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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 : Q2696

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q2696

Project ID : NWIRP Bethpage 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
Q2696-01	RW8-SP100-20250724
Q2696-02	RW8-SP303-20250724

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 1:44 pm, Aug 05, 2025

Date: 8/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: NWIRP Bethpage 112G08005-WE13
Project Manager : Ernie Wu
Order ID # Q2696
Test Name: Metals Group4

A. Number of Samples and Date of Receipt:
2 Water samples were received on 07/25/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Anions Group4, 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 Compounds.
The Duplicate analysis met criteria for all Compounds.
The Matrix Spike analysis met criteria for all Compounds.
The Matrix Spike Duplicate analysis met criteria for all Compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met criteria for all Compounds.

E. Additional Comments:

The 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 

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

QA Control # A3040961

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q2696 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.		✓	
	The Serial Dilution met criteria for all samples.			
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike analysis met criteria for all samples. The Matrix Spike Duplicate analysis met criteria for all samples.			
7.	Sample Duplicate Analysis Met QC Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Duplicate analysis met criteria for all samples.			
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:

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 9:21 am, Aug 05, 2025

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2696

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

QA Review Signature: SOHIL JODHANI **Date:** 08/04/2025

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LAB CHRONICLE

OrderID:	Q2696	**OrderDate:**	7/25/2025 10:41:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	NWIRP Bethpage 112G08005-WE13
Contact:	Ernie Wu	**Location:**	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2696-01	**RW8-SP100-20250724**	**Water**			**07/24/25**			**07/25/25**
			Metals Group4	6010D		07/28/25	07/29/25	
Q2696-02	**RW8-SP303-20250724**	**Water**			**07/24/25**			**07/25/25**
			Metals Group4	6010D		07/28/25	07/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2696 **Order ID:** Q2696

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-SP100-20250724									
Q2696-01	RW8-SP100-20250724	Water	Iron	757		11.7	40.0	50.0	ug/L
Client ID : RW8-SP303-20250724									
Q2696-02	RW8-SP303-20250724	Water	Iron	85.8		11.7	40.0	50.0	ug/L

SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW8-SP100-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-01	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	757		1	11.7	40.0	50.0	ug/L	07/28/25 12:20	07/29/25 15:44	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	07/25/25
Client Sample ID:	RW8-SP303-20250724	SDG No.:	Q2696
Lab Sample ID:	Q2696-02	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	85.8	J	1	11.7	40.0	50.0	ug/L	07/28/25 12:20	07/30/25 15:18	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

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Iron	3950	4000	99	90 - 110	P	07/29/2025	12:20	LB136648

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Iron	107	100	107	80 - 120	P	07/29/2025	13:01	LB136648

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Iron	5240	5000	105	90 - 110	P	07/29/2025	14:21	LB136648
CCV02	Iron	4940	5000	99	90 - 110	P	07/29/2025	15:11	LB136648
CCV03	Iron	5020	5000	100	90 - 110	P	07/29/2025	16:14	LB136648
CCV04	Iron	5340	5000	107	90 - 110	P	07/29/2025	17:20	LB136648
CCV05	Iron	5290	5000	106	90 - 110	P	07/29/2025	18:11	LB136648
CCV06	Iron	4790	5000	96	90 - 110	P	07/29/2025	18:31	LB136648

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Iron	3880	4000	97	90 - 110	P	07/30/2025	14:11	LB136658

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Iron	102	100	102	80 - 120	P	07/30/2025	14:16	LB136658

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Iron	4900	5000	98	90 - 110	P	07/30/2025	14:45	LB136658
CCV02	Iron	4860	5000	97	90 - 110	P	07/30/2025	15:35	LB136658
CCV03	Iron	4870	5000	97	90 - 110	P	07/30/2025	15:51	LB136658

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Iron	106	100	106	65 - 135	P	07/29/2025	13:09	LB136648
CRI01	Iron	98.8	100	99	65 - 135	P	07/30/2025	14:24	LB136658

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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	07/29/2025	13:05	LB136648

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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	07/29/2025	14:25	LB136648
CCB02	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	15:15	LB136648
CCB03	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	16:20	LB136648
CCB04	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	17:24	LB136648
CCB05	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	18:15	LB136648
CCB06	Iron	23.4	+/-50	U	80.0	100	P	07/29/2025	18:36	LB136648

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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	07/30/2025	14:20	LB136658

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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	07/30/2025	14:49	LB136658
CCB02	Iron	23.4	+/-50	U	80.0	100	P	07/30/2025	15:39	LB136658
CCB03	Iron	23.4	+/-50	U	80.0	100	P	07/30/2025	15:56	LB136658

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169032BL		**WATER**		**Batch Number:**		**PB169032**		**Prep Date:**	**07/28/2025**	
	Iron	20.6	<25	J	40.0	50.0	P	07/29/2025	15:36	LB136648

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Iron	103000	101000	102	85600	116500	07/29/2025	13:14	LB136648
ICSAB01	Iron	98500	99300	99	84400	114500	07/29/2025	13:20	LB136648
ICSA01	Iron	99800	101000	99	85600	116500	07/30/2025	14:28	LB136658
ICSAB01	Iron	101000	99300	102	84400	114500	07/30/2025	14:33	LB136658

METAL QC DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q2696

contract: TETR06 **lab code:** ACE

matrix: Water **sample id:** Q2696-02 **client id:** RW8-SP303-20250724MS

Percent Solids for Sample: NA **Spiked ID:** Q2696-02MS **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	1610		85.8		1500	101		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q2696

contract: TETR06 **lab code:** ACE

matrix: Water **sample id:** Q2696-02 **client id:** RW8-SP303-20250724MSD

Percent Solids for Sample: NA **Spiked ID:** Q2696-02MSD **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	1590		85.8		1500	100		P

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Metals
- 5b -

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

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

Sample ID: **Spiked ID:**

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

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Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2696-02 **Client ID:** RW8-SP303-20250724DUP

Percent Solids for Sample: NA **Duplicate ID** Q2696-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	85.8		80.7		6		P

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

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Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q2696-02MS **Client ID:** RW8-SP303-20250724MSD

Percent Solids for Sample: NA **Duplicate ID** Q2696-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	1610		1590		1		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169032BS							
Iron	ug/L	1500	1500		100	87 - 115	P

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Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

RW8-SP303-20250724L

Lab Name: Alliance **Contract:** TETR06

Lab Code: ACE **Lb No.:** lb136658 **Lab Sample ID :** Q2696-02L **SDG No.:** Q2696

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	85.8		65.2	J	24		P

METAL PREPARATION & INSTRUMENT DATA

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

Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Fax : 908 789 8922

Metals
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SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q2696

Contract: TETR06 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB169032**						
PB169032BL	PB169032BL	MB	WATER	07/28/2025	50.0	25.0	
PB169032BS	PB169032BS	LCS	WATER	07/28/2025	50.0	25.0	
Q2696-01	RW8-SP100-20250724	SAM	WATER	07/28/2025	50.0	25.0	
Q2696-02	RW8-SP303-20250724	SAM	WATER	07/28/2025	50.0	25.0	
Q2696-02DUP	RW8-SP303-20250724DUP	DUP	WATER	07/28/2025	50.0	25.0	
Q2696-02MS	RW8-SP303-20250724MS	MS	WATER	07/28/2025	50.0	25.0	
Q2696-02MSD	RW8-SP303-20250724MSD	MSD	WATER	07/28/2025	50.0	25.0	

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metals
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ANALYSIS RUN LOG

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

Lab code: ACE **Sdg no.:** Q2696

Instrument id number: **Method:** **Run number:** LB136648

Start date: 07/29/2025 **End date:** 07/29/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1120	Fe
S1	S1	1	1124	Fe
S2	S2	1	1128	Fe
S3	S3	1	1132	Fe
S4	S4	1	1137	Fe
S5	S5	1	1141	Fe
ICV01	ICV01	1	1220	Fe
LLICV01	LLICV01	1	1301	Fe
ICB01	ICB01	1	1305	Fe
CRI01	CRI01	1	1309	Fe
ICSA01	ICSA01	1	1314	Fe
ICSAB01	ICSAB01	1	1320	Fe
CCV01	CCV01	1	1421	Fe
CCB01	CCB01	1	1425	Fe
CCV02	CCV02	1	1511	Fe
CCB02	CCB02	1	1515	Fe
PB169032BL	PB169032BL	1	1536	Fe
Q2696-01	RW8-SP100-20250724	1	1544	Fe
PB169032BS	PB169032BS	1	1606	Fe
CCV03	CCV03	1	1614	Fe
CCB03	CCB03	1	1620	Fe
CCV04	CCV04	1	1720	Fe
CCB04	CCB04	1	1724	Fe
CCV05	CCV05	1	1811	Fe
CCB05	CCB05	1	1815	Fe
CCV06	CCV06	1	1831	Fe
CCB06	CCB06	1	1836	Fe

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metals
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ANALYSIS RUN LOG

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

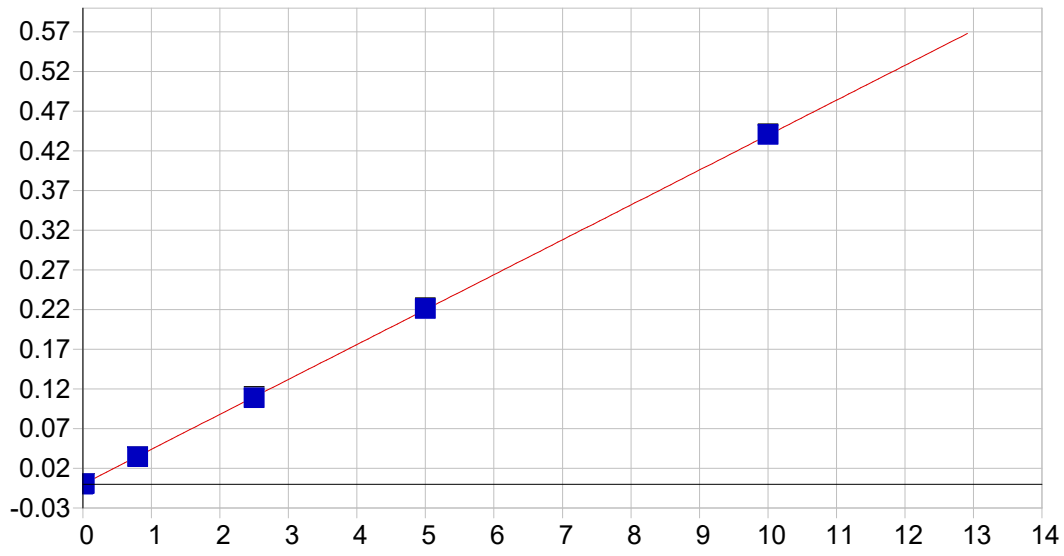
Lab code: ACE **Sdg no.:** Q2696

Instrument id number: **Method:** **Run number:** LB136658

Start date: 07/30/2025 **End date:** 07/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1340	Fe
S1	S1	1	1345	Fe
S2	S2	1	1349	Fe
S3	S3	1	1353	Fe
S4	S4	1	1357	Fe
S5	S5	1	1401	Fe
ICV01	ICV01	1	1411	Fe
LLICV01	LLICV01	1	1416	Fe
ICB01	ICB01	1	1420	Fe
CRI01	CRI01	1	1424	Fe
ICSA01	ICSA01	1	1428	Fe
ICSAB01	ICSAB01	1	1433	Fe
CCV01	CCV01	1	1445	Fe
CCB01	CCB01	1	1449	Fe
Q2696-02	RW8-SP303-20250724	1	1518	Fe
Q2696-02DUP	RW8-SP303-20250724DUP	1	1522	Fe
Q2696-02L	RW8-SP303-20250724L	5	1526	Fe
Q2696-02MS	RW8-SP303-20250724MS	1	1531	Fe
CCV02	CCV02	1	1535	Fe
CCB02	CCB02	1	1539	Fe
Q2696-02MSD	RW8-SP303-20250724MSD	1	1543	Fe
CCV03	CCV03	1	1551	Fe
CCB03	CCB03	1	1556	Fe

METAL
RAW DATA

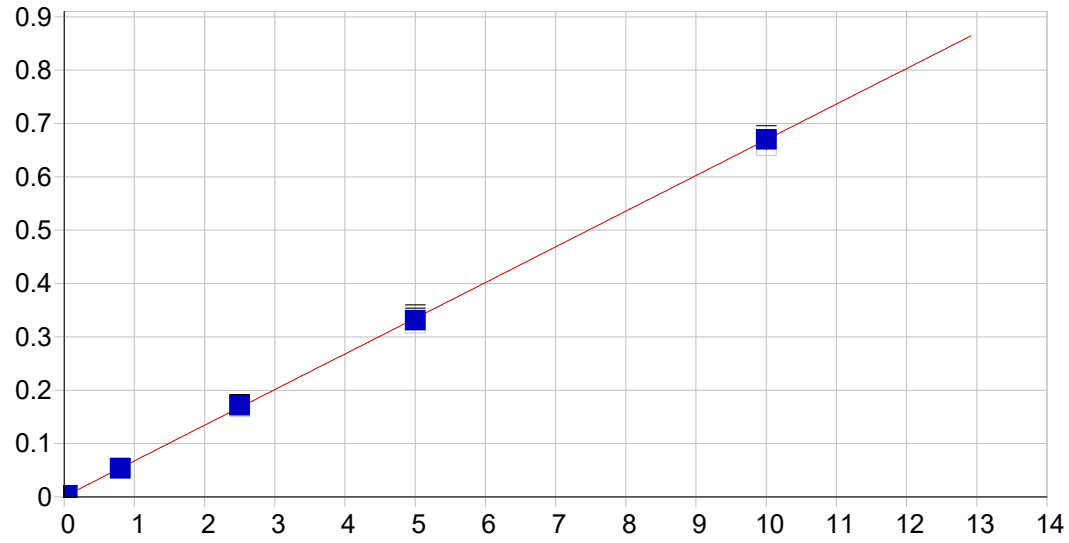


As 189.042 {479}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.043991	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.002506		
Predicted MQL:	0.008352		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.02000	.01744	-.003	-12.8	.00080	.000	1
S3	2.5000	2.4727	-.027	-1.09	.10869	.001	1
S4	5.0000	5.0249	.025	.498	.22085	.001	1
S5	10.000	10.020	.020	.203	.44037	.001	1
S2	.80000	.78465	-.015	-1.92	.03452	.000	1

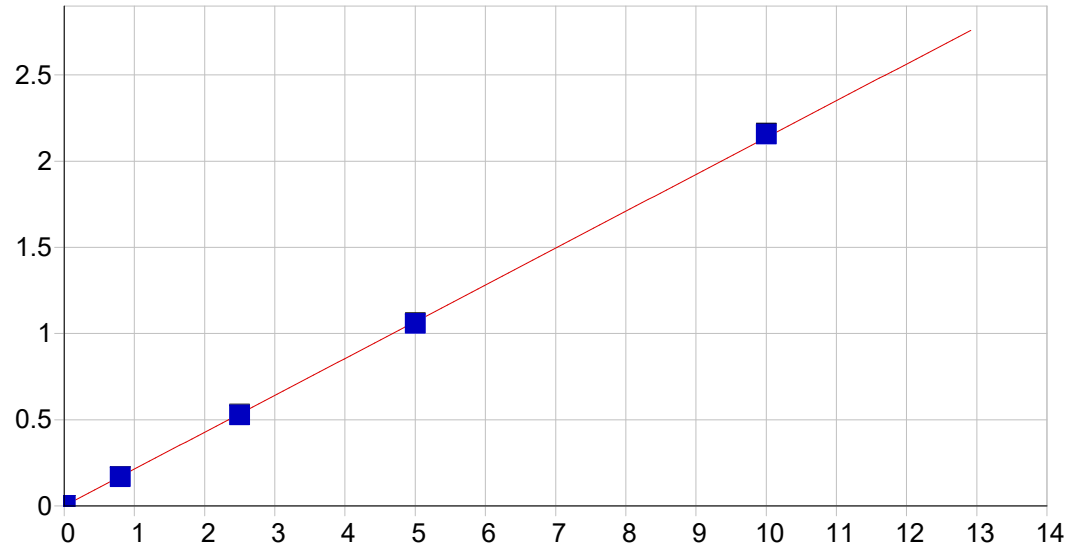


Tl 190.856 {477}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000588	Re-Slope:	1.000000
A1 (Gain):	0.066874	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.001430		
Predicted MQL:	0.004766		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00059	.000	1
S1	.04000	.03862	-.001	-3.45	.00300	.000	1
S3	2.5000	2.5561	.056	2.24	.16845	.002	1
S4	5.0000	4.9411	-.059	-1.18	.32488	.010	1
S5	10.000	10.013	.013	.130	.65791	.007	1
S2	.80000	.79114	-.009	-1.11	.05251	.000	1

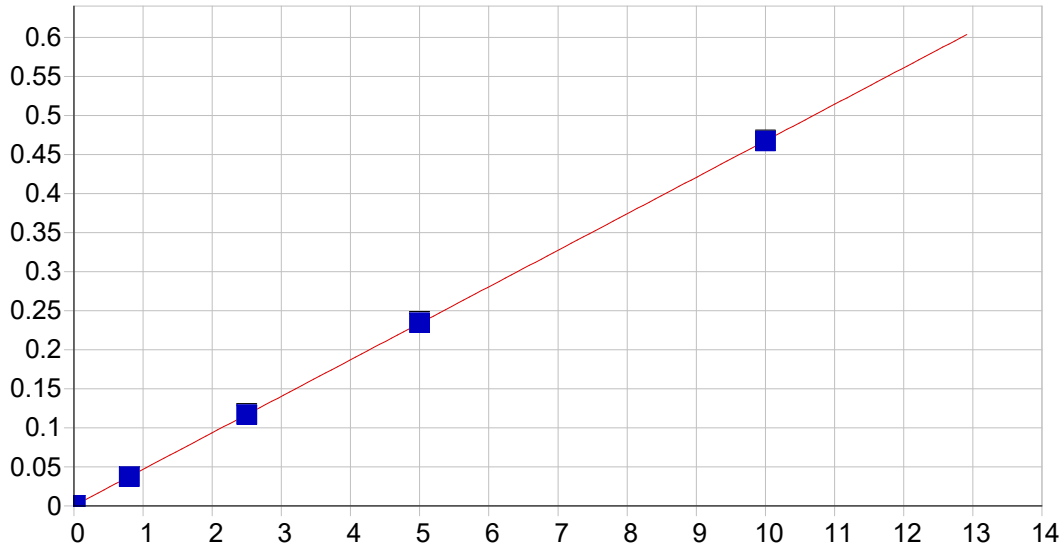


Pb 220.353 {453}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000043	Re-Slope:	1.000000
A1 (Gain):	0.213662	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.001251		
Predicted MQL:	0.004171		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00004	.000	1
S1	.01200	.01270	.001	5.81	.00271	.000	1
S3	2.5000	2.4681	-.032	-1.28	.52683	.005	1
S4	5.0000	4.9509	-.049	-.982	1.0568	.004	1
S5	10.000	10.093	.093	.935	2.1544	.006	1
S2	.80000	.78683	-.013	-1.65	.16798	.000	1

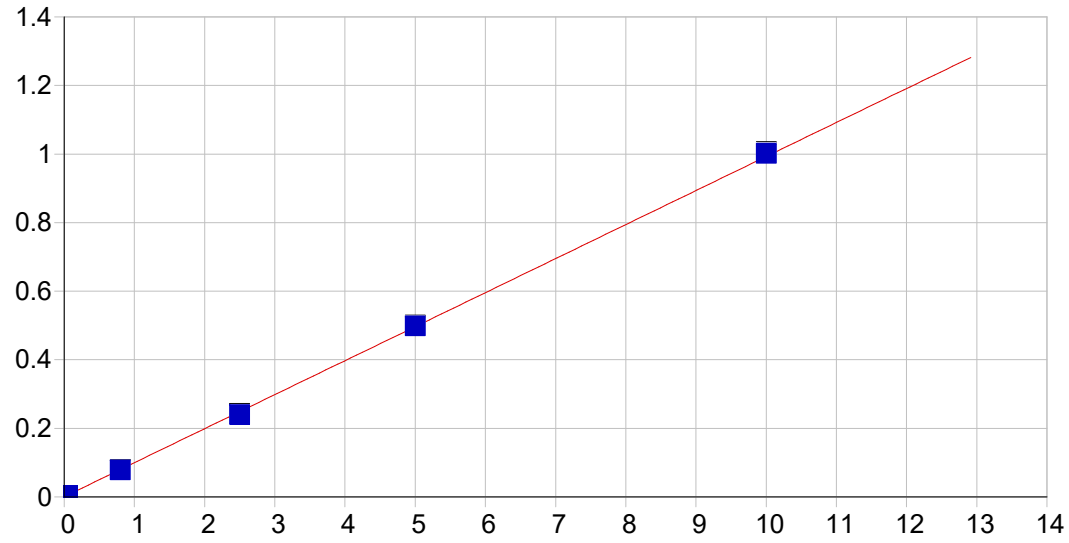


Se 196.090 {472}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000173	Re-Slope:	1.000000
A1 (Gain):	0.046728	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.002995		
Predicted MQL:	0.009984		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00017	.000	1
S1	.02000	.01918	-.001	-4.11	.00107	.000	1
S3	2.5000	2.4960	-.004	-.160	.11677	.001	1
S4	5.0000	5.0116	.012	.232	.23429	.002	1
S5	10.000	9.9953	-.005	-.047	.46710	.001	1
S2	.80000	.79791	-.002	-.261	.03745	.000	1

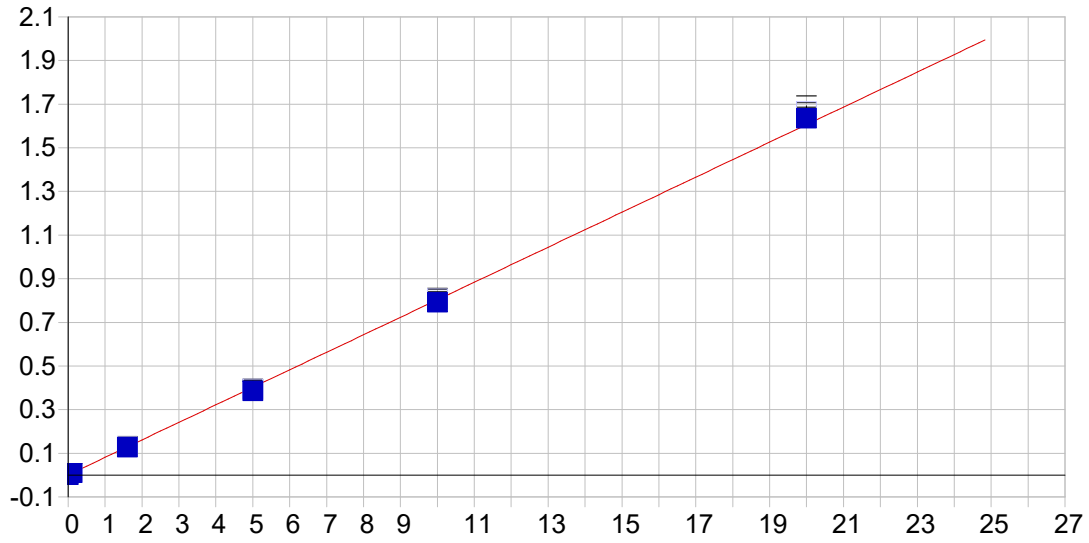


Sb 206.833 {463}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000496	Re-Slope:	1.000000
A1 (Gain):	0.099219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.000055		
Predicted MDL:	0.001861		
Predicted MQL:	0.006202		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00050	.000	1
S1	.05000	.04996	-.000	-.085	.00546	.000	1
S3	2.5000	2.4113	-.089	-3.55	.24042	.003	1
S4	5.0000	5.0138	.014	.275	.49930	.002	1
S5	10.000	10.087	.087	.873	1.0040	.003	1
S2	.80000	.78767	-.012	-1.54	.07886	.000	1

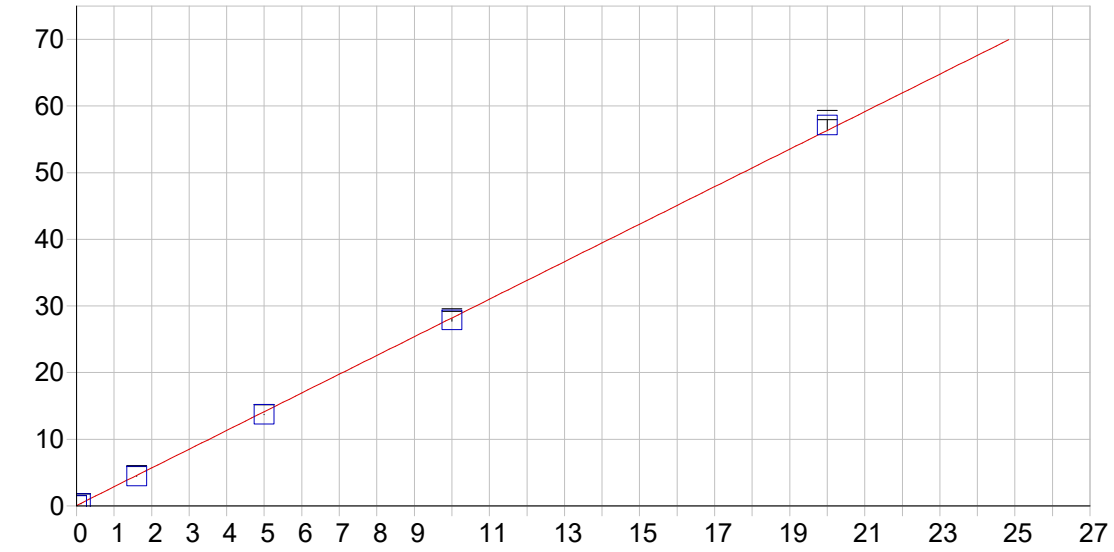


Al 396.152 { 85}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000926	Re-Slope:	1.000000
A1 (Gain):	0.080266	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999775	Status:	OK.
Std Error of Est:	0.000129		
Predicted MDL:	0.011630		
Predicted MQL:	0.038765		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00093	.001	1
S1	.10000	.10423	.004	4.23	.00991	.000	1
S3	5.0000	4.7993	-.201	-4.01	.39393	.001	1
S4	10.000	9.8611	-.139	-1.39	.80801	.003	1
S5	20.000	20.362	.362	1.81	1.6664	.026	1
S2	1.6000	1.5735	-.026	-1.65	.12972	.003	1

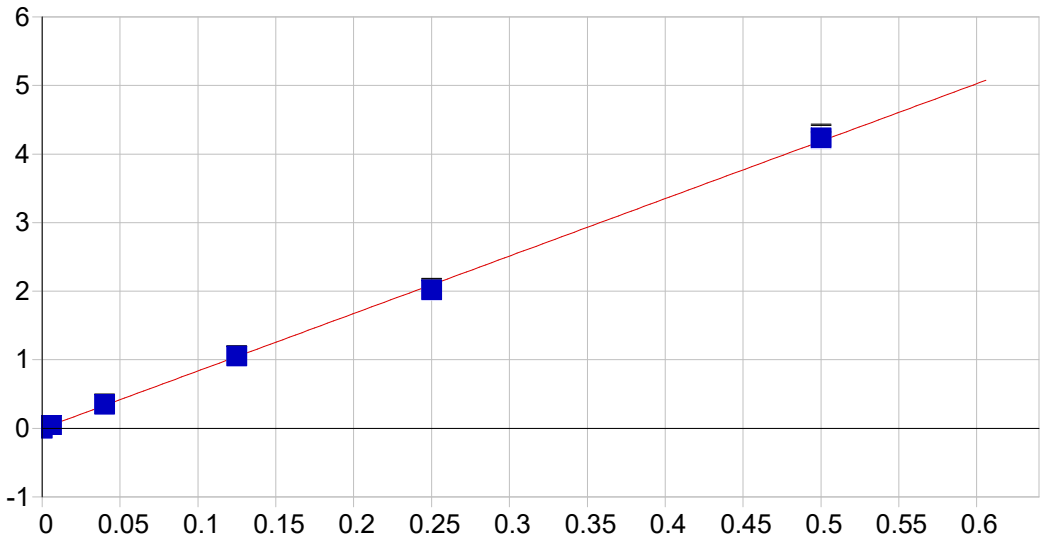


Ba 493.409 { 68}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.066503	Re-Slope:	1.000000
A1 (Gain):	2.813763	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999857	Status:	OK.
Std Error of Est:	0.003523		
Predicted MDL:	0.000879		
Predicted MQL:	0.002930		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.06652	.001	1
S1	.10000	.09869	-.001	-1.31	.34420	.003	1
S3	5.0000	4.8520	-.148	-2.96	13.719	.014	1
S4	10.000	9.8893	-.111	-1.11	27.893	.193	1
S5	20.000	20.291	.291	1.46	57.161	.690	1
S2	1.6000	1.5690	-.031	-1.94	4.4812	.061	1

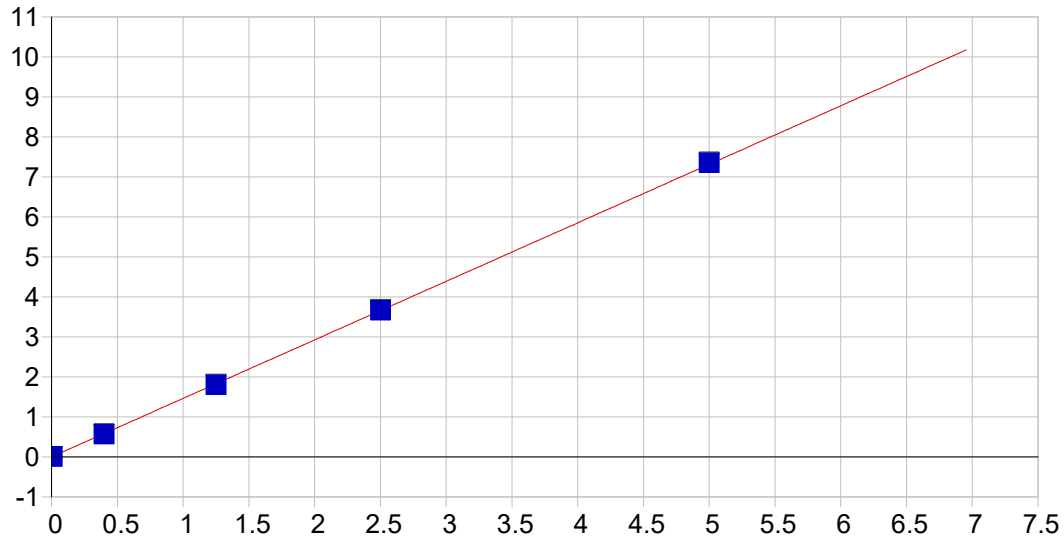


Be 234.861 {144}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001374	Re-Slope:	1.000000
A1 (Gain):	8.378548	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999749	Status:	OK.
Std Error of Est:	0.000537		
Predicted MDL:	0.000069		
Predicted MQL:	0.000229		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00138	.000	1
S1	.00600	.00608	.000	1.31	.04918	.000	1
S3	.12500	.12592	.001	.732	1.0489	.004	1
S4	.25000	.24133	-.009	-3.47	2.0112	.020	1
S5	.50000	.50590	.006	1.18	4.2186	.053	1
S2	.04000	.04178	.002	4.45	.34719	.005	1

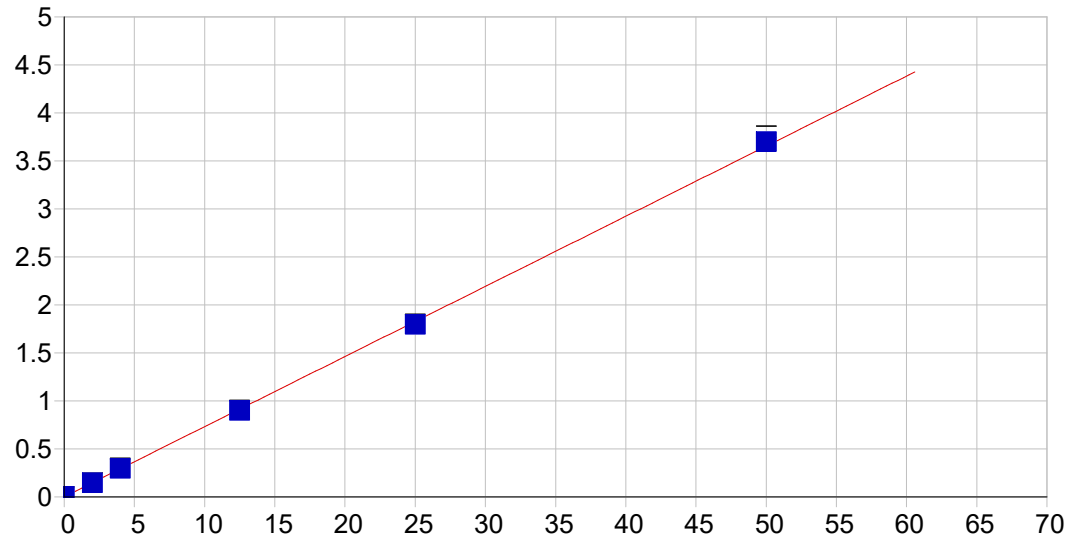


Cd 226.502 {449}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000818	Re-Slope:	1.000000
A1 (Gain):	1.463286	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000113		
Predicted MDL:	0.000168		
Predicted MQL:	0.000561		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00082	.000	1
S1	.00600	.00583	-.000	-2.83	.00775	.000	1
S3	1.2500	1.2309	-.019	-1.53	1.8018	.015	1
S4	2.5000	2.5070	.007	.280	3.6706	.019	1
S5	5.0000	5.0223	.022	.446	7.3542	.017	1
S2	.40000	.38999	-.010	-2.50	.57031	.001	1

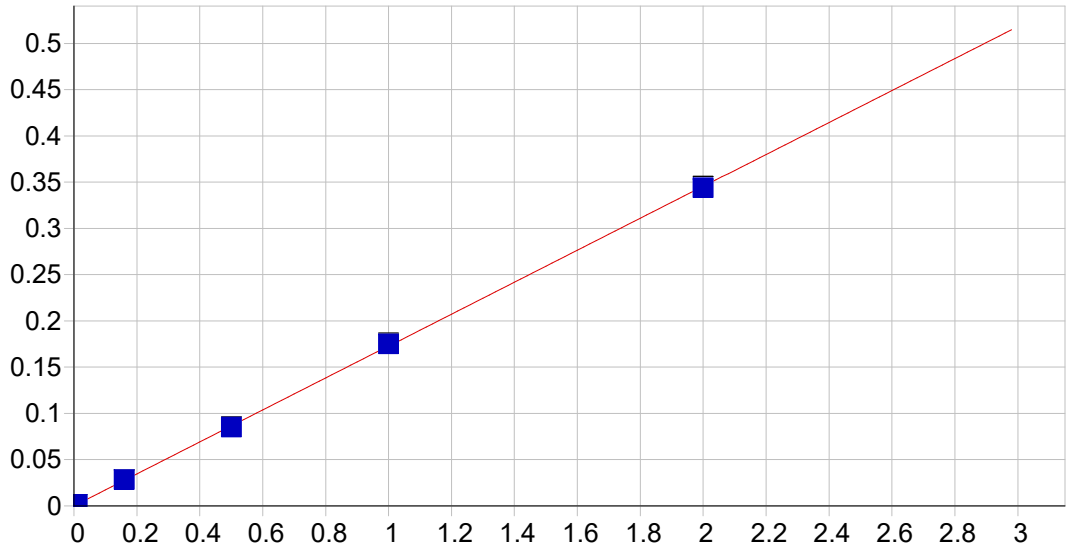


Ca 373.690 { 90}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001690	Re-Slope:	1.000000
A1 (Gain):	0.073039	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999895	Status:	OK.
Std Error of Est:	0.000559		
Predicted MDL:	0.010738		
Predicted MQL:	0.035795		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00169	.001	1
S2	4.0000	4.0168	.017	.420	.29507	.004	1
S3	12.500	12.283	-.217	-1.74	.89882	.006	1
S4	25.000	24.562	-.438	-1.75	1.7956	.004	1
S5	50.000	50.634	.634	1.27	3.6999	.060	1
S1	2.0000	2.0047	.005	.235	.14811	.001	1

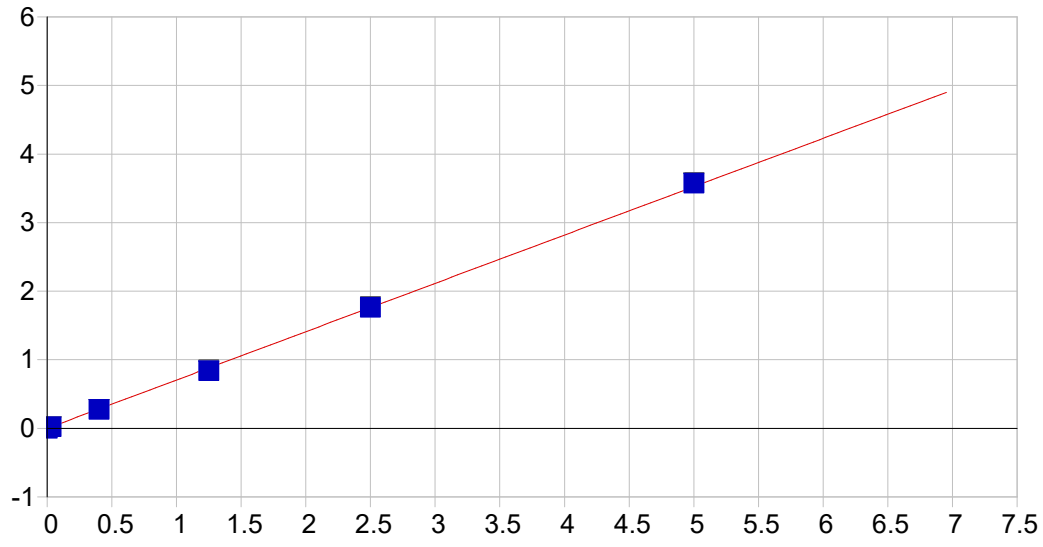


Cr 267.716 {126}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000161	Re-Slope:	1.000000
A1 (Gain):	0.172676	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000373		
Predicted MQL:	0.001242		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.01000	.01098	.001	9.83	.00206	.000	1
S3	.50000	.49226	-.008	-1.55	.08520	.000	1
S4	1.0000	1.0131	.013	1.31	.17518	.001	1
S5	2.0000	1.9909	-.009	-.454	.34408	.002	1
S2	.16000	.16270	.003	1.69	.02827	.000	1

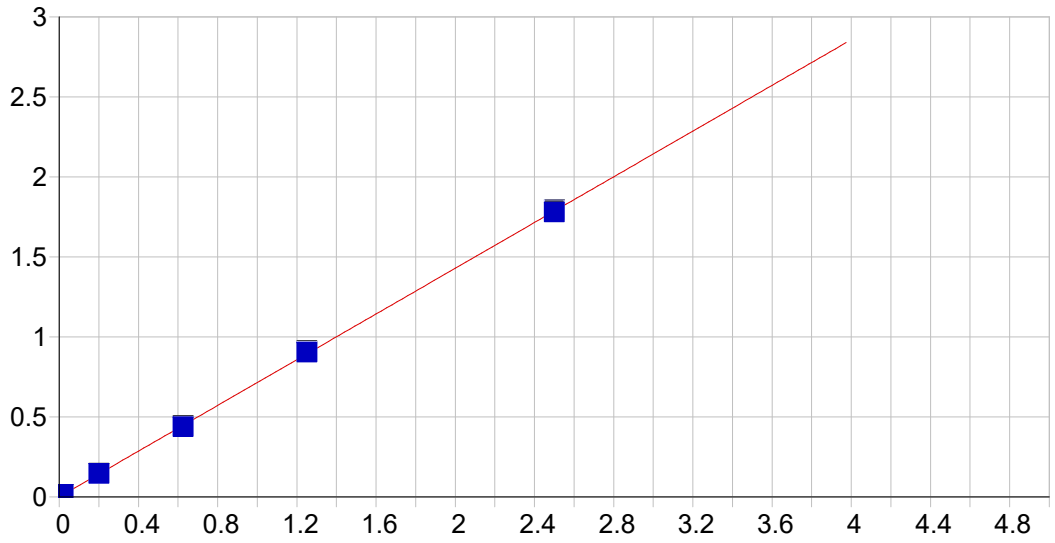


Co 228.616 {448}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.704826	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.000307		
Predicted MDL:	0.000264		
Predicted MQL:	0.000880		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.03000	.02971	-.000	-.955	.02089	.000	1
S3	1.2500	1.1894	-.061	-4.85	.83984	.008	1
S4	2.5000	2.5009	.001	.035	1.7657	.006	1
S5	5.0000	5.0705	.070	1.41	3.5798	.004	1
S2	.40000	.38956	-.010	-2.61	.27509	.001	1

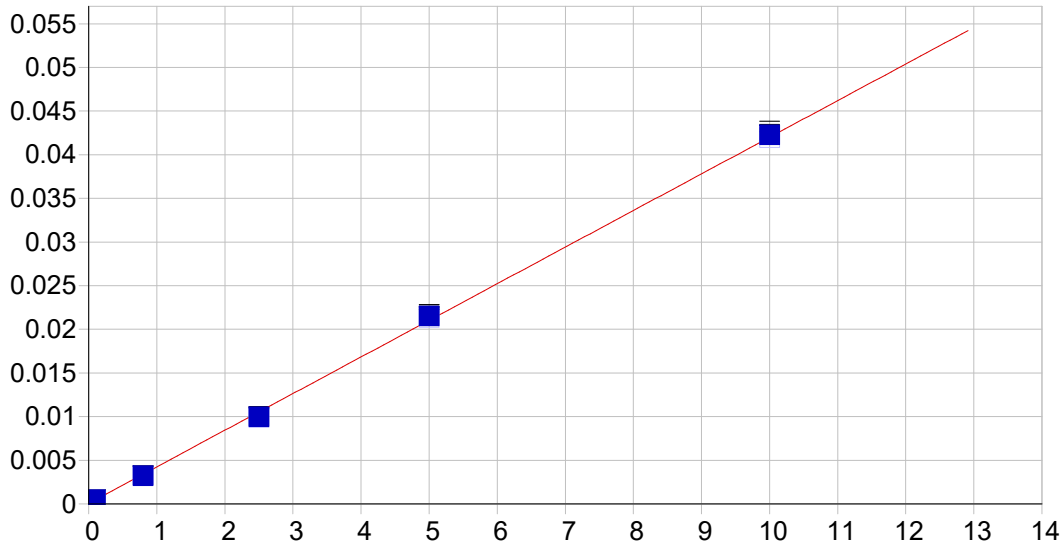


Cu 224.700 {450}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000451	Re-Slope:	1.000000
A1 (Gain):	0.714405	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.000135		
Predicted MDL:	0.000391		
Predicted MQL:	0.001303		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00045	.000	1
S1	.02000	.02375	.004	18.7	.01756	.000	1
S3	.62500	.61271	-.012	-1.97	.44154	.005	1
S4	1.2500	1.2642	.014	1.14	.91034	.004	1
S5	2.5000	2.4909	-.009	-.365	1.7934	.002	1
S2	.20000	.20344	.003	1.72	.14687	.000	1

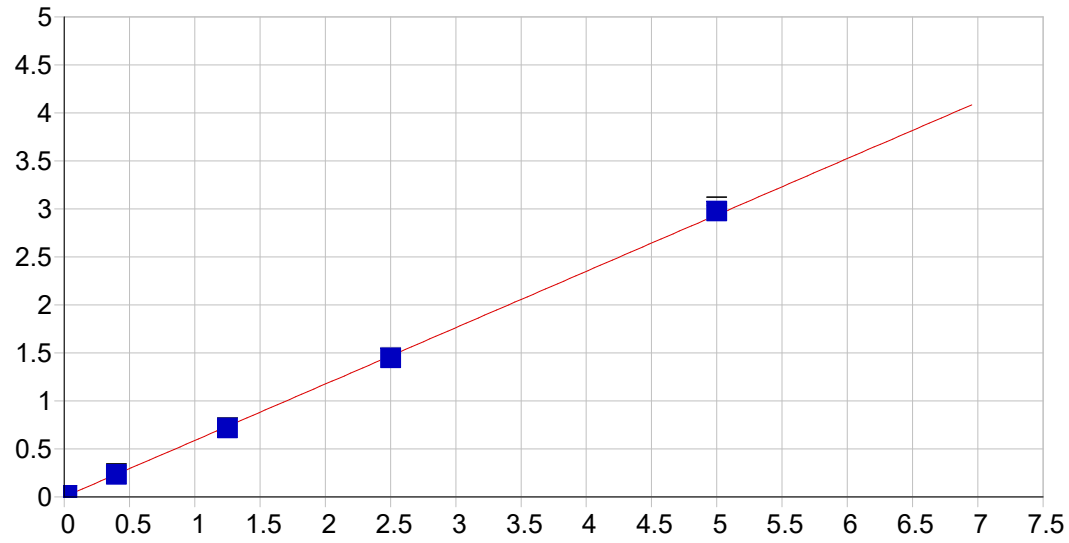


Fe 240.488 {140}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000051	Re-Slope:	1.000000
A1 (Gain):	0.004195	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999630	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.005529		
Predicted MQL:	0.018430		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00005	.000	1
S1	.10000	.10297	.003	2.97	.00048	.000	1
S3	2.5000	2.3614	-.139	-5.54	.00987	.000	1
S4	5.0000	5.1150	.115	2.30	.02133	.000	1
S5	10.000	10.066	.066	.657	.04192	.000	1
S2	.80000	.75496	-.045	-5.63	.00319	.000	1

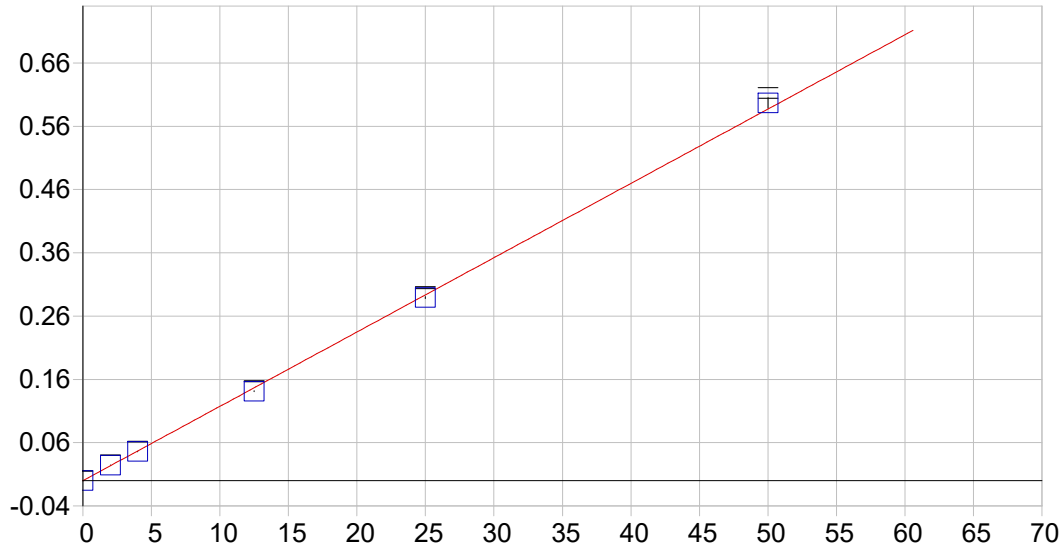


Mn 257.610 {131}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000805	Re-Slope:	1.000000
A1 (Gain):	0.587284	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999887	Status:	OK.
Std Error of Est:	0.000146		
Predicted MDL:	0.000508		
Predicted MQL:	0.001693		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00080	.000	1
S1	.02000	.02103	.001	5.15	.01316	.000	1
S3	1.2500	1.2210	-.029	-2.32	.71802	.003	1
S4	2.5000	2.4647	-.035	-1.41	1.4486	.003	1
S5	5.0000	5.0648	.065	1.30	2.9759	.044	1
S2	.40000	.39844	-.002	-.391	.23485	.004	1

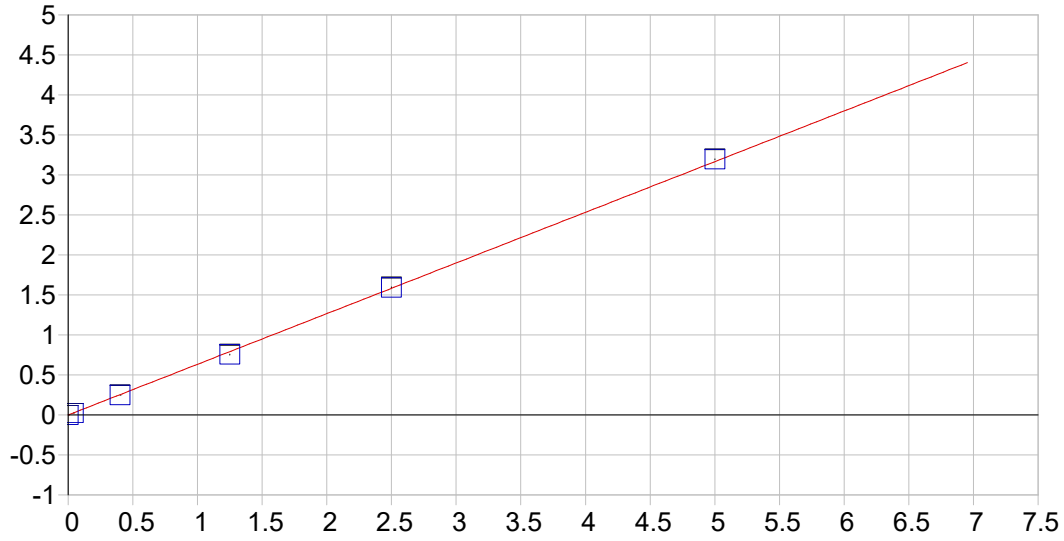


Mg 279.079 {121}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000099	Re-Slope:	1.000000
A1 (Gain):	0.011746	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999771	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	0.028555		
Predicted MQL:	0.095183		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00010	.000	1
S2	4.0000	3.9351	-.065	-1.62	.04612	.000	1
S3	12.500	12.024	-.476	-3.81	.14113	.001	1
S4	25.000	24.623	-.377	-1.51	.28911	.001	1
S5	50.000	50.825	.825	1.65	.59687	.008	1
S1	2.0000	2.0927	.093	4.64	.02448	.000	1

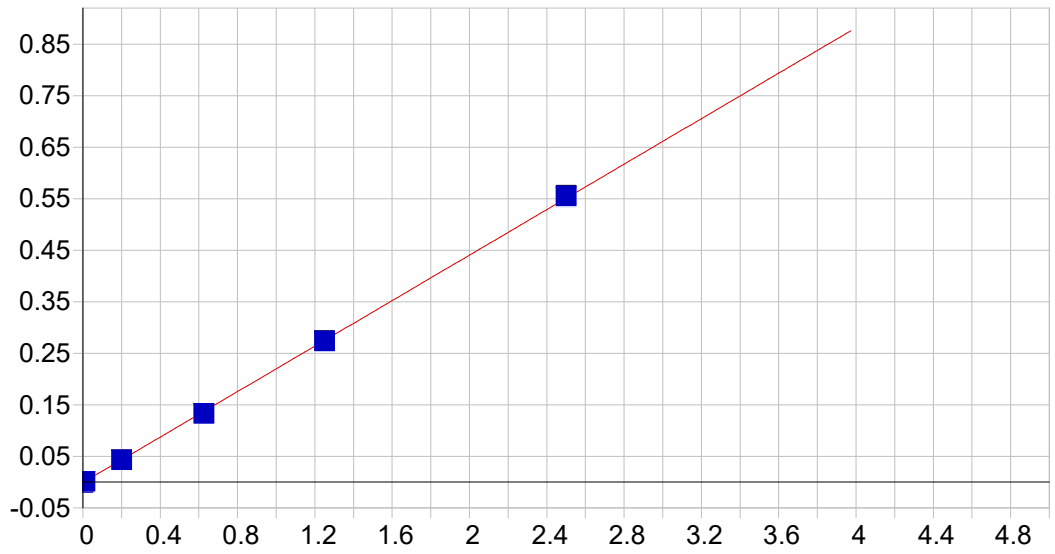


Ni 231.604 {446}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000534	Re-Slope:	1.000000
A1 (Gain):	0.633268	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999819	Status:	OK.
Std Error of Est:	0.000283		
Predicted MDL:	0.000340		
Predicted MQL:	0.001134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00053	.000	1
S1	.04000	.04058	.001	1.45	.02516	.000	1
S3	1.2500	1.1926	-.057	-4.60	.75467	.007	1
S4	2.5000	2.5152	.015	.609	1.5923	.006	1
S5	5.0000	5.0486	.049	.971	3.1966	.005	1
S2	.40000	.39310	-.007	-1.72	.24840	.000	1

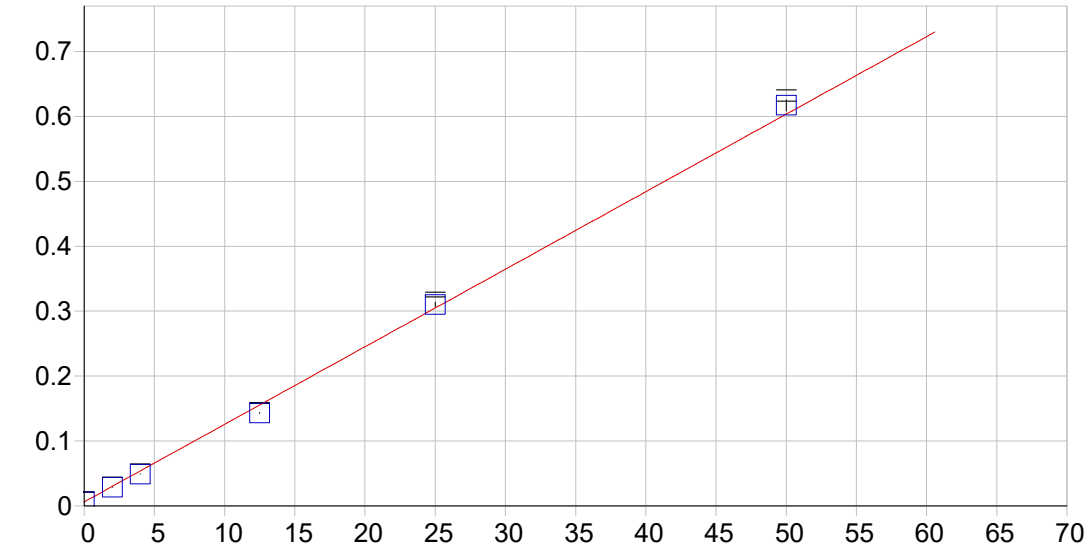


Ag 328.068 {103}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000820	Re-Slope:	1.000000
A1 (Gain):	0.220696	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.000501		
Predicted MQL:	0.001668		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00082	.000	1
S1	.01000	.01083	.001	8.28	.00155	.000	1
S3	.62500	.60754	-.017	-2.79	.13259	.000	1
S4	1.2500	1.2449	-.005	-.406	.27259	.000	1
S5	2.5000	2.5215	.021	.860	.55299	.001	1
S2	.20000	.20021	.000	.106	.04315	.000	1

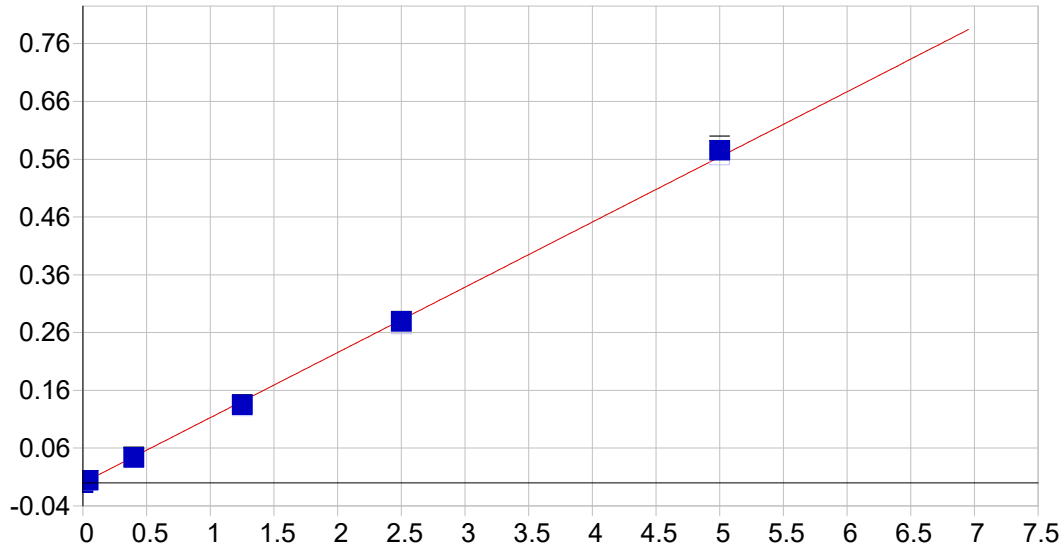


Na 589.592 { 57}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006262	Re-Slope:	1.000000
A1 (Gain):	0.011944	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999066	Status:	OK.
Std Error of Est:	0.000273		
Predicted MDL:	0.013356		
Predicted MQL:	0.044519		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00042	.000	.000	.00627	.000	1
S2	4.0000	3.5726	-.427	-10.7	.04893	.000	1
S3	12.500	11.452	-1.05	-8.39	.14304	.001	1
S4	25.000	25.452	.452	1.81	.31026	.004	1
S5	50.000	51.142	1.14	2.28	.61710	.009	1
S1	2.0000	1.8824	-.118	-5.88	.02875	.000	1

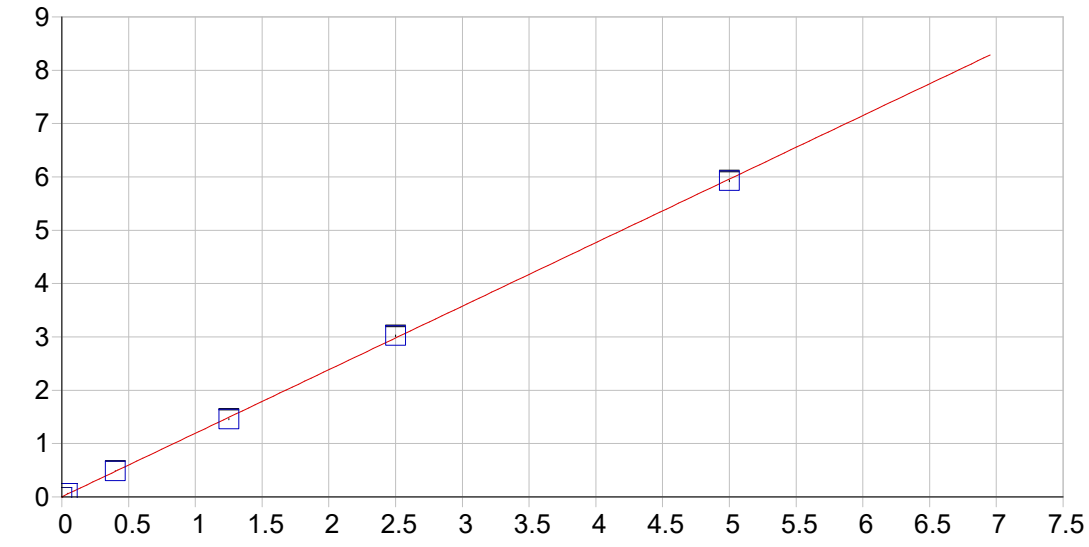


V 292.402 {115}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000023	Re-Slope:	1.000000
A1 (Gain):	0.112803	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999705	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.003238		
Predicted MQL:	0.010794		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.04000	.03861	-.001	-3.47	.00416	.000	1
S3	1.2500	1.1945	-.055	-4.44	.13267	.000	1
S4	2.5000	2.4710	-.029	-1.16	.27461	.001	1
S5	5.0000	5.0993	.099	1.99	.56696	.008	1
S2	.40000	.38650	-.014	-3.38	.04292	.001	1

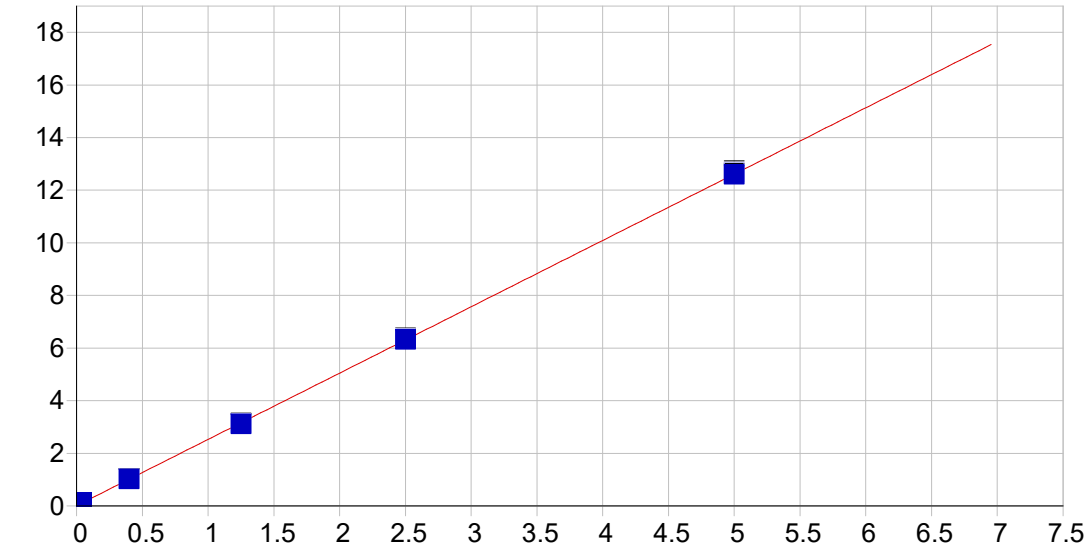


Zn 206.200 {464}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001933	Re-Slope:	1.000000
A1 (Gain):	1.191462	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999704	Status:	OK.
Std Error of Est:	0.000680		
Predicted MDL:	0.000141		
Predicted MQL:	0.000469		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00192	.000	1
S1	.04000	.05265	.013	31.6	.06466	.000	1
S3	1.2500	1.2215	-.029	-2.28	1.4572	.013	1
S4	2.5000	2.5340	.034	1.36	3.0211	.014	1
S5	5.0000	4.9735	-.027	-.531	5.9276	.015	1
S2	.40000	.40844	.008	2.11	.48857	.001	1

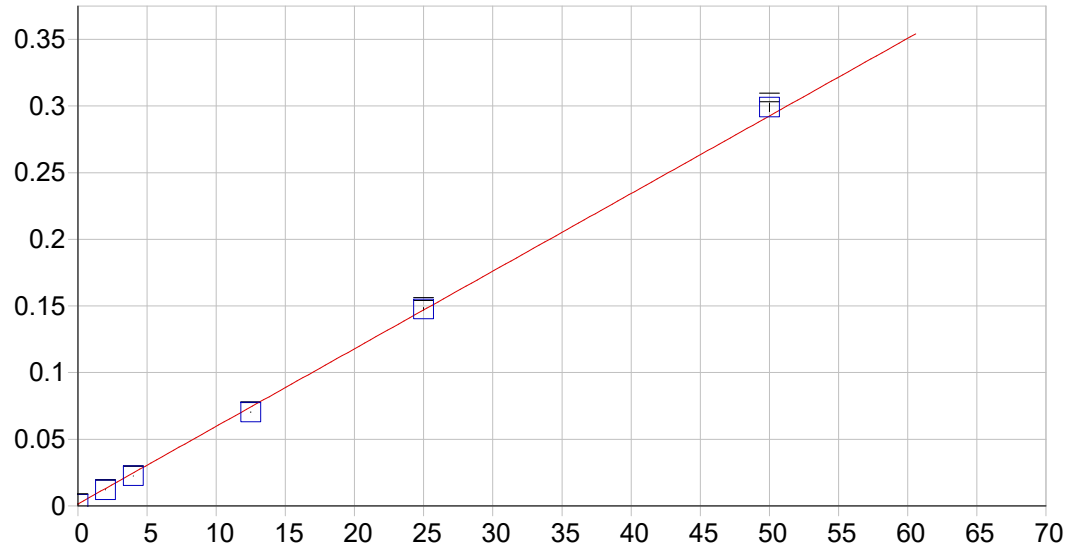


Zn 213.856 {158}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005884	Re-Slope:	1.000000
A1 (Gain):	2.521156	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999795	Status:	OK.
Std Error of Est:	0.001205		
Predicted MDL:	0.000219		
Predicted MQL:	0.000730		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00585	.000	1
S1	.04000	.05187	.012	29.7	.13736	.001	1
S3	1.2500	1.2340	-.016	-1.28	3.1390	.008	1
S4	2.5000	2.5048	.005	.192	6.3647	.020	1
S5	5.0000	4.9941	-.006	-.119	12.684	.049	1
S2	.40000	.40524	.005	1.31	1.0346	.001	1

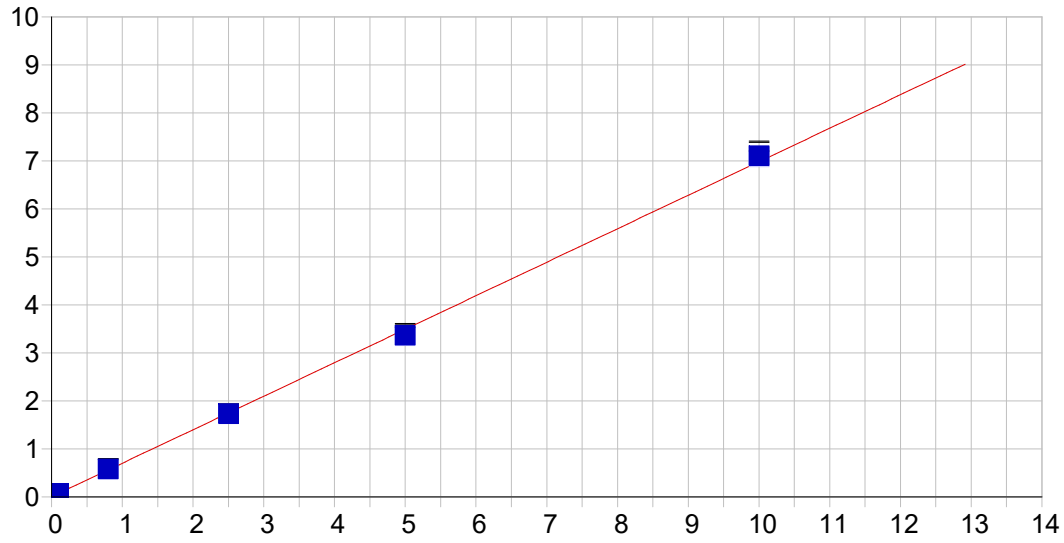


K 766.490 { 44}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001471	Re-Slope:	1.000000
A1 (Gain):	0.005822	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999387	Status:	OK.
Std Error of Est:	0.000108		
Predicted MDL:	0.032083		
Predicted MQL:	0.106943		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00042	.000	.000	.00147	.000	1
S2	4.0000	3.6214	-.379	-9.46	.02255	.000	1
S3	12.500	11.818	-.682	-5.45	.07027	.000	1
S4	25.000	25.117	.117	.468	.14769	.001	1
S5	50.000	51.122	1.12	2.24	.29909	.003	1
S1	2.0000	1.8215	-.178	-8.92	.01208	.000	1

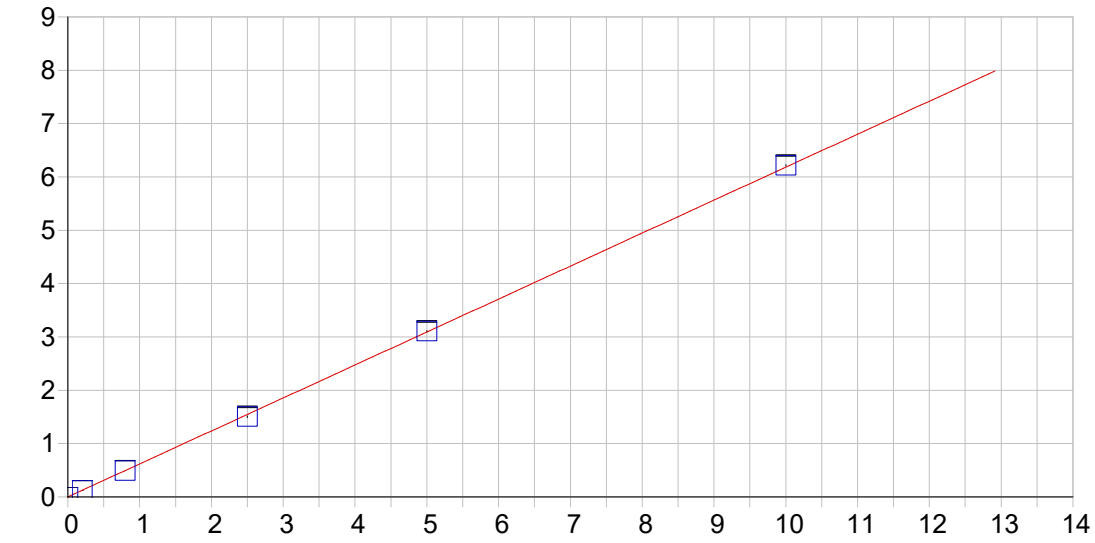


B 249.678 {135}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003775	Re-Slope:	1.000000
A1 (Gain):	0.697894	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999714	Status:	OK.
Std Error of Est:	0.000874		
Predicted MDL:	0.000864		
Predicted MQL:	0.002880		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00378	.000	1
S1	.10000	.09788	-.002	-2.12	.07167	.001	1
S3	2.5000	2.4780	-.022	-.882	1.7268	.008	1
S4	5.0000	4.8219	-.178	-3.56	3.3564	.036	1
S5	10.000	10.179	.179	1.79	7.0824	.098	1
S2	.80000	.82336	.023	2.92	.57638	.010	1

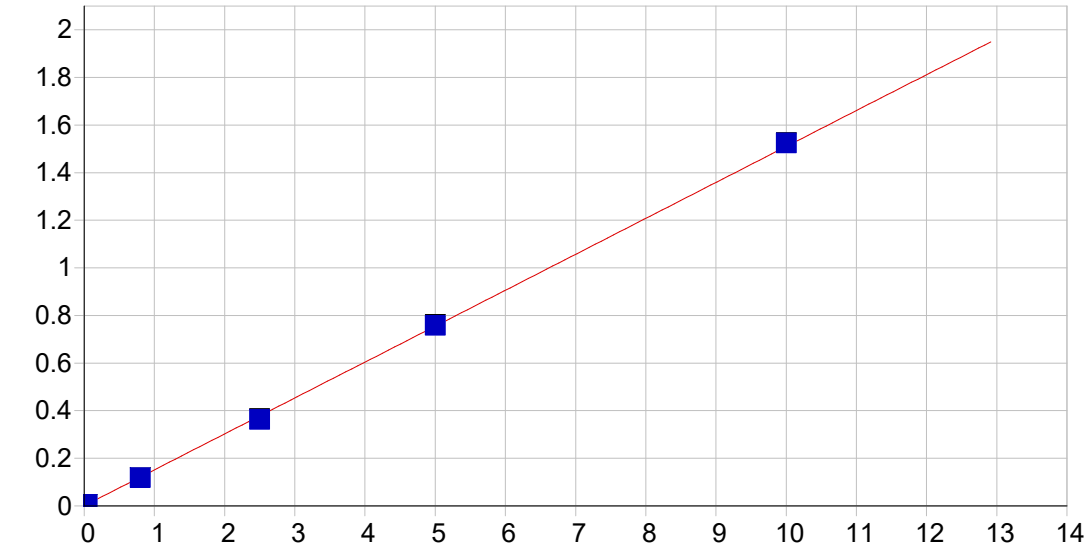


Mo 202.030 {467}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000434	Re-Slope:	1.000000
A1 (Gain):	0.618248	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999936	Status:	OK.
Std Error of Est:	0.000521		
Predicted MDL:	0.000275		
Predicted MQL:	0.000918		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00044	.000	1
S1	.20000	.19454	-.005	-2.73	.12071	.000	1
S3	2.5000	2.4321	-.068	-2.72	1.5041	.016	1
S4	5.0000	5.0224	.022	.449	3.1055	.015	1
S5	10.000	10.052	.052	.519	6.2150	.012	1
S2	.80000	.79902	-.001	-.123	.49442	.002	1

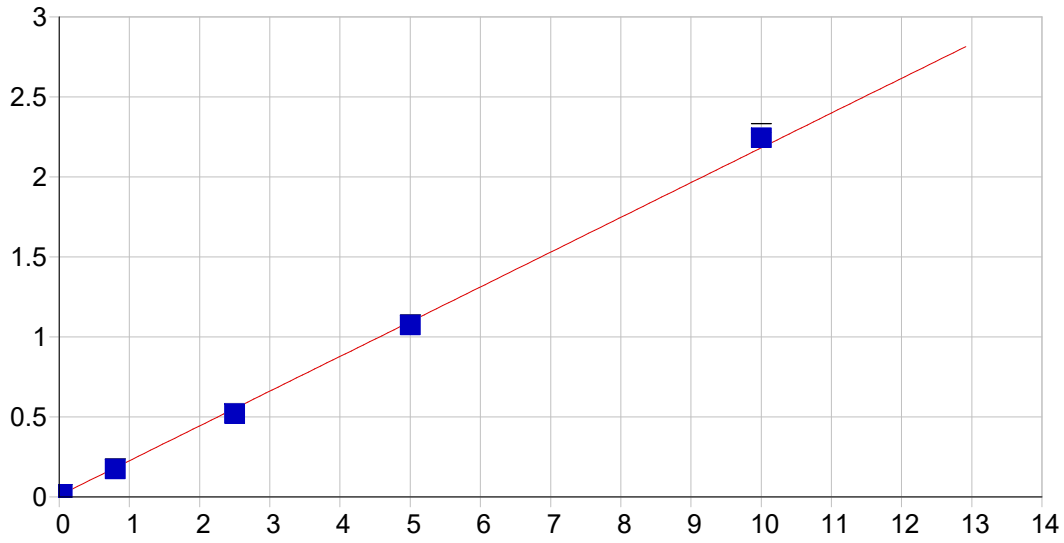


Sn 189.989 {478}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000496	Re-Slope:	1.000000
A1 (Gain):	0.150935	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000086		
Predicted MDL:	0.000643		
Predicted MQL:	0.002144		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00050	.000	1
S1	.04000	.03908	-.001	-2.29	.00639	.000	1
S3	2.5000	2.3984	-.102	-4.06	.36212	.003	1
S4	5.0000	5.0224	.022	.448	.75778	.004	1
S5	10.000	10.096	.096	.957	1.5228	.002	1
S2	.80000	.78435	-.016	-1.96	.11876	.000	1

