284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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DATA PACKAGE

METALS

PROJECT NAME : RW7B - 112G08005-WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1081

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1081

Project ID : RW7B - 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
Q1081-01	RW7-SP100-20250113
Q1081-02	RW7-SP201-20250113
Q1081-03	RW7-SP302-20250113
Q1081-04	RW7-SP303-20250113

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

Signature : APPROVED *By Nimisha Pandya, QA/QC Supervisor at 2:43 pm, Jan 23, 2025*

Date: 1/21/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: RW7B - 112G08005-WE13
Project Manager: Ernie Wu
Chemtech Project # Q1081
Test Name: Metals Group4

A. Number of Samples and Date of Receipt:
4 Water samples were received on 01/14/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Metals Group4 and SVOC-SIMGroup1. 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 samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:
The fax and hardcopy is not matching for Sample Q1081-04 due to at the time fax sample analyzed without QC set, but at the time of second review lab noticed QC set was not analyzed therefore this sample analyzed with QC set and reported. Hard copy is reported corrected.

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

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____ APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:43 pm, Jan 23, 2025

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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

ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092
NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1081 MATRIX: Water

METHOD: 6010D

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

ADDITIONAL COMMENTS: The fax and hardcopy is not matching for Sample Q1081-04 due to at the time fax sample analyzed without QC set, but at the time of second review lab noticed QC set was not analyzed therefore this sample analyzed with QC set and reported. Hard copy is reported corrected.

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

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 2:28 pm, Jan 23, 2025

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1081

	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:** 01/21/2025

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LAB CHRONICLE

OrderID:	Q1081	**OrderDate:**	1/14/2025 10:28:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	RW7B - 112G08005-WE13
Contact:	Ernie Wu	**Location:**	N41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1081-01	**RW7-SP100-20250113**	**Water**			**01/13/25**			**01/14/25**
			Metals Group4	6010D		01/14/25	01/16/25	
Q1081-04	**RW7-SP303-20250113**	**Water**			**01/13/25**			**01/14/25**
			Metals Group4	6010D		01/14/25	01/17/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1081 **Order ID:** Q1081

Client: Tetra Tech NUS, Inc. **Project ID:** RW7B - 112G08005-WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW7-SP100-20250113									
Q1081-01	RW7-SP100-20250113	Water	Iron	106		18.5	40.0	50.0	ug/L
Client ID : RW7-SP303-20250113									
Q1081-04	RW7-SP303-20250113	Water	Iron	18.7	J	18.5	40.0	50.0	ug/L

SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP100-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-01	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	106		1	18.5	40.0	50.0	ug/L	01/14/25 12:30	01/16/25 20:30	SW6010	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:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP303-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-04	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	18.7	J	1	18.5	40.0	50.0	ug/L	01/14/25 12:30	01/17/25 15:12	SW6010	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.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	9640	10000	96	90 - 110	P	01/16/2025	19:18	LB134315

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Iron	92.6	100	93	80 - 120	P	01/16/2025	19:27	LB134315

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	4860	5000	97	90 - 110	P	01/16/2025	19:49	LB134315
CCV02	Iron	4780	5000	96	90 - 110	P	01/16/2025	20:43	LB134315
CCV03	Iron	4810	5000	96	90 - 110	P	01/16/2025	21:01	LB134315

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	9620	10000	96	90 - 110	P	01/17/2025	11:21	LB134334

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	01/17/2025	11:26	LB134334

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	5080	5000	102	90 - 110	P	01/17/2025	11:56	LB134334
CCV02	Iron	4910	5000	98	90 - 110	P	01/17/2025	12:47	LB134334
CCV03	Iron	4900	5000	98	90 - 110	P	01/17/2025	13:36	LB134334
CCV04	Iron	4940	5000	99	90 - 110	P	01/17/2025	14:27	LB134334
CCV05	Iron	4740	5000	95	90 - 110	P	01/17/2025	15:34	LB134334
CCV06	Iron	4940	5000	99	90 - 110	P	01/17/2025	16:16	LB134334
CCV07	Iron	4770	5000	96	90 - 110	P	01/17/2025	17:11	LB134334
CCV08	Iron	4960	5000	99	90 - 110	P	01/17/2025	17:52	LB134334

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	86.4	100	86	40 - 160	P	01/16/2025	19:36	LB134315
CRI01	Iron	97.7	100	98	40 - 160	P	01/17/2025	11:35	LB134334

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	100	+/-100	U	80.0	100	P	01/16/2025	19:32	LB134315

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	100	+/-100	U	80.0	100	P	01/16/2025	19:53	LB134315
CCB02	Iron	100	+/-100	U	80.0	100	P	01/16/2025	20:47	LB134315
CCB03	Iron	100	+/-100	U	80.0	100	P	01/16/2025	21:10	LB134315

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	100	+/-100	U	80.0	100	P	01/17/2025	11:30	LB134334

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	100	+/-100	U	80.0	100	P	01/17/2025	12:00	LB134334
CCB02	Iron	100	+/-100	U	80.0	100	P	01/17/2025	12:51	LB134334
CCB03	Iron	100	+/-100	U	80.0	100	P	01/17/2025	13:41	LB134334
CCB04	Iron	100	+/-100	U	80.0	100	P	01/17/2025	14:31	LB134334
CCB05	Iron	100	+/-100	U	80.0	100	P	01/17/2025	15:38	LB134334
CCB06	Iron	100	+/-100	U	80.0	100	P	01/17/2025	16:20	LB134334
CCB07	Iron	100	+/-100	U	80.0	100	P	01/17/2025	17:16	LB134334
CCB08	Iron	100	+/-100	U	80.0	100	P	01/17/2025	17:56	LB134334

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166054BL		**WATER**		**Batch Number:**		**PB166054**		**Prep Date:**	**01/14/2025**	
	Iron	50.0	<50.0	U	40.0	50.0	P	01/17/2025	12:05	LB134334

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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	97800	101000	97	85600	116500	01/16/2025	19:40	LB134315
ICSAB01	Iron	97700	99300	98	84400	114500	01/16/2025	19:45	LB134315
ICSA01	Iron	95900	101000	95	85600	116500	01/17/2025	11:39	LB134334
ICSAB01	Iron	101000	99300	102	84400	114500	01/17/2025	11:43	LB134334

METAL QC DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1081

contract: TETR06 **lab code:** CHEM **case no.:** Q1081 **sas no.:** Q1081

matrix: Water **sample id:** Q1081-04 **client id:** RW7-SP303-20250113MS

Percent Solids for Sample: NA **Spiked ID:** Q1081-04MS **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	1440		18.7	J	1500	95		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Tetra Tech NUS, Inc. **level:** low **sdg no.:** Q1081

contract: TETR06 **lab code:** CHEM **case no.:** Q1081 **sas no.:** Q1081

matrix: Water **sample id:** Q1081-04 **client id:** RW7-SP303-20250113MSD

Percent Solids for Sample: NA **Spiked ID:** Q1081-04MSD **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	1440		18.7	J	1500	95		P

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Metals
- 5b -

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Matrix: Water **Sample ID:** Q1081-04 **Client ID:** RW7-SP303-20250113DUP

Percent Solids for Sample: NA **Duplicate ID** Q1081-04DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	18.7	J	19.5	J	4		P

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

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Fax : 908 789 8922

Metals

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DUPLICATE SAMPLE SUMMARY

Client: Tetra Tech NUS, Inc. **Level:** LOW **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Matrix: Water **Sample ID:** Q1081-04MS **Client ID:** RW7-SP303-20250113MSD

Percent Solids for Sample: NA **Duplicate ID** Q1081-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	1440		1440		0		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.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166054BS							
Iron	ug/L	1500	1480		99	87 - 115	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

RW7-SP303-20250113L

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

Lab Code: CHEM **Lb No.:** lb134334 **Lab Sample ID :** Q1081-04L **SDG No.:** Q1081

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	18.7	J	250	U	100.0		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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.:** Q1081

Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081

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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Metals
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SAMPLE PREPARATION SUMMARY

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081

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

Case No.: Q1081 **SAS No.:** Q1081

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB166054**						
PB166054BL	PB166054BL	MB	WATER	01/14/2025	50.0	25.0	
PB166054BS	PB166054BS	LCS	WATER	01/14/2025	50.0	25.0	
Q1081-01	RW7-SP100-20250113	SAM	WATER	01/14/2025	50.0	25.0	
Q1081-04	RW7-SP303-20250113	SAM	WATER	01/14/2025	50.0	25.0	
Q1081-04DUP	RW7-SP303-20250113DUP	DUP	WATER	01/14/2025	50.0	25.0	
Q1081-04MS	RW7-SP303-20250113MS	MS	WATER	01/14/2025	50.0	25.0	
Q1081-04MSD	RW7-SP303-20250113MSD	MSD	WATER	01/14/2025	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: CHEM **Case no.:** Q1081 **Sas no.:** Q1081 **Sdg no.:** Q1081

Instrument id number: **Method:** **Run number:** LB134315

Start date: 01/16/2025 **End date:** 01/16/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1847	Fe
S1	S1	1	1852	Fe
S2	S2	1	1856	Fe
S3	S3	1	1900	Fe
S4	S4	1	1904	Fe
S5	S5	1	1909	Fe
ICV01	ICV01	1	1918	Fe
LLICV01	LLICV01	1	1927	Fe
ICB01	ICB01	1	1932	Fe
CRI01	CRI01	1	1936	Fe
ICSA01	ICSA01	1	1940	Fe
ICSAB01	ICSAB01	1	1945	Fe
CCV01	CCV01	1	1949	Fe
CCB01	CCB01	1	1953	Fe
Q1081-01	RW7-SP100-20250113	1	2030	Fe
CCV02	CCV02	1	2043	Fe
CCB02	CCB02	1	2047	Fe
CCV03	CCV03	1	2101	Fe
CCB03	CCB03	1	2110	Fe

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metals
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ANALYSIS RUN LOG

