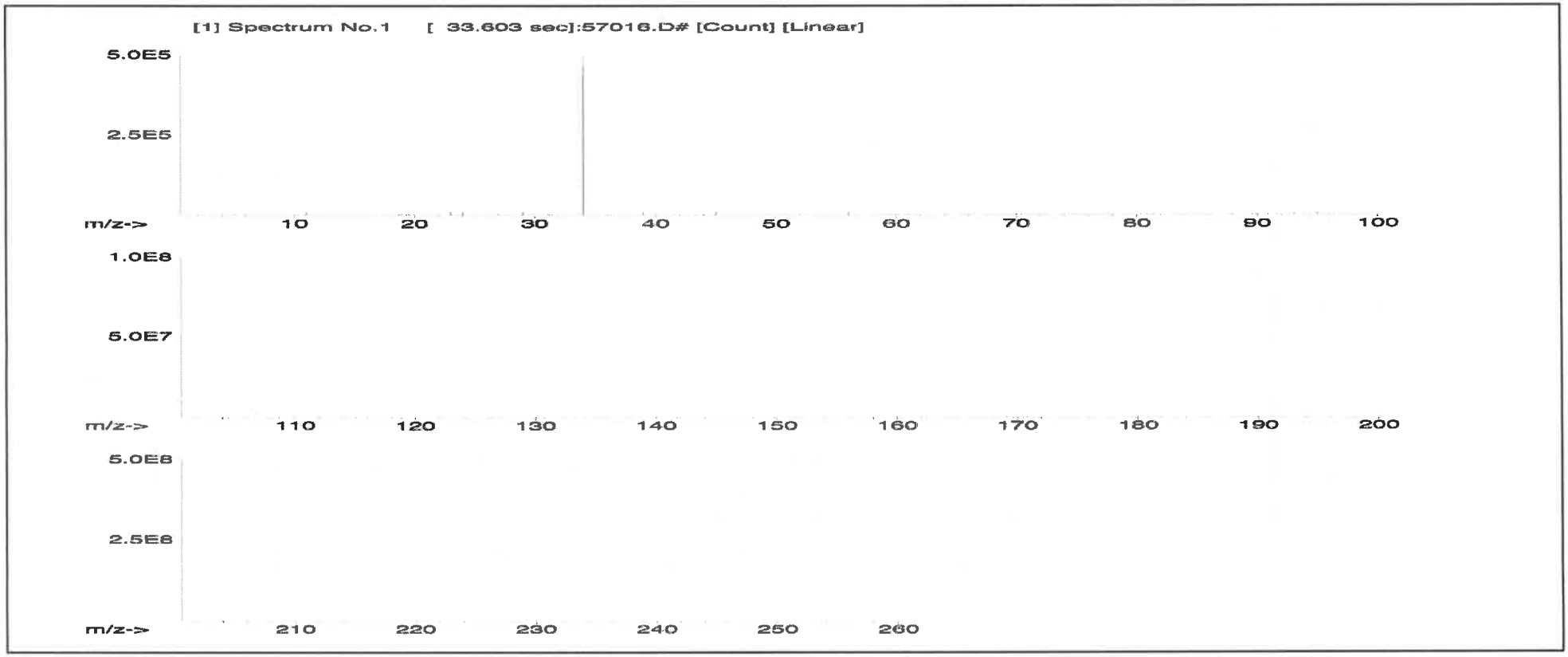
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

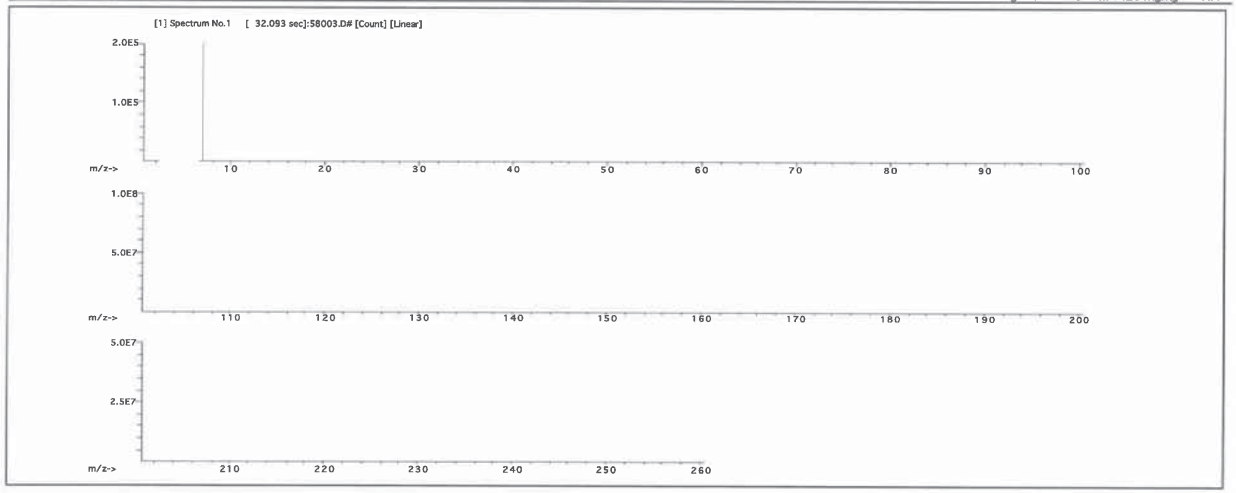
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