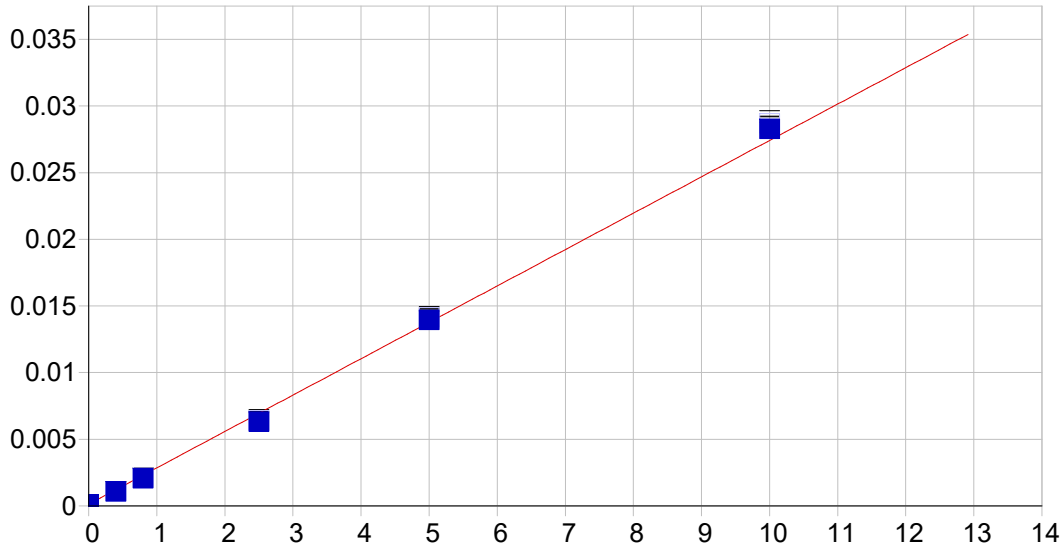


Ti 336.121 {100}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008911	Re-Slope:	1.000000
A1 (Gain):	0.217265	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999420	Status:	OK.
Std Error of Est:	0.000245		
Predicted MDL:	0.002090		
Predicted MQL:	0.006966		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00891	.000	1
S1	.04000	.03465	-.005	-13.4	.01643	.000	1
S3	2.5000	2.3524	-.148	-5.90	.51981	.001	1
S4	5.0000	4.9036	-.096	-1.93	1.0739	.002	1
S5	10.000	10.287	.287	2.87	2.2431	.027	1
S2	.80000	.76246	-.038	-4.69	.17450	.002	1

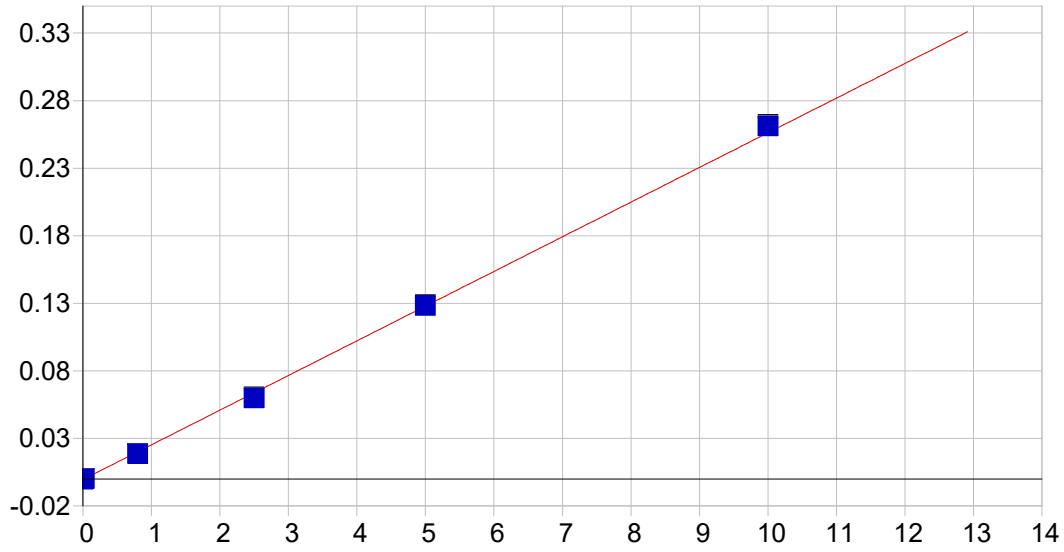


Si 288.158 {117}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000126	Re-Slope:	1.000000
A1 (Gain):	0.002729	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998725	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.012966		
Predicted MQL:	0.043222		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00012	.000	.000	.00013	.000	1
S1	.40000	.34893	-.051	-12.8	.00108	.000	1
S3	2.5000	2.2638	-.236	-9.45	.00641	.000	1
S4	5.0000	5.0633	.063	1.27	.01415	.000	1
S5	10.000	10.312	.312	3.12	.02868	.000	1
S2	.80000	.71156	-.088	-11.1	.00210	.000	1

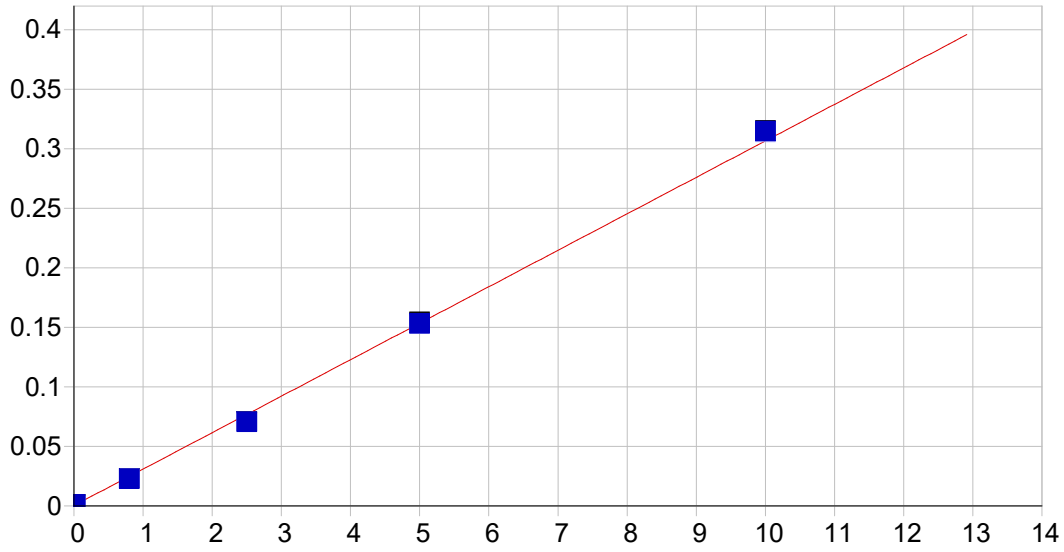


P 177.495 {490}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000449	Re-Slope:	1.000000
A1 (Gain):	0.025665	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999543	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.002727		
Predicted MQL:	0.009090		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00045	.000	1
S1	.02000	.02221	.002	11.1	.00012	.000	1
S3	2.5000	2.3513	-.149	-5.95	.05989	.001	1
S4	5.0000	5.0118	.012	.237	.12816	.001	1
S5	10.000	10.191	.191	1.91	.26106	.001	1
S2	.80000	.74366	-.056	-7.04	.01863	.000	1

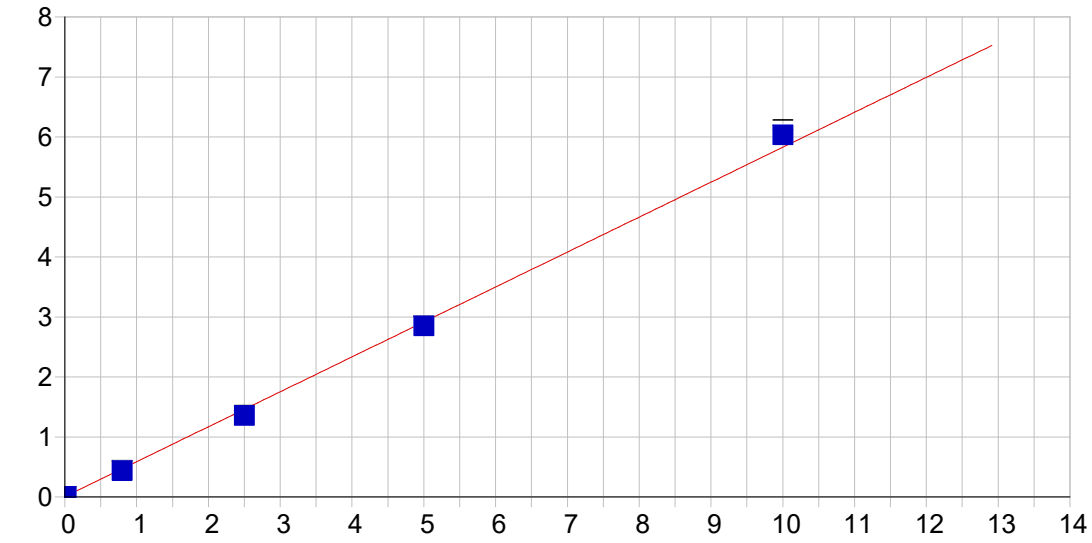


S 182.034 {485}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000285	Re-Slope:	1.000000
A1 (Gain):	0.030642	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999208	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.002850		
Predicted MQL:	0.009500		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00029	.000	1
S1	.02000	.02232	.002	11.6	.00094	.000	1
S3	2.5000	2.2954	-.205	-8.18	.07042	.000	1
S4	5.0000	4.9954	-.005	-.093	.15296	.001	1
S5	10.000	10.268	.268	2.68	.31413	.000	1
S2	.80000	.73875	-.061	-7.66	.02286	.000	1

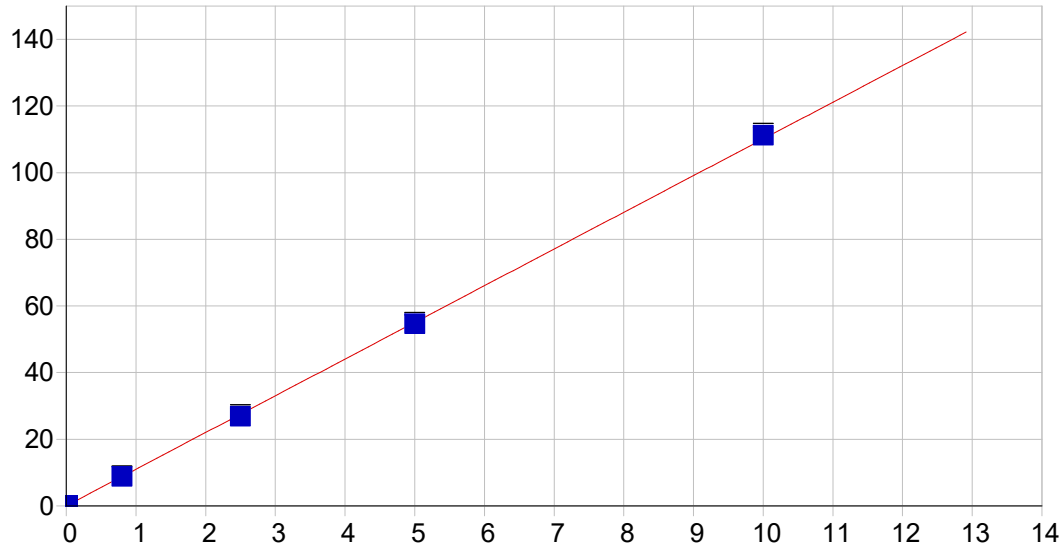


Li 670.784 { 50}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004427	Re-Slope:	1.000000
A1 (Gain):	0.582349	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999114	Status:	OK.
Std Error of Est:	0.000575		
Predicted MDL:	0.003364		
Predicted MQL:	0.011212		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00443	.002	1
S5	10.000	10.355	.355	3.55	6.0373	.082	1
S4	5.0000	4.8854	-.115	-2.29	2.8509	.005	1
S3	2.5000	2.3182	-.182	-7.27	1.3551	.003	1
S1	.02000	.01849	-.002	-7.57	.01538	.001	1
S2	.80000	.74345	-.057	-7.07	.43761	.006	1

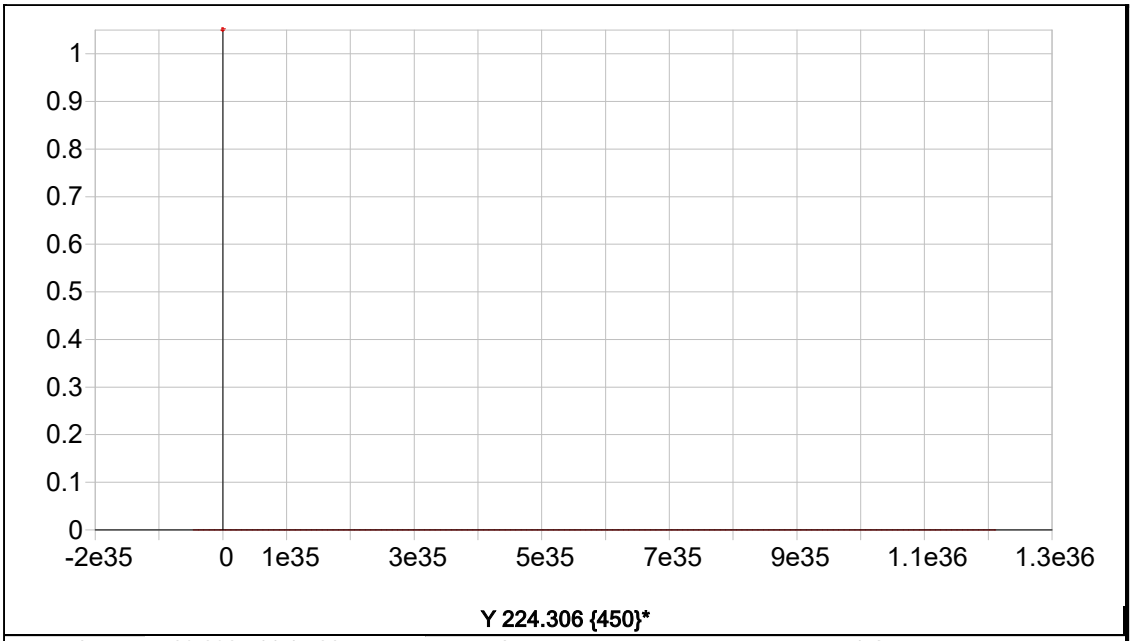


Sr 407.771 { 83}

Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001429	Re-Slope:	1.000000
A1 (Gain):	11.012730	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999927	Status:	OK.
Std Error of Est:	0.003114		
Predicted MDL:	0.000090		
Predicted MQL:	0.000301		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00142	.000	1
S1	.02000	.02070	.001	3.52	.23049	.001	1
S3	2.5000	2.4414	-.059	-2.35	26.914	.466	1
S4	5.0000	4.9587	-.041	-.826	54.663	.458	1
S5	10.000	10.095	.095	.951	111.28	.572	1
S2	.80000	.80415	.004	.519	8.8658	.120	1

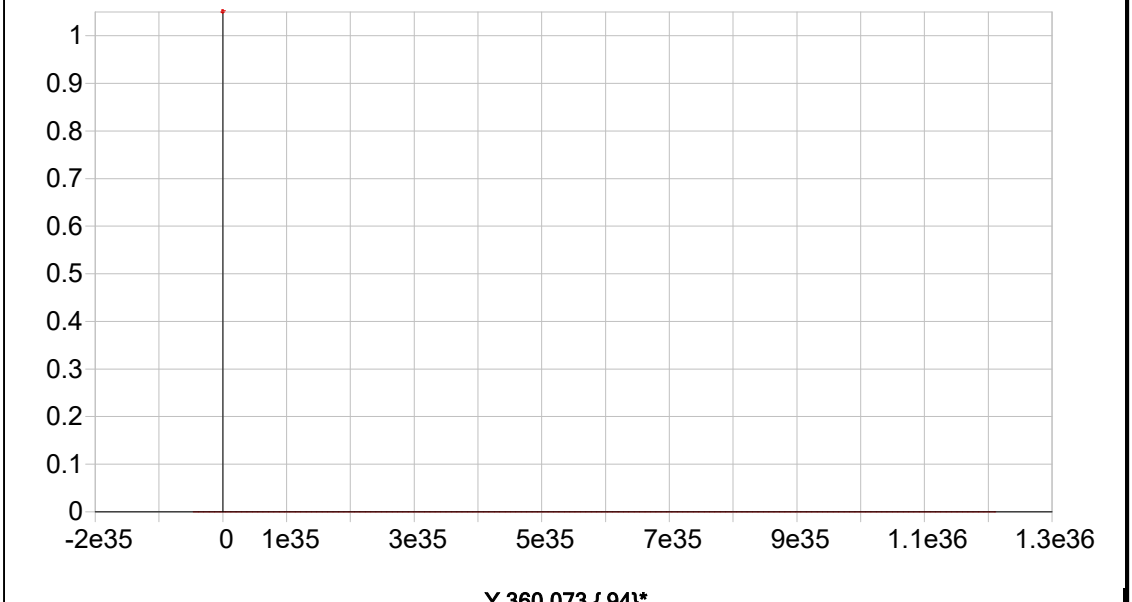


Y 224.306 {450}*

Date of Fit:	7/29/2025 11:17:28	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



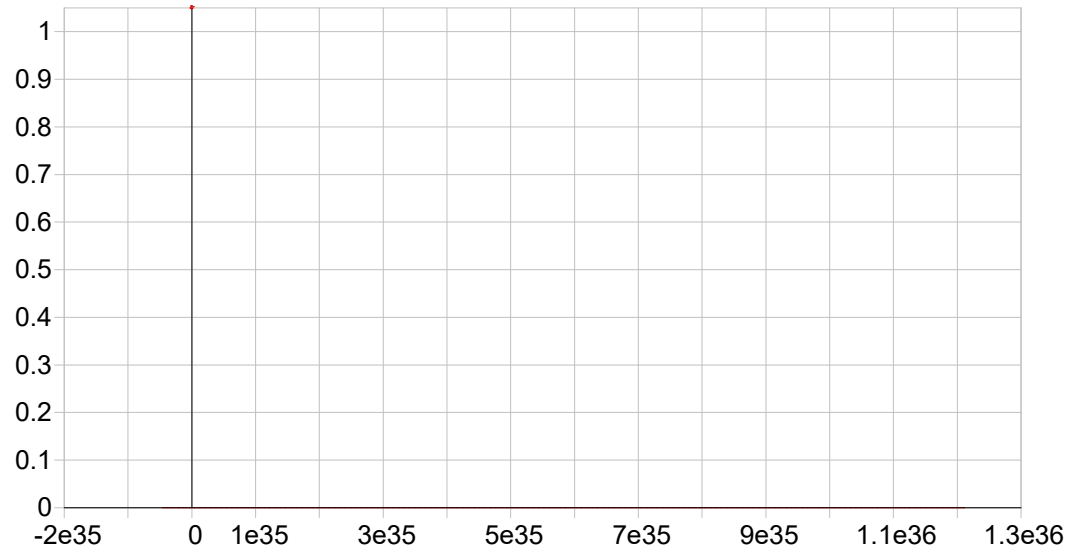
Y 360.073 { 94}*

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					

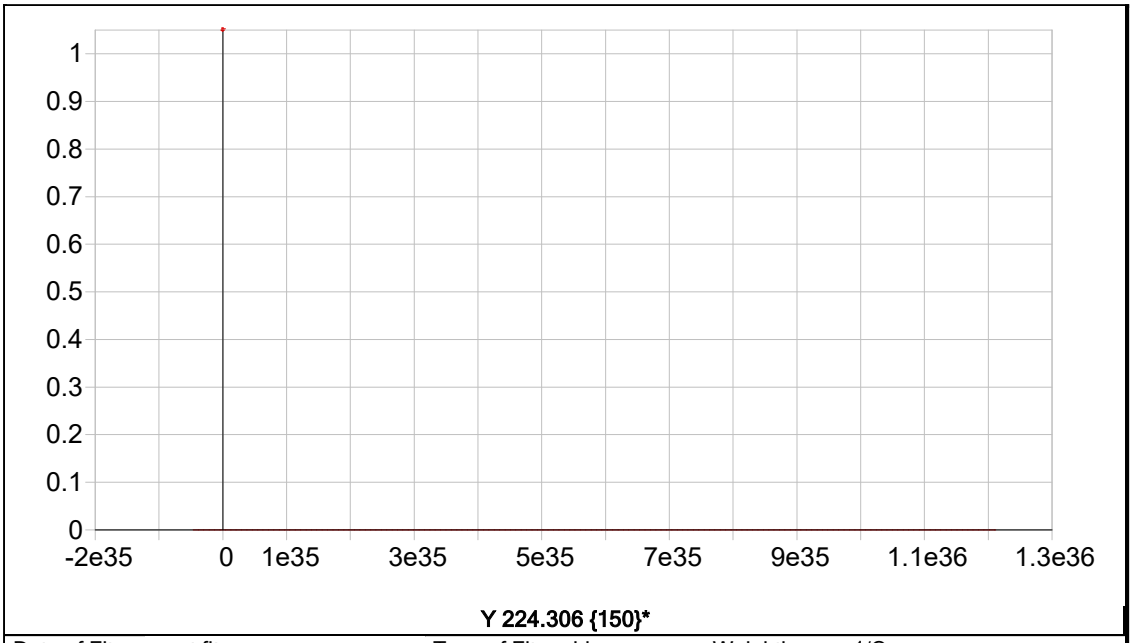
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

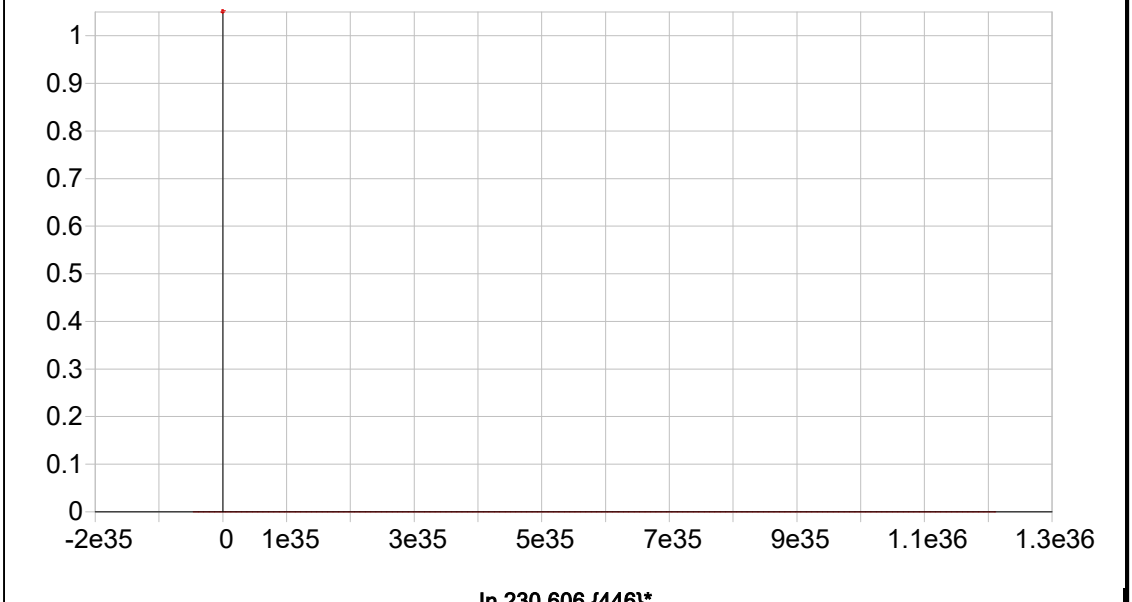


Y 224.306 {150}*

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**

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S0 Acquired: 7/29/2025 11:20:13 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00004**	**.00059**	**.00004**	**.00017**	**.00050**	**.00093**	**.06652**	**-.00138**
Stddev	.00010	.00009	.00002	.00009	.00011	.00093	.00096	.00046
%RSD	264.25	15.826	43.074	54.763	21.749	100.03	1.4446	33.607
#1	-.00005	.00051	.00004	.00008	.00062	.00168	.06541	-.00182
#2	.00014	.00057	.00006	.00027	.00041	.00120	.06714	-.00141
#3	.00002	.00069	.00003	.00016	.00047	-.00011	.06700	-.00090

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00082**	**.00169**	**.00016**	**.00004**	**.00045**	**.00005**	**.00080**	**-.00010**
Stddev	.00023	.00058	.00006	.00004	.00026	.00001	.00025	.00023
%RSD	28.547	34.465	34.502	102.50	57.719	21.287	30.626	235.63
#1	-.00055	.00236	.00010	.00005	.00071	.00006	.00071	-.00033
#2	-.00092	.00141	.00019	.00007	.00043	.00005	.00062	.00014
#3	-.00098	.00130	.00019	-.00001	.00020	.00004	.00109	-.00010

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00053**	**-.00082**	**.00627**	**-.00002**	**.00585**	**.00147**	**.00378**	**.00044**
Stddev	.00012	.00004	.00014	.00005	.00028	.00023	.00047	.00006
%RSD	22.881	4.6841	2.1940	231.34	4.7002	15.461	12.319	14.654
#1	-.00044	-.00086	.00624	-.00003	.00555	.00164	.00419	.00045
#2	-.00049	-.00079	.00641	-.00007	.00591	.00157	.00387	.00050
#3	-.00067	-.00081	.00614	.00003	.00610	.00121	.00327	.00037

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00050**	**.00891**	**.00013**	**-.00045**	**.00029**	**.00443**	**.00142**
Stddev	.00004	.00032	.00003	.00006	.00005	.00215	.00020
%RSD	7.6188	3.6158	23.165	12.740	18.026	48.648	14.015
#1	.00051	.00871	.00010	-.00040	.00028	.00668	.00120
#2	.00045	.00874	.00016	-.00044	.00024	.00239	.00158
#3	.00052	.00928	.00012	-.00051	.00034	.00422	.00149

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S0 Acquired: 7/29/2025 11:20:13 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5583.9**	**93365.**	**8057.5**	**4845.0**	**6994.5**
Stddev	33.2	64.	21.1	16.4	43.3
%RSD	.59413	.06835	.26167	.33772	.61848
#1	5608.3	93353.	8064.6	4860.9	7023.4
#2	5597.3	93434.	8074.2	4845.8	7015.3
#3	5546.1	93308.	8033.8	4828.2	6944.7

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S1 Acquired: 7/29/2025 11:24:35 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00080**	**.00300**	**.00271**	**.00107**	**.00546**	**.00991**	**.34420**	**.04918**
Stddev	.00006	.00009	.00014	.00003	.00003	.00018	.00348	.00046
%RSD	7.8050	2.8975	5.0295	2.6837	.59426	1.8352	1.0121	.94389
#1	.00073	.00294	.00272	.00104	.00546	.00995	.34256	.04967
#2	.00080	.00296	.00256	.00107	.00543	.00972	.34820	.04912
#3	.00086	.00310	.00283	.00110	.00550	.01008	.34184	.04875

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00775**	**.14811**	**.00206**	**.02089**	**.01756**	**.00048**	**.01316**	**.02448**
Stddev	.00012	.00093	.00005	.00024	.00012	.00001	.00004	.00040
%RSD	1.5165	.62598	2.6155	1.1280	.71075	2.1202	.28966	1.6140
#1	.00765	.14914	.00211	.02102	.01743	.00049	.01320	.02489
#2	.00788	.14786	.00207	.02062	.01768	.00047	.01313	.02410
#3	.00772	.14734	.00200	.02103	.01758	.00048	.01315	.02445

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02516**	**.00155**	**.02875**	**.00416**	**.13736**	**.01208**	**.07167**	**.12071**
Stddev	.00012	.00007	.00009	.00019	.00139	.00007	.00058	.00036
%RSD	.45948	4.7878	.32431	4.5661	1.0123	.58464	.80461	.29737
#1	.02504	.00147	.02876	.00417	.13582	.01200	.07173	.12042
#2	.02527	.00161	.02865	.00435	.13851	.01215	.07222	.12059
#3	.02517	.00157	.02883	.00397	.13776	.01208	.07107	.12111

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00639**	**.01643**	**.00108**	**.00012**	**.00094**	**.01538**	**.23049**
Stddev	.00012	.00020	.00001	.00006	.00005	.00086	.00126
%RSD	1.8105	1.2429	.87743	45.398	4.9385	5.5875	.54537
#1	.00627	.01620	.00109	.00012	.00100	.01480	.23033
#2	.00641	.01660	.00107	.00007	.00092	.01637	.23183
#3	.00649	.01650	.00108	.00018	.00091	.01496	.22933

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S1 Acquired: 7/29/2025 11:24:35 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5520.4	93159.	8766.3	4812.1	6778.5
Stddev	4.2	296.	35.7	14.3	14.6
%RSD	.07591	.31755	.40672	.29650	.21499
#1	5520.4	92992.	8726.0	4813.0	6794.3
#2	5524.7	93500.	8779.5	4826.0	6775.7
#3	5516.3	92983.	8793.5	4797.5	6765.5

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S2 Acquired: 7/29/2025 11:28:53 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03452**	**.05251**	**.16798**	**.03745**	**.07886**	**.12972**	**4.4812**	**.34719**
Stddev	.00008	.00028	.00036	.00015	.00018	.00255	.0615	.00477
%RSD	.21851	.53065	.21235	.41204	.23330	1.9667	1.3720	1.3739
#1	.03454	.05282	.16805	.03728	.07885	.13178	4.4880	.34542
#2	.03457	.05228	.16760	.03749	.07868	.12686	4.4167	.34355
#3	.03443	.05244	.16830	.03757	.07905	.13051	4.5391	.35259

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.57031**	**.29507**	**.02827**	**.27509**	**.14687**	**.00319**	**.23485**	**.04612**
Stddev	.00138	.00392	.00022	.00062	.00043	.00002	.00398	.00047
%RSD	.24241	1.3302	.76276	.22479	.29412	.50180	1.6937	1.0253
#1	.57098	.29525	.02840	.27478	.14672	.00318	.23444	.04634
#2	.56872	.29106	.02838	.27469	.14653	.00318	.23109	.04558
#3	.57124	.29891	.02802	.27580	.14735	.00321	.23902	.04644

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.24840**	**.04315**	**.04893**	**.04292**	**1.0346**	**.02255**	**.57638**	**.49442**
Stddev	.00027	.00013	.00028	.00097	.0014	.00011	.00967	.00166
%RSD	.11044	.30265	.57170	2.2592	.13790	.49653	1.6770	.33491
#1	.24852	.04304	.04923	.04311	1.0359	.02268	.57253	.49361
#2	.24809	.04329	.04890	.04186	1.0330	.02248	.56924	.49334
#3	.24860	.04312	.04867	.04377	1.0348	.02249	.58738	.49633

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11876**	**.17450**	**.00210**	**.01863**	**.02286**	**.43761**	**8.8658**
Stddev	.00026	.00240	.00002	.00002	.00004	.00650	.1196
%RSD	.21865	1.3752	1.1313	.11713	.18123	1.4849	1.3490
#1	.11878	.17512	.00212	.01866	.02291	.44068	8.8673
#2	.11849	.17186	.00207	.01863	.02283	.43014	8.7454
#3	.11901	.17653	.00211	.01862	.02284	.44200	8.9846

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S2 Acquired: 7/29/2025 11:28:53 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5529.9	91569.	8214.4	4777.6	6747.2
Stddev	7.6	348.	113.5	13.4	6.0
%RSD	.13749	.37970	1.3817	.28113	.08924
#1	5537.3	91485.	8254.6	4776.8	6753.5
#2	5530.3	91270.	8302.3	4791.4	6746.8
#3	5522.1	91950.	8086.3	4764.6	6741.4

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S3 Acquired: 7/29/2025 11:32:55 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10869**	**.16845**	**.52683**	**.11677**	**.24042**	**.39393**	**13.719**	**1.0489**
Stddev	.00137	.00209	.00491	.00127	.00309	.00068	.014	.0045
%RSD	1.2638	1.2421	.93238	1.0868	1.2859	.17324	.10226	.42637
#1	.10718	.16970	.52120	.11539	.23699	.39326	13.709	1.0512
#2	.10903	.16603	.52907	.11705	.24127	.39462	13.735	1.0518
#3	.10987	.16961	.53023	.11788	.24300	.39392	13.712	1.0438

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8018**	**.89882**	**.08520**	**.83984**	**.44154**	**.00987**	**.71802**	**.14113**
Stddev	.0150	.00606	.00030	.00778	.00472	.00007	.00302	.00074
%RSD	.83221	.67384	.35381	.92612	1.0681	.68131	.42038	.52118
#1	1.7845	.89997	.08554	.83094	.43627	.00994	.71764	.14062
#2	1.8097	.90422	.08499	.84319	.44299	.00982	.72121	.14197
#3	1.8111	.89227	.08505	.84538	.44536	.00984	.71521	.14081

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.75467**	**.13259**	**.14304**	**.13267**	**3.1390**	**.07027**	**1.7268**	**1.5041**
Stddev	.00669	.00010	.00079	.00030	.0076	.00020	.0082	.0158
%RSD	.88606	.07280	.55329	.22857	.24193	.28700	.47309	1.0480
#1	.74703	.13248	.14366	.13232	3.1427	.07046	1.7243	1.4866
#2	.75756	.13265	.14215	.13281	3.1302	.07006	1.7360	1.5082
#3	.75943	.13265	.14330	.13288	3.1440	.07030	1.7203	1.5174

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.36212**	**.51981**	**.00641**	**.05989**	**.07042**	**1.3551**	**26.914**
Stddev	.00319	.00141	.00007	.00056	.00048	.0033	.466
%RSD	.88189	.27167	1.0439	.93635	.68102	.24265	1.7332
#1	.35848	.51979	.00648	.05924	.06987	1.3517	27.027
#2	.36339	.51840	.00635	.06015	.07064	1.3555	27.313
#3	.36447	.52123	.00639	.06027	.07075	1.3582	26.401

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S3 Acquired: 7/29/2025 11:32:55 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5464.5**	**88836.**	**8164.6**	**4617.4**	**6579.5**
Stddev	52.8	284.	47.6	12.0	53.7
%RSD	.96680	.31963	.58286	.25997	.81672
#1	5523.1	88514.	8160.2	4623.2	6640.1
#2	5449.9	89051.	8119.3	4625.4	6560.4
#3	5420.6	88941.	8214.2	4603.6	6537.8

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S4 Acquired: 7/29/2025 11:37:00 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22085**	**.32488**	**1.0568**	**.23429**	**.49930**	**.80801**	**27.893**	**2.0112**
Stddev	.00107	.01022	.0039	.00152	.00232	.00290	.193	.0199
%RSD	.48253	3.1469	.36923	.64964	.46415	.35875	.69051	.99164
#1	.22102	.32129	1.0572	.23428	.49824	.81066	27.784	1.9890
#2	.21971	.31693	1.0527	.23277	.49771	.80491	28.115	2.0168
#3	.22182	.33641	1.0604	.23582	.50196	.80845	27.780	2.0277

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.6706**	**1.7956**	**.17518**	**1.7657**	**.91034**	**.02133**	**1.4486**	**.28911**
Stddev	.0193	.0039	.00105	.0062	.00357	.00018	.0035	.00142
%RSD	.52509	.21766	.59959	.35078	.39196	.85668	.24004	.49254
#1	3.6781	1.7940	.17533	1.7655	.91012	.02152	1.4448	.28748
#2	3.6487	1.7928	.17614	1.7596	.90688	.02130	1.4493	.29009
#3	3.6850	1.8001	.17406	1.7720	.91401	.02116	1.4516	.28976

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.5923**	**.27259**	**.31026**	**.27461**	**6.3647**	**.14769**	**3.3564**	**3.1055**
Stddev	.0058	.00018	.00371	.00055	.0197	.00112	.0363	.0151
%RSD	.36708	.06504	1.1958	.20161	.30902	.75783	1.0811	.48479
#1	1.5927	.27272	.31454	.27411	6.3782	.14898	3.3147	3.1044
#2	1.5862	.27266	.30822	.27450	6.3422	.14711	3.3738	3.0911
#3	1.5979	.27239	.30801	.27520	6.3739	.14699	3.3807	3.1211

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.75778**	**1.0739**	**.01415**	**.12816**	**.15296**	**2.8509**	**54.663**
Stddev	.00382	.0024	.00007	.00061	.00125	.0049	.458
%RSD	.50370	.22610	.49174	.47974	.81620	.17069	.83808
#1	.75878	1.0761	.01423	.12854	.15281	2.8522	54.845
#2	.75357	1.0713	.01410	.12745	.15179	2.8455	55.002
#3	.76101	1.0742	.01413	.12849	.15427	2.8550	54.142

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S4 Acquired: 7/29/2025 11:37:00 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5188.1**	**87233.**	**8464.3**	**4514.8**	**6106.0**
Stddev	13.2	312.	60.9	22.8	17.3
%RSD	.25426	.35783	.72004	.50418	.28399
#1	5183.8	86926.	8534.6	4495.5	6102.2
#2	5202.9	87224.	8427.1	4539.9	6124.9
#3	5177.5	87550.	8431.2	4509.0	6090.8

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S5 Acquired: 7/29/2025 11:41:11 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.44037**	**.65791**	**2.1544**	**.46710**	**1.0040**	**1.6664**	**57.161**	**4.2186**
Stddev	.00084	.00727	.0056	.00110	.0029	.0261	.690	.0525
%RSD	.19152	1.1053	.26071	.23548	.28495	1.5687	1.2069	1.2446
#1	.44006	.65078	2.1609	.46597	1.0017	1.6468	56.591	4.1587
#2	.43972	.66532	2.1510	.46718	1.0032	1.6961	57.928	4.2570
#3	.44132	.65762	2.1514	.46816	1.0072	1.6564	56.964	4.2399

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.3542**	**3.6999**	**.34408**	**3.5798**	**1.7934**	**.04192**	**2.9759**	**.59687**
Stddev	.0171	.0600	.00156	.0036	.0024	.00044	.0439	.00829
%RSD	.23213	1.6207	.45431	.09961	.13193	1.0425	1.4749	1.3893
#1	7.3620	3.6470	.34539	3.5825	1.7957	.04222	2.9401	.59069
#2	7.3346	3.7651	.34450	3.5758	1.7910	.04212	3.0249	.60630
#3	7.3659	3.6877	.34235	3.5811	1.7934	.04142	2.9627	.59364

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1966**	**.55299**	**.61710**	**.56696**	**12.684**	**.29909**	**7.0824**	**6.2150**
Stddev	.0046	.00130	.00858	.00772	.049	.00320	.0982	.0118
%RSD	.14425	.23597	1.3908	1.3617	.38462	1.0714	1.3858	.19012
#1	3.2013	.55445	.62223	.56156	12.727	.30056	6.9702	6.2060
#2	3.1921	.55256	.62188	.57581	12.695	.30129	7.1526	6.2107
#3	3.1962	.55195	.60719	.56353	12.631	.29541	7.1243	6.2284

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.5228**	**2.2431**	**.02868**	**.26106**	**.31413**	**6.0373**	**111.28**
Stddev	.0016	.0274	.00022	.00104	.00039	.0823	.57
%RSD	.10508	1.2236	.77975	.40002	.12313	1.3624	.51428
#1	1.5246	2.2233	.02881	.26176	.31442	5.9841	111.17
#2	1.5216	2.2744	.02881	.26156	.31369	6.1320	111.90
#3	1.5221	2.2316	.02842	.25986	.31428	5.9957	110.78

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: S5 Acquired: 7/29/2025 11:41:11 Type: Cal
Method: 6010-200.7 NEW(v66) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5141.3	85259.	7946.6	4332.5	5949.4
Stddev	16.9	843.	90.6	32.7	21.6
%RSD	.32834	.98839	1.1403	.75584	.36380
#1	5123.6	84551.	8021.8	4300.9	5926.7
#2	5143.2	85036.	7846.0	4330.4	5951.8
#3	5157.2	86191.	7972.0	4366.3	5969.8

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICV01 Acquired: 7/29/2025 12:20:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.838994**	**3.949864**	**4.000071**	**3.884675**	**4.192133**	**8.091095**
Stddev	.015254	.161016	.009952	.010429	.013170	.106269
%RSD	.3973342	4.076483	.2487986	.2684712	.3141697	1.313403
#1	3.853336	4.070651	4.008577	3.888181	4.196772	8.210973
#2	3.840679	4.011881	4.002509	3.892899	4.202356	8.053848
#3	3.822969	3.767062	3.989126	3.872944	4.177270	8.008464

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.182751**	**.2162207**	**2.054203**	**20.85531**	**.7915330**	**1.997968**
Stddev	.039876	.0024728	.006588	.19649	.0026154	.003632
%RSD	.4873175	1.143665	.3207257	.9421707	.3304258	.1817975
#1	8.224736	.2189247	2.061313	21.08209	.7923192	2.001081
#2	8.145386	.2156630	2.052992	20.74821	.7936652	1.998845
#3	8.178130	.2140743	2.048304	20.73564	.7886147	1.993977

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.022864**	**3.947184**	**2.056201**	**20.23398**	**1.989128**	**1.090318**
Stddev	.001471	.011936	.023706	.26169	.003172	.000820
%RSD	.1438570	.3023836	1.152889	1.293302	.1594504	.0752218
#1	1.024113	3.957472	2.083145	20.53495	1.991861	1.090045
#2	1.023238	3.949983	2.046911	20.10675	1.989873	1.091239
#3	1.021242	3.934098	2.038547	20.06023	1.985650	1.089668

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.04093**	**2.038383**	**2.060317**	**19.60295**	F **.0005702**	F **-.000145**
Stddev	.08902	.029402	.001595	.07276	.0009026	.000282
%RSD	.4230625	1.442402	.0773909	.3711916	158.2797	194.5972
#1	21.14129	2.072298	2.058488	19.68689	.0004004	-.000462
#2	20.97153	2.020084	2.061051	19.55773	-.000235	-.000052
#3	21.00997	2.022767	2.061412	19.56423	.001546	.000079

Sample Name: ICV01 Acquired: 7/29/2025 12:20:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0000476	F .0004183	F -.057756	F .0004810	F .0113131	F -.000893
Stddev	.0003308	.0010930	.014040	.0012895	.0012137	.003172
%RSD	695.0266	261.3162	24.30960	268.0825	10.72842	355.3115
#1	.0000690	-.000579	-.064870	.0019389	.0127112	-.003751
#2	.0003671	.000247	-.041583	.0000142	.0106976	.002520
#3	-.000293	.001587	-.066816	-.000510	.0105305	-.001447

Elem	Sr4077
Units	ppm
Avg	F -.003617
Stddev	.000094
%RSD	2.589629
#1	-.003695
#2	-.003642
#3	-.003513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5299.447	87773.39	7971.404	4419.497	6390.518
Stddev	14.560	148.31	82.825	12.125	19.729
%RSD	.2747467	.1689700	1.039025	.2743549	.3087181
#1	5295.331	87612.74	7875.836	4418.100	6374.835
#2	5287.388	87905.08	8016.044	4432.260	6384.051
#3	5315.622	87802.36	8022.334	4408.131	6412.669

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: LLICV01 Acquired: 7/29/2025 13:01:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0185439**	**.0378263**	**.0121070**	**.0213282**	**.0524252**	**.1096726**
Stddev	.0004546	.0018303	.0009258	.0009569	.0002647	.0042058
%RSD	2.451500	4.838622	7.647056	4.486543	.5049388	3.834899
#1	.0185777	.0386042	.0114940	.0209659	.0523455	.1048440
#2	.0189807	.0391390	.0116550	.0224134	.0527206	.1116367
#3	.0180733	.0357355	.0131720	.0206054	.0522095	.1125370

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1049864**	**.0063975**	**.0051647**	**2.121906**	**.0099816**	**.0295458**
Stddev	.0010271	.0000761	.0000727	.021477	.0001439	.0001869
%RSD	.9783646	1.188911	1.406875	1.012134	1.441858	.6324264
#1	.1042880	.0063268	.0051508	2.104726	.0099265	.0293353
#2	.1061658	.0064779	.0052433	2.145984	.0098733	.0296922
#3	.1045054	.0063877	.0051000	2.115009	.0101449	.0296098

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0219381**	**.1070915**	**.0202557**	**2.100126**	**.0402692**	**.0105470**
Stddev	.0002989	.0025244	.0005553	.016419	.0003493	.0003062
%RSD	1.362249	2.357273	2.741536	.7817938	.8674345	2.903146
#1	.0216349	.1097994	.0200810	2.109597	.0406349	.0102847
#2	.0219471	.1066719	.0198088	2.109613	.0399390	.0104727
#3	.0222324	.1048031	.0208774	2.081167	.0402337	.0108835

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.696411**	**.0388239**	**.0418397**	**1.678148**	**.1021342**	**.1960907**
Stddev	.009760	.0012322	.0001806	.022548	.0010879	.0001791
%RSD	.5753042	3.173931	.4315330	1.343623	1.065192	.0913307
#1	1.696258	.0374014	.0419626	1.703703	.1016515	.1961192
#2	1.686729	.0395632	.0419241	1.669688	.1033800	.1958990
#3	1.706247	.0395071	.0416324	1.661054	.1013711	.1962538

Sample Name: LLICV01 Acquired: 7/29/2025 13:01:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0384649	.0425304	.3303040	.0176334	.0216744	F .0124684
Stddev	.0004052	.0022507	.0123601	.0010925	.0028276	.0010489
%RSD	1.053294	5.292051	3.742031	6.195368	13.04579	8.412220
#1	.0386209	.0432084	.3441026	.0174418	.0244144	.0130487
#2	.0387689	.0443642	.3265620	.0188089	.0218422	.0130990
#3	.0380049	.0400186	.3202472	.0166493	.0187667	.0112576

Elem	Sr4077
Units	ppm
Avg	.0215035
Stddev	.0002826
%RSD	1.314192
#1	.0213298
#2	.0218296
#3	.0213512

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5285.987	89974.42	8156.919	4499.673	6572.310
Stddev	5.926	255.86	108.810	18.775	6.933
%RSD	.1121100	.2843694	1.333965	.4172553	.1054874
#1	5288.179	89880.20	8224.038	4521.038	6573.722
#2	5290.504	90264.03	8031.376	4485.806	6578.429
#3	5279.277	89779.03	8215.343	4492.174	6564.780

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICB01 Acquired: 7/29/2025 13:05:23 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001201**	**-.001159**	**.0001488**	**-.001194**	**.0015030**	**-.005917**	**.0024582**
Stddev	.001529	.000629	.0011116	.000590	.0027281	.008277	.0007452
%RSD	127.2359	54.28120	746.8722	49.46547	181.5165	139.8970	30.31377
#1	-.002781	-.000765	.0014103	-.000547	-.001521	-.011182	.0032737
#2	-.001094	-.001885	-.000688	-.001330	.002250	.003624	.0018127
#3	.000271	-.000827	-.000276	-.001704	.003780	-.010192	.0022883

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000893**	**.0000010**	**.0037782**	**-.000034**	**-.000165**	**-.000102**	**-.002066**
Stddev	.0000896	.0001313	.0052832	.000394	.000083	.000435	.001139
%RSD	100.4057	12855.10	139.8352	1149.694	50.01328	426.7492	55.12480
#1	.0001371	.0001221	-.002137	.000031	-.000166	-.000590	-.003160
#2	.0001448	.0000195	.005442	-.000457	-.000082	.000035	-.000887
#3	-.000014	-.000139	.008029	.000323	-.000248	.000248	-.002150

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002171**	**-.001002**	**.0000703**	**.0001015**	**-.235137**	**-.004935**	**-.000151**
Stddev	.0002085	.009925	.0001929	.0005326	.005608	.001453	.000102
%RSD	96.03323	990.2316	274.1968	524.7721	2.385026	29.43946	67.54174
#1	.0001578	.006846	.0002524	-.000476	-.241397	-.006470	-.000033
#2	.0000448	.002306	.0000905	.000573	-.230573	-.004755	-.000209
#3	.0004489	-.012159	-.000132	.000208	-.233441	-.003581	-.000211

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.270687**	**-.000721**	**-.000191**	**.0000670**	**.0069134**	**-.003586**	**-.001761**
Stddev	.019943	.000781	.000127	.0005677	.0009416	.009264	.001971
%RSD	7.367471	108.3069	66.61105	847.5112	13.61960	258.3430	111.9674
#1	-.247825	-.001595	-.000047	-.000481	.0058773	-.000710	-.003095
#2	-.279732	-.000092	-.000289	.000030	.0071459	-.013946	-.002691
#3	-.284505	-.000477	-.000237	.000652	.0077169	.003899	.000504

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICB01 Acquired: 7/29/2025 13:05:23 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003569	-.007519	-.000103
Stddev	.0019391	.001403	.000037
%RSD	543.2233	18.66297	36.15881
#1	.0024755	-.006343	-.000131
#2	-.001330	-.007141	-.000061
#3	-.000075	-.009072	-.000117

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5391.906	84546.57	7946.614	4348.512	6876.961
Stddev	21.663	185.60	14.827	10.371	23.894
%RSD	.4017729	.2195290	.1865817	.2384954	.3474524
#1	5410.898	84710.98	7963.735	4350.601	6900.516
#2	5396.509	84583.43	7937.984	4357.679	6877.625
#3	5368.311	84345.30	7938.124	4337.255	6852.742

Sample Name: CRI01 Acquired: 7/29/2025 13:09:47 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0188949**	**.0390312**	**.0115279**	**.0210047**	**.0491105**	**.1049337**	**.1049164**
Stddev	.0013762	.0011430	.0005684	.0008266	.0008934	.0100357	.0011615
%RSD	7.283566	2.928351	4.930385	3.935254	1.819060	9.563832	1.107096
#1	.0181168	.0390233	.0109055	.0200555	.0500130	.1023910	.1035963
#2	.0180839	.0401780	.0120194	.0213928	.0490920	.0964140	.1053706
#3	.0204839	.0378921	.0116589	.0215659	.0482266	.1159962	.1057821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069441**	**.0051432**	**2.147565**	**.0100311**	**.0287791**	**.0211340**	**.1060289**
Stddev	.0001433	.0000703	.013960	.0000942	.0004201	.0008363	.0055297
%RSD	2.062962	1.366157	.6500376	.9390848	1.459621	3.957032	5.215297
#1	.0067921	.0050989	2.131448	.0099418	.0282972	.0201687	.0999785
#2	.0069637	.0051066	2.155371	.0101295	.0290682	.0215951	.1072871
#3	.0070766	.0052242	2.155876	.0100220	.0289718	.0216382	.1108211

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0203941**	**2.075601**	**.0390482**	**.0109474**	**1.566630**	**.0385760**	**.0423876**
Stddev	.0003350	.010563	.0009643	.0006462	.011443	.0041798	.0001087
%RSD	1.642881	.5089102	2.469544	5.902573	.7303966	10.83532	.2564435
#1	.0200105	2.065089	.0379358	.0116388	1.559714	.0415819	.0423632
#2	.0205419	2.075501	.0396476	.0108446	1.579838	.0338028	.0425064
#3	.0206298	2.086214	.0395611	.0103588	1.560338	.0403433	.0422932

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.700385**	**.1084855**	**.1965915**	**.0376479**	**.0445641**	**.3122359**	**.0160343**
Stddev	.024590	.0005052	.0031181	.0007416	.0015457	.0102751	.0010595
%RSD	1.446144	.4656825	1.586080	1.969704	3.468513	3.290824	6.607925
#1	1.672071	.1080938	.1929980	.0367991	.0447624	.3135888	.0157400
#2	1.712694	.1083071	.1985820	.0379746	.0429288	.3217675	.0172099
#3	1.716389	.1090558	.1981946	.0381701	.0460011	.3013513	.0151531

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CRI01 Acquired: 7/29/2025 13:09:47 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0188880	.0143478	.0219989
Stddev	.0029820	.0022001	.0002408
%RSD	15.78782	15.33423	1.094507
#1	.0209645	.0168707	.0217219
#2	.0202285	.0128279	.0221170
#3	.0154710	.0133449	.0221578

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5455.149	86165.88	7489.963	4415.392	6959.615
Stddev	82.972	180.41	82.628	2.169	109.057
%RSD	1.520990	.2093751	1.103188	.0491201	1.567002
#1	5550.085	86238.41	7585.284	4413.351	7084.676
#2	5396.511	85960.50	7438.712	4417.670	6884.305
#3	5418.851	86298.74	7445.894	4415.156	6909.864

Sample Name: ICSA01 Acquired: 7/29/2025 13:14:47 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074615**	**.0123153**	**-.004038**	**-.002674**	**-.002430**	**255.8305**
Stddev	.0030265	.0016369	.000917	.002744	.001322	1.9246
%RSD	40.56152	13.29128	22.71080	102.5819	54.40361	.7522920
#1	.0051316	.0132585	-.002998	.000365	-.003936	253.6518
#2	.0063707	.0132621	-.004730	-.003421	-.001894	257.2995
#3	.0108822	.0104252	-.004386	-.004968	-.001460	256.5401

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060167**	**.0012735**	**.0043541**	**247.4481**	**.0542475**	**.0013565**
Stddev	.0006557	.0000331	.0000899	.3207	.0000997	.0002276
%RSD	10.89879	2.598877	2.065160	.1295996	.1837348	16.77400
#1	.0057745	.0013095	.0042847	247.5667	.0541743	.0013490
#2	.0055164	.0012444	.0043219	247.0849	.0542071	.0015878
#3	.0067590	.0012666	.0044557	247.6925	.0543610	.0011329

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0216502**	**102.6116**	**.0074939**	**255.1288**	**.0037506**	**.0028116**
Stddev	.0004000	.6045	.0000341	1.4163	.0003235	.0001519
%RSD	1.847534	.5891013	.4553340	.5551454	8.626394	5.401675
#1	.0214603	103.2634	.0075332	254.1781	.0034410	.0028971
#2	.0213805	102.0694	.0074766	254.4517	.0040865	.0026363
#3	.0221097	102.5021	.0074719	256.7566	.0037243	.0029015

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.089907**	**-.000494**	**.0019821**	**-.133296**	**.0213613**	**.0003556**
Stddev	.002208	.000881	.0001990	.040709	.0052446	.0005627
%RSD	2.455509	178.5848	10.04172	30.54038	24.55200	158.2211
#1	-.088293	.000489	.0018526	-.087532	.0274126	.0001902
#2	-.089005	-.001214	.0018824	-.146880	.0181291	-.000106
#3	-.092423	-.000755	.0022113	-.165476	.0185423	.000983

Sample Name: ICSA01 Acquired: 7/29/2025 13:14:47 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003281	.0010720	.0116651	.0041697	-.008229	F .0529925
Stddev	.000240	.0010298	.0081798	.0019155	.003353	.0002336
%RSD	7.325818	96.06307	70.12261	45.93898	40.74562	.4407181
#1	-.003068	.0022535	.0051544	.0024517	-.004495	.0527299
#2	-.003233	.0005971	.0208465	.0038222	-.009210	.0531772
#3	-.003541	.0003653	.0089943	.0062351	-.010983	.0530702

Elem	Sr4077
Units	ppm
Avg	.0045814
Stddev	.0004579
%RSD	9.995692
#1	.0040758
#2	.0047003
#3	.0049682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4783.217	78978.92	7959.646	3942.768	5531.249
Stddev	9.052	124.24	58.877	2.999	6.937
%RSD	.1892495	.1573082	.7396956	.0760541	.1254139
#1	4781.119	78897.46	8023.751	3939.600	5523.594
#2	4793.134	79121.92	7947.200	3943.142	5537.118
#3	4775.398	78917.38	7907.987	3945.562	5533.037

Sample Name: ICSAB01 Acquired: 7/29/2025 13:20:15 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1041313**	**.1089710**	**.0432068**	**.0444905**	**.6161438**	**256.0557**
Stddev	.0031115	.0029299	.0023614	.0039902	.0082448	2.3849
%RSD	2.988046	2.688675	5.465341	8.968740	1.338124	.9314022
#1	.1005417	.1073629	.0459251	.0462576	.6123664	253.3342
#2	.1060575	.1071974	.0416623	.0472920	.6104645	257.0519
#3	.1057947	.1123528	.0420331	.0399218	.6256005	257.7810

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5125734**	**.5061476**	**.8544225**	**250.1053**	**.5245217**	**.4943719**
Stddev	.0017980	.0016577	.0030783	1.4648	.0031591	.0021023
%RSD	.3507748	.3275048	.3602816	.5856800	.6022840	.4252372
#1	.5111371	.5050070	.8517013	249.0479	.5218181	.4925678
#2	.5119933	.5053867	.8538026	249.4907	.5279943	.4938675
#3	.5145898	.5080491	.8577636	251.7773	.5237527	.4966805

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5049799**	**98.52263**	**.5042577**	**255.5546**	**.9772079**	**.2155921**
Stddev	.0023356	.65287	.0024152	1.1654	.0017623	.0007693
%RSD	.4625037	.6626559	.4789519	.4560211	.1803366	.3568105
#1	.5027288	97.77043	.5015344	254.4555	.9758547	.2152753
#2	.5048193	98.85533	.5050990	255.4318	.9765684	.2150318
#3	.5073916	98.94212	.5061397	256.7766	.9792007	.2164692

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.145035**	**.4757031**	**1.050332**	**-.226193**	F **-.007504**	F **.0002775**
Stddev	.003832	.0043303	.003200	.010068	.002585	.0001737
%RSD	2.642264	.9102872	.3046772	4.451001	34.44311	62.61364
#1	-.141788	.4792113	1.047308	-.233471	-.009186	.0004685
#2	-.144054	.4708635	1.053683	-.230406	-.004528	.0001288
#3	-.149262	.4770345	1.050005	-.214703	-.008798	.0002351

Sample Name: ICSAB01 Acquired: 7/29/2025 13:20:15 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.003802	F .0012420	F -.015321	F .0066378	F -.007124	F .0497702
Stddev	.000981	.0022151	.009464	.0012736	.001021	.0033474
%RSD	25.81199	178.3462	61.77109	19.18702	14.33435	6.725767
#1	-.004225	.0006470	-.010307	.0077259	-.007375	.0459050
#2	-.004502	-.000615	-.026237	.0052370	-.007997	.0517277
#3	-.002680	.003694	-.009419	.0069506	-.006001	.0516778

Elem	Sr4077
Units	ppm
Avg	F .0099504
Stddev	.0003958
%RSD	3.977934
#1	.0104007
#2	.0097937
#3	.0096570

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4733.200	80064.03	7681.680	3953.718	5498.236
Stddev	16.942	313.05	37.834	7.213	17.352
%RSD	.3579340	.3909957	.4925248	.1824287	.3155938
#1	4744.568	80407.60	7698.491	3960.250	5512.065
#2	4741.303	79989.53	7708.197	3954.927	5503.879
#3	4713.728	79794.95	7638.354	3945.978	5478.765

Sample Name: ICSADLX20 Acquired: 7/29/2025 13:24:29 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003036**	**-.000420**	**-.000791**	**.0000731**	**-.000658**	**12.42552**	**.0035785**
Stddev	.000920	.000871	.000663	.0037108	.000171	.02276	.0007873
%RSD	30.30501	207.5193	83.72439	5076.230	25.96287	.1832086	22.00183
#1	-.003427	-.000944	-.001554	-.002958	-.000852	12.40342	.0037308
#2	-.003696	.000585	-.000459	.004212	-.000529	12.44890	.0027261
#3	-.001985	-.000900	-.000361	-.001034	-.000593	12.42425	.0042785

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002257**	**.0001001**	**12.86255**	**.0027834**	**.0000569**	**.0010833**	**5.201629**
Stddev	.0000397	.0000330	.00908	.0003200	.0001954	.0004527	.101154
%RSD	17.58583	32.97329	.0706214	11.49701	343.3227	41.79127	1.944658
#1	.0001817	.0001018	12.87009	.0025424	.0002650	.0009294	5.163895
#2	.0002369	.0001321	12.86510	.0026614	.0000283	.0015928	5.124765
#3	.0002587	.0000662	12.85246	.0031465	-.000123	.0007275	5.316225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000100**	**12.88041**	**.0005572**	**.0005499**	**-.240106**	**-.002155**	**.0000593**
Stddev	.000485	.02013	.0002172	.0001167	.005568	.002825	.0001493
%RSD	484.6540	.1562911	38.98333	21.22096	2.319133	131.1095	251.9628
#1	-.000455	12.89371	.0003103	.0004363	-.245838	-.000954	.0000527
#2	.000453	12.85725	.0007188	.0005439	-.239761	-.000129	-.000087
#3	-.000299	12.89026	.0006426	.0006694	-.234718	-.005382	.000212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.342510**	**-.000266**	**-.000094**	**-.000537**	**.0074395**	**-.004007**	**-.000514**
Stddev	.007856	.000921	.000217	.000039	.0002146	.006487	.001299
%RSD	2.293619	346.3962	229.7618	7.201466	2.885177	161.9117	252.9035
#1	-.340483	-.001031	.000037	-.000581	.0072630	-.004993	.000986
#2	-.335866	-.000523	.000025	-.000523	.0076784	.002917	-.001280
#3	-.351180	.000756	-.000344	-.000507	.0073770	-.009944	-.001247

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICSADLX20 Acquired: 7/29/2025 13:24:29 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.003032**	**-.008783**	**-.000000**
Stddev	.000908	.002519	.000098
%RSD	29.95752	28.67718	19689.76
#1	-.003851	-.007243	.000003
#2	-.002055	-.011690	.000096
#3	-.003189	-.007417	-.000101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5340.943**	**83382.65**	**8080.461**	**4251.368**	**6730.816**
Stddev	20.750	1949.48	21.486	102.595	19.512
%RSD	.3885054	2.337989	.2658954	2.413221	.2898922
#1	5363.878	84334.23	8098.761	4292.002	6752.365
#2	5335.481	84673.58	8085.818	4327.421	6725.736
#3	5323.471	81140.13	8056.804	4134.680	6714.346

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICSABDLX20 Acquired: 7/29/2025 13:28:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038819	.0044992	.0019013	.0016589	.0303753	12.34695	.0272193
Stddev	.0012364	.0002448	.0019951	.0023355	.0021248	.02523	.0006442
%RSD	31.84929	5.440124	104.9338	140.7875	6.995112	.2043052	2.366613
#1	.0038193	.0045792	.0040386	.0038137	.0280083	12.32155	.0275605
#2	.0026781	.0046939	.0000880	-.000823	.0309995	12.37200	.0264763
#3	.0051484	.0042244	.0015773	.001986	.0321180	12.34731	.0276212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0253423	.0422366	12.81461	.0269547	.0243066	.0266186	4.994273
Stddev	.0001074	.0003338	.04248	.0002231	.0002303	.0003279	.012422
%RSD	.4238175	.7902766	.3314650	.8275786	.9475872	1.231843	.2487170
#1	.0252777	.0423031	12.83612	.0267084	.0245457	.0263405	5.005482
#2	.0252829	.0418746	12.76568	.0271432	.0240862	.0265352	4.996418
#3	.0254663	.0425321	12.84202	.0270125	.0242879	.0269802	4.980918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0254759	12.78489	.0491378	.0110404	-.251411	.0236794	.0511481
Stddev	.0003990	.07238	.0001891	.0004190	.006943	.0006445	.0001265
%RSD	1.566243	.5661671	.3847626	3.794869	2.761783	2.721701	.2472892
#1	.0253718	12.70734	.0493470	.0105574	-.245751	.0240060	.0512881
#2	.0259166	12.79668	.0490876	.0112594	-.249322	.0229370	.0511141
#3	.0251393	12.85066	.0489790	.0113046	-.259159	.0240951	.0510421

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.324532	-.001628	-.000013	-.001107	.0073346	-.014590	-.000851
Stddev	.027360	.000645	.000119	.000216	.0010538	.003785	.002713
%RSD	8.430478	39.60621	920.3191	19.54953	14.36761	25.94223	318.9371
#1	-.294390	-.001371	.000027	-.001341	.0069145	-.010273	-.003960
#2	-.347798	-.002362	.000081	-.000913	.0065557	-.016162	.001037
#3	-.331408	-.001152	-.000146	-.001068	.0085337	-.017337	.000371

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: ICSABDLX20 Acquired: 7/29/2025 13:28:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003078	-.006167	.0002555
Stddev	.0026969	.004234	.0000786
%RSD	876.0702	68.65134	30.76856
#1	.0008977	-.010067	.0001899
#2	-.002635	-.006771	.0003427
#3	.002661	-.001664	.0002340

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5147.568	87544.32	8156.492	4375.215	6372.271
Stddev	28.232	213.66	34.261	21.076	30.380
%RSD	.5484529	.2440547	.4200408	.4817226	.4767523
#1	5142.098	87373.80	8130.257	4352.156	6369.712
#2	5178.135	87475.17	8195.253	4393.485	6403.849
#3	5122.472	87783.98	8143.965	4380.002	6343.251

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV01 Acquired: 7/29/2025 14:21:13 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.076612**	**5.310575**	**4.935100**	**5.143401**	**5.204784**	**10.15402**	**10.45821**
Stddev	.028452	.024649	.024625	.030248	.027002	.04642	.18952
%RSD	.5604522	.4641491	.4989780	.5880892	.5187875	.4571509	1.812212
#1	5.098609	5.285115	4.960730	5.159985	5.224373	10.20758	10.65485
#2	5.044480	5.312286	4.911621	5.108489	5.173982	10.12907	10.44305
#3	5.086748	5.334324	4.932950	5.161730	5.215996	10.12541	10.27671

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2523064**	**2.451752**	**26.31168**	**.9645707**	**2.502710**	**1.271704**	**5.238009**
Stddev	.0031142	.015541	.07206	.0039632	.015376	.006023	.032066
%RSD	1.234291	.6338611	.2738564	.4108773	.6143547	.4736007	.6121818
#1	.2557392	2.469310	26.39348	.9667758	2.517916	1.277827	5.205550
#2	.2515172	2.446185	26.25763	.9669409	2.487170	1.265787	5.269667
#3	.2496626	2.439762	26.28392	.9599954	2.503044	1.271497	5.238809

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.582518**	**24.91328**	**2.499392**	**1.296657**	**26.05138**	**2.521348**	**2.615247**
Stddev	.009884	.12833	.015514	.005997	.17636	.008765	.014819
%RSD	.3827266	.5151097	.6207158	.4625343	.6769593	.3476322	.5666506
#1	2.593185	25.05869	2.515333	1.300655	25.84778	2.530985	2.619858
#2	2.573669	24.86528	2.484343	1.299554	26.14970	2.519208	2.627212
#3	2.580700	24.81587	2.498499	1.289761	26.15665	2.513851	2.598670

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.19150**	**5.107121**	**5.193152**	**4.984085**	**5.042051**	**5.054994**	**4.895252**
Stddev	.23614	.061430	.026512	.022513	.013309	.039824	.021636
%RSD	.9015971	1.202829	.5105191	.4517030	.2639568	.7878123	.4419878
#1	25.92823	5.172244	5.214915	5.005022	5.056843	5.021575	4.913408
#2	26.26165	5.098909	5.163625	4.960272	5.038264	5.044349	4.871311
#3	26.38462	5.050211	5.200916	4.986960	5.031047	5.099059	4.901036

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV01 Acquired: 7/29/2025 14:21:13 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.934205**	**4.962465**	**5.329495**
Stddev	.023875	.013459	.113098
%RSD	.4838763	.2712114	2.122120
#1	4.951984	4.977905	5.458547
#2	4.907068	4.956278	5.247638
#3	4.943563	4.953213	5.282300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5085.283**	**85042.24**	**8136.221**	**4173.540**	**6127.176**
Stddev	30.077	90.16	78.639	15.723	40.253
%RSD	.5914472	.1060227	.9665275	.3767346	.6569632
#1	5052.998	85022.49	8048.959	4174.434	6084.431
#2	5112.509	84963.58	8158.099	4157.389	6164.359
#3	5090.343	85140.64	8201.603	4188.797	6132.739

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB01 Acquired: 7/29/2025 14:25:25 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001891**	**-.000527**	**.0005796**	**.0005070**	**.0005427**	**-.016217**	**.0021442**
Stddev	.002084	.000535	.0002273	.0008613	.0037009	.010469	.0001429
%RSD	110.2087	101.4432	39.21765	169.8787	681.9330	64.55886	6.664051
#1	-.002614	-.000237	.0003448	-.000388	.0045155	-.028179	.0019803
#2	-.003517	-.000200	.0005953	.000579	-.000080	-.011749	.0022423
#3	.000458	-.001144	.0007985	.001330	-.002807	-.008722	.0022102

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001530**	**.0001587**	**.0094870**	**-.000033**	**-.000028**	**.0001501**	**-.003891**
Stddev	.0000749	.0000777	.0067220	.000175	.000068	.0001667	.005312
%RSD	48.94827	48.98821	70.85478	532.3517	246.2769	111.0378	136.5205
#1	.0001489	.0002437	.0145531	.000148	-.000103	.0002675	-.005653
#2	.0002299	.0000913	.0120466	-.000044	.000028	-.000041	.002078
#3	.0000803	.0001409	.0018612	-.000202	-.000008	.000224	-.008098

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000005**	**.0131578**	**.0003818**	**.0009326**	**-.255850**	**-.001999**	**.0002230**
Stddev	.000453	.0093163	.0002558	.0002761	.013844	.000817	.0002060
%RSD	9231.870	70.80432	66.98901	29.60032	5.410855	40.83953	92.38179
#1	.000450	.0092278	.0006201	.0010379	-.262996	-.002553	.0000824
#2	-.000008	.0237952	.0004137	.0006194	-.239893	-.002384	.0004594
#3	-.000456	.0064504	.0001116	.0011406	-.264660	-.001062	.0001271

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.268073**	**.0162858**	**.0008487**	**.0003758**	**.0081782**	**.0000614**	**-.000146**
Stddev	.032093	.0019540	.0000434	.0005527	.0004798	.0079934	.000865
%RSD	11.97171	11.99823	5.110521	147.0558	5.867335	13016.84	591.2104
#1	-.237585	.0184151	.0008006	-.000018	.0079062	.0060195	.000657
#2	-.301561	.0158673	.0008849	.000138	.0087323	.0031872	-.000034
#3	-.265074	.0145749	.0008606	.001008	.0078961	-.009023	-.001062

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB01 Acquired: 7/29/2025 14:25:25 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005326	-.007707	.0003600
Stddev	.0006841	.002911	.0000084
%RSD	128.4400	37.76813	2.338385
#1	.0013137	-.010905	.0003659
#2	.0000396	-.007000	.0003637
#3	.0002446	-.005214	.0003503

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5236.332	87658.47	8280.788	4351.024	6613.378
Stddev	2.423	318.26	192.196	21.445	13.486
%RSD	.0462781	.3630632	2.320990	.4928666	.2039143
#1	5233.707	87750.00	8188.129	4350.173	6598.988
#2	5238.485	87304.48	8152.475	4330.017	6615.418
#3	5236.803	87920.93	8501.761	4372.881	6625.727

Sample Name: PB169029BL Acquired: 7/29/2025 14:29:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002109**	**-.000898**	**.0007271**	**-.002601**	**.0015703**	**-.015988**	**.0001910**
Stddev	.000722	.001237	.0011529	.001725	.0006838	.005504	.0005631
%RSD	34.23602	137.8310	158.5679	66.30811	43.54921	34.42750	294.7496
#1	-.001436	.000515	.0004358	-.003914	.0008308	-.022192	-.000447
#2	-.002019	-.001790	.0019976	-.000648	.0021799	-.014083	.000401
#3	-.002872	-.001417	-.000252	-.003243	.0017000	-.011690	.000619

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001275**	**.0001814**	**.0128439**	**-.000132**	**.0001283**	**.0000701**	**-.003676**
Stddev	.0000235	.0000903	.0129941	.000335	.0000759	.0003991	.001875
%RSD	18.39747	49.76734	101.1695	252.9194	59.12237	569.0606	51.00145
#1	.0001496	.0001669	.0197950	.000167	.0001683	-.000089	-.002643
#2	.0001029	.0000993	.0208841	-.000071	.0000408	-.000225	-.005839
#3	.0001301	.0002781	-.002147	-.000494	.0001758	.000524	-.002545

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000656**	**.0102124**	**-.000160**	**.0006784**	**-.285849**	**-.001646**	**-.000134**
Stddev	.000568	.0195545	.000284	.0002427	.004071	.001345	.000097
%RSD	86.55191	191.4773	177.4084	35.77066	1.424106	81.74344	72.46689
#1	-.000378	.0316073	-.000127	.0006226	-.287872	-.001287	-.000023
#2	-.000281	.0057656	.000106	.0004685	-.288511	-.003134	-.000176
#3	-.001309	-.006736	-.000460	.0009442	-.281162	-.000516	-.000202

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.265954**	**.0105390**	**.0000455**	**.0004881**	**.0077275**	**-.007771**	**-.001652**
Stddev	.016336	.0011731	.0001714	.0000789	.0005109	.006486	.001981
%RSD	6.142297	11.13140	377.1684	16.17535	6.611734	83.46058	119.9025
#1	-.263570	.0115581	.0000107	.0004307	.0079499	-.015260	-.003920
#2	-.283351	.0108023	-.000106	.0004553	.0080896	-.004058	-.000258
#3	-.250942	.0092566	.000232	.0005781	.0071431	-.003995	-.000779