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

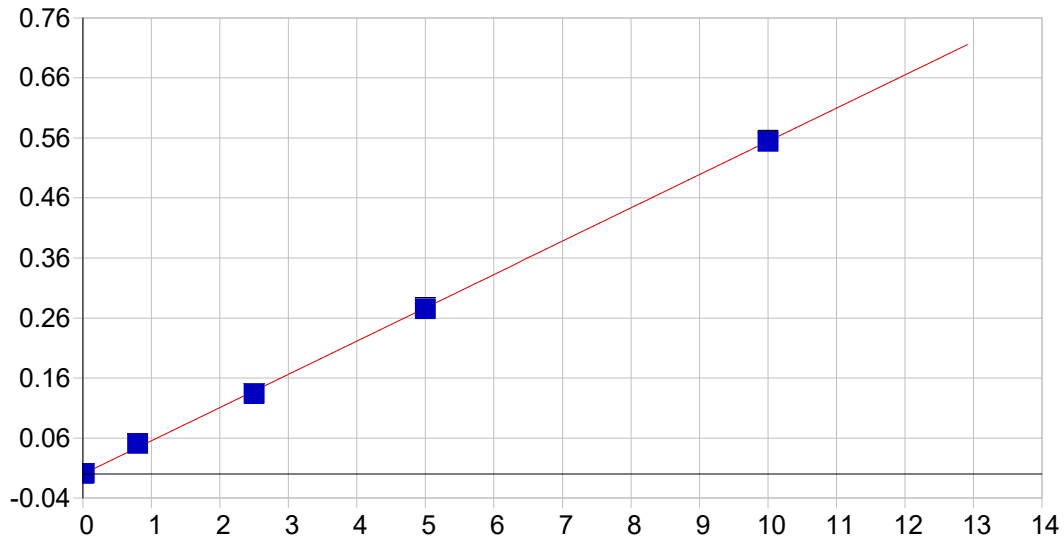
Lab code: CHEM **Case no.:** Q1081 **Sas no.:** Q1081 **Sdg no.:** Q1081

Instrument id number: **Method:** **Run number:** LB134334

Start date: 01/17/2025 **End date:** 01/17/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1051	Fe
S1	S1	1	1055	Fe
S2	S2	1	1059	Fe
S3	S3	1	1104	Fe
S4	S4	1	1108	Fe
S5	S5	1	1112	Fe
ICV01	ICV01	1	1121	Fe
LLICV01	LLICV01	1	1126	Fe
ICB01	ICB01	1	1130	Fe
CRI01	CRI01	1	1135	Fe
ICSA01	ICSA01	1	1139	Fe
ICSAB01	ICSAB01	1	1143	Fe
CCV01	CCV01	1	1156	Fe
CCB01	CCB01	1	1200	Fe
PB166054BL	PB166054BL	1	1205	Fe
PB166054BS	PB166054BS	1	1209	Fe
CCV02	CCV02	1	1247	Fe
CCB02	CCB02	1	1251	Fe
CCV03	CCV03	1	1336	Fe
CCB03	CCB03	1	1341	Fe
CCV04	CCV04	1	1427	Fe
CCB04	CCB04	1	1431	Fe
Q1081-04	RW7-SP303-20250113	1	1512	Fe
Q1081-04DUP	RW7-SP303-20250113DUP	1	1517	Fe
Q1081-04L	RW7-SP303-20250113L	5	1521	Fe
CCV05	CCV05	1	1534	Fe
CCB05	CCB05	1	1538	Fe
Q1081-04MS	RW7-SP303-20250113MS	1	1600	Fe
Q1081-04MSD	RW7-SP303-20250113MSD	1	1604	Fe
CCV06	CCV06	1	1616	Fe
CCB06	CCB06	1	1620	Fe
CCV07	CCV07	1	1711	Fe
CCB07	CCB07	1	1716	Fe
CCV08	CCV08	1	1752	Fe
CCB08	CCB08	1	1756	Fe

METAL
RAW DATA

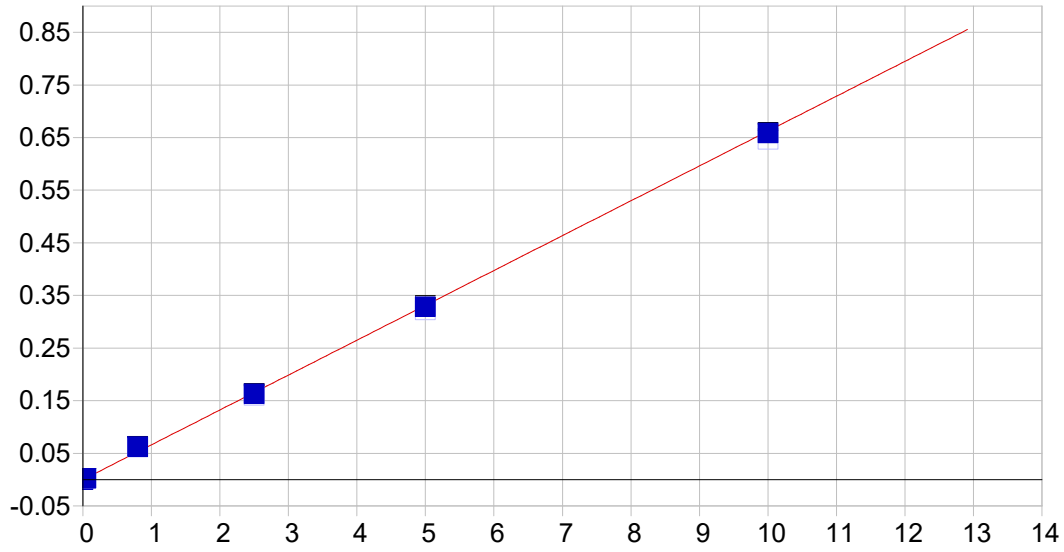


As 189.042 {479}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000216	Re-Slope:	1.000000
A1 (Gain):	0.055460	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999468	Status:	OK.
Std Error of Est:	0.000042		
Predicted MDL:	0.002783		
Predicted MQL:	0.009275		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00022	.000	1
S1	.02000	.02268	.003	13.4	.00104	.000	1
S3	2.5000	2.4200	-.080	-3.20	.13385	.000	1
S4	5.0000	4.9664	-.034	-.672	.27492	.002	1
S5	10.000	9.9967	-.003	-.033	.55361	.002	1
S2	.80000	.91425	.114	14.3	.05044	.000	1

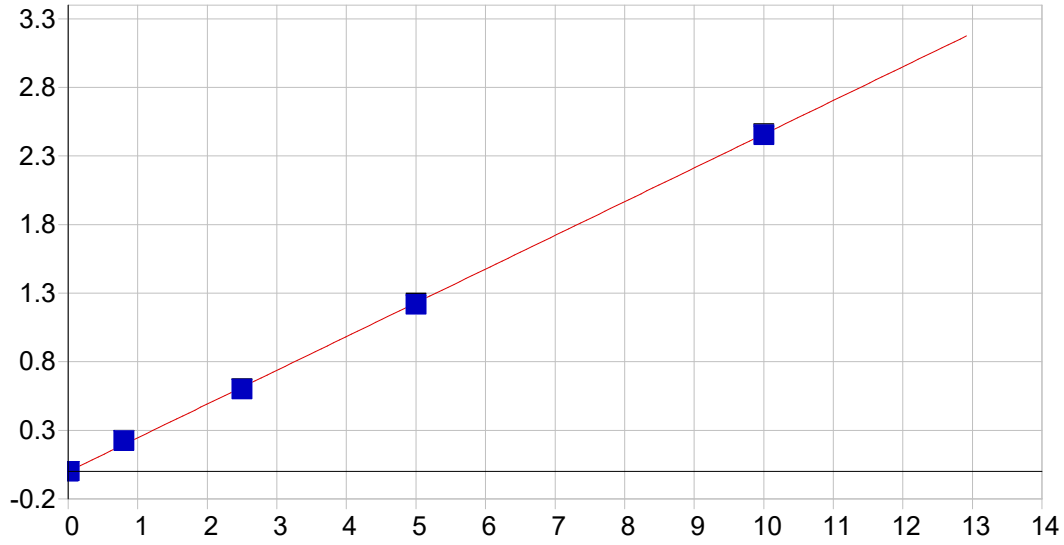


Tl 190.856 {477}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000130	Re-Slope:	1.000000
A1 (Gain):	0.066256	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999238	Status:	OK.
Std Error of Est:	0.000084		
Predicted MDL:	0.002115		
Predicted MQL:	0.007051		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00013	.000	1
S1	.04000	.03783	-.002	-5.43	.00221	.000	1
S3	2.5000	2.4600	-.040	-1.60	.15981	.001	1
S4	5.0000	4.9607	-.039	-.785	.32245	.002	1
S5	10.000	9.9385	-.061	-.615	.64615	.001	1
S2	.80000	.94284	.143	17.9	.06136	.001	1