MS984
R:6/14/24

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

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

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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

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

R: 2/22/24
M5996

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:	CLPP-CAL-1
Lot Number:	T2-MEB714417
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	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 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
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
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
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	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC 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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

- 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**

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

January 27, 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

- January 27, 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

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

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:

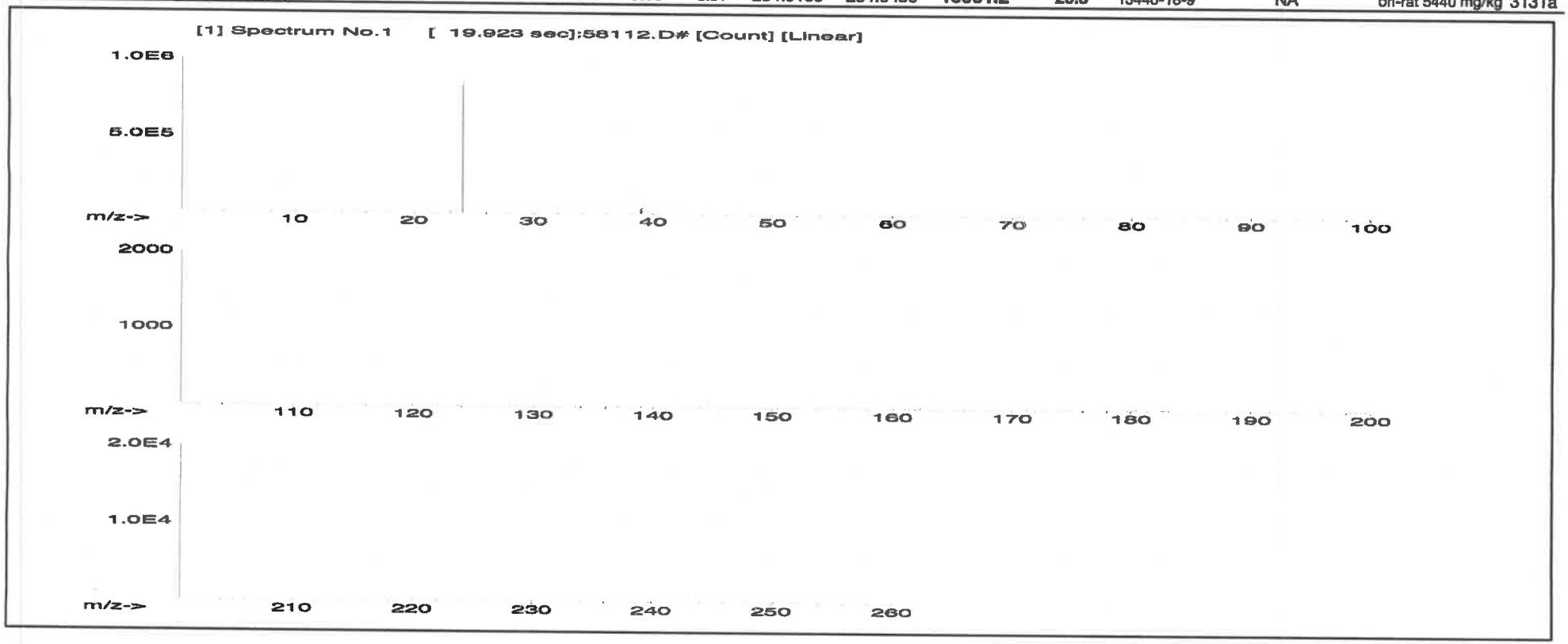
R -> 1/13/25
M 6127

Part Number:	**58112**			**Lot #**	
Lot Number:	**112124**	**Solvent:**	24012496	Nitric Acid	
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	112127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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:

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
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	