Sample Name: PB169029BL Acquired: 7/29/2025 14:29:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001296	-.007483	-.000112
Stddev	.0010096	.003533	.000074
%RSD	778.9342	47.21338	65.92197
#1	.0012815	-.003410	-.000131
#2	-.000291	-.009321	-.000174
#3	-.000601	-.009719	-.000030

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5210.480	89918.89	8141.690	4431.128	6572.126
Stddev	2.638	209.52	209.635	10.825	10.573
%RSD	.0506202	.2330102	2.574838	.2442870	.1608828
#1	5209.897	89715.38	8270.394	4419.723	6561.413
#2	5213.360	90133.94	7899.790	4432.402	6582.554
#3	5208.183	89907.34	8254.887	4441.260	6572.410

Sample Name: PB169029BS Acquired: 7/29/2025 14:34:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7854803**	**2.057080**	**.9498442**	**2.006886**	**.8921309**	**2.046879**
Stddev	.0036082	.019574	.0059499	.014773	.0053169	.010385
%RSD	.4593690	.9515286	.6264048	.7361206	.5959745	.5073500
#1	.7891334	2.074530	.9565637	2.020993	.8980067	2.051867
#2	.7819186	2.035915	.9452445	1.991526	.8876517	2.053829
#3	.7853888	2.060795	.9477246	2.008139	.8907344	2.034942

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2135333**	**.2219577**	**.1695258**	**1.132387**	**.3951015**	**.2014806**
Stddev	.0023960	.0004466	.0002255	.004434	.0011226	.0008060
%RSD	1.122086	.2012085	.1330268	.3915450	.2841208	.4000184
#1	.2113483	.2219309	.1697858	1.128978	.3944005	.2024006
#2	.2160956	.2224171	.1694074	1.137399	.3963962	.2008991
#3	.2131560	.2215251	.1693842	1.130783	.3945077	.2011422

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3182853**	**2.967825**	**.2161673**	**2.070051**	**.5076107**	**.0787182**
Stddev	.0020927	.010555	.0024387	.052369	.0028175	.0003652
%RSD	.6574987	.3556587	1.128180	2.529855	.5550416	.4639690
#1	.3206717	2.956911	.2146552	2.102182	.5106256	.0786605
#2	.3167633	2.977980	.2189807	2.098351	.5050446	.0791088
#3	.3174208	2.968585	.2148659	2.009621	.5071617	.0783852

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.500731**	**.3043510**	**.2178001**	**9.628307**	**.3404152**	**.4460913**
Stddev	.023629	.0038747	.0010598	.042455	.0007127	.0030157
%RSD	.9448961	1.273091	.4865745	.4409437	.2093736	.6760194
#1	2.473492	.3063942	.2184037	9.579319	.3408692	.4492734
#2	2.515723	.3067764	.2184201	9.654414	.3407826	.4432755
#3	2.512978	.2998824	.2165764	9.651188	.3395937	.4457250

Sample Name: PB169029BS Acquired: 7/29/2025 14:34:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7379193**	**.2207851**	**.8403137**	**5.679362**	F **.0003967**	**.1858256**
Stddev	.0061314	.0026176	.0181520	.035749	.0020259	.0018448
%RSD	.8309079	1.185576	2.160147	.6294592	510.6616	.9927828
#1	.7445431	.2177758	.8585746	5.714157	-.000689	.1842771
#2	.7324421	.2220453	.8222726	5.642729	.002734	.1878667
#3	.7367727	.2225342	.8400939	5.681201	-.000855	.1853330

Elem	Sr4077
Units	ppm
Avg	**.2143283**
Stddev	.0015597
%RSD	.7277407
#1	.2129140
#2	.2160012
#3	.2140698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5261.508**	**88985.05**	**7747.032**	**4381.702**	**6564.544**
Stddev	29.464	286.32	40.355	9.502	33.040
%RSD	.5599958	.3217672	.5209131	.2168577	.5033127
#1	5229.149	89299.07	7776.271	4386.394	6527.398
#2	5286.787	88738.45	7700.990	4370.767	6590.653
#3	5268.589	88917.63	7763.835	4387.946	6575.581

Sample Name: Q2700-01 Acquired: 7/29/2025 14:38:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0486956**	**.0013407**	**.6063524**	**-.000315**	**-.010663**	**102.4314**	**.5047329**
Stddev	.0016903	.0006216	.0005860	.000350	.001973	.3084	.0011162
%RSD	3.471131	46.36169	.0966491	111.0439	18.50297	.3010959	.2211546
#1	.0493220	.0006860	.6063740	-.000079	-.012937	102.6025	.5049242
#2	.0467815	.0014133	.6069274	-.000149	-.009409	102.0754	.5035334
#3	.0499833	.0019228	.6057559	-.000716	-.009641	102.6164	.5057412

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0077994**	**.0235541**	**42.32255**	**.1689997**	**.1197704**	**.3277853**	**220.8532**
Stddev	.0001017	.0000712	.28063	.0005558	.0003717	.0009772	1.1133
%RSD	1.303314	.3021396	.6630844	.3288670	.3103565	.2981178	.5040769
#1	.0077578	.0235428	42.30666	.1684852	.1196771	.3270091	219.6526
#2	.0077251	.0236302	42.05020	.1695892	.1201798	.3274640	221.8513
#3	.0079152	.0234893	42.61079	.1689247	.1194541	.3288826	221.0558

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.352034**	**30.97488**	**.2328166**	**.0054922**	**9.735627**	**.4365317**	**.5258257**
Stddev	.018890	.15792	.0001867	.0008317	.060486	.0032025	.0017148
%RSD	.4340395	.5098206	.0801927	15.14311	.6212849	.7336169	.3261242
#1	4.350091	31.00181	.2326564	.0047312	9.683489	.4392704	.5262256
#2	4.334191	30.80523	.2327718	.0063800	9.801942	.4330105	.5239463
#3	4.371820	31.11760	.2330216	.0053653	9.721448	.4373143	.5273053

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.767398**	**.0034991**	**.0053383**	**.0162030**	**3.720114**	**1.430055**	**6.578784**
Stddev	.013080	.0031342	.0002414	.0005453	.006970	.006942	.036591
%RSD	.1932846	89.57072	4.521969	3.365172	.1873571	.4854316	.5561954
#1	6.753451	.0022136	.0052958	.0160282	3.714472	1.429977	6.543815
#2	6.779391	.0070717	.0051210	.0168143	3.717964	1.437036	6.575732
#3	6.769353	.0012121	.0055981	.0157666	3.727905	1.423152	6.616805

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2700-01 Acquired: 7/29/2025 14:38:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.530349	.1631508	-.050814
Stddev	.012682	.0024051	.001503
%RSD	.2293170	1.474129	2.957458
#1	5.528783	.1613312	-.049350
#2	5.543742	.1658775	-.052352
#3	5.518523	.1622439	-.050740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6329.869	104343.1	9973.248	5127.174	6049.545
Stddev	22.556	200.3	71.845	10.609	19.113
%RSD	.3563421	.1920049	.7203797	.2069152	.3159349
#1	6355.738	104574.3	9948.108	5121.242	6070.377
#2	6314.317	104221.4	10054.29	5139.422	6032.820
#3	6319.551	104233.5	9917.35	5120.858	6045.439

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2703-01 Acquired: 7/29/2025 14:42:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3856665**	**.0013610**	**3.683126**	**.0437254**	**.1276217**	**38.59354**
Stddev	.0054436	.0009740	.008481	.0023194	.0023059	.05969
%RSD	1.411480	71.56986	.2302684	5.304431	1.806809	.1546504
#1	.3797597	.0022709	3.674520	.0410611	.1296905	38.58435
#2	.3867585	.0003335	3.683381	.0452933	.1251357	38.53898
#3	.3904814	.0014785	3.691476	.0448218	.1280389	38.65729

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.050522**	**.0127373**	**.0297368**	**20.29180**	**.1933291**	**.1478574**
Stddev	.002319	.0000359	.0005155	.03304	.0009083	.0006614
%RSD	.2207062	.2820991	1.733638	.1628068	.4698160	.4472931
#1	1.053196	.0127386	.0294204	20.32568	.1926704	.1471527
#2	1.049077	.0127007	.0294582	20.29004	.1929516	.1479548
#3	1.049292	.0127725	.0303317	20.25968	.1943653	.1484646

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.359427**	**469.6948**	**3.409593**	**4.487469**	**.3813274**	**.0113452**
Stddev	.001666	3.4789	.004817	.031155	.0004891	.0012351
%RSD	.1225160	.7406792	.1412880	.6942602	.1282588	10.88681
#1	1.360317	468.8784	3.412435	4.503076	.3808214	.0102402
#2	1.357506	473.5093	3.404031	4.451595	.3817976	.0126786
#3	1.360459	466.6966	3.412313	4.507735	.3813632	.0111169

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.35981**	**.2410702**	**2.684394**	**5.495354**	**-.081314**	**.0369468**
Stddev	.04816	.0026992	.003227	.011744	.012216	.0003803
%RSD	.2774019	1.119654	.1202298	.2137098	15.02258	1.029338
#1	17.30497	.2407434	2.684195	5.502271	-.088260	.0365268
#2	17.37921	.2385494	2.687716	5.481794	-.067210	.0370456
#3	17.39523	.2439179	2.681270	5.501997	-.088474	.0372679

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2703-01 Acquired: 7/29/2025 14:42:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2554034	2.792543	2.680253	8.084298	F 23.23697	.2197666
Stddev	.0001460	.003093	.013305	.024978	.06445	.0005975
%RSD	.0571629	.1107752	.4963998	.3089688	.2773799	.2718894
#1	.2555638	2.793224	2.667474	8.104359	23.19524	.2192409
#2	.2552783	2.795240	2.679258	8.056322	23.20446	.2204164
#3	.2553681	2.789166	2.694028	8.092215	23.31120	.2196424

Elem	Sr4077
Units	ppm
Avg	-.098846
Stddev	.003333
%RSD	3.372027
#1	-.097776
#2	-.102582
#3	-.096179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5424.172	95003.15	9060.853	4590.283	5900.261
Stddev	1.447	101.91	39.352	12.727	3.470
%RSD	.0266858	.1072682	.4343068	.2772540	.0588043
#1	5423.363	94950.00	9015.523	4585.840	5900.853
#2	5423.310	94938.79	9080.781	4580.373	5896.533
#3	5425.843	95120.64	9086.255	4604.636	5903.396

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03 Acquired: 7/29/2025 14:46:24 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0230399	.0010745	.0262127	.0041598	-.006154	26.95671	.0502947
Stddev	.0021596	.0007402	.0017263	.0019585	.000572	.08682	.0011543
%RSD	9.373272	68.89393	6.585737	47.08241	9.287729	.3220733	2.295005
#1	.0254012	.0002562	.0269024	.0037404	-.005512	27.05693	.0516182
#2	.0211650	.0012697	.0242482	.0024449	-.006342	26.90454	.0497697
#3	.0225535	.0016975	.0274876	.0062940	-.006608	26.90865	.0494963

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023343	.0033570	2.166101	.0524734	.0030087	.0441380	97.80305
Stddev	.0000130	.0000619	.005583	.0001521	.0004111	.0004593	.13042
%RSD	.5566271	1.842796	.2577507	.2897896	13.66397	1.040674	.1333458
#1	.0023484	.0033263	2.169087	.0523618	.0025409	.0436107	97.92505
#2	.0023228	.0034282	2.159660	.0524118	.0031731	.0443520	97.81851
#3	.0023317	.0033164	2.169556	.0526466	.0033123	.0444512	97.66559

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0483415	.2054923	.0083762	.0035085	1.047488	.0846695	.0373217
Stddev	.0006361	.0125509	.0000628	.0003116	.014488	.0017922	.0001542
%RSD	1.315940	6.107698	.7492963	8.879863	1.383147	2.116737	.4132107
#1	.0490627	.2171060	.0083267	.0034477	1.044664	.0862167	.0373108
#2	.0481015	.1921778	.0083551	.0038459	1.034620	.0850861	.0371732
#3	.0478602	.2071930	.0084468	.0032318	1.063181	.0827056	.0374810

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5869889	-.050681	.0176494	.0048039	.8005934	2.449480	1.114776
Stddev	.0122697	.001050	.0001572	.0000854	.0010781	.015305	.008678
%RSD	2.090287	2.072162	.8905434	1.777998	.1346583	.6248270	.7784292
#1	.5906087	-.051272	.0175392	.0047143	.8005306	2.465494	1.113757
#2	.5970415	-.049469	.0175796	.0048131	.7995480	2.434999	1.106653
#3	.5733164	-.051303	.0178294	.0048844	.8017014	2.447946	1.123918

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03 Acquired: 7/29/2025 14:46:24 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1450889	.0338726	-.083924
Stddev	.0020061	.0029012	.000066
%RSD	1.382653	8.564968	.0784111
#1	.1428746	.0305226	-.083953
#2	.1456072	.0355422	-.083849
#3	.1467850	.0355529	-.083971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5335.056	89154.32	7852.095	4400.611	6590.619
Stddev	13.434	151.71	16.338	6.613	24.404
%RSD	.2518078	.1701702	.2080682	.1502676	.3702799
#1	5335.037	89210.74	7838.925	4405.505	6592.851
#2	5348.499	89269.74	7870.378	4403.240	6613.831
#3	5321.631	88982.48	7846.982	4393.088	6565.176

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03DUP Acquired: 7/29/2025 14:50:38 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0194360**	**-.000081**	**.0282349**	**.0028773**	**-.004996**	**24.45061**	**.0484185**
Stddev	.0028845	.001597	.0013951	.0019655	.003294	.07122	.0007654
%RSD	14.84112	1975.648	4.941187	68.31097	65.93258	.2912955	1.580727
#1	.0221954	.001463	.0278090	.0020559	-.002755	24.52891	.0492900
#2	.0196718	-.001726	.0271024	.0014557	-.008777	24.38968	.0481094
#3	.0164409	.000020	.0297934	.0051203	-.003454	24.43323	.0478559

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022216**	**.0033645**	**1.977274**	**.0557510**	**.0029250**	**.0410607**	**90.19327**
Stddev	.0000339	.0000845	.006718	.0002135	.0001333	.0004842	.42424
%RSD	1.525669	2.512423	.3397533	.3828546	4.557142	1.179288	.4703732
#1	.0021825	.0032958	1.970961	.0559948	.0029011	.0407975	90.17544
#2	.0022425	.0033388	1.976527	.0556604	.0030686	.0407651	90.62615
#3	.0022399	.0034589	1.984335	.0555977	.0028053	.0416195	89.77822

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0494334**	**.1993488**	**.0085072**	**.0028713**	**.8611816**	**.0825718**	**.0383233**
Stddev	.0007265	.0340321	.0004098	.0002151	.0035226	.0012807	.0001274
%RSD	1.469764	17.07166	4.816520	7.492743	.4090444	1.551023	.3323590
#1	.0495807	.1692221	.0089793	.0031058	.8652342	.0831748	.0383875
#2	.0500749	.2362633	.0082982	.0026830	.8588536	.0811009	.0381766
#3	.0486444	.1925610	.0082441	.0028250	.8594570	.0834396	.0384058

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5026041**	**-.049645**	**.0158010**	**.0048185**	**.8580543**	**2.472194**	**1.096283**
Stddev	.0124627	.003512	.0001568	.0009727	.0049269	.011603	.004900
%RSD	2.479631	7.074631	.9924686	20.18612	.5741996	.4693207	.4469789
#1	.4915364	-.050594	.0157022	.0041679	.8630699	2.484676	1.090837
#2	.5001725	-.045755	.0159819	.0059367	.8578720	2.461738	1.097678
#3	.5161034	-.052584	.0157191	.0043510	.8532211	2.470169	1.100334

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03DUP Acquired: 7/29/2025 14:50:38 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1470372	.0301604	-.077163
Stddev	.0024933	.0027673	.000354
%RSD	1.695718	9.175396	.4585859
#1	.1498024	.0323647	-.077069
#2	.1449603	.0310617	-.077554
#3	.1463489	.0270547	-.076865

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5240.255	88939.03	7805.256	4371.634	6451.600
Stddev	3.139	273.34	20.129	1.397	9.681
%RSD	.0598923	.3073302	.2578920	.0319631	.1500593
#1	5241.869	88921.57	7799.264	4370.280	6461.545
#2	5242.258	88674.84	7827.700	4373.071	6451.049
#3	5236.638	89220.68	7788.803	4371.550	6442.206

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03LX5 Acquired: 7/29/2025 14:54:51 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015878**	**-.000512**	**.0061156**	**.0020276**	**-.002338**	**5.944455**	**.0108860**
Stddev	.0025865	.001406	.0002350	.0005614	.000418	.007599	.0003927
%RSD	162.8957	274.5431	3.843000	27.68649	17.85983	.1278315	3.607490
#1	.0000088	.001070	.0059035	.0022334	-.002820	5.946768	.0110851
#2	.0001819	-.001619	.0063683	.0013924	-.002114	5.950629	.0104336
#3	.0045727	-.000987	.0060751	.0024570	-.002080	5.935968	.0111392

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004887**	**.0006227**	**.4494259**	**.0107674**	**.0006853**	**.0084332**	**20.60910**
Stddev	.0000232	.0001951	.0050982	.0000994	.0002514	.0004642	.09161
%RSD	4.741873	31.32839	1.134380	.9231225	36.69089	5.504858	.4445292
#1	.0005083	.0008044	.4503843	.0107158	.0009727	.0084432	20.58771
#2	.0004947	.0004166	.4539770	.0107045	.0005064	.0088924	20.70951
#3	.0004632	.0006469	.4439166	.0108820	.0005766	.0079641	20.53007

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0093000**	**.0414118**	**.0017105**	**.0014164**	**.0058196**	**.0159071**	**.0069179**
Stddev	.0004552	.0056188	.0002744	.0003078	.0059701	.0043618	.0000148
%RSD	4.894344	13.56819	16.04418	21.72988	102.5866	27.42029	.2142639
#1	.0090147	.0427559	.0020204	.0011668	-.001069	.0109143	.0069031
#2	.0098250	.0352429	.0014985	.0017603	.009491	.0189773	.0069327
#3	.0090604	.0462368	.0016125	.0013221	.009036	.0178296	.0069180

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.021272**	**-.007726**	**.0029474**	**.0004534**	**.1783931**	**.8409419**	**.2187366**
Stddev	.008443	.000737	.0001344	.0008701	.0009976	.0073760	.0051921
%RSD	39.68792	9.536948	4.561482	191.9000	.5592293	.8771131	2.373674
#1	-.012126	-.008025	.0028761	.0013128	.1788570	.8470855	.2229243
#2	-.028767	-.006887	.0028637	.0004746	.1772479	.8429785	.2203582
#3	-.022925	-.008266	.0031025	-.000427	.1790742	.8327615	.2129272

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03LX5 Acquired: 7/29/2025 14:54:51 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0270071	-.002467	-.017817
Stddev	.0010035	.001866	.000094
%RSD	3.715660	75.62509	.5293571
#1	.0276330	-.001147	-.017753
#2	.0275385	-.004601	-.017925
#3	.0258496	-.001653	-.017772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5352.841	88475.93	7884.739	4391.731	6756.979
Stddev	13.626	145.55	40.124	12.912	16.141
%RSD	.2545641	.1645053	.5088816	.2940072	.2388830
#1	5352.849	88370.69	7852.752	4376.907	6765.128
#2	5366.463	88415.08	7929.760	4400.526	6767.421
#3	5339.210	88642.03	7871.707	4397.759	6738.387

Sample Name: Q2705-03MS Acquired: 7/29/2025 14:59:09 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7442874**	**2.010514**	**.9840282**	**1.791986**	**.5415719**	**35.85928**	**.2659806**
Stddev	.0012538	.013477	.0011447	.004011	.0028779	.02570	.0009127
%RSD	.1684586	.6703214	.1163305	.2238526	.5313932	.0716784	.3431305
#1	.7439692	2.004925	.9829210	1.794397	.5423892	35.88401	.2670218
#2	.7432234	2.000730	.9852071	1.787356	.5383737	35.86114	.2653191
#3	.7456697	2.025886	.9839564	1.794206	.5439527	35.83270	.2656009

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2020679**	**.1674520**	**2.986439**	**.4654605**	**.2092207**	**.3511589**	**96.17608**
Stddev	.0012085	.0003773	.016237	.0002233	.0002802	.0008939	.29694
%RSD	.5980760	.2253267	.5436762	.0479771	.1339303	.2545664	.3087505
#1	.2007518	.1678608	2.968766	.4657130	.2089386	.3514364	96.46648
#2	.2031277	.1671171	3.000695	.4653796	.2092245	.3501591	95.87299
#3	.2023242	.1673780	2.989855	.4652890	.2094989	.3518812	96.18876

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2545354**	**2.414555**	**.5253013**	**.0862303**	**4.201828**	**.3903390**	**.2536780**
Stddev	.0007076	.024622	.0008555	.0008473	.002025	.0040619	.0007121
%RSD	.2779978	1.019750	.1628509	.9826075	.0481821	1.040616	.2806974
#1	.2551897	2.442805	.5245954	.0863266	4.203970	.3905871	.2529955
#2	.2546320	2.397653	.5250559	.0853389	4.201566	.3861587	.2544164
#3	.2537844	2.403208	.5262527	.0870253	4.199947	.3942712	.2536222

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.16677**	**.2848407**	**.4373440**	**.6728680**	**1.001782**	**4.080705**	**6.720778**
Stddev	.05936	.0018172	.0012149	.0025216	.002679	.018488	.027553
%RSD	.5315935	.6379651	.2777967	.3747584	.2674503	.4530523	.4099729
#1	11.21123	.2841029	.4375564	.6703624	1.002358	4.098442	6.722331
#2	11.09936	.2835084	.4360369	.6728362	1.004127	4.061549	6.692481
#3	11.18973	.2869107	.4384387	.6754054	.998862	4.082123	6.747522

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03MS Acquired: 7/29/2025 14:59:09 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1376025	.2307897	.1356830
Stddev	.0006867	.0022950	.0004189
%RSD	.4990731	.9944114	.3087547
#1	.1376781	.2311695	.1355483
#2	.1382483	.2328712	.1353480
#3	.1368811	.2283286	.1361527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5183.051	84469.71	8244.894	4216.330	6348.459
Stddev	14.309	222.45	53.333	10.003	10.236
%RSD	.2760760	.2633487	.6468659	.2372544	.1612332
#1	5178.347	84719.15	8304.584	4223.349	6349.833
#2	5199.120	84398.09	8201.926	4204.876	6357.939
#3	5171.685	84291.89	8228.171	4220.766	6337.606

Sample Name: Q2705-03MSD Acquired: 7/29/2025 15:03:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7689115**	**2.007572**	**1.008484**	**1.819322**	**.4825358**	**55.28476**	**.2803968**
Stddev	.0048108	.026307	.003760	.009146	.0011767	.09662	.0005456
%RSD	.6256657	1.310412	.3728443	.5027004	.2438464	.1747722	.1945784
#1	.7652510	2.027161	1.008226	1.827764	.4812192	55.37504	.2804788
#2	.7671231	1.977670	1.004860	1.809606	.4834847	55.18285	.2798148
#3	.7743604	2.017884	1.012366	1.820597	.4829034	55.29638	.2808967

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2068270**	**.1731160**	**4.194504**	**.5077234**	**.2153297**	**.3792494**	**148.7929**
Stddev	.0008151	.0007283	.019572	.0019295	.0008241	.0009952	.1676
%RSD	.3941195	.4207014	.4665996	.3800251	.3827397	.2624123	.1126621
#1	.2073779	.1736892	4.172194	.5065761	.2149254	.3790188	148.6666
#2	.2058906	.1722965	4.202534	.5099511	.2147857	.3783898	148.7291
#3	.2072124	.1733623	4.208782	.5066431	.2162779	.3803397	148.9831

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2669234**	**2.514272**	**.5398037**	**.0881759**	**4.955013**	**.4299387**	**.2705999**
Stddev	.0008997	.038424	.0011754	.0006144	.019520	.0048023	.0003141
%RSD	.3370537	1.528228	.2177475	.6967872	.3939458	1.116972	.1160810
#1	.2678338	2.534120	.5395111	.0875671	4.934787	.4326764	.2705552
#2	.2660348	2.538713	.5388022	.0887958	4.956511	.4243937	.2703105
#3	.2669015	2.469984	.5410977	.0881646	4.973741	.4327461	.2709340

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.28254**	**.2676500**	**.4518541**	**.6858784**	**1.032474**	**3.987868**	**7.374451**
Stddev	.04825	.0019895	.0011792	.0029443	.002289	.017527	.026882
%RSD	.4276665	.7433216	.2609693	.4292690	.2217313	.4395091	.3645292
#1	11.22927	.2661779	.4528516	.6884136	1.030185	4.007407	7.373355
#2	11.32332	.2668587	.4505527	.6826491	1.032473	3.973531	7.348134
#3	11.29504	.2699134	.4521580	.6865725	1.034763	3.982664	7.401865

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03MSD Acquired: 7/29/2025 15:03:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2184917	.2621420	.0917051
Stddev	.0065217	.0023733	.0002108
%RSD	2.984879	.9053430	.2299131
#1	.2183492	.2607319	.0919462
#2	.2120425	.2608121	.0916144
#3	.2250836	.2648821	.0915549

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5144.130	86366.32	8239.247	4269.234	6214.038
Stddev	11.238	283.56	28.285	14.686	16.919
%RSD	.2184576	.3283261	.3432966	.3439947	.2722743
#1	5149.428	86466.91	8225.568	4276.177	6220.934
#2	5151.739	86585.87	8271.771	4279.161	6226.420
#3	5131.222	86046.17	8220.402	4252.364	6194.760

Sample Name: Q2705-03A Acquired: 7/29/2025 15:07:05 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7974604**	**1.998067**	**.9727171**	**1.921319**	**.8524702**	**28.98064**	**.2602082**
Stddev	.0019142	.027123	.0040416	.004947	.0022081	.01505	.0004220
%RSD	.2400331	1.357472	.4154915	.2574899	.2590206	.0519144	.1621921
#1	.7975863	1.984307	.9699442	1.921932	.8545340	28.99631	.2603622
#2	.7954864	1.980581	.9708528	1.916094	.8501417	28.97931	.2597308
#3	.7993085	2.029312	.9773544	1.925931	.8527350	28.96630	.2605316

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2046883**	**.1664057**	**3.202727**	**.4470523**	**.2070221**	**.3522194**	**104.4256**
Stddev	.0001319	.0004175	.013217	.0015317	.0005200	.0003998	.6270
%RSD	.0644245	.2508946	.4126914	.3426336	.2511777	.1135131	.6004559
#1	.2046749	.1664191	3.209786	.4461717	.2066559	.3523822	104.1429
#2	.2048263	.1659816	3.210916	.4461640	.2067932	.3517639	103.9897
#3	.2045636	.1668163	3.187479	.4488210	.2076173	.3525122	105.1443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2604811**	**2.220801**	**.5197565**	**.0832503**	**4.057683**	**.3925603**	**.2486032**
Stddev	.0004697	.024705	.0017911	.0007232	.026894	.0032804	.0007264
%RSD	.1803293	1.112441	.3445952	.8687111	.6628042	.8356441	.2921815
#1	.2608183	2.239181	.5183040	.0828233	4.032332	.3953943	.2486595
#2	.2599446	2.230504	.5192078	.0828423	4.054824	.3933200	.2478503
#3	.2606805	2.192717	.5217577	.0840853	4.085893	.3889667	.2492998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.94710**	**.2693625**	**.4618702**	**.7278672**	**1.007250**	**3.598603**	**6.890978**
Stddev	.06160	.0021182	.0012948	.0026862	.002966	.040633	.032391
%RSD	.5627378	.7863679	.2803343	.3690553	.2944400	1.129136	.4700470
#1	10.90889	.2686928	.4609627	.7269450	1.010097	3.563863	6.874024
#2	10.91424	.2676601	.4612950	.7257636	1.004178	3.588664	6.870583
#3	11.01816	.2717346	.4633529	.7308931	1.007474	3.643284	6.928327

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-03A Acquired: 7/29/2025 15:07:05 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1347746	.2266546	.1222436
Stddev	.0026995	.0022974	.0009246
%RSD	2.002995	1.013598	.7563436
#1	.1340279	.2254084	.1229543
#2	.1325270	.2252496	.1225783
#3	.1377689	.2293058	.1211983

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5234.696	89018.15	8241.542	4346.023	6398.046
Stddev	5.672	405.24	14.826	21.127	9.018
%RSD	.1083541	.4552341	.1798955	.4861151	.1409499
#1	5237.362	89277.17	8225.055	4351.002	6408.061
#2	5238.544	89226.13	8245.791	4364.216	6395.509
#3	5228.182	88551.15	8253.780	4322.852	6390.569

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV02 Acquired: 7/29/2025 15:11:04 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.122084**	**5.108885**	**5.003591**	**5.182846**	**5.249712**	**10.06448**
Stddev	.080862	.089499	.084504	.074704	.073942	.00569
%RSD	1.578688	1.751826	1.688875	1.441379	1.408498	.0565128
#1	5.039201	5.022586	4.921527	5.108277	5.176357	10.06884
#2	5.200760	5.102797	5.090341	5.257686	5.324227	10.06656
#3	5.126290	5.201273	4.998906	5.182575	5.248551	10.05805

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.41642**	**.2746714**	**2.415560**	**26.92440**	**.9708383**	**2.531514**
Stddev	.05431	.0004282	.045036	.09644	.0128267	.040466
%RSD	.5213826	.1558988	1.864416	.3581722	1.321200	1.598485
#1	10.46317	.2748147	2.369552	26.81304	.9640275	2.492191
#2	10.35685	.2750095	2.459557	26.97987	.9856338	2.573034
#3	10.42924	.2741899	2.417572	26.98028	.9628536	2.529317

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.284952**	**4.939628**	**2.623583**	**24.85957**	**2.535426**	**1.305646**
Stddev	.020417	.062686	.004189	.05905	.040637	.015161
%RSD	1.588913	1.269037	.1596526	.2375366	1.602754	1.161213
#1	1.264574	4.873563	2.618817	24.92261	2.496023	1.293975
#2	1.305407	4.998274	2.625252	24.80555	2.577193	1.322782
#3	1.284877	4.947047	2.626679	24.85053	2.533062	1.300182

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.64915**	**2.515145**	**2.621934**	**25.09411**	F **5.546819**	**5.223779**
Stddev	.23409	.004475	.038878	.28334	.014664	.076513
%RSD	1.033571	.1779297	1.482806	1.129121	.2643756	1.464703
#1	22.40670	2.518408	2.594117	24.79134	5.554474	5.150754
#2	22.87388	2.510043	2.666358	25.35287	5.556073	5.303358
#3	22.66686	2.516983	2.605327	25.13812	5.529912	5.217225

Sample Name: CCV02 Acquired: 7/29/2025 15:11:04 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.033536**	**4.981313**	**4.595312**	**5.045769**	**4.983059**	**4.970133**
Stddev	.079351	.011706	.057500	.085025	.083264	.003271
%RSD	1.576443	.2349915	1.251279	1.685072	1.670949	.0658160
#1	4.954208	4.977819	4.531892	4.965658	4.889004	4.969731
#2	5.112909	4.971753	4.644043	5.134976	5.047356	4.967081
#3	5.033492	4.994368	4.610001	5.036672	5.012817	4.973587

Elem	Sr4077
Units	ppm
Avg	**5.359541**
Stddev	.027483
%RSD	.5127833
#1	5.375946
#2	5.374865
#3	5.327813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5045.585**	**85141.93**	**7521.228**	**4171.884**	**6071.543**
Stddev	75.178	845.27	17.792	60.703	94.439
%RSD	1.489967	.9927772	.2365514	1.455042	1.555432
#1	5114.321	85885.76	7503.059	4225.045	6160.109
#2	4965.302	84222.73	7522.008	4105.740	5972.162
#3	5057.133	85317.29	7538.616	4184.867	6082.357

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB02 Acquired: 7/29/2025 15:15:14 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001273**	**.0010496**	**.0003196**	**-.000278**	**.0000002**	**-.015763**	**.0021633**
Stddev	.001017	.0004733	.0008159	.001519	.0008182	.010069	.0014714
%RSD	79.88705	45.09376	255.2629	545.6797	328480.0	63.87708	68.01595
#1	-.001998	.0007087	.0004951	.001320	.0002077	-.026987	.0038594
#2	-.000110	.0008502	.0010335	-.001702	-.000902	-.012777	.0014012
#3	-.001711	.0015900	-.000570	-.000453	.000695	-.007524	.0012293

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001076**	**.0002738**	**.0138937**	**-.000202**	**.0001696**	**.0000797**	**.0007215**
Stddev	.0000511	.0001588	.0020982	.000298	.0001534	.0003504	.0039601
%RSD	47.46907	58.00743	15.10144	147.4501	90.44405	439.5779	548.8245
#1	.0000488	.0003329	.0117370	-.000510	.0002180	.0004794	.0021954
#2	.0001406	.0003947	.0140162	.000084	.0002930	-.000066	-.003764
#3	.0001335	.0000939	.0159279	-.000180	-.000002	-.000174	.003733

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004478**	**.0166104**	**.0002891**	**.0011626**	**-.268413**	**-.004228**	**-.000028**
Stddev	.0001942	.0349764	.0000381	.0003384	.002901	.003498	.000065
%RSD	43.35944	210.5695	13.17995	29.10972	1.080934	82.74692	234.1517
#1	.0004098	.0100836	.0003249	.0015515	-.267085	-.008150	-.000044
#2	.0002754	-.014643	.0002491	.0010013	-.266412	-.001430	.000044
#3	.0006582	.054390	.0002933	.0009350	-.271740	-.003104	-.000083

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.202755**	**.0082200**	**.0009962**	**.0001056**	**.0119799**	**-.010900**	**-.004106**
Stddev	.028613	.0012216	.0002154	.0005158	.0026726	.008855	.002180
%RSD	14.11194	14.86166	21.62132	488.6416	22.30945	81.23827	53.10774
#1	-.199037	.0095944	.0012428	.0001339	.0126304	-.003015	-.005612
#2	-.233045	.0072576	.0008448	-.000424	.0090420	-.020480	-.001605
#3	-.176183	.0078081	.0009010	.000607	.0142672	-.009205	-.005100

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB02 Acquired: 7/29/2025 15:15:14 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001377	-.009093	.0005833
Stddev	.002822	.000276	.0001810
%RSD	204.9235	3.037083	31.02976
#1	.000686	-.009395	.0007076
#2	-.004592	-.009034	.0006667
#3	-.000224	-.008852	.0003756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5253.154	89297.91	7796.258	4376.951	6691.474
Stddev	21.256	59.26	25.529	17.171	27.581
%RSD	.4046305	.0663582	.3274512	.3923152	.4121839
#1	5274.010	89231.89	7798.791	4358.160	6719.708
#2	5253.931	89315.37	7820.426	4380.865	6690.118
#3	5231.520	89346.48	7769.557	4391.827	6664.596

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-04 Acquired: 7/29/2025 15:19:33 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4231550**	**.0011778**	**.1094584**	**.0275099**	**-.025983**	**131.5659**	**.1497608**
Stddev	.0037083	.0013525	.0016309	.0050702	.000311	.2657	.0003170
%RSD	.8763537	114.8335	1.490009	18.43051	1.197251	.2019657	.2116929
#1	.4243310	.0001993	.1078403	.0322354	-.026145	131.2629	.1494456
#2	.4190013	.0027211	.1111019	.0281402	-.026179	131.7593	.1497572
#3	.4261328	.0006129	.1094329	.0221540	-.025624	131.6754	.1500796

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0204457**	**.0374480**	**6.369846**	**1.713163**	**.0463216**	**.2130787**	**699.7120**
Stddev	.0000659	.0010238	.024002	.004605	.0001505	.0019626	5.5120
%RSD	.3223193	2.733897	.3768138	.2687789	.3249636	.9210901	.7877490
#1	.0205021	.0362804	6.359038	1.711667	.0463396	.2108131	704.7516
#2	.0203732	.0378718	6.397353	1.718329	.0464624	.2141667	693.8257
#3	.0204617	.0381919	6.353148	1.709491	.0461629	.2142564	700.5587

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4900406**	**9.781502**	**.0948662**	**.0174088**	**20.17114**	**1.362373**	**.6799925**
Stddev	.0025162	.046030	.0003595	.0021969	.04058	.002891	.0027373
%RSD	.5134708	.4705832	.3789616	12.61923	.2011948	.2122070	.4025542
#1	.4872809	9.834653	.0952734	.0194629	20.20577	1.359502	.6775155
#2	.4922074	9.754945	.0947325	.0150927	20.18117	1.365284	.6795306
#3	.4906335	9.754909	.0945927	.0176709	20.12648	1.362333	.6829314

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.79172**	**^ *****	**.0099440**	**.0153562**	**2.238283**	**2.924856**	**12.74919**
Stddev	.01824	-----	.0002723	.0005769	.005671	.022548	.08433
%RSD	.0680723	-----	2.737983	3.756982	.2533449	.7709108	.6614707
#1	26.77259	^ -----	.0099706	.0147027	2.235136	2.936236	12.68904
#2	26.79367	^ -----	.0096593	.0157948	2.234885	2.898886	12.71295
#3	26.80891	^ -----	.0102019	.0155713	2.244830	2.939446	12.84559

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-04 Acquired: 7/29/2025 15:19:33 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.403966	.2990169	-.639629
Stddev	.025127	.0028546	.005472
%RSD	.5705583	.9546439	.8554889
#1	4.381830	.3017769	-.644625
#2	4.398791	.2960763	-.633781
#3	4.431278	.2991975	-.640482

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5510.203	91214.09	9165.351	4453.987	5697.583
Stddev	16.653	106.62	25.406	15.220	18.985
%RSD	.3022260	.1168883	.2771999	.3417234	.3332115
#1	5514.645	91312.61	9194.488	4467.438	5703.113
#2	5524.186	91228.74	9153.745	4457.057	5713.189
#3	5491.780	91100.90	9147.821	4437.466	5676.447

Sample Name: Q2705-05 Acquired: 7/29/2025 15:23:43 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4546486**	**-.006176**	**.1265885**	**.0242784**	**-.025939**	**144.8618**	**.1834432**
Stddev	.0026208	.002925	.0019825	.0030459	.001135	.1992	.0010208
%RSD	.5764494	47.37070	1.566067	12.54581	4.375603	.1375153	.5564906
#1	.4558541	-.009256	.1280987	.0245255	-.025380	145.0915	.1846209
#2	.4516419	-.003434	.1273232	.0211165	-.025193	144.7561	.1828104
#3	.4564497	-.005837	.1243436	.0271933	-.027245	144.7376	.1828983

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0219511**	**.0422944**	**6.763922**	**1.815763**	**.0472660**	**.2318558**	**733.4025**
Stddev	.0002508	.0008434	.051821	.004051	.0005693	.0029406	2.3659
%RSD	1.142550	1.994106	.7661342	.2231104	1.204411	1.268274	.3225922
#1	.0221210	.0418531	6.822327	1.816394	.0477353	.2310386	736.1339
#2	.0216631	.0417632	6.723449	1.819461	.0474300	.2294103	731.9913
#3	.0220693	.0432669	6.745990	1.811433	.0466328	.2351186	732.0824

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4416068**	**11.72492**	**.1063263**	**.0145687**	**19.77628**	**1.420085**	**.7233821**
Stddev	.0017508	.03749	.0007075	.0011155	.14454	.003269	.0024553
%RSD	.3964684	.3197587	.6653684	7.656616	.7308522	.2302239	.3394173
#1	.4434887	11.76688	.1056033	.0155572	19.69739	1.416313	.7221795
#2	.4413057	11.71315	.1063584	.0133593	19.94310	1.422117	.7262068
#3	.4400261	11.69472	.1070171	.0147896	19.68837	1.421823	.7217599

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**32.55897**	**^ *****	**.0103675**	**.0166608**	**2.303203**	**3.031881**	**13.33474**
Stddev	.18717	-----	.0001820	.0003365	.001998	.014582	.00882
%RSD	.5748743	-----	1.755341	2.019969	.0867444	.4809402	.0661357
#1	32.60279	^ -----	.0102340	.0170410	2.301229	3.038222	13.34357
#2	32.72034	^ -----	.0105748	.0165407	2.305224	3.042219	13.32593
#3	32.35377	^ -----	.0102936	.0164008	2.303156	3.015203	13.33472

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2705-05 Acquired: 7/29/2025 15:23:43 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.618253**	**.3139132**	**-.670043**
Stddev	.032510	.0033092	.002210
%RSD	.7039445	1.054178	.3297772
#1	4.631713	.3141407	-.672594
#2	4.581174	.3104961	-.668728
#3	4.641871	.3171027	-.668807

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5401.177**	**92238.16**	**9113.438**	**4468.449**	**5514.011**
Stddev	13.301	400.86	38.439	13.439	18.192
%RSD	.2462554	.4345970	.4217836	.3007481	.3299234
#1	5404.554	92143.84	9070.839	4463.392	5526.151
#2	5412.463	91892.87	9145.534	4458.271	5522.787
#3	5386.513	92677.77	9123.939	4483.682	5493.094

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-01 Acquired: 7/29/2025 15:27:53 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0877070**	**.0048032**	**.3333985**	**-.003179**	**-.016612**	**168.7015**	**1.854721**
Stddev	.0026461	.0010179	.0012806	.003086	.002249	.2238	.005817
%RSD	3.017012	21.19324	.3840962	97.08445	13.53970	.1326456	.3136442
#1	.0902573	.0058365	.3344657	-.003721	-.016339	168.4901	1.851751
#2	.0849744	.0038014	.3337513	.000142	-.014513	168.6787	1.850990
#3	.0878892	.0047716	.3319785	-.005959	-.018986	168.9359	1.861424

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0195723**	**.0448853**	**172.1752**	**.3203687**	**.2706573**	**.4138354**	**393.7506**
Stddev	.0003156	.0006004	.1550	.0013053	.0011922	.0018697	1.7993
%RSD	1.612290	1.337733	.0900339	.4074314	.4404815	.4517921	.4569658
#1	.0198710	.0448835	172.3138	.3206618	.2708276	.4139185	391.7069
#2	.0196037	.0442858	172.0078	.3215025	.2693890	.4119256	394.4483
#3	.0192422	.0454867	172.2041	.3189418	.2717551	.4156622	395.0965

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.22003**	**95.51455**	**.5577481**	**-.001225**	**3.566256**	**.4510476**	**1.297624**
Stddev	.01729	.12357	.0030016	.000742	.018402	.0010238	.002382
%RSD	.1540784	.1293754	.5381719	60.61365	.5160013	.2269876	.1835714
#1	11.20737	95.41846	.5578907	-.002082	3.545858	.4519468	1.297827
#2	11.21299	95.65394	.5546776	-.000807	3.571301	.4499333	1.299899
#3	11.23973	95.47124	.5606758	-.000786	3.581609	.4512626	1.295148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.76289**	**-.110134**	**.0080742**	**.0137949**	**4.599848**	**2.450852**	**10.54776**
Stddev	.07250	.008011	.0003768	.0006859	.013376	.021858	.04877
%RSD	.2814221	7.273548	4.666911	4.971844	.2908017	.8918378	.4623437
#1	25.68436	-.118271	.0077333	.0130067	4.584641	2.446217	10.54580
#2	25.77704	-.109873	.0080106	.0141224	4.609796	2.474655	10.50001
#3	25.82728	-.102256	.0084788	.0142557	4.605107	2.431684	10.59748

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-01 Acquired: 7/29/2025 15:27:53 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.127287	.9088462	.0524896
Stddev	.008613	.0042001	.0013626
%RSD	.7640824	.4621387	2.595977
#1	1.120482	.9045333	.0538684
#2	1.124408	.9090815	.0511437
#3	1.136971	.9129237	.0524567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5758.737	98461.86	8932.606	4763.277	5353.042
Stddev	6.247	233.21	20.902	12.693	13.755
%RSD	.1084853	.2368536	.2339920	.2664757	.2569541
#1	5760.279	98696.73	8911.241	4775.754	5356.381
#2	5764.069	98230.35	8933.565	4750.378	5364.819
#3	5751.863	98458.51	8953.011	4763.698	5337.925

Sample Name: Q2706-03 Acquired: 7/29/2025 15:31:56 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0707513**	**.0051417**	**.2993881**	**-.001096**	**-.016175**	**140.0360**	**2.068672**
Stddev	.0007268	.0041507	.0014812	.001329	.000965	.2057	.003050
%RSD	1.027215	80.72667	.4947568	121.2495	5.968415	.1469120	.1474614
#1	.0715722	.0044958	.2990733	.000115	-.016029	140.0430	2.066825
#2	.0704918	.0013518	.2980895	-.002517	-.015291	139.8268	2.066998
#3	.0701899	.0095776	.3010014	-.000885	-.017206	140.2381	2.072193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0155952**	**.0344294**	**65.56031**	**.2415474**	**.1951205**	**.3395568**	**325.7568**
Stddev	.0001956	.0006761	.08193	.0025444	.0007097	.0024431	3.2219
%RSD	1.254394	1.963604	.1249632	1.053382	.3637496	.7194914	.9890370
#1	.0158169	.0343453	65.46822	.2422337	.1946103	.3382803	325.7209
#2	.0154468	.0337993	65.62509	.2436783	.1948201	.3380165	328.9964
#3	.0155218	.0351436	65.58764	.2387302	.1959310	.3423737	322.5530

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.025416**	**64.12379**	**.3869851**	**.0034842**	**2.387071**	**.3541390**	**1.128781**
Stddev	.017394	.13238	.0014755	.0009272	.040985	.0011971	.015018
%RSD	.2167325	.2064479	.3812787	26.61098	1.716945	.3380281	1.330502
#1	8.010800	64.00580	.3860068	.0026244	2.401729	.3537178	1.139694
#2	8.020794	64.09862	.3862661	.0033616	2.418712	.3532095	1.134996
#3	8.044654	64.26695	.3886822	.0044665	2.340773	.3554898	1.111652

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.34362**	**-.092275**	**.0051519**	**.0170434**	**3.336249**	**2.389871**	**7.006703**
Stddev	.21317	.009061	.0008327	.0007359	.007635	.021386	.030860
%RSD	1.229085	9.819472	16.16300	4.317784	.2288521	.8948565	.4404295
#1	17.34340	-.095920	.0059637	.0178029	3.328001	2.399379	7.020927
#2	17.55690	-.081959	.0051921	.0163336	3.343070	2.404854	6.971296
#3	17.13056	-.098946	.0042997	.0169937	3.337677	2.365380	7.027885

Sample Name: Q2706-03 Acquired: 7/29/2025 15:31:56 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6966117	.4980502	-.107822
Stddev	.0015813	.0038184	.003184
%RSD	.2270018	.7666675	2.952918
#1	.6948479	.4937552	-.107894
#2	.6979027	.4993346	-.110970
#3	.6970845	.5010608	-.104603

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5926.936	104500.7	9499.222	4992.978	5596.750
Stddev	18.412	1093.2	8.830	66.857	28.838
%RSD	.3106560	1.046100	.0929595	1.339012	.5152609
#1	5936.678	104325.7	9498.136	4958.150	5609.722
#2	5938.432	103505.6	9508.545	4950.725	5616.823
#3	5905.700	105670.8	9490.985	5070.058	5563.704

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: PB169032BL Acquired: 7/29/2025 15:36:01 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002229**	**-.001150**	**.0000118**	**.0003224**	**-.001203**	**.0070023**
Stddev	.002557	.001024	.0008222	.0002355	.001546	.0051712
%RSD	114.6881	89.06089	6975.584	73.04193	128.5491	73.85002
#1	-.002425	-.000825	-.000413	.0005774	.000320	.0037855
#2	.000420	-.002297	.000960	.0002766	-.001157	.0042540
#3	-.004682	-.000327	-.000511	.0001132	-.002771	.0129673

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010449**	**.0000892**	**.0001235**	**.0166910**	**-.000200**	**.0000467**
Stddev	.0008862	.0000260	.0000443	.0134419	.000177	.0001827
%RSD	84.81886	29.08387	35.90565	80.53390	88.27672	391.4985
#1	.0003335	.0001082	.0001665	.0033332	-.000313	.0001278
#2	.0020376	.0000597	.0001259	.0165244	-.000291	-.000163
#3	.0007635	.0000999	.0000780	.0302155	.000003	.000175

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000088**	**.0411100**	**-.000049**	**.0293459**	**.0002755**	**.0007567**
Stddev	.000141	.0060862	.000524	.0392643	.0000550	.0001133
%RSD	161.1565	14.80476	1070.478	133.7980	19.97872	14.97496
#1	.000002	.0471798	.000535	.0497306	.0002674	.0008213
#2	-.000251	.0411428	-.000478	.0542255	.0002249	.0008228
#3	-.000015	.0350074	-.000204	-.015918	.0003341	.0006258

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.268123**	**-.006853**	**-.000013**	**-.204565**	**.0014236**	**-.000181**
Stddev	.010141	.001947	.000128	.019998	.0006466	.000095
%RSD	3.782279	28.41347	974.7531	9.775627	45.42160	52.48534
#1	-.271190	-.004933	.000112	-.216286	.0007524	-.000102
#2	-.256802	-.006799	-.000144	-.215935	.0020424	-.000155
#3	-.276376	-.008827	-.000008	-.181475	.0014758	-.000286

Sample Name: PB169032BL Acquired: 7/29/2025 15:36:01 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000248**	**.0150133**	**-.001702**	**-.001170**	**-.000419**	F **-.010059**
Stddev	.000072	.0013843	.004194	.001641	.002218	.003223
%RSD	29.03222	9.220458	246.4269	140.2267	528.8974	32.04573
#1	-.000314	.0142861	-.001741	-.002414	-.001772	-.010076
#2	-.000259	.0141441	.002512	.000690	.002141	-.013273
#3	-.000171	.0166096	-.005876	-.001787	-.001628	-.006826

Elem	Sr4077
Units	ppm
Avg	**-.000134**
Stddev	.000061
%RSD	45.11809
#1	-.000127
#2	-.000077
#3	-.000198

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5299.785**	**91063.41**	**7509.579**	**4420.856**	**6779.792**
Stddev	11.905	333.11	22.978	22.896	21.716
%RSD	.2246272	.3658028	.3059870	.5179114	.3203025
#1	5311.299	90968.12	7526.307	4415.523	6802.463
#2	5300.531	91433.78	7519.051	4445.948	6777.733
#3	5287.524	90788.33	7483.378	4401.097	6759.178

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-01 Acquired: 7/29/2025 15:44:20 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005624**	**-.000991**	**.0034096**	**.0043497**	**-.000129**	**.0587142**	**.0046697**
Stddev	.000556	.000354	.0006367	.0011902	.000723	.0019366	.0016612
%RSD	9.877370	35.77196	18.67472	27.36303	561.0433	3.298308	35.57365
#1	-.005097	-.001384	.0041107	.0056960	.000683	.0608250	.0045104
#2	-.006204	-.000695	.0032506	.0039161	-.000704	.0570195	.0064047
#3	-.005570	-.000893	.0028674	.0034371	-.000365	.0582982	.0030938

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000189**	**.0003739**	**4.877673**	**.0008393**	**.0071706**	**.1955344**	**1.514942**
Stddev	.0000549	.0000161	.020091	.0001546	.0002266	.0003133	.013272
%RSD	291.4919	4.310532	.4118946	18.42320	3.160657	.1602160	.8761040
#1	.0000303	.0003567	4.855592	.0008788	.0073494	.1953171	1.518543
#2	-.000041	.0003886	4.894876	.0009703	.0069157	.1953927	1.500241
#3	.000067	.0003764	4.882551	.0006687	.0072468	.1958935	1.526042

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0189030**	**1.783082**	**.0098056**	**.0008152**	**14.44577**	**-.001452**	**.0360305**
Stddev	.0005240	.007873	.0001367	.0001387	.10134	.001661	.0000625
%RSD	2.771865	.4415144	1.394545	17.01145	.7015345	114.4092	.1735449
#1	.0194429	1.782010	.0097439	.0009590	14.48836	.000464	.0360886
#2	.0188696	1.775800	.0099624	.0006823	14.33008	-.002480	.0360387
#3	.0183966	1.791436	.0097106	.0008044	14.51886	-.002340	.0359643

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7511912**	**.0085360**	**.0001603**	**-.001714**	**.0120083**	**6.065339**	**.0050249**
Stddev	.0078956	.0002628	.0001288	.000442	.0022090	.062852	.0012611
%RSD	1.051076	3.079057	80.35737	25.80136	18.39598	1.036242	25.09679
#1	.7527384	.0085450	.0002201	-.001486	.0120886	6.133250	.0053385
#2	.7426364	.0087942	.0002484	-.002224	.0097602	6.009216	.0060996
#3	.7581986	.0082688	.0000125	-.001432	.0141760	6.053551	.0036366

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-01 Acquired: 7/29/2025 15:44:20 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.704935**	**-.011417**	**.0250535**
Stddev	.016591	.001059	.0000245
%RSD	.2908121	9.271490	.0976686
#1	5.693985	-.012618	.0250282
#2	5.696796	-.011015	.0250552
#3	5.724023	-.010618	.0250771

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5076.835**	**88793.66**	**7902.302**	**4294.118**	**6385.140**
Stddev	4.523	301.72	37.094	3.924	1.941
%RSD	.0890861	.3398044	.4694111	.0913811	.0304002
#1	5076.314	88692.49	7926.570	4297.982	6384.960
#2	5081.596	89132.97	7859.602	4290.136	6387.165
#3	5072.595	88555.53	7920.734	4294.235	6383.296

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2704-01 Acquired: 7/29/2025 15:48:36 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006233**	**-.001990**	**.0011029**	**.0010256**	**.0018082**	**.0557903**	**.0068093**
Stddev	.002414	.002714	.0011602	.0020018	.0020938	.0100877	.0012634
%RSD	38.73791	136.3995	105.1881	195.1761	115.7923	18.08142	18.55472
#1	-.005992	-.002008	.0000975	.0005945	-.000587	.0498244	.0059156
#2	-.003948	.000733	.0023723	-.000725	.002718	.0501090	.0082548
#3	-.008758	-.004695	.0008390	.003208	.003293	.0674374	.0062575

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000038**	**.0003695**	**5.058157**	**.0005316**	**.0076141**	**.0056851**	**.1578134**
Stddev	.000029	.0001432	.011641	.0000189	.0000151	.0001820	.0094792
%RSD	75.73750	38.76843	.2301334	3.558575	.1983771	3.201635	6.006556
#1	-.000032	.0005175	5.071449	.0005468	.0076035	.0055886	.1549761
#2	-.000013	.0002316	5.049785	.0005376	.0076314	.0058951	.1500769
#3	-.000070	.0003593	5.053236	.0005104	.0076073	.0055717	.1683872

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0208943**	**1.858872**	**.0101056**	**.0007719**	**14.76689**	**-.002448**	**.0444905**
Stddev	.0000948	.039663	.0001932	.0004249	.10306	.001697	.0004831
%RSD	.4537818	2.133709	1.911304	55.05245	.6979405	69.32493	1.085857
#1	.0209806	1.891782	.0098884	.0009609	14.77233	-.001358	.0439327
#2	.0207928	1.870000	.0102582	.0002852	14.66121	-.001583	.0447759
#3	.0209095	1.814833	.0101701	.0010695	14.86712	-.004403	.0447629

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7985318**	**.0088977**	**.0003562**	**-.001541**	**.0103823**	**6.157076**	**.0050814**
Stddev	.0236800	.0007352	.0002530	.000428	.0006128	.063914	.0019777
%RSD	2.965437	8.262321	71.02381	27.78309	5.901889	1.038064	38.92148
#1	.8112811	.0083781	.0001801	-.002034	.0104018	6.151554	.0028090
#2	.7712089	.0097389	.0006460	-.001333	.0109850	6.096102	.0064140
#3	.8131056	.0085761	.0002424	-.001257	.0097600	6.223572	.0060212

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2704-01 Acquired: 7/29/2025 15:48:36 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.667967**	**-.011848**	**.0274887**
Stddev	.016375	.001958	.0000624
%RSD	.2888964	16.52783	.2269688
#1	5.655099	-.013220	.0275584
#2	5.662405	-.009606	.0274697
#3	5.686399	-.012719	.0274380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5189.286**	**89872.23**	**7916.340**	**4317.489**	**6591.193**
Stddev	16.157	183.32	40.848	3.047	16.272
%RSD	.3113552	.2039769	.5160004	.0705651	.2468709
#1	5207.496	89931.64	7911.538	4314.432	6609.140
#2	5176.668	90018.48	7878.105	4320.526	6577.403
#3	5183.694	89666.58	7959.378	4317.509	6587.037

Sample Name: Q2704-02 Acquired: 7/29/2025 15:52:52 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007125**	**-.002105**	**.0012407**	**.0009583**	**.0007208**	**.0532295**	**.0061948**
Stddev	.002965	.001085	.0001192	.0003075	.0004931	.0046159	.0005565
%RSD	41.61243	51.55706	9.607121	32.09191	68.40914	8.671755	8.983257
#1	-.009046	-.000904	.0013768	.0006388	.0006607	.0483846	.0057515
#2	-.003710	-.002394	.0011554	.0009839	.0012412	.0537279	.0060135
#3	-.008619	-.003016	.0011897	.0012522	.0002605	.0575760	.0068193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000031**	**.0002586**	**5.072276**	**.0003891**	**.0076330**	**.0058449**	**.1594412**
Stddev	.000044	.0002791	.026191	.0000967	.0000322	.0001532	.0031078
%RSD	141.9554	107.9423	.5163652	24.85896	.4212265	2.621370	1.949155
#1	-.000069	-.000042	5.090269	.0004045	.0075959	.0059156	.1566042
#2	.000017	.000309	5.084331	.0002855	.0076517	.0059499	.1627628
#3	-.000041	.000509	5.042227	.0004771	.0076514	.0056691	.1589566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0221731**	**1.833531**	**.0105573**	**.0008610**	**14.49790**	**-.004402**	**.0428572**
Stddev	.0005504	.045996	.0000651	.0004887	.12416	.003784	.0002245
%RSD	2.482311	2.508592	.6170089	56.76469	.8563847	85.96897	.5239126
#1	.0215833	1.868713	.0105067	.0002966	14.36006	-.003168	.0430193
#2	.0222631	1.850396	.0105343	.0011437	14.60095	-.008649	.0426009
#3	.0226731	1.781483	.0106308	.0011427	14.53270	-.001389	.0429514

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8187552**	**.0087269**	**.0004234**	**-.002023**	**.0130136**	**6.091813**	**.0066029**
Stddev	.0178660	.0004189	.0000999	.000215	.0016709	.026411	.0014132
%RSD	2.182091	4.800401	23.60386	10.62275	12.83971	.4335568	21.40210
#1	.8380793	.0091960	.0003612	-.001912	.0115148	6.063468	.0081400
#2	.8028379	.0085945	.0005386	-.002271	.0148152	6.115731	.0053601
#3	.8153485	.0083902	.0003702	-.001887	.0127109	6.096242	.0063084

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2704-02 Acquired: 7/29/2025 15:52:52 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.858083**	**-.012423**	**.0277541**
Stddev	.008729	.001448	.0001390
%RSD	.1490156	11.65842	.5007977
#1	5.848003	-.010751	.0278840
#2	5.863175	-.013234	.0277708
#3	5.863071	-.013285	.0276075

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5062.207**	**87834.43**	**7652.976**	**4280.508**	**6357.412**
Stddev	5.885	491.96	40.227	14.710	7.047
%RSD	.1162468	.5601021	.5256426	.3436478	.1108479
#1	5055.497	88394.56	7616.400	4275.876	6351.598
#2	5066.489	87472.41	7646.467	4296.976	6355.388
#3	5064.635	87636.32	7696.061	4268.671	6365.249

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2704-03 Acquired: 7/29/2025 15:57:09 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004209**	**-.001232**	**.0008783**	**.0017486**	**.0002920**	**.0030012**	**.0022580**
Stddev	.000135	.000172	.0010943	.0018679	.0009782	.0024305	.0008445
%RSD	3.197589	13.94770	124.5904	106.8254	334.9623	80.98422	37.39989
#1	-.004217	-.001251	.0010704	.0008212	-.000820	.0014431	.0032153
#2	-.004339	-.001052	-.000299	.0005258	.000674	.0058018	.0019401
#3	-.004071	-.001394	.001864	.0038987	.001021	.0017588	.0016186

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000157**	**.0000751**	**1.042283**	**-.000128**	**.0014347**	**.0012173**	**.0268360**
Stddev	.0000140	.0000548	.011402	.000219	.0002414	.0003016	.0106159
%RSD	89.33634	73.00028	1.093954	170.2831	16.82686	24.77553	39.55844
#1	.0000133	.0000826	1.054790	-.000162	.0016008	.0009452	.0380411
#2	.0000030	.0001259	1.032467	.000105	.0015456	.0011652	.0169285
#3	.0000307	.0000169	1.039592	-.000329	.0011578	.0015416	.0255385

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035445**	**.3997799**	**.0022459**	**.0008138**	**2.476865**	**-.004615**	**.0087057**
Stddev	.0004305	.0117228	.0001744	.0003744	.002821	.000870	.0000677
%RSD	12.14537	2.932323	7.765659	46.01114	.1138952	18.85164	.7779144
#1	.0031159	.4130912	.0023639	.0009472	2.474155	-.003618	.0087066
#2	.0039768	.3909955	.0020456	.0011031	2.479786	-.005220	.0087730
#3	.0035407	.3952530	.0023282	.0003909	2.476655	-.005006	.0086376

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0519941**	**.0019947**	**-.000057**	**-.000883**	**.0148151**	**1.159989**	**-.000811**
Stddev	.0193956	.0011774	.000132	.000120	.0006822	.013504	.001739
%RSD	37.30343	59.02874	231.7843	13.62623	4.604955	1.164108	214.4351
#1	.0451019	.0032974	-.000170	-.000995	.0140320	1.169371	.001197
#2	.0369859	.0016801	-.000089	-.000899	.0152805	1.144512	-.001804
#3	.0738946	.0010065	.000088	-.000756	.0151329	1.166083	-.001826

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2704-03 Acquired: 7/29/2025 15:57:09 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.208162	-.010534	.0055581
Stddev	.002534	.001819	.0000593
%RSD	.2097473	17.26828	1.067735
#1	1.208261	-.010301	.0055710
#2	1.210645	-.012459	.0056099
#3	1.205580	-.008844	.0054934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5176.141	90440.33	7542.845	4367.282	6519.996
Stddev	16.319	203.33	66.321	11.103	22.923
%RSD	.3152678	.2248171	.8792569	.2542345	.3515839
#1	5185.343	90315.64	7512.939	4372.811	6534.190
#2	5185.782	90330.41	7496.743	4354.500	6532.248
#3	5157.300	90674.96	7618.853	4374.536	6493.550

Sample Name: PB169032BS Acquired: 7/29/2025 16:06:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7746013**	**1.993338**	**.9363660**	**1.985823**	**.8909240**	**2.021637**
Stddev	.0031853	.041758	.0017383	.012668	.0033533	.004232
%RSD	.4112185	2.094877	.1856478	.6379285	.3763816	.2093480
#1	.7779419	1.978787	.9377998	1.990584	.8926886	2.021991
#2	.7715982	1.960802	.9368658	1.971464	.8870569	2.017238
#3	.7742638	2.040424	.9344326	1.995420	.8930266	2.025681

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2125218**	**.2164651**	F **.1581242**	**1.126638**	**.3856804**	**.1982260**
Stddev	.0006391	.0007012	.0002515	.008428	.0007122	.0001915
%RSD	.3007076	.3239242	.1590392	.7480442	.1846465	.0966089
#1	.2125767	.2165811	.1584110	1.134464	.3861040	.1984355
#2	.2131317	.2157131	.1579416	1.127736	.3848582	.1981822
#3	.2118571	.2171010	.1580200	1.117716	.3860789	.1980601

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3139687**	**3.009790**	**.2145650**	**2.010626**	**.4981981**	**.0782721**
Stddev	.0003279	.014970	.0013304	.017335	.0002863	.0002663
%RSD	.1044484	.4973778	.6200410	.8621911	.0574587	.3402653
#1	.3143434	3.020715	.2149015	1.994205	.4979047	.0780271
#2	.3137340	2.992726	.2156948	2.008924	.4984766	.0785556
#3	.3138288	3.015929	.2130986	2.028750	.4982131	.0782336

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.859807**	**.2986748**	**.2164958**	**9.725010**	**.3214283**	**.4438794**
Stddev	.014505	.0018836	.0012181	.047828	.0024271	.0020544
%RSD	.5072162	.6306637	.5626417	.4918020	.7550962	.4628229
#1	2.860814	.2998704	.2156849	9.703302	.3189273	.4427320
#2	2.873782	.2996506	.2159059	9.779843	.3215836	.4426549
#3	2.844824	.2965035	.2178965	9.691887	.3237740	.4462511

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: PB169032BS Acquired: 7/29/2025 16:06:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7173441	.2186970	.8575764	5.495100	F .0026914	.1764813
Stddev	.0012670	.0012656	.0054870	.013593	.0027904	.0046728
%RSD	.1766222	.5786962	.6398273	.2473716	103.6787	2.647764
#1	.7173556	.2174551	.8515823	5.489086	.0013272	.1733082
#2	.7160714	.2186508	.8587957	5.510663	.0008456	.1818472
#3	.7186052	.2199850	.8623511	5.485551	.0059014	.1742884

Elem	Sr4077
Units	ppm
Avg	.2125638
Stddev	.0005542
%RSD	.2607267
#1	.2129302
#2	.2128351
#3	.2119263

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5277.320	88714.99	7892.010	4308.698	6684.079
Stddev	8.489	208.86	13.107	9.496	7.836
%RSD	.1608634	.2354292	.1660742	.2203901	.1172326
#1	5269.607	88497.63	7877.445	4314.280	6676.716
#2	5286.416	88733.16	7902.853	4314.080	6683.208
#3	5275.936	88914.17	7895.732	4297.734	6692.315

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV03 Acquired: 7/29/2025 16:14:53 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.111019**	**5.072546**	**4.861293**	**5.222495**	**5.288114**	**10.05643**	**10.56664**
Stddev	.067588	.039267	.041396	.064935	.077695	.01839	.12510
%RSD	1.322399	.7740988	.8515388	1.243368	1.469237	.1829018	1.183908
#1	5.073293	5.043026	4.847245	5.181013	5.241834	10.07030	10.69550
#2	5.070715	5.057502	4.828750	5.189144	5.244694	10.06344	10.55876
#3	5.189048	5.117110	4.907885	5.297328	5.377813	10.03557	10.44567

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2656642**	**2.285610**	**26.82148**	**.9425607**	**2.475271**	**1.270125**	**5.021890**
Stddev	.0022206	.026267	.01389	.0007844	.023918	.014661	.045278
%RSD	.8358567	1.149248	.0517922	.0832193	.9662974	1.154330	.9016219
#1	.2669550	2.275020	26.82899	.9421519	2.464810	1.261858	5.001656
#2	.2669376	2.266291	26.80545	.9420653	2.458365	1.261464	4.990257
#3	.2631002	2.315519	26.82999	.9434651	2.502638	1.287053	5.073758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.617050**	**24.63629**	**2.475527**	**1.293798**	**22.98671**	**2.502213**	**2.616125**
Stddev	.005536	.04551	.022448	.002559	.19966	.001574	.009616
%RSD	.2115372	.1847473	.9067810	.1977634	.8686015	.0629017	.3675541
#1	2.620897	24.66487	2.466226	1.293824	22.84884	2.500401	2.609072
#2	2.619547	24.66019	2.459224	1.291227	22.89562	2.503238	2.612224
#3	2.610705	24.58380	2.501130	1.296344	23.21567	2.503000	2.627078

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.42783**	**5.376524**	**5.200744**	**4.889036**	**4.993899**	**4.733208**	**4.736112**
Stddev	.18930	.036014	.057097	.043319	.006768	.024161	.037042
%RSD	.7444745	.6698293	1.097855	.8860408	.1355196	.5104469	.7821161
#1	25.31912	5.399706	5.167144	4.869539	4.990951	4.715290	4.728553
#2	25.31796	5.394832	5.168418	4.858892	5.001641	4.723649	4.703433
#3	25.64642	5.335034	5.266669	4.938677	4.989106	4.760686	4.776351

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV03 Acquired: 7/29/2025 16:14:53 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.888215**	**4.914668**	**5.415734**
Stddev	.056909	.008589	.028010
%RSD	1.164206	.1747538	.5171894
#1	4.868066	4.918470	5.443201
#2	4.844122	4.920699	5.416791
#3	4.952457	4.904834	5.387211

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5081.040**	**86372.59**	**7820.231**	**4149.129**	**6191.278**
Stddev	51.275	267.96	47.037	15.202	54.095
%RSD	1.009137	.3102412	.6014842	.3663888	.8737342
#1	5107.689	86426.08	7785.494	4159.120	6213.085
#2	5113.502	86609.77	7801.440	4156.634	6231.066
#3	5021.928	86081.92	7873.760	4131.635	6129.683

Sample Name: CCB03 Acquired: 7/29/2025 16:20:32 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002073**	**-.000945**	**.0005984**	**-.001797**	**-.001660**	**-.009678**
Stddev	.004551	.000678	.0001237	.001129	.000933	.013588
%RSD	219.5471	71.80008	20.67644	62.80239	56.17547	140.4072
#1	.002396	-.001139	.0005999	-.000914	-.000888	-.001589
#2	-.006702	-.000190	.0007214	-.003069	-.002696	-.025365
#3	-.001913	-.001505	.0004740	-.001408	-.001396	-.002078

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000922**	**.0000235**	**.0001614**	**.0164179**	**-.000066**	**.0000033**
Stddev	.000588	.0000562	.0001283	.0084893	.000131	.0000568
%RSD	63.76182	239.4412	79.48890	51.70796	199.0906	1740.545
#1	-.001597	-.000020	.0000404	.0262205	.000045	-.000023
#2	-.000521	.000087	.0002959	.0114861	-.000211	.000068
#3	-.000648	.000004	.0001478	.0115471	-.000032	-.000036

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000154**	**-.001098**	**.0003684**	**.0198040**	**.0005993**	**.0012802**
Stddev	.000201	.002366	.0004314	.0034128	.0003011	.0003672
%RSD	130.6466	215.4234	117.1055	17.23302	50.24789	28.68203
#1	-.000385	.000413	-.000130	.0217100	.0003278	.0014760
#2	-.000057	.000117	.000627	.0218382	.0005469	.0008566
#3	-.000020	-.003825	.000608	.0158639	.0009232	.0015079

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.230146**	**-.003587**	**.0002765**	**-.187013**	**.0078770**	**.0005085**
Stddev	.000817	.001890	.0000344	.009792	.0002445	.0000703
%RSD	.3552099	52.68848	12.44986	5.236273	3.104138	13.82346
#1	-.230595	-.001446	.0002784	-.197407	.0077266	.0005745
#2	-.230640	-.004295	.0002412	-.177960	.0077452	.0005166
#3	-.229202	-.005022	.0003100	-.185671	.0081591	.0004346

Sample Name: CCB03 Acquired: 7/29/2025 16:20:32 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000565	.0125379	-.012757	-.000020	-.000443	F -.011110
Stddev	.0002751	.0022584	.002940	.002365	.000780	.000890
%RSD	486.8928	18.01235	23.04418	11657.82	176.0816	8.013659
#1	.0003253	.0131467	-.016046	-.001926	-.001017	-.011434
#2	-.000225	.0100375	-.011837	.002627	-.000758	-.011794
#3	.000069	.0144294	-.010387	-.000762	.000445	-.010104

Elem	Sr4077
Units	ppm
Avg	.0001752
Stddev	.0000184
%RSD	10.52299
#1	.0001539
#2	.0001860
#3	.0001856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5334.091	89549.54	8184.433	4333.855	6909.104
Stddev	10.989	355.58	141.901	12.930	15.202
%RSD	.2060148	.3970796	1.733788	.2983431	.2200342
#1	5328.968	89414.60	8024.065	4333.264	6905.799
#2	5346.706	89952.84	8235.508	4321.230	6925.686
#3	5326.599	89281.18	8293.726	4347.069	6895.825

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02 Acquired: 7/29/2025 16:24:52 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8004998**	**2.027527**	**.9330786**	**1.993698**	**.8713802**	**2.169338**	**.2244849**
Stddev	.0030039	.007766	.0056216	.012491	.0017134	.014542	.0015360
%RSD	.3752566	.3830128	.6024768	.6265293	.1966323	.6703237	.6842130
#1	.7980702	2.035251	.9270439	1.985972	.8694038	2.183202	.2235049
#2	.7995709	2.019720	.9340251	1.987012	.8722888	2.154202	.2262551
#3	.8038585	2.027609	.9381669	2.008109	.8724479	2.170609	.2236948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2210800**	**.1578821**	**6.062081**	**.3947726**	**.2109265**	**.3246138**	**3.224462**
Stddev	.0019370	.0004067	.009407	.0014998	.0006892	.0009108	.026816
%RSD	.8761439	.2575936	.1551704	.3799240	.3267634	.2805857	.8316413
#1	.2196602	.1574561	6.072833	.3939556	.2102064	.3236195	3.245282
#2	.2232866	.1579239	6.058038	.3938586	.2109929	.3248142	3.194203
#3	.2202933	.1582663	6.055371	.3965035	.2115801	.3254078	3.233901

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2445497**	**3.799264**	**.5161416**	**.0778415**	**16.80776**	**.3178428**	**.2904388**
Stddev	.0004269	.022096	.0028629	.0004007	.18853	.0018707	.0009903
%RSD	.1745752	.5815924	.5546643	.5147280	1.121708	.5885482	.3409666
#1	.2442205	3.781671	.5129032	.0775173	16.91432	.3164720	.2901062
#2	.2450321	3.792058	.5171858	.0777176	16.59008	.3170825	.2896576
#3	.2443964	3.824064	.5183358	.0782894	16.91889	.3199739	.2915526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.98350**	**.3179670**	**.4608463**	**.7005199**	**.2211287**	**6.665094**	**5.406758**
Stddev	.08674	.0019702	.0017388	.0040614	.0010268	.089250	.020156
%RSD	.7897159	.6196256	.3773004	.5797697	.4643625	1.339072	.3727991
#1	11.03819	.3174195	.4590585	.6961619	.2216683	6.718803	5.385965
#2	10.88349	.3201531	.4609490	.7011987	.2199446	6.562068	5.408099
#3	11.02882	.3163285	.4625315	.7041992	.2217733	6.714412	5.426210