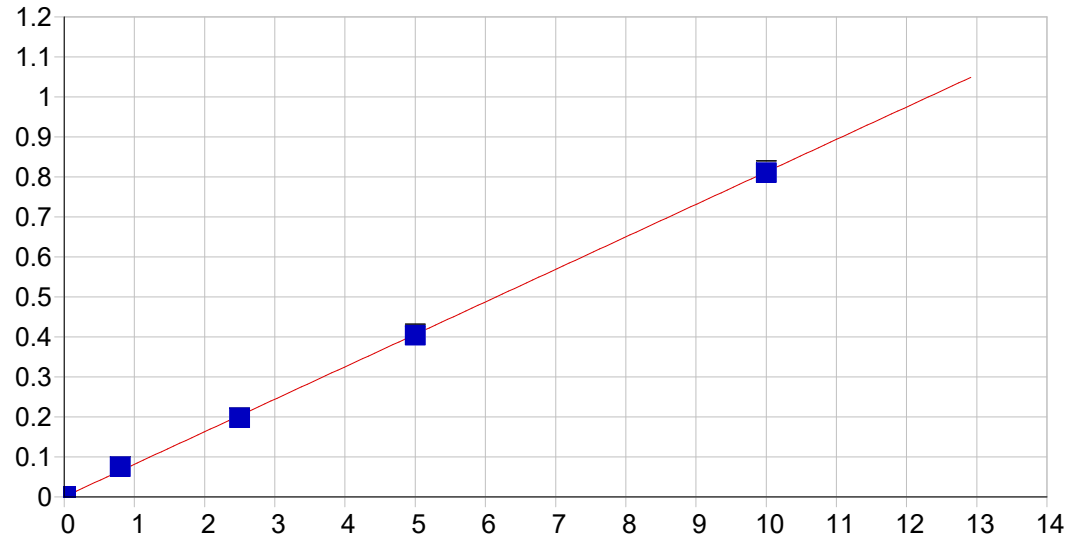


Pb 220.353 {453}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000101	Re-Slope:	1.000000
A1 (Gain):	0.245888	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999477	Status:	OK.
Std Error of Est:	0.000144		
Predicted MDL:	0.001233		
Predicted MQL:	0.004111		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00010	.000	1
S1	.01200	.01081	-.001	-9.92	.00250	.000	1
S3	2.5000	2.4443	-.056	-2.23	.60024	.001	1
S4	5.0000	4.9557	-.044	-.887	1.2171	.009	1
S5	10.000	9.9835	-.016	-.165	2.4520	.008	1
S2	.80000	.91774	.118	14.7	.22534	.001	1

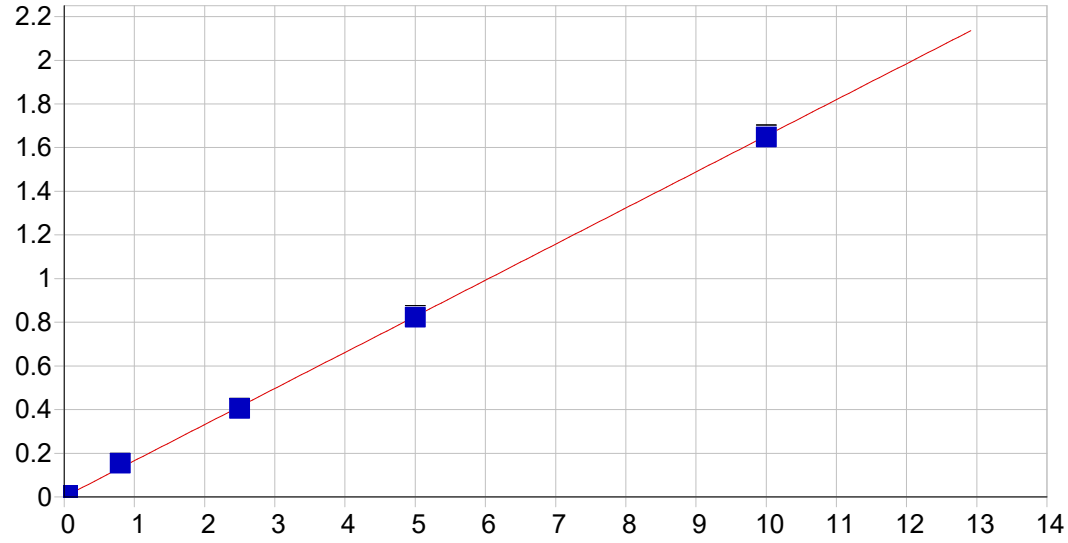


Se 196.090 {472}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000457	Re-Slope:	1.000000
A1 (Gain):	0.081190	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999416	Status:	OK.
Std Error of Est:	0.000065		
Predicted MDL:	0.002570		
Predicted MQL:	0.008565		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00046	.000	1
S1	.02000	.01936	-.001	-3.22	.00203	.000	1
S3	2.5000	2.4260	-.074	-2.96	.19737	.000	1
S4	5.0000	4.9742	-.026	-.515	.40421	.003	1
S5	10.000	9.9770	-.023	-.230	.81027	.005	1
S2	.80000	.92336	.123	15.4	.07541	.001	1

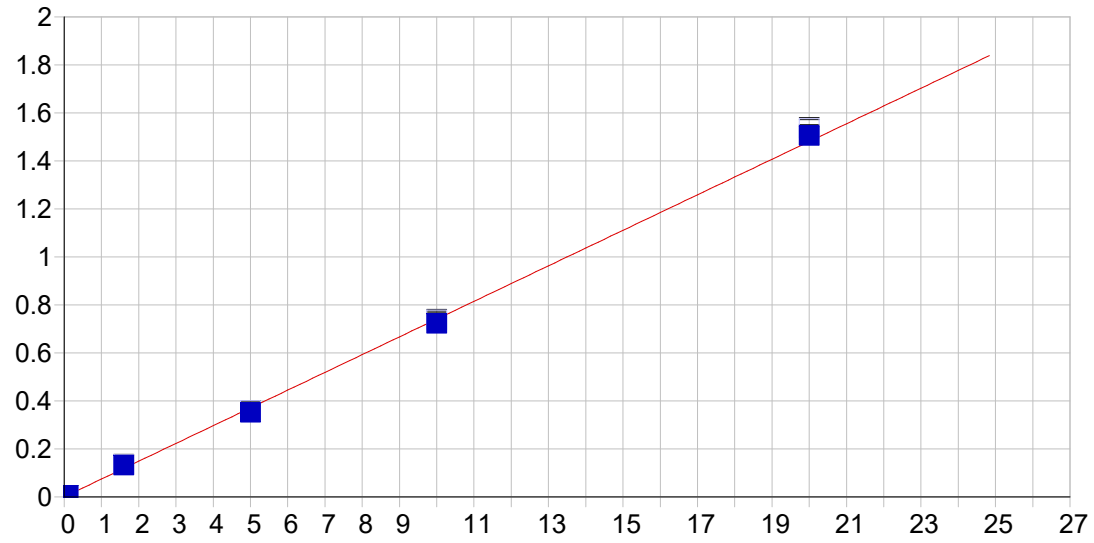


Sb 206.833 {463}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000425	Re-Slope:	1.000000
A1 (Gain):	0.165351	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999423	Status:	OK.
Std Error of Est:	0.000209		
Predicted MDL:	0.001533		
Predicted MQL:	0.005109		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00042	.000	1
S1	.05000	.04805	-.002	-3.90	.00839	.000	1
S3	2.5000	2.4426	-.057	-2.29	.40544	.001	1
S4	5.0000	4.9704	-.030	-.592	.82453	.007	1
S5	10.000	9.9637	-.036	-.363	1.6524	.007	1
S2	.80000	.92523	.125	15.7	.15377	.001	1

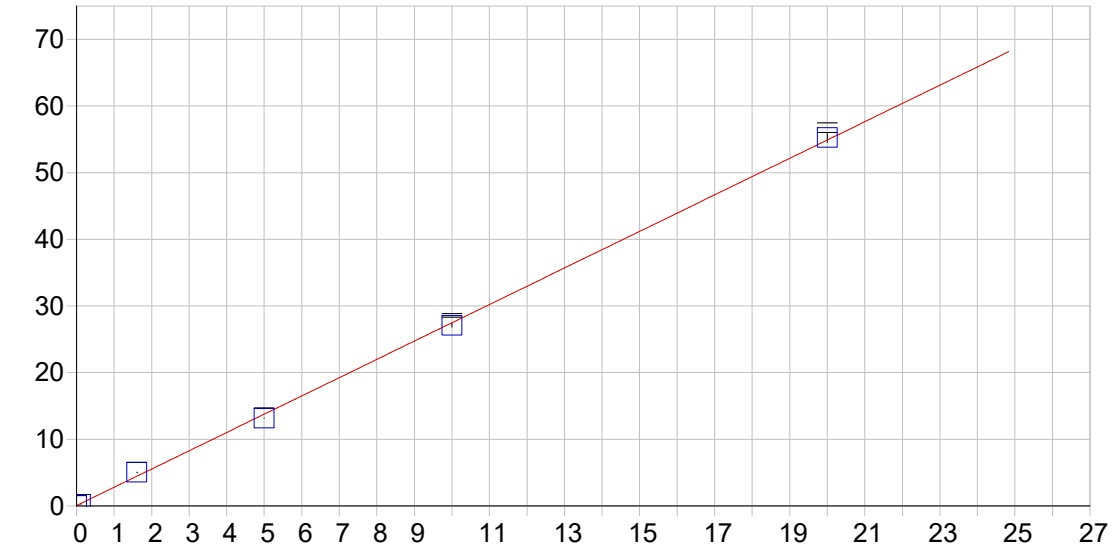


Al 396.152 { 85}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000642	Re-Slope:	1.000000
A1 (Gain):	0.074013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999395	Status:	OK.
Std Error of Est:	0.000195		
Predicted MDL:	0.007998		
Predicted MQL:	0.026660		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00064	.000	1
S1	.10000	.08618	-.014	-13.8	.00759	.000	1
S3	5.0000	4.7512	-.249	-4.98	.35947	.001	1
S4	10.000	9.7521	-.248	-2.48	.73678	.003	1
S5	20.000	20.331	.331	1.66	1.5341	.004	1
S2	1.6000	1.7799	.180	11.2	.13468	.001	1