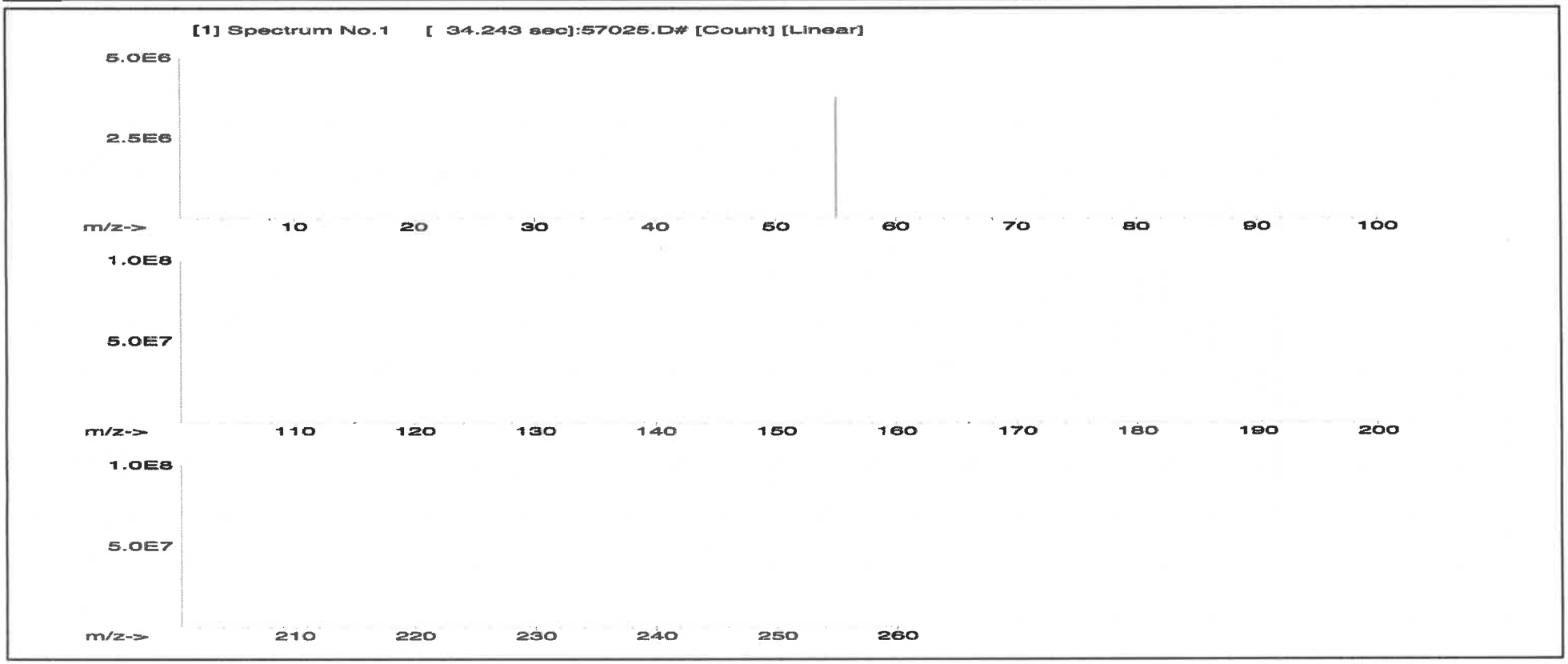
5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.2 0.10 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
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:

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

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

M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

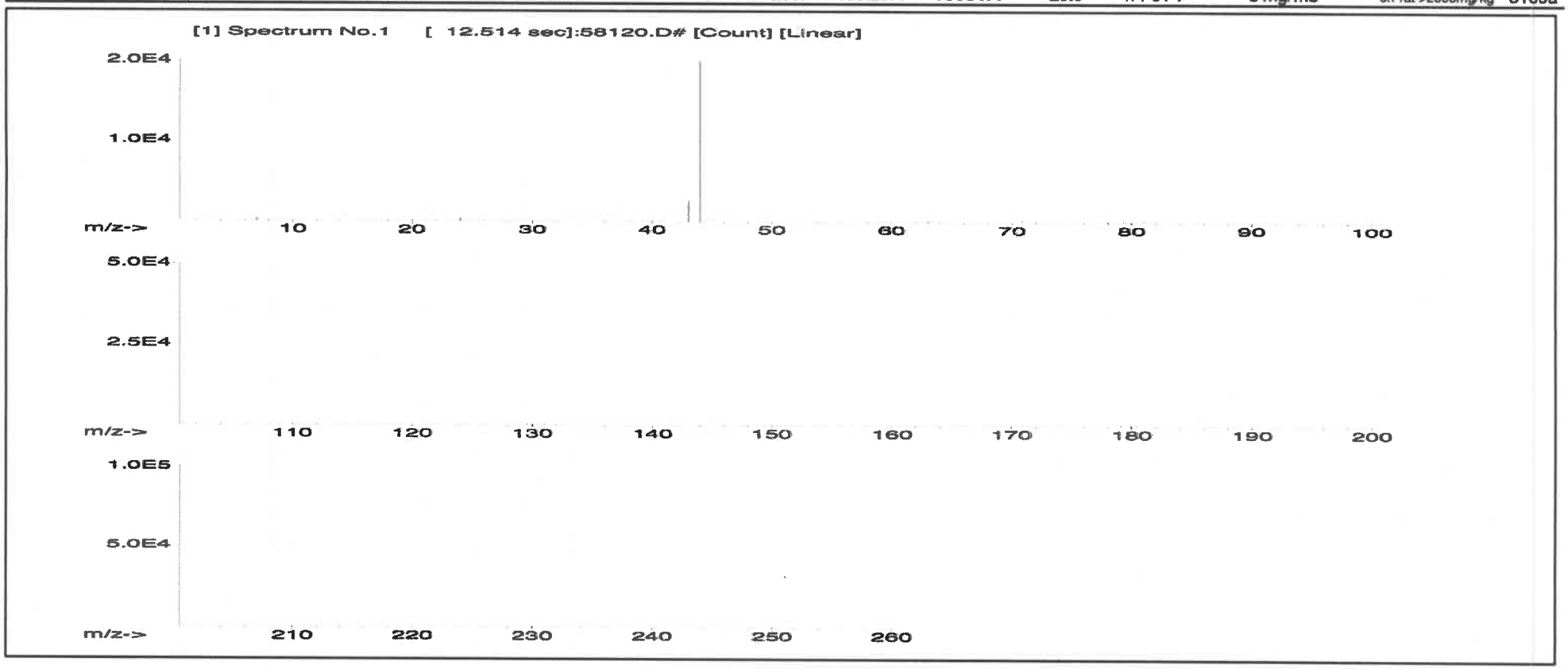
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #			
Solvent:	24012496	Nitric Acid		
2%	80.0 (mL)	Nitric Acid		
			5E-05	Balance Uncertainty
			0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

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	100.2677	**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).