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02 Acquired: 7/29/2025 16:24:52 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.396637	.1795336	.2496223
Stddev	.024124	.0004883	.0002728
%RSD	.4470109	.2720036	.1092999
#1	5.371150	.1797283	.2493140
#2	5.399644	.1798946	.2498327
#3	5.419115	.1789780	.2497201

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5132.835	89389.74	7764.441	4218.960	6539.839
Stddev	5.844	40.33	79.262	8.712	12.024
%RSD	.1138495	.0451148	1.020833	.2064911	.1838614
#1	5139.215	89359.11	7814.148	4221.801	6553.720
#2	5131.546	89374.69	7673.034	4209.183	6533.169
#3	5127.743	89435.43	7806.140	4225.897	6532.628

Sample Name: Q2696-02DUP Acquired: 7/29/2025 16:28:50 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7957791**	**2.005996**	**.9250691**	**1.990026**	**.8542629**	**2.143837**	**.2222857**
Stddev	.0049654	.042058	.0017869	.012727	.0046003	.006379	.0008296
%RSD	.6239644	2.096609	.1931602	.6395498	.5385134	.2975521	.3732050
#1	.7915503	1.962038	.9231522	1.985727	.8522867	2.136615	.2214213
#2	.7945405	2.010096	.9253666	1.980004	.8509808	2.146193	.2230754
#3	.8012466	2.045853	.9266886	2.004345	.8595211	2.148703	.2223604

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2126149**	**.1563532**	**6.109849**	**.3983615**	**.2094816**	**.3222230**	**3.400221**
Stddev	.0010599	.0005196	.015522	.0017711	.0008222	.0016847	.024520
%RSD	.4985095	.3323442	.2540534	.4445857	.3925135	.5228292	.7211276
#1	.2123644	.1559440	6.097949	.3971466	.2092250	.3218385	3.383582
#2	.2137776	.1561777	6.127407	.4003936	.2088184	.3207638	3.388702
#3	.2117027	.1569378	6.104192	.3975442	.2104016	.3240667	3.428380

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2439308**	**3.841215**	**.5118267**	**.0782886**	**18.34798**	**.3131314**	**.2749953**
Stddev	.0003385	.035901	.0012546	.0004075	.14879	.0031253	.0007473
%RSD	.1387673	.9346389	.2451227	.5205227	.8109115	.9980696	.2717523
#1	.2440576	3.811993	.5112405	.0781810	18.36758	.3108531	.2758582
#2	.2441875	3.830362	.5109724	.0779457	18.19037	.3118470	.2745576
#3	.2435472	3.881291	.5132670	.0787391	18.48599	.3166943	.2745701

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.59038**	**.3043909**	**.4547211**	**.6997280**	**.2143343**	**7.210437**	**5.326387**
Stddev	.11438	.0014351	.0030293	.0022996	.0021946	.074923	.018409
%RSD	.9868299	.4714484	.6661911	.3286374	1.023894	1.039088	.3456162
#1	11.55200	.3028025	.4524907	.6992682	.2120633	7.193755	5.308040
#2	11.50013	.3055939	.4535026	.6976930	.2164435	7.145262	5.326265
#3	11.71901	.3047763	.4581699	.7022227	.2144959	7.292295	5.344857

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02DUP Acquired: 7/29/2025 16:28:50 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.507835**	**.1799360**	**.2465798**
Stddev	.034464	.0025261	.0007036
%RSD	.6257289	1.403906	.2853326
#1	5.483949	.1773583	.2463799
#2	5.492213	.1800425	.2459978
#3	5.547344	.1824072	.2473617

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5142.223**	**86065.98**	**7995.857**	**4146.022**	**6561.481**
Stddev	34.383	246.08	34.035	11.069	40.825
%RSD	.6686352	.2859179	.4256525	.2669729	.6221936
#1	5162.800	86262.77	8015.766	4137.003	6586.249
#2	5161.338	86145.10	7956.558	4158.374	6583.833
#3	5102.530	85790.07	8015.245	4142.687	6514.361

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02LX5 Acquired: 7/29/2025 16:32:48 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8163159**	**1.975027**	**.9407681**	**2.040993**	**.9330271**	**2.189595**	**.2264198**
Stddev	.0054816	.016918	.0025922	.009590	.0050474	.020409	.0019758
%RSD	.6715059	.8566108	.2755351	.4698544	.5409662	.9320929	.8726163
#1	.8191078	1.983875	.9402741	2.036582	.9297071	2.178128	.2260166
#2	.8100004	1.985687	.9384585	2.034403	.9305387	2.213158	.2246767
#3	.8198395	1.955519	.9435716	2.051995	.9388355	2.177497	.2285661

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2175361**	**.1579556**	**6.213351**	**.4040047**	**.2133355**	**.3287166**	**3.358085**
Stddev	.0004067	.0004273	.017426	.0028051	.0005967	.0021052	.004693
%RSD	.1869575	.2705148	.2804625	.6943194	.2796986	.6404361	.1397402
#1	.2178458	.1580706	6.206721	.4062762	.2136293	.3285491	3.363371
#2	.2176869	.1574826	6.200213	.4048687	.2126489	.3267001	3.356475
#3	.2170755	.1583136	6.233119	.4008693	.2137284	.3309005	3.354409

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2474327**	**3.866179**	**.5251042**	**.0785106**	**18.02960**	**.3186913**	**.2690836**
Stddev	.0003522	.015072	.0017882	.0004449	.01520	.0035079	.0002027
%RSD	.1423480	.3898449	.3405502	.5666110	.0843108	1.100731	.0753202
#1	.2470593	3.881346	.5246339	.0787361	18.04110	.3149002	.2691732
#2	.2477590	3.851203	.5235980	.0779981	18.03533	.3193515	.2688516
#3	.2474798	3.865989	.5270805	.0787975	18.01236	.3218222	.2692261

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.40524**	**.3109622**	**.4923982**	**.7445154**	**.2325229**	**7.153964**	**5.441691**
Stddev	.05794	.0019331	.0024604	.0031519	.0012908	.012084	.022513
%RSD	.5080211	.6216518	.4996737	.4233490	.5551225	.1689184	.4137063
#1	11.33980	.3126520	.4916089	.7421302	.2335695	7.152912	5.447480
#2	11.42593	.3113804	.4904293	.7433273	.2329186	7.166539	5.416849
#3	11.45000	.3088542	.4951564	.7480887	.2310806	7.142440	5.460744

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02LX5 Acquired: 7/29/2025 16:32:48 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.616585**	**.1818214**	**.2528360**
Stddev	.011201	.0013926	.0007480
%RSD	.1994253	.7659360	.2958240
#1	5.616877	.1813594	.2522979
#2	5.605242	.1807185	.2525200
#3	5.627638	.1833863	.2536901

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5073.469**	**88437.30**	**7919.153**	**4176.692**	**6461.834**
Stddev	19.655	56.26	6.519	11.475	20.278
%RSD	.3874173	.0636104	.0823194	.2747357	.3138195
#1	5075.770	88374.65	7912.887	4184.186	6467.155
#2	5091.872	88483.49	7925.899	4182.408	6478.922
#3	5052.764	88453.76	7918.674	4163.482	6439.426

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02MS Acquired: 7/29/2025 16:36:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009806**	**-.000700**	**.0023823**	**-.006213**	**-.000672**	**2.198761**
Stddev	.0033197	.001877	.0016225	.001765	.000838	.028681
%RSD	338.5497	268.3696	68.10674	28.40047	124.6661	1.304396
#1	.0046116	.000554	.0036459	-.008125	-.000572	2.173764
#2	.0002290	-.002858	.0029485	-.005867	.000111	2.192445
#3	-.001899	.000206	.0005526	-.004647	-.001555	2.230073

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3054348**	**.0001367**	**.0022576**	**385.3742**	**.0039619**	**.0109215**
Stddev	.0013021	.0000318	.0001910	2.3988	.0002019	.0004325
%RSD	.4263077	23.22979	8.460336	.6224489	5.095496	3.960109
#1	.3060847	.0001233	.0022164	385.8701	.0037937	.0104530
#2	.3062841	.0001138	.0024658	387.4863	.0041858	.0110059
#3	.3039357	.0001730	.0020905	382.7663	.0039063	.0113056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0234386**	**48.92255**	**8.533795**	**52.24960**	**.0191654**	**.0029961**
Stddev	.0004765	.43378	.027436	.06130	.0002627	.0001511
%RSD	2.032989	.8866685	.3214961	.1173301	1.370516	5.044353
#1	.0238591	48.58177	8.544936	52.31794	.0188641	.0029035
#2	.0235357	48.77504	8.553908	52.19945	.0192861	.0031705
#3	.0229210	49.41085	8.502541	52.23141	.0193460	.0029144

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**462.5503**	**.0052161**	**.1071455**	**33.50003**	**.1080562**	**.0096291**
Stddev	.9758	.0028845	.0000882	.32913	.0016557	.0001323
%RSD	.2109707	55.30034	.0823224	.9824649	1.532274	1.373735
#1	463.4782	.0079328	.1070443	33.21560	.1062414	.0095359
#2	462.6401	.0021889	.1072063	33.42396	.1084429	.0097805
#3	461.5327	.0055264	.1071858	33.86054	.1094843	.0095709

Sample Name: Q2696-02MS Acquired: 7/29/2025 16:36:45 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002405	.0621767	F 18.12476	.2704096	F 188.4406	.0576797
Stddev	.000656	.0016150	.14841	.0045641	.7740	.0040538
%RSD	27.26162	2.597489	.8188172	1.687847	.4107579	7.028199
#1	-.002788	.0631089	17.99201	.2651669	187.8938	.0559005
#2	-.001648	.0631094	18.09728	.2725659	188.1016	.0623189
#3	-.002780	.0603118	18.28499	.2734960	189.3263	.0548196

Elem	Sr4077
Units	ppm
Avg	1.245029
Stddev	.003515
%RSD	.2823184
#1	1.243432
#2	1.249059
#3	1.242596

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4468.825	80088.28	7766.702	3680.949	5308.142
Stddev	12.710	165.01	71.635	4.981	14.647
%RSD	.2844247	.2060306	.9223296	.1353112	.2759439
#1	4467.486	80239.55	7724.429	3678.178	5301.743
#2	4482.153	80112.96	7726.264	3686.700	5324.900
#3	4456.838	79912.32	7849.411	3677.971	5297.783

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02MSD Acquired: 7/29/2025 16:41:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050227	-.003379	.0035639	.0050183	.0105887	1.439190
Stddev	.0033159	.000841	.0016898	.0019932	.0028574	.011197
%RSD	66.01877	24.90289	47.41415	39.71889	26.98554	.7779842
#1	.0012155	-.003696	.0053965	.0044235	.0136814	1.434444
#2	.0072789	-.004016	.0032276	.0072412	.0100380	1.431148
#3	.0065737	-.002425	.0020675	.0033902	.0080468	1.451978

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2609855	-.000301	.0015901	135.8819	.0038278	.0018429
Stddev	.0011243	.000037	.0001596	.7658	.0000926	.0002280
%RSD	.4307798	12.39055	10.03924	.5636007	2.419619	12.37260
#1	.2621029	-.000258	.0014073	136.6393	.0039321	.0015799
#2	.2598544	-.000329	.0017018	135.1079	.0037958	.0019637
#3	.2609993	-.000314	.0016613	135.8986	.0037554	.0019850

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0268512	3.493527	4.789826	11.44856	.0090464	.0013397
Stddev	.0001294	.028026	.034471	.18925	.0001165	.0002328
%RSD	.4819654	.8022343	.7196749	1.653020	1.287926	17.37815
#1	.0267514	3.463744	4.826342	11.66700	.0089365	.0015482
#2	.0269974	3.519382	4.757849	11.34457	.0091685	.0013824
#3	.0268049	3.497457	4.785286	11.33410	.0090342	.0010884

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1832.709	.0018055	.0750548	30.87864	.0847700	.1000741
Stddev	12.689	.0010961	.0007346	.58692	.0008257	.0008901
%RSD	.6923508	60.70914	.9787288	1.900745	.9740513	.8894320
#1	1823.700	.0010905	.0758567	30.21341	.0854960	.0998380
#2	1827.206	.0030675	.0748932	31.09908	.0838718	.0993258
#3	1847.220	.0012585	.0744144	31.32342	.0849424	.1010584

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02MSD Acquired: 7/29/2025 16:41:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001504	.0415866	F 15.10780	.2581238	9.400865	.0173604
Stddev	.000964	.0013674	.12307	.0034725	.068174	.0023580
%RSD	64.08936	3.288011	.8146323	1.345292	.7251900	13.58240
#1	-.002539	.0400304	14.96627	.2582934	9.351426	.0187237
#2	-.000632	.0425958	15.18974	.2545696	9.372531	.0146377
#3	-.001342	.0421337	15.16738	.2615084	9.478637	.0187198

Elem	Sr4077
Units	ppm
Avg	.7235619
Stddev	.0015129
%RSD	.2090889
#1	.7219441
#2	.7237997
#3	.7249417

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4028.164	71107.88	7467.342	3290.495	4627.066
Stddev	27.468	213.24	124.586	8.021	22.477
%RSD	.6819087	.2998808	1.668415	.2437691	.4857705
#1	4055.971	70904.39	7324.880	3281.654	4646.415
#2	4027.472	71329.68	7555.902	3297.305	4632.373
#3	4001.048	71089.56	7521.242	3292.527	4602.411

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02A Acquired: 7/29/2025 16:45:28 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001478**	**-.002520**	**.0001946**	**.0064008**	**.0028797**	**.8746240**
Stddev	.004247	.000918	.0007001	.0017887	.0012792	.0107607
%RSD	287.2536	36.41414	359.8437	27.94540	44.42225	1.230325
#1	-.001251	-.001491	.0005420	.0043622	.0035596	.8870239
#2	-.005835	-.002816	.0006530	.0077078	.0036754	.8691133
#3	.002650	-.003253	-.000611	.0071324	.0014041	.8677349

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1729582**	**.0002403**	**.0017054**	**99.10455**	**.0020013**	**.0028022**
Stddev	.0002604	.0000082	.0001332	.29257	.0002733	.0004681
%RSD	.1505593	3.405373	7.811082	.2952101	13.65620	16.70474
#1	.1731955	.0002308	.0018566	99.00360	.0016983	.0026434
#2	.1729994	.0002455	.0016543	99.43422	.0022293	.0033291
#3	.1726796	.0002444	.0016054	98.87582	.0020762	.0024342

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0186448**	**32.62348**	**1.479093**	**19.36200**	**.0133720**	**.0030886**
Stddev	.0002939	.03921	.003259	.05809	.0005513	.0004324
%RSD	1.576512	.1201802	.2203128	.3000085	4.122691	13.99972
#1	.0189811	32.59491	1.477931	19.36560	.0127423	.0026156
#2	.0185167	32.66818	1.482774	19.41821	.0137675	.0034636
#3	.0184367	32.60736	1.476575	19.30220	.0136062	.0031865

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1470.797**	**.0023514**	**.0865894**	**42.13128**	**.1199602**	**.0154460**
Stddev	15.099	.0022154	.0007867	.14859	.0002982	.0002615
%RSD	1.026597	94.21902	.9085329	.3526912	.2486129	1.693234
#1	1484.752	.0047656	.0866525	42.02806	.1202855	.0157400
#2	1472.869	.0018769	.0873427	42.30159	.1198957	.0153587
#3	1454.768	.0004116	.0857731	42.06419	.1196996	.0152393

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2696-02A Acquired: 7/29/2025 16:45:28 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002789	.0356196	7.571498	.5919000	F 50.82580	.0322553
Stddev	.000356	.0014789	.033423	.0037723	.13880	.0004877
%RSD	12.74970	4.151801	.4414383	.6373215	.2730945	1.512104
#1	-.002821	.0347428	7.583800	.5912521	50.79979	.0328059
#2	-.003128	.0347890	7.597026	.5959543	50.97577	.0318773
#3	-.002419	.0373270	7.533667	.5884936	50.70185	.0320829

Elem	Sr4077
Units	ppm
Avg	.4355330
Stddev	.0013267
%RSD	.3046076
#1	.4343756
#2	.4369808
#3	.4352427

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4157.559	75238.40	8370.075	3464.128	4809.390
Stddev	17.192	509.53	43.351	22.218	10.305
%RSD	.4135088	.6772203	.5179291	.6413689	.2142627
#1	4151.507	74782.76	8325.880	3449.182	4805.159
#2	4144.211	75143.87	8371.815	3453.543	4801.874
#3	4176.958	75788.58	8412.530	3489.660	4821.137

Sample Name: PB169048BL Acquired: 7/29/2025 16:55:40 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004226**	**-.002062**	**.0011871**	**-.001574**	**-.000531**	**-.006710**
Stddev	.001922	.000844	.0005547	.000969	.001178	.006591
%RSD	45.49274	40.91836	46.73091	61.56688	221.7130	98.21843
#1	-.002024	-.002982	.0015425	-.002682	-.001289	-.013400
#2	-.005081	-.001324	.0014709	-.000886	-.001130	-.006509
#3	-.005573	-.001880	.0005479	-.001154	.000826	-.000223

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003341**	**.0000289**	**.0001080**	**.0079156**	**-.000073**	**.0000115**
Stddev	.001191	.0000623	.0000655	.0081942	.000100	.0001302
%RSD	35.65302	215.8402	60.66919	103.5187	137.5046	1135.051
#1	-.001976	-.000037	.0000367	-.000591	-.000128	.0001443
#2	-.004169	.000037	.0001219	.008580	.000043	-.000116
#3	-.003879	.000086	.0001655	.015757	-.000134	.000006

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000131**	**-.003521**	**.0000497**	**.0171506**	**.0001687**	**.0011413**
Stddev	.000102	.004882	.0001431	.0082240	.0003372	.0004726
%RSD	77.77206	138.6420	288.0179	47.95195	199.9194	41.41165
#1	-.000249	-.002476	-.000070	.0126704	.0003553	.0006381
#2	-.000069	.000753	.000011	.0266420	.0003713	.0012099
#3	-.000076	-.008842	.000208	.0121394	-.000221	.0015759

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7734169**	**-.001178**	**-.000303**	**.9386469**	**-.000648**	**-.000368**
Stddev	.0277844	.001829	.000181	.0514036	.000208	.000074
%RSD	3.592417	155.2743	59.62110	5.476351	32.17002	20.12258
#1	.7974489	.000888	-.000160	.9324648	-.000410	-.000283
#2	.7798078	-.001834	-.000243	.9928620	-.000731	-.000409
#3	.7429939	-.002588	-.000506	.8906140	-.000801	-.000414

Sample Name: PB169048BL Acquired: 7/29/2025 16:55:40 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000443	.0098314	-.009218	.0015258	F .0112840	.0052220
Stddev	.000319	.0014329	.000846	.0027942	.0042182	.0020671
%RSD	71.97542	14.57509	9.176548	183.1370	37.38191	39.58361
#1	-.000806	.0108382	-.010101	-.000780	.0157879	.0031926
#2	-.000310	.0104651	-.009139	.000724	.0106378	.0073247
#3	-.000212	.0081909	-.008415	.004633	.0074262	.0051487

Elem	Sr4077
Units	ppm
Avg	-.000205
Stddev	.000060
%RSD	29.16834
#1	-.000176
#2	-.000274
#3	-.000166

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5123.528	92656.29	8622.717	4350.463	6571.619
Stddev	17.329	739.65	47.669	34.254	11.565
%RSD	.3382336	.7982710	.5528287	.7873726	.1759786
#1	5137.726	93456.40	8567.747	4384.581	6584.736
#2	5128.641	92515.01	8652.660	4350.733	6567.228
#3	5104.217	91997.48	8647.745	4316.074	6562.893

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: PB169048BS Acquired: 7/29/2025 17:08:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8182074**	**2.023562**	**.9608502**	**2.119376**	**.9136498**	**2.084257**
Stddev	.0026888	.034085	.0031619	.008818	.0018913	.010054
%RSD	.3286260	1.684385	.3290725	.4160814	.2070072	.4823977
#1	.8172080	1.990416	.9572728	2.114522	.9146041	2.092165
#2	.8161614	2.021757	.9632710	2.114051	.9114715	2.072942
#3	.8212528	2.058513	.9620067	2.129555	.9148739	2.087664

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2193413**	**.2244429**	**.1736869**	F **1.150739**	**.3931133**	**.2049406**
Stddev	.0011110	.0011862	.0005429	.005776	.0007232	.0005644
%RSD	.5065300	.5285179	.3125933	.5019592	.1839565	.2754069
#1	.2189674	.2240997	.1730765	1.157225	.3925131	.2043091
#2	.2184654	.2234661	.1741161	1.146150	.3939162	.2053959
#3	.2205910	.2257629	.1738679	1.148841	.3929108	.2051168

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3276809**	**3.139620**	**.2231219**	**2.065474**	**.5154972**	**.0815990**
Stddev	.0006472	.000680	.0013242	.024107	.0017822	.0001648
%RSD	.1975157	.0216651	.5934640	1.167119	.3457171	.2019306
#1	.3272547	3.139971	.2242494	2.044850	.5134438	.0816290
#2	.3273623	3.140053	.2216638	2.059595	.5166419	.0814213
#3	.3284256	3.138836	.2234526	2.091976	.5164059	.0817467

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.890624**	**.3125442**	**.2265402**	**10.59270**	**.3293937**	**.4504628**
Stddev	.033846	.0030886	.0006255	.08047	.0023464	.0011818
%RSD	1.170878	.9882113	.2761276	.7596653	.7123231	.2623509
#1	2.891559	.3160585	.2260513	10.60731	.3277187	.4498175
#2	2.923992	.3113129	.2263241	10.66485	.3283870	.4497442
#3	2.856320	.3102612	.2272451	10.50592	.3320754	.4518268

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: PB169048BS Acquired: 7/29/2025 17:08:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7135377	.2215817	.8627954	5.463625	F .0051848	.1964699
Stddev	.0031312	.0019297	.0161666	.014943	.0023968	.0012530
%RSD	.4388250	.8708900	1.873752	.2734975	46.22705	.6377498
#1	.7099916	.2237734	.8784110	5.446390	.0076719	.1971324
#2	.7159218	.2208340	.8638460	5.471532	.0049927	.1972526
#3	.7146995	.2201378	.8461290	5.472953	.0028899	.1950247

Elem	Sr4077
Units	ppm
Avg	.2239109
Stddev	.0005863
%RSD	.2618547
#1	.2242439
#2	.2232339
#3	.2242550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5198.730	90711.98	8134.471	4294.333	6640.082
Stddev	17.700	112.10	46.682	17.852	12.116
%RSD	.3404760	.1235825	.5738771	.4157039	.1824691
#1	5189.513	90735.99	8149.894	4297.626	6636.413
#2	5219.137	90589.82	8171.489	4310.309	6653.609
#3	5187.541	90810.14	8082.029	4275.064	6630.225

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02DLX5 Acquired: 7/29/2025 17:12:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001543**	**-.002596**	**.0077707**	**.0019039**	**.0042472**	**.3783242**	**.0126834**
Stddev	.002877	.001136	.0005872	.0031698	.0003591	.0066831	.0004841
%RSD	186.4135	43.75874	7.555952	166.4941	8.454361	1.766487	3.816968
#1	-.003745	-.003057	.0074415	.0055639	.0043872	.3858955	.0126599
#2	.001712	-.001302	.0084486	.0000419	.0045152	.3732464	.0131788
#3	-.002598	-.003430	.0074221	.0001059	.0038392	.3758307	.0122114

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000386**	**.0007694**	**3.876125**	**.0060726**	**.0005356**	**.0592994**	**3.072393**
Stddev	.0000425	.0000304	.036201	.0000243	.0001019	.0003188	.027792
%RSD	109.9551	3.951621	.9339605	.3997343	19.02440	.5375536	.9045713
#1	.0000599	.0007397	3.911672	.0060578	.0004479	.0589450	3.099332
#2	-.000010	.0007682	3.877401	.0061006	.0005115	.0593902	3.043820
#3	.000066	.0008004	3.839302	.0060593	.0006474	.0595628	3.074027

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0294383**	**.7957350**	**.0083206**	**.0018614**	**120.2069**	**-.003556**	**.2019850**
Stddev	.0005982	.0222713	.0000605	.0003799	.9989	.001242	.0007956
%RSD	2.032096	2.798836	.7267723	20.40965	.8309975	34.92394	.3939023
#1	.0301264	.7712503	.0082852	.0017109	121.2287	-.003493	.2020904
#2	.0291467	.8147881	.0082862	.0022935	119.2326	-.002347	.2011419
#3	.0290418	.8011665	.0083904	.0015797	120.1592	-.004829	.2027226

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.565130**	**.0209736**	**.0030320**	**.0022341**	**.0239736**	**4.781823**	**.8052704**
Stddev	.045280	.0002548	.0002220	.0004034	.0012279	.022509	.0067605
%RSD	1.270075	1.214853	7.321210	18.05546	5.121879	.4707269	.8395293
#1	3.577892	.0210773	.0028011	.0020493	.0233773	4.798565	.7997770
#2	3.514838	.0206833	.0030511	.0019562	.0231577	4.756234	.8032138
#3	3.602659	.0211603	.0032438	.0026967	.0253857	4.790669	.8128203

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02DLX5 Acquired: 7/29/2025 17:12:12 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.989879	.0051629	.0210111
Stddev	.008418	.0028795	.0001708
%RSD	.4230602	55.77406	.8127593
#1	1.980821	.0052977	.0211913
#2	1.991353	.0079726	.0209906
#3	1.997463	.0022183	.0208516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4934.802	88522.13	8585.602	4134.572	6105.343
Stddev	21.892	280.41	39.656	28.917	25.023
%RSD	.4436160	.3167734	.4618934	.6993994	.4098482
#1	4957.234	88272.55	8553.227	4117.970	6126.711
#2	4933.679	88825.57	8573.744	4167.963	6111.503
#3	4913.494	88468.29	8629.834	4117.784	6077.816

Sample Name: Q2417-02DUPDLX5 Acquired: 7/29/2025 17:16:28 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003105**	**-.000277**	**.0079672**	**.0029634**	**.0074513**	**.3992714**	**.0146172**
Stddev	.001522	.002428	.0006399	.0020525	.0015909	.0042167	.0014310
%RSD	49.01590	875.6891	8.032001	69.25916	21.35042	1.056104	9.789938
#1	-.004862	.002298	.0085488	.0017755	.0087989	.4038650	.0139982
#2	-.002218	-.000606	.0072816	.0053334	.0056963	.3983729	.0162535
#3	-.002234	-.002524	.0080712	.0017814	.0078587	.3955764	.0136000

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000424**	**.0005550**	**4.045066**	**.0090841**	**.0008277**	**.0622400**	**3.260273**
Stddev	.0000112	.0000851	.014343	.0003284	.0002104	.0003924	.016657
%RSD	26.31718	15.32749	.3545761	3.615105	25.41779	.6304149	.5109204
#1	.0000296	.0004569	4.031197	.0087461	.0006553	.0621353	3.261421
#2	.0000471	.0006000	4.059840	.0094019	.0007657	.0626741	3.276327
#3	.0000504	.0006080	4.044162	.0091043	.0010621	.0619106	3.243071

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0312419**	**.8279617**	**.0102164**	**.0019287**	**127.7531**	**-.000313**	**.2119218**
Stddev	.0006082	.0288748	.0000393	.0005154	.2122	.001321	.0002626
%RSD	1.946900	3.487460	.3844158	26.72331	.1661032	422.4932	.1239118
#1	.0306062	.8200205	.0101718	.0014932	127.9573	.000673	.2117387
#2	.0318183	.8599762	.0102457	.0017951	127.7683	-.001813	.2118040
#3	.0313012	.8038884	.0102318	.0024978	127.5337	.000202	.2122227

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.771893**	**.0214455**	**.0034638**	**.0022266**	**.0254431**	**5.111502**	**.8585079**
Stddev	.051091	.0006276	.0005565	.0002741	.0012506	.033575	.0029343
%RSD	1.354521	2.926594	16.06750	12.30806	4.915368	.6568428	.3417954
#1	3.821872	.0216956	.0031688	.0019273	.0268581	5.145498	.8608444
#2	3.774049	.0219095	.0031169	.0024652	.0244859	5.078365	.8552146
#3	3.719758	.0207313	.0041058	.0022872	.0249853	5.110642	.8594647

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02DUPDLX5 Acquired: 7/29/2025 17:16:28 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.163843	.0069497	.0218351
Stddev	.010012	.0007616	.0000712
%RSD	.4626981	10.95827	.3262009
#1	2.155666	.0063622	.0218235
#2	2.175009	.0078101	.0219114
#3	2.160854	.0066766	.0217704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4734.669	85870.60	8438.686	4021.552	5828.642
Stddev	14.214	149.55	41.597	10.407	10.457
%RSD	.3002118	.1741556	.4929263	.2587877	.1794069
#1	4723.943	85930.41	8475.475	4020.234	5817.796
#2	4750.791	85700.40	8393.549	4011.866	5829.469
#3	4729.273	85980.99	8447.035	4032.555	5838.661

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV04 Acquired: 7/29/2025 17:20:44 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.236395**	**5.065383**	**4.968101**	**5.334195**	**5.378272**	**10.16881**	**10.64989**
Stddev	.008248	.128336	.013882	.006488	.005377	.04556	.14970
%RSD	.1575146	2.533590	.2794150	.1216294	.0999746	.4480659	1.405656
#1	5.226872	5.125283	4.963177	5.332897	5.374354	10.12095	10.48254
#2	5.241211	4.918048	4.957353	5.328454	5.376060	10.21166	10.69611
#3	5.241104	5.152817	4.983773	5.341234	5.384402	10.17382	10.77104

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536742**	**2.268303**	**26.37756**	**.9563112**	**2.542530**	**1.302240**	**5.338097**
Stddev	.0011477	.007611	.04782	.0024659	.003509	.002977	.023173
%RSD	.4524461	.3355518	.1812951	.2578556	.1380289	.2286360	.4340972
#1	.2529893	2.267604	26.37465	.9576086	2.541561	1.298850	5.346663
#2	.2530341	2.261066	26.42676	.9578577	2.539606	1.303442	5.355767
#3	.2549992	2.276240	26.33125	.9534675	2.546422	1.304429	5.311861

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.614843**	**24.66577**	**2.545669**	**1.304490**	**24.16363**	**2.550520**	**2.651321**
Stddev	.007349	.13292	.004881	.001088	.08656	.006979	.002334
%RSD	.2810418	.5388703	.1917346	.0833851	.3582209	.2736470	.0880212
#1	2.606358	24.53900	2.546979	1.304194	24.18251	2.542874	2.650864
#2	2.619072	24.65425	2.540266	1.303581	24.23919	2.556548	2.649250
#3	2.619100	24.80408	2.549761	1.305695	24.06919	2.552140	2.653850

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.97858**	**5.060451**	**5.305789**	**5.019236**	**5.117452**	**5.026110**	**4.817743**
Stddev	.11282	.031017	.009542	.013565	.009195	.004584	.015118
%RSD	.4181740	.6129210	.1798393	.2702588	.1796811	.0912051	.3137926
#1	27.03421	5.040267	5.301045	5.025518	5.113159	5.031402	4.806587
#2	27.05278	5.044921	5.299550	5.003669	5.128009	5.023545	4.811693
#3	26.84875	5.096165	5.316774	5.028521	5.111190	5.023382	4.834949

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV04 Acquired: 7/29/2025 17:20:44 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.027639**	**5.017405**	**5.360607**
Stddev	.016886	.016149	.055238
%RSD	.3358717	.3218677	1.030450
#1	5.021161	4.999842	5.340971
#2	5.014951	5.020760	5.422981
#3	5.046805	5.031614	5.317869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4945.880**	**86608.59**	**8361.031**	**4144.081**	**5971.866**
Stddev	10.606	43.10	48.346	13.621	6.841
%RSD	.2144483	.0497671	.5782309	.3286950	.1145478
#1	4958.096	86628.97	8392.277	4150.069	5975.488
#2	4940.525	86637.72	8385.472	4153.682	5976.133
#3	4939.019	86559.08	8305.345	4128.491	5963.976

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB04 Acquired: 7/29/2025 17:24:55 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001873**	**.0026000**	**-.000030**	**-.000058**	**-.000021**	**-.006308**	**-.000863**
Stddev	.000943	.0007345	.000749	.000661	.000502	.007955	.000135
%RSD	50.33912	28.25037	2520.800	1141.589	2385.954	126.1183	15.69655
#1	-.002272	.0032398	.000260	.000523	.000317	.002070	-.000776
#2	-.000796	.0027621	.000531	-.000777	.000218	-.013759	-.000794
#3	-.002550	.0017979	-.000880	.000080	-.000598	-.007234	-.001019

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000579**	**.0002765**	**.0150975**	**.0003066**	**.0003878**	**.0004173**	**-.002654**
Stddev	.0000311	.0001090	.0068509	.0002962	.0000986	.0000878	.004574
%RSD	53.66318	39.43840	45.37814	96.60175	25.42540	21.02791	172.3159
#1	.0000713	.0003734	.0082850	.0003365	.0003036	.0005186	-.006887
#2	.0000224	.0001584	.0150212	-.000003	.0003634	.0003670	.002197
#3	.0000801	.0002976	.0219862	.000587	.0004963	.0003662	-.003273

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012001**	**.0096881**	**.0007152**	**.0015629**	**.0227004**	**-.004683**	**.0003956**
Stddev	.0002404	.0179969	.0002693	.0002064	.0126579	.002990	.0001739
%RSD	20.03069	185.7616	37.65537	13.20844	55.76041	63.85118	43.96168
#1	.0013727	-.006592	.0004396	.0014956	.0337898	-.007980	.0005667
#2	.0013021	.029013	.0009777	.0017946	.0089101	-.003920	.0002190
#3	.0009255	.006643	.0007284	.0013986	.0254014	-.002148	.0004011

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0776846**	**.0061818**	**.0016395**	**.0004833**	**.0114574**	**-.004171**	**-.000526**
Stddev	.0148957	.0013179	.0003219	.0003276	.0017497	.003688	.001236
%RSD	19.17455	21.31898	19.63403	67.78698	15.27112	88.41130	235.0233
#1	.0686606	.0076732	.0018275	.0004603	.0106148	-.003329	-.001849
#2	.0695156	.0056979	.0012678	.0008218	.0134689	-.000977	-.000326
#3	.0948776	.0051743	.0018233	.0001678	.0102884	-.008207	.000598

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB04 Acquired: 7/29/2025 17:24:55 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0027971	-.004181	.0012751
Stddev	.0008294	.001664	.0002317
%RSD	29.65219	39.80188	18.16765
#1	.0020665	-.005781	.0015412
#2	.0026260	-.002459	.0011663
#3	.0036986	-.004304	.0011180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5126.371	89781.47	8223.919	4309.833	6528.583
Stddev	10.640	148.16	31.119	13.089	23.431
%RSD	.2075526	.1650178	.3783902	.3037053	.3589060
#1	5133.323	89621.44	8189.157	4300.456	6552.157
#2	5131.667	89913.85	8249.177	4304.255	6528.295
#3	5114.122	89809.12	8233.422	4324.787	6505.297

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02LDLX25 Acquired: 7/29/2025 17:29:15 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003615**	**.0004166**	**.0021853**	**.0016822**	**.0000298**	**.0650489**	**.0011096**
Stddev	.001603	.0010561	.0003028	.0024659	.0003270	.0064773	.0006999
%RSD	44.32999	253.4792	13.85713	146.5846	1096.728	9.957592	63.07482
#1	-.003149	-.000507	.0019831	-.001092	-.000348	.0724348	.0019177
#2	-.005399	.001568	.0025334	.003623	.000224	.0603350	.0007163
#3	-.002297	.000189	.0020394	.002516	.000213	.0623770	.0006949

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000315**	**.0002173**	**.7995108**	**.0009985**	**.0000811**	**.0122656**	**.6181808**
Stddev	.0000305	.0000661	.0160403	.0002716	.0001007	.0004404	.0037502
%RSD	96.85368	30.41962	2.006265	27.19741	124.1994	3.590473	.6066460
#1	.0000637	.0001410	.7973660	.0008209	.0001902	.0126761	.6223909
#2	.0000031	.0002564	.7846508	.0008635	.0000613	.0123203	.6169533
#3	.0000275	.0002546	.8165156	.0013112	-.000008	.0118004	.6151982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057152**	**.1688074**	**.0019059**	**.0011152**	**24.42308**	**-.002838**	**.0416630**
Stddev	.0003892	.0068996	.0000546	.0001730	.06372	.000567	.0003407
%RSD	6.809991	4.087254	2.863351	15.51676	.2608874	19.97924	.8177339
#1	.0059669	.1766102	.0019677	.0010818	24.35053	-.002459	.0412919
#2	.0052669	.1662992	.0018857	.0009612	24.46995	-.003490	.0419617
#3	.0059117	.1635127	.0018643	.0013024	24.44876	-.002565	.0417353

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6668010**	**.0068219**	**.0007001**	**.0005793**	**.0129263**	**.9631175**	**.1611111**
Stddev	.0168165	.0006798	.0001696	.0022801	.0018818	.0202636	.0027384
%RSD	2.521964	9.965208	24.23004	393.6162	14.55824	2.103963	1.699699
#1	.6579425	.0065208	.0007815	-.000702	.0144007	.9674799	.1631802
#2	.6861948	.0076002	.0005051	-.000772	.0108067	.9808447	.1580058
#3	.6562656	.0063446	.0008138	.003212	.0135715	.9410280	.1621472

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02LDLX25 Acquired: 7/29/2025 17:29:15 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3891388	-.005785	.0042488
Stddev	.0049600	.003277	.0000444
%RSD	1.274604	56.65575	1.043777
#1	.3944812	-.009549	.0042017
#2	.3882555	-.004237	.0042550
#3	.3846799	-.003568	.0042897

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5187.864	87735.93	8345.345	4251.008	6553.930
Stddev	1.371	489.88	49.559	30.414	9.822
%RSD	.0264362	.5583595	.5938476	.7154577	.1498612
#1	5188.147	88298.09	8330.490	4276.179	6563.122
#2	5186.373	87509.39	8400.632	4217.213	6555.087
#3	5189.072	87400.32	8304.912	4259.632	6543.581

Sample Name: Q2417-02MSDLX5 Acquired: 7/29/2025 17:33:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1510446**	**.3641880**	**.1855374**	**.3955641**	**.1714539**	**.8016803**	**.0570433**
Stddev	.0028112	.0041425	.0003965	.0007825	.0003924	.0052047	.0009758
%RSD	1.861196	1.137458	.2137022	.1978286	.2288640	.6492231	1.710666
#1	.1478155	.3611039	.1850802	.3951644	.1713462	.7956798	.0581439
#2	.1523713	.3625637	.1857875	.3950622	.1718889	.8043900	.0567021
#3	.1529469	.3688965	.1857444	.3964658	.1711266	.8049711	.0562839

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0385873**	**.0297389**	**4.360855**	**.0802476**	**.0390514**	**.1329674**	**3.923322**
Stddev	.0002829	.0001057	.012908	.0007422	.0003368	.0007630	.003555
%RSD	.7330224	.3555453	.2959886	.9248938	.8623692	.5738304	.0906089
#1	.0389138	.0298296	4.374169	.0810966	.0387425	.1323442	3.920089
#2	.0384313	.0296227	4.348396	.0799241	.0390013	.1327397	3.927129
#3	.0384169	.0297643	4.360002	.0797220	.0394104	.1338184	3.922749

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0724295**	**1.238306**	**.1048767**	**.0165134**	**131.5980**	**.0564309**	**.2602770**
Stddev	.0003092	.021293	.0006073	.0001359	.3434	.0029820	.0015078
%RSD	.4268299	1.719550	.5790591	.8229199	.2609132	5.284339	.5793085
#1	.0725921	1.252455	.1049802	.0163569	131.9881	.0578296	.2620181
#2	.0726234	1.248645	.1042243	.0165821	131.4643	.0584565	.2594091
#3	.0720730	1.213817	.1054256	.0166013	131.3417	.0530067	.2594039

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.650202**	**.0808421**	**.0850133**	**.1110488**	**.0598653**	**5.302243**	**2.088493**
Stddev	.017915	.0001224	.0005266	.0004062	.0017120	.006031	.000797
%RSD	.3170600	.1514727	.6193992	.3657692	2.859837	.1137476	.0381497
#1	5.655941	.0808658	.0849078	.1107656	.0616715	5.305672	2.088515
#2	5.630121	.0807095	.0845474	.1115142	.0596580	5.295279	2.087685
#3	5.664543	.0809509	.0855846	.1108666	.0582663	5.305778	2.089278

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02MSDLX5 Acquired: 7/29/2025 17:33:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.354176	.0360993	.0631127
Stddev	.010704	.0011047	.0001362
%RSD	.4546778	3.060107	.2158728
#1	2.342846	.0373269	.0632638
#2	2.355562	.0351854	.0629992
#3	2.364119	.0357856	.0630750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4983.711	86725.35	8414.747	4085.449	6158.048
Stddev	20.231	378.60	42.517	13.756	22.942
%RSD	.4059455	.4365484	.5052694	.3367047	.3725567
#1	4994.187	86380.39	8373.927	4071.014	6166.631
#2	4996.555	86665.26	8411.535	4086.926	6175.461
#3	4960.390	87130.40	8458.779	4098.406	6132.052

Sample Name: Q2417-02MSDDLX5 Acquired: 7/29/2025 17:37:42 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1536157**	**.3587057**	**.1878546**	**.3958029**	**.1713627**	**.8142152**	**.0582163**
Stddev	.0054436	.0090750	.0010284	.0025067	.0005622	.0039392	.0015582
%RSD	3.543613	2.529940	.5474502	.6333223	.3280647	.4838075	2.676568
#1	.1564644	.3619307	.1884417	.3931977	.1720088	.8187058	.0564182
#2	.1473390	.3657277	.1866671	.3981979	.1710936	.8113428	.0590600
#3	.1570438	.3484586	.1884549	.3960131	.1709856	.8125969	.0591707

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0387835**	**.0302017**	**4.393518**	**.1062437**	**.0401128**	**.1354971**	**4.041338**
Stddev	.0004097	.0000760	.064633	.0013939	.0004351	.0006758	.027137
%RSD	1.056443	.2517750	1.471094	1.311943	1.084724	.4987853	.6714837
#1	.0383361	.0302710	4.324841	.1077418	.0403759	.1361417	4.020051
#2	.0391403	.0301203	4.453154	.1049851	.0396106	.1347939	4.032068
#3	.0388741	.0302137	4.402559	.1060043	.0403519	.1355557	4.071895

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0743955**	**1.221955**	**.1247414**	**.0164850**	**130.2234**	**.0591652**	**.2597031**
Stddev	.0014234	.049959	.0007972	.0003179	.4895	.0029524	.0025683
%RSD	1.913230	4.088476	.6390978	1.928581	.3759309	4.990115	.9889533
#1	.0731629	1.166740	.1256475	.0167703	130.5828	.0557584	.2609634
#2	.0759533	1.264033	.1241476	.0161423	129.6658	.0609782	.2567480
#3	.0740701	1.235091	.1244292	.0165424	130.4216	.0607590	.2613977

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.734237**	**.0796940**	**.0884029**	**.1160755**	**.0668959**	**5.337106**	**2.145821**
Stddev	.046534	.0003129	.0005170	.0002928	.0018401	.034991	.002213
%RSD	.8115169	.3926837	.5847849	.2522394	2.750735	.6556215	.1031447
#1	5.729471	.0798040	.0889783	.1157500	.0652070	5.377508	2.148356
#2	5.690269	.0799371	.0879774	.1161591	.0688569	5.317336	2.144270
#3	5.782971	.0793409	.0882531	.1163174	.0666238	5.316475	2.144838

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02MSDDLX5 Acquired: 7/29/2025 17:37:42 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.509723**	**.0437136**	**.0631058**
Stddev	.014708	.0021607	.0009025
%RSD	.5860230	4.942844	1.430110
#1	2.526482	.0424453	.0623541
#2	2.503723	.0462085	.0641067
#3	2.498964	.0424872	.0628565

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4885.702**	**86223.04**	**8312.444**	**4093.870**	**5980.698**
Stddev	13.901	691.07	64.194	34.560	16.430
%RSD	.2845234	.8014940	.7722678	.8441807	.2747197
#1	4877.409	85639.41	8374.205	4076.419	5970.931
#2	4901.751	86986.15	8246.066	4133.675	5999.667
#3	4877.947	86043.57	8317.061	4071.515	5971.496

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02ADLX5 Acquired: 7/29/2025 17:41:49 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1608583**	**.3812168**	**.1929323**	**.4093363**	**.1854471**	**.7650812**	**.0558245**
Stddev	.0017987	.0120601	.0010583	.0024258	.0002315	.0055404	.0006740
%RSD	1.118214	3.163587	.5485469	.5926278	.1248610	.7241533	1.207332
#1	.1588997	.3858174	.1937920	.4099655	.1852927	.7665003	.0550613
#2	.1624362	.3675335	.1917503	.4066578	.1853353	.7589693	.0560743
#3	.1612390	.3902995	.1932546	.4113855	.1857134	.7697740	.0563379

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0392360**	**.0315227**	**3.930517**	**.0824581**	**.0409573**	**.1196099**	**3.698364**
Stddev	.0001929	.0001509	.008127	.0005458	.0001720	.0007552	.026014
%RSD	.4915797	.4786056	.2067576	.6619476	.4198999	.6313849	.7033894
#1	.0390137	.0313790	3.926356	.0825710	.0408377	.1187389	3.706425
#2	.0393589	.0315093	3.939882	.0818647	.0408799	.1200092	3.669274
#3	.0393354	.0316799	3.925314	.0829387	.0411544	.1200817	3.719394

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0703325**	**1.133269**	**.1088627**	**.0173416**	**122.1280**	**.0594942**	**.2412943**
Stddev	.0004134	.015160	.0005941	.0001325	.4869	.0002181	.0009803
%RSD	.5877537	1.337706	.5457515	.7642076	.3986699	.3665939	.4062570
#1	.0707303	1.134389	.1082797	.0174919	122.4550	.0593335	.2408186
#2	.0699051	1.147838	.1088409	.0172416	121.5685	.0594066	.2406426
#3	.0703620	1.117580	.1094674	.0172914	122.3607	.0597425	.2424216

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.527699**	**.0791354**	**.0911414**	**.1428815**	**.0677367**	**5.028730**	**1.906188**
Stddev	.048174	.0010009	.0008534	.0008453	.0035411	.029840	.008574
%RSD	.8715094	1.264782	.9362987	.5916096	5.227671	.5933999	.4498016
#1	5.564511	.0789432	.0905912	.1424278	.0716817	5.048702	1.901038
#2	5.473176	.0782445	.0907085	.1423599	.0648330	4.994428	1.901440
#3	5.545410	.0802184	.0921244	.1438568	.0666955	5.043061	1.916086

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2417-02ADLX5 Acquired: 7/29/2025 17:41:49 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.953852	.0412818	.0618178
Stddev	.014465	.0007821	.0001075
%RSD	.7403140	1.894625	.1738751
#1	1.948974	.0421450	.0619029
#2	1.942457	.0406202	.0616970
#3	1.970125	.0410802	.0618535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4928.370	86340.99	8634.871	4071.110	6064.214
Stddev	20.123	230.37	25.032	10.104	23.102
%RSD	.4083122	.2668179	.2898963	.2481968	.3809555
#1	4946.958	86393.81	8663.631	4082.758	6079.350
#2	4931.153	86540.36	8617.990	4064.691	6075.670
#3	4907.001	86088.79	8622.993	4065.883	6037.623

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-02 Acquired: 7/29/2025 17:45:58 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007117**	**-.003193**	**.0059142**	**.0049496**	**.0000108**	**.0825827**	**.4264566**
Stddev	.003305	.001263	.0005372	.0017447	.0012769	.0058775	.0012160
%RSD	46.43596	39.55224	9.082955	35.24924	11766.11	7.117145	.2851318
#1	-.010077	-.001737	.0057029	.0041231	-.000362	.0834587	.4256862
#2	-.007722	-.003853	.0065249	.0069540	.001433	.0879731	.4278584
#3	-.003551	-.003990	.0055148	.0037718	-.001038	.0763164	.4258253

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000079**	**.0005131**	**64.73400**	**.0000412**	**-.000093**	**.0064594**	**.0059899**
Stddev	.000039	.0001273	.15038	.0004176	.000188	.0003950	.0051654
%RSD	50.23148	24.81826	.2323050	1012.775	203.0543	6.114826	86.23548
#1	-.000034	.0004420	64.63329	-.000436	-.000073	.0064456	.0000287
#2	-.000110	.0006601	64.90686	.000219	.000085	.0068611	.0091432
#3	-.000092	.0004371	64.66186	.000340	-.000290	.0060715	.0087977

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7946614**	**4.352857**	**.0038513**	**.0009954**	**295.4093**	**-.003516**	**.0869807**
Stddev	.0013579	.003729	.0002556	.0002717	1.6806	.003336	.0000310
%RSD	.1708746	.0856709	6.637543	27.29315	.5688998	94.89594	.0356899
#1	.7947257	4.348552	.0037541	.0008931	295.9586	.000190	.0869646
#2	.7959860	4.355072	.0041413	.0007897	296.7465	-.006280	.0870165
#3	.7932725	4.354948	.0036585	.0013033	293.5228	-.004457	.0869610

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.534623**	**.0497138**	**.0005969**	**-.003266**	**.0105338**	**1.328818**	**.0227383**
Stddev	.010001	.0006685	.0001856	.000848	.0009463	.005472	.0024282
%RSD	.6516618	1.344683	31.08704	25.96027	8.983360	.4117610	10.67870
#1	1.543141	.0489472	.0004151	-.002952	.0099045	1.330872	.0244554
#2	1.523612	.0500191	.0007860	-.002620	.0100748	1.332964	.0237993
#3	1.537117	.0501751	.0005894	-.004226	.0116221	1.322616	.0199602

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-02 Acquired: 7/29/2025 17:45:58 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4645358	-.003386	.1560113
Stddev	.0086647	.002525	.0005433
%RSD	1.865239	74.57559	.3482479
#1	.4744937	-.000507	.1563316
#2	.4587156	-.004429	.1563182
#3	.4603983	-.005224	.1553839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4783.813	82791.56	7287.489	3952.350	5721.443
Stddev	10.208	213.41	28.184	4.136	11.205
%RSD	.2133874	.2577712	.3867496	.1046385	.1958436
#1	4782.386	82764.08	7295.962	3948.658	5719.538
#2	4794.659	82593.22	7310.465	3956.819	5733.478
#3	4774.393	83017.38	7256.040	3951.573	5711.312

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-04 Acquired: 7/29/2025 17:50:23 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002203**	**-.001751**	**.0127011**	**.0040282**	**.0014847**	**.1126852**	**.4374984**
Stddev	.001763	.001313	.0005654	.0023463	.0027147	.0086525	.0002025
%RSD	80.00814	74.97848	4.451921	58.24652	182.8438	7.678483	.0462805
#1	-.000293	-.003089	.0123290	.0030597	.0004710	.1181347	.4375472
#2	-.003767	-.001701	.0124225	.0067037	.0045603	.1172126	.4372760
#3	-.002550	-.000464	.0133518	.0023212	-.000577	.1027083	.4376720

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001141**	**.0007504**	**43.65409**	**.0004731**	**.0008901**	**.0114694**	**.8709065**
Stddev	.0000589	.0001322	.16593	.0003663	.0001928	.0001217	.0036585
%RSD	51.63725	17.62092	.3800948	77.43064	21.66335	1.061069	.4200767
#1	.0000517	.0007161	43.68652	.0008666	.0009480	.0115540	.8704973
#2	.0001689	.0006387	43.80141	.0004105	.0010474	.0113299	.8747524
#3	.0001218	.0008964	43.47435	.0001421	.0006750	.0115242	.8674699

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8454699**	**4.913086**	**.0090480**	**.0010250**	**392.6156**	**-.001785**	**.1630658**
Stddev	.0025561	.012931	.0000503	.0004874	3.6973	.000736	.0011207
%RSD	.3023316	.2631906	.5554275	47.54960	.9417099	41.21646	.6872901
#1	.8483255	4.898209	.0090481	.0006293	394.7204	-.002449	.1621191
#2	.8446885	4.921624	.0089976	.0015695	394.7800	-.000994	.1627749
#3	.8433957	4.919425	.0090982	.0008763	388.3465	-.001910	.1643032

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9289406**	**.0490538**	**.0003924**	**-.002931**	**.0075503**	**1.062030**	**.0211434**
Stddev	.0492421	.0002410	.0003681	.000719	.0013566	.014188	.0008583
%RSD	5.300891	.4912635	93.80275	24.52224	17.96792	1.335892	4.059580
#1	.9727883	.0492599	-.000020	-.002250	.0088455	1.068359	.0211931
#2	.8756668	.0491125	.000689	-.002861	.0076659	1.045780	.0219757
#3	.9383666	.0487888	.000508	-.003683	.0061396	1.071953	.0202612

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2706-04 Acquired: 7/29/2025 17:50:23 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5973403	-.007465	.1446331
Stddev	.0024399	.003232	.0003162
%RSD	.4084545	43.29143	.2185936
#1	.5955851	-.004017	.1449948
#2	.6001264	-.007954	.1444096
#3	.5963095	-.010424	.1444948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4778.989	80913.88	8236.951	3918.674	5661.538
Stddev	1.499	90.72	56.632	9.764	5.418
%RSD	.0313578	.1121192	.6875343	.2491691	.0956980
#1	4778.914	80820.64	8233.772	3922.484	5658.130
#2	4780.524	81001.85	8181.976	3925.960	5667.785
#3	4777.530	80919.15	8295.105	3907.580	5658.698

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01 Acquired: 7/29/2025 17:54:48 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0430238**	**.0016295**	**.4250969**	**-.001820**	**-.006537**	**70.50659**	**.5845353**
Stddev	.0033057	.0015881	.0013878	.000650	.000536	.56630	.0053153
%RSD	7.683407	97.46210	.3264787	35.72997	8.192160	.8031920	.9093270
#1	.0392114	.0017753	.4266959	-.002565	-.006599	70.69290	.5883110
#2	.0447660	.0031396	.4243889	-.001521	-.005973	69.87060	.5784569
#3	.0450940	-.000027	.4242058	-.001373	-.007039	70.95626	.5868379

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078028**	**.0141338**	**55.81494**	**.1646671**	**.0940326**	**.4180996**	**185.4302**
Stddev	.0001061	.0002330	.32964	.0002440	.0006707	.0006860	.7706
%RSD	1.359095	1.648145	.5906009	.1482014	.7132351	.1640679	.4155735
#1	.0079252	.0140369	56.03955	.1644181	.0945241	.4178824	185.0517
#2	.0077434	.0143996	55.43650	.1649059	.0932686	.4175486	184.9221
#3	.0077397	.0139650	55.96876	.1646774	.0943053	.4188679	186.3169

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.121762**	**38.91859**	**.1857504**	**.0038720**	**5.266305**	**.2866577**	**.7805025**
Stddev	.020187	.31060	.0005091	.0001566	.012773	.0028824	.0013599
%RSD	.6466393	.7980865	.2740781	4.045229	.2425500	1.005518	.1742299
#1	3.128419	38.98542	.1857505	.0038159	5.260674	.2875016	.7820442
#2	3.099088	38.58001	.1852412	.0040489	5.257315	.2834475	.7799900
#3	3.137779	39.19033	.1862594	.0037511	5.280927	.2890239	.7794734

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.02855**	**-.038222**	**.0068293**	**.0300390**	**3.701803**	**4.653201**	**5.851409**
Stddev	.07267	.003336	.0002484	.0010629	.016830	.041056	.022713
%RSD	.5577895	8.729110	3.637465	3.538363	.4546324	.8823087	.3881694
#1	13.07914	-.041846	.0066035	.0310268	3.705661	4.619319	5.859814
#2	12.94528	-.037543	.0067890	.0301760	3.683380	4.641427	5.825691
#3	13.06124	-.035278	.0070954	.0289143	3.716369	4.698857	5.868722

Sample Name: Q2710-01 Acquired: 7/29/2025 17:54:48 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**3.988330**	**.1860536**	**.0570265**
Stddev	.025987	.0052452	.0014261
%RSD	.6515761	2.819197	2.500732
#1	3.973749	.1920857	.0582654
#2	3.972908	.1825663	.0554676
#3	4.018333	.1835086	.0573466

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5612.265**	**96426.77**	**8714.305**	**4673.450**	**5788.768**
Stddev	13.085	229.98	40.003	16.658	13.463
%RSD	.2331462	.2385054	.4590497	.3564494	.2325746
#1	5627.084	96635.62	8701.439	4670.390	5797.904
#2	5607.404	96464.39	8759.158	4691.426	5795.092
#3	5602.307	96180.29	8682.318	4658.533	5773.307

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01DUP Acquired: 7/29/2025 17:58:51 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0358565	.0040802	.5410219	.0000075	-.006827	68.65166	.5549671
Stddev	.0047425	.0017617	.0030772	.0030552	.002517	.06594	.0006366
%RSD	13.22644	43.17703	.5687827	40486.98	36.87239	.0960561	.1147065
#1	.0307488	.0029513	.5376906	-.003106	-.009630	68.72705	.5552664
#2	.0401207	.0061101	.5416171	.000128	-.006096	68.60472	.5542360
#3	.0367000	.0031790	.5437581	.003001	-.004757	68.62320	.5553988

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065199	.0134454	44.08322	.1462355	.0906658	.4536801	174.5283
Stddev	.0000314	.0001326	.10424	.0008681	.0001446	.0009602	.6422
%RSD	.4811853	.9863155	.2364637	.5936075	.1595142	.2116377	.3679461
#1	.0065545	.0134549	44.20333	.1454954	.0907872	.4545735	174.1067
#2	.0065118	.0133083	44.01636	.1471909	.0905058	.4526649	175.2674
#3	.0064933	.0135730	44.02998	.1460202	.0907044	.4538020	174.2108

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.649597	38.01120	.1663704	.0073465	4.937785	.2882087	.6826825
Stddev	.009880	.12156	.0002510	.0000705	.005030	.0017847	.0022349
%RSD	.2707264	.3197997	.1508505	.9599995	.1018588	.6192300	.3273739
#1	3.660901	38.14810	.1666126	.0073066	4.932885	.2897329	.6850432
#2	3.645286	37.91591	.1661114	.0074280	4.942934	.2886476	.6805993
#3	3.642605	37.96959	.1663871	.0073050	4.937535	.2862455	.6824049

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.61999	.1731636	.0050071	.0401451	3.991521	5.428921	5.798378
Stddev	.06528	.0036157	.0000653	.0006104	.017129	.050623	.009244
%RSD	.4793090	2.088019	1.303257	1.520454	.4291279	.9324630	.1594250
#1	13.56658	.1689994	.0049347	.0394473	4.009948	5.387487	5.791277
#2	13.69277	.1755062	.0050253	.0404080	3.988530	5.485346	5.795026
#3	13.60064	.1749852	.0050613	.0405799	3.976084	5.413931	5.808830

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01DUP Acquired: 7/29/2025 17:58:51 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**3.324573**	**.1763954**	**.0050114**
Stddev	.004726	.0028405	.0008148
%RSD	.1421652	1.610277	16.25833
#1	3.319338	.1731398	.0058561
#2	3.325855	.1783680	.0042303
#3	3.328526	.1776784	.0049478

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5694.921**	**98395.32**	**9412.796**	**4762.268**	**5831.764**
Stddev	10.685	463.60	48.455	12.810	5.486
%RSD	.1876193	.4711556	.5147787	.2689922	.0940642
#1	5682.740	98854.96	9414.460	4769.485	5826.212
#2	5702.711	98403.12	9460.398	4769.842	5837.181
#3	5699.311	97927.87	9363.531	4747.478	5831.897

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01LX5 Acquired: 7/29/2025 18:02:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072755**	**.0010636**	**.0847857**	**.0018854**	**-.002714**	**15.85714**	**.1322624**
Stddev	.0007630	.0008842	.0008934	.0016258	.002463	.02608	.0001297
%RSD	10.48764	83.12825	1.053709	86.23088	90.74494	.1644866	.0980772
#1	.0069403	.0001088	.0856304	.0000492	.000109	15.87468	.1323571
#2	.0081487	.0018540	.0838505	.0031418	-.003831	15.82717	.1323155
#3	.0067374	.0012281	.0848762	.0024651	-.004422	15.86959	.1321145

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017890**	**.0011529**	**12.62562**	**.0375725**	**.0182038**	**.0956021**	**45.39305**
Stddev	.0000195	.0001664	.06760	.0006173	.0003227	.0003725	.13668
%RSD	1.092489	14.43647	.5354080	1.642890	1.772594	.3896606	.3010995
#1	.0017671	.0011660	12.69839	.0381426	.0181477	.0960069	45.51675
#2	.0018047	.0013123	12.56477	.0376578	.0185508	.0955257	45.41608
#3	.0017951	.0009803	12.61371	.0369170	.0179128	.0952737	45.24632

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7123317**	**9.002709**	**.0366546**	**.0030160**	**1.323729**	**.0625198**	**.1764634**
Stddev	.0018554	.012342	.0006015	.0000579	.009609	.0024609	.0012199
%RSD	.2604674	.1370957	1.640879	1.919797	.7259077	3.936134	.6913268
#1	.7136735	9.010484	.0365109	.0030279	1.326267	.0632797	.1778216
#2	.7102144	8.988478	.0373149	.0030671	1.331814	.0645110	.1761078
#3	.7131073	9.009165	.0361380	.0029531	1.313106	.0597686	.1754608

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.069406**	**.0122063**	**.0011358**	**.0047528**	**.8597274**	**1.202070**	**1.137372**
Stddev	.017445	.0013213	.0001778	.0005155	.0040240	.016459	.003600
%RSD	.5683349	10.82454	15.65574	10.84611	.4680515	1.369247	.3165599
#1	3.049269	.0117558	.0011939	.0053253	.8626490	1.189041	1.141074
#2	3.079046	.0136939	.0009362	.0046078	.8551376	1.220567	1.133883
#3	3.079903	.0111691	.0012773	.0043254	.8613956	1.196601	1.137158

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01LX5 Acquired: 7/29/2025 18:02:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7822281	.0393840	.0091447
Stddev	.0058406	.0043302	.0002373
%RSD	.7466599	10.99492	2.595063
#1	.7884303	.0441628	.0090952
#2	.7814209	.0357205	.0089360
#3	.7768331	.0382687	.0094028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5253.766	89790.16	8659.149	4407.889	6312.878
Stddev	15.261	196.13	19.892	12.445	22.352
%RSD	.2904760	.2184362	.2297266	.2823263	.3540634
#1	5251.343	89685.92	8658.692	4393.764	6307.260
#2	5270.093	89668.15	8679.265	4412.665	6337.502
#3	5239.861	90016.40	8639.488	4417.239	6293.871

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01MS Acquired: 7/29/2025 18:07:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7263615**	**2.008498**	**1.413858**	**1.672002**	**.4161810**	**78.17299**	**.7771051**
Stddev	.0007020	.049646	.004094	.001683	.0017323	.10142	.0013030
%RSD	.0966402	2.471786	.2895413	.1006852	.4162409	.1297374	.1676757
#1	.7259186	2.015591	1.418069	1.671370	.4151165	78.18854	.7784843
#2	.7271708	2.054216	1.409893	1.670725	.4152466	78.26574	.7758947
#3	.7259950	1.955688	1.413611	1.673910	.4181799	78.06470	.7769364

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1855969**	**.1759943**	**66.51520**	**.4957307**	**.3098278**	**.7300992**	**186.9734**
Stddev	.0004535	.0004513	.11457	.0021617	.0004376	.0003111	1.2410
%RSD	.2443614	.2564391	.1722502	.4360569	.1412561	.0426162	.6637111
#1	.1853610	.1763010	66.64216	.4955680	.3101870	.7304522	188.0587
#2	.1861197	.1762059	66.48395	.4936550	.3099562	.7298646	185.6205
#3	.1853099	.1754761	66.41950	.4979691	.3093404	.7299809	187.2411

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.291469**	**50.78612**	**.7204997**	**.0784472**	**8.675850**	**.5786186**	**7.647658**
Stddev	.002747	.20557	.0014873	.0009149	.054120	.0046721	.009519
%RSD	.0834462	.4047744	.2064263	1.166218	.6237988	.8074597	.1244642
#1	3.294200	50.57571	.7215199	.0793647	8.726669	.5745010	7.652094
#2	3.288707	50.98648	.7211861	.0775350	8.618944	.5836961	7.636731
#3	3.291501	50.79616	.7187932	.0784419	8.681938	.5776588	7.654148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.89081**	**.7476798**	**.3805577**	**.7261920**	**4.711648**	**6.832932**	**10.90828**
Stddev	.17386	.0020950	.0002707	.0030648	.010757	.096073	.01800
%RSD	.7942192	.2802033	.0711451	.4220361	.2283116	1.406024	.1650257
#1	22.05944	.7491039	.3802464	.7291104	4.721468	6.917813	10.92845
#2	21.71215	.7452743	.3806881	.7264663	4.713327	6.852348	10.90253
#3	21.90083	.7486614	.3807386	.7229992	4.700151	6.728634	10.89385

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01MS Acquired: 7/29/2025 18:07:07 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**3.307119**	**.3517440**	**.2490130**
Stddev	.011842	.0033136	.0013123
%RSD	.3580672	.9420461	.5269901
#1	3.313047	.3480477	.2483268
#2	3.314826	.3544484	.2505261
#3	3.293484	.3527359	.2481860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5575.381**	**96356.76**	**9369.190**	**4612.193**	**5831.068**
Stddev	.692	345.33	35.802	6.267	8.009
%RSD	.0124115	.3583869	.3821249	.1358761	.1373531
#1	5576.000	96090.28	9396.986	4604.965	5823.570
#2	5574.634	96746.90	9328.791	4616.096	5830.129
#3	5575.510	96233.12	9381.794	4615.519	5839.505

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV05 Acquired: 7/29/2025 18:11:03 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.171926**	**5.168875**	**4.988344**	**5.250356**	**5.293614**	**10.21676**	**10.57215**
Stddev	.004625	.067583	.011792	.002086	.009581	.01075	.06650
%RSD	.0894278	1.307506	.2363910	.0397357	.1809878	.1052175	.6289916
#1	5.173412	5.098352	4.985020	5.250529	5.283472	10.22876	10.62520
#2	5.175625	5.233075	5.001442	5.252350	5.294858	10.21348	10.59370
#3	5.166740	5.175198	4.978571	5.248188	5.302512	10.20802	10.49755

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2649070**	**2.319425**	**26.79354**	**.9745738**	**2.541030**	**1.293558**	**5.287422**
Stddev	.0017784	.008539	.06041	.0005371	.005191	.001404	.044498
%RSD	.6713199	.3681371	.2254782	.0551143	.2042976	.1085205	.8415732
#1	.2630391	2.324315	26.73361	.9739647	2.540870	1.293271	5.281540
#2	.2651020	2.324395	26.85442	.9749797	2.546299	1.295083	5.334568
#3	.2665798	2.309566	26.79260	.9747769	2.535921	1.292320	5.246158

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.636660**	**25.04071**	**2.547413**	**1.307074**	**23.55986**	**2.548268**	**2.643298**
Stddev	.002279	.13499	.004678	.002800	.21035	.014130	.008696
%RSD	.0864466	.5390773	.1836566	.2141905	.8928359	.5545065	.3289651
#1	2.634970	24.89164	2.549321	1.307178	23.74369	2.547287	2.633834
#2	2.639252	25.15470	2.550836	1.309820	23.60544	2.562863	2.650936
#3	2.635759	25.07578	2.542082	1.304224	23.33046	2.534654	2.645123

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.33715**	**5.224000**	**5.266348**	**5.030360**	**5.091000**	**4.975407**	**4.980400**
Stddev	.22357	.031505	.006531	.013711	.006269	.044856	.010488
%RSD	.8488883	.6030749	.1240205	.2725611	.1231306	.9015514	.2105807
#1	26.50774	5.190863	5.259120	5.035188	5.083995	5.010697	4.984960
#2	26.41965	5.227568	5.271827	5.041003	5.096081	4.990594	4.987836
#3	26.08405	5.253569	5.268098	5.014888	5.092923	4.924929	4.968405

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCV05 Acquired: 7/29/2025 18:11:03 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.028386**	**4.953943**	**5.393887**
Stddev	.009137	.010226	.060898
%RSD	.1817061	.2064119	1.129023
#1	5.035116	4.963429	5.354144
#2	5.032057	4.955290	5.463998
#3	5.017984	4.943111	5.363520

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4992.711**	**84610.86**	**7947.969**	**4124.114**	**6003.910**
Stddev	7.237	247.75	47.900	5.539	8.775
%RSD	.1449506	.2928119	.6026651	.1343140	.1461596
#1	5000.977	84497.58	7997.927	4124.877	6010.382
#2	4987.515	84440.00	7943.545	4118.233	5993.922
#3	4989.642	84895.00	7902.435	4129.232	6007.426

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB05 Acquired: 7/29/2025 18:15:14 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001282**	**.0010494**	**.0010092**	**-.000354**	**-.000464**	**.0136636**	**.0014084**
Stddev	.001755	.0004978	.0013376	.002111	.001384	.0074571	.0003273
%RSD	136.8585	47.43694	132.5369	597.0414	298.1646	54.57619	23.23986
#1	-.003180	.0006064	.0009499	-.002748	.001104	.0072638	.0016315
#2	.000283	.0015880	.0023755	.001240	-.001515	.0218525	.0010327
#3	-.000950	.0009537	-.000298	.000447	-.000982	.0118745	.0015611

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000557**	**.0003164**	**.0143861**	**.0000721**	**.0002634**	**.0000938**	**.0005194**
Stddev	.0000604	.0000852	.0080287	.0001326	.0002207	.0001316	.0029331
%RSD	108.3652	26.94340	55.80846	183.9966	83.76674	140.3558	564.6833
#1	.0000041	.0003068	.0186835	.0000676	.0000156	.0002381	.0039043
#2	.0001222	.0004061	.0051234	-.000058	.0004387	-.000019	-.001072
#3	.0000410	.0002364	.0193514	.000207	.0003360	.000063	-.001274

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009813**	**.0083476**	**.0003861**	**.0011437**	**-.040959**	**-.003712**	**.0002311**
Stddev	.0003233	.0287380	.0001612	.0002354	.002865	.001131	.0001148
%RSD	32.94896	344.2644	41.75953	20.57921	6.995944	30.47144	49.66838
#1	.0011116	.0073819	.0002153	.0009622	-.041573	-.005002	.0000986
#2	.0006132	-.019895	.0005356	.0014096	-.043468	-.003243	.0002927
#3	.0012192	.037556	.0004074	.0010592	-.037836	-.002891	.0003018

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.036315**	**.0043334**	**.0012389**	**.0001470**	**.0107531**	**-.012064**	**-.000594**
Stddev	.008587	.0013940	.0002962	.0005558	.0005150	.003875	.000625
%RSD	23.64473	32.16891	23.90580	378.1018	4.789633	32.12126	105.2149
#1	-.046198	.0027586	.0015806	.0007763	.0106795	-.015370	-.001249
#2	-.030687	.0048323	.0010788	-.000058	.0102788	-.013023	-.000529
#3	-.032060	.0054093	.0010572	-.000277	.0113010	-.007800	-.000004

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB05 Acquired: 7/29/2025 18:15:14 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0015698	-.004697	.0005066
Stddev	.0010804	.002958	.0001023
%RSD	68.82563	62.97770	20.18924
#1	.0004374	-.001338	.0005980
#2	.0025895	-.005843	.0005256
#3	.0016826	-.006911	.0003961

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5257.723	90005.91	7947.169	4345.411	6752.719
Stddev	8.431	651.44	15.279	6.256	15.191
%RSD	.1603466	.7237780	.1922510	.1439738	.2249602
#1	5265.296	89615.31	7955.546	4350.012	6765.048
#2	5259.234	89644.47	7929.534	4338.287	6757.360
#3	5248.639	90757.94	7956.427	4347.932	6735.749

Sample Name: Q2710-01MSD Acquired: 7/29/2025 18:19:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7475058**	**2.013496**	**1.372655**	**1.718068**	**.4259905**	**76.16642**	**.7632661**
Stddev	.0033009	.013388	.002843	.006369	.0015173	.19322	.0022850
%RSD	.4415847	.6649211	.2071227	.3707197	.3561739	.2536824	.2993668
#1	.7440966	1.998384	1.375894	1.717378	.4247622	76.00645	.7607841
#2	.7477343	2.018229	1.371494	1.712071	.4255227	76.38110	.7652822
#3	.7506865	2.023874	1.370575	1.724754	.4276865	76.11172	.7637321

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1979550**	**.1811893**	**67.84237**	**.5063445**	**.3094578**	**.6929363**	**172.7456**
Stddev	.0022115	.0003946	.20193	.0025523	.0007809	.0015292	.6387
%RSD	1.117158	.2177985	.2976470	.5040711	.2523425	.2206798	.3697520
#1	.1955548	.1807369	67.61260	.5033982	.3094263	.6913056	173.1428
#2	.1999099	.1813678	67.99160	.5077524	.3086931	.6931654	172.0088
#3	.1984002	.1814631	67.92290	.5078828	.3102540	.6943381	173.0852

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.199889**	**44.51810**	**.7214249**	**.0779855**	**7.796440**	**.5449203**	**1.154364**
Stddev	.009353	.17395	.0018107	.0001495	.030686	.0023299	.006893
%RSD	.2922989	.3907460	.2509840	.1916633	.3935883	.4275615	.5970937
#1	3.190462	44.34649	.7208740	.0780575	7.811595	.5460733	1.149739
#2	3.209167	44.51350	.7199536	.0780853	7.761125	.5464488	1.162286
#3	3.200037	44.69431	.7234470	.0778137	7.816600	.5422387	1.151067

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.42919**	**.2958585**	**.3925941**	**.7412423**	**4.305204**	**5.768719**	**11.36691**
Stddev	.10235	.0028971	.0007422	.0014162	.008938	.172548	.02362
%RSD	.4563444	.9792175	.1890518	.1910520	.2075998	2.991092	.2078141
#1	22.33838	.2979417	.3919030	.7409051	4.299095	5.617412	11.33990
#2	22.40908	.2925501	.3925008	.7400251	4.315462	5.732112	11.37711
#3	22.54010	.2970836	.3933785	.7427966	4.301054	5.956633	11.38371