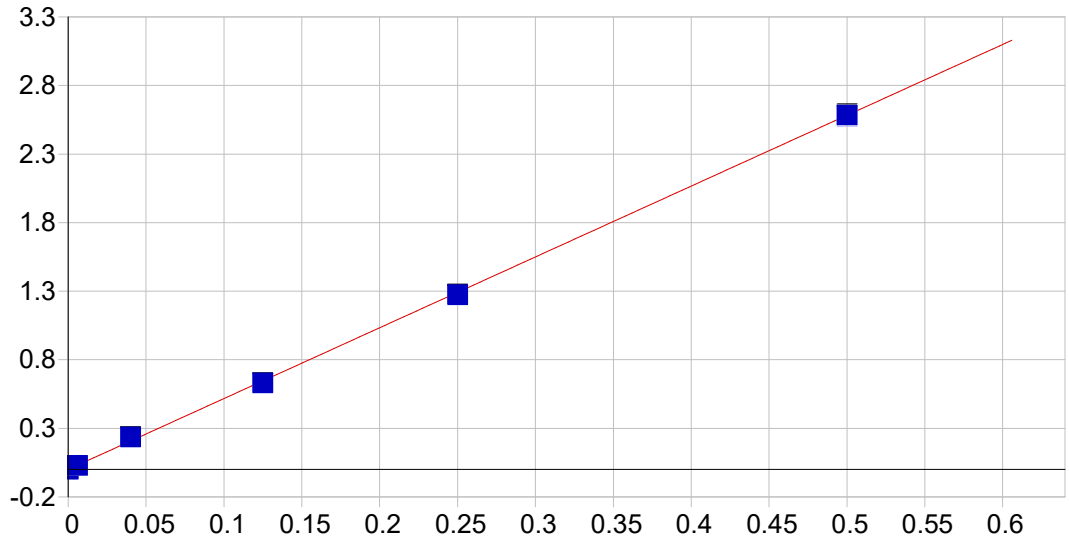


Ba 493.409 { 68}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.047389	Re-Slope:	1.000000
A1 (Gain):	2.742712	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999397	Status:	OK.
Std Error of Est:	0.007064		
Predicted MDL:	0.000748		
Predicted MQL:	0.002492		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.04739	.002	1
S1	.10000	.09177	-.008	-8.23	.29909	.002	1
S3	5.0000	4.7857	-.214	-4.29	13.173	.028	1
S4	10.000	9.8643	-.136	-1.36	27.102	.259	1
S5	20.000	20.133	.133	.665	55.266	.711	1
S2	1.6000	1.8252	.225	14.1	5.0533	.004	1

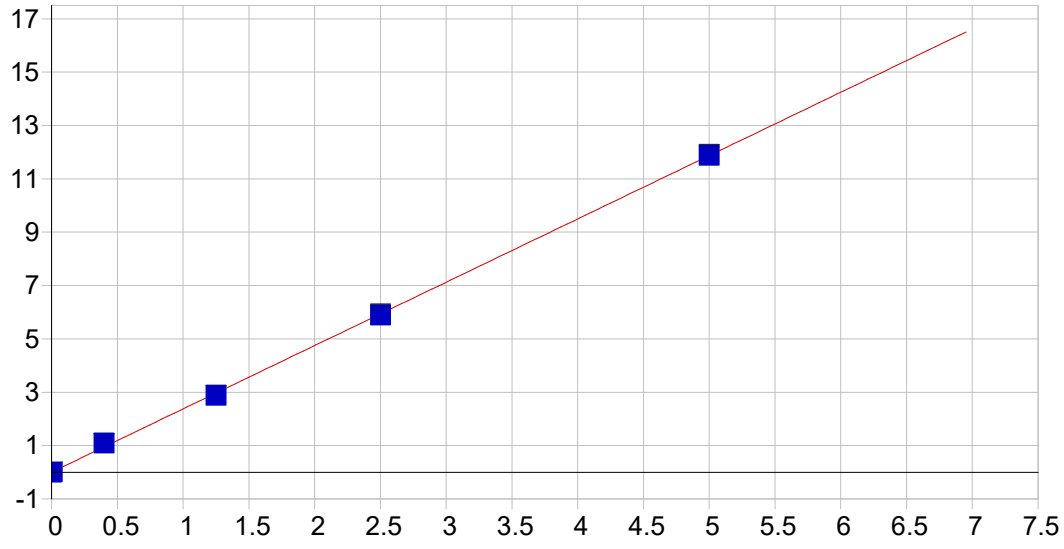


Be 234.861 {144}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000375	Re-Slope:	1.000000
A1 (Gain):	5.163898	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999507	Status:	OK.
Std Error of Est:	0.000464		
Predicted MDL:	0.000055		
Predicted MQL:	0.000182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00038	.000	1
S1	.00600	.00578	-.000	-3.71	.02923	.000	1
S3	.12500	.12223	-.003	-2.22	.62790	.001	1
S4	.25000	.24711	-.003	-1.16	1.2699	.005	1
S5	.50000	.50024	.000	.048	2.5712	.011	1
S2	.04000	.04565	.006	14.1	.23441	.003	1

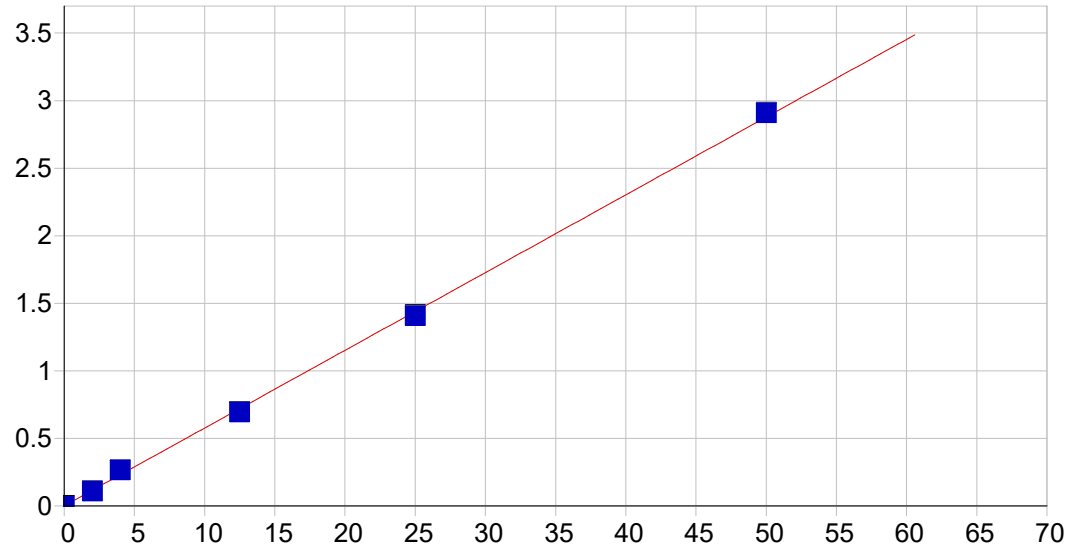


Cd 226.502 {449}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000113	Re-Slope:	1.000000
A1 (Gain):	2.374410	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999507	Status:	OK.
Std Error of Est:	0.000677		
Predicted MDL:	0.000097		
Predicted MQL:	0.000323		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00011	.000	1
S1	.00600	.00576	-.000	-4.07	.01385	.000	1
S3	1.2500	1.2125	-.038	-3.00	2.8814	.008	1
S4	2.5000	2.4794	-.021	-.825	5.8920	.040	1
S5	5.0000	5.0027	.003	.055	11.888	.031	1
S2	.40000	.45565	.056	13.9	1.0828	.004	1

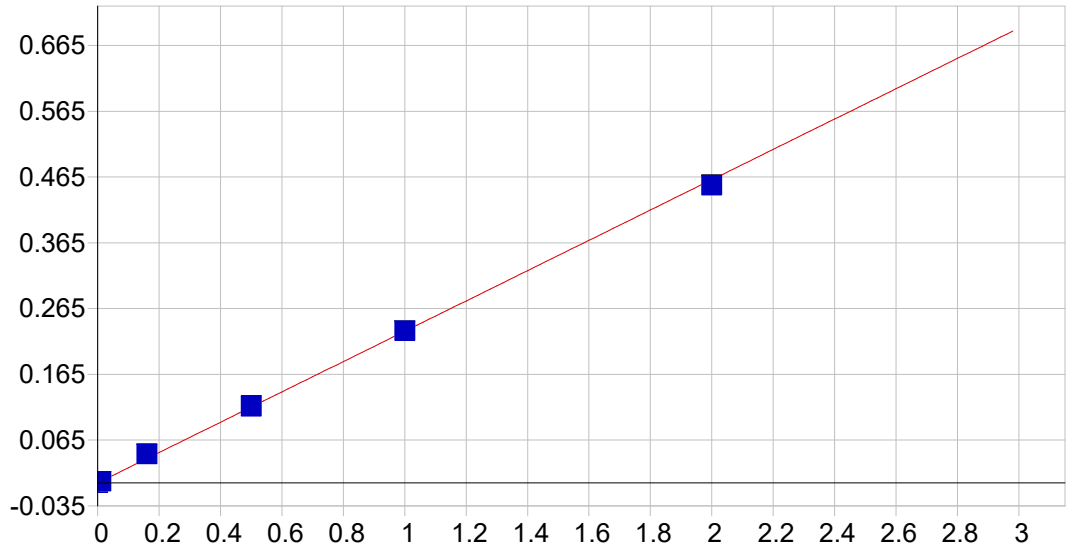


Ca 373.690 { 90}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000954	Re-Slope:	1.000000
A1 (Gain):	0.057536	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999325	Status:	OK.
Std Error of Est:	0.001119		
Predicted MDL:	0.009836		
Predicted MQL:	0.032787		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00008	-.000	.000	.00095	.000	1
S2	4.0000	4.5841	.584	14.6	.26470	.001	1
S3	12.500	12.036	-.464	-3.71	.69348	.002	1
S4	25.000	24.454	-.546	-2.18	1.4079	.006	1
S5	50.000	50.536	.536	1.07	2.9086	.006	1
S1	2.0000	1.8893	-.111	-5.54	.10965	.000	1