Part # **58120** Lot # **121824**

Printed: 1/10/2025, 4:48:14 PM

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 Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

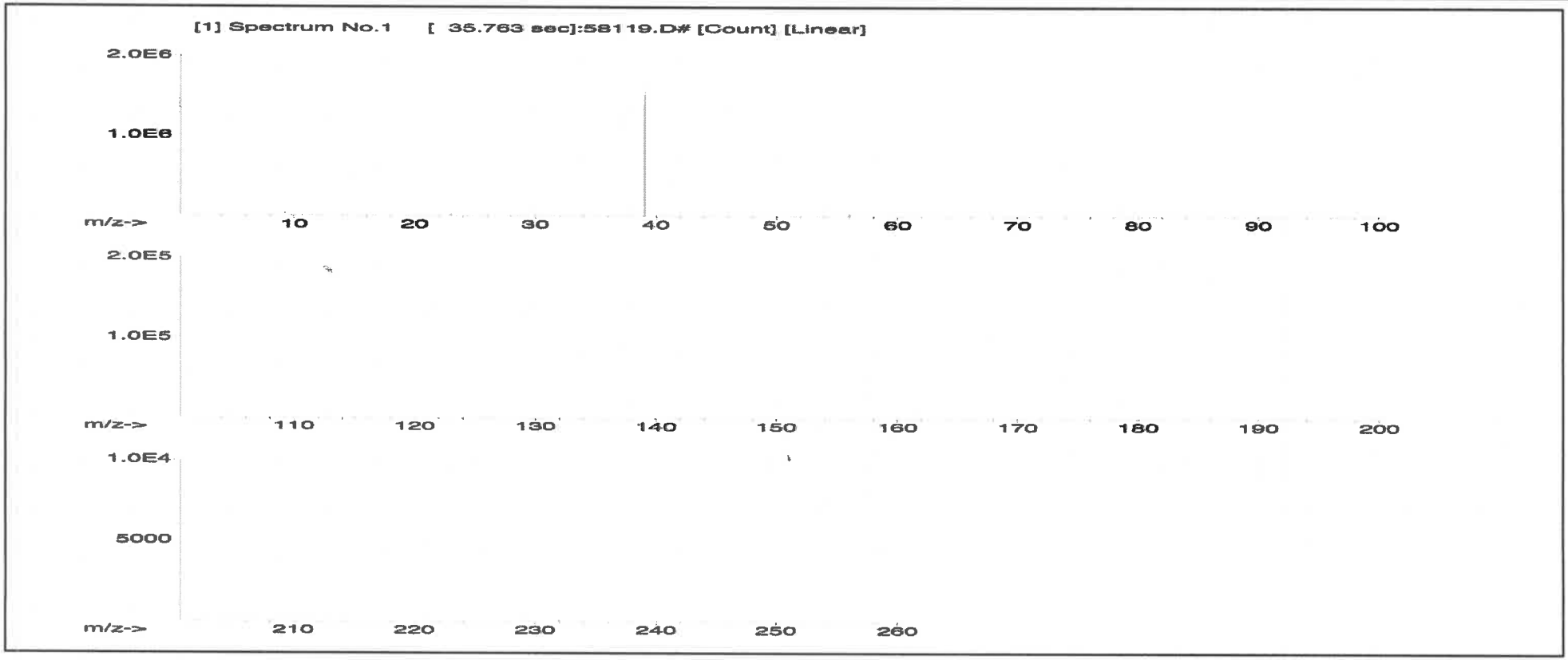
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
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:

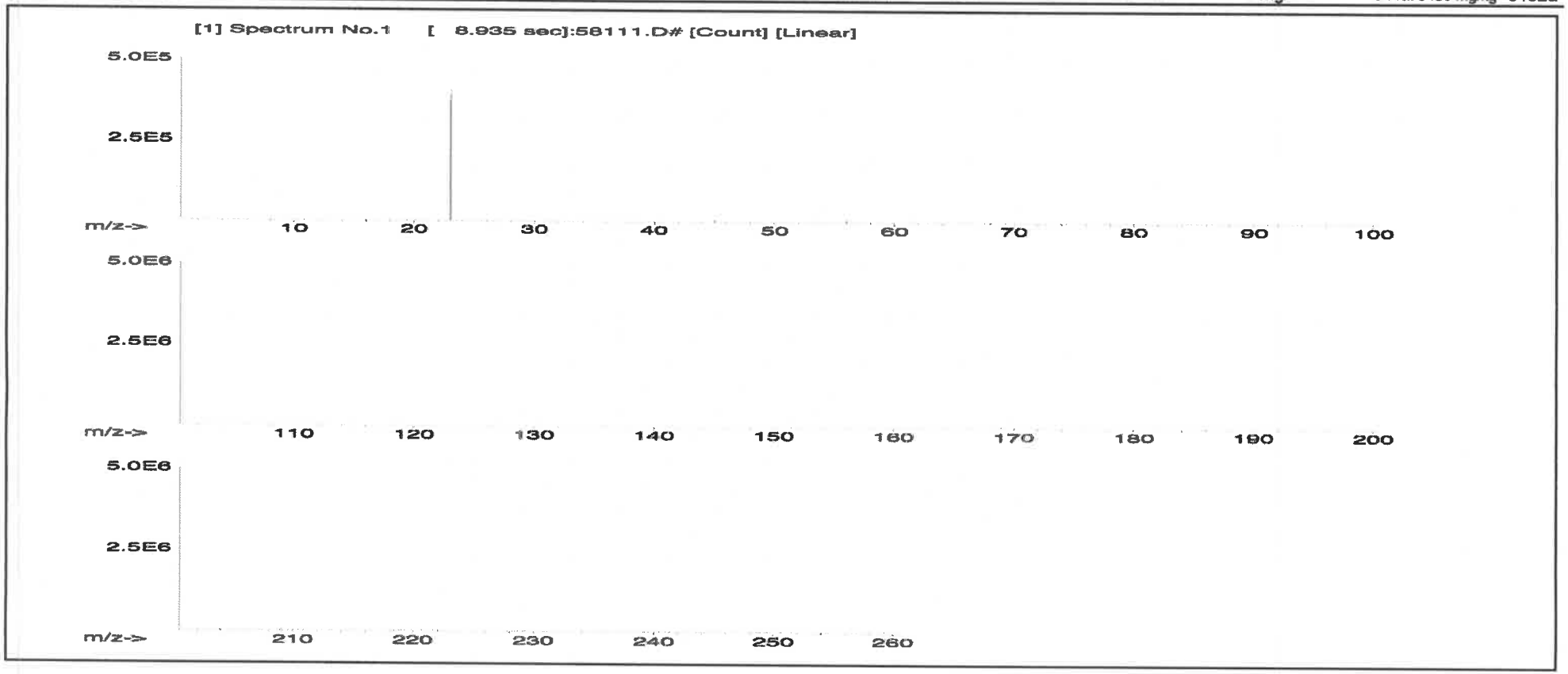
R->1/13/25

M6144

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Rentas	072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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

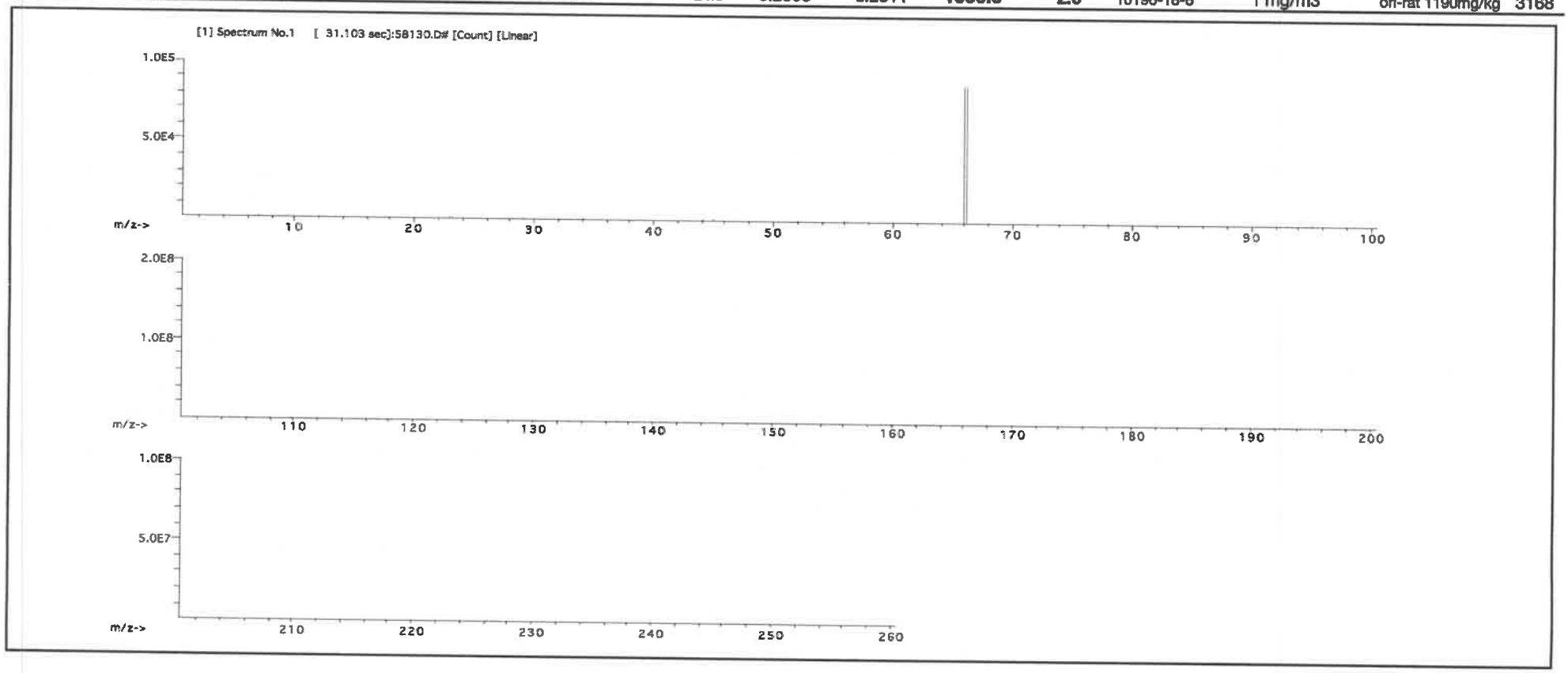
Weight shown below was diluted to (mL): 2000.1 ± 0.10 Flask Uncertainty

		Lot #	
Solvent:	24012496	Nitric Acid	5E-05 Balance Uncertainty
	2%	40.0 (mL)	Nitric Acid

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.