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01MSD Acquired: 7/29/2025 18:19:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.150789	.3509395	.2576289
Stddev	.016731	.0018064	.0015621
%RSD	.5310130	.5147260	.6063382
#1	3.147684	.3530187	.2560073
#2	3.135827	.3497561	.2591237
#3	3.168854	.3500437	.2577558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5470.476	95736.90	8959.698	4583.985	5751.199
Stddev	9.524	435.98	72.856	28.716	9.117
%RSD	.1741072	.4553903	.8131493	.6264376	.1585209
#1	5481.376	96201.77	9040.952	4609.023	5761.530
#2	5466.296	95671.82	8900.194	4552.640	5744.281
#3	5463.756	95337.13	8937.950	4590.293	5747.786

Sample Name: Q2710-01A Acquired: 7/29/2025 18:23:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7454222**	**1.901792**	**1.358871**	**1.725435**	**.7689099**	**70.98742**	**.7599489**
Stddev	.0006851	.061660	.001304	.006708	.0038109	.26198	.0024550
%RSD	.0919118	3.242199	.0959844	.3887719	.4956258	.3690487	.3230455
#1	.7460612	1.845648	1.357639	1.719202	.7672709	71.28918	.7617441
#2	.7455067	1.891944	1.358736	1.724570	.7661927	70.85499	.7609514
#3	.7446988	1.967783	1.360237	1.732534	.7732661	70.81810	.7571514

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1911993**	**.1754554**	**55.08533**	**.5047050**	**.2990845**	**.6699504**	**193.5657**
Stddev	.0006285	.0012241	.28683	.0015757	.0004105	.0009639	.0859
%RSD	.3287091	.6976701	.5206974	.3122090	.1372642	.1438710	.0443950
#1	.1917444	.1742035	55.24226	.5058527	.2986492	.6705382	193.4985
#2	.1913416	.1755130	55.25944	.5029084	.2991398	.6688381	193.6625
#3	.1905119	.1766496	54.75428	.5053538	.2994646	.6704751	193.5360

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.216302**	**39.60548**	**.6957736**	**.0779095**	**7.810677**	**.5500074**	**.9503339**
Stddev	.007686	.18293	.0013354	.0004593	.014495	.0008194	.0043838
%RSD	.2389740	.4618921	.1919266	.5895583	.1855730	.1489715	.4612885
#1	3.224999	39.81286	.6944396	.0774013	7.825996	.5504146	.9453013
#2	3.213484	39.53660	.6957708	.0780321	7.808854	.5490642	.9533215
#3	3.210423	39.46699	.6971104	.0782950	7.797180	.5505433	.9523791

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.58933**	**.2971592**	**.3991638**	**.7620814**	**3.832403**	**5.756083**	**11.29324**
Stddev	.06183	.0026211	.0011201	.0035554	.000170	.024504	.01956
%RSD	.2736926	.8820483	.2806007	.4665441	.0044404	.4257044	.1731594
#1	22.54114	.2952108	.3980983	.7592235	3.832216	5.741691	11.27958
#2	22.65904	.2961277	.3990618	.7609577	3.832549	5.742183	11.28450
#3	22.56781	.3001391	.4003314	.7660629	3.832444	5.784377	11.31564

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: Q2710-01A Acquired: 7/29/2025 18:23:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.805557	.3476916	.2355587
Stddev	.029095	.0034362	.0019138
%RSD	.7645286	.9882870	.8124672
#1	3.773208	.3479768	.2370843
#2	3.813879	.3509762	.2361804
#3	3.829584	.3441216	.2334113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5728.673	96472.44	9221.890	4677.511	5973.007
Stddev	5.057	66.21	27.149	23.174	6.739
%RSD	.0882694	.0686303	.2943951	.4954405	.1128274
#1	5726.351	96515.10	9193.453	4699.750	5979.261
#2	5734.474	96396.17	9224.682	4653.503	5973.890
#3	5725.194	96506.05	9247.535	4679.278	5965.870

Sample Name: CCV06 Acquired: 7/29/2025 18:31:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.135795**	**5.233562**	**4.953967**	**5.210410**	**5.268378**	**10.19791**
Stddev	.007187	.064695	.002790	.014240	.009044	.01797
%RSD	.1399365	1.236164	.0563184	.2733000	.1716594	.1761765
#1	5.132176	5.187488	4.950999	5.199121	5.263107	10.21670
#2	5.131138	5.205673	4.956537	5.226408	5.278821	10.19612
#3	5.144072	5.307524	4.954364	5.205700	5.263207	10.18090

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.69846**	F **.2965975**	**2.315306**	**27.46993**	**.9712002**	**2.525649**
Stddev	.11129	.0018437	.006681	.08468	.0011618	.001111
%RSD	1.040198	.6216095	.2885458	.3082554	.1196282	.0439750
#1	10.82097	.2987256	2.311048	27.54694	.9698616	2.525715
#2	10.60362	.2954823	2.311864	27.48359	.9717933	2.526725
#3	10.67079	.2955847	2.323006	27.37925	.9719459	2.524507

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.282112**	**4.786174**	**2.694468**	**25.24735**	**2.525420**	**1.304256**
Stddev	.000782	.022778	.003452	.07173	.001403	.002424
%RSD	.0609688	.4759063	.1281161	.2841092	.0555437	.1858327
#1	1.281237	4.759874	2.698374	25.30188	2.526857	1.306136
#2	1.282740	4.799538	2.693203	25.16609	2.525349	1.301520
#3	1.282359	4.799111	2.691827	25.27407	2.524055	1.305110

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **20.97512**	**2.588016**	**2.652071**	**24.56074**	F **5.838614**	**5.257025**
Stddev	.11394	.006160	.007614	.12718	.035721	.006915
%RSD	.5431976	.2380054	.2871081	.5178159	.6118135	.1315331
#1	20.84411	2.593639	2.649845	24.41733	5.879825	5.249242
#2	21.05107	2.588977	2.645817	24.60505	5.816503	5.262459
#3	21.03019	2.581433	2.660550	24.65983	5.819513	5.259375

Sample Name: CCV06 Acquired: 7/29/2025 18:31:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.008903**	**5.089590**	F **4.484519**	**5.030418**	**4.989133**	**4.976661**
Stddev	.004718	.008636	.023417	.029759	.017545	.006330
%RSD	.0941900	.1696721	.5221832	.5915714	.3516581	.1272029
#1	5.005198	5.098780	4.459632	5.059743	4.978006	4.975893
#2	5.007297	5.088348	4.506119	5.031267	4.980035	4.983340
#3	5.014214	5.081644	4.487806	5.000244	5.009358	4.970749

Elem	Sr4077
Units	ppm
Avg	F **5.545476**
Stddev	.020819
%RSD	.3754191
#1	5.562896
#2	5.522419
#3	5.551112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5057.150**	**84287.72**	**7076.828**	**4111.331**	**6088.792**
Stddev	3.252	138.68	43.207	8.733	4.349
%RSD	.0643046	.1645317	.6105400	.2124027	.0714311
#1	5055.972	84338.34	7027.994	4105.991	6085.773
#2	5060.826	84130.84	7092.396	4106.593	6093.778
#3	5054.650	84393.97	7110.093	4121.409	6086.827

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB06 Acquired: 7/29/2025 18:36:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001194**	**.0004010**	**.0004750**	**.0006738**	**.0002619**	**-.006915**	**.0004214**
Stddev	.000602	.0014042	.0007219	.0032960	.0005311	.003715	.0012148
%RSD	50.38747	350.2090	151.9975	489.1631	202.8150	53.71971	288.2893
#1	-.000995	.0015515	.0010717	-.002813	.0008450	-.011132	.0017414
#2	-.000717	-.001164	.0006807	.001095	-.000194	-.004125	-.000650
#3	-.001870	.000815	-.000327	.003739	.000135	-.005490	.000172

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000701**	**.0002707**	**.0193462**	**.0000464**	**.0002364**	**.0000978**	**-.000200**
Stddev	.0000376	.0000404	.0048568	.0001253	.0003708	.0004867	.002535
%RSD	53.65772	14.93745	25.10479	270.4414	156.8489	497.6447	1269.686
#1	.0001136	.0003152	.0185613	.0001348	.0006643	.0006347	.002445
#2	.0000478	.0002609	.0149296	.0001013	.0000083	-.000027	-.000436
#3	.0000489	.0002361	.0245476	-.000097	.0000367	-.000315	-.002608

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004308**	**.0178132**	**.0003177**	**.0009535**	**-.067805**	**-.003357**	**.0003627**
Stddev	.0004786	.0112417	.0000381	.0002841	.013224	.001117	.0002047
%RSD	111.0923	63.10847	11.99579	29.79952	19.50214	33.26182	56.45573
#1	.0009723	.0166905	.0003617	.0006263	-.052566	-.002087	.0005985
#2	.0002554	.0071751	.0002951	.0011378	-.074607	-.004184	.0002590
#3	.0000646	.0295742	.0002962	.0010964	-.076244	-.003800	.0002305

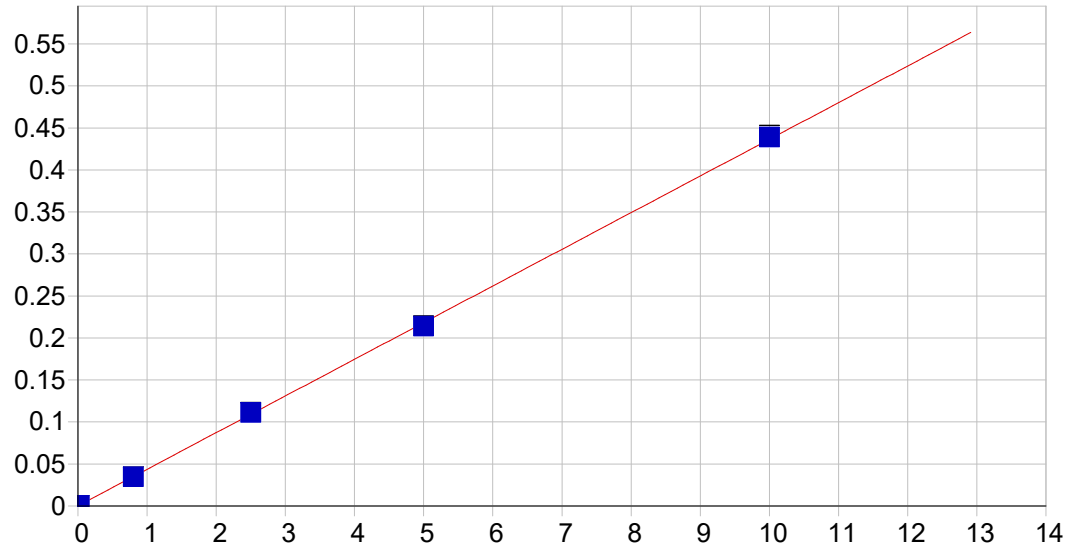
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.078514**	**.0054824**	**.0010117**	**.0001793**	**.0092044**	**-.004959**	**-.002495**
Stddev	.011223	.0003524	.0002423	.0004717	.0019547	.004328	.002314
%RSD	14.29429	6.428456	23.94715	263.1563	21.23652	87.27491	92.75464
#1	-.089192	.0058749	.0012778	-.000182	.0113801	-.007163	-.004066
#2	-.066816	.0053795	.0009534	.000713	.0075963	.000027	-.003581
#3	-.079535	.0051929	.0008039	.000007	.0086369	-.007742	.000162

Reviewed By:MOHAN
On:8/1/2025 5:25:28 PM
Inst Id :P4
LB :LB136648

Sample Name: CCB06 Acquired: 7/29/2025 18:36:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0017866	-.004996	.0006605
Stddev	.0020476	.001405	.0000701
%RSD	114.6089	28.11692	10.60967
#1	.0041322	-.006367	.0007414
#2	.0003556	-.005063	.0006178
#3	.0008721	-.003560	.0006222

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5245.998	89011.25	8304.180	4343.884	6718.282
Stddev	8.249	451.55	35.938	17.105	20.578
%RSD	.1572514	.5072908	.4327721	.3937722	.3062938
#1	5251.336	89528.45	8263.405	4356.153	6725.674
#2	5250.162	88809.86	8317.892	4351.155	6734.142
#3	5236.497	88695.44	8331.244	4324.345	6695.029

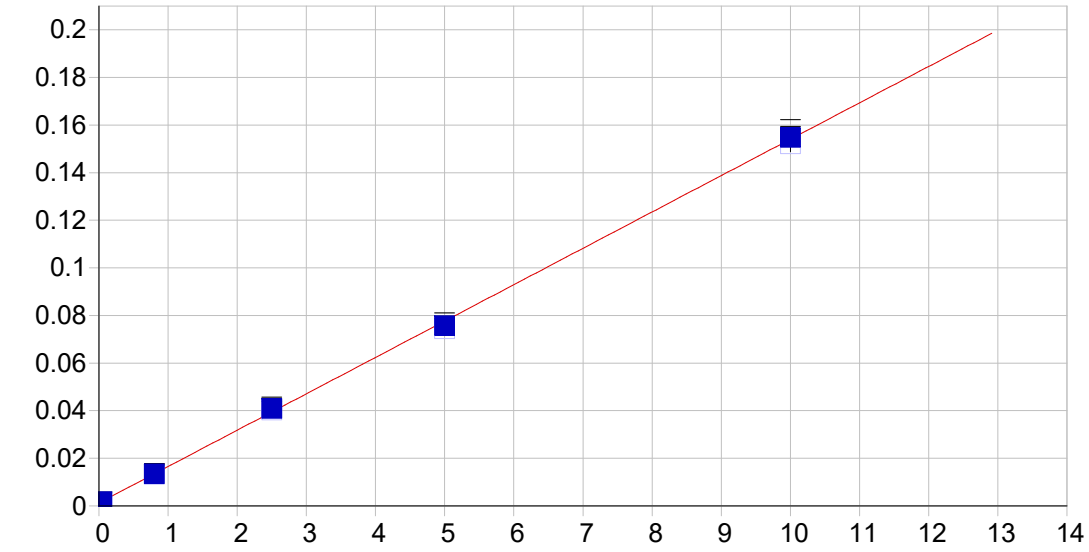


As 189.042 {479}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000060	Re-Slope:	1.000000
A1 (Gain):	0.043639	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999913	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.002865		
Predicted MQL:	0.009549		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00006	.000	1
S1	.02000	.01817	-.002	-9.15	.00085	.000	1
S3	2.5000	2.5437	.044	1.75	.11095	.000	1
S4	5.0000	4.9032	-.097	-1.94	.21380	.000	1
S5	10.000	10.059	.059	.589	.43855	.003	1
S2	.80000	.79597	-.004	-.504	.03476	.000	1

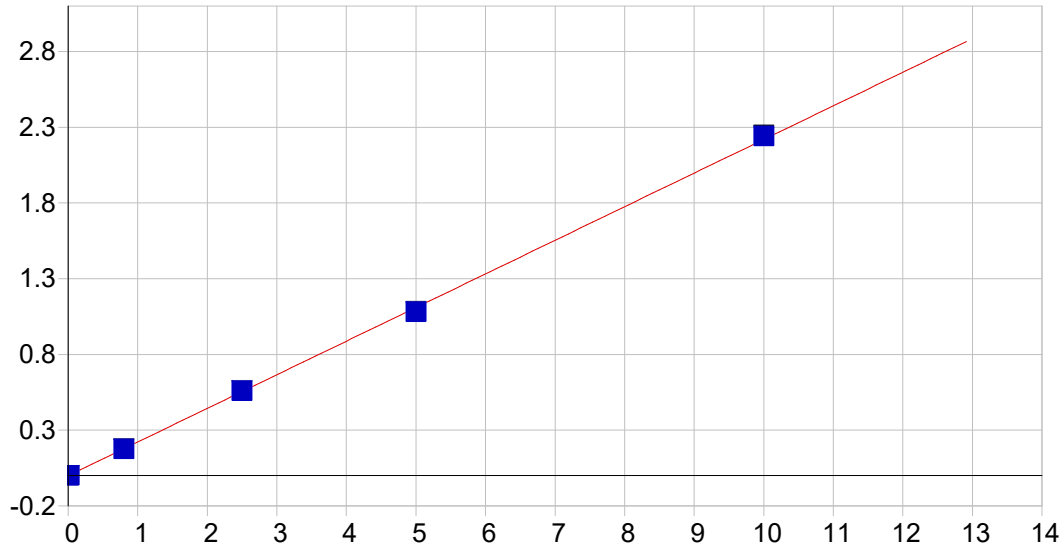


Tl 190.856 {477}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001260	Re-Slope:	1.000000
A1 (Gain):	0.015280	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.009387		
Predicted MQL:	0.031291		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00126	.000	1
S1	.04000	.03564	-.004	-10.9	.00177	.000	1
S3	2.5000	2.5963	.096	3.85	.04025	.001	1
S4	5.0000	4.8684	-.132	-2.63	.07429	.001	1
S5	10.000	10.046	.046	.459	.15205	.003	1
S2	.80000	.79353	-.006	-.809	.01317	.000	1

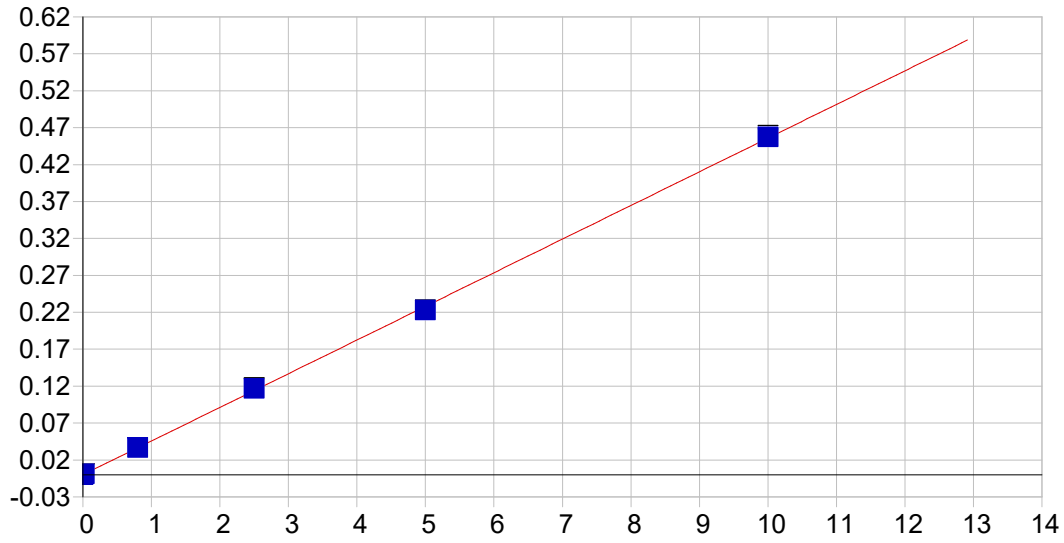


Pb 220.353 {453}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000158	Re-Slope:	1.000000
A1 (Gain):	0.221914	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000064		
Predicted MDL:	0.001424		
Predicted MQL:	0.004748		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.01200	.01275	.001	6.27	.00294	.000	1
S3	2.5000	2.5247	.025	.989	.55986	.001	1
S4	5.0000	4.8755	-.125	-2.49	1.0810	.003	1
S5	10.000	10.106	.106	1.06	2.2405	.006	1
S2	.80000	.79324	-.007	-.846	.17601	.000	1

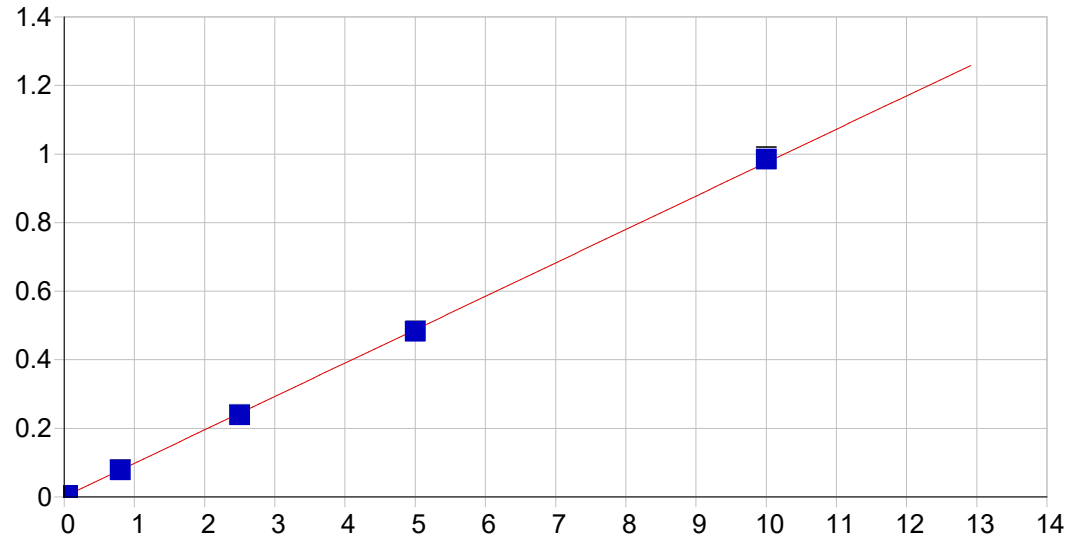


Se 196.090 {472}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000037	Re-Slope:	1.000000
A1 (Gain):	0.045581	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999844	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	0.003518		
Predicted MQL:	0.011725		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00004	.000	1
S1	.02000	.02500	.005	25.0	.00118	.000	1
S3	2.5000	2.5682	.068	2.73	.11707	.001	1
S4	5.0000	4.8891	-.111	-2.22	.22283	.000	1
S5	10.000	10.033	.033	.325	.45721	.002	1
S2	.80000	.80517	.005	.646	.03673	.000	1

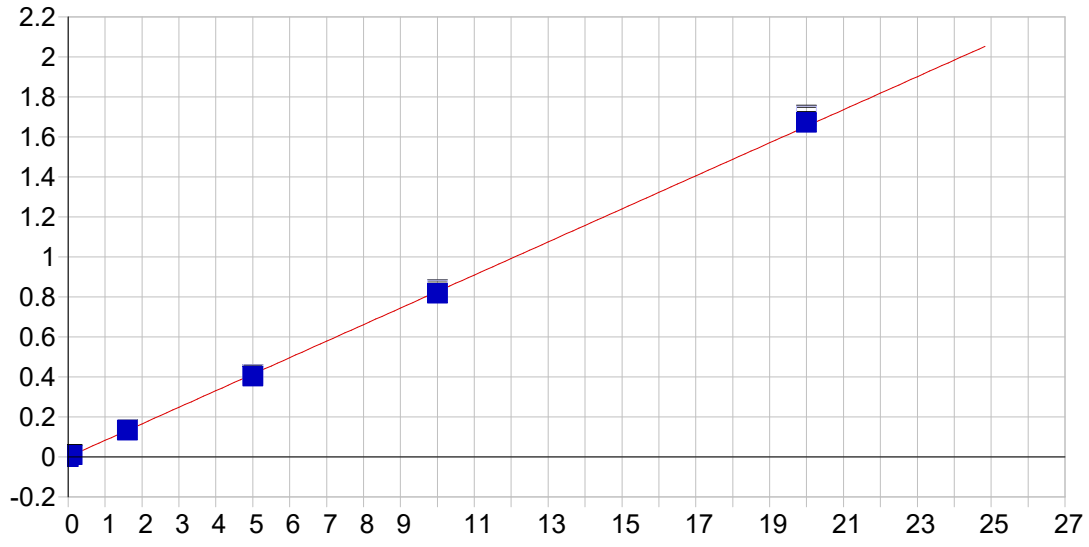


Sb 206.833 {463}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000592	Re-Slope:	1.000000
A1 (Gain):	0.097413	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000044		
Predicted MDL:	0.002174		
Predicted MQL:	0.007245		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00059	.000	1
S1	.05000	.05133	.001	2.66	.00560	.000	1
S3	2.5000	2.4483	-.052	-2.07	.23975	.001	1
S4	5.0000	4.9484	-.052	-1.03	.48395	.001	1
S5	10.000	10.106	.106	1.06	.98767	.005	1
S2	.80000	.79621	-.004	-.474	.07837	.000	1

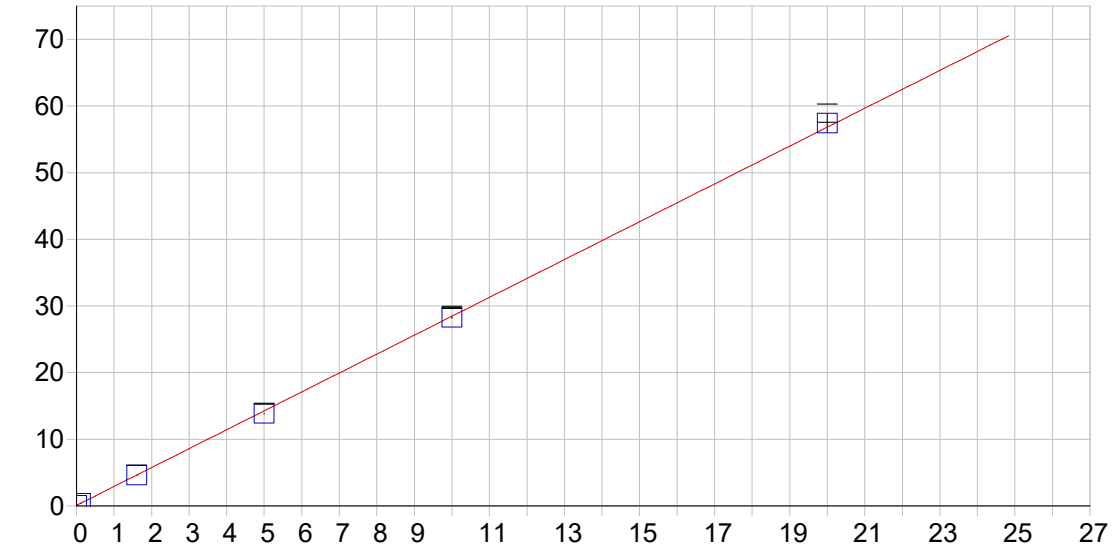


Al 396.152 { 85}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000225	Re-Slope:	1.000000
A1 (Gain):	0.082653	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000097		
Predicted MDL:	0.013335		
Predicted MQL:	0.044449		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00022	.000	1
S1	.10000	.11289	.013	12.9	.01020	.001	1
S3	5.0000	4.8680	-.132	-2.64	.41060	.001	1
S4	10.000	9.8819	-.118	-1.18	.83303	.002	1
S5	20.000	20.225	.225	1.12	1.7040	.005	1
S2	1.6000	1.6116	.012	.728	.13600	.001	1

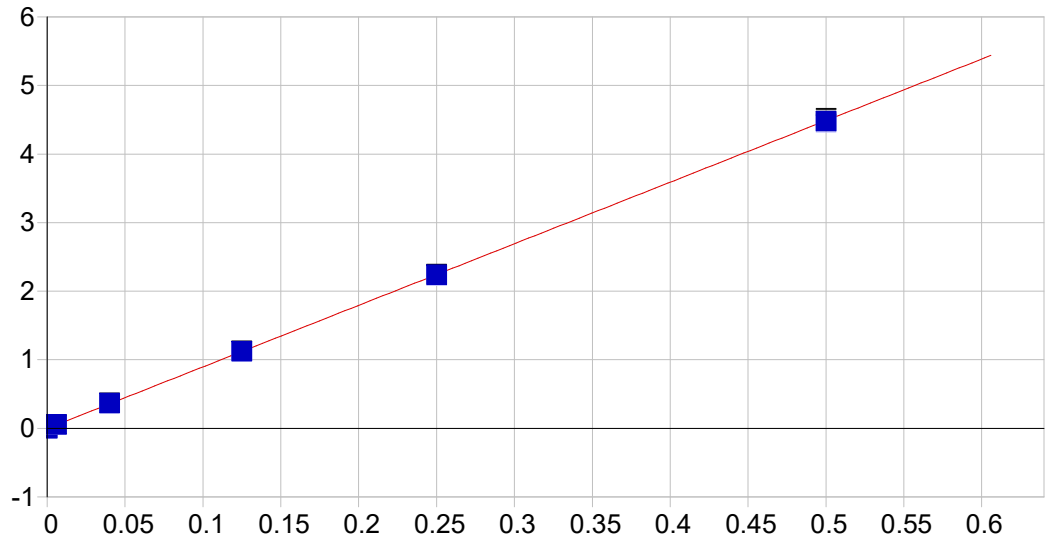


Ba 493.409 { 68}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.082847	Re-Slope:	1.000000
A1 (Gain):	2.837389	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	0.002897		
Predicted MDL:	0.000981		
Predicted MQL:	0.003272		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.08286	.001	1
S1	.10000	.09963	-.000	-.374	.36553	.002	1
S3	5.0000	4.8533	-.147	-2.93	13.853	.068	1
S4	10.000	9.9444	-.056	-.556	28.299	.177	1
S5	20.000	20.213	.213	1.07	57.435	1.36	1
S2	1.6000	1.5895	-.010	-.655	4.5929	.006	1

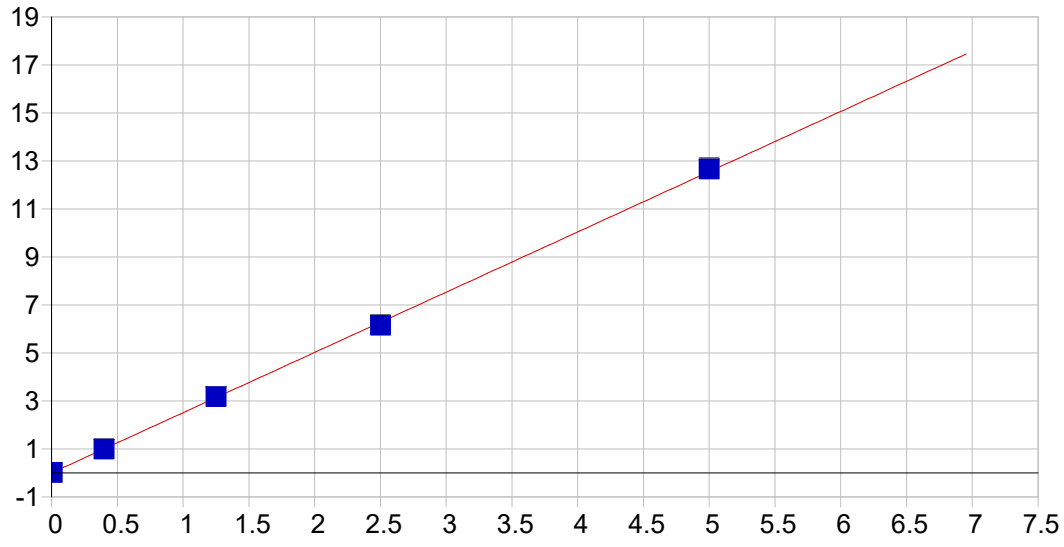


Be 234.861 {144}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001872	Re-Slope:	1.000000
A1 (Gain):	8.978343	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000187		
Predicted MDL:	0.000075		
Predicted MQL:	0.000251		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00188	.001	1
S1	.00600	.00632	.000	5.38	.05450	.000	1
S3	.12500	.12533	.000	.265	1.1184	.003	1
S4	.25000	.24935	-.001	-.259	2.2268	.012	1
S5	.50000	.49897	-.001	-.205	4.4580	.042	1
S2	.04000	.04102	.001	2.55	.36483	.002	1

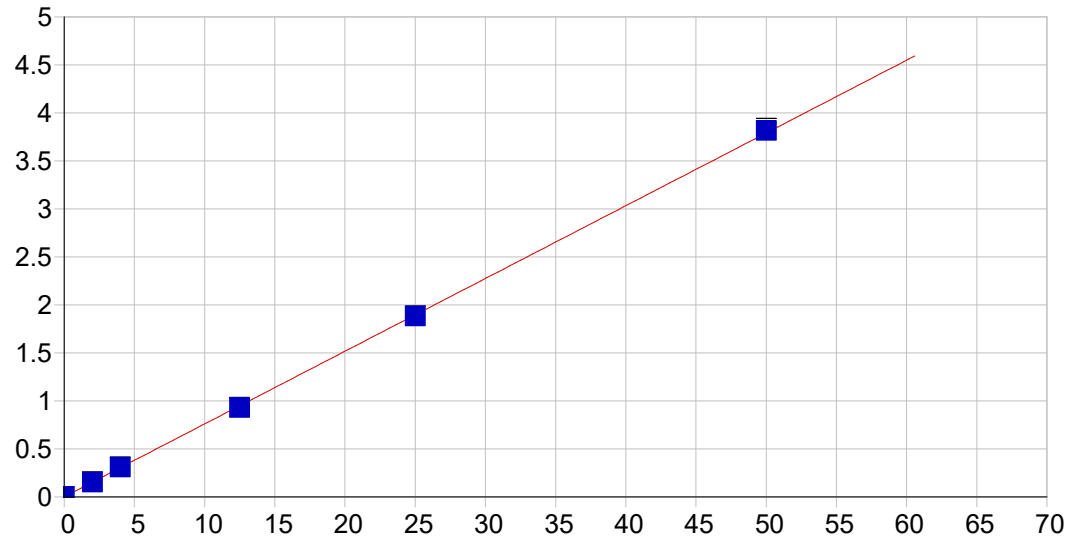


Cd 226.502 {449}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000741	Re-Slope:	1.000000
A1 (Gain):	2.510621	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000313		
Predicted MDL:	0.000100		
Predicted MQL:	0.000335		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00074	.000	1
S1	.00600	.00587	-.000	-2.18	.01404	.000	1
S3	1.2500	1.2660	.016	1.28	3.1799	.009	1
S4	2.5000	2.4481	-.052	-2.08	6.1496	.014	1
S5	5.0000	5.0420	.042	.840	12.666	.038	1
S2	.40000	.39400	-.006	-1.50	.98911	.001	1

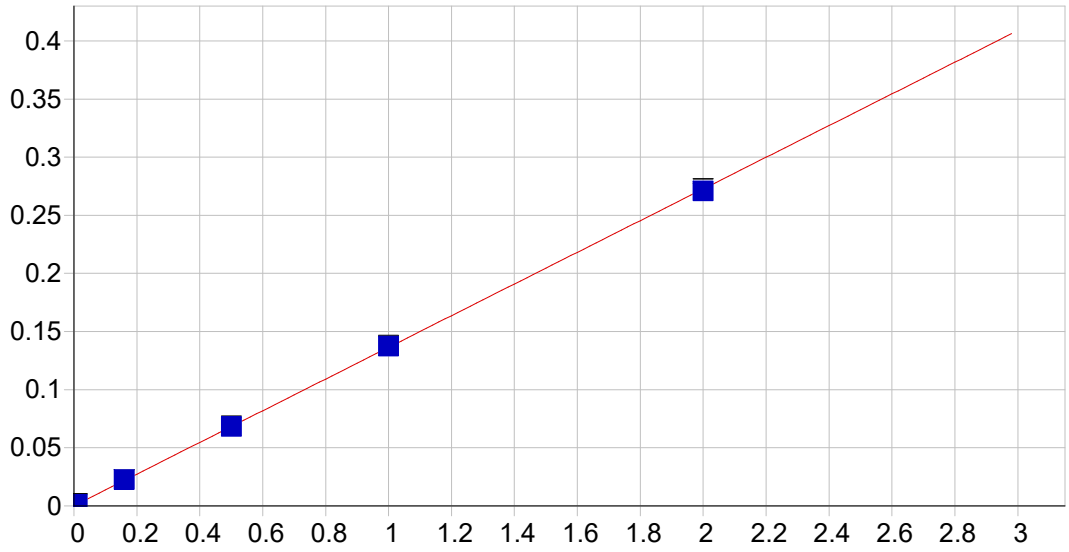


Ca 373.690 { 90}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002288	Re-Slope:	1.000000
A1 (Gain):	0.075770	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999948	Status:	OK.
Std Error of Est:	0.000410		
Predicted MDL:	0.012098		
Predicted MQL:	0.040328		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00229	.001	1
S2	4.0000	4.0640	.064	1.60	.31022	.001	1
S3	12.500	12.245	-.255	-2.04	.93009	.004	1
S4	25.000	24.834	-.166	-.665	1.8839	.004	1
S5	50.000	50.344	.344	.688	3.8168	.022	1
S1	2.0000	2.0131	.013	.656	.15482	.002	1

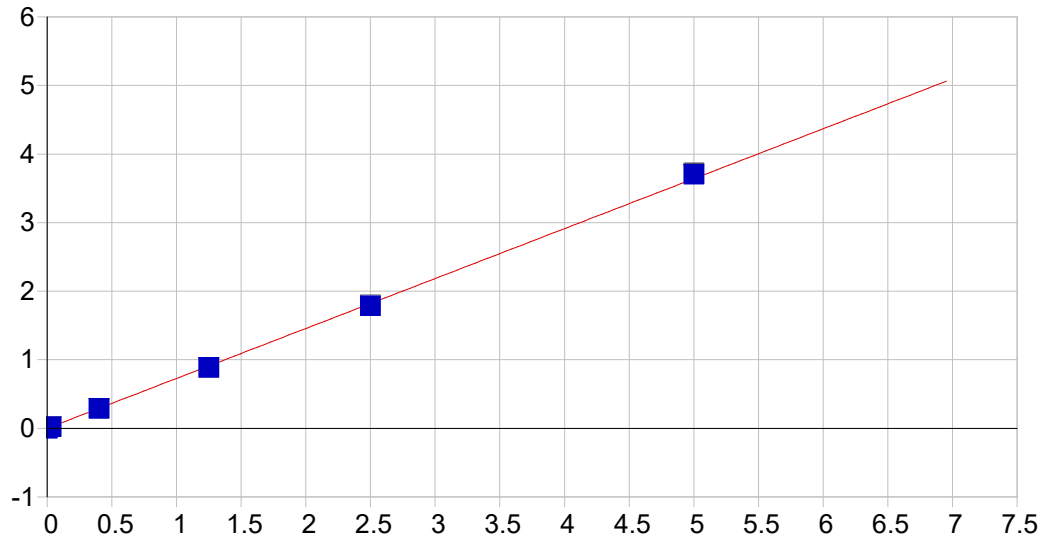


Cr 267.716 {126}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000127	Re-Slope:	1.000000
A1 (Gain):	0.136272	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.000540		
Predicted MQL:	0.001800		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00013	.000	1
S1	.01000	.01169	.002	16.9	.00172	.000	1
S3	.50000	.49962	-.000	-.077	.06824	.000	1
S4	1.0000	1.0069	.007	.691	.13740	.001	1
S5	2.0000	1.9869	-.013	-.657	.27099	.002	1
S2	.16000	.16493	.005	3.08	.02261	.000	1

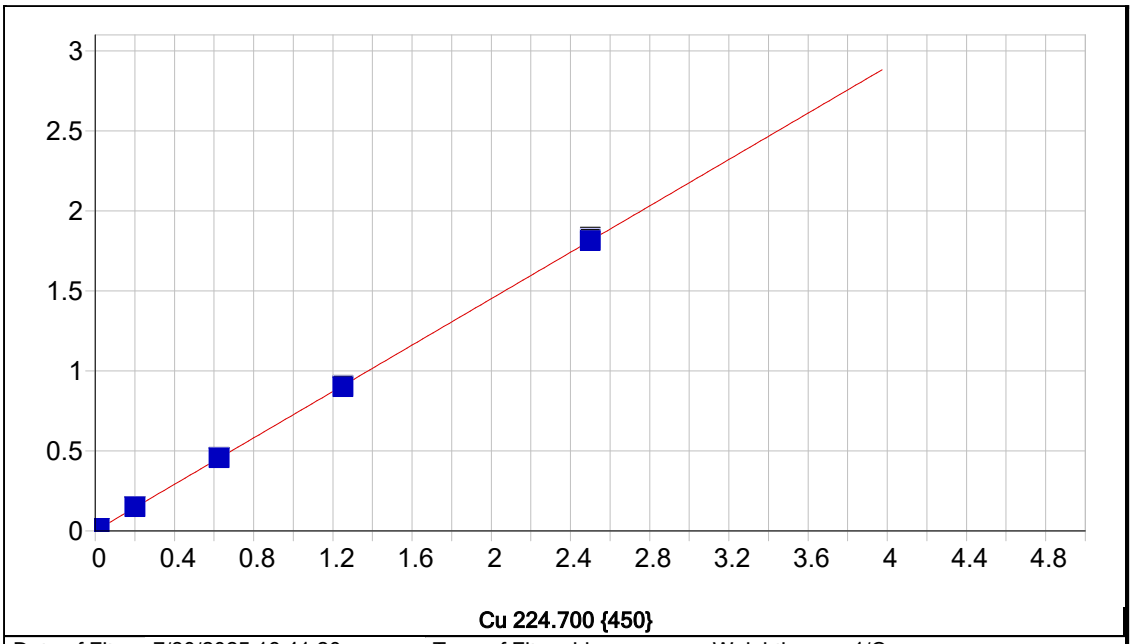


Co 228.616 {448}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000051	Re-Slope:	1.000000
A1 (Gain):	0.728098	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999812	Status:	OK.
Std Error of Est:	0.000287		
Predicted MDL:	0.000303		
Predicted MQL:	0.001009		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.03000	.03002	.000	.080	.02172	.000	1
S3	1.2500	1.2136	-.036	-2.91	.88510	.002	1
S4	2.5000	2.4557	-.044	-1.77	1.7910	.005	1
S5	5.0000	5.0870	.087	1.74	3.7099	.011	1
S2	.40000	.39375	-.006	-1.56	.28713	.001	1

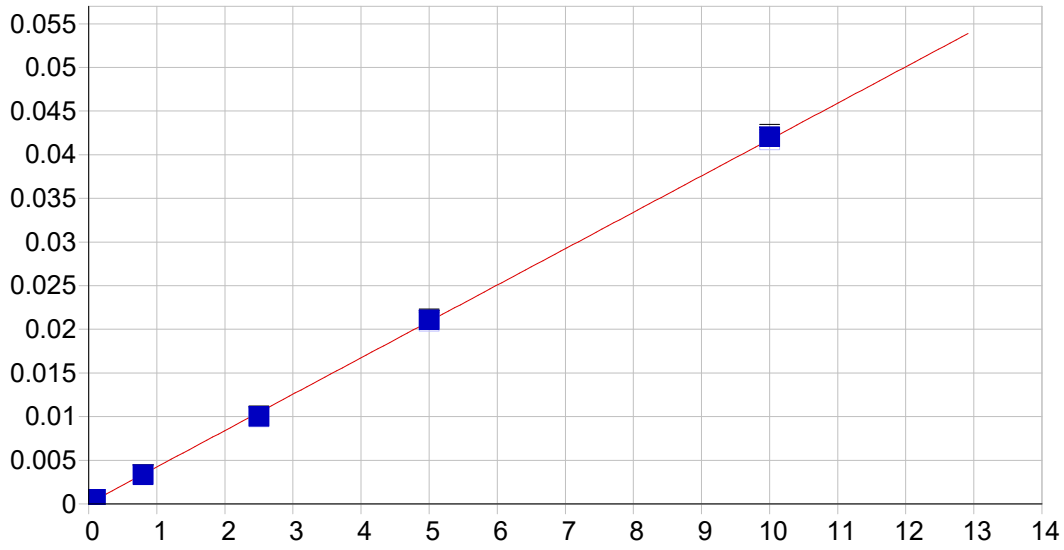


Cu 224.700 {450}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000964	Re-Slope:	1.000000
A1 (Gain):	0.725150	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	0.000445		
Predicted MQL:	0.001483		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00096	.000	1
S1	.02000	.02334	.003	16.7	.01805	.000	1
S3	.62500	.62737	.002	.379	.45968	.001	1
S4	1.2500	1.2394	-.011	-.851	.90724	.003	1
S5	2.5000	2.4990	-.001	-.040	1.8282	.007	1
S2	.20000	.20592	.006	2.96	.15149	.000	1

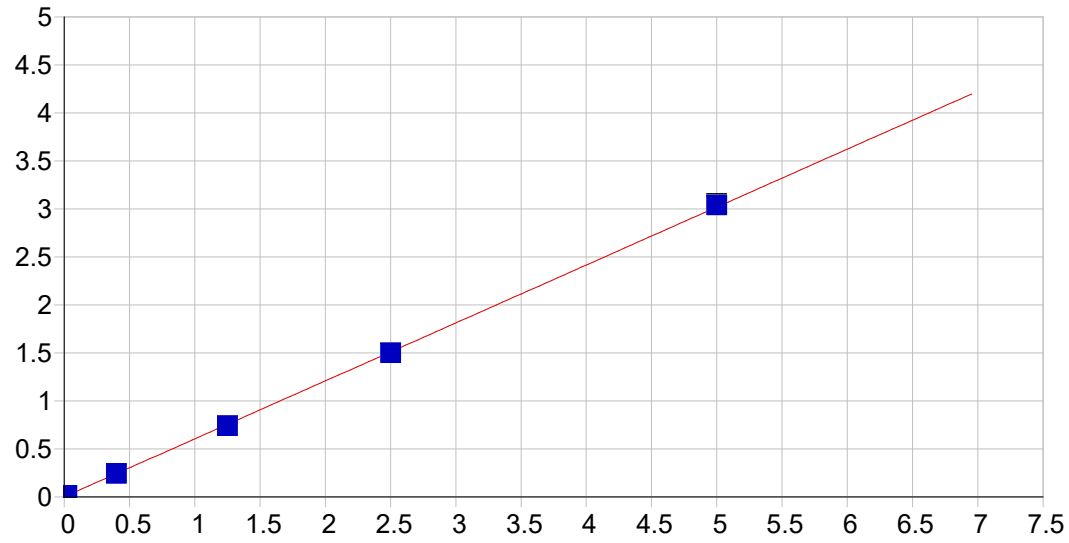


Fe 240.488 {140}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000063	Re-Slope:	1.000000
A1 (Gain):	0.004167	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999818	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.006609		
Predicted MQL:	0.022031		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.10000	.10574	.006	5.74	.00050	.000	1
S3	2.5000	2.3876	-.112	-4.49	.00992	.000	1
S4	5.0000	5.0448	.045	.896	.02091	.000	1
S5	10.000	10.075	.075	.754	.04169	.000	1
S2	.80000	.78645	-.014	-1.69	.00331	.000	1

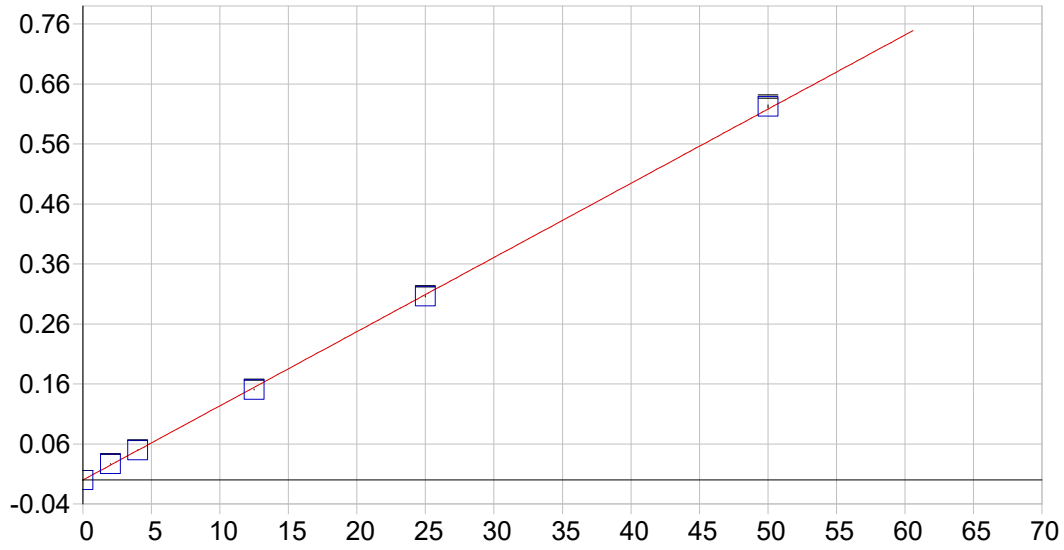


Mn 257.610 {131}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000965	Re-Slope:	1.000000
A1 (Gain):	0.603593	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999949	Status:	OK.
Std Error of Est:	0.000101		
Predicted MDL:	0.000572		
Predicted MQL:	0.001907		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00096	.000	1
S1	.02000	.02099	.001	4.93	.01364	.000	1
S3	1.2500	1.2242	-.026	-2.07	.74002	.003	1
S4	2.5000	2.4861	-.014	-.555	1.5019	.002	1
S5	5.0000	5.0361	.036	.723	3.0413	.011	1
S2	.40000	.40258	.003	.646	.24401	.001	1

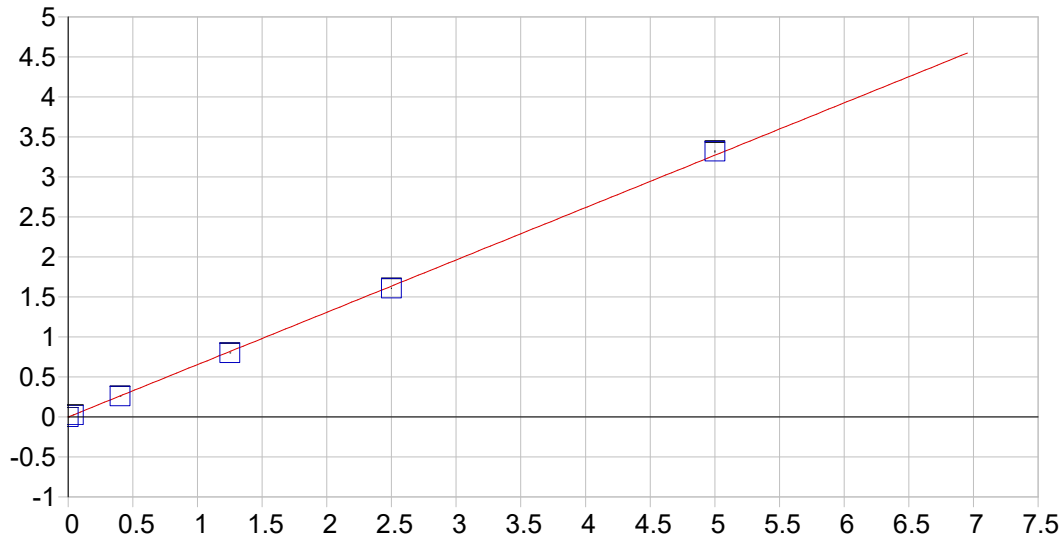


Mg 279.079 {121}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000142	Re-Slope:	1.000000
A1 (Gain):	0.012364	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999862	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.031836		
Predicted MQL:	0.106121		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00012	-.000	.000	-.00014	.000	1
S2	4.0000	4.0202	.020	.506	.04956	.000	1
S3	12.500	12.192	-.308	-2.47	.15059	.001	1
S4	25.000	24.772	-.228	-.911	.30613	.001	1
S5	50.000	50.351	.351	.701	.62237	.003	1
S1	2.0000	2.1649	.165	8.24	.02662	.000	1

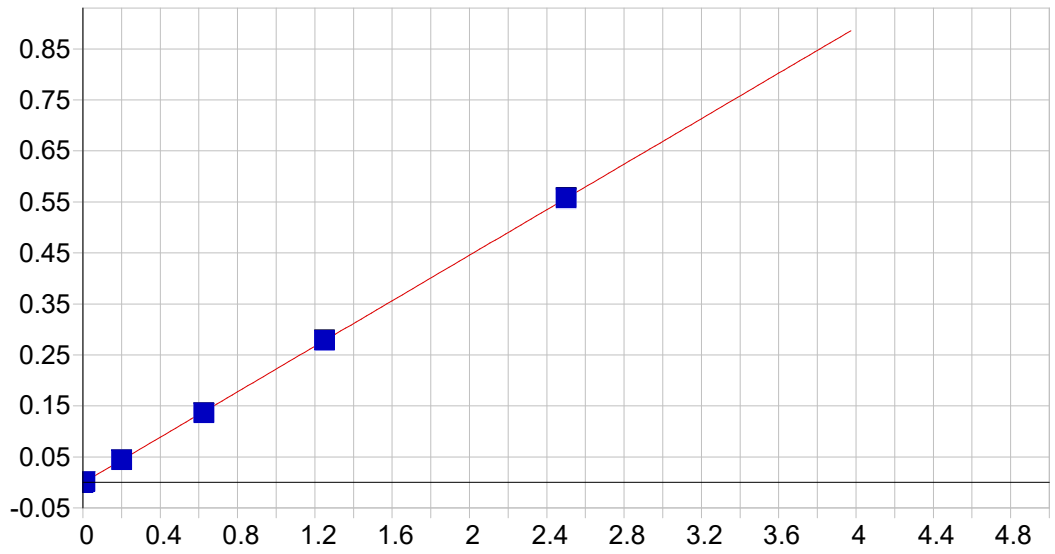


Ni 231.604 {446}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000572	Re-Slope:	1.000000
A1 (Gain):	0.654257	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000249		
Predicted MDL:	0.000390		
Predicted MQL:	0.001302		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00057	.000	1
S1	.04000	.04058	.001	1.45	.02598	.000	1
S3	1.2500	1.2218	-.028	-2.25	.79883	.001	1
S4	2.5000	2.4581	-.042	-1.68	1.6077	.005	1
S5	5.0000	5.0725	.072	1.45	3.3181	.011	1
S2	.40000	.39701	-.003	-.749	.25917	.000	1

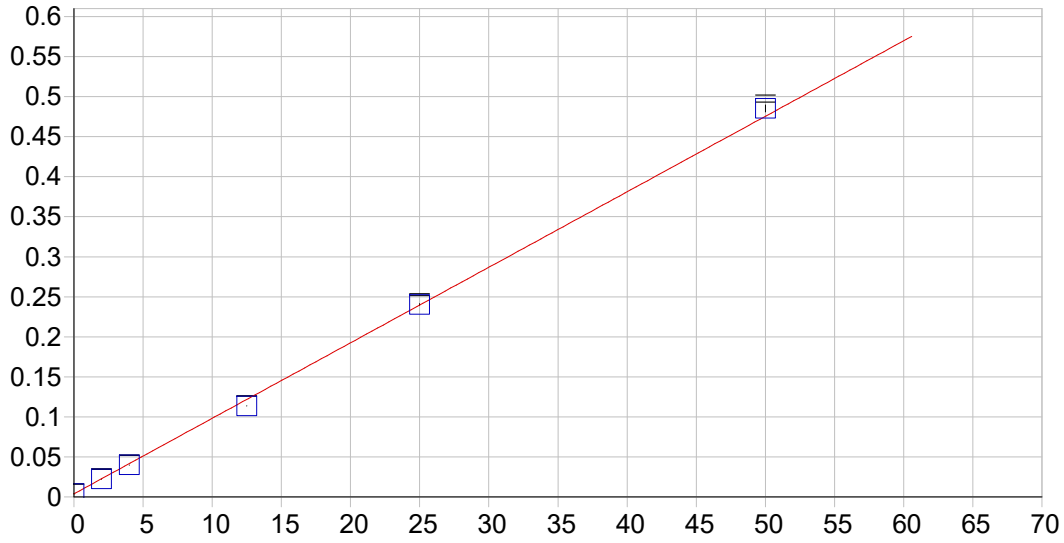


Ag 328.068 {103}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000818	Re-Slope:	1.000000
A1 (Gain):	0.223144	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000596		
Predicted MQL:	0.001988		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00082	.000	1
S1	.01000	.01082	.001	8.23	.00158	.000	1
S3	.62500	.61410	-.011	-1.74	.13554	.000	1
S4	1.2500	1.2543	.004	.340	.27771	.000	1
S5	2.5000	2.5045	.004	.178	.55533	.001	1
S2	.20000	.20137	.001	.686	.04390	.000	1

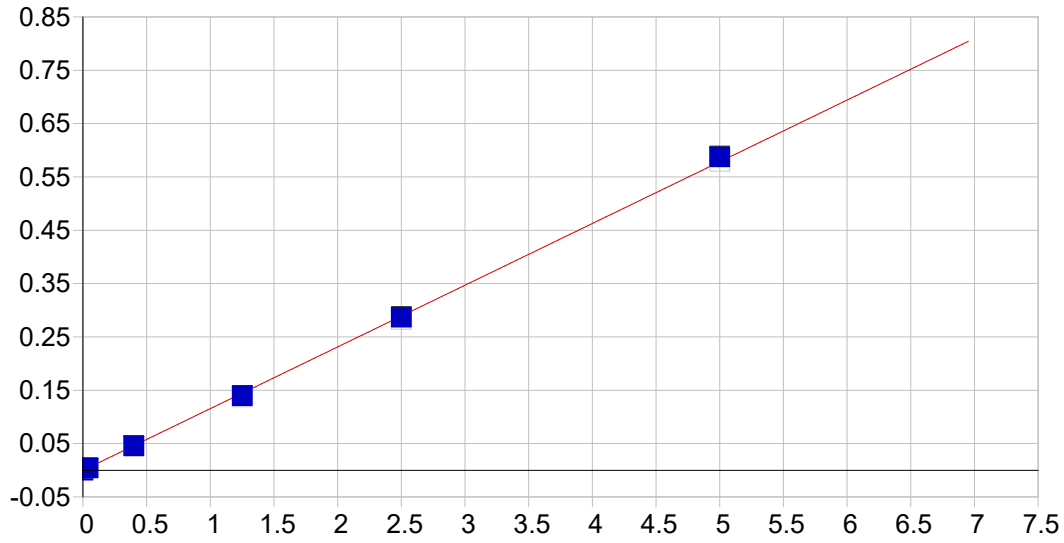


Na 589.592 { 57}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003875	Re-Slope:	1.000000
A1 (Gain):	0.009431	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999513	Status:	OK.
Std Error of Est:	0.000156		
Predicted MDL:	0.019345		
Predicted MQL:	0.064484		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00023	.000	.000	.00388	.000	1
S2	4.0000	3.8066	-.193	-4.83	.03978	.000	1
S3	12.500	11.645	-.855	-6.84	.11370	.000	1
S4	25.000	25.045	.045	.179	.24008	.001	1
S5	50.000	51.051	1.05	2.10	.48536	.004	1
S1	2.0000	1.9530	-.047	-2.35	.02229	.000	1

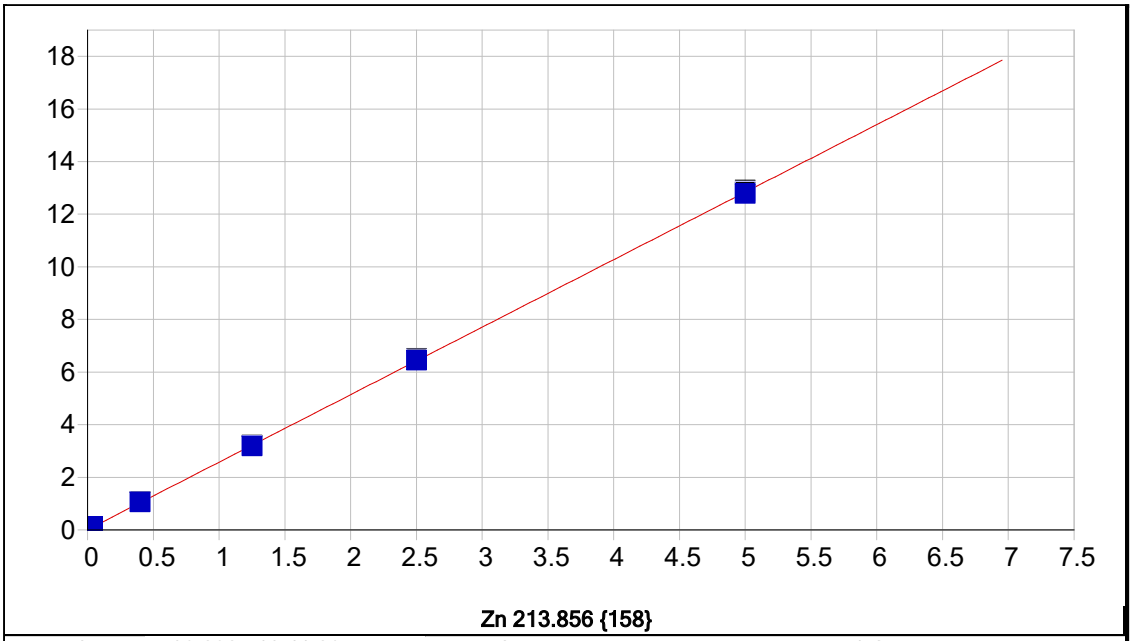


V 292.402 {115}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000041	Re-Slope:	1.000000
A1 (Gain):	0.115661	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999815	Status:	OK.
Std Error of Est:	0.000051		
Predicted MDL:	0.003722		
Predicted MQL:	0.012406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.000	1
S1	.04000	.03713	-.003	-7.17	.00408	.000	1
S3	1.2500	1.2061	-.044	-3.51	.13735	.000	1
S4	2.5000	2.4781	-.022	-.876	.28236	.001	1
S5	5.0000	5.0770	.077	1.54	.57874	.002	1
S2	.40000	.39154	-.008	-2.12	.04457	.001	1

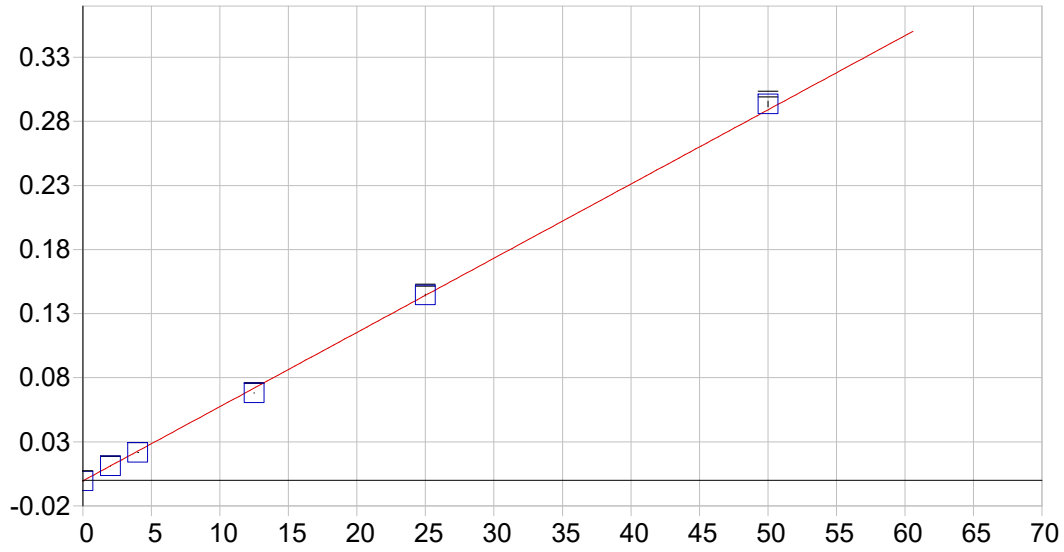


Zn 213.856 {158}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008020	Re-Slope:	1.000000
A1 (Gain):	2.566361	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999778	Status:	OK.
Std Error of Est:	0.001279		
Predicted MDL:	0.000248		
Predicted MQL:	0.000828		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00799	.000	1
S1	.04000	.05218	.012	30.4	.14264	.000	1
S3	1.2500	1.2395	-.011	-.842	3.2113	.011	1
S4	2.5000	2.5103	.010	.411	6.4949	.024	1
S5	5.0000	4.9788	-.021	-.423	12.875	.038	1
S2	.40000	.40925	.009	2.31	1.0654	.003	1

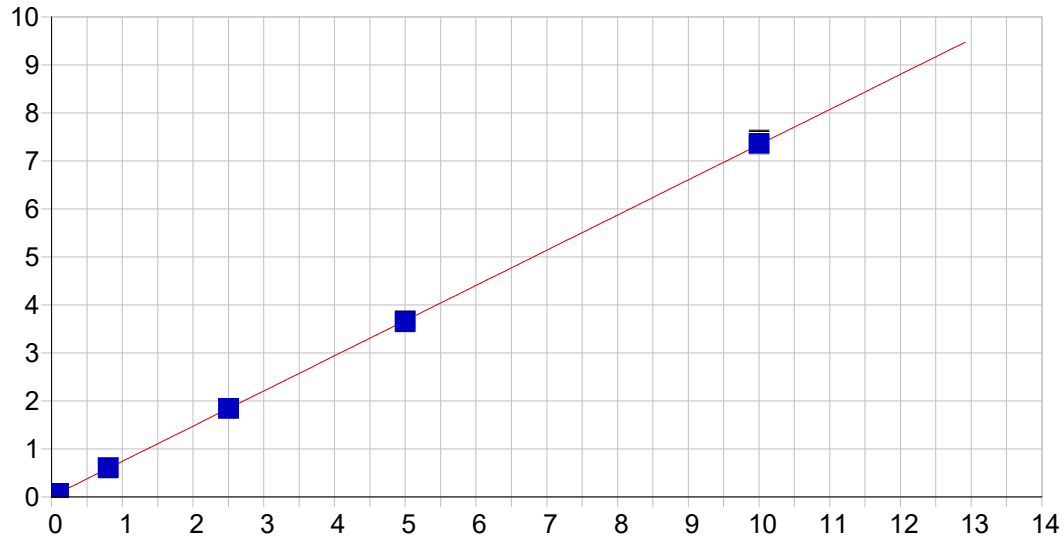


K 766.490 { 44}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000434	Re-Slope:	1.000000
A1 (Gain):	0.005789	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999699	Status:	OK.
Std Error of Est:	0.000075		
Predicted MDL:	0.038854		
Predicted MQL:	0.129513		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	-.00043	.000	1
S2	4.0000	3.8149	-.185	-4.63	.02165	.000	1
S3	12.500	11.841	-.659	-5.27	.06812	.000	1
S4	25.000	25.047	.047	.186	.14456	.001	1
S5	50.000	50.805	.805	1.61	.29368	.002	1
S1	2.0000	1.9925	-.007	-.374	.01110	.000	1

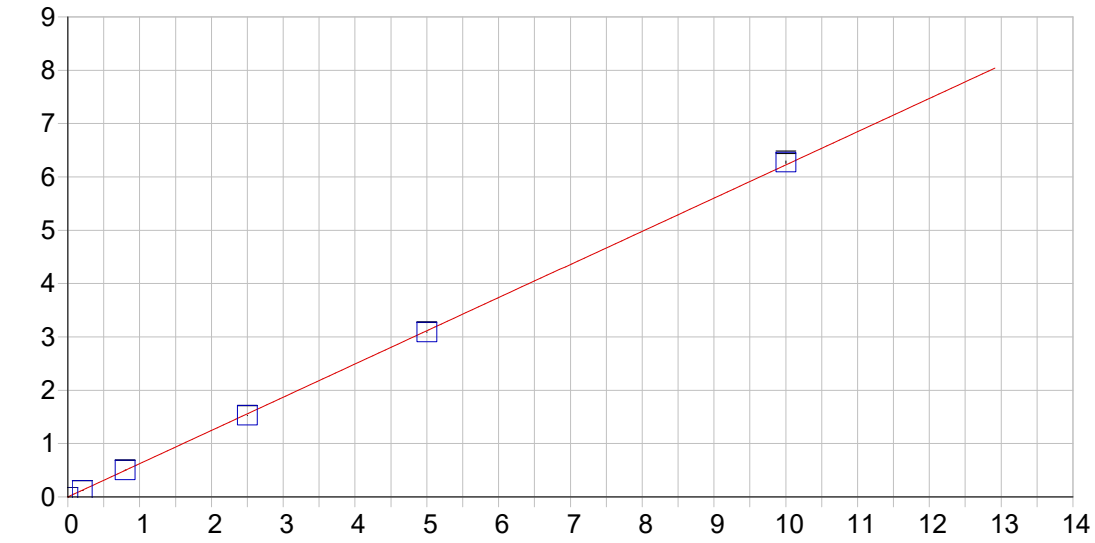


B 249.678 {135}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.009013	Re-Slope:	1.000000
A1 (Gain):	0.732853	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000190		
Predicted MDL:	0.000964		
Predicted MQL:	0.003214		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00901	.001	1
S1	.10000	.09771	-.002	-2.29	.08019	.001	1
S3	2.5000	2.4957	-.004	-.172	1.8314	.001	1
S4	5.0000	4.9680	-.032	-.640	3.6366	.020	1
S5	10.000	10.030	.030	.300	7.3331	.071	1
S2	.80000	.80858	.009	1.07	.59947	.003	1

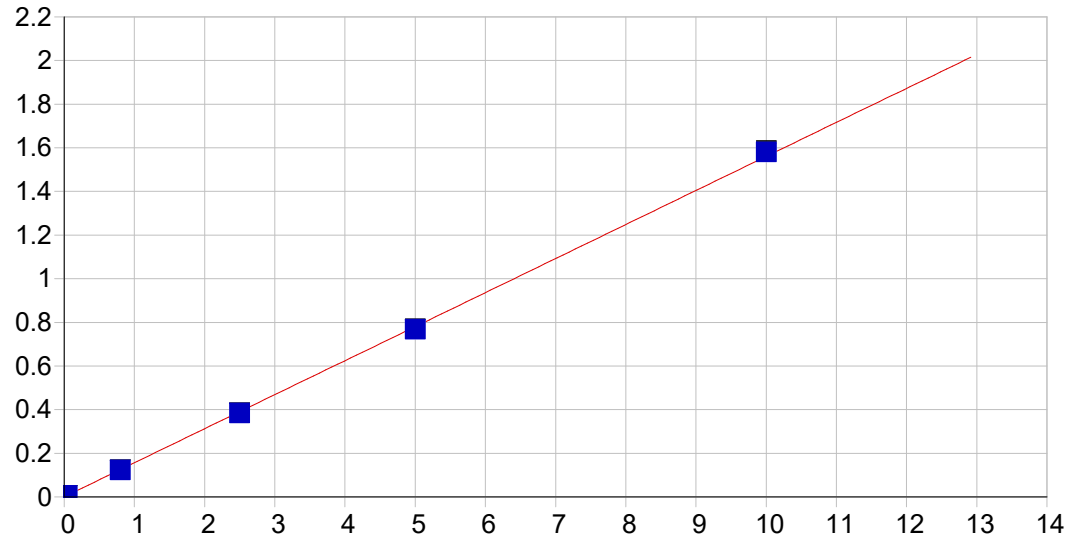


Mo 202.030 {467}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000423	Re-Slope:	1.000000
A1 (Gain):	0.622578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.000482		
Predicted MDL:	0.000312		
Predicted MQL:	0.001040		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00043	.000	1
S1	.20000	.19658	-.003	-1.71	.12281	.000	1
S3	2.5000	2.4521	-.048	-1.92	1.5271	.006	1
S4	5.0000	4.9621	-.038	-.758	3.0897	.005	1
S5	10.000	10.083	.083	.832	6.2780	.025	1
S2	.80000	.80597	.006	.747	.50220	.000	1

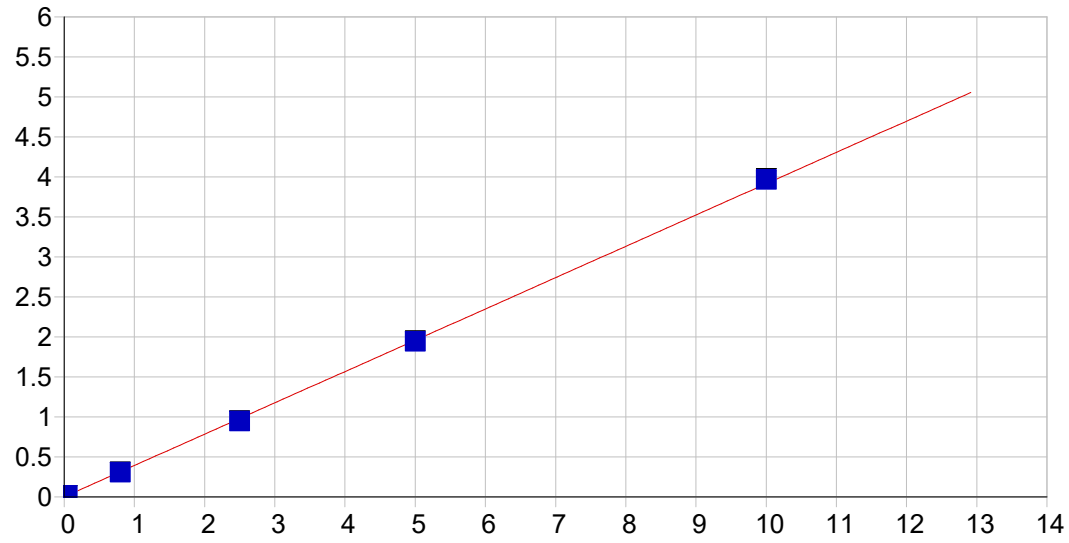


Sn 189.989 {478}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000536	Re-Slope:	1.000000
A1 (Gain):	0.155987	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000075		
Predicted MDL:	0.000726		
Predicted MQL:	0.002420		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00054	.000	1
S1	.04000	.03886	-.001	-2.85	.00659	.000	1
S3	2.5000	2.4585	-.041	-1.66	.38363	.001	1
S4	5.0000	4.9209	-.079	-1.58	.76733	.002	1
S5	10.000	10.131	.131	1.31	1.5793	.005	1
S2	.80000	.79034	-.010	-1.21	.12369	.000	1