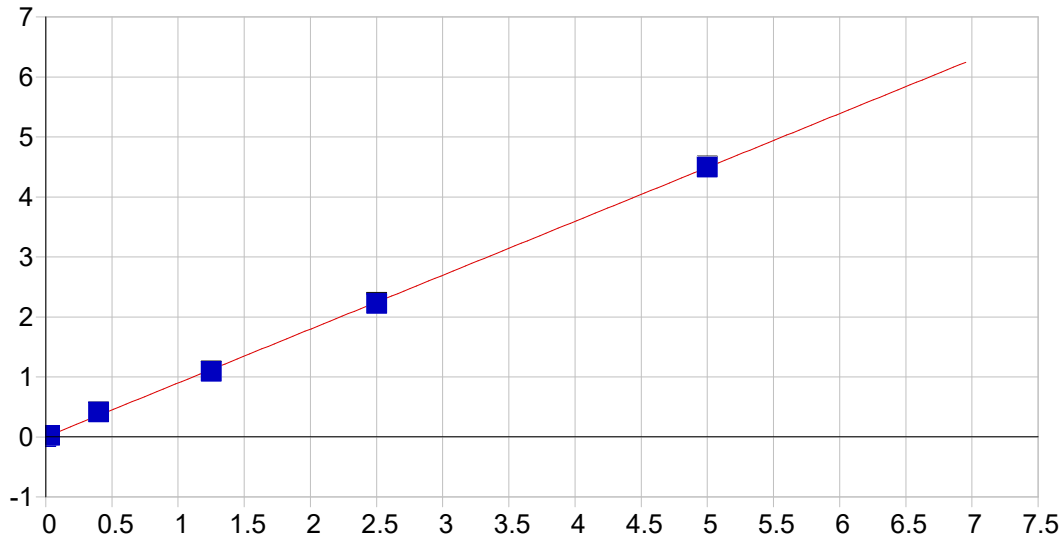


Cr 267.716 {126}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000011	Re-Slope:	1.000000
A1 (Gain):	0.230522	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999164	Status:	OK.
Std Error of Est:	0.000070		
Predicted MDL:	0.000406		
Predicted MQL:	0.001352		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00001	.000	1
S1	.01000	.00973	-.000	-2.73	.00223	.000	1
S3	.50000	.50498	.005	.996	.11643	.001	1
S4	1.0000	1.0026	.003	.259	.23118	.001	1
S5	2.0000	1.9633	-.037	-1.84	.45271	.000	1
S2	.16000	.18941	.029	18.4	.04366	.000	1

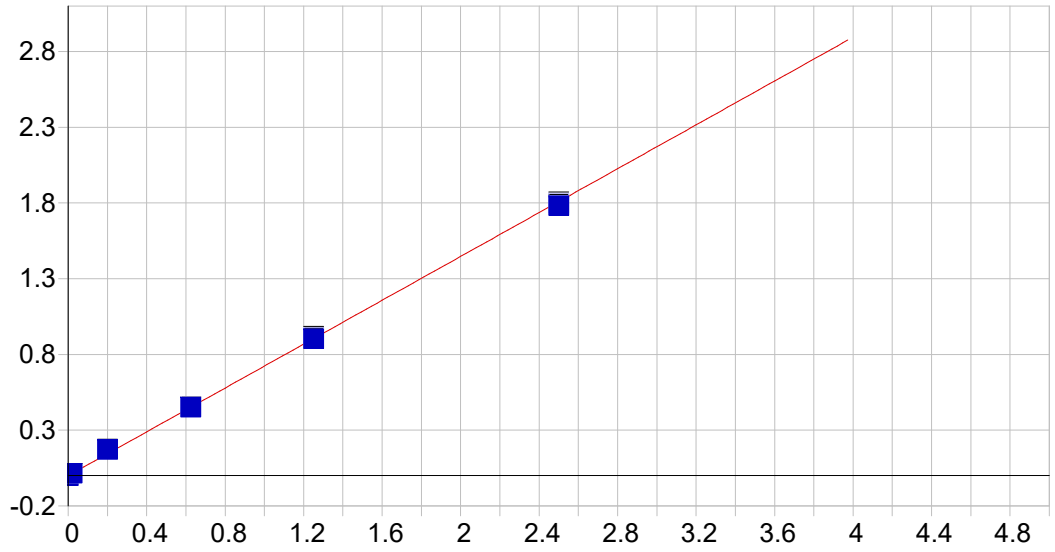


Co 228.616 {448}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.898106	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999467	Status:	OK.
Std Error of Est:	0.000597		
Predicted MDL:	0.000228		
Predicted MQL:	0.000760		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.03000	.02838	-.002	-5.42	.02538	.000	1
S3	1.2500	1.2150	-.035	-2.80	1.0931	.003	1
S4	2.5000	2.4724	-.028	-1.10	2.2243	.016	1
S5	5.0000	5.0060	.006	.120	4.5035	.013	1
S2	.40000	.45815	.058	14.5	.41209	.001	1

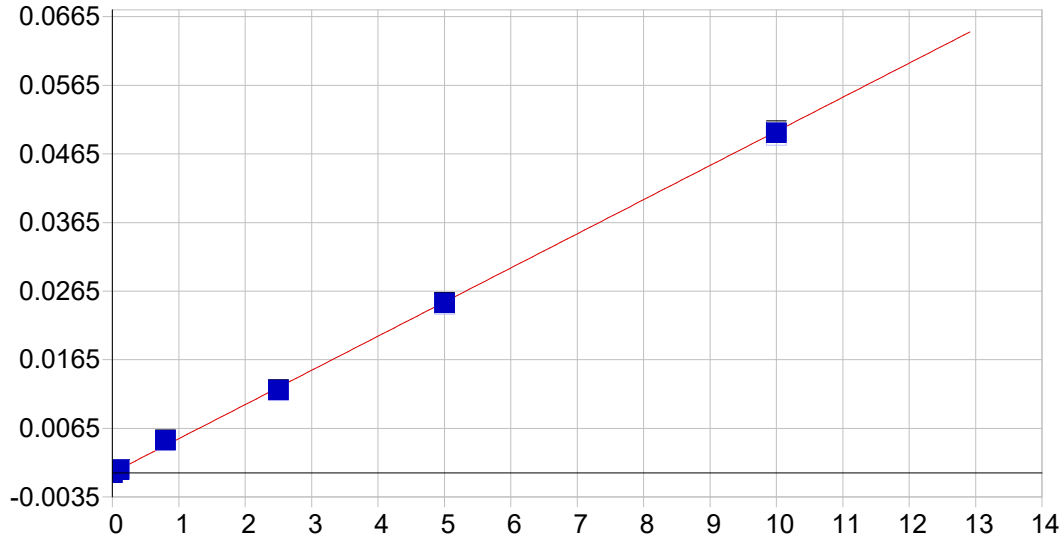


Cu 224.700 {450}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000573	Re-Slope:	1.000000
A1 (Gain):	0.723824	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999139	Status:	OK.
Std Error of Est:	0.000356		
Predicted MDL:	0.000457		
Predicted MQL:	0.001525		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00058	.000	1
S1	.02000	.02104	.001	5.18	.01484	.000	1
S3	.62500	.62322	-.002	-.285	.45484	.000	1
S4	1.2500	1.2491	-.001	-.073	.91217	.007	1
S5	2.5000	2.4630	-.037	-1.48	1.7994	.008	1
S2	.20000	.23865	.039	19.3	.17355	.001	1

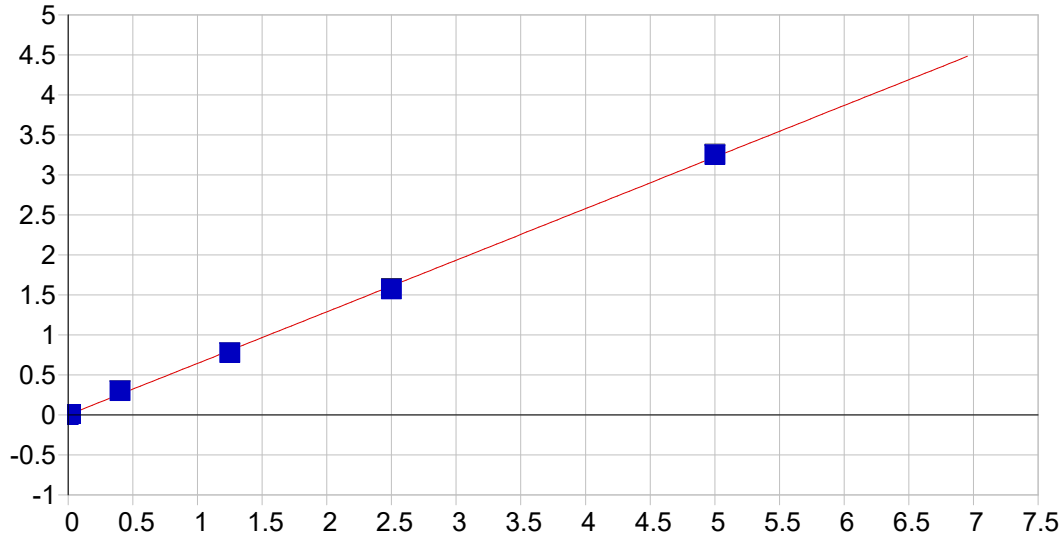


Fe 240.488 {140}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.004977	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999115	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.005773		
Predicted MQL:	0.019242		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00001	.000	1
S1	.10000	.09310	-.007	-6.90	.00047	.000	1
S3	2.5000	2.4208	-.079	-3.17	.01196	.000	1
S4	5.0000	4.9736	-.026	-.527	.02455	.000	1
S5	10.000	9.9608	-.039	-.392	.04916	.000	1
S2	.80000	.95168	.152	19.0	.00472	.000	1