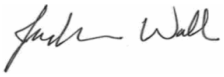
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

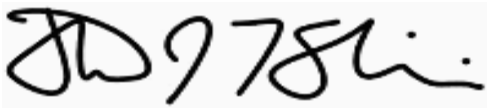
- Sealed TCT Bag Open Date: _____

- 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.

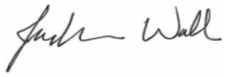
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

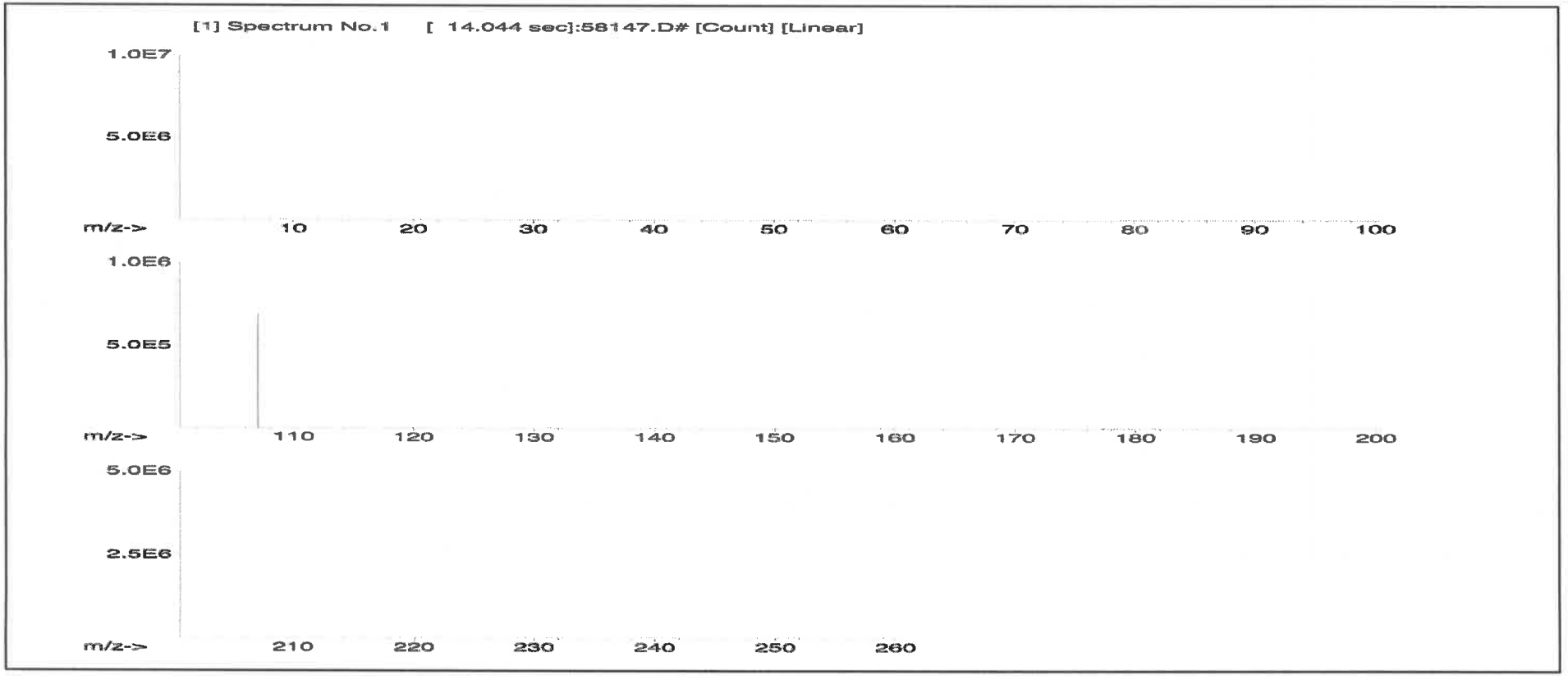
Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

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

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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 ± 0.058 Flask Uncertainty