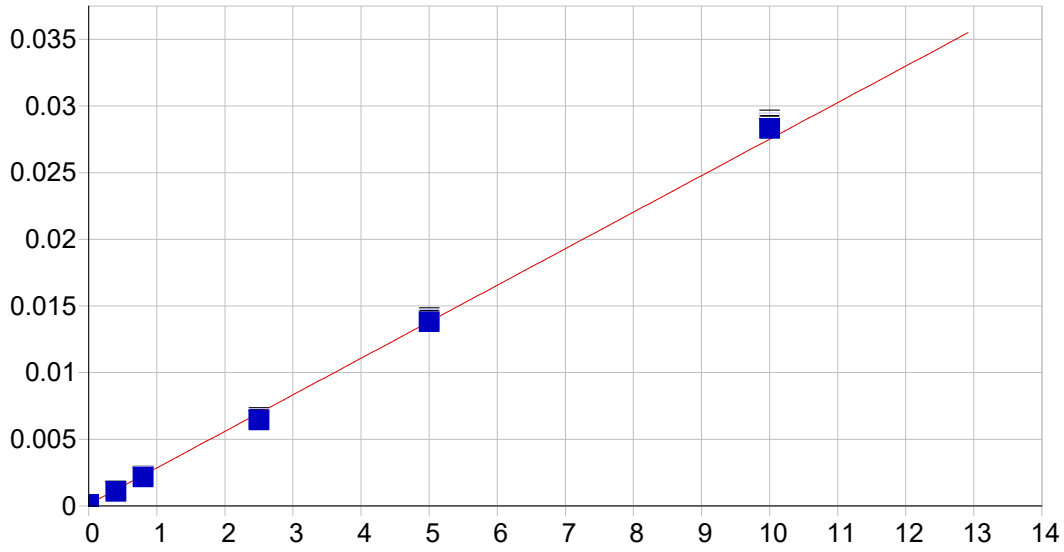


Ti 336.121 {100}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001406	Re-Slope:	1.000000
A1 (Gain):	0.391338	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000219		
Predicted MDL:	0.001699		
Predicted MQL:	0.005665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00141	.000	1
S1	.04000	.03798	-.002	-5.06	.01626	.000	1
S3	2.5000	2.4143	-.086	-3.43	.94587	.004	1
S4	5.0000	4.9670	-.033	-.660	1.9445	.005	1
S5	10.000	10.133	.133	1.33	3.9654	.014	1
S2	.80000	.78785	-.012	-1.52	.30961	.000	1

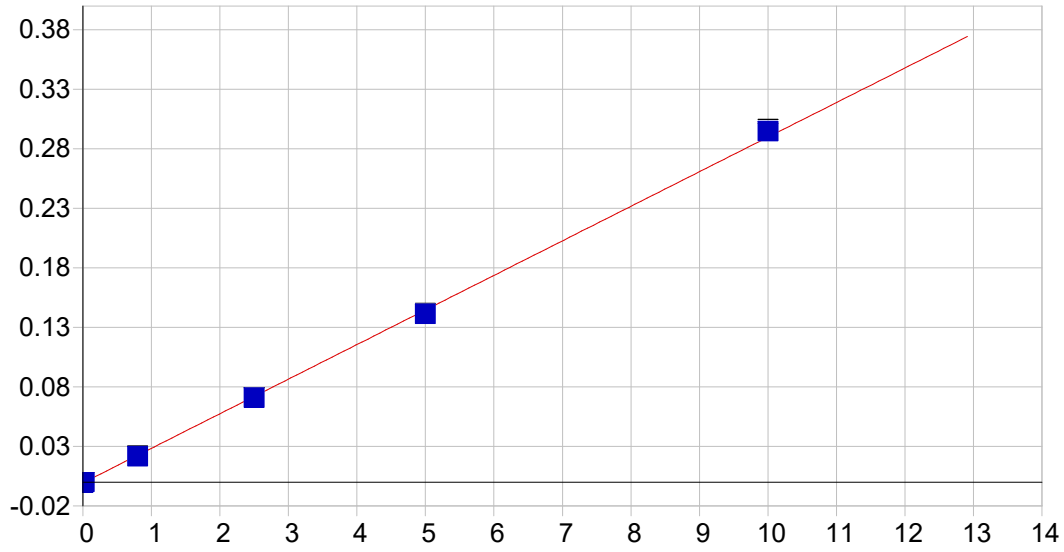


Si 288.158 {117}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000113	Re-Slope:	1.000000
A1 (Gain):	0.002740	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999178	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.015579		
Predicted MQL:	0.051930		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	.00011	.000	1
S1	.40000	.35270	-.047	-11.8	.00108	.000	1
S3	2.5000	2.3101	-.190	-7.60	.00655	.000	1
S4	5.0000	4.9951	-.005	-.098	.01401	.000	1
S5	10.000	10.292	.292	2.92	.02873	.000	1
S2	.80000	.74988	-.050	-6.27	.00220	.000	1

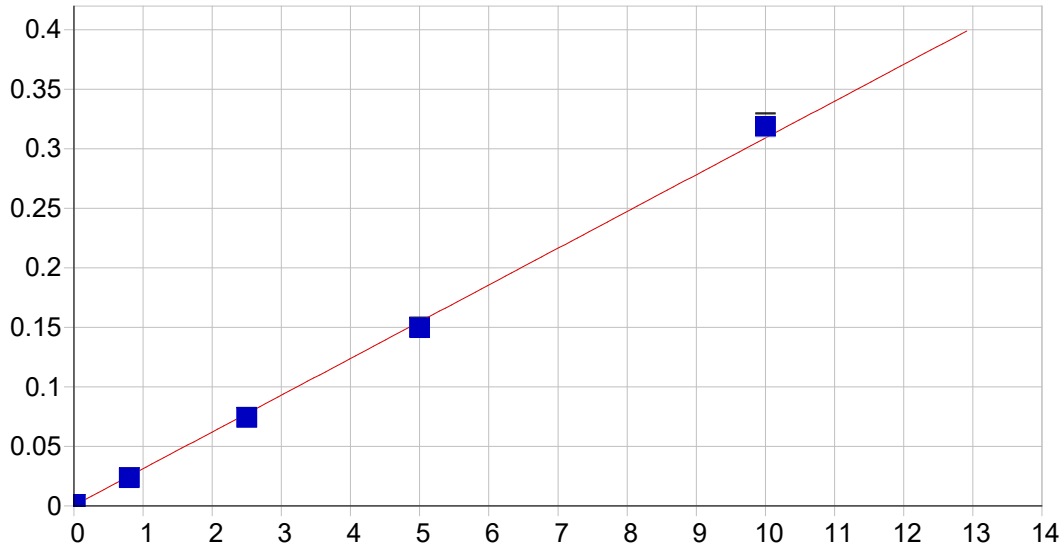


P 177.495 {490}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000633	Re-Slope:	1.000000
A1 (Gain):	0.029051	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999781	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.002869		
Predicted MQL:	0.009565		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00063	.000	1
S1	.02000	.02458	.005	22.9	.00008	.000	1
S3	2.5000	2.4633	-.037	-1.47	.07092	.000	1
S4	5.0000	4.8907	-.109	-2.19	.14142	.001	1
S5	10.000	10.171	.171	1.71	.29480	.002	1
S2	.80000	.77028	-.030	-3.71	.02174	.000	1

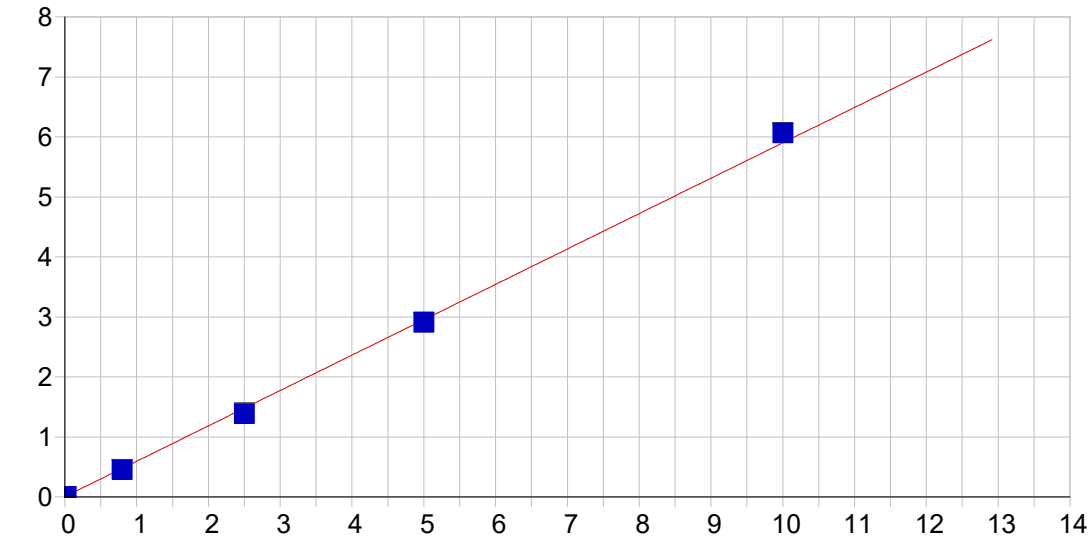


S 182.034 {485}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000390	Re-Slope:	1.000000
A1 (Gain):	0.030876	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999328	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.003292		
Predicted MQL:	0.010974		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00039	.000	1
S1	.02000	.02476	.005	23.8	.00113	.000	1
S3	2.5000	2.3883	-.112	-4.47	.07393	.000	1
S4	5.0000	4.8395	-.161	-3.21	.14941	.001	1
S5	10.000	10.318	.318	3.18	.31816	.003	1
S2	.80000	.74985	-.050	-6.27	.02348	.000	1

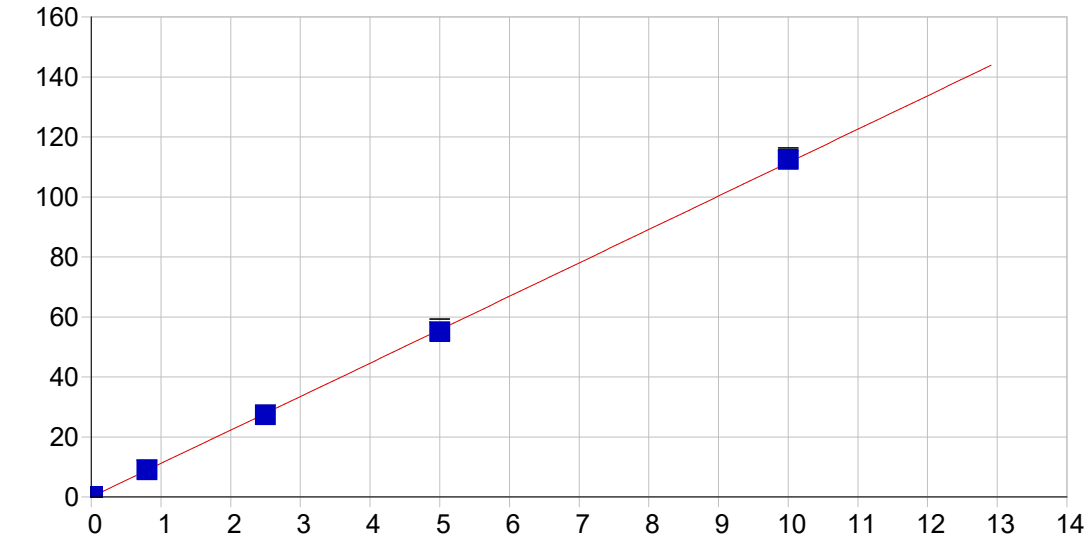


Li 670.784 { 50}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004816	Re-Slope:	1.000000
A1 (Gain):	0.589683	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999448	Status:	OK.
Std Error of Est:	0.000460		
Predicted MDL:	0.003878		
Predicted MQL:	0.012927		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00482	.000	1
S5	10.000	10.273	.273	2.73	6.0654	.008	1
S4	5.0000	4.9201	-.080	-1.60	2.9076	.005	1
S3	2.5000	2.3459	-.154	-6.16	1.3889	.008	1
S1	.02000	.01688	-.003	-15.6	.01496	.001	1
S2	.80000	.76452	-.035	-4.43	.45588	.002	1

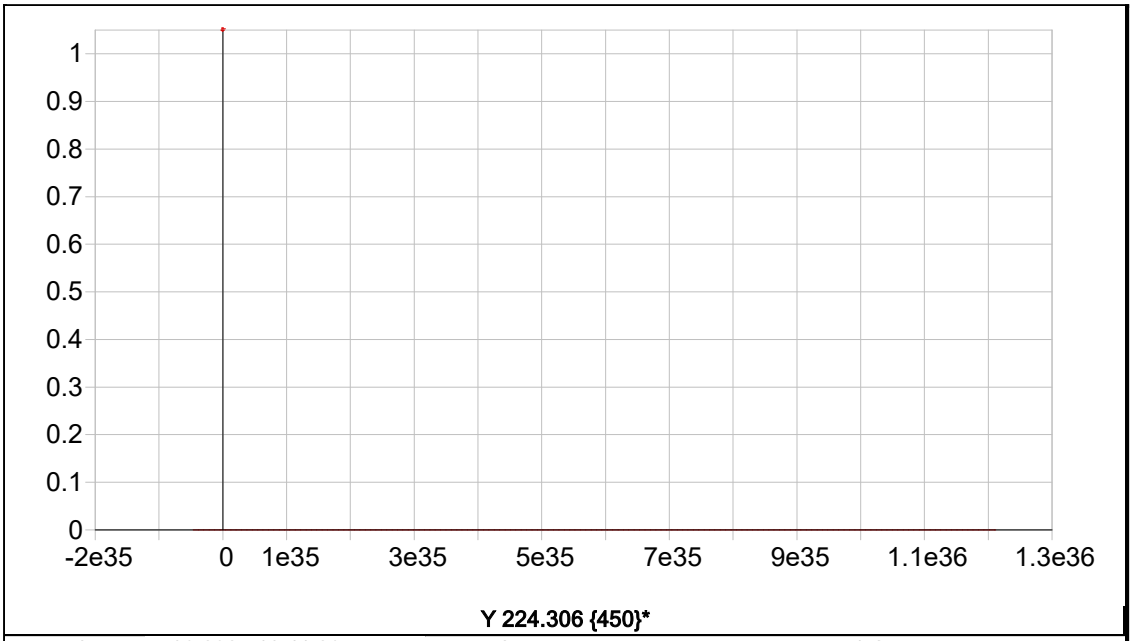


Sr 407.771 { 83}

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001722	Re-Slope:	1.000000
A1 (Gain):	11.141837	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999933	Status:	OK.
Std Error of Est:	0.003024		
Predicted MDL:	0.000105		
Predicted MQL:	0.000349		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00171	.001	1
S1	.02000	.02125	.001	6.25	.23956	.001	1
S3	2.5000	2.4549	-.045	-1.80	27.381	.072	1
S4	5.0000	4.9437	-.056	-1.13	55.137	.870	1
S5	10.000	10.094	.094	.944	112.58	.504	1
S2	.80000	.80579	.006	.724	8.9883	.006	1

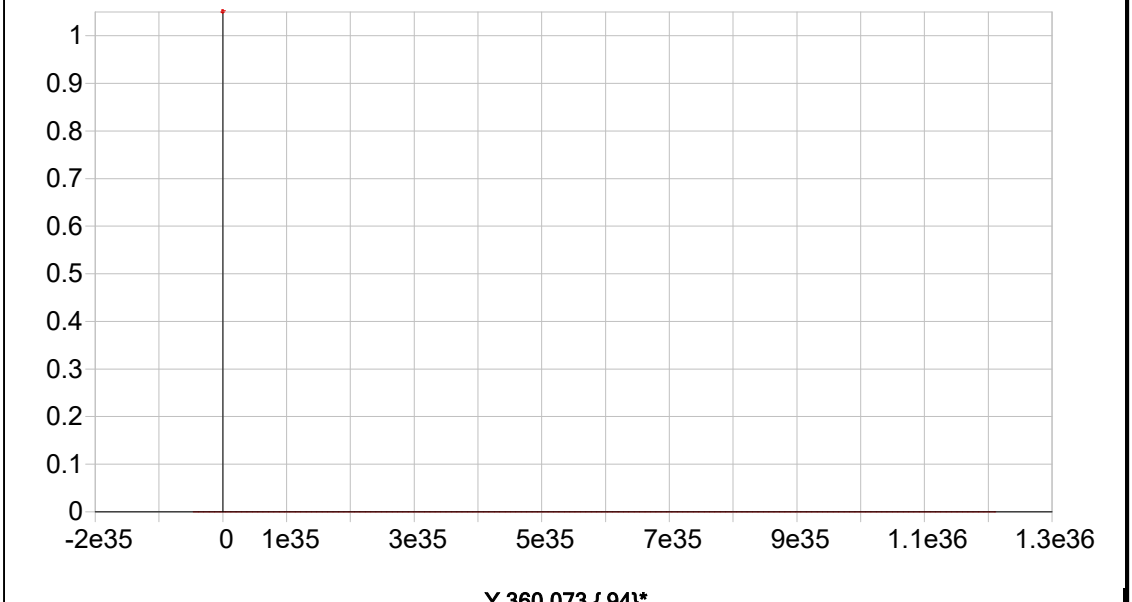


Y 224.306 {450}*

Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

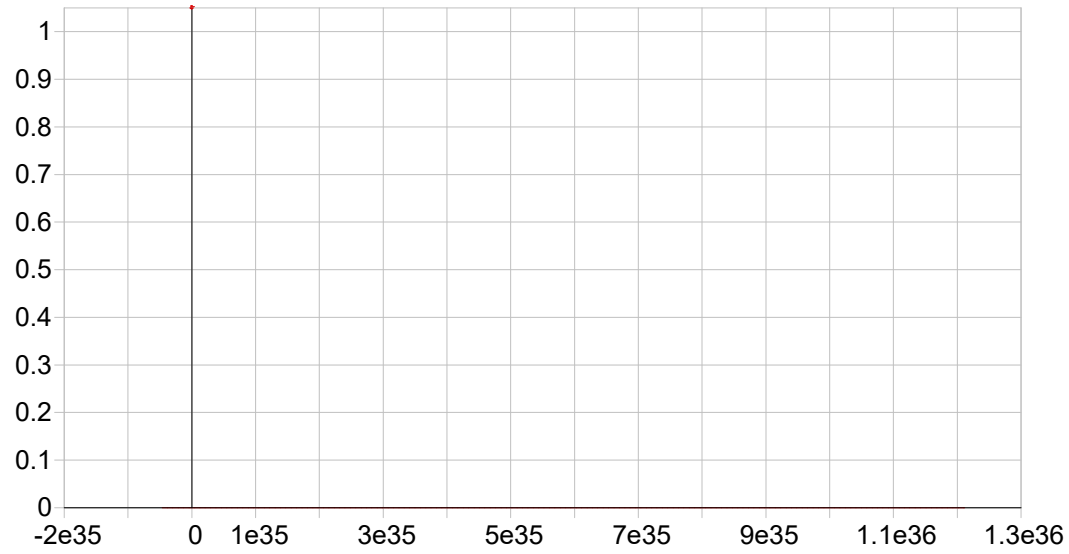
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

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					

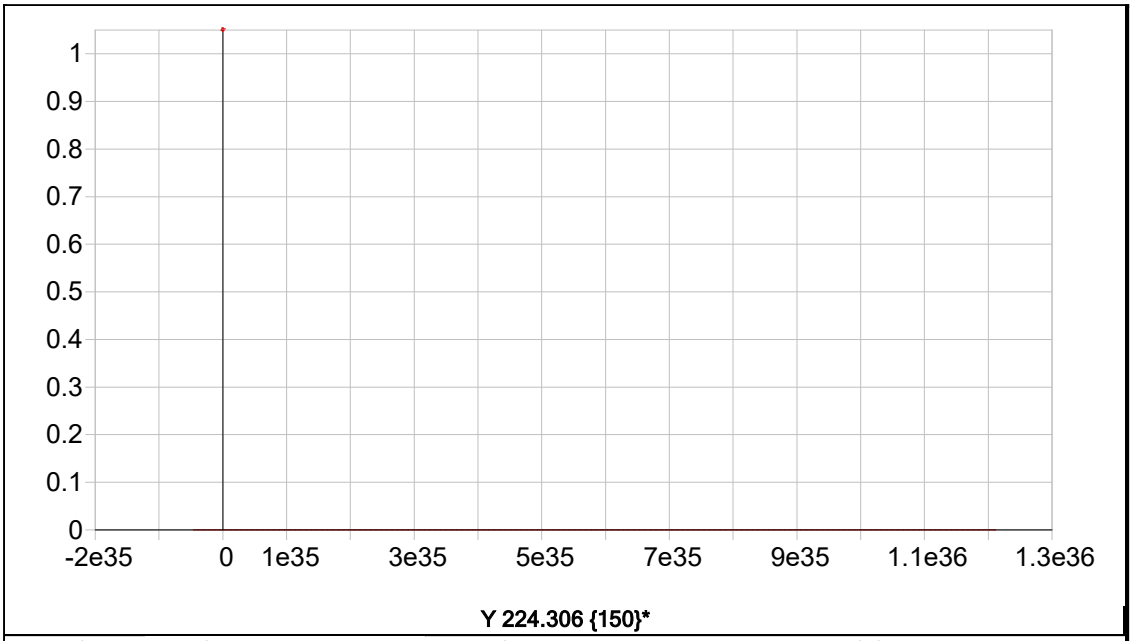
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

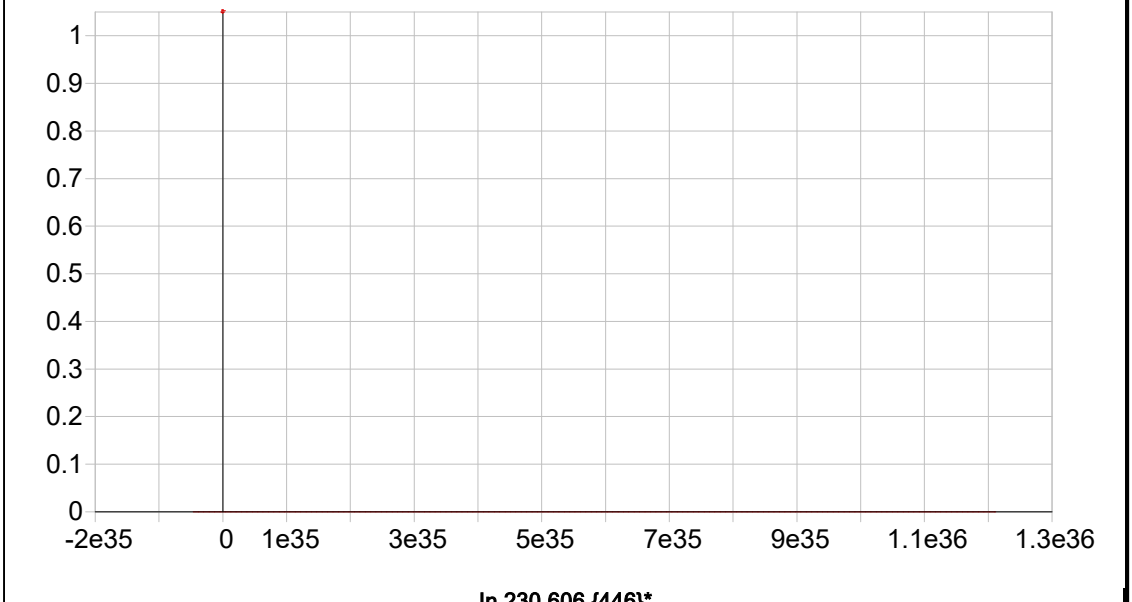
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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**

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S0 Acquired: 7/30/2025 13:40:51 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00006**	**.00126**	**.00016**	**.00004**	**.00059**	**.00022**	**.08286**	**-.00188**
Stddev	.00006	.00013	.00028	.00004	.00015	.00049	.00143	.00051
%RSD	97.545	10.332	178.84	102.74	24.760	220.77	1.7268	26.966
#1	-.00001	.00116	.00047	-.00001	.00045	.00006	.08138	-.00193
#2	.00008	.00122	-.00008	.00006	.00074	-.00017	.08296	-.00134
#3	.00010	.00141	.00008	.00005	.00059	.00078	.08423	-.00235

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00074**	**.00229**	**.00013**	**-.00005**	**.00096**	**.00006**	**.00096**	**-.00014**
Stddev	.00002	.00052	.00002	.00025	.00021	.00002	.00038	.00025
%RSD	3.0140	22.882	14.922	495.35	22.237	39.063	39.589	174.91
#1	-.00076	.00201	.00012	-.00030	.00103	.00004	.00139	.00014
#2	-.00072	.00196	.00015	-.00004	.00072	.00006	.00066	-.00031
#3	-.00074	.00289	.00011	.00019	.00113	.00009	.00083	-.00026

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00057**	**-.00082**	**.00388**	**-.00004**	**.00799**	**-.00043**	**.00901**	**.00043**
Stddev	.00018	.00015	.00008	.00026	.00021	.00006	.00056	.00019
%RSD	30.641	17.993	2.1369	648.17	2.5803	14.472	6.2434	43.669
#1	-.00070	-.00075	.00391	.00026	.00787	-.00040	.00961	.00057
#2	-.00064	-.00071	.00394	-.00018	.00823	-.00051	.00850	.00049
#3	-.00037	-.00099	.00378	-.00021	.00787	-.00039	.00893	.00022

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00054**	**.00141**	**.00011**	**-.00063**	**.00039**	**.00482**	**.00171**
Stddev	.00006	.00041	.00004	.00002	.00008	.00040	.00074
%RSD	11.521	28.865	32.024	3.6328	20.602	8.2018	43.134
#1	.00061	.00167	.00012	-.00063	.00048	.00440	.00086
#2	.00052	.00094	.00014	-.00061	.00033	.00488	.00216
#3	.00049	.00162	.00007	-.00066	.00036	.00518	.00211

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S0 Acquired: 7/30/2025 13:40:51 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5086.1	82092.	7122.8	4419.4	6190.8
Stddev	14.6	159.	38.5	4.4	21.3
%RSD	.28718	.19407	.54085	.10017	.34431
#1	5069.3	81929.	7079.6	4415.4	6166.2
#2	5093.5	82099.	7153.7	4418.7	6202.3
#3	5095.6	82247.	7135.0	4424.2	6203.9

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S1 Acquired: 7/30/2025 13:45:12 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00085**	**.00177**	**.00294**	**.00118**	**.00560**	**.01020**	**.36553**	**.05450**	**.01404**
Stddev	.00005	.00015	.00013	.00008	.00003	.00126	.00211	.00035	.00012
%RSD	5.9601	8.4198	4.5959	6.9813	.61172	12.390	.57770	.64087	.85290
#1	.00090	.00170	.00297	.00108	.00561	.01156	.36322	.05437	.01392
#2	.00080	.00166	.00279	.00122	.00556	.00996	.36600	.05489	.01416
#3	.00085	.00194	.00305	.00123	.00563	.00907	.36736	.05422	.01405

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.15482**	**.00172**	**.02172**	**.01805**	**.00050**	**.01364**	**.02662**	**.02598**	**.00158**
Stddev	.00166	.00011	.00016	.00030	.00001	.00038	.00038	.00015	.00008
%RSD	1.0713	6.1508	.73845	1.6736	1.4787	2.7769	1.4435	.57440	5.0828
#1	.15355	.00176	.02190	.01833	.00050	.01354	.02619	.02604	.00156
#2	.15670	.00180	.02160	.01810	.00050	.01331	.02690	.02581	.00166
#3	.15422	.00160	.02165	.01773	.00049	.01405	.02678	.02608	.00151

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02229**	**.00408**	**.14264**	**.01110**	**.08019**	**.12281**	**.00659**	**.01626**	**.00108**
Stddev	.00031	.00014	.00021	.00013	.00059	.00013	.00013	.00025	.00002
%RSD	1.3698	3.3738	.14478	1.1702	.73358	.10959	1.9250	1.5662	2.0165
#1	.02251	.00392	.14245	.01109	.08023	.12268	.00645	.01602	.00110
#2	.02194	.00417	.14263	.01097	.07958	.12295	.00667	.01623	.00106
#3	.02243	.00415	.14286	.01123	.08075	.12280	.00666	.01653	.00108

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00008**	**.00113**	**.01496**	**.23956**
Stddev	.00006	.00010	.00119	.00064
%RSD	71.766	8.9155	7.9272	.26563
#1	.00005	.00101	.01447	.23915
#2	.00005	.00120	.01409	.23923
#3	.00015	.00117	.01631	.24029

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S1 Acquired: 7/30/2025 13:45:12 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5153.1	82463.	7462.9	4443.2	6282.7
Stddev	20.2	343.	46.1	21.1	22.2
%RSD	.39179	.41543	.61787	.47487	.35293
#1	5170.7	82513.	7511.6	4436.0	6298.2
#2	5157.6	82778.	7419.9	4467.0	6292.6
#3	5131.1	82098.	7457.1	4426.7	6257.3

Sample Name: S2 Acquired: 7/30/2025 13:49:29 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03476**	**.01317**	**.17601**	**.03673**	**.07837**	**.13600**	**4.5929**	**.36483**	**.98911**
Stddev	.00001	.00024	.00030	.00002	.00020	.00067	.0060	.00211	.00053
%RSD	.02948	1.8268	.16794	.06513	.24889	.49616	.13021	.57838	.05320
#1	.03477	.01336	.17635	.03674	.07829	.13583	4.5863	.36272	.98963
#2	.03476	.01325	.17586	.03675	.07822	.13674	4.5945	.36694	.98858
#3	.03475	.01290	.17581	.03670	.07859	.13542	4.5980	.36482	.98912

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.31022**	**.02261**	**.28713**	**.15149**	**.00331**	**.24401**	**.04956**	**.25917**	**.04390**
Stddev	.00091	.00008	.00058	.00018	.00001	.00074	.00041	.00035	.00015
%RSD	.29348	.35565	.20201	.12035	.28661	.30363	.82493	.13608	.35164
#1	.31061	.02270	.28750	.15164	.00330	.24449	.04923	.25946	.04372
#2	.30917	.02255	.28646	.15129	.00332	.24438	.04944	.25878	.04399
#3	.31087	.02258	.28743	.15155	.00331	.24316	.05002	.25927	.04399

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03978**	**.04457**	**1.0654**	**.02165**	**.59947**	**.50220**	**.12369**	**.30961**	**.00220**
Stddev	.00025	.00052	.0033	.00008	.00328	.00012	.00017	.00038	.00003
%RSD	.63954	1.1604	.31139	.35749	.54746	.02384	.13747	.12408	1.3446
#1	.03964	.04398	1.0669	.02163	.59797	.50213	.12389	.30974	.00223
#2	.03962	.04482	1.0677	.02158	.60323	.50214	.12357	.30917	.00217
#3	.04007	.04492	1.0616	.02174	.59721	.50234	.12362	.30991	.00221

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02174**	**.02348**	**.45588**	**8.9883**
Stddev	.00011	.00007	.00153	.0055
%RSD	.49742	.31335	.33554	.06163
#1	.02162	.02350	.45700	8.9906
#2	.02177	.02340	.45413	8.9923
#3	.02183	.02354	.45650	8.9820

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S2 Acquired: 7/30/2025 13:49:29 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5121.6	82777.	7334.5	4402.5	6169.2
Stddev	8.1	434.	15.5	6.5	13.6
%RSD	.15839	.52412	.21152	.14835	.22114
#1	5112.2	82814.	7350.6	4395.5	6154.6
#2	5126.2	83192.	7319.6	4408.3	6171.5
#3	5126.4	82326.	7333.2	4403.9	6181.5

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S3 Acquired: 7/30/2025 13:53:34 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11095**	**.04025**	**.55986**	**.11707**	**.23975**	**.41060**	**13.853**	**1.1184**	**3.1799**
Stddev	.00040	.00065	.00147	.00050	.00060	.00116	.068	.0034	.0087
%RSD	.36364	1.6193	.26213	.42946	.25150	.28167	.49375	.30382	.27367
#1	.11087	.03954	.55849	.11700	.23980	.40928	13.793	1.1145	3.1722
#2	.11059	.04041	.55969	.11660	.23912	.41106	13.840	1.1207	3.1781
#3	.11138	.04081	.56141	.11760	.24033	.41145	13.928	1.1199	3.1894

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.93009**	**.06824**	**.88510**	**.45968**	**.00992**	**.74002**	**.15059**	**.79883**	**.13554**
Stddev	.00427	.00045	.00172	.00069	.00006	.00310	.00089	.00074	.00017
%RSD	.45928	.65904	.19426	.15015	.62976	.41948	.58832	.09230	.12259
#1	.92672	.06773	.88324	.45946	.00986	.73654	.14967	.79801	.13570
#2	.92866	.06859	.88544	.45912	.00993	.74101	.15143	.79943	.13555
#3	.93490	.06839	.88663	.46045	.00999	.74250	.15068	.79905	.13537

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11370**	**.13735**	**3.2113**	**.06812**	**1.8314**	**1.5271**	**.38363**	**.94587**	**.00655**
Stddev	.00015	.00043	.0112	.00022	.0008	.0056	.00144	.00390	.00007
%RSD	.13575	.31163	.34906	.32962	.04653	.36763	.37478	.41272	1.0695
#1	.11354	.13706	3.2242	.06788	1.8311	1.5274	.38274	.94263	.00649
#2	.11384	.13716	3.2045	.06816	1.8323	1.5213	.38287	.94478	.00653
#3	.11372	.13784	3.2051	.06832	1.8307	1.5325	.38529	.95020	.00662

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.07092**	**.07393**	**1.3889**	**27.381**
Stddev	.00014	.00028	.0076	.072
%RSD	.19114	.38341	.54340	.26337
#1	.07077	.07399	1.3831	27.354
#2	.07093	.07362	1.3862	27.462
#3	.07105	.07418	1.3974	27.325

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S3 Acquired: 7/30/2025 13:53:34 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5000.8**	**81409.**	**7230.5**	**4321.7**	**5894.6**
Stddev	12.8	266.	13.9	26.3	18.6
%RSD	.25577	.32652	.19179	.60904	.31511
#1	5013.5	81290.	7231.0	4292.3	5916.0
#2	5000.9	81224.	7216.3	4329.5	5885.1
#3	4987.9	81714.	7244.1	4343.2	5882.7

Sample Name: S4 Acquired: 7/30/2025 13:57:41 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.21380**	**.07429**	**1.0810**	**.22283**	**.48395**	**.83303**	**28.299**	**2.2268**	**6.1496**
Stddev	.00041	.00121	.0031	.00005	.00072	.00185	.177	.0124	.0143
%RSD	.19364	1.6310	.29026	.02227	.14965	.22250	.62591	.55930	.23228
#1	.21372	.07349	1.0789	.22286	.48383	.83261	28.212	2.2221	6.1361
#2	.21343	.07569	1.0794	.22285	.48330	.83506	28.182	2.2175	6.1481
#3	.21424	.07370	1.0846	.22277	.48473	.83142	28.503	2.2410	6.1646

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8839**	**.13740**	**1.7910**	**.90724**	**.02091**	**1.5019**	**.30613**	**1.6077**	**.27771**
Stddev	.0040	.00083	.0053	.00285	.00011	.0022	.00087	.0047	.00042
%RSD	.21078	.60208	.29479	.31371	.54889	.14483	.28384	.29363	.15252
#1	1.8840	.13804	1.7872	.90576	.02096	1.4996	.30662	1.6043	.27811
#2	1.8879	.13768	1.7888	.90543	.02099	1.5040	.30665	1.6056	.27775
#3	1.8799	.13646	1.7970	.91052	.02078	1.5020	.30513	1.6130	.27727

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.24008**	**.28236**	**6.4949**	**.14456**	**3.6366**	**3.0897**	**.76733**	**1.9445**	**.01401**
Stddev	.00118	.00098	.0243	.00065	.0200	.0051	.00150	.0050	.00010
%RSD	.48974	.34723	.37380	.45252	.54874	.16470	.19612	.25835	.72296
#1	.24020	.28139	6.5152	.14478	3.6370	3.0861	.76561	1.9418	.01393
#2	.24120	.28235	6.4680	.14509	3.6165	3.0875	.76839	1.9503	.01412
#3	.23885	.28335	6.5015	.14383	3.6564	3.0955	.76798	1.9413	.01397

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.14142**	**.14941**	**2.9076**	**55.137**
Stddev	.00055	.00059	.0047	.870
%RSD	.38627	.39679	.16229	1.5784
#1	.14088	.14893	2.9083	55.200
#2	.14143	.15007	2.9025	54.237
#3	.14197	.14923	2.9118	55.974

Sample Name: S4 Acquired: 7/30/2025 13:57:41 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5034.2	79313.	7275.5	4206.7	5872.3
Stddev	14.9	247.	35.6	27.9	19.8
%RSD	.29526	.31108	.48941	.66431	.33750
#1	5051.0	79042.	7258.3	4193.1	5894.8
#2	5029.0	79373.	7316.5	4238.9	5864.5
#3	5022.7	79525.	7251.8	4188.2	5857.5

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S5 Acquired: 7/30/2025 14:01:54 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.43855**	**.15205**	**2.2405**	**.45721**	**.98767**	**1.7040**	**57.435**	**4.4580**	**12.666**
Stddev	.00253	.00328	.0064	.00228	.00471	.0048	1.364	.0420	.038
%RSD	.57668	2.1591	.28456	.49894	.47690	.28382	2.3745	.94282	.29775
#1	.43778	.15410	2.2364	.45752	.98640	1.7083	58.998	4.4888	12.644
#2	.43650	.14826	2.2372	.45478	.98373	1.7048	56.486	4.4101	12.644
#3	.44138	.15378	2.2478	.45931	.99289	1.6988	56.822	4.4750	12.710

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.8168**	**.27099**	**3.7099**	**1.8282**	**.04169**	**3.0413**	**.62237**	**3.3181**	**.55533**
Stddev	.0217	.00193	.0111	.0074	.00030	.0110	.00257	.0108	.00063
%RSD	.56873	.71226	.29845	.40380	.70809	.36281	.41302	.32447	.11361
#1	3.8406	.27209	3.7023	1.8253	.04142	3.0536	.62533	3.3109	.55477
#2	3.7980	.27212	3.7049	1.8227	.04201	3.0322	.62109	3.3130	.55602
#3	3.8120	.26876	3.7226	1.8366	.04165	3.0383	.62069	3.3305	.55521

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.48536**	**.57874**	**12.875**	**.29368**	**7.3331**	**6.2780**	**1.5793**	**3.9654**	**.02873**
Stddev	.00431	.00198	.037	.00223	.0714	.0246	.0053	.0140	.00023
%RSD	.88784	.34184	.29128	.75965	.97411	.39182	.33689	.35229	.81279
#1	.48186	.57969	12.880	.29174	7.3914	6.2733	1.5774	3.9806	.02850
#2	.49017	.57646	12.835	.29612	7.2534	6.2561	1.5752	3.9532	.02897
#3	.48403	.58006	12.909	.29319	7.3546	6.3046	1.5853	3.9623	.02871

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.29480**	**.31816**	**6.0654**	**112.58**
Stddev	.00176	.00287	.0078	.50
%RSD	.59681	.90155	.12841	.44773
#1	.29600	.31877	6.0695	113.16
#2	.29278	.31503	6.0703	112.24
#3	.29563	.32066	6.0564	112.34

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: S5 Acquired: 7/30/2025 14:01:54 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4882.4	79787.	7196.1	4132.1	5553.3
Stddev	14.6	435.	66.2	6.5	11.7
%RSD	.29904	.54527	.92032	.15757	.21141
#1	4886.0	79724.	7120.1	4134.4	5554.3
#2	4894.9	79387.	7241.0	4137.2	5564.4
#3	4866.3	80250.	7227.3	4124.8	5541.0

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICV01 Acquired: 7/30/2025 14:11:56 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.821147**	**3.808379**	**3.726515**	**3.847603**	**4.119669**	**7.857805**
Stddev	.008169	.039369	.007422	.009453	.007899	.032063
%RSD	.2137878	1.033743	.1991666	.2456776	.1917469	.4080410
#1	3.825772	3.811366	3.733780	3.849487	4.115301	7.894585
#2	3.811715	3.767601	3.718946	3.837351	4.114917	7.835749
#3	3.825955	3.846169	3.726820	3.855973	4.128787	7.843080

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.910480**	**.2050400**	**1.897057**	**19.66079**	**.8023139**	**1.979983**
Stddev	.029702	.0010875	.005215	.09843	.0019354	.003583
%RSD	.3754733	.5303821	.2749147	.5006447	.2412284	.1809380
#1	7.934106	.2051648	1.899453	19.60970	.8032407	1.982364
#2	7.877137	.2038955	1.891075	19.59842	.8036117	1.975863
#3	7.920198	.2060598	1.900644	19.77426	.8000894	1.981722

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.016862**	**3.877299**	**1.975827**	**19.69453**	**1.976929**	**.9188058**
Stddev	.002324	.003702	.008043	.05634	.003885	.0003892
%RSD	.2285808	.0954819	.4070640	.2860586	.1965113	.0423546
#1	1.015096	3.874359	1.976381	19.73582	1.978290	.9191872
#2	1.015994	3.876080	1.967521	19.63035	1.972547	.9184093
#3	1.019495	3.881456	1.983579	19.71742	1.979951	.9188209

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.05638**	**2.002935**	**1.992096**	**19.29461**	F **.0048635**	F **.0006051**
Stddev	.05662	.012479	.007131	.06862	.0009069	.0000652
%RSD	.2971312	.6230385	.3579415	.3556498	18.64645	10.77790
#1	19.08978	2.017313	1.992326	19.22955	.0038569	.0006655
#2	19.08835	1.994918	1.984854	19.36631	.0056167	.0005359
#3	18.99100	1.996575	1.999110	19.28796	.0051168	.0006139

Sample Name: ICV01 Acquired: 7/30/2025 14:11:56 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000012	F -.003754	F -.035713	F .0076764	F .0091571	F .0029858
Stddev	.000400	.002171	.009020	.0021941	.0015769	.0018284
%RSD	3335.264	57.84161	25.25612	28.58294	17.22031	61.23750
#1	.000405	-.002637	-.032610	.0058072	.0087252	.0050186
#2	-.000392	-.002369	-.028654	.0071299	.0078412	.0024635
#3	-.000049	-.006257	-.045874	.0100921	.0109049	.0014754

Elem	Sr4077
Units	ppm
Avg	F -.002987
Stddev	.000072
%RSD	2.417422
#1	-.002930
#2	-.002963
#3	-.003068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5020.832	80993.54	7222.887	4288.442	5909.839
Stddev	8.676	339.55	49.047	29.072	15.448
%RSD	.1727959	.4192343	.6790510	.6779109	.2613897
#1	5011.731	81180.14	7224.063	4293.657	5893.561
#2	5029.009	81198.87	7271.336	4314.554	5924.295
#3	5021.757	80601.61	7173.263	4257.116	5911.660

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: LLICV01 Acquired: 7/30/2025 14:16:06 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0190703**	**.0354423**	**.0118355**	**.0229053**	**.0529060**	**.1176633**
Stddev	.0007382	.0053862	.0005902	.0024654	.0009003	.0153600
%RSD	3.870775	15.19710	4.987104	10.76361	1.701756	13.05416
#1	.0185852	.0407462	.0113590	.0200985	.0532345	.1072612
#2	.0187059	.0356032	.0124958	.0247208	.0518875	.1353052
#3	.0199198	.0299774	.0116516	.0238967	.0535959	.1104235

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1052741**	**.0067437**	**.0058736**	**2.115992**	**.0106270**	**.0305090**
Stddev	.0013109	.0000977	.0000740	.014593	.0003736	.0000579
%RSD	1.245207	1.449128	1.260498	.6896492	3.515364	.1898095
#1	.1063350	.0068399	.0057982	2.101944	.0105349	.0304557
#2	.1038086	.0066445	.0059462	2.114958	.0110380	.0305008
#3	.1056787	.0067468	.0058766	2.131075	.0103081	.0305706

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0214553**	**.1019867**	**.0212734**	**2.245820**	**.0413465**	**.0104048**
Stddev	.0006227	.0032701	.0004101	.020256	.0003328	.0003671
%RSD	2.902286	3.206384	1.927947	.9019444	.8049616	3.528010
#1	.0221511	.0988463	.0210667	2.265514	.0413006	.0106007
#2	.0209506	.1017410	.0217458	2.246901	.0416998	.0099813
#3	.0212640	.1053726	.0210078	2.225045	.0410389	.0106323

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.854686**	**.0388917**	**.0420476**	**1.932795**	**.1109938**	**.2111291**
Stddev	.004242	.0019138	.0001642	.007839	.0014475	.0003593
%RSD	.2287102	4.920837	.3904204	.4055909	1.304174	.1701797
#1	1.859429	.0396490	.0422293	1.924639	.1125278	.2111371
#2	1.853372	.0403110	.0419100	1.940274	.1096519	.2107658
#3	1.851257	.0367152	.0420036	1.933472	.1108017	.2114843

Sample Name: LLICV01 Acquired: 7/30/2025 14:16:06 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0389479**	**.0397680**	**.3655597**	**.0230254**	**.0179313**	F **.0157982**
Stddev	.0003496	.0014944	.0048526	.0011837	.0008614	.0006616
%RSD	.8975706	3.757841	1.327454	5.140974	4.804044	4.188011
#1	.0386809	.0380463	.3700823	.0222429	.0174246	.0157594
#2	.0393436	.0405291	.3604335	.0243872	.0174433	.0164783
#3	.0388192	.0407288	.3661634	.0224461	.0189259	.0151568

Elem	Sr4077
Units	ppm
Avg	**.0211458**
Stddev	.0001899
%RSD	.8978388
#1	.0212549
#2	.0209266
#3	.0212560

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5126.920**	**81026.20**	**7089.066**	**4320.813**	**6308.033**
Stddev	6.882	12.28	42.192	12.960	9.004
%RSD	.1342405	.0151523	.5951706	.2999392	.1427387
#1	5120.658	81033.03	7045.001	4314.279	6304.442
#2	5125.815	81012.03	7129.095	4335.739	6301.378
#3	5134.289	81033.55	7093.100	4312.420	6318.278

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICB01 Acquired: 7/30/2025 14:20:24 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002495**	**-.010985**	**.0004489**	**.0036652**	**.0005517**	**.0009038**	**.0007658**
Stddev	.002571	.002599	.0008435	.0007545	.0012194	.0029442	.0005704
%RSD	103.0346	23.66202	187.9082	20.58445	221.0210	325.7728	74.48522
#1	-.004598	-.008090	.0011568	.0032581	.0017211	.0019791	.0003282
#2	-.003259	-.013117	.0006743	.0045357	.0006463	-.002427	.0014110
#3	.000371	-.011749	-.000484	.0032017	-.000712	.003159	.0005583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001144**	**.0001121**	**-.017946**	**-.000115**	**.0000400**	**-.000804**	**-.002965**
Stddev	.0000314	.0000558	.013073	.000550	.0001004	.000240	.010156
%RSD	27.47543	49.78519	72.84839	477.9175	250.7968	29.90404	342.5320
#1	.0001442	.0000710	-.032745	.000379	.0001118	-.000623	-.011240
#2	.0001173	.0001757	-.007969	-.000708	-.000075	-.000712	.008369
#3	.0000816	.0000896	-.013123	-.000016	.000083	-.001077	-.006024

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001135**	**.0145729**	**.0002004**	**.0003872**	**-.145157**	**-.003903**	**-.001053**
Stddev	.000277	.0070390	.0003001	.0002568	.007726	.001053	.000085
%RSD	24.36393	48.30206	149.7003	66.32168	5.322507	26.97420	8.059668
#1	-.001339	.0226286	.0001268	.0002651	-.139244	-.005029	-.001147
#2	-.000820	.0114818	-.000056	.0006823	-.153899	-.002943	-.000981
#3	-.001247	.0096084	.000531	.0002143	-.142328	-.003736	-.001030

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0238415**	**.0033197**	**.0000008**	**-.000814**	**.0012641**	**-.011710**	**.0032998**
Stddev	.0466225	.0014928	.0001338	.000699	.0005854	.005752	.0016258
%RSD	195.5523	44.96819	17575.89	85.86290	46.31104	49.12184	49.27159
#1	.0566865	.0017585	.0000400	-.001207	.0006968	-.005227	.0014561
#2	-.029521	.0047331	-.000148	-.001230	.0012296	-.013701	.0045283
#3	.044359	.0034675	.000111	-.000007	.0018661	-.016202	.0039148

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICB01 Acquired: 7/30/2025 14:20:24 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002710	-.004265	-.000023
Stddev	.001154	.004232	.000058
%RSD	42.57630	99.23517	249.0901
#1	-.002780	-.003596	-.000089
#2	-.001523	-.008792	.000023
#3	-.003828	-.000407	-.000004

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5219.070	79496.33	6504.940	4269.579	6561.450
Stddev	9.972	59.05	35.007	17.732	13.192
%RSD	.1910683	.0742838	.5381609	.4153064	.2010535
#1	5227.751	79445.47	6529.200	4272.812	6576.494
#2	5221.281	79561.10	6520.812	4250.453	6555.998
#3	5208.178	79482.43	6464.809	4285.472	6551.857

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CRI01 Acquired: 7/30/2025 14:24:43 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0178240**	**.0313535**	**.0120436**	**.0219153**	**.0541444**	**.1107945**
Stddev	.0005476	.0039635	.0009909	.0012047	.0011546	.0055193
%RSD	3.072459	12.64146	8.227846	5.497018	2.132536	4.981534
#1	.0184348	.0312851	.0131252	.0223206	.0544393	.1093866
#2	.0173769	.0353508	.0111794	.0228651	.0551230	.1061156
#3	.0176603	.0274246	.0118262	.0205602	.0528709	.1168814

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1034145**	**.0065673**	**.0058605**	**2.086569**	**.0103580**	**.0304303**
Stddev	.0006239	.0000519	.0000363	.010519	.0003555	.0003428
%RSD	.6032518	.7903855	.6192829	.5041053	3.432110	1.126516
#1	.1028360	.0065770	.0058883	2.082913	.0102709	.0302933
#2	.1033321	.0065112	.0058194	2.098427	.0100542	.0301772
#3	.1040755	.0066136	.0058737	2.078365	.0107490	.0308204

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212642**	**.0987582**	**.0214240**	**2.215938**	**.0410732**	**.0104164**
Stddev	.0003084	.0017103	.0002147	.048053	.0005550	.0003185
%RSD	1.450451	1.731832	1.002262	2.168525	1.351370	3.057551
#1	.0209518	.1004989	.0216719	2.171215	.0406532	.0106312
#2	.0212722	.0970799	.0212958	2.209857	.0408639	.0100505
#3	.0215685	.0986959	.0213044	2.266742	.0417024	.0105677

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.808999**	**.0380682**	**.0416826**	**1.903434**	**.1047428**	**.2111538**
Stddev	.025059	.0025657	.0001081	.012805	.0003919	.0004129
%RSD	1.385267	6.739715	.2593487	.6727455	.3741099	.1955477
#1	1.791227	.0358327	.0417936	1.892225	.1047756	.2114150
#2	1.837661	.0375022	.0415776	1.917389	.1051172	.2106777
#3	1.798109	.0408696	.0416767	1.900686	.1043356	.2113686

Sample Name: CRI01 Acquired: 7/30/2025 14:24:43 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0395811	.0414869	.3464689	.0220773	.0185507	F .0090598
Stddev	.0007989	.0013869	.0076471	.0000686	.0019318	.0018810
%RSD	2.018423	3.343076	2.207164	.3107407	10.41358	20.76227
#1	.0391239	.0413899	.3550351	.0221520	.0173307	.0112262
#2	.0405035	.0429199	.3440415	.0220170	.0175435	.0081130
#3	.0391157	.0401511	.3403301	.0220630	.0207780	.0078404

Elem	Sr4077
Units	ppm
Avg	.0208520
Stddev	.0000340
%RSD	.1630521
#1	.0208783
#2	.0208136
#3	.0208641

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5112.510	83678.83	7333.499	4361.984	6293.209
Stddev	2.665	99.36	30.877	18.460	8.640
%RSD	.0521223	.1187440	.4210350	.4232033	.1372944
#1	5114.614	83729.62	7298.983	4348.593	6294.320
#2	5109.514	83564.33	7343.020	4354.316	6284.067
#3	5113.403	83742.52	7358.494	4383.042	6301.240

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSA01 Acquired: 7/30/2025 14:28:58 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073947**	**.0006201**	**-.004794**	**-.002419**	**-.005162**	**262.1974**
Stddev	.0006200	.0050655	.001038	.001707	.003439	.2558
%RSD	8.384346	816.8978	21.64710	70.58398	66.62534	.0975663
#1	.0068294	-.000037	-.005396	-.003011	-.003115	262.4124
#2	.0080578	-.004085	-.003596	-.000494	-.003238	261.9145
#3	.0072969	.005982	-.005391	-.003751	-.009132	262.2655

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051773**	**.0018813**	**.0008747**	**248.4296**	**.0570032**	**.0015246**
Stddev	.0009352	.0000857	.0001054	.4207	.0005062	.0003476
%RSD	18.06304	4.554435	12.05469	.1693388	.8879917	22.79791
#1	.0041550	.0019783	.0009774	248.8437	.0574493	.0012511
#2	.0059896	.0018161	.0008798	248.0026	.0564531	.0019157
#3	.0053873	.0018495	.0007667	248.4426	.0571073	.0014070

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0095801**	**99.78507**	**.0075682**	**260.6165**	**.0043825**	**.0009764**
Stddev	.0006771	.49919	.0006589	.4585	.0002177	.0007047
%RSD	7.068294	.5002699	8.705903	.1759188	4.966290	72.17237
#1	.0101307	99.45670	.0071490	260.2652	.0041683	.0004428
#2	.0088240	99.53898	.0072280	260.4492	.0046034	.0007112
#3	.0097856	100.3595	.0083277	261.1352	.0043756	.0017751

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007486**	**.0032409**	**.0010270**	**.1445672**	**.0179903**	**.0000137**
Stddev	.017790	.0036736	.0002692	.0227112	.0030619	.0001784
%RSD	237.6384	113.3529	26.20755	15.70977	17.01959	1305.815
#1	-.027667	-.000125	.0012559	.1650425	.0165475	-.000156
#2	-.000714	.002688	.0010946	.1201391	.0159164	-.000003
#3	.005923	.007160	.0007305	.1485200	.0215070	.000200

Sample Name: ICSA01 Acquired: 7/30/2025 14:28:58 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003316	-.007891	.0057828	.0093112	-.004168	F .0535196
Stddev	.001283	.000609	.0131415	.0008402	.003734	.0022468
%RSD	38.70161	7.711827	227.2538	9.023431	89.58650	4.198032
#1	-.001920	-.007366	.0205603	.0098909	.000132	.0560647
#2	-.004445	-.008558	-.004592	.0096950	-.006039	.0518113
#3	-.003582	-.007748	.001380	.0083476	-.006597	.0526827

Elem	Sr4077
Units	ppm
Avg	.0092128
Stddev	.0005289
%RSD	5.740671
#1	.0096861
#2	.0093103
#3	.0086420

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4599.330	74859.79	6897.144	3900.060	5197.569
Stddev	13.064	249.84	3.718	13.352	18.152
%RSD	.2840504	.3337402	.0539131	.3423559	.3492375
#1	4598.412	75040.06	6892.987	3890.739	5197.001
#2	4612.829	74964.70	6898.293	3915.356	5215.998
#3	4586.748	74574.60	6900.153	3894.084	5179.707

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSAB01 Acquired: 7/30/2025 14:33:10 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1084664**	**.0961113**	**.0434756**	**.0494797**	**.6399796**	**260.9298**
Stddev	.0034508	.0168008	.0016359	.0049249	.0008283	.3908
%RSD	3.181474	17.48052	3.762789	9.953389	.1294329	.1497700
#1	.1122563	.0785422	.0435675	.0513443	.6399334	260.4935
#2	.1076371	.1120205	.0450635	.0438947	.6408301	261.0479
#3	.1055058	.0977711	.0417956	.0532000	.6391754	261.2479

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5262291**	**.5260330**	**.9819285**	**247.8402**	**.5584838**	**.5141608**
Stddev	.0023569	.0016247	.0030312	1.4769	.0014772	.0010083
%RSD	.4478753	.3088559	.3087027	.5959094	.2645071	.1960980
#1	.5239322	.5242666	.9789373	246.1726	.5597201	.5144989
#2	.5286417	.5263690	.9818500	248.9833	.5588834	.5130269
#3	.5261133	.5274635	.9849983	248.3645	.5568479	.5149565

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5126970**	**101.4082**	**.5171233**	**258.7225**	**1.019508**	**.2223373**
Stddev	.0007245	.2396	.0034360	.9129	.002080	.0010516
%RSD	.1413068	.2362938	.6644387	.3528635	.2040566	.4729729
#1	.5119452	101.2538	.5134023	257.6699	1.018059	.2213522
#2	.5127552	101.6843	.5201760	259.1997	1.018573	.2234447
#3	.5133906	101.2866	.5177917	259.2980	1.021892	.2222150

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.066724**	**.4998506**	**1.071087**	**.0478654**	F **.0261250**	F **.0010152**
Stddev	.005811	.0054690	.002375	.0264310	.0010165	.0002231
%RSD	8.709403	1.094131	.2217147	55.21932	3.890929	21.97907
#1	-.069286	.4935355	1.072912	.0586302	.0272965	.0008790
#2	-.070814	.5030277	1.068402	.0177508	.0254772	.0012728
#3	-.060072	.5029885	1.071948	.0672154	.0256011	.0008940

Sample Name: ICSAB01 Acquired: 7/30/2025 14:33:10 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.003164	F -.008576	F -.005059	F .0108823	F -.005455	F .0508730
Stddev	.000620	.000950	.006347	.0057726	.001480	.0035925
%RSD	19.58046	11.08290	125.4640	53.04554	27.12864	7.061753
#1	-.002815	-.009629	.002029	.0168793	-.007134	.0467524
#2	-.002798	-.008318	-.010218	.0053639	-.004890	.0525191
#3	-.003880	-.007781	-.006988	.0104037	-.004341	.0533476

Elem	Sr4077
Units	ppm
Avg	F .0071711
Stddev	.0001409
%RSD	1.965120
#1	.0070375
#2	.0073183
#3	.0071574

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4555.355	74420.12	7012.074	3863.411	5172.542
Stddev	5.081	175.38	38.200	12.980	9.526
%RSD	.1115390	.2356575	.5447739	.3359674	.1841722
#1	4557.008	74572.94	7055.646	3874.007	5180.465
#2	4559.403	74228.64	6996.234	3867.293	5175.190
#3	4549.653	74458.78	6984.343	3848.933	5161.972

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSADLX20 Acquired: 7/30/2025 14:37:16 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000373**	**-.011309**	**-.000544**	**.0015646**	**-.000552**	**12.25478**	**.0010751**
Stddev	.002428	.007078	.000186	.0032570	.000680	.08002	.0001605
%RSD	651.3255	62.58812	34.19066	208.1708	123.2027	.6530043	14.92435
#1	.000825	-.018853	-.000492	.0053145	-.000702	12.30133	.0009590
#2	.001224	-.010264	-.000390	-.000063	.000191	12.30063	.0010081
#3	-.003167	-.004812	-.000751	-.000558	-.001144	12.16238	.0012582

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002834**	**.0000704**	**12.31735**	**.0289244**	**.0003705**	**.0006316**	**4.948746**
Stddev	.0000088	.0000183	.04136	.0004502	.0001233	.0001572	.036608
%RSD	3.089862	26.05924	.3357859	1.556464	33.27993	24.89608	.7397490
#1	.0002875	.0000543	12.33153	.0293017	.0005123	.0007523	4.979578
#2	.0002734	.0000664	12.34975	.0290455	.0003114	.0006887	4.908286
#3	.0002894	.0000904	12.27076	.0284261	.0002879	.0004538	4.958373

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008083**	**12.53603**	**.0130031**	**.0000543**	**-.186077**	**-.003255**	**-.000142**
Stddev	.0001496	.01714	.0001740	.0001721	.012982	.003191	.000261
%RSD	18.50569	.1367139	1.337734	316.7815	6.976667	98.01355	183.7074
#1	.0006407	12.54081	.0128058	-.000073	-.188084	-.000954	-.000431
#2	.0008560	12.55027	.0130696	-.000015	-.172209	-.006898	.000078
#3	.0009282	12.51701	.0131341	.000250	-.197939	-.001914	-.000074

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.078454**	**-.002090**	**.0026965**	**-.001178**	**.0001378**	**-.003747**	**.0040769**
Stddev	.016102	.000564	.0002229	.000010	.0002142	.013241	.0025338
%RSD	20.52364	26.98628	8.267130	.8860504	155.4117	353.3277	62.15182
#1	-.061080	-.001816	.0028123	-.001173	.0000062	.000960	.0020548
#2	-.081407	-.002739	.0028376	-.001171	.0003851	.006496	.0032566
#3	-.092874	-.001715	.0024395	-.001190	.0000223	-.018699	.0069192

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSADLX20 Acquired: 7/30/2025 14:37:16 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004338	-.009557	.0002958
Stddev	.002219	.001935	.0000596
%RSD	51.14836	20.24979	20.14635
#1	-.006291	-.007824	.0002431
#2	-.004798	-.011645	.0003605
#3	-.001925	-.009201	.0002839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5075.448	81626.28	7283.661	4245.374	6218.211
Stddev	10.652	265.21	58.110	13.329	14.022
%RSD	.2098684	.3249062	.7978183	.3139732	.2254940
#1	5081.802	81543.22	7292.723	4231.694	6226.365
#2	5063.151	81923.08	7221.552	4246.105	6202.020
#3	5081.392	81412.54	7336.708	4258.323	6226.248

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSABDLX20 Acquired: 7/30/2025 14:41:32 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014942**	**-.003170**	**.0024528**	**.0039411**	**.0285738**	**12.12184**	**.0249326**
Stddev	.0010797	.007218	.0008940	.0018970	.0009164	.10194	.0004729
%RSD	72.25863	227.7338	36.44850	48.13423	3.207223	.8409321	1.896554
#1	.0005151	-.003097	.0021694	.0031000	.0295817	12.01211	.0250713
#2	.0013155	-.010424	.0034541	.0026101	.0283488	12.13980	.0253206
#3	.0026522	.004012	.0017347	.0061132	.0277908	12.21360	.0244059

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0257935**	**.0456163**	**12.24085**	**.0271734**	**.0238040**	**.0244661**	**4.785875**
Stddev	.0000937	.0001955	.13338	.0000532	.0002175	.0004016	.049064
%RSD	.3633701	.4284591	1.089611	.1956354	.9136931	1.641276	1.025178
#1	.0257404	.0454953	12.10396	.0271310	.0238290	.0248833	4.743595
#2	.0257384	.0455118	12.37041	.0272331	.0235750	.0240823	4.839674
#3	.0259017	.0458418	12.24818	.0271563	.0240079	.0244328	4.774357

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0245009**	**12.40732**	**.0477348**	**.0098839**	**-.175180**	**.0220308**	**.0496937**
Stddev	.0010080	.11738	.0001045	.0005616	.015688	.0011186	.0002948
%RSD	4.114160	.9460715	.2188270	5.682165	8.955293	5.077382	.5931441
#1	.0233602	12.27458	.0476457	.0092969	-.193074	.0227808	.0494479
#2	.0252718	12.44997	.0478497	.0099387	-.168671	.0207451	.0500205
#3	.0248705	12.49742	.0477089	.0104161	-.163793	.0225665	.0496128

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.083388**	**-.003615**	**.0000456**	**-.002168**	**.0001146**	**-.004578**	**.0025560**
Stddev	.020982	.000508	.0002860	.000391	.0010054	.003499	.0031248
%RSD	25.16240	14.05272	627.4476	18.04832	877.2142	76.43465	122.2508
#1	-.065626	-.003906	.0002943	-.001753	-.000985	-.007332	-.001018
#2	-.077997	-.003028	.0001094	-.002531	.000343	-.005760	.003916
#3	-.106539	-.003910	-.000267	-.002220	.000986	-.000641	.004770

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: ICSABDLX20 Acquired: 7/30/2025 14:41:32 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.003603**	**-.010849**	**.0002372**
Stddev	.000919	.001056	.0000766
%RSD	25.50112	9.729054	32.28513
#1	-.003229	-.010348	.0001549
#2	-.002930	-.010138	.0002502
#3	-.004649	-.012062	.0003064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5032.923**	**81997.68**	**7293.118**	**4257.041**	**6135.602**
Stddev	4.943	243.97	32.416	9.455	5.966
%RSD	.0982165	.2975360	.4444697	.2220948	.0972384
#1	5038.123	82279.22	7328.747	4250.819	6133.421
#2	5028.285	81865.59	7285.240	4252.382	6142.352
#3	5032.360	81848.24	7265.368	4267.921	6131.034

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV01 Acquired: 7/30/2025 14:45:44 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.093261**	**5.490573**	**4.922536**	**5.150261**	**5.126222**	**10.09275**	**10.18992**
Stddev	.019817	.063862	.005911	.014086	.021465	.05861	.05470
%RSD	.3890859	1.163129	.1200792	.2735050	.4187389	.5807160	.5368331
#1	5.079229	5.428296	4.923992	5.139406	5.112954	10.12913	10.25304
#2	5.084623	5.487511	4.916033	5.145198	5.114726	10.12398	10.16040
#3	5.115931	5.555911	4.927583	5.166179	5.150987	10.02514	10.15633

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2625558**	**2.472947**	**25.75251**	**.9923551**	**2.493109**	**1.270858**	**4.904137**
Stddev	.0022628	.002320	.10270	.0023865	.002834	.002557	.042693
%RSD	.8618305	.0938035	.3988036	.2404844	.1136647	.2012148	.8705488
#1	.2643240	2.474231	25.76786	.9939647	2.491802	1.268688	4.871305
#2	.2633376	2.470269	25.84668	.9934873	2.491165	1.270209	4.888707
#3	.2600057	2.474340	25.64300	.9896133	2.496361	1.273677	4.952400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.560542**	**24.96243**	**2.502352**	**1.259499**	**23.64067**	**2.504518**	**2.527776**
Stddev	.004177	.04415	.003754	.002128	.15623	.005957	.006854
%RSD	.1631342	.1768822	.1500282	.1689787	.6608446	.2378510	.2711447
#1	2.562294	25.00835	2.504276	1.261948	23.50202	2.498267	2.520126
#2	2.563559	24.92029	2.498026	1.258094	23.61006	2.505157	2.533359
#3	2.555775	24.95865	2.504754	1.258456	23.80994	2.510130	2.529842

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.58941**	**5.266186**	**5.113637**	**5.020442**	**5.181612**	**4.707332**	**4.889621**
Stddev	.16071	.055586	.014358	.010938	.012051	.063561	.007218
%RSD	.6535813	1.055528	.2807732	.2178759	.2325740	1.350261	.1476203
#1	24.43037	5.313006	5.104313	5.016438	5.176581	4.666002	4.895960
#2	24.58612	5.280800	5.106427	5.012069	5.195363	4.675473	4.881765
#3	24.75175	5.204753	5.130171	5.032818	5.172892	4.780523	4.891137

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV01 Acquired: 7/30/2025 14:45:44 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.070473**	**4.961237**	**5.176347**
Stddev	.017177	.006485	.032049
%RSD	.3387568	.1307155	.6191502
#1	5.053341	4.968606	5.213350
#2	5.070385	4.958705	5.157352
#3	5.087693	4.956401	5.158339

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4900.423**	**80630.34**	**6959.688**	**4164.991**	**5736.008**
Stddev	6.998	146.86	64.051	7.652	11.850
%RSD	.1428111	.1821376	.9203152	.1837297	.2065810
#1	4892.853	80573.11	6894.487	4168.104	5723.601
#2	4901.761	80797.20	6962.053	4170.596	5737.215
#3	4906.657	80520.72	7022.523	4156.273	5747.208

Sample Name: CCB01 Acquired: 7/30/2025 14:49:55 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000045**	**-.012034**	**.0005183**	**.0028784**	**.0001769**	**.0012519**	**-.000485**
Stddev	.0034753	.012527	.0015424	.0005485	.0011265	.0115392	.000333
%RSD	76749.82	104.0937	297.6031	19.05720	636.8139	921.7187	68.71396
#1	-.002086	-.006751	.0013873	.0022478	.0007200	.0138708	-.000173
#2	-.001916	-.003015	.0014300	.0032447	-.001118	-.008762	-.000446
#3	.004016	-.026338	-.001263	.0031429	.000929	-.001353	-.000836

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000868**	**.0002220**	**-.002357**	**.0002640**	**.0001318**	**-.000516**	**-.001463**
Stddev	.0000089	.0000361	.005879	.0004918	.0001169	.000403	.001649
%RSD	10.23161	16.26920	249.4475	186.3166	88.72488	78.13238	112.7175
#1	.0000794	.0002459	.004152	-.000300	.0001989	-.000171	-.001543
#2	.0000966	.0002397	-.007281	.000491	-.000003	-.000960	.000225
#3	.0000845	.0001805	-.003942	.000601	.000200	-.000418	-.003071

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000653**	**.0089733**	**.0003253**	**-.000352**	**-.196175**	**-.003472**	**-.000962**
Stddev	.000158	.0140091	.0002754	.000747	.008471	.001591	.000225
%RSD	24.23094	156.1200	84.65158	212.0530	4.318145	45.80822	23.35093
#1	-.000722	.0117596	.0006148	-.001202	-.186407	-.004682	-.001004
#2	-.000766	-.006220	.0002942	.000199	-.200613	-.001671	-.000719
#3	-.000472	.021380	.0000668	-.000053	-.201505	-.004063	-.001162

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.032320**	**.0020237**	**.0008429**	**-.000320**	**.0002772**	**-.012736**	**.0040318**
Stddev	.012294	.0009975	.0001699	.000312	.0018084	.012712	.0014841
%RSD	38.04038	49.28857	20.15949	97.35065	652.4044	99.80986	36.81023
#1	-.037136	.0023418	.0009440	-.000290	-.000827	-.024761	.0026310
#2	-.041476	.0009060	.0009381	-.000646	.002364	.000567	.0055871
#3	-.018346	.0028234	.0006467	-.000025	-.000705	-.014015	.0038773

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCB01 Acquired: 7/30/2025 14:49:55 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002782	F -.012821	.0002265
Stddev	.002931	.001878	.0000392
%RSD	105.3429	14.64375	17.32541
#1	-.006062	-.012747	.0002664
#2	-.001863	-.010982	.0001880
#3	-.000421	-.014735	.0002251

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5034.774	84019.87	7290.318	4331.517	6204.381
Stddev	12.623	173.41	33.340	10.577	11.705
%RSD	.2507176	.2063946	.4573135	.2441878	.1886520
#1	5049.349	83833.52	7261.092	4320.326	6217.893
#2	5027.667	84176.51	7283.230	4341.349	6197.890
#3	5027.307	84049.57	7326.632	4332.876	6197.360

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01 Acquired: 7/30/2025 14:54:14 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0445356**	**-.156007**	**.4232733**	**.0019731**	**-.011166**	**75.49997**	**.6094016**
Stddev	.0037107	.007656	.0017189	.0046799	.000890	.27820	.0022365
%RSD	8.331887	4.907573	.4060970	237.1781	7.966386	.3684751	.3669989
#1	.0446146	-.152929	.4251520	.0001999	-.011178	75.18785	.6069369
#2	.0482062	-.164723	.4228887	-.001561	-.010271	75.59023	.6099663
#3	.0407861	-.150369	.4217793	.007280	-.012050	75.72184	.6113017

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0080057**	**.0052268**	**54.34146**	**.1806036**	**.0980130**	**.4091729**	**193.7530**
Stddev	.0000469	.0002194	.27038	.0005338	.0001852	.0018355	.2437
%RSD	.5852504	4.198487	.4975636	.2955937	.1889832	.4485867	.1257862
#1	.0080163	.0051003	54.04095	.1799872	.0978136	.4081682	193.8824
#2	.0079545	.0051000	54.56504	.1809098	.0980458	.4080592	193.4719
#3	.0080464	.0054802	54.41840	.1809139	.0981797	.4112915	193.9048

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.067493**	**41.54229**	**.1969341**	**.0048209**	**5.602402**	**.2985630**	**.7969049**
Stddev	.012634	.21773	.0007392	.0005701	.033113	.0021491	.0007162
%RSD	.4118773	.5241099	.3753326	11.82550	.5910555	.7197990	.0898759
#1	3.052912	41.29090	.1961904	.0045348	5.612732	.2961677	.7976337
#2	3.074373	41.66509	.1976687	.0044505	5.565355	.3003220	.7968789
#3	3.075195	41.67087	.1969432	.0054774	5.629119	.2991994	.7962020

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.10840**	**.0890637**	**.0058112**	**.0352373**	**4.608903**	**10.49170**	**5.906043**
Stddev	.06830	.0032504	.0003696	.0008731	.017171	.08126	.010963
%RSD	.4520915	3.649508	6.359413	2.477875	.3725543	.7745248	.1856207
#1	15.18565	.0914768	.0054737	.0362145	4.594453	10.56164	5.918619
#2	15.05599	.0853676	.0062061	.0345339	4.604370	10.40256	5.901004
#3	15.08356	.0903466	.0057538	.0349636	4.627885	10.51091	5.898506

Sample Name: Q2710-01 Acquired: 7/30/2025 14:54:14 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.366701**	**.1881706**	**.0436664**
Stddev	.009668	.0015571	.0008237
%RSD	.2213939	.8274724	1.886248
#1	4.361547	.1865385	.0427453
#2	4.360702	.1896398	.0439215
#3	4.377853	.1883334	.0443322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5583.603**	**91792.90**	**8257.897**	**4737.537**	**5604.486**
Stddev	12.213	270.03	70.394	6.018	12.064
%RSD	.2187355	.2941728	.8524399	.1270179	.2152640
#1	5573.101	91900.22	8326.432	4732.853	5591.853
#2	5597.005	91485.71	8185.781	4735.435	5615.888
#3	5580.703	91992.77	8261.477	4744.324	5605.716

Sample Name: Q2710-01DUP Acquired: 7/30/2025 14:58:18 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0436073**	**-.151346**	**.4157156**	**-.000230**	**-.010238**	**75.46408**	**.6126145**
Stddev	.0011743	.005353	.0003728	.000873	.001164	.59584	.0050497
%RSD	2.692893	3.537178	.0896846	379.9914	11.37212	.7895723	.8242923
#1	.0449578	-.146913	.4155018	-.000926	-.011245	76.15200	.6184373
#2	.0428270	-.149831	.4154989	-.000514	-.008963	75.13029	.6094361
#3	.0430370	-.157293	.4161461	.000750	-.010504	75.10996	.6099701