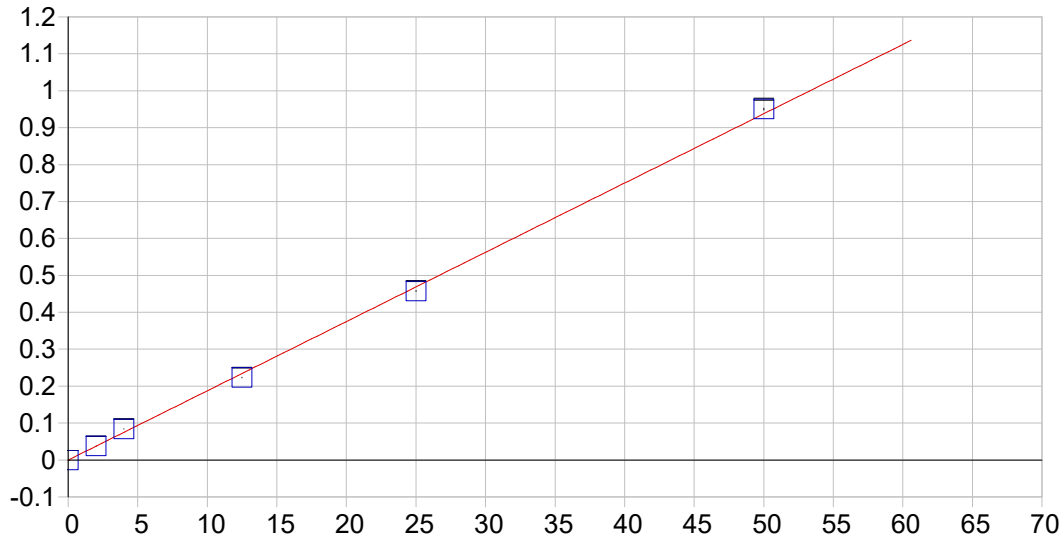


Mn 257.610 {131}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000072	Re-Slope:	1.000000
A1 (Gain):	0.644615	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999184	Status:	OK.
Std Error of Est:	0.000432		
Predicted MDL:	0.000354		
Predicted MQL:	0.001179		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.02000	.01956	-.000	-2.20	.01254	.001	1
S3	1.2500	1.2026	-.047	-3.79	.77528	.002	1
S4	2.5000	2.4373	-.063	-2.51	1.5714	.007	1
S5	5.0000	5.0435	.044	.870	3.2517	.007	1
S2	.40000	.46704	.067	16.8	.30104	.001	1

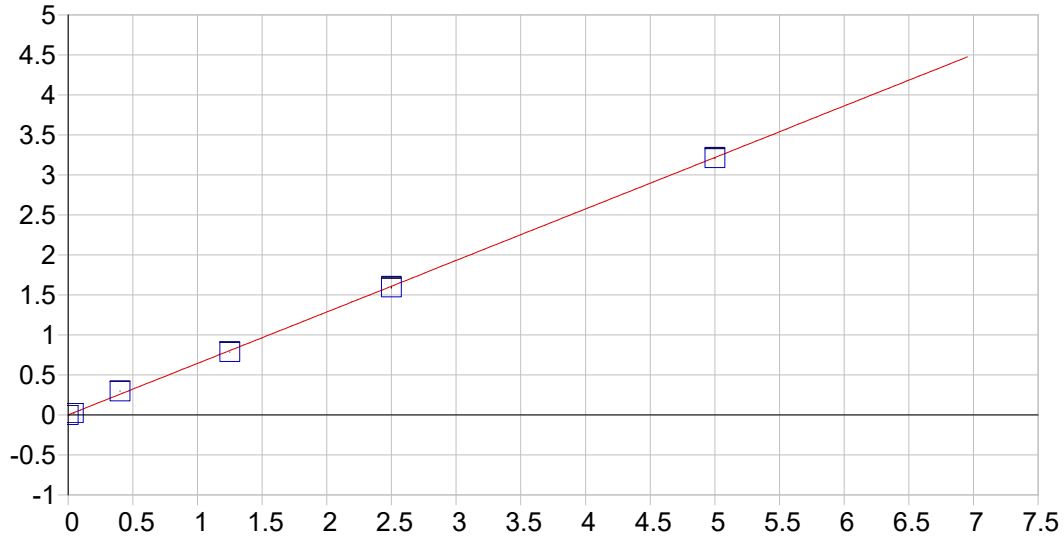


Mg 279.079 {121}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000242	Re-Slope:	1.000000
A1 (Gain):	0.018757	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999393	Status:	OK.
Std Error of Est:	0.000346		
Predicted MDL:	0.013761		
Predicted MQL:	0.045871		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00014	-.000	.000	-.00024	.000	1
S2	4.0000	4.4948	.495	12.4	.08407	.000	1
S3	12.500	11.896	-.604	-4.83	.22290	.001	1
S4	25.000	24.414	-.586	-2.35	.45770	.001	1
S5	50.000	50.688	.688	1.38	.95053	.002	1
S1	2.0000	2.0076	.008	.379	.03742	.000	1

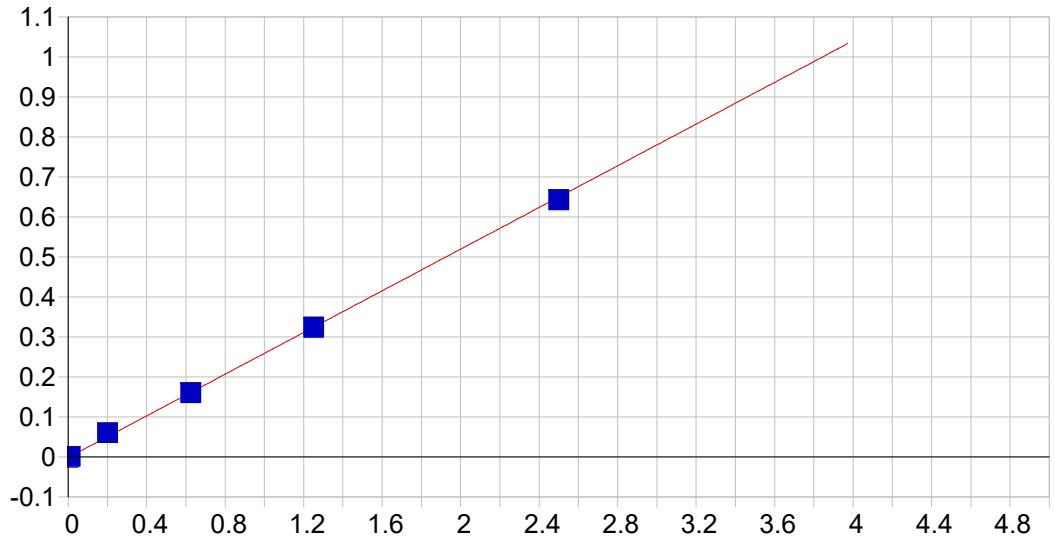


Ni 231.604 {446}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000078	Re-Slope:	1.000000
A1 (Gain):	0.643559	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999419	Status:	OK.
Std Error of Est:	0.000515		
Predicted MDL:	0.000354		
Predicted MQL:	0.001181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00008	.000	1
S1	.04000	.03785	-.002	-5.38	.02443	.000	1
S3	1.2500	1.2214	-.029	-2.29	.78609	.003	1
S4	2.5000	2.4796	-.020	-.815	1.5959	.011	1
S5	5.0000	4.9888	-.011	-.224	3.2107	.008	1
S2	.40000	.46236	.062	15.6	.29764	.001	1

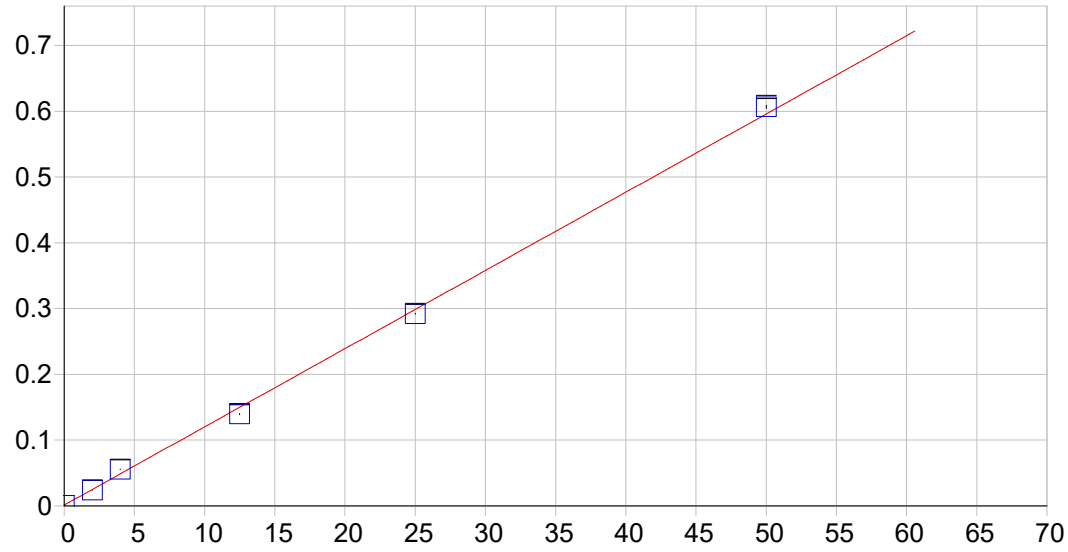


Ag 328.068 {103}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001584	Re-Slope:	1.000000
A1 (Gain):	0.260507	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999213	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.000462		
Predicted MQL:	0.001539		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00158	.000	1
S1	.01000	.01021	.000	2.06	.00106	.000	1
S3	.62500	.62048	-.005	-.723	.15941	.001	1
S4	1.2500	1.2464	-.004	-.287	.32182	.002	1
S5	2.5000	2.4711	-.029	-1.16	.63956	.001	1
S2	.20000	.23684	.037	18.4	.05991	.000	1