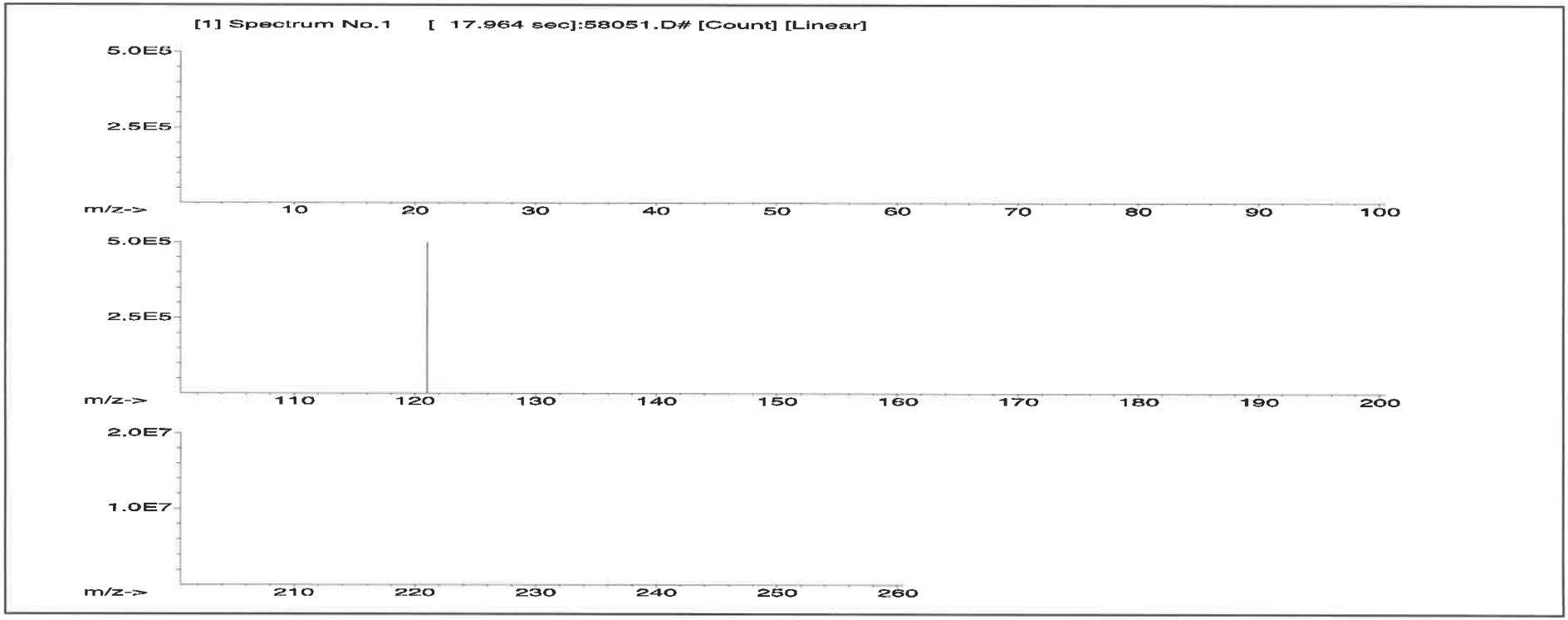
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	071724
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).

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.

M6152

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.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6155

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.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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 885.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

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

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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

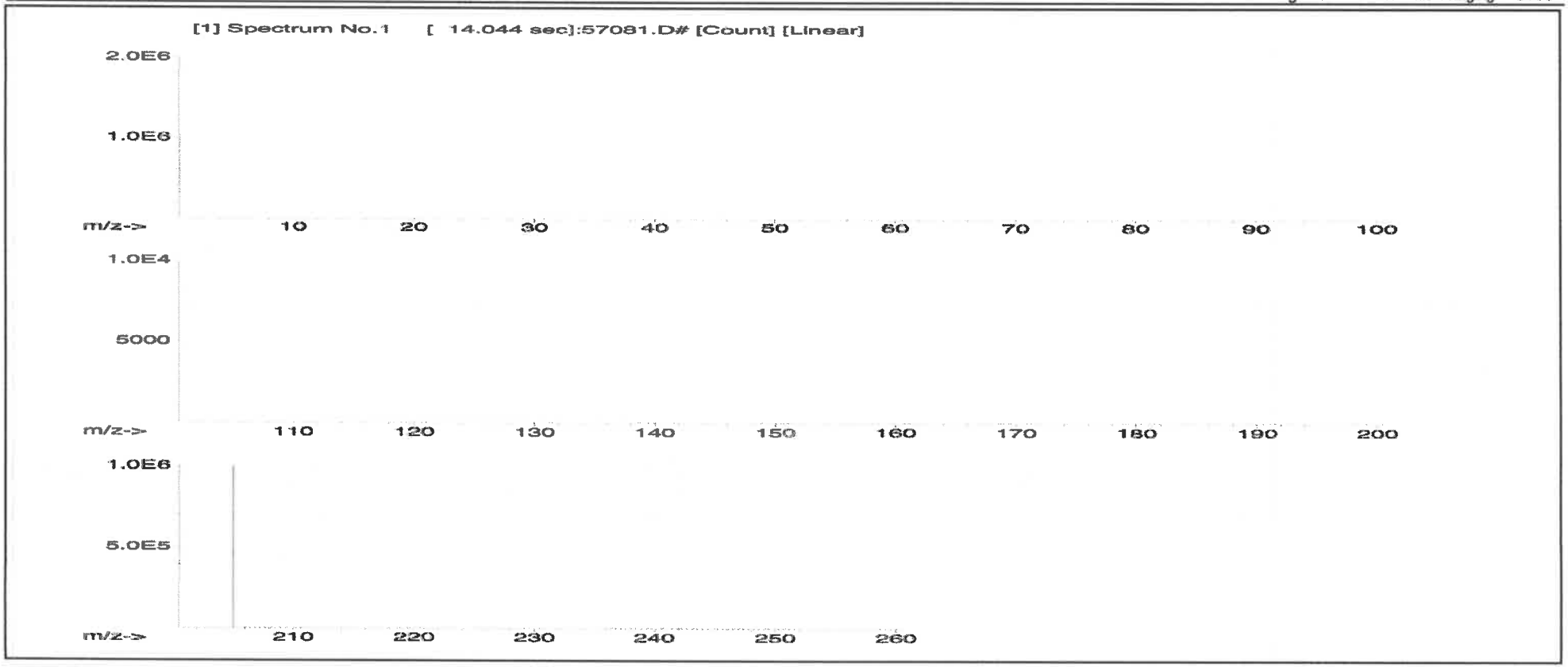
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
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	