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0082430**	**.0053752**	**54.77229**	**.1775827**	**.0956894**	**.3966575**	**190.4356**
Stddev	.0001460	.0001022	.39376	.0006196	.0002671	.0018939	.3175
%RSD	1.771444	1.901697	.7189112	.3489122	.2791369	.4774655	.1667330
#1	.0081522	.0052824	55.22539	.1774978	.0959731	.3958433	190.7710
#2	.0081654	.0054848	54.57860	.1782404	.0954428	.3953068	190.3960
#3	.0084114	.0053586	54.51289	.1770099	.0956521	.3988223	190.1397

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.087723**	**41.58816**	**.1888165**	**.0040657**	**5.405440**	**.2961863**	**.7766582**
Stddev	.023345	.34611	.0003559	.0002518	.013679	.0044709	.0012033
%RSD	.7560712	.8322275	.1885099	6.192160	.2530685	1.509474	.1549334
#1	3.114669	41.98425	.1885120	.0040715	5.398117	.2996598	.7778657
#2	3.074899	41.43623	.1887297	.0038112	5.421222	.2977571	.7766499
#3	3.073600	41.34401	.1892079	.0043146	5.396982	.2911420	.7754591

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.93123**	**.0718062**	**.0058596**	**.0309456**	**4.677910**	**10.27386**	**5.665061**
Stddev	.02485	.0020963	.0003043	.0003281	.040746	.10210	.029307
%RSD	.1664053	2.919318	5.193574	1.060292	.8710353	.9938176	.5173267
#1	14.94754	.0711005	.0060546	.0313213	4.724684	10.36326	5.668413
#2	14.94352	.0701538	.0055089	.0308005	4.658923	10.29573	5.634222
#3	14.90264	.0741642	.0060152	.0307152	4.650122	10.16260	5.692547

Sample Name: Q2710-01DUP Acquired: 7/30/2025 14:58:18 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.088632**	**.1855954**	**.0489000**
Stddev	.026541	.0016316	.0014040
%RSD	.6491307	.8791221	2.871131
#1	4.059026	.1860779	.0505030
#2	4.096581	.1869314	.0478891
#3	4.110291	.1837770	.0483078

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5740.064**	**91745.21**	**8045.186**	**4745.544**	**5808.949**
Stddev	17.550	253.36	57.343	10.244	11.153
%RSD	.3057457	.2761609	.7127648	.2158665	.1919900
#1	5725.920	91576.35	7984.706	4734.547	5803.234
#2	5759.704	91622.73	8052.083	4747.267	5821.801
#3	5734.567	92036.54	8098.769	4754.817	5801.812

Sample Name: Q2710-01LX5 Acquired: 7/30/2025 15:02:21 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075517**	**-.041961**	**.0815368**	**.0035561**	**-.002798**	**16.59630**	**.1364570**
Stddev	.0017023	.008242	.0003428	.0022010	.001757	.08867	.0016168
%RSD	22.54234	19.64268	.4203631	61.89210	62.82343	.5342826	1.184861
#1	.0090126	-.033725	.0811444	.0059474	-.004207	16.50071	.1352562
#2	.0056823	-.041948	.0816884	.0031058	-.000828	16.67587	.1382954
#3	.0079601	-.050210	.0817776	.0016151	-.003358	16.61233	.1358193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019081**	**.0004881**	**12.37550**	**.1692617**	**.0207392**	**.0948934**	**44.30042**
Stddev	.0001009	.0001500	.06914	.0005150	.0005976	.0007481	.28497
%RSD	5.287491	30.72712	.5586699	.3042937	2.881436	.7883238	.6432749
#1	.0018742	.0003413	12.30565	.1692897	.0211542	.0944194	44.61158
#2	.0020216	.0004819	12.44390	.1697623	.0200542	.0945050	44.23754
#3	.0018286	.0006410	12.37695	.1687333	.0210091	.0957558	44.05214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7070747**	**9.334763**	**.1157195**	**.0014199**	**1.076105**	**.0661561**	**.1806569**
Stddev	.0027176	.090358	.0000972	.0002165	.021043	.0022717	.0004043
%RSD	.3843485	.9679700	.0840044	15.24734	1.955436	3.433771	.2237710
#1	.7043649	9.231565	.1158086	.0012156	1.100325	.0635803	.1810990
#2	.7098001	9.373054	.1157340	.0013974	1.062308	.0678730	.1803060
#3	.7070592	9.399672	.1156158	.0016468	1.065682	.0670151	.1805658

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.256207**	**.0200213**	**.0167466**	**.0062114**	**1.034836**	**2.299936**	**1.109846**
Stddev	.038129	.0026514	.0001485	.0004205	.003364	.028710	.008168
%RSD	1.170969	13.24267	.8866334	6.770043	.3250883	1.248311	.7359866
#1	3.282916	.0230707	.0168277	.0058199	1.031031	2.323040	1.105982
#2	3.273164	.0182605	.0165753	.0061585	1.036066	2.308974	1.104327
#3	3.212541	.0187328	.0168370	.0066559	1.037413	2.267794	1.119230

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01LX5 Acquired: 7/30/2025 15:02:21 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8159626	.0349042	.0092557
Stddev	.0008514	.0021644	.0002536
%RSD	.1043439	6.200862	2.739556
#1	.8151137	.0369431	.0089661
#2	.8168165	.0351362	.0093629
#3	.8159576	.0326331	.0094380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5229.102	84154.15	7501.099	4338.052	6182.568
Stddev	11.128	241.70	92.592	10.256	17.348
%RSD	.2128066	.2872114	1.234380	.2364246	.2805992
#1	5241.267	84197.38	7606.810	4338.937	6201.465
#2	5219.437	83893.76	7434.383	4327.382	6167.363
#3	5226.603	84371.32	7462.103	4347.837	6178.877

Sample Name: Q2710-01MS Acquired: 7/30/2025 15:06:31 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7029785**	**1.852110**	**1.321047**	**1.635593**	**.6872268**	**76.07027**	**.7816365**
Stddev	.0022487	.022364	.001757	.006730	.0020920	.24163	.0025035
%RSD	.3198800	1.207486	.1330006	.4114753	.3044095	.3176441	.3202934
#1	.7019273	1.836245	1.319199	1.635304	.6876122	75.80543	.7795198
#2	.7055603	1.842397	1.321246	1.629012	.6849689	76.27873	.7809899
#3	.7014479	1.877688	1.322696	1.642462	.6890993	76.12666	.7844000

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1920627**	**.1912606**	**54.90465**	**.5078460**	**.2928573**	**.6524305**	**184.5351**
Stddev	.0018097	.0004487	.37954	.0016524	.0005715	.0023492	1.1838
%RSD	.9422287	.2345796	.6912717	.3253682	.1951570	.3600627	.6414914
#1	.1901176	.1907564	54.56585	.5059960	.2922322	.6512786	184.8274
#2	.1923742	.1914092	54.83329	.5091753	.2929868	.6508795	185.5453
#3	.1936965	.1916160	55.31480	.5083667	.2933530	.6551332	183.2325

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.222997**	**42.49978**	**.6796789**	**.0676111**	**7.502062**	**.5510759**	**.9395560**
Stddev	.010353	.31994	.0012148	.0009722	.082720	.0014758	.0031070
%RSD	.3212114	.7527990	.1787257	1.437953	1.102628	.2678060	.3306917
#1	3.211053	42.13155	.6782930	.0682209	7.534657	.5502632	.9389298
#2	3.228540	42.70975	.6801846	.0681225	7.563519	.5527794	.9429284
#3	3.229399	42.65803	.6805591	.0664899	7.408010	.5501850	.9368098

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.89630**	**.2930257**	**.3614043**	**.7173195**	**4.845724**	**10.73727**	**11.08386**
Stddev	.19411	.0057749	.0015515	.0004473	.030536	.17320	.05051
%RSD	.8477931	1.970780	.4292963	.0623538	.6301708	1.613109	.4557461
#1	22.93878	.2946825	.3607190	.7174966	4.814859	10.80237	11.03217
#2	23.06566	.2977911	.3603136	.7168108	4.846392	10.86850	11.08632
#3	22.68447	.2866035	.3631805	.7176511	4.875921	10.54096	11.13311

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01MS Acquired: 7/30/2025 15:06:31 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.049169**	**.3478940**	**.2322071**
Stddev	.020310	.0022668	.0017642
%RSD	.5015888	.6515750	.7597416
#1	4.028126	.3453421	.2307937
#2	4.050724	.3496742	.2316432
#3	4.068657	.3486657	.2341842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5636.788**	**92518.99**	**7847.275**	**4703.107**	**5699.112**
Stddev	10.714	450.47	76.003	14.327	4.624
%RSD	.1900803	.4868906	.9685263	.3046290	.0811313
#1	5634.463	92821.68	7925.588	4694.871	5698.595
#2	5648.474	92001.31	7842.424	4694.800	5703.972
#3	5627.427	92733.99	7773.815	4719.650	5694.768

Sample Name: Q2710-01MSD Acquired: 7/30/2025 15:10:26 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7039804**	**1.795957**	**1.312498**	**1.643963**	**.6873603**	**76.50417**	**.7886009**
Stddev	.0016135	.049433	.001932	.003697	.0031669	.17473	.0016729
%RSD	.2291911	2.752450	.1472313	.2248640	.4607292	.2283923	.2121308
#1	.7025022	1.846615	1.312255	1.641455	.6859233	76.47613	.7868852
#2	.7057016	1.793407	1.310699	1.648208	.6851667	76.69122	.7902273
#3	.7037376	1.747848	1.314541	1.642226	.6909909	76.34516	.7886902

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2003756**	**.1905811**	**55.72949**	**.5086619**	**.2918162**	**.6515369**	**181.1111**
Stddev	.0007017	.0003636	.19032	.0037401	.0001825	.0021219	1.1085
%RSD	.3501956	.1907866	.3415051	.7352841	.0625491	.3256727	.6120468
#1	.2011041	.1908738	55.56457	.5044386	.2918654	.6531094	180.0029
#2	.1997041	.1901741	55.93773	.5099921	.2919691	.6491234	182.2199
#3	.2003186	.1906954	55.68617	.5115552	.2916141	.6523779	181.1104

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.268842**	**42.83320**	**.6777962**	**.0662016**	**7.258601**	**.5594701**	**.9433877**
Stddev	.006623	.17764	.0012055	.0009038	.058390	.0039307	.0020656
%RSD	.2025961	.4147311	.1778569	1.365294	.8044305	.7025830	.2189519
#1	3.262487	42.78380	.6783051	.0651620	7.230561	.5587889	.9448612
#2	3.275703	43.03031	.6764197	.0666414	7.325722	.5559245	.9442751
#3	3.268337	42.68548	.6786638	.0668013	7.219520	.5636969	.9410267

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.54203**	**.2841937**	**.3611632**	**.7081913**	**4.929289**	**10.63823**	**10.97508**
Stddev	.16772	.0044841	.0006856	.0020467	.031760	.12445	.01661
%RSD	.7440224	1.577838	.1898421	.2889968	.6443217	1.169874	.1513226
#1	22.35329	.2790667	.3611684	.7105369	4.894434	10.52611	10.98820
#2	22.67398	.2861305	.3604749	.7067688	4.936838	10.77214	10.98064
#3	22.59881	.2873839	.3618461	.7072681	4.956595	10.61644	10.95641

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01MSD Acquired: 7/30/2025 15:10:26 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.013119**	**.3462411**	**.2416500**
Stddev	.010549	.0026635	.0005436
%RSD	.2628731	.7692745	.2249378
#1	4.025100	.3432123	.2418709
#2	4.005224	.3482185	.2420484
#3	4.009033	.3472925	.2410308

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5684.398**	**92113.34**	**7564.379**	**4712.561**	**5774.085**
Stddev	11.552	541.02	35.066	33.827	6.074
%RSD	.2032199	.5873455	.4635620	.7178091	.1051899
#1	5680.702	92406.76	7545.139	4701.877	5774.159
#2	5697.346	91489.00	7543.144	4685.367	5780.121
#3	5675.147	92444.27	7604.853	4750.441	5767.974

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01A Acquired: 7/30/2025 15:14:23 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7122266**	**1.920733**	**1.331729**	**1.669297**	**.6939554**	**76.94061**	**.7865072**
Stddev	.0015731	.063177	.001207	.006087	.0034967	.21643	.0021844
%RSD	.2208699	3.289235	.0906185	.3646666	.5038751	.2812955	.2777379
#1	.7126502	1.849098	1.333116	1.664596	.6949187	76.74354	.7839972
#2	.7104851	1.944605	1.330918	1.667123	.6900781	76.90604	.7879776
#3	.7135446	1.968496	1.331153	1.676174	.6968695	77.17224	.7875469

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1842459**	**.1926204**	**54.82011**	**.5162283**	**.2959283**	**.6470657**	**198.3757**
Stddev	.0009492	.0002724	.05280	.0045486	.0002007	.0021666	1.9103
%RSD	.5151704	.1414133	.0963099	.8811273	.0678164	.3348362	.9629947
#1	.1853333	.1923642	54.86752	.5113260	.2958101	.6488985	196.2149
#2	.1835838	.1925904	54.82958	.5170470	.2958148	.6446746	199.8403
#3	.1838205	.1929065	54.76321	.5203120	.2961600	.6476239	199.0719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.219722**	**42.65729**	**.6857109**	**.0732372**	**8.168055**	**.5564588**	**.9507418**
Stddev	.007521	.11330	.0015449	.0007886	.109374	.0031553	.0024026
%RSD	.2336056	.2656159	.2253018	1.076791	1.339044	.5670296	.2527097
#1	3.214615	42.58742	.6839925	.0724168	8.042600	.5535179	.9518637
#2	3.216192	42.59643	.6861551	.0739896	8.243366	.5597918	.9479834
#3	3.228359	42.78802	.6869850	.0733051	8.218200	.5560666	.9523783

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.46632**	**.3540480**	**.3654778**	**.7214095**	**4.863170**	**12.30293**	**11.12171**
Stddev	.21116	.0040629	.0004651	.0019042	.009647	.09385	.01225
%RSD	.8630719	1.147554	.1272695	.2639512	.1983782	.7628336	.1101036
#1	24.22250	.3495584	.3652358	.7193387	4.854986	12.20021	11.11241
#2	24.58940	.3574717	.3651837	.7218047	4.860717	12.38420	11.13559
#3	24.58708	.3551139	.3660141	.7230850	4.873807	12.32436	11.11715

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2710-01A Acquired: 7/30/2025 15:14:23 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.056537**	**.3555702**	**.2182520**
Stddev	.013429	.0044359	.0011740
%RSD	.3310490	1.247548	.5379249
#1	4.042088	.3504766	.2193310
#2	4.058889	.3585847	.2170018
#3	4.068635	.3576493	.2184233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5655.580**	**90776.31**	**8287.771**	**4648.104**	**5728.733**
Stddev	2.826	528.28	31.050	4.025	6.246
%RSD	.0499673	.5819536	.3746461	.0865938	.1090325
#1	5656.471	91384.67	8271.620	4643.646	5730.543
#2	5652.416	90510.89	8323.567	4651.470	5721.782
#3	5657.853	90433.38	8268.125	4649.197	5733.875

Sample Name: Q2696-02 Acquired: 7/30/2025 15:18:19 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006123**	**-.005592**	**.0011237**	**.0035102**	**.0006647**	**.0551887**	**.0045722**
Stddev	.002956	.004804	.0012414	.0033612	.0011002	.0065359	.0010819
%RSD	48.27151	85.91212	110.4781	95.75588	165.5100	11.84280	23.66226
#1	-.003991	-.009118	.0012519	.0073878	.0000673	.0562833	.0035923
#2	-.009497	-.000120	-.000177	.0017147	-.000008	.0481746	.0043910
#3	-.004881	-.007537	.002296	.0014280	.001934	.0611082	.0057332

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000020**	**.0000770**	**4.754596**	**.0042592**	**.0077267**	**.0054148**	**.1716031**
Stddev	.000044	.0000623	.038486	.0003057	.0002054	.0003632	.0023104
%RSD	222.9866	80.91752	.8094403	7.178625	2.658144	6.707606	1.346355
#1	-.000020	.0001482	4.738389	.0043800	.0077859	.0055308	.1742672
#2	.000024	.0000329	4.726865	.0044860	.0078959	.0050078	.1701502
#3	-.000063	.0000498	4.798535	.0039115	.0074982	.0057059	.1703918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0210699**	**1.827309**	**.0117223**	**-.000009**	**14.95277**	**-.004047**	**.0431089**
Stddev	.0000807	.000499	.0003171	.000291	.07351	.003355	.0002247
%RSD	.3827990	.0273057	2.705502	3379.686	.4915871	82.89351	.5213212
#1	.0211630	1.827884	.0119784	.000178	14.99272	-.000253	.0430361
#2	.0210264	1.826991	.0118210	.000140	14.99766	-.005268	.0433610
#3	.0210204	1.827052	.0113676	-.000344	14.86794	-.006621	.0429296

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.014832**	**.0044712**	**.0007225**	**-.001840**	**.0012054**	**6.256002**	**.0130781**
Stddev	.050195	.0007523	.0004561	.000455	.0022504	.034470	.0014794
%RSD	4.946145	16.82477	63.12398	24.71599	186.6968	.5509875	11.31176
#1	1.019290	.0049494	.0012404	-.002362	-.000061	6.229801	.0123878
#2	1.062650	.0036041	.0005468	-.001528	.003804	6.295051	.0147765
#3	.962557	.0048601	.0003805	-.001630	-.000127	6.243156	.0120701

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02 Acquired: 7/30/2025 15:18:19 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.657215	-.012186	.0263546
Stddev	.036957	.002305	.0002391
%RSD	.6532804	18.91524	.9073393
#1	5.699221	-.012864	.0261913
#2	5.642732	-.009618	.0262435
#3	5.629693	-.014075	.0266291

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5116.359	83739.53	7276.369	4260.307	6357.847
Stddev	32.465	138.64	50.153	15.176	32.682
%RSD	.6345353	.1655651	.6892550	.3562168	.5140483
#1	5081.564	83637.21	7274.621	4242.805	6321.581
#2	5145.839	83897.32	7327.373	4269.818	6385.021
#3	5121.672	83684.05	7227.113	4268.297	6366.938

Sample Name: Q2696-02DUP Acquired: 7/30/2025 15:22:35 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005521**	**.0032249**	**.0031024**	**.0045912**	**.0000555**	**.0598953**	**.0062760**
Stddev	.002058	.0075004	.0008779	.0017668	.0007180	.0076212	.0009590
%RSD	37.27892	232.5789	28.29854	38.48218	1293.860	12.72416	15.28009
#1	-.003190	.0000282	.0039125	.0026454	-.000225	.0572042	.0072888
#2	-.007089	-.002148	.0032252	.0060951	-.000480	.0539847	.0061576
#3	-.006285	.011794	.0021695	.0050332	.000871	.0684969	.0053818

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000082**	**.0000409**	**4.803032**	**.0039782**	**.0078521**	**.0049670**	**.1614243**
Stddev	.000050	.0000691	.018368	.0001628	.0001803	.0005292	.0074684
%RSD	60.83922	168.8628	.3824156	4.092735	2.296876	10.65528	4.626595
#1	-.000134	.0000865	4.815600	.0041455	.0080597	.0053401	.1559094
#2	-.000035	-.000039	4.781953	.0038203	.0077625	.0051995	.1584402
#3	-.000078	.000075	4.811544	.0039686	.0077341	.0043612	.1699235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0208786**	**1.844203**	**.0121048**	**-.000078**	**14.19112**	**-.003183**	**.0417093**
Stddev	.0002852	.028411	.0002774	.000346	.04184	.001613	.0001750
%RSD	1.365773	1.540545	2.291906	442.6173	.2948301	50.68049	.4194948
#1	.0206070	1.841814	.0118680	.000004	14.17929	-.002520	.0415147
#2	.0208532	1.873732	.0124101	.000219	14.15647	-.005022	.0417597
#3	.0211756	1.817061	.0120365	-.000458	14.23760	-.002007	.0418536

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9754961**	**.0043950**	**.0006997**	**-.001775**	**-.000271**	**5.958078**	**.0121999**
Stddev	.0168805	.0002547	.0000142	.000809	.001548	.024158	.0006824
%RSD	1.730448	5.795153	2.035087	45.58316	570.6851	.4054697	5.593099
#1	.9941878	.0046534	.0006843	-.002707	-.000524	5.968851	.0129878
#2	.9709374	.0043872	.0007123	-.001254	.001388	5.930408	.0117951
#3	.9613632	.0041442	.0007026	-.001364	-.001678	5.974976	.0118170

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02DUP Acquired: 7/30/2025 15:22:35 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.854209**	**-.011385**	**.0266128**
Stddev	.022223	.001146	.0001802
%RSD	.3796033	10.06485	.6769914
#1	5.831267	-.011305	.0267812
#2	5.855727	-.012568	.0266345
#3	5.875634	-.010281	.0264228

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5012.133**	**84509.60**	**7008.081**	**4299.972**	**6156.444**
Stddev	23.437	180.23	26.525	21.806	25.259
%RSD	.4676125	.2132628	.3784903	.5071210	.4102924
#1	5029.238	84389.59	6979.452	4289.687	6178.012
#2	5021.744	84716.85	7012.970	4325.019	6162.665
#3	4985.418	84422.36	7031.822	4285.211	6128.656

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02LX5 Acquired: 7/30/2025 15:26:52 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004005**	**-.008719**	**.0010620**	**.0040981**	**.0007795**	**.0138160**	**.0007887**
Stddev	.002357	.005350	.0000495	.0024878	.0010336	.0037387	.0005895
%RSD	58.85773	61.35321	4.657230	60.70688	132.5977	27.06050	74.75161
#1	-.006701	-.004442	.0010479	.0029008	-.000370	.0098688	.0001086
#2	-.002973	-.014718	.0010210	.0024353	.001632	.0173038	.0011556
#3	-.002339	-.006999	.0011169	.0069583	.001076	.0142755	.0011018

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000769**	**.0000894**	**.9550215**	**.0003378**	**.0016723**	**.0007870**	**.0260890**
Stddev	.0000615	.0000733	.0179899	.0001537	.0001374	.0000424	.0019392
%RSD	80.00960	81.98268	1.883721	45.51205	8.213173	5.385777	7.433158
#1	.0001427	.0000355	.9380897	.0004869	.0018272	.0007423	.0240748
#2	.0000673	.0001728	.9739097	.0001798	.0016242	.0007919	.0262488
#3	.0000207	.0000598	.9530650	.0003466	.0015655	.0008266	.0279434

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037950**	**.3749895**	**.0026548**	**-.000176**	**2.832743**	**-.003706**	**.0078905**
Stddev	.0004324	.0120833	.0002675	.000364	.011612	.004869	.0001685
%RSD	11.39463	3.222310	10.07723	206.8817	.4099033	131.3849	2.135159
#1	.0035350	.3737136	.0023577	-.000204	2.832295	-.000761	.0080025
#2	.0035559	.3635947	.0028766	.000201	2.821363	-.009326	.0079723
#3	.0042942	.3876601	.0027301	-.000525	2.844573	-.001031	.0076967

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2210127**	**-.003262**	**-.000081**	**-.001209**	**.0001737**	**1.244496**	**.0045587**
Stddev	.0113252	.000637	.000088	.000381	.0007990	.009958	.0024155
%RSD	5.124232	19.53877	108.1133	31.52537	460.0484	.8001453	52.98676
#1	.2197451	-.003658	-.000138	-.001354	.0010922	1.254730	.0044729
#2	.2103747	-.002527	.000020	-.000777	-.000360	1.234839	.0070159
#3	.2329184	-.003602	-.000126	-.001497	-.000211	1.243918	.0021872

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02LX5 Acquired: 7/30/2025 15:26:52 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.188857**	**-.008855**	**.0053153**
Stddev	.004202	.001078	.0001111
%RSD	.3534444	12.17659	2.089751
#1	1.191854	-.007699	.0052965
#2	1.190662	-.009030	.0052148
#3	1.184054	-.009834	.0054345

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5144.743**	**84234.51**	**7272.815**	**4305.756**	**6424.849**
Stddev	5.588	172.59	38.117	23.471	3.718
%RSD	.1086164	.2048866	.5241073	.5451186	.0578749
#1	5150.832	84300.86	7265.966	4332.266	6429.141
#2	5143.549	84038.60	7238.586	4287.618	6422.818
#3	5139.849	84364.08	7313.892	4297.385	6422.589

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02MS Acquired: 7/30/2025 15:31:11 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7888720**	**2.117350**	**.9304837**	**1.968902**	**.8382844**	**2.129216**	**.2155801**
Stddev	.0032794	.015044	.0045694	.002337	.0028758	.005117	.0020880
%RSD	.4157049	.7105175	.4910764	.1186966	.3430553	.2403369	.9685302
#1	.7904548	2.102160	.9300561	1.969294	.8377300	2.124211	.2160508
#2	.7851014	2.117646	.9261432	1.966394	.8357263	2.128998	.2173925
#3	.7910597	2.132244	.9352519	1.971019	.8413971	2.134439	.2132970

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2057854**	**.1864743**	**5.638202**	**.4084600**	**.2080795**	**.3189355**	**3.213820**
Stddev	.0009635	.0005137	.015903	.0005873	.0010036	.0007883	.009067
%RSD	.4682149	.2754652	.2820591	.1437854	.4822979	.2471654	.2821342
#1	.2051470	.1864281	5.656121	.4088916	.2070721	.3186896	3.221042
#2	.2053156	.1859853	5.632719	.4086973	.2080871	.3182994	3.203644
#3	.2068937	.1870095	5.625766	.4077912	.2090792	.3198174	3.216774

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2323040**	**3.810752**	**.5110630**	**.0748458**	**17.21699**	**.3092281**	**.2730850**
Stddev	.0011312	.021423	.0015033	.0006834	.04793	.0042717	.0026765
%RSD	.4869448	.5621783	.2941436	.9131238	.2783600	1.381402	.9800849
#1	.2319979	3.820426	.5104511	.0740586	17.27226	.3062840	.2741775
#2	.2313574	3.786198	.5099622	.0752873	17.18692	.3072728	.2700351
#3	.2335568	3.825631	.5127757	.0751916	17.19179	.3141274	.2750423

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.93945**	**.2912683**	**.4430366**	**.7079905**	**.2115306**	**6.812171**	**5.451847**
Stddev	.08197	.0020133	.0015185	.0013983	.0012032	.029726	.013136
%RSD	.7493210	.6912044	.3427399	.1975008	.5688203	.4363643	.2409444
#1	11.03398	.2890314	.4426056	.7071381	.2103165	6.845911	5.459476
#2	10.88814	.2918387	.4417803	.7072291	.2127227	6.789840	5.436679
#3	10.89622	.2929348	.4447240	.7096042	.2115528	6.800761	5.459386

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02MS Acquired: 7/30/2025 15:31:11 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.531509**	**.1770427**	**.2321601**
Stddev	.019354	.0039411	.0003439
%RSD	.3498890	2.226082	.1481310
#1	5.529709	.1750585	.2321375
#2	5.513117	.1815816	.2325147
#3	5.551700	.1744880	.2318280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5046.358**	**83478.96**	**7263.068**	**4280.863**	**6211.688**
Stddev	9.383	205.35	25.328	26.338	11.840
%RSD	.1859309	.2459894	.3487185	.6152567	.1906024
#1	5040.494	83351.75	7292.255	4260.300	6206.169
#2	5057.180	83369.28	7246.869	4310.550	6225.280
#3	5041.401	83715.87	7250.080	4271.740	6203.616

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV02 Acquired: 7/30/2025 15:35:09 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.110117**	**5.446042**	**4.898166**	**5.192403**	**5.168572**	**10.06416**	**10.51085**
Stddev	.025610	.030758	.011359	.024763	.024981	.05168	.01254
%RSD	.5011717	.5647688	.2318953	.4768990	.4833326	.5135234	.1193064
#1	5.085883	5.469073	4.893356	5.172592	5.148991	10.11695	10.52225
#2	5.107557	5.411113	4.890004	5.184452	5.160019	10.06187	10.51288
#3	5.136912	5.457939	4.911138	5.220164	5.196707	10.01366	10.49742

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2711322**	**2.447333**	**26.17268**	**.9829471**	**2.483253**	**1.269732**	**4.863205**
Stddev	.0002988	.004494	.07510	.0016363	.005960	.005569	.004763
%RSD	.1101931	.1836353	.2869547	.1664683	.2400123	.4385606	.0979451
#1	.2712275	2.444628	26.14864	.9830572	2.478303	1.264337	4.857851
#2	.2707973	2.444850	26.11253	.9812585	2.481587	1.269399	4.864794
#3	.2713716	2.452521	26.25685	.9845256	2.489869	1.275459	4.866971

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.583860**	**24.69313**	**2.491447**	**1.273406**	**22.62203**	**2.503742**	**2.550918**
Stddev	.003337	.04015	.004021	.001554	.01928	.006660	.004004
%RSD	.1291422	.1625923	.1613765	.1220169	.0852349	.2660065	.1569807
#1	2.587681	24.73707	2.488148	1.272149	22.60002	2.510914	2.546299
#2	2.581524	24.65835	2.490268	1.272924	22.63592	2.502558	2.553046
#3	2.582373	24.68396	2.495925	1.275143	22.63016	2.497752	2.553409

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.63770**	**5.435347**	**5.141573**	**4.989485**	**5.274438**	**4.605846**	**4.783096**
Stddev	.04989	.018336	.020596	.010191	.009563	.020104	.003363
%RSD	.2024884	.3373424	.4005694	.2042422	.1813042	.4364922	.0703077
#1	24.58010	5.440687	5.122374	4.981188	5.265865	4.584075	4.784949
#2	24.66760	5.414934	5.139016	4.986407	5.272699	4.609753	4.779214
#3	24.66539	5.450420	5.163327	5.000860	5.284751	4.623710	4.785124

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV02 Acquired: 7/30/2025 15:35:09 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.040401**	**4.930325**	**5.304377**
Stddev	.024163	.017026	.023538
%RSD	.4793893	.3453253	.4437395
#1	5.022739	4.948047	5.316979
#2	5.030527	4.928834	5.318930
#3	5.067938	4.914093	5.277221

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4966.568**	**81647.20**	**6920.268**	**4181.058**	**5858.620**
Stddev	14.805	70.48	20.292	10.725	11.822
%RSD	.2980840	.0863287	.2932236	.2565136	.2017864
#1	4975.127	81646.72	6910.622	4191.769	5857.170
#2	4975.103	81717.92	6943.583	4181.087	5871.101
#3	4949.473	81576.95	6906.598	4170.319	5847.591

Sample Name: CCB02 Acquired: 7/30/2025 15:39:20 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002088**	**-.012281**	**.0007345**	**.0050444**	**-.001185**	**-.007889**	**.0019716**
Stddev	.000964	.002383	.0011128	.0004609	.001786	.001759	.0005839
%RSD	46.16701	19.40811	151.5104	9.137146	150.7614	22.29645	29.61649
#1	-.000998	-.010879	.0016694	.0045324	-.001377	-.006961	.0019873
#2	-.002438	-.015033	.0010305	.0051743	-.002867	-.009918	.0025475
#3	-.002827	-.010931	-.000496	.0054263	.000690	-.006789	.0013800

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001265**	**.0002619**	**-.000605**	**.0002637**	**.0004150**	**-.000405**	**-.001880**
Stddev	.0000488	.0000255	.001135	.0003263	.0001486	.000443	.004926
%RSD	38.56309	9.729720	187.6783	123.7641	35.80927	109.2704	261.9912
#1	.0001074	.0002833	.000286	.0004676	.0005860	-.000917	-.005704
#2	.0001819	.0002337	-.001883	-.000113	.0003414	-.000149	.003678
#3	.0000901	.0002685	-.000217	.000436	.0003175	-.000150	-.003614

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000732**	**.0191628**	**.0005042**	**.0005214**	**-.146192**	**-.001326**	**-.000674**
Stddev	.000129	.0066863	.0003889	.0003094	.008045	.002502	.000271
%RSD	17.67888	34.89184	77.13143	59.34283	5.502994	188.6608	40.18637
#1	-.000593	.0223276	.0008606	.0007653	-.151959	-.004000	-.000402
#2	-.000755	.0114818	.0005626	.0006254	-.149615	-.000939	-.000943
#3	-.000849	.0236792	.0000894	.0001734	-.137001	.000960	-.000677

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0361879**	**.0005968**	**.0011799**	**-.000663**	**.0014082**	**.0020690**	**.0032629**
Stddev	.0171439	.0006831	.0001033	.000483	.0027667	.0047594	.0013645
%RSD	47.37477	114.4762	8.751572	72.74928	196.4663	230.0296	41.81909
#1	.0550939	-.000191	.0011281	-.000457	.0009300	.0061235	.0029790
#2	.0318180	.001032	.0011128	-.001215	.0043829	.0032547	.0047471
#3	.0216518	.000948	.0012988	-.000318	-.001088	-.003171	.0020627

Sample Name: CCB02 Acquired: 7/30/2025 15:39:20 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002719	-.009884	.0005073
Stddev	.000643	.001116	.0001663
%RSD	23.65581	11.28632	32.78726
#1	-.001981	-.009559	.0006993
#2	-.003022	-.011126	.0004137
#3	-.003156	-.008968	.0004088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5202.412	83017.64	7407.339	4271.296	6598.880
Stddev	10.424	155.45	64.487	4.851	6.256
%RSD	.2003595	.1872479	.8705806	.1135668	.0948023
#1	5202.338	82931.04	7456.039	4276.399	6595.938
#2	5212.872	82924.79	7334.206	4270.745	6606.064
#3	5192.025	83197.10	7431.771	4266.744	6594.638

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02MSD Acquired: 7/30/2025 15:43:53 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7671148**	**2.088093**	**.9018027**	**1.923474**	**.8136617**	**2.110254**	**.2163336**
Stddev	.0031488	.028583	.0025675	.005764	.0014627	.009101	.0009085
%RSD	.4104678	1.368856	.2847082	.2996586	.1797696	.4312664	.4199689
#1	.7694855	2.106379	.9037416	1.929905	.8125014	2.100034	.2172588
#2	.7683169	2.102745	.9027757	1.918775	.8153047	2.113244	.2154426
#3	.7635421	2.055155	.8988910	1.921742	.8131789	2.117484	.2162995

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2106503**	**.1800140**	**5.802626**	**.4031485**	**.2028910**	**.3117519**	**3.186172**
Stddev	.0011062	.0001219	.019371	.0010846	.0004010	.0004751	.008045
%RSD	.5251252	.0677307	.3338401	.2690282	.1976644	.1524087	.2524849
#1	.2095779	.1799266	5.788803	.4019004	.2032076	.3115555	3.177115
#2	.2105856	.1801533	5.824767	.4036834	.2030255	.3122937	3.192488
#3	.2117874	.1799621	5.794307	.4038617	.2024401	.3114063	3.188913

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2349023**	**3.804914**	**.4960641**	**.0752155**	**17.50775**	**.3064580**	**.2728574**
Stddev	.0005545	.038859	.0007721	.0004069	.05409	.0007037	.0007964
%RSD	.2360435	1.021291	.1556448	.5409867	.3089504	.2296277	.2918723
#1	.2342814	3.830968	.4965861	.0749035	17.55078	.3057327	.2720238
#2	.2350774	3.823525	.4964290	.0750672	17.52545	.3065033	.2736105
#3	.2353481	3.760250	.4951772	.0756758	17.44703	.3071379	.2729377

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.07560**	**.2994569**	**.4342480**	**.6973314**	**.2108727**	**6.904178**	**5.153216**
Stddev	.05959	.0028473	.0001825	.0021358	.0011990	.044338	.014772
%RSD	.5380371	.9508144	.0420336	.3062805	.5686066	.6421856	.2866603
#1	11.04088	.2965589	.4341081	.6996439	.2098325	6.926347	5.147097
#2	11.14441	.2995612	.4341814	.6969173	.2121841	6.933059	5.170064
#3	11.04151	.3022506	.4344545	.6954329	.2106014	6.853128	5.142486

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02MSD Acquired: 7/30/2025 15:43:53 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.489902**	**.1765176**	**.2359100**
Stddev	.023536	.0023371	.0002463
%RSD	.4287220	1.324024	.1043829
#1	5.504918	.1791027	.2356419
#2	5.502012	.1758959	.2361262
#3	5.462776	.1745542	.2359618

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5169.264**	**82458.26**	**7154.177**	**4201.455**	**6445.482**
Stddev	3.381	235.89	35.110	9.254	12.254
%RSD	.0654084	.2860659	.4907589	.2202569	.1901124
#1	5166.230	82709.36	7192.096	4212.015	6435.829
#2	5168.653	82241.31	7147.641	4194.762	6441.349
#3	5172.909	82424.12	7122.795	4197.587	6459.267

Sample Name: Q2696-02A Acquired: 7/30/2025 15:47:51 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7749808	2.053247	.9121121	1.935019	.8253481	2.124706	.2156277
Stddev	.0009442	.013678	.0061698	.005781	.0005551	.011102	.0000791
%RSD	.1218353	.6661801	.6764288	.2987616	.0672555	.5225009	.0366917
#1	.7742874	2.066476	.9124176	1.932140	.8247239	2.114923	.2155738
#2	.7745988	2.054103	.9181235	1.941674	.8257865	2.136771	.2157186
#3	.7760561	2.039160	.9057953	1.931243	.8255338	2.122424	.2155908

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2033257	.1825321	5.688699	.4049806	.2058200	.3144208	3.231513
Stddev	.0005482	.0010533	.022108	.0007278	.0012213	.0012089	.006411
%RSD	.2696381	.5770483	.3886245	.1797227	.5933882	.3844830	.1983793
#1	.2027912	.1824511	5.663293	.4049350	.2055952	.3144038	3.225702
#2	.2032993	.1836236	5.699240	.4042767	.2071381	.3156381	3.238389
#3	.2038867	.1815217	5.703563	.4057302	.2047267	.3132205	3.230446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2323659	3.785118	.5025149	.0745651	17.51350	.3058781	.2572921
Stddev	.0015933	.006679	.0028990	.0003609	.02438	.0048363	.0004899
%RSD	.6856945	.1764653	.5769022	.4839912	.1392262	1.581117	.1904185
#1	.2315469	3.777732	.5016266	.0749811	17.52152	.3080907	.2574422
#2	.2313486	3.790735	.5057541	.0743778	17.53286	.3092123	.2567446
#3	.2342021	3.786887	.5001639	.0743363	17.48611	.3003313	.2576893

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.02225	.2879054	.4415374	.6974331	.2117992	6.888079	5.233726
Stddev	.06898	.0008146	.0012601	.0046577	.0012032	.012444	.025502
%RSD	.6258562	.2829519	.2853936	.6678365	.5680712	.1806529	.4872586
#1	10.96589	.2872591	.4404440	.6942904	.2110226	6.900920	5.232143
#2	11.00168	.2876366	.4429155	.7027843	.2111898	6.876075	5.259983
#3	11.09918	.2888204	.4412526	.6952247	.2131851	6.887243	5.209053

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: Q2696-02A Acquired: 7/30/2025 15:47:51 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.401589**	**.1744039**	**.2327627**
Stddev	.021696	.0021470	.0003356
%RSD	.4016662	1.231053	.1441943
#1	5.391000	.1768486	.2323773
#2	5.426546	.1728248	.2329906
#3	5.387220	.1735384	.2329203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5141.642**	**83854.62**	**7371.887**	**4267.933**	**6375.820**
Stddev	17.576	53.69	6.349	6.141	29.664
%RSD	.3418375	.0640292	.0861257	.1438830	.4652538
#1	5149.236	83800.40	7377.597	4262.742	6383.394
#2	5121.546	83907.77	7373.014	4274.712	6343.104
#3	5154.144	83855.68	7365.050	4266.345	6400.962

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV03 Acquired: 7/30/2025 15:51:49 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.168635**	**5.459337**	**4.932602**	**5.260799**	**5.230958**	**10.08839**	**10.45417**
Stddev	.015191	.100319	.025337	.026698	.019477	.00930	.09674
%RSD	.2939035	1.837571	.5136555	.5074933	.3723488	.0921401	.9254136
#1	5.158828	5.344266	4.913939	5.232979	5.211151	10.09904	10.42241
#2	5.160945	5.505344	4.922421	5.263207	5.231634	10.08418	10.56280
#3	5.186134	5.528401	4.961445	5.286212	5.250088	10.08194	10.37730

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2700622**	**2.472016**	**26.27077**	**.9620063**	**2.508960**	**1.284842**	**4.866834**
Stddev	.0015189	.013298	.06898	.0056684	.011263	.004253	.018377
%RSD	.5624271	.5379583	.2625907	.5892249	.4489050	.3310378	.3775912
#1	.2684794	2.460880	26.19382	.9680279	2.499936	1.281750	4.880557
#2	.2715079	2.468427	26.32707	.9567738	2.505363	1.283083	4.845956
#3	.2701995	2.486740	26.29142	.9612171	2.521582	1.289693	4.873988

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.596537**	**24.79152**	**2.518970**	**1.269095**	**23.90668**	**2.511263**	**2.545319**
Stddev	.006086	.05594	.011492	.001057	.12147	.005533	.007414
%RSD	.2343824	.2256247	.4562056	.0832752	.5080992	.2203155	.2912645
#1	2.589510	24.77541	2.509925	1.269493	24.04689	2.512251	2.552531
#2	2.600037	24.74541	2.515084	1.269894	23.83361	2.516235	2.545709
#3	2.600065	24.85374	2.531901	1.267897	23.83952	2.505303	2.537719

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.67910**	**5.397771**	**5.178635**	**5.027418**	**5.314767**	**4.619003**	**4.847606**
Stddev	.09003	.040750	.020474	.022126	.012900	.013984	.027833
%RSD	.3648051	.7549379	.3953504	.4401015	.2427271	.3027570	.5741689
#1	24.78221	5.350734	5.159033	5.008907	5.307894	4.629838	4.833030
#2	24.61610	5.422361	5.176990	5.021425	5.329648	4.603217	4.830087
#3	24.63898	5.420218	5.199881	5.051923	5.306758	4.623956	4.879700

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCV03 Acquired: 7/30/2025 15:51:49 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.127617**	**4.957136**	**5.331453**
Stddev	.030788	.001672	.035016
%RSD	.6004441	.0337378	.6567833
#1	5.095429	4.958678	5.371539
#2	5.130639	4.955358	5.306830
#3	5.156783	4.957373	5.315991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4875.340**	**82364.93**	**6970.581**	**4144.832**	**5730.633**
Stddev	18.301	169.87	22.438	8.966	27.098
%RSD	.3753759	.2062367	.3218970	.2163082	.4728592
#1	4885.174	82182.37	6995.583	4142.039	5746.196
#2	4886.622	82518.33	6952.195	4137.594	5746.361
#3	4854.225	82394.10	6963.965	4154.861	5699.344

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCB03 Acquired: 7/30/2025 15:56:00 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004844**	**-.009643**	**-.000900**	**.0026681**	**.0015163**	**-.000989**	**.0010208**
Stddev	.0020075	.007740	.000771	.0015123	.0004617	.003703	.0008305
%RSD	414.4637	80.26561	85.70684	56.67915	30.45160	374.5167	81.36001
#1	.0025402	-.005164	-.000835	.0019836	.0018845	-.000607	.0019617
#2	.0003842	-.005184	-.000163	.0044016	.0016661	-.004868	.0003896
#3	-.001471	-.018580	-.001701	.0016191	.0009982	.002509	.0007112

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001287**	**.0003403**	**-.003901**	**-.000168**	**.0004013**	**-.000627**	**-.002791**
Stddev	.0000821	.0000814	.003230	.000200	.0001111	.000231	.001059
%RSD	63.74199	23.92082	82.79518	119.3443	27.69258	36.79733	37.94803
#1	.0000710	.0004105	-.007600	-.000192	.0004899	-.000565	-.003810
#2	.0000925	.0003594	-.002470	-.000354	.0004373	-.000434	-.001696
#3	.0002227	.0002511	-.001634	.000043	.0002766	-.000883	-.002866

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000226**	**.0254761**	**.0008724**	**.0002347**	**-.149333**	**-.003848**	**-.000624**
Stddev	.000249	.0066512	.0000976	.0002428	.017977	.001997	.000237
%RSD	109.8799	26.10749	11.18369	103.4650	12.03810	51.88834	37.99505
#1	.000050	.0242768	.0009505	.0004849	-.169982	-.005878	-.000844
#2	-.000298	.0326453	.0007630	.0002191	-.137166	-.003781	-.000373
#3	-.000431	.0195062	.0009036	.0000000	-.140851	-.001886	-.000657

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0606598**	**.0015877**	**.0011435**	**-.000103**	**.0017234**	**-.000594**	**.0039577**
Stddev	.0384669	.0003656	.0002180	.000393	.0009156	.005130	.0003969
%RSD	63.41422	23.02545	19.06427	382.9241	53.12533	863.2000	10.02731
#1	.0645848	.0019000	.0012725	.000350	.0013987	.001842	.0043994
#2	.0203808	.0016776	.0012662	-.000356	.0010144	-.006489	.0038422
#3	.0970137	.0011856	.0008918	-.000301	.0027571	.002864	.0036314

Reviewed By:MOHAN
On:8/1/2025 5:25:57 PM
Inst Id :P4
LB :LB136658

Sample Name: CCB03 Acquired: 7/30/2025 15:56:00 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0007272	F -.011767	.0008831
Stddev	.0017942	.002762	.0001412
%RSD	246.7389	23.47274	15.99186
#1	.0011287	-.011926	.0009025
#2	.0022866	-.014447	.0010135
#3	-.001234	-.008929	.0007331

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5156.376	83362.69	7576.618	4249.940	6487.306
Stddev	10.390	428.50	34.893	38.053	13.802
%RSD	.2015078	.5140228	.4605352	.8953794	.2127578
#1	5159.474	83722.34	7569.060	4292.928	6500.417
#2	5164.864	82888.58	7614.670	4220.568	6488.599
#3	5144.789	83477.15	7546.123	4236.325	6472.903

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169032

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 07/28/2025 **Time :** 12:20 **Temp :** 96 °C

End Digest Date: 07/28/2025 **Time :** 15:21 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SKG

Supervisor Signature: JPP

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# CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
07/28/25 16:25	SHB metals	JPP / Met Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB169032

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB169032BL	PBW032	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	9
PB169032BS	LCS032	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	10
Q2696-01	RW8-SP100-20250724	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	11
Q2696-02	RW8-SP303-20250724	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	12
Q2696-02MS	RW8-SP303-20250724MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	14
Q2696-02MSD	RW8-SP303-20250724MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	15
Q2696-02DUP	RW8-SP303-20250724DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	13
Q2704-01	MW3	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	16
Q2704-02	MW4	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	17
Q2704-03	MW2D	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	18

WORKLIST(Hardcopy Internal Chain)

WorkList Name : pb169032 **WorkList ID :** 190986 **Department :** Digestion **Date :** 07-28-2025 11:45:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2696-01	RW8-SP100-20250724	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D31	07/24/2025	6010D
Q2696-02	RW8-SP303-20250724	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D31	07/24/2025	6010D
Q2704-01	MW3	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D
Q2704-02	MW4	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D
Q2704-03	MW2D	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D

Date/Time 07/28/25 12:05
Raw Sample Received by: SKS metals
Raw Sample Relinquished by: JDCSM

Date/Time 07/28/25 13:05
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: SKS metals

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:28 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	07/29/25 11:20		Jaswal	OK
2	S1	S1	CAL2	07/29/25 11:24		Jaswal	OK
3	S2	S2	CAL3	07/29/25 11:28		Jaswal	OK
4	S3	S3	CAL4	07/29/25 11:32		Jaswal	OK
5	S4	S4	CAL5	07/29/25 11:37		Jaswal	OK
6	S5	S5	CAL6	07/29/25 11:41		Jaswal	OK
7	ICV01	ICV01	ICV	07/29/25 12:20		Jaswal	OK
8	LLICV01	LLICV01	LLICV	07/29/25 13:01		Jaswal	OK
9	ICB01	ICB01	ICB	07/29/25 13:05		Jaswal	OK
10	CRI01	CRI01	CRDL	07/29/25 13:09		Jaswal	OK
11	ICSA01	ICSA01	ICSA	07/29/25 13:14		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	07/29/25 13:20		Jaswal	OK
13	ICSADL	ICSADL	ICSA	07/29/25 13:24		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	07/29/25 13:28		Jaswal	OK
15	CCV01	CCV01	CCV	07/29/25 14:21		Jaswal	OK
16	CCB01	CCB01	CCB	07/29/25 14:25		Jaswal	OK
17	PB169029BL	PB169029BL	MB	07/29/25 14:29		Jaswal	OK
18	PB169029BS	PB169029BS	LCS	07/29/25 14:34		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:28 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

19	Q2700-01	EO-03-072525	SAM	07/29/25 14:38		Jaswal	OK
20	Q2703-01	TP-4	SAM	07/29/25 14:42		Jaswal	OK
21	Q2705-03	FG2A	SAM	07/29/25 14:46		Jaswal	OK
22	Q2705-03DUP	FG2ADUP	DUP	07/29/25 14:50		Jaswal	OK
23	Q2705-03L	FG2AL	SD	07/29/25 14:54		Jaswal	OK
24	Q2705-03MS	FG2AMS	MS	07/29/25 14:59		Jaswal	OK
25	Q2705-03MSD	FG2AMSD	MSD	07/29/25 15:03		Jaswal	OK
26	Q2705-03A	FG2AA	PS	07/29/25 15:07	0.1ml m6004,m6013-10ml sample	Jaswal	OK
27	CCV02	CCV02	CCV	07/29/25 15:11		Jaswal	OK
28	CCB02	CCB02	CCB	07/29/25 15:15		Jaswal	OK
29	Q2705-04	FG2B	SAM	07/29/25 15:19		Jaswal	OK
30	Q2705-05	FG2C	SAM	07/29/25 15:23		Jaswal	OK
31	Q2706-01	RT-5417	SAM	07/29/25 15:27		Jaswal	OK
32	Q2706-03	ETGI-361	SAM	07/29/25 15:31		Jaswal	OK
33	PB169032BL	PB169032BL	MB	07/29/25 15:36		Jaswal	OK
34	Q2696-01	RW8-SP100-2025072	SAM	07/29/25 15:44		Jaswal	OK
35	Q2704-01	MW3	SAM	07/29/25 15:48		Jaswal	OK
36	Q2704-02	MW4	SAM	07/29/25 15:52		Jaswal	OK
37	Q2704-03	MW2D	SAM	07/29/25 15:57		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:28 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

38	PB169032BS	PB169032BS	LCS	07/29/25 16:06		Jaswal	OK
39	CCV03	CCV03	CCV	07/29/25 16:14		Jaswal	OK
40	CCB03	CCB03	CCB	07/29/25 16:20		Jaswal	OK
41	Q2696-02	RW8-SP303-2025072	SAM	07/29/25 16:24	NOT USE	Jaswal	Not Ok
42	Q2696-02DUP	RW8-SP303-2025072	DUP	07/29/25 16:28	NOT USE	Jaswal	Not Ok
43	Q2696-02L	RW8-SP303-2025072	SD	07/29/25 16:32	NOT USE	Jaswal	Not Ok
44	Q2696-02MS	RW8-SP303-2025072	MS	07/29/25 16:36	NOT USE	Jaswal	Not Ok
45	Q2696-02MSD	RW8-SP303-2025072	MSD	07/29/25 16:41	NOT USE	Jaswal	Not Ok
46	Q2696-02A	RW8-SP303-2025072	PS	07/29/25 16:45	NOT USE(0.1ml m6004,m6013-10ml sample	Jaswal	Not Ok
47	PB169048BL	PB169048BL	MB	07/29/25 16:55		Jaswal	OK
48	PB169048BS	PB169048BS	LCS	07/29/25 17:08		Jaswal	OK
49	Q2417-02DL	COMPDL	SAM	07/29/25 17:12	Straight 5x for Dilution for all elements	Jaswal	OK
50	Q2417-02DUPDL	COMPDUPDL	DUP	07/29/25 17:16	Straight 5x for Dilution for all elements	Jaswal	OK
51	CCV04	CCV04	CCV	07/29/25 17:20		Jaswal	OK
52	CCB04	CCB04	CCB	07/29/25 17:24		Jaswal	OK
53	Q2417-02LDL	COMPLDL	SD	07/29/25 17:29	Straight 25x for Dilution for all elements	Jaswal	OK
54	Q2417-02MSDL	COMPMSDL	MS	07/29/25 17:33	Straight 5x for Dilution for all elements	Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:28 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

55	Q2417-02MSDDL	COMPMSDDL	MSD	07/29/25 17:37	Straight 5x for Dilution for all elements	Jaswal	OK
56	Q2417-02ADL	COMPADL	PS	07/29/25 17:41	Straight 5x for Dilution for all elements(0.1ml m6004,m6013-10ml sample before deiltion)	Jaswal	OK
57	Q2706-02	RT-5417	SAM	07/29/25 17:45		Jaswal	OK
58	Q2706-04	ETGI-361	SAM	07/29/25 17:50		Jaswal	OK
59	Q2710-01	JC-03-07282025	SAM	07/29/25 17:54	NOT USE	Jaswal	Not Ok
60	Q2710-01DUP	JC-03-07282025DUP	DUP	07/29/25 17:58	NOT USE	Jaswal	Not Ok
61	Q2710-01L	JC-03-07282025L	SD	07/29/25 18:02	NOT USE	Jaswal	Not Ok
62	Q2710-01MS	JC-03-07282025MS	MS	07/29/25 18:07	NOT USE	Jaswal	Not Ok
63	CCV05	CCV05	CCV	07/29/25 18:11		Jaswal	OK
64	CCB05	CCB05	CCB	07/29/25 18:15		Jaswal	OK
65	Q2710-01MSD	JC-03-07282025MSD	MSD	07/29/25 18:19	CCV fail for Be,Na	Jaswal	Not Ok
66	Q2710-01A	JC-03-07282025A	PS	07/29/25 18:23	CCV fail for Be,Na	Jaswal	Not Ok
67	CCV06	CCV06	CCV	07/29/25 18:31	CCV fail for Be,Na(0.1ml m6004,m6013-10ml sample)	Jaswal	OK
68	CCB06	CCB06	CCB	07/29/25 18:36		Jaswal	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136658

Review By	jaswal	Review On	7/30/2025 9:55:12 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:57 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	07/30/25 13:40		Jaswal	OK
2	S1	S1	CAL2	07/30/25 13:45		Jaswal	OK
3	S2	S2	CAL3	07/30/25 13:49		Jaswal	OK
4	S3	S3	CAL4	07/30/25 13:53		Jaswal	OK
5	S4	S4	CAL5	07/30/25 13:57		Jaswal	OK
6	S5	S5	CAL6	07/30/25 14:01		Jaswal	OK
7	ICV01	ICV01	ICV	07/30/25 14:11		Jaswal	OK
8	LLICV01	LLICV01	LLICV	07/30/25 14:16		Jaswal	OK
9	ICB01	ICB01	ICB	07/30/25 14:20		Jaswal	OK
10	CRI01	CRI01	CRDL	07/30/25 14:24		Jaswal	OK
11	ICSA01	ICSA01	ICSA	07/30/25 14:28		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	07/30/25 14:33		Jaswal	OK
13	ICSADL	ICSADL	ICSA	07/30/25 14:37		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	07/30/25 14:41		Jaswal	OK
15	CCV01	CCV01	CCV	07/30/25 14:45		Jaswal	OK
16	CCB01	CCB01	CCB	07/30/25 14:49		Jaswal	OK
17	Q2710-01	JC-03-07282025	SAM	07/30/25 14:54		Jaswal	OK
18	Q2710-01DUP	JC-03-07282025DUP	DUP	07/30/25 14:58		Jaswal	OK

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Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB136658

Review By	jaswal	Review On	7/30/2025 9:55:12 PM
Supervise By	MOHAN	Supervise On	8/1/2025 5:25:57 PM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

19	Q2710-01L	JC-03-07282025L	SD	07/30/25 15:02		Jaswal	OK
20	Q2710-01MS	JC-03-07282025MS	MS	07/30/25 15:06		Jaswal	OK
21	Q2710-01MSD	JC-03-07282025MSD	MSD	07/30/25 15:10		Jaswal	OK
22	Q2710-01A	JC-03-07282025A	PS	07/30/25 15:14	0.1ML M6004,M6013-10ML SAMPLE	Jaswal	OK
23	Q2696-02	RW8-SP303-2025072	SAM	07/30/25 15:18		Jaswal	OK
24	Q2696-02DUP	RW8-SP303-2025072	DUP	07/30/25 15:22		Jaswal	OK
25	Q2696-02L	RW8-SP303-2025072	SD	07/30/25 15:26		Jaswal	OK
26	Q2696-02MS	RW8-SP303-2025072	MS	07/30/25 15:31		Jaswal	OK
27	CCV02	CCV02	CCV	07/30/25 15:35		Jaswal	OK
28	CCB02	CCB02	CCB	07/30/25 15:39		Jaswal	OK
29	Q2696-02MSD	RW8-SP303-2025072	MSD	07/30/25 15:43		Jaswal	OK
30	Q2696-02A	RW8-SP303-2025072	PS	07/30/25 15:47	0.1ML M6004,M6013-10ML SAMPLE	Jaswal	OK
31	CCV03	CCV03	CCV	07/30/25 15:51		Jaswal	OK
32	CCB03	CCB03	CCB	07/30/25 15:56		Jaswal	OK

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

Prep Standard - Chemical Standard Summary

Order ID : Q2696

Test : Metals Group4

Prepbatch ID : PB169032,

Sequence ID/Qc Batch ID: LB136648,LB136658,

Standard ID :
MP85156,MP86452,MP86453,MP86454,MP86455,MP86456,MP86457,MP86458,MP86459,MP86460,MP86461,MP86462,MP86463,MP86464,

Chemical ID :
M5467,M5470,M5499,M5658,M5747,M5748,M5751,M5798,M5799,M5800,M5801,M5811,M5814,M5816,M5820,M5942,M5962,M5970,M5984,M5985,M5996,M5997,M6007,M6015,M6021,M6023,M6028,M6030,M6032,M6077,M6127,M6128,M6137,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)	MP86452	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6162 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP86453	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5470 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5970 + 5.00000ml of M5996 + 5.00000ml of M5997 + 5.00000ml of M6077 + 5.00000ml of M6146 + 455.00000ml of MP86452 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP86454	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 50.00000ml of MP86452 + 50.00000ml of MP86453 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP86455	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 25.00000ml of MP86453 + 75.00000ml of MP86452 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP86456	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 16.00000ml of MP86453 + 184.00000ml of MP86452 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP86457	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5470 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5499 + 1.00000ml of M5942 + 1.00000ml of M6127 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M5816 + 89.29000ml of MP86452 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP86458	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 2.00000ml of MP86457 + 98.00000ml of MP86452 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP86459	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.80000ml of MP86452 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP86460	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP86452 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP86461	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 10.00000ml of M6152 + 10.00000ml of M6155 + 80.00000ml of MP86452 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP86462	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 50.00000ml of MP86452 + 50.00000ml of MP86453 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP86463	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6162 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP86464	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025

FROM 200.00000ml of M6162 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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	M5470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	04/17/2025 / Janvi	03/17/2023 / bin	M5499

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.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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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

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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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / jaswal	01/13/2025 / Jaswal	M6145

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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	08/24/2025	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

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	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

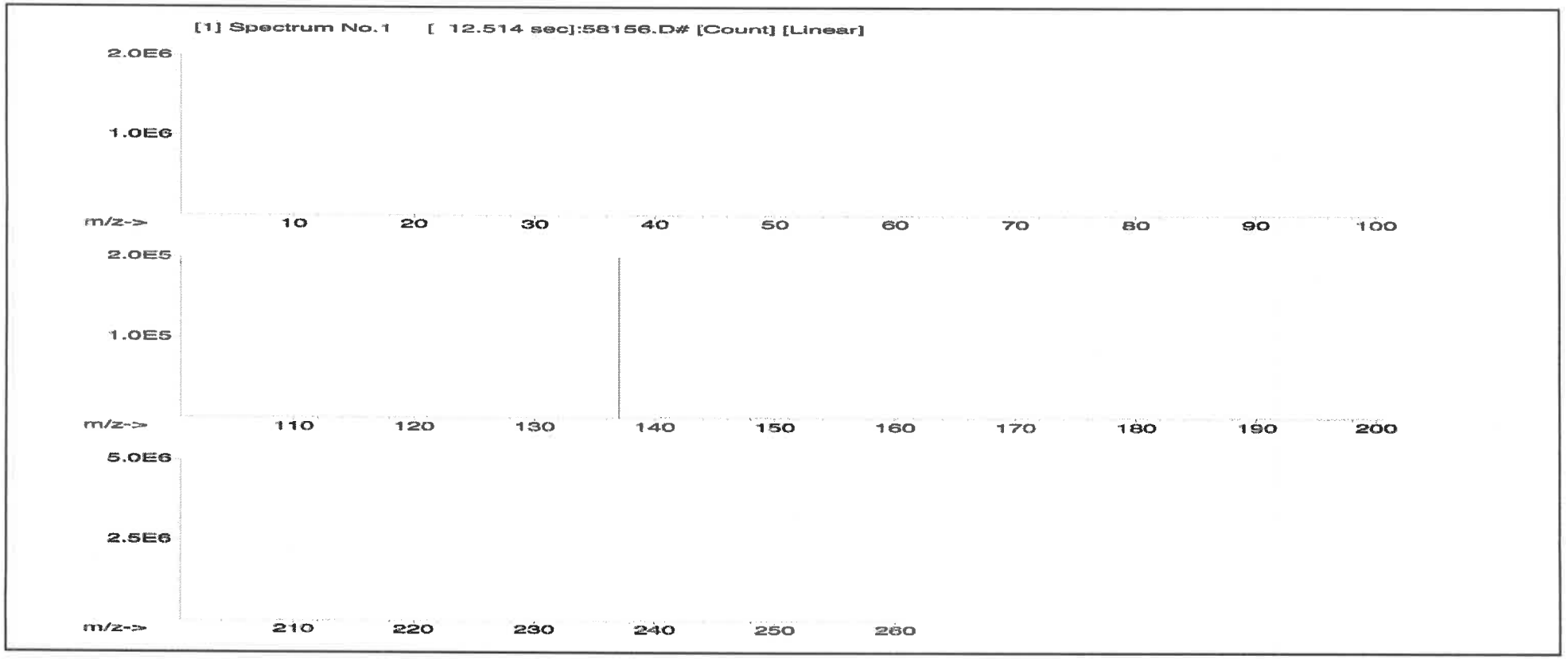
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito		
Formulated By:	Giovanni Esposito	010924
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57048
Lot Number: 070124
Description: Cadmium (Cd)

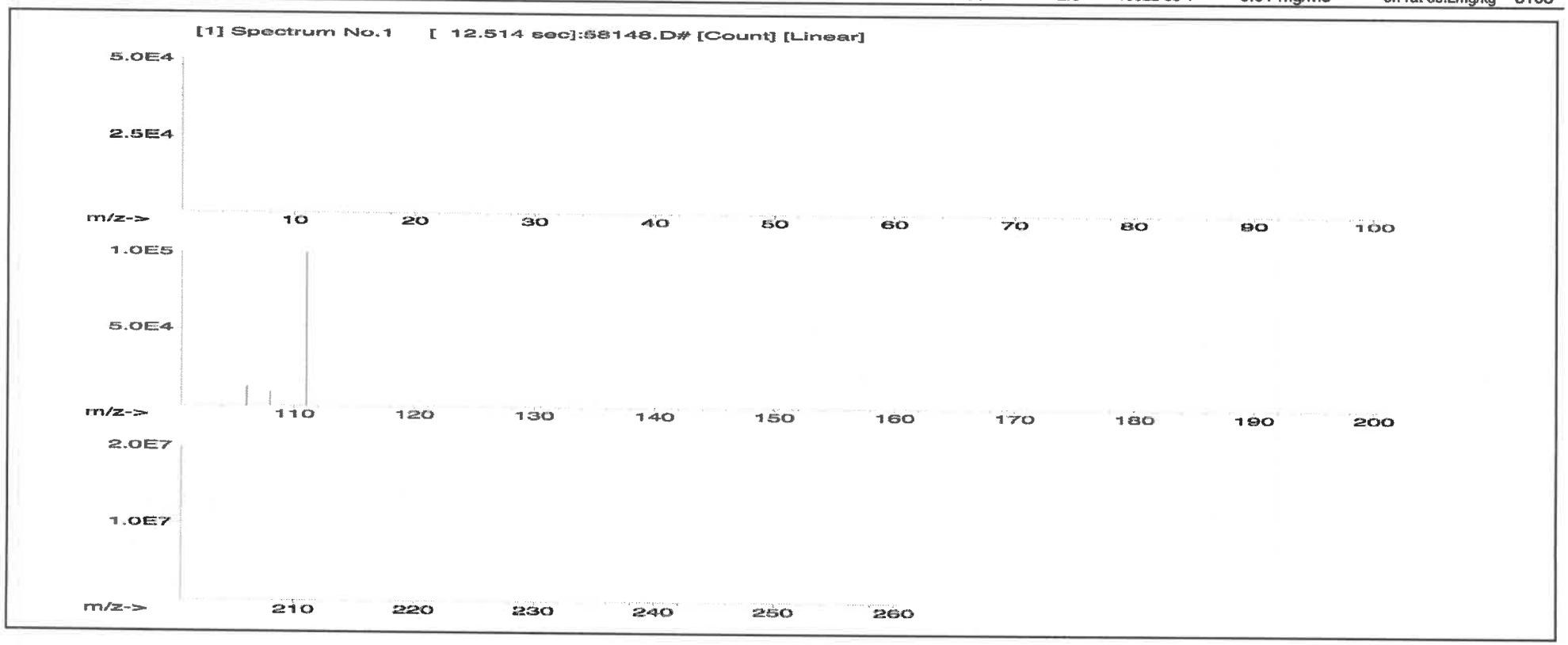
Expiration Date: 070127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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.
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Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**	
Lot Number:	**051523**	**Solvent:**	21110221	Nitric Acid
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty	

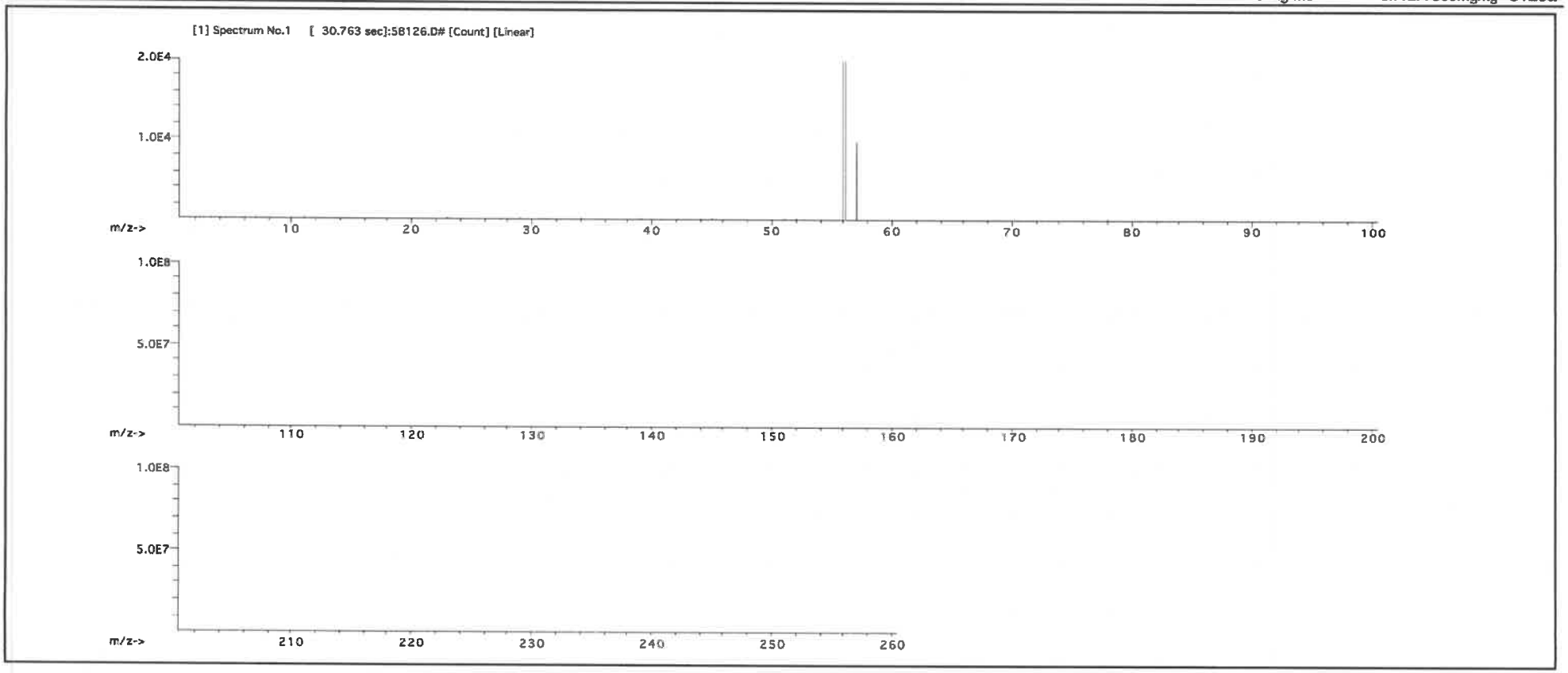
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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Certified Reference Material CRM

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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	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.
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INORGANIC VENTURES

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RD:05/14/2024

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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



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RD:05/14/2024

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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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



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www.absolutestandards.com

Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

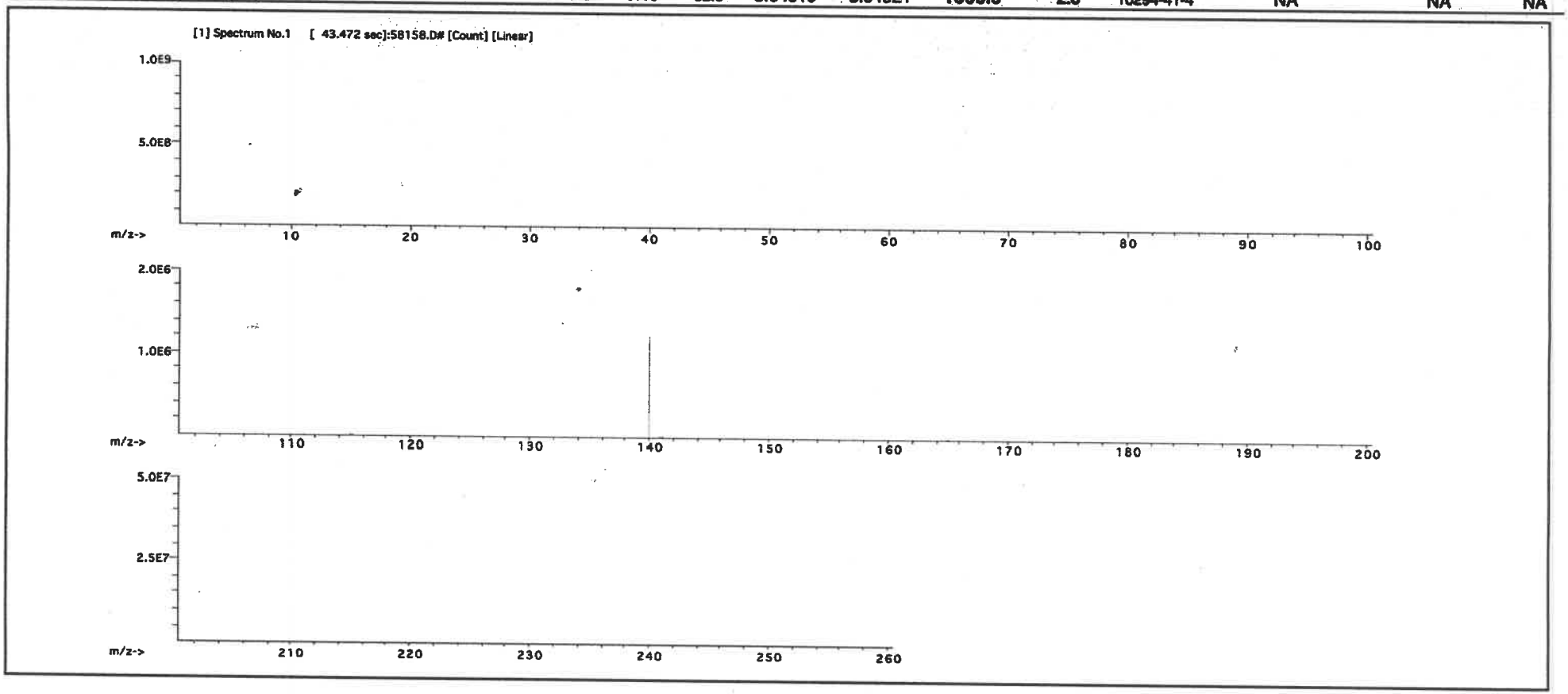
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
	2%	20.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	1000.0	2.0	10294-41-4	NA	NA	NA



2289-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.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

M5493 - M5308
Rad on 4/14/23
JMG

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 2

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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M5658 R ! 8/25/23