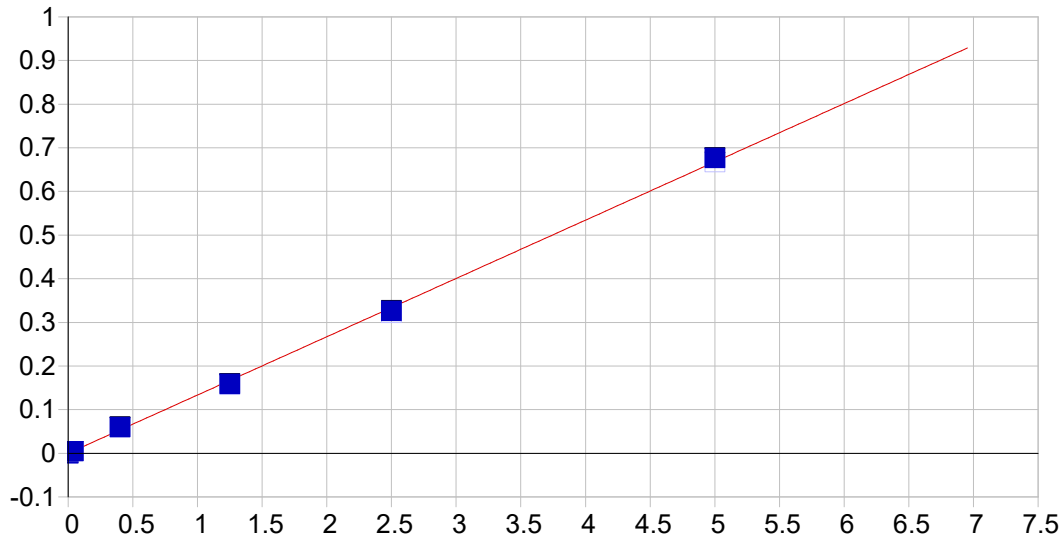


Na 589.592 { 57}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001277	Re-Slope:	1.000000
A1 (Gain):	0.011892	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999087	Status:	OK.
Std Error of Est:	0.000269		
Predicted MDL:	0.016590		
Predicted MQL:	0.055299		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00006	-.000	.000	.00128	.000	1
S2	4.0000	4.5638	.564	14.1	.05555	.001	1
S3	12.500	11.637	-.863	-6.90	.13966	.001	1
S4	25.000	24.462	-.538	-2.15	.29217	.001	1
S5	50.000	50.919	.919	1.84	.60679	.003	1
S1	2.0000	1.9179	-.082	-4.11	.02408	.000	1

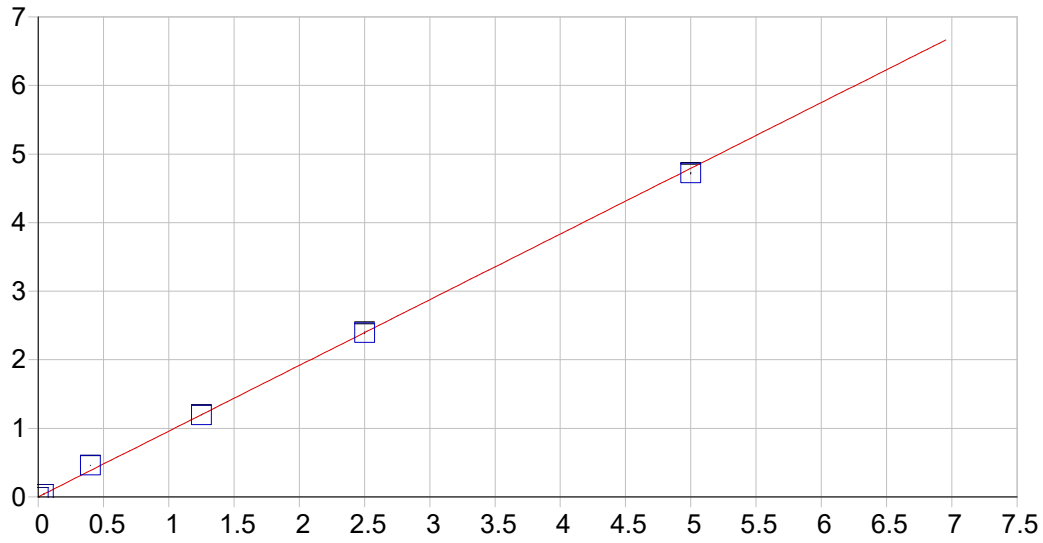


V 292.402 {115}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000052	Re-Slope:	1.000000
A1 (Gain):	0.133550	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999397	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.001954		
Predicted MQL:	0.006512		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00005	.000	1
S1	.04000	.03812	-.002	-4.71	.00484	.000	1
S3	1.2500	1.1919	-.058	-4.65	.15669	.000	1
S4	2.5000	2.4436	-.056	-2.26	.32142	.001	1
S5	5.0000	5.0684	.068	1.37	.66710	.000	1
S2	.40000	.44802	.048	12.0	.05900	.001	1

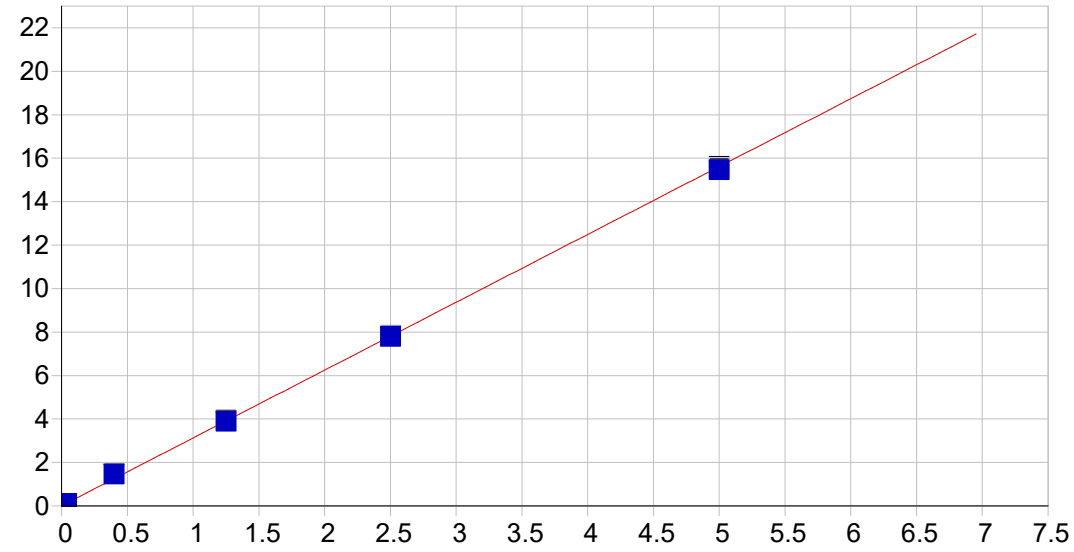


Zn 206.200 {464}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000529	Re-Slope:	1.000000
A1 (Gain):	0.958320	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999077	Status:	OK.
Std Error of Est:	0.000967		
Predicted MDL:	0.000215		
Predicted MQL:	0.000716		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00052	.000	1
S1	.04000	.04122	.001	3.05	.04003	.000	1
S3	1.2500	1.2477	-.002	-.185	1.1962	.003	1
S4	2.5000	2.4958	-.004	-.169	2.3923	.014	1
S5	5.0000	4.9257	-.074	-1.49	4.7209	.010	1
S2	.40000	.47960	.080	19.9	.46014	.002	1

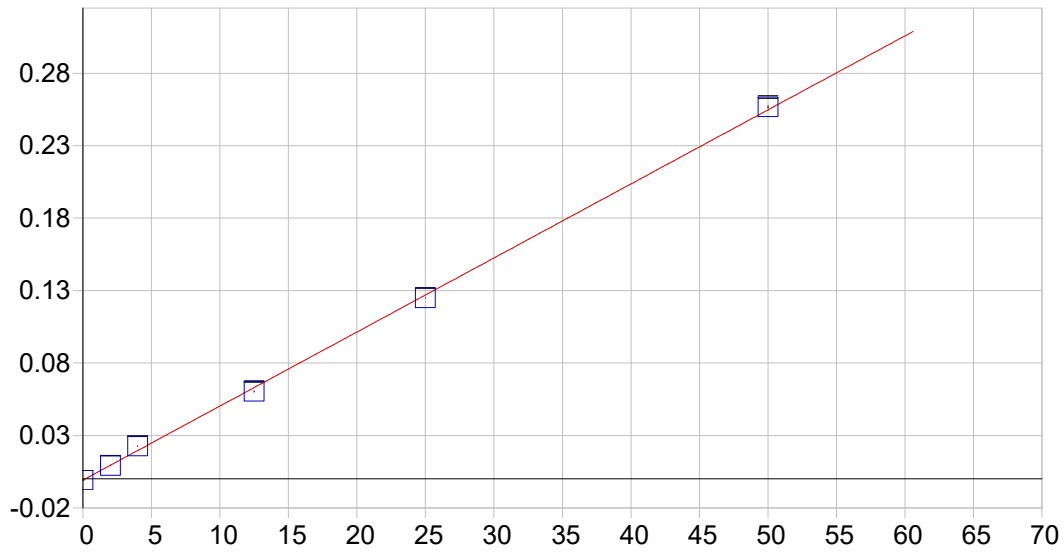


Zn 213.856 {158}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002789	Re-Slope:	1.000000
A1 (Gain):	3.122387	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999377	Status:	OK.
Std Error of Est:	0.002606		
Predicted MDL:	0.000285		
Predicted MQL:	0.000951		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00277	.001	1
S1	.04000	.04044	.000	1.10	.12993	.001	1
S3	1.2500	1.2420	-.008	-.639	3.9080	.035	1
S4	2.5000	2.4924	-.008	-.303	7.8394	.004	1
S5	5.0000	4.9487	-.051	-1.03	15.563	.059	1
S2	.40000	.46638	.066	16.6	1.4677	.002	1