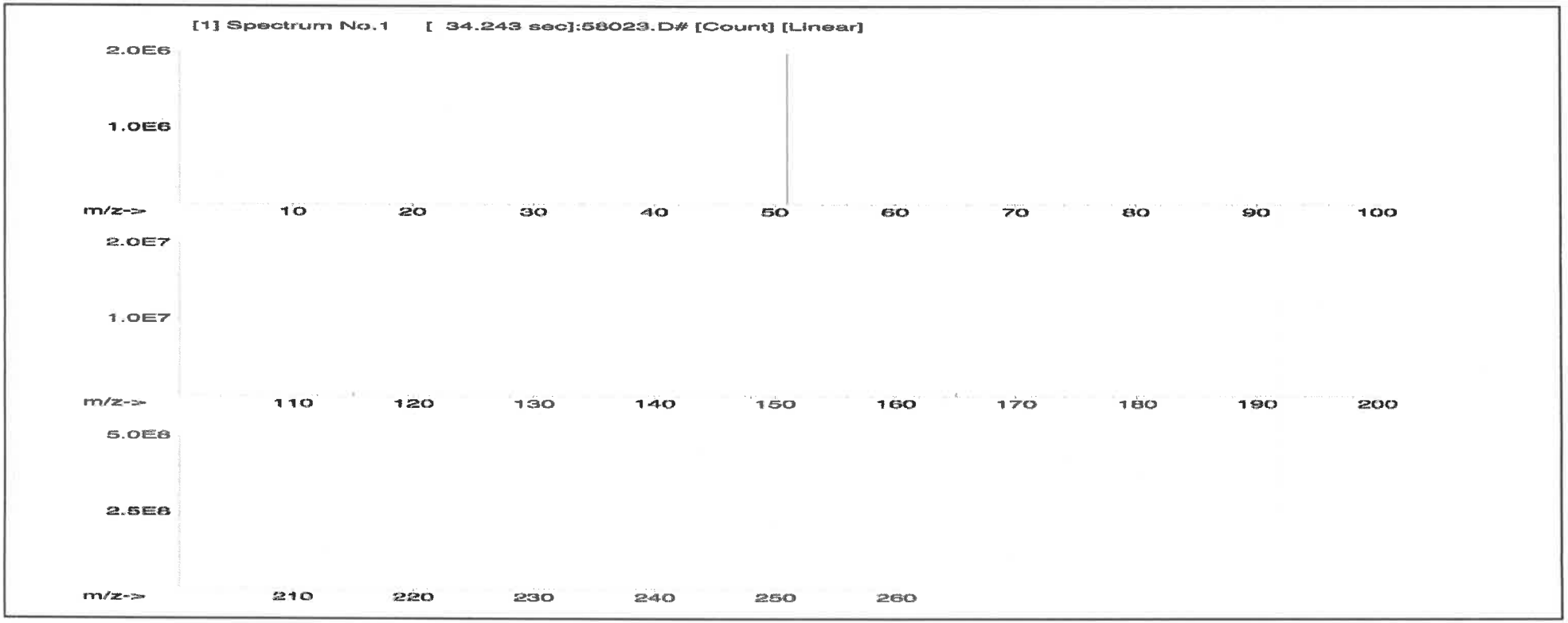
Aleah O'Brady

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

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: Q2375

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: PO#
ADDRESS: 4433 Corporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: RW8	ADDRESS:
CITY: Virginia Beach STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu	CITY: STATE: ZIP:
ATTENTION: Ernie Wu	E-MAIL: ernie,wu@tetratech.com	ATTENTION: PHONE:
PHONE: 757-466-4901 FAX: 757-461-4148	PHONE: 757-466-4901 FAX: 757-461-4148	

DATA TURNAROUND INFORMATION

FAX: 10 DAYS*
HARD COPY: 10 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ❑ RESULTS ONLY
- ❑ RESULTS + QC
- ❑ New Jersey REDUCED
- ❑ New Jersey CLP
- ❑ USEPA CLP
- ❑ New York State ASP "B"
- ❑ New York State ASP "A"
- ❑ Other
- ❑ EDD Format

ANALYSIS

1	2	3	4	5	6	7	8	9
1,4-Dioxane SW846 8270 SIM	Iron, Total	TSS	TDS					

CHEMTECH 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
									B								<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.	RW8-SP100-20250619	GW		x	6/19/25	13:05	4	x	x	x	x						pH 1.3 #80A0441
2.	RW8-SP303-20250619	GW		x	6/19/25	13:13	4	x	x	x	x						pH 1.3 #80A0441
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/19/25 1570	1. 1553 6-19-25
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.	6-19-25 183	3.

Conditions of bottles or coolers at receipt: ❑ Compliant ❑ Non Compliant ❑ Cooler Temp 2.2°C ❑ Ice in Cooler?:
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:

Page of

SHIPPED VIA: CLIENT: ❑ Hand Delivered ❑ Overnight
CHEMTECH: ❑ Picked Up ❑ Overnight

Shipment Complete ❑ YES ❑ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

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