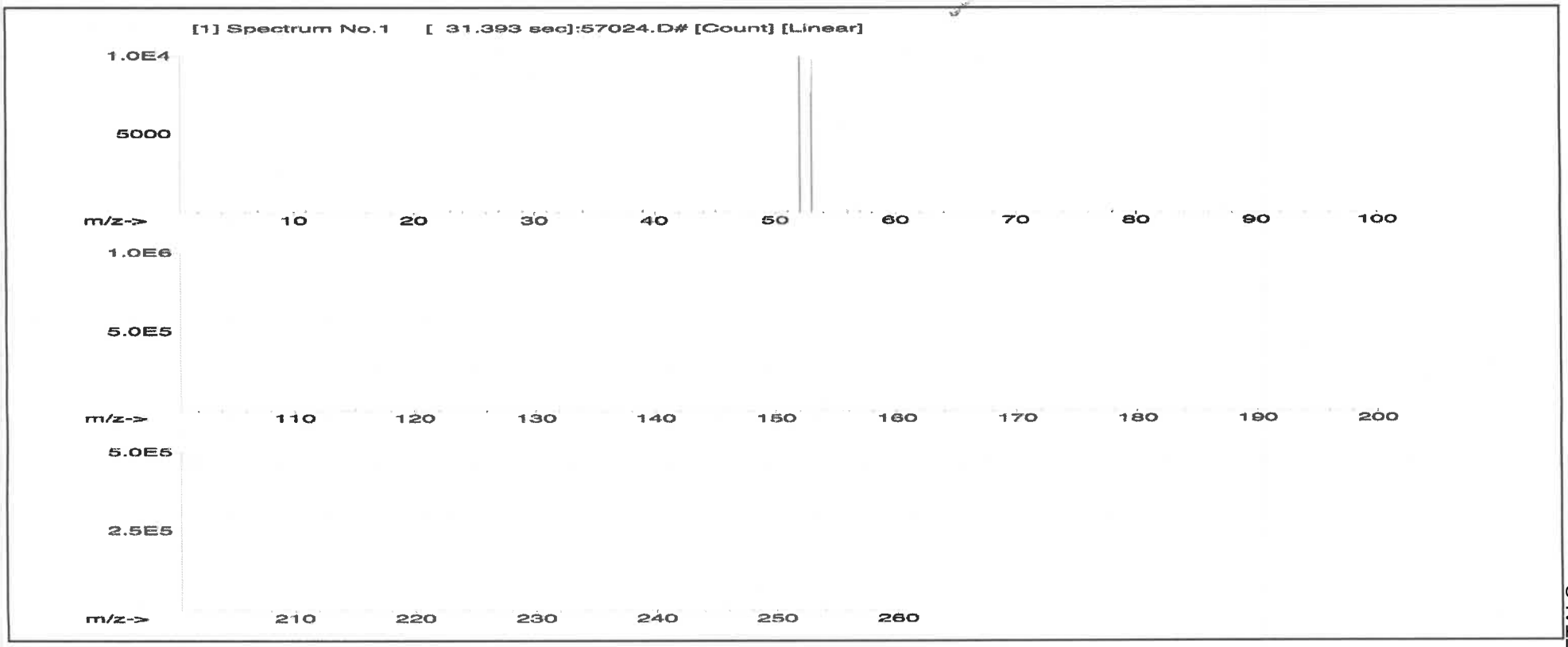
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 12/20/23 M5747

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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

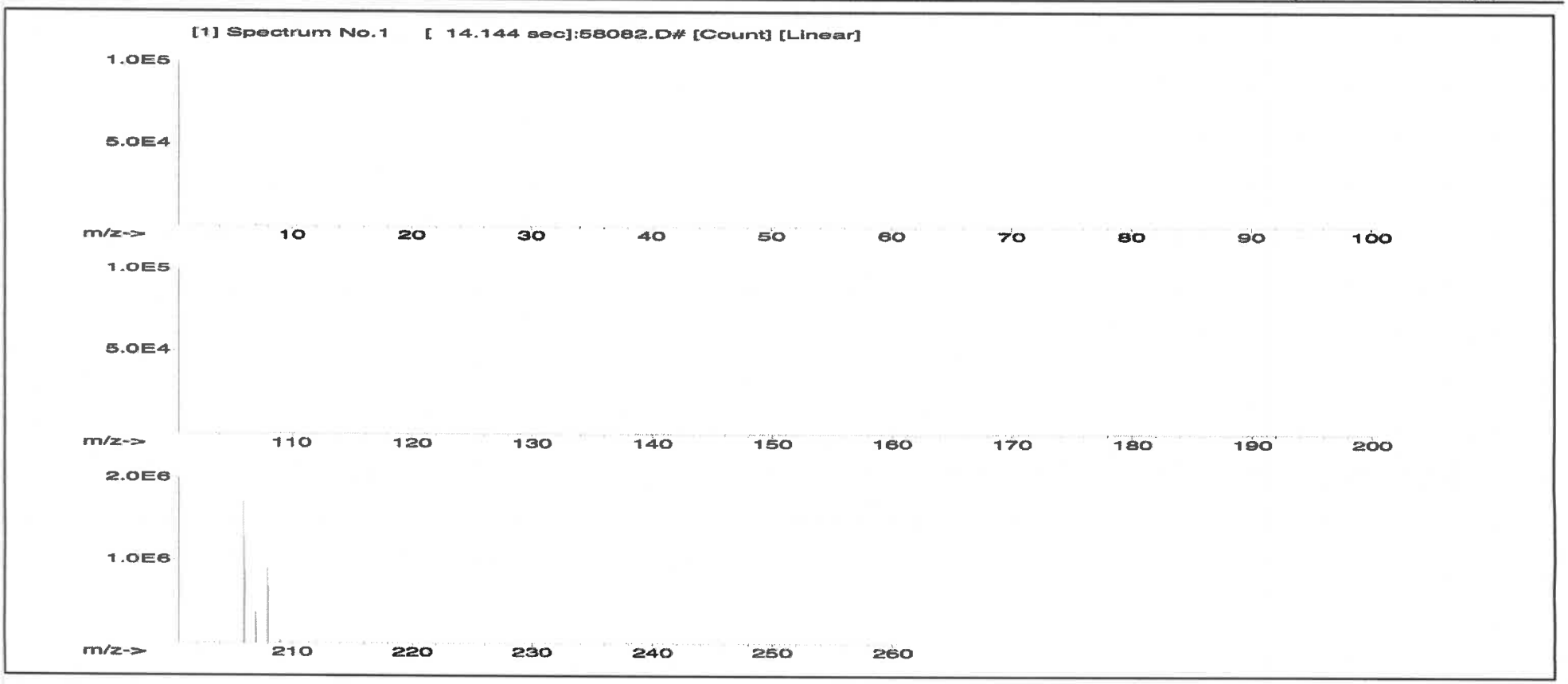
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 12/20/23 M5748

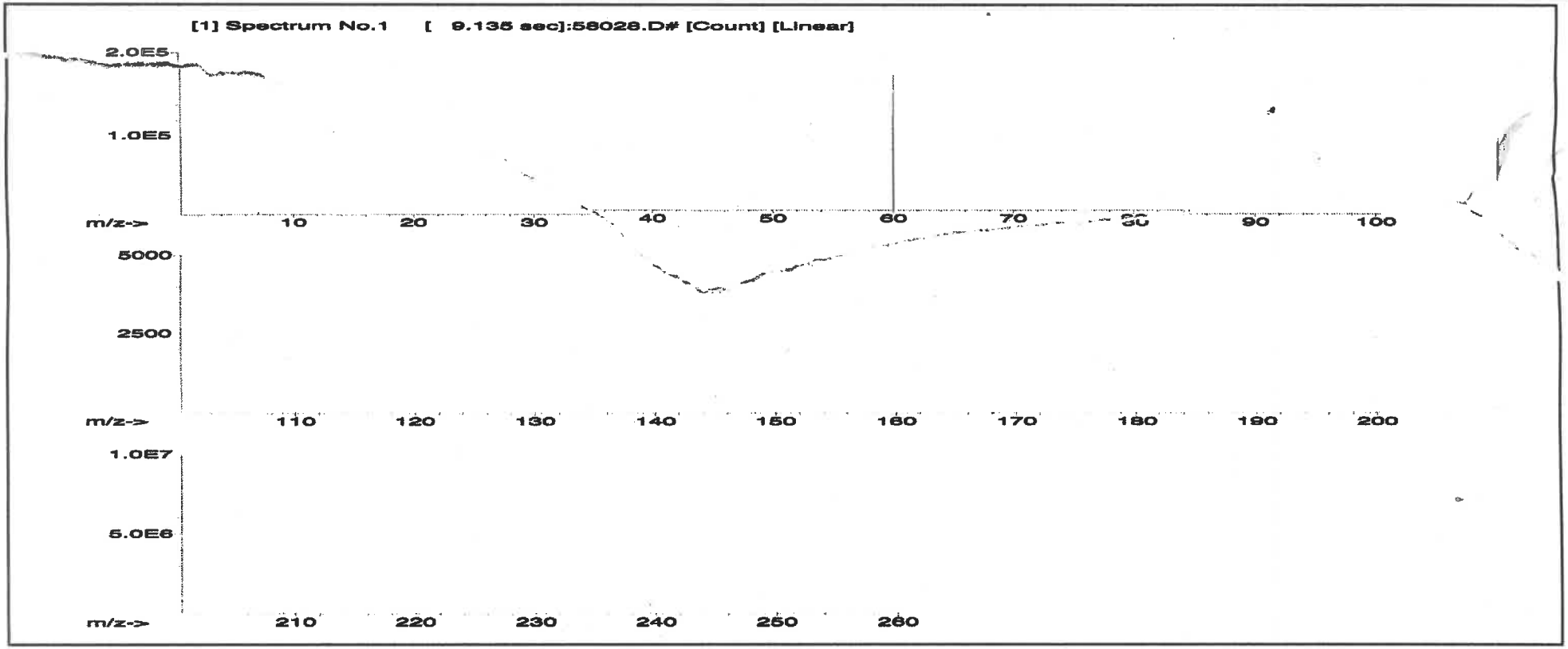
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	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
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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

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R: 8/25/23 M5751

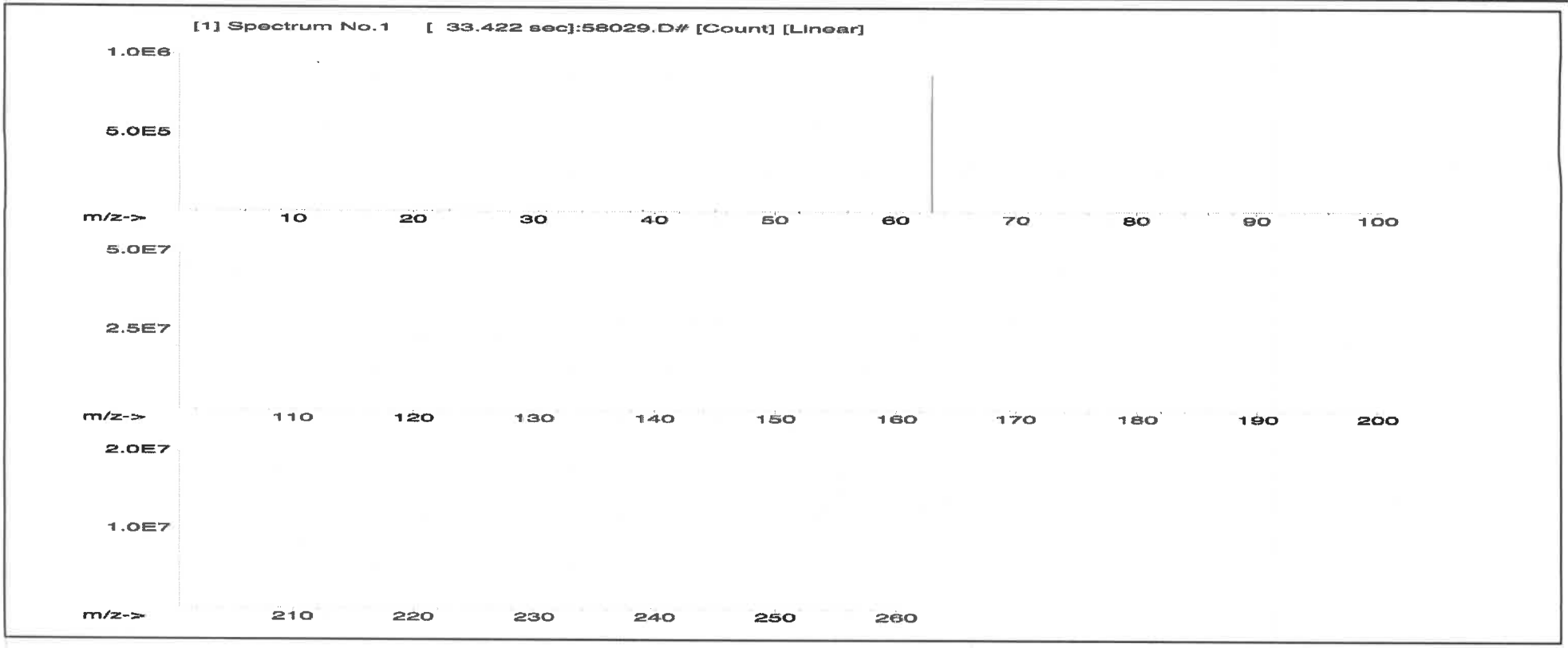
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CERTIFIED WEIGHT REPORT:

Part Number:	**58029**			**Lot #**	**Solvent:**	
Lot Number:	**071723**			21110221	Nitric Acid	
Description:	**Copper (Cu)**					
				2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726					
Recommended Storage:	Ambient (20 °C)					
Nominal Concentration (µg/mL):	**1000**					
NIST Test Number:	6UTB	5E-05	Balance Uncertainty			
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty			

Formulated By:	Benson Chan 071723
Reviewed By:	Pedro L. Rentas 071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5798

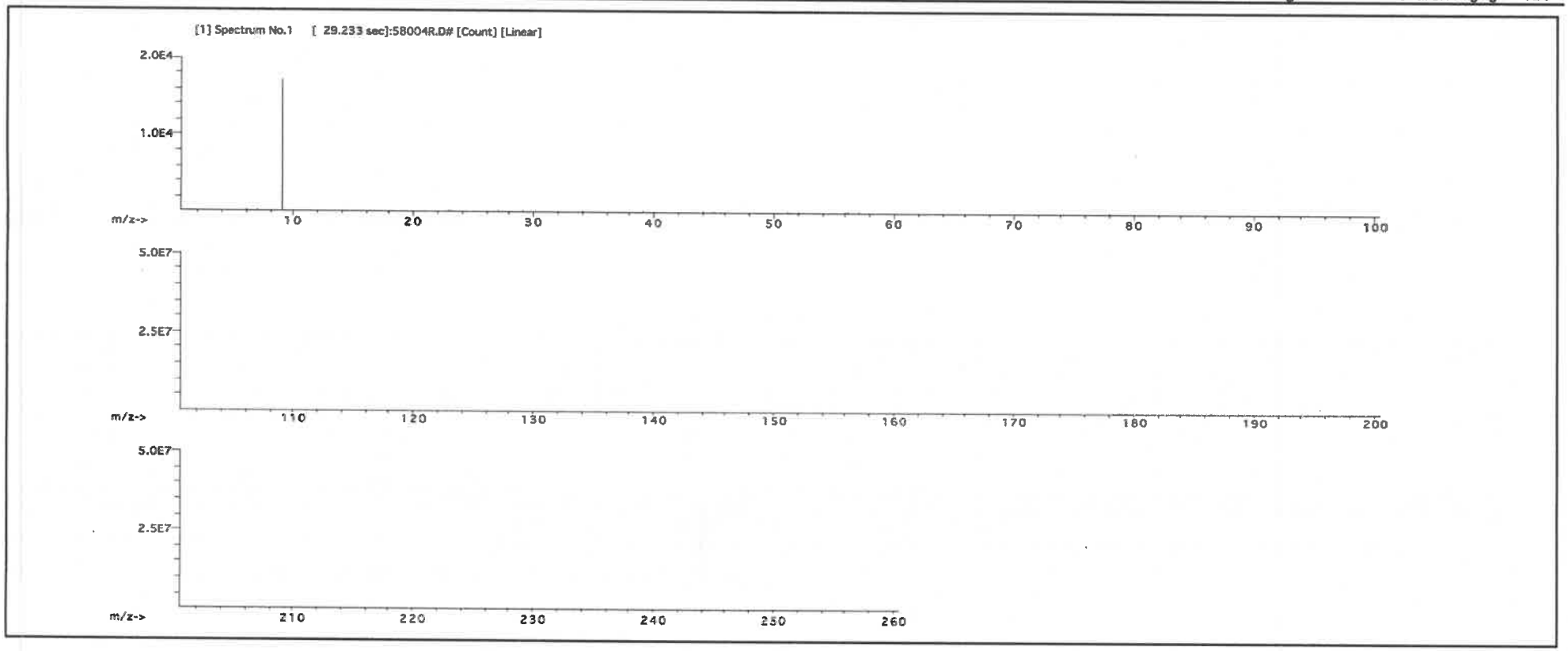
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**			
Lot Number:	**102523**	24002546	Nitric Acid	
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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

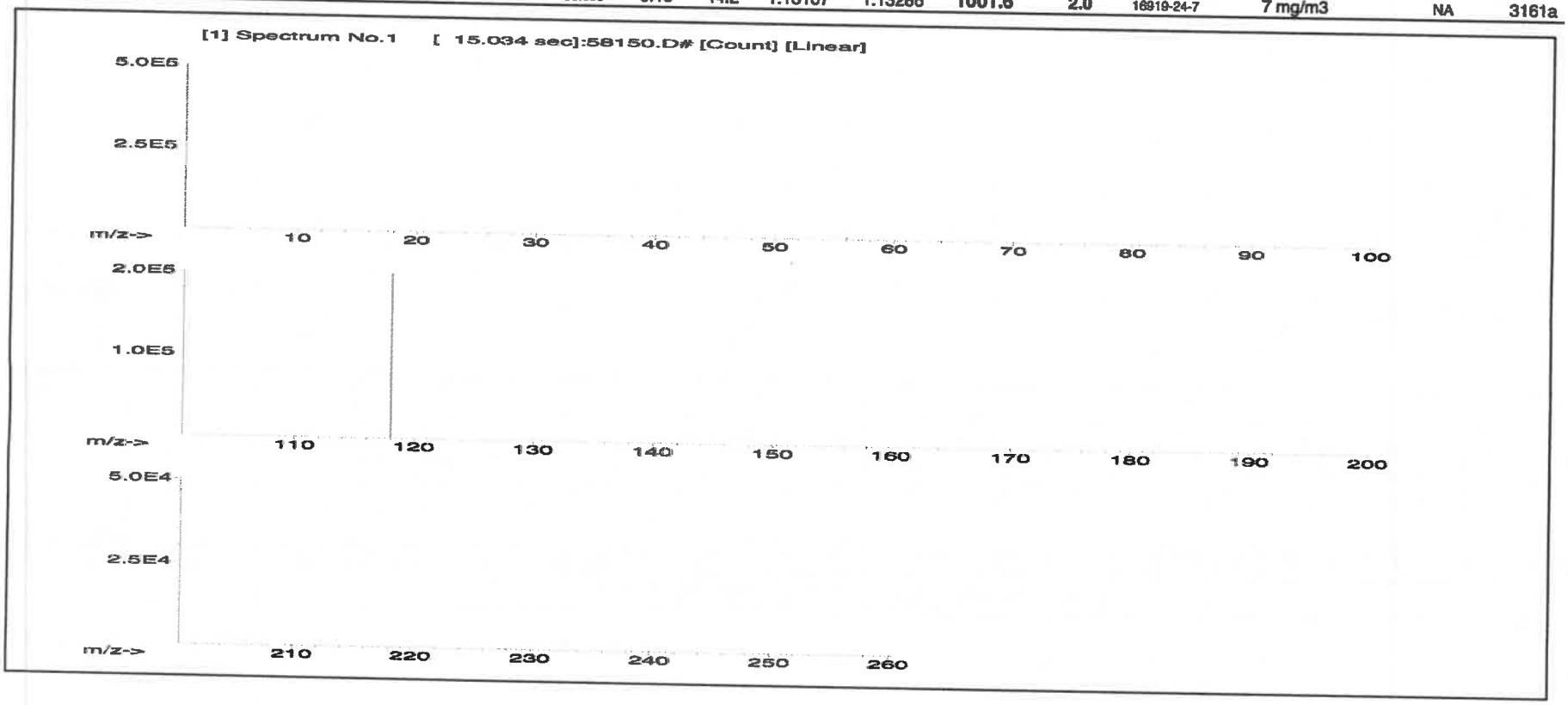
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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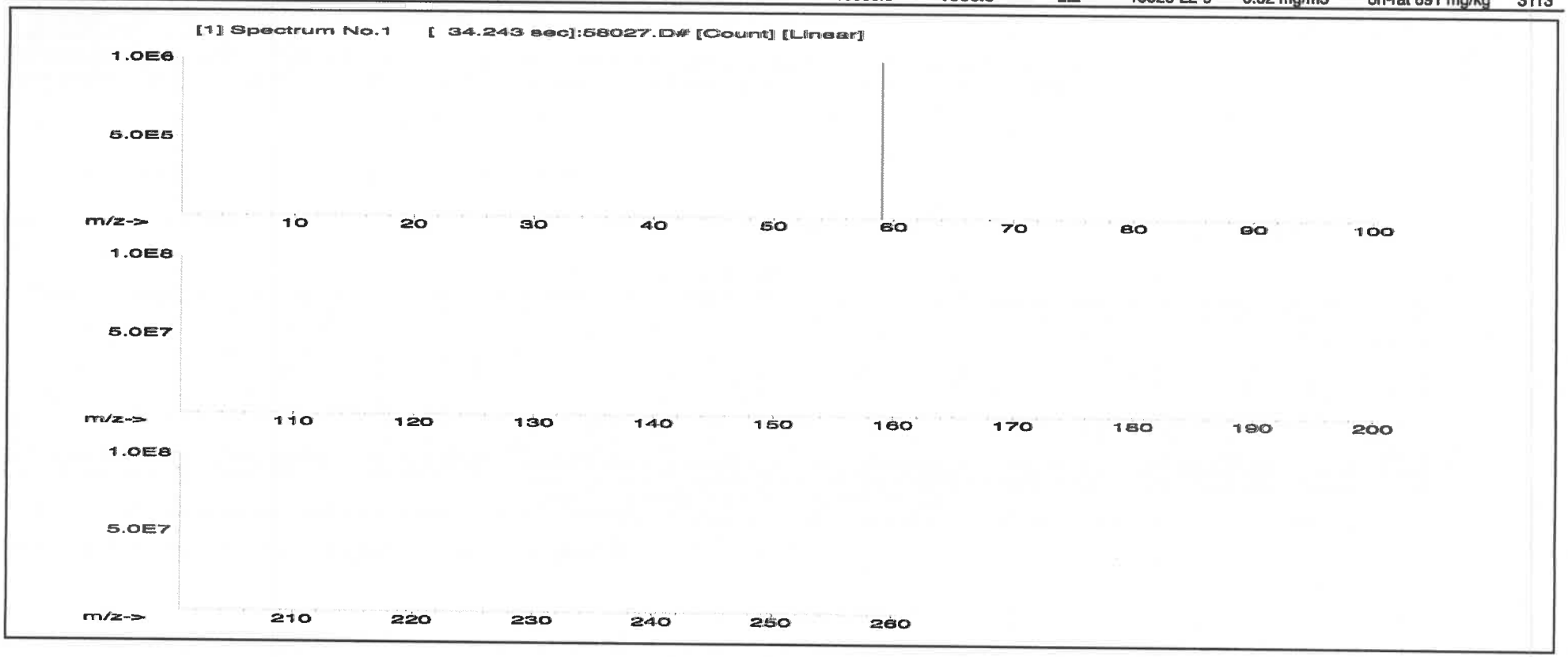
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**				
		2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	2.2	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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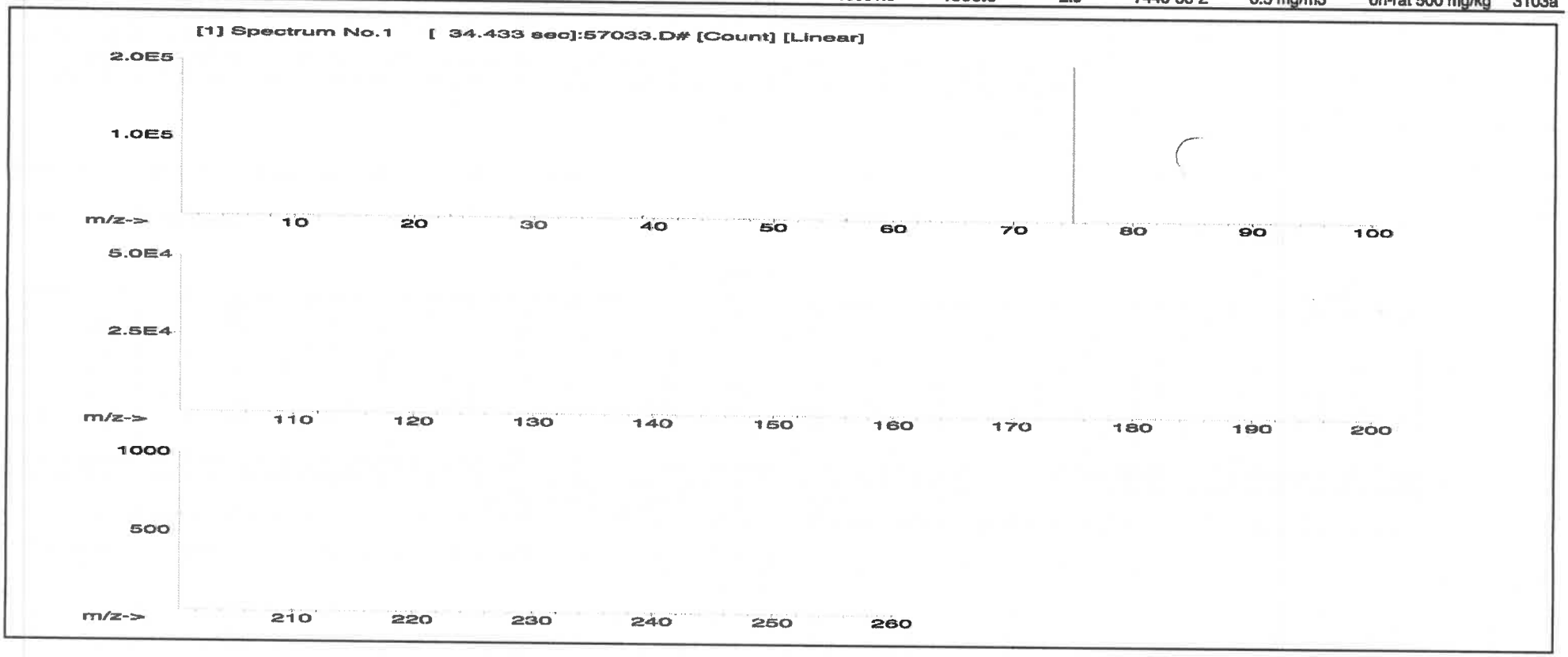
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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A: 02/09/24 M.5814

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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

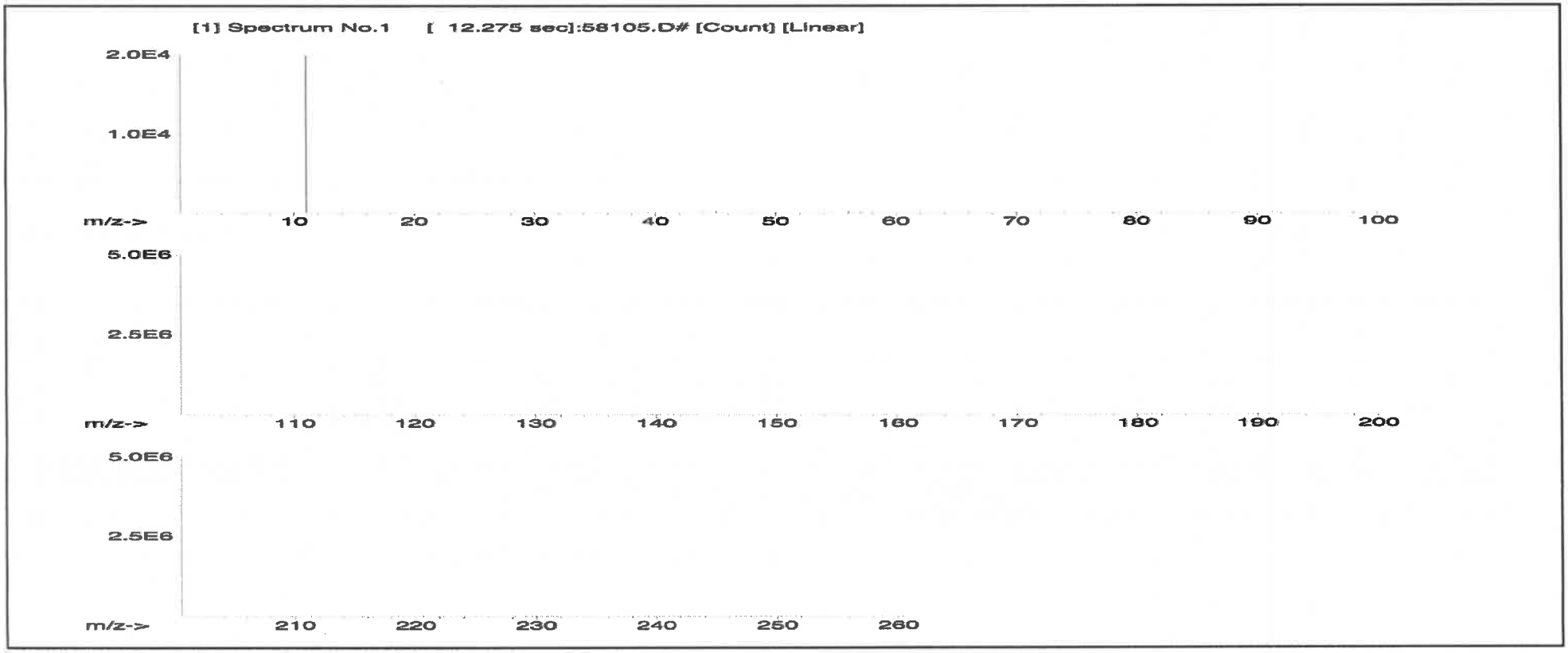
	Lot #			
Solvent:	MKBQ8597V	Ammonium hydroxide		
	2.0%	40.0 (mL)	Ammonium hydroxide	

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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<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).

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R: 02/09/24 M5816

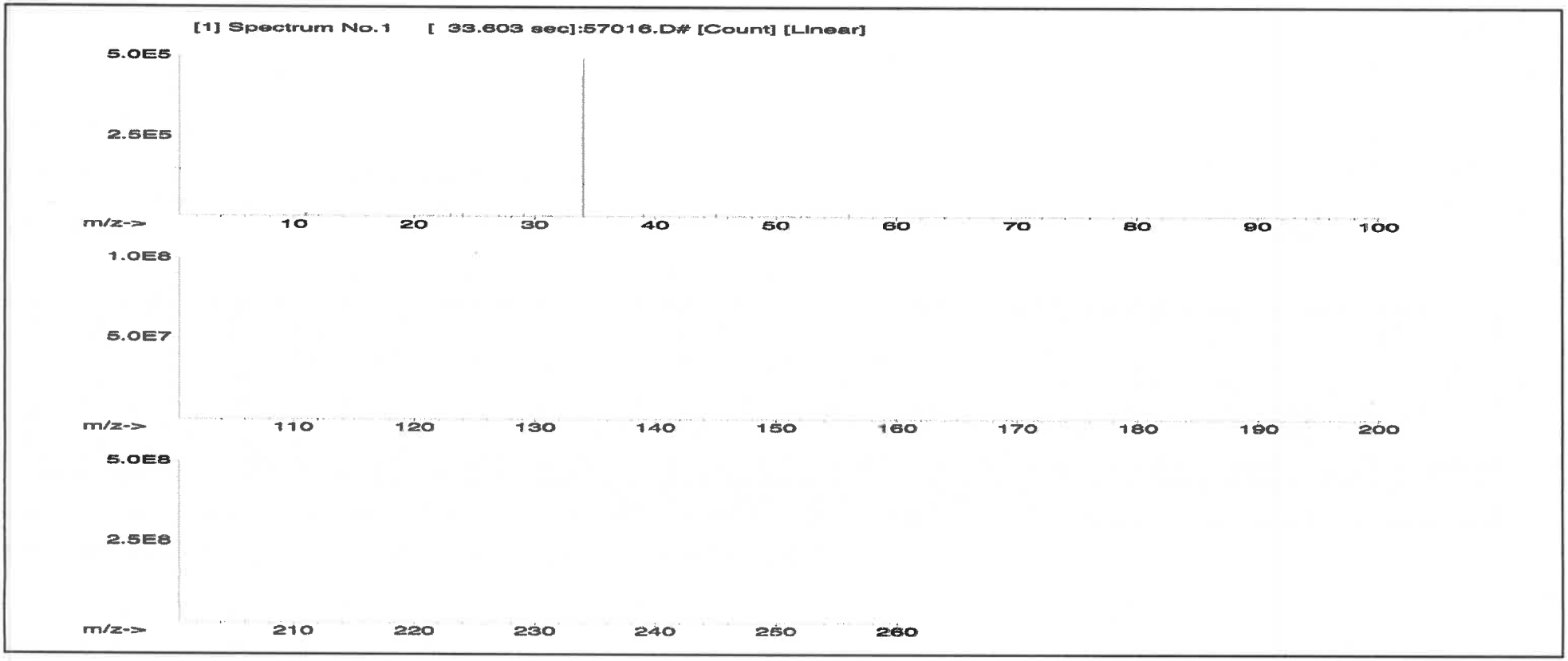
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**		**Solvent:**	**Lot #** 122923 ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

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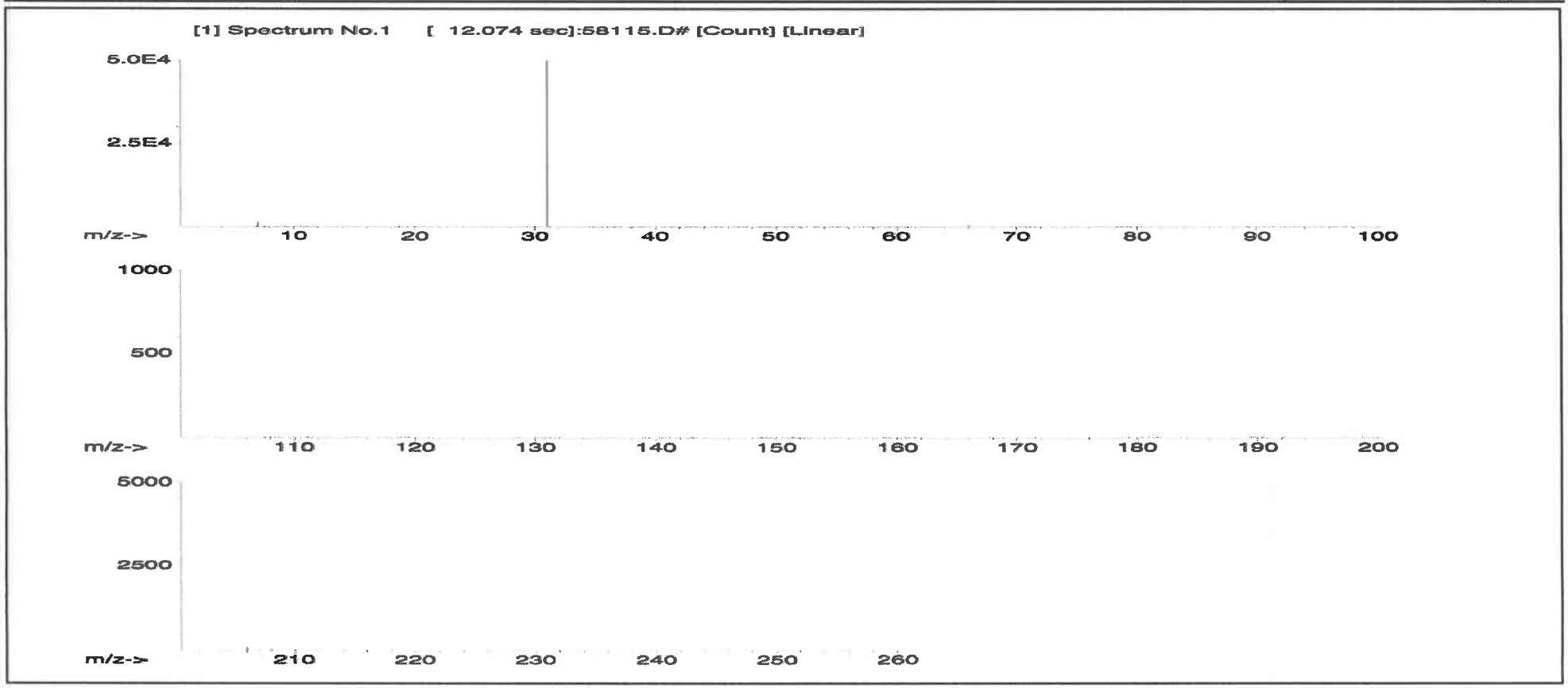
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CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Solvent:**	**Lot #** 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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	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.
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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) 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



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Certified Reference Material CRM

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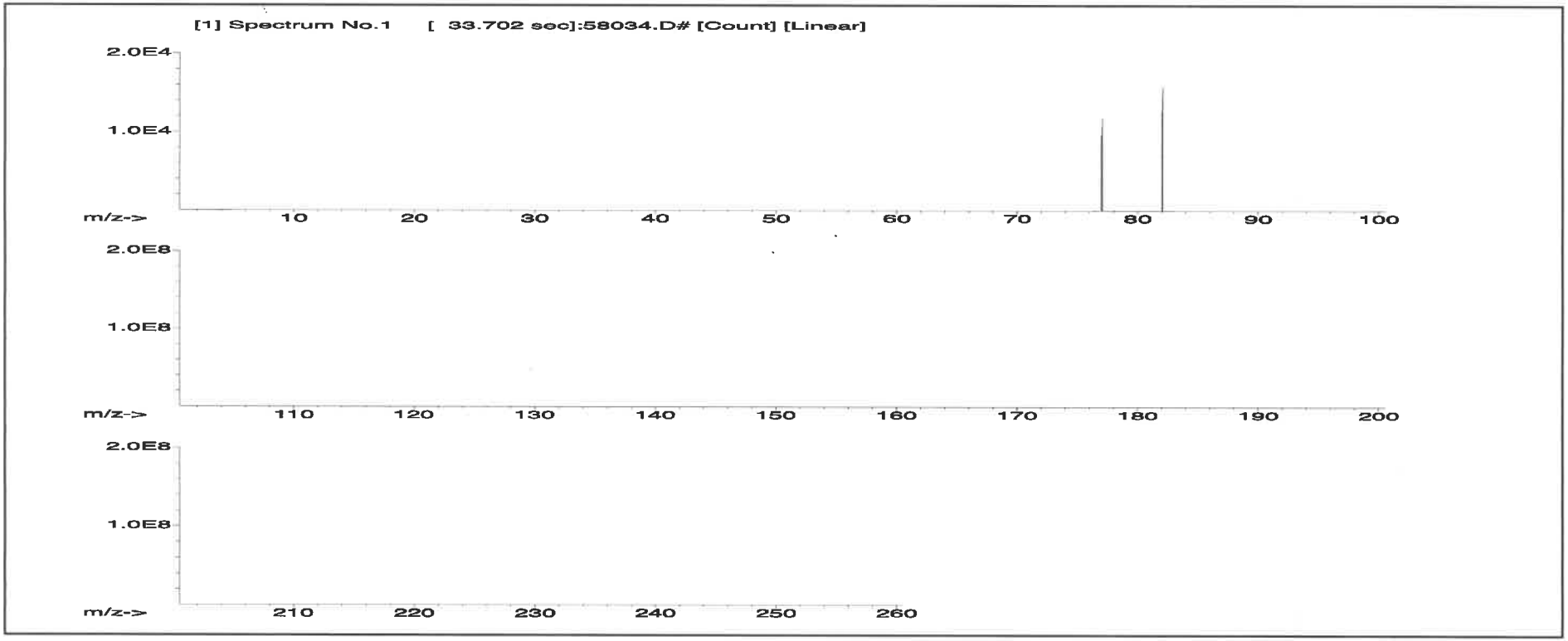
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	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

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

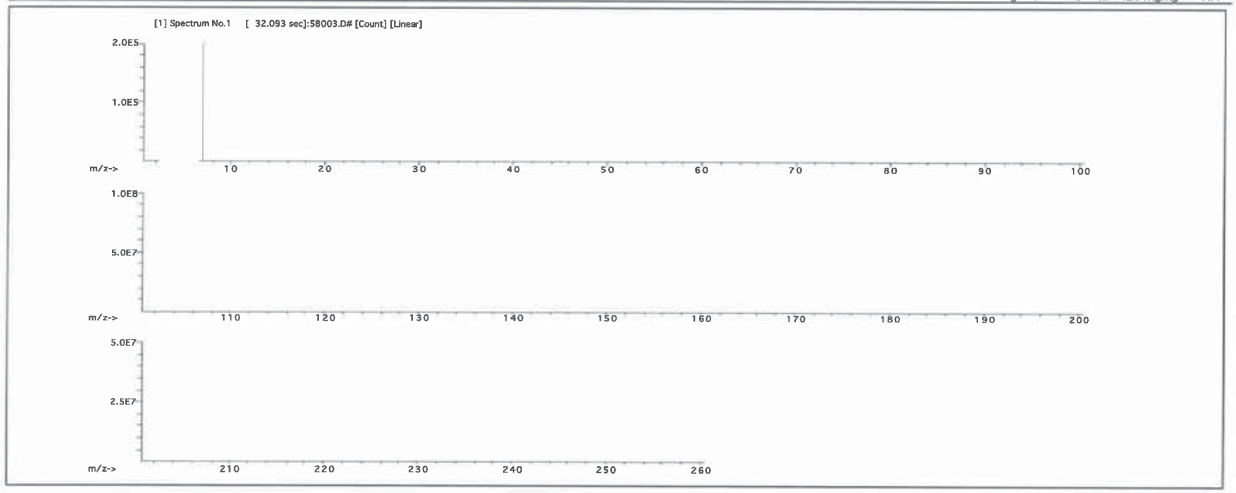
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	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).

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

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

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

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

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

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

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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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



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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**

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

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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



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO_3 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"

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10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

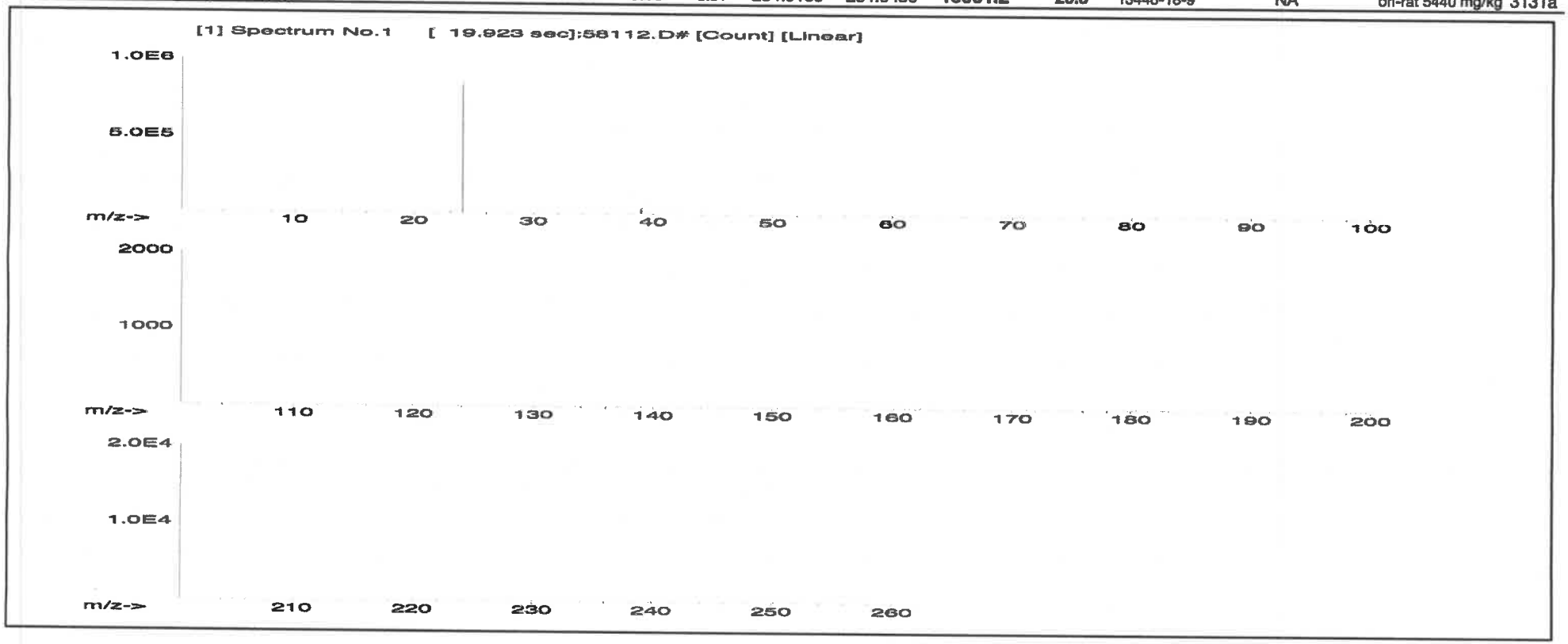
R -> 1/13/25
M 6127

Part Number:	**58112**		**Lot #**	
Lot Number:	**112124**	**Solvent:**	24012496	Nitric Acid
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25
M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

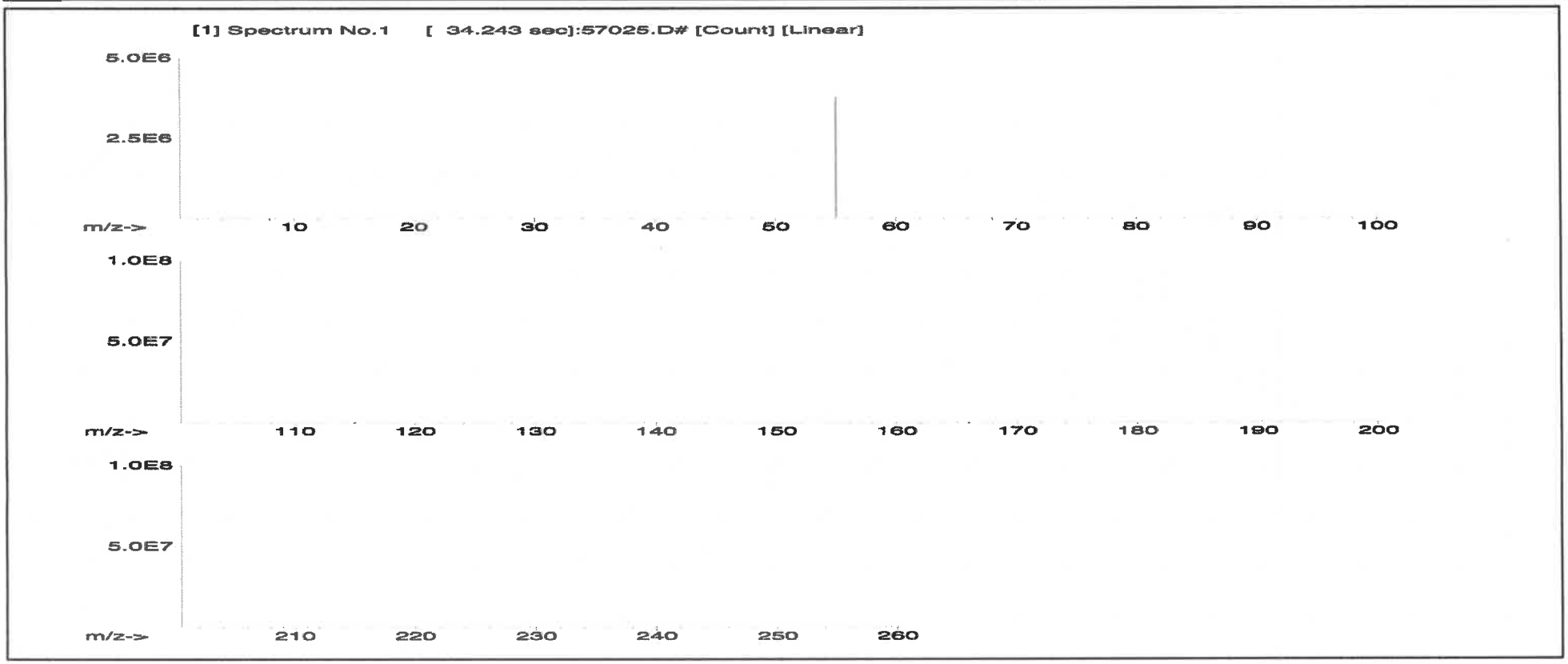
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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Christiansburg, VA 24073 USA
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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

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

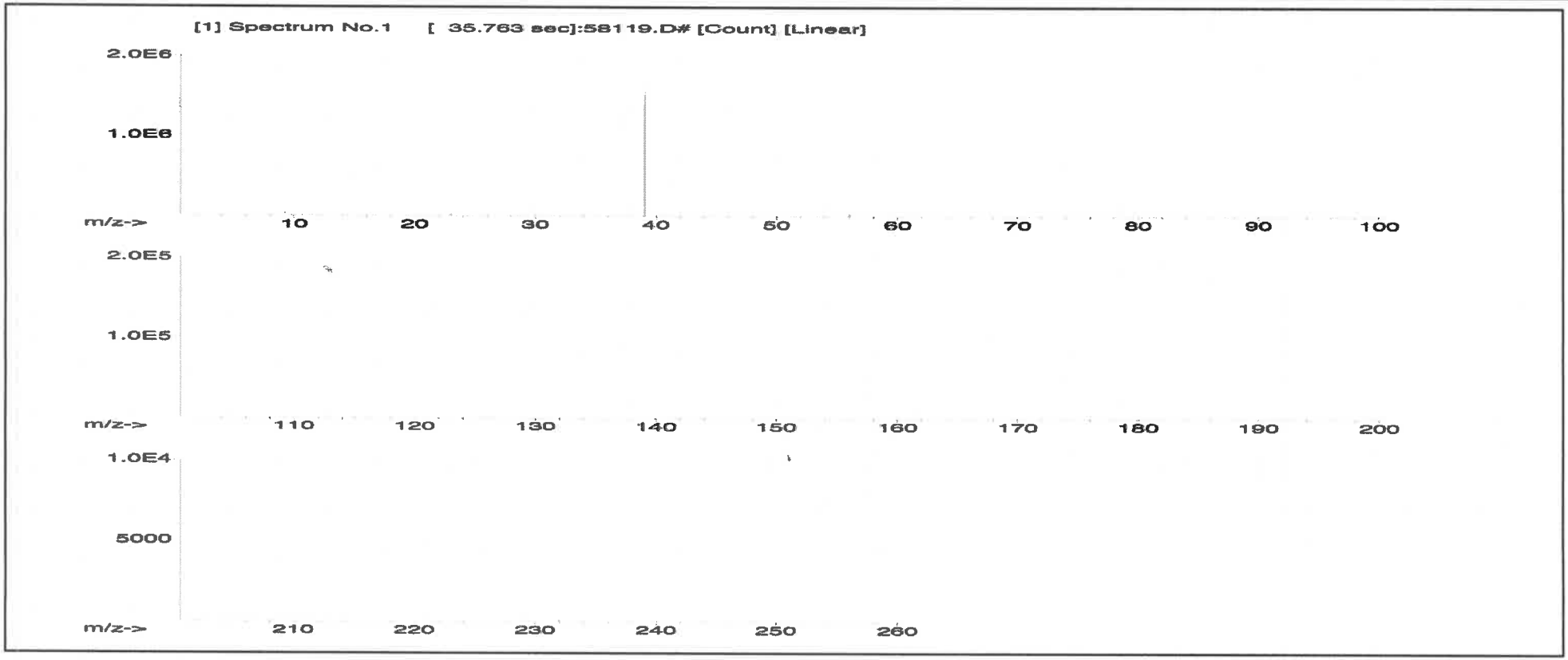
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



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Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number: 58111
Lot Number: 072424
Description: Sodium (Na)

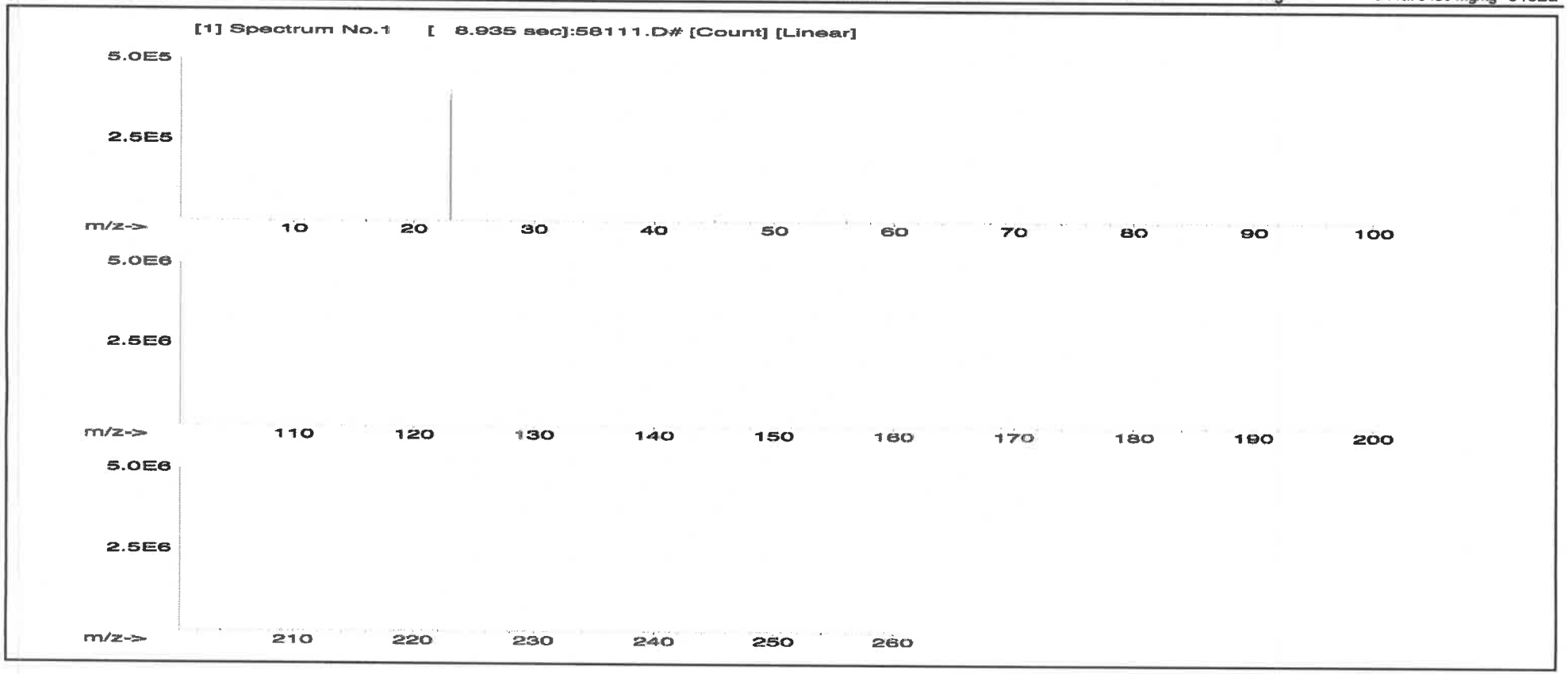
M6144

Expiration Date: 072427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
5E-05	Balance Uncertainty		
0.10	Flask Uncertainty		

Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Rentas	072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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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).

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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)

R → 1/13/25

M6145

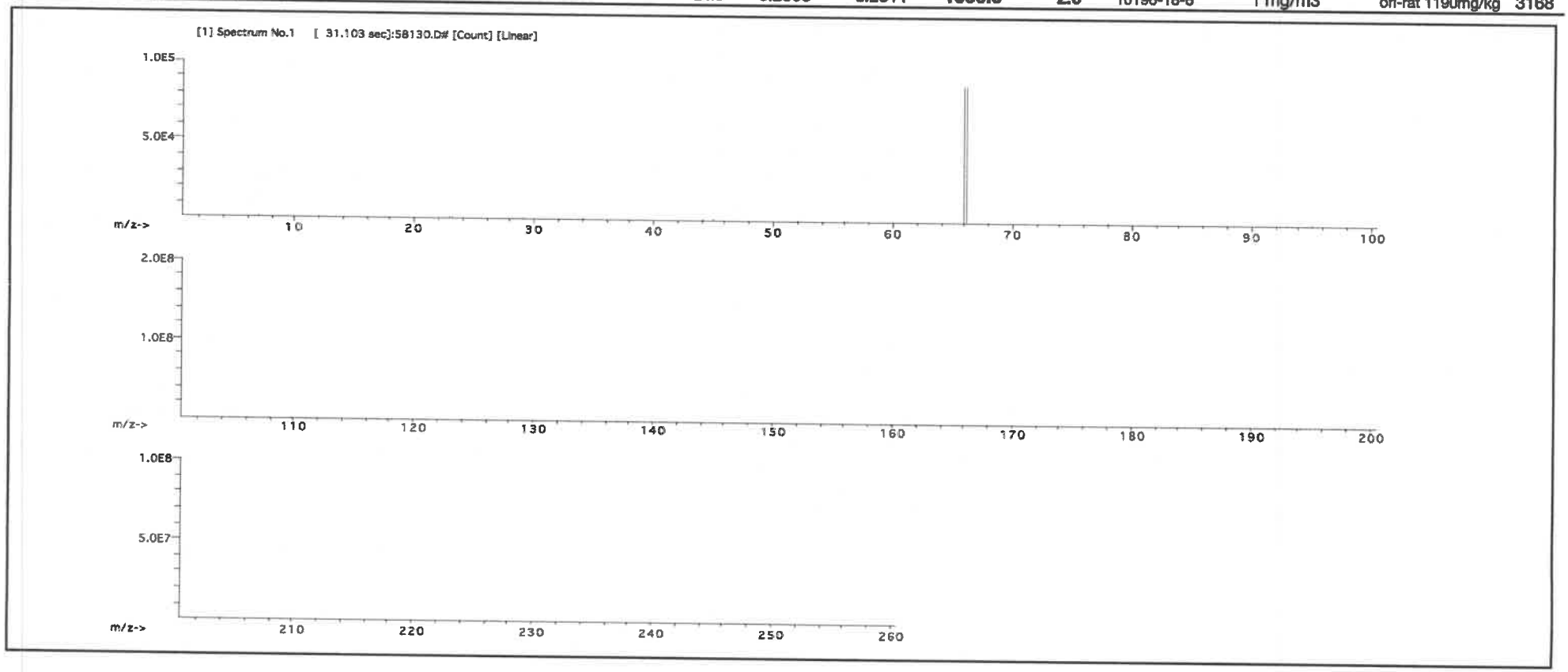
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

				Lot #	
Solvent:	24012496	Nitric Acid			
	2%	40.0 (mL)	Nitric Acid		
	5E-05	Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	ori-rat 1190mg/kg	3168



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ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	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.
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* 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

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

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Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

M-6162

R. Date :- 04/27/2025

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

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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

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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

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

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X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

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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

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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

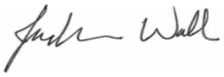
Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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.

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7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

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

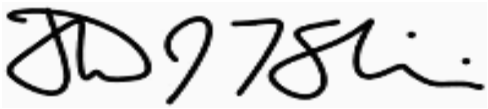
- Sealed TCT Bag Open Date: _____

- 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



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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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

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k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

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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

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4.0 TRACEABILITY TO NIST

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- 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.

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- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

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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

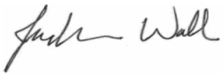
Certificate Prepared By:

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

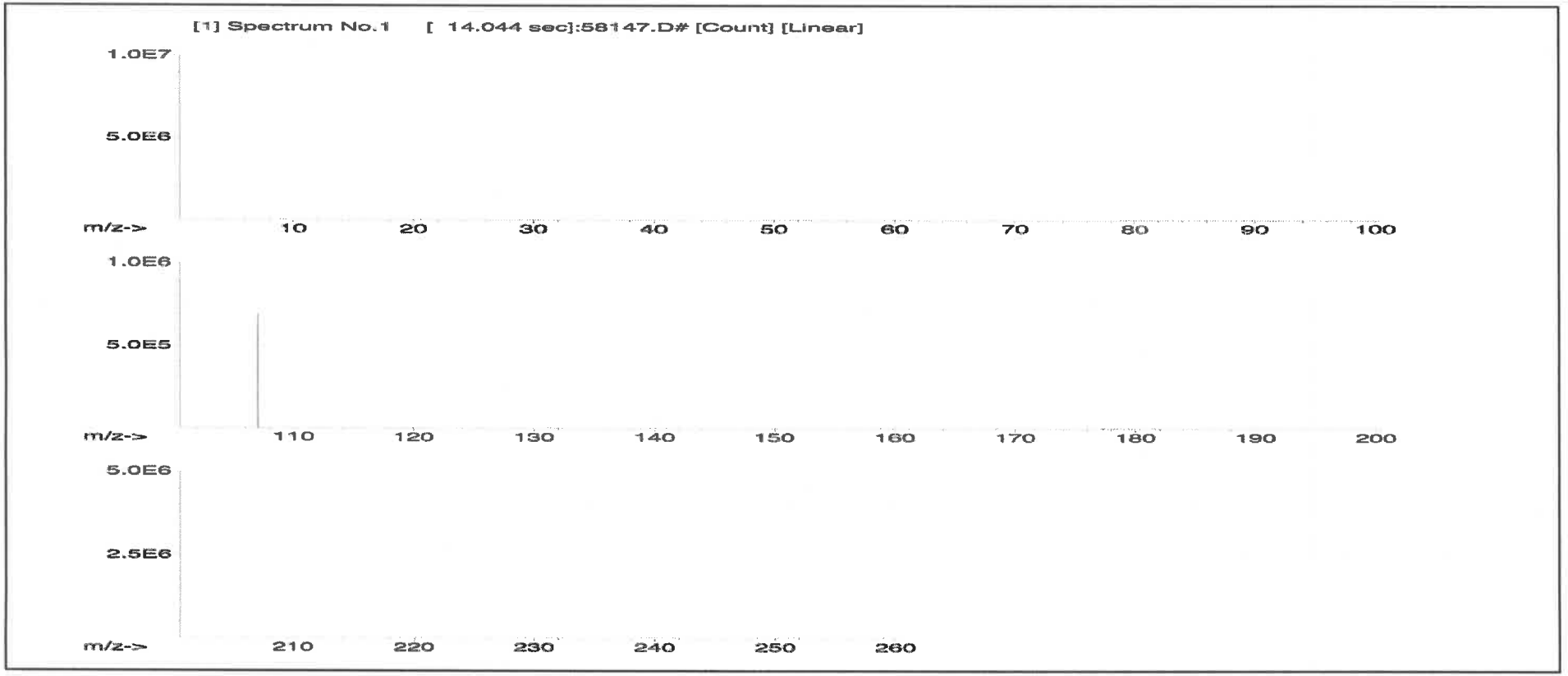
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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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).

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R: 10/18/24

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CERTIFIED WEIGHT REPORT:

MG146

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26 ± 0.058 Flask Uncertainty

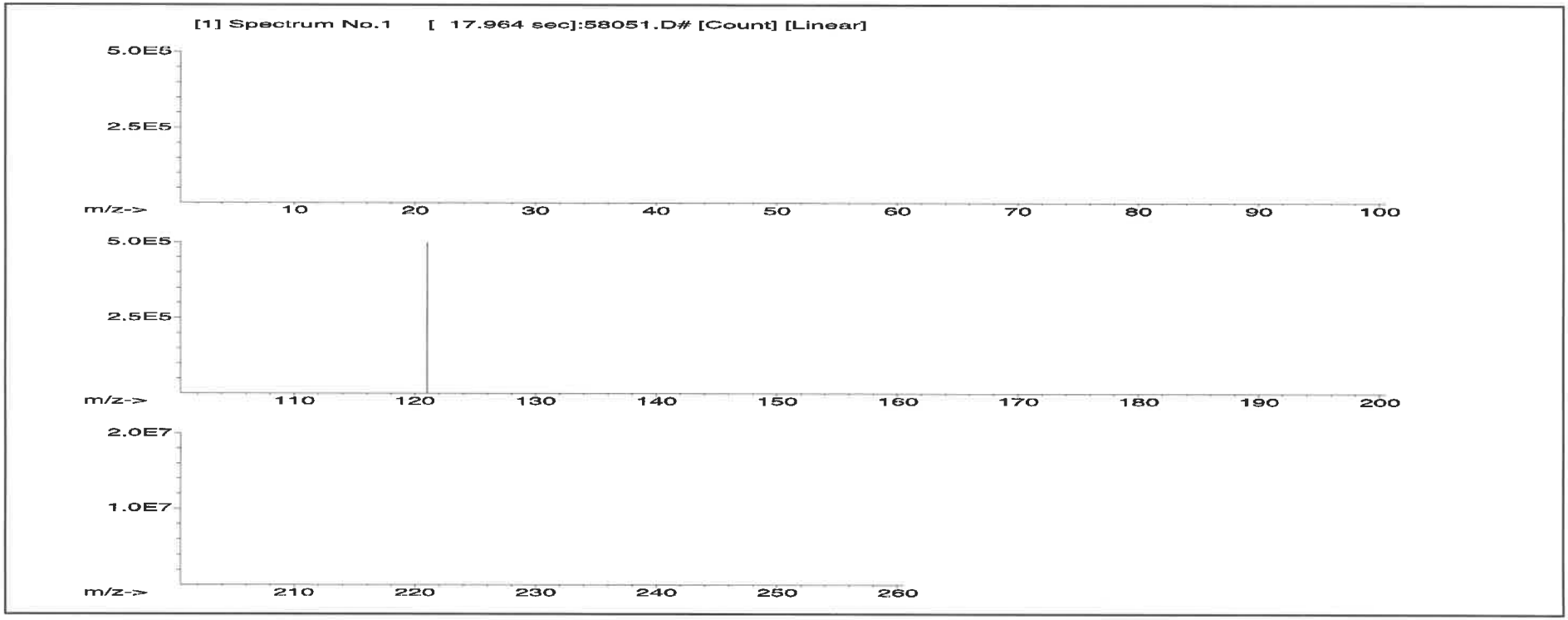
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
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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.

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,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
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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
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(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,



Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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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 888.01
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

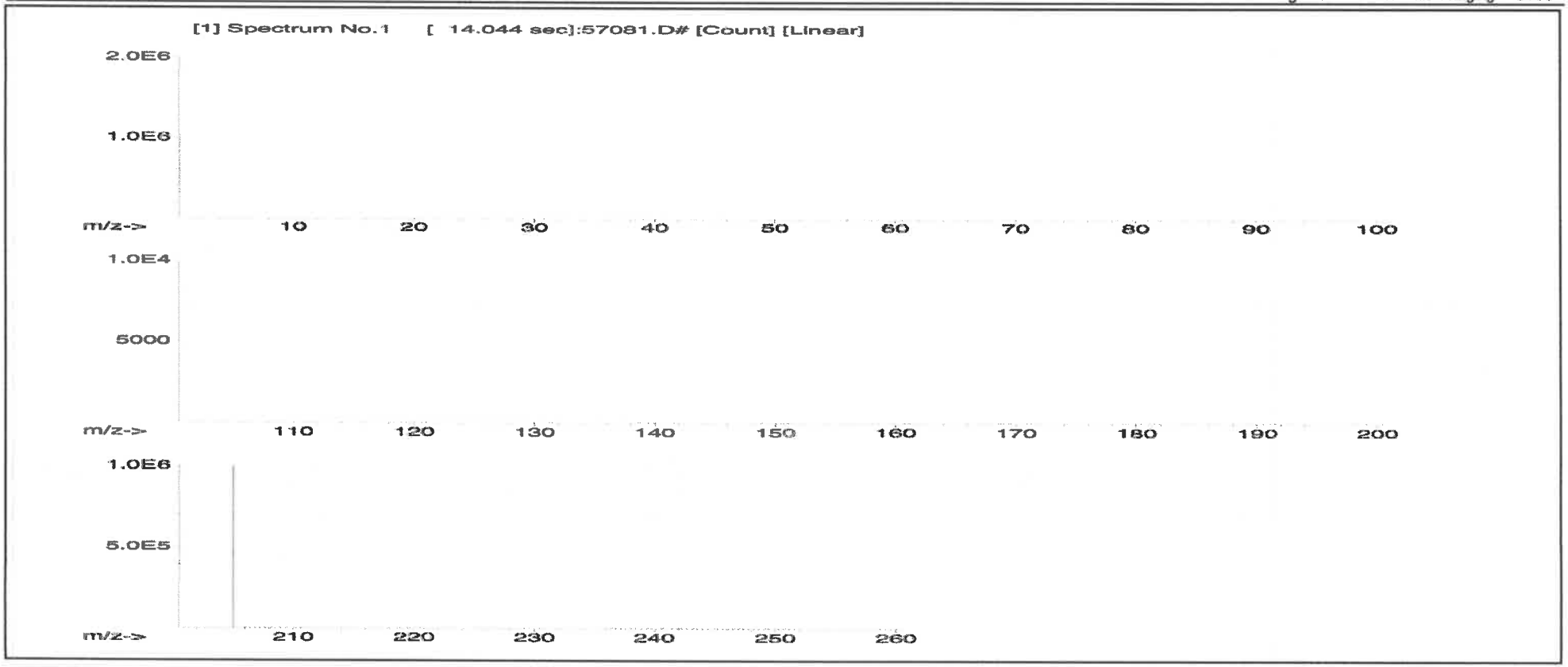
CERTIFIED WEIGHT REPORT:

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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6021

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AR-1539 Certificate Number
https://Absolutestandards.com

Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

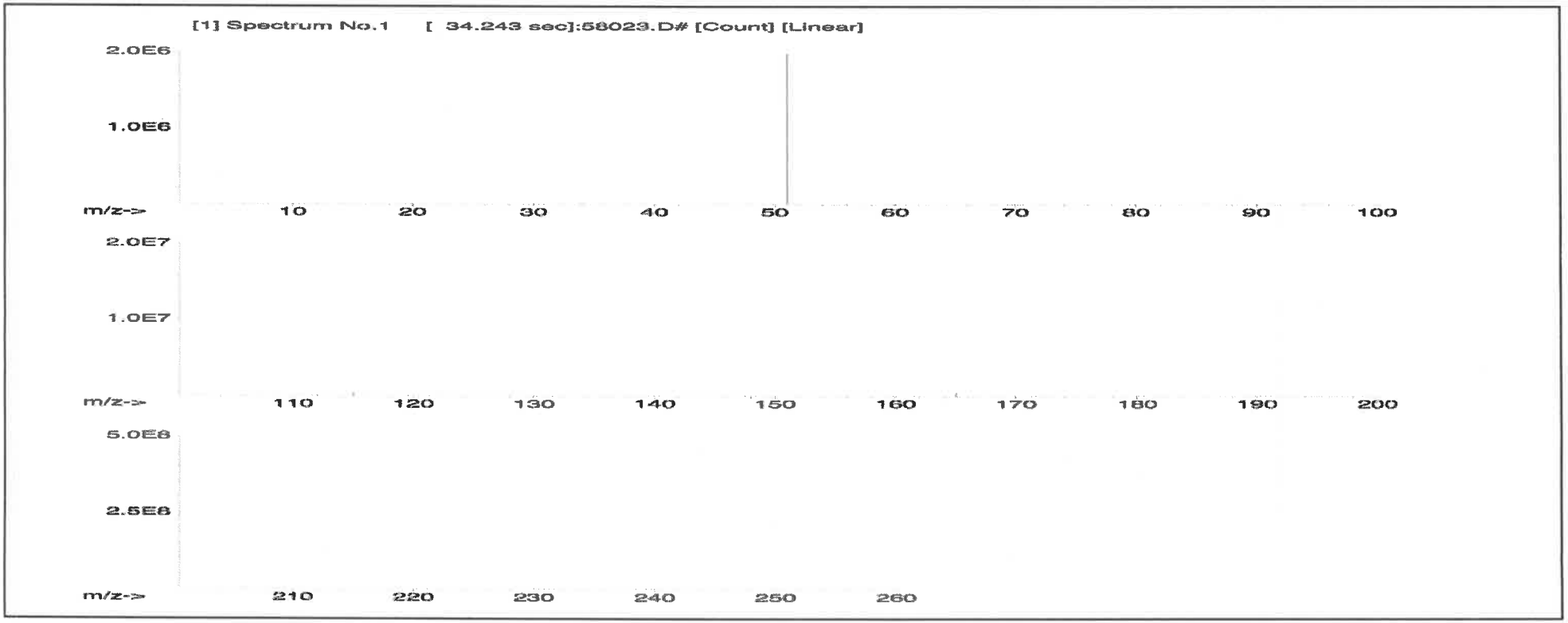
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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Certified Reference Material CRM

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<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.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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: Q26696

COC Number:

CLIENT INFORMATION

COMPANY: Tetra Tech
ADDRESS: 4433 Corporation Ln, Suite 300
CITY: Virginia Beach STATE: VA ZIP: 23462
ATTENTION: Ernie Wu
PHONE: 757-466-4901 FAX: 757-461-4148

PROJECT INFORMATION

PROJECT NAME: NWIRP Bethpage
PROJECT #: 112G08005-WE13 LOCATION: RW8
PROJECT MANAGER: Ernie Wu
E-MAIL: ernie,wu@tetratech.com
PHONE: 757-466-4901 FAX: 757-461-4148

BILLING INFORMATION

BILL TO: PO#
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

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

- ❑ RESEULTS ONLY
- ❑ RESULTS + QC
- ❑ New Jersey REDUCED
- ❑ New Jersey CLP
- ❑ EDD Format
- ❑ USEPA CLP
- ❑ New York State ASP "B"
- ❑ New York State ASP "A"
- ❑ Other

ANALYSIS

	1,4-Dioxane SW846 8270 SIM	Iron, Total	TSS	TDS	Nitrate, Nitrite				
	1	2	3	4	5	6	7	8	9
PRESERVATIVES		B							

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	1	2	3	4	5	6	7	8	9	COMMENTS
1.	RW8-SP100-20250724	GW		x	7/24/25	13:05	3	x	x			x					pH 1.3
2.	RW8-SP303-20250724	GW		x	7/24/25	13:13	4	x	x	x	x						pH 1.3
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	7/24/25 1930	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.	7/25/25 10:10	2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ❑ Compliant ❑ Non Compliant ❑ Cooler Temp 2.3
MeOH extraction requires an additional 4oz. Jar for percent solid ❑ Ice in Cooler?: yes
Comments:

JR Smith

SHIPPED VIA: CLIENT: ❑ Hand Delivered ❑ Overnight
CHEMTECH: ❑ Picked Up ❑ Overnight

Page of

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