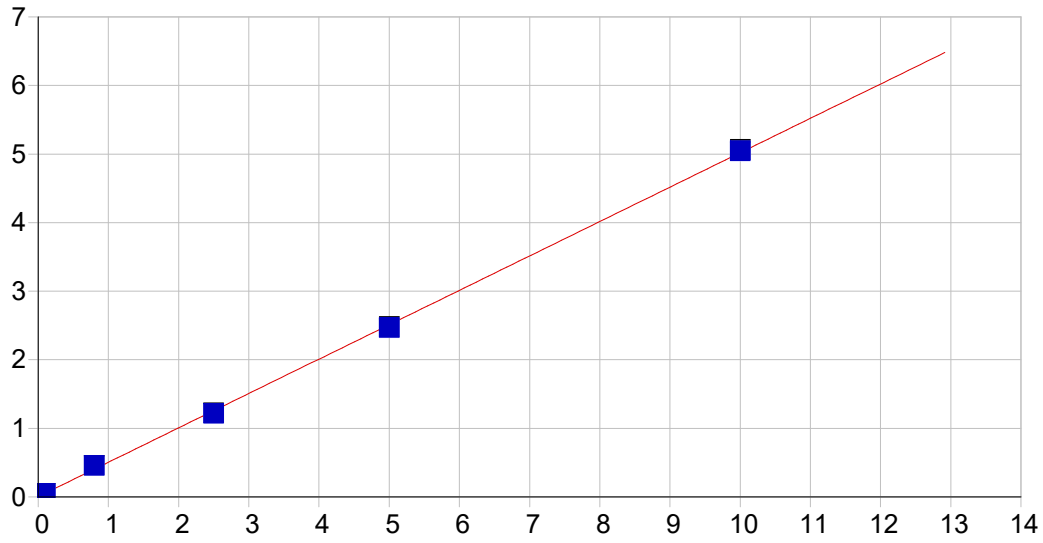


K 766.490 { 44}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000789	Re-Slope:	1.000000
A1 (Gain):	0.005110	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999403	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	0.045111		
Predicted MQL:	0.150371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00014	-.000	.000	-.00079	.000	1
S2	4.0000	4.5632	.563	14.1	.02253	.000	1
S3	12.500	11.977	-.523	-4.19	.06041	.000	1
S4	25.000	24.605	-.395	-1.58	.12495	.000	1
S5	50.000	50.399	.399	.798	.25676	.001	1
S1	2.0000	1.9559	-.044	-2.20	.00921	.000	1

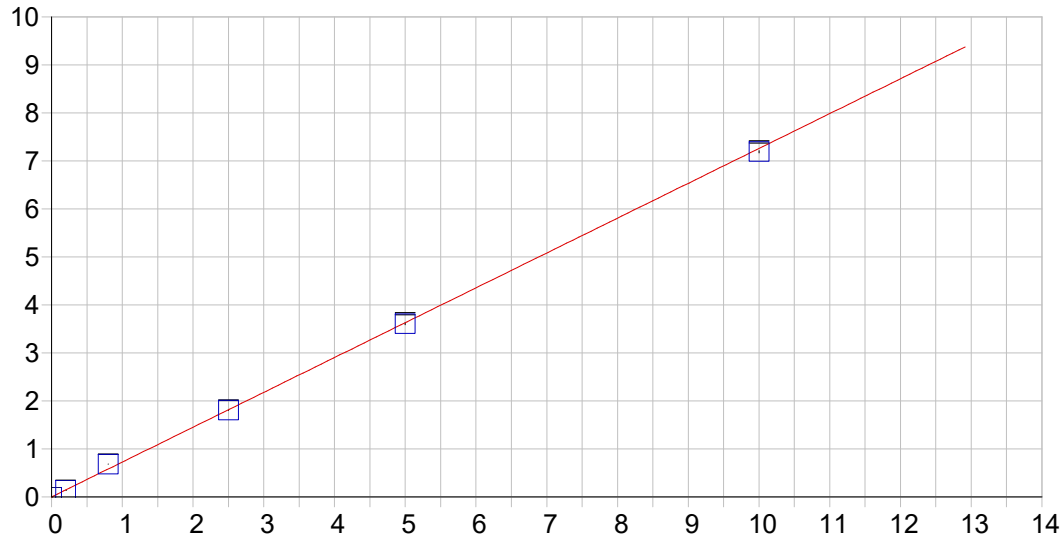


B 249.678 {135}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003437	Re-Slope:	1.000000
A1 (Gain):	0.501520	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999529	Status:	OK.
Std Error of Est:	0.000807		
Predicted MDL:	0.000688		
Predicted MQL:	0.002295		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00343	.000	1
S1	.10000	.09787	-.002	-2.13	.05231	.001	1
S3	2.5000	2.4244	-.076	-3.03	1.2169	.004	1
S4	5.0000	4.9141	-.086	-1.72	2.4630	.016	1
S5	10.000	10.061	.061	.613	5.0396	.017	1
S2	.80000	.90237	.102	12.8	.45521	.003	1

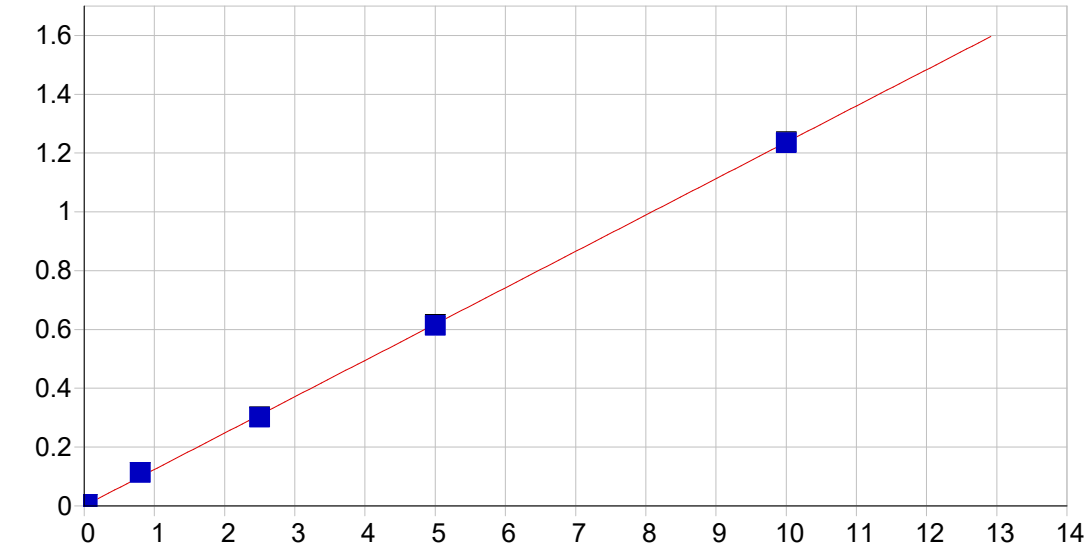


Mo 202.030 {467}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000307	Re-Slope:	1.000000
A1 (Gain):	0.725908	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999297	Status:	OK.
Std Error of Est:	0.002028		
Predicted MDL:	0.000300		
Predicted MQL:	0.001000		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	.00029	.000	1
S1	.20000	.19485	-.005	-2.58	.14175	.000	1
S3	2.5000	2.4866	-.013	-.537	1.8053	.005	1
S4	5.0000	4.9724	-.028	-.552	3.6098	.023	1
S5	10.000	9.9054	-.095	-.946	7.1907	.024	1
S2	.80000	.94083	.141	17.6	.68326	.003	1

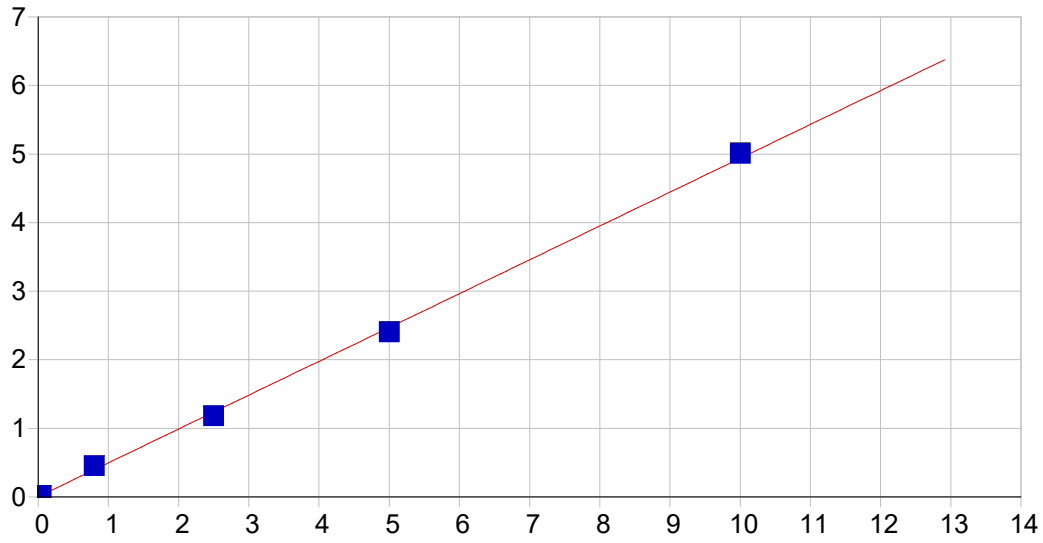


Sn 189.989 {478}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000327	Re-Slope:	1.000000
A1 (Gain):	0.123607	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999513	Status:	OK.
Std Error of Est:	0.000128		
Predicted MDL:	0.000860		
Predicted MQL:	0.002868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00033	.000	1
S1	.04000	.03737	-.003	-6.57	.00494	.000	1
S3	2.5000	2.4349	-.065	-2.60	.30098	.001	1
S4	5.0000	4.9615	-.039	-.771	.61296	.004	1
S5	10.000	9.9943	-.006	-.057	1.2344	.002	1
S2	.80000	.91199	.112	14.0	.11295	.000	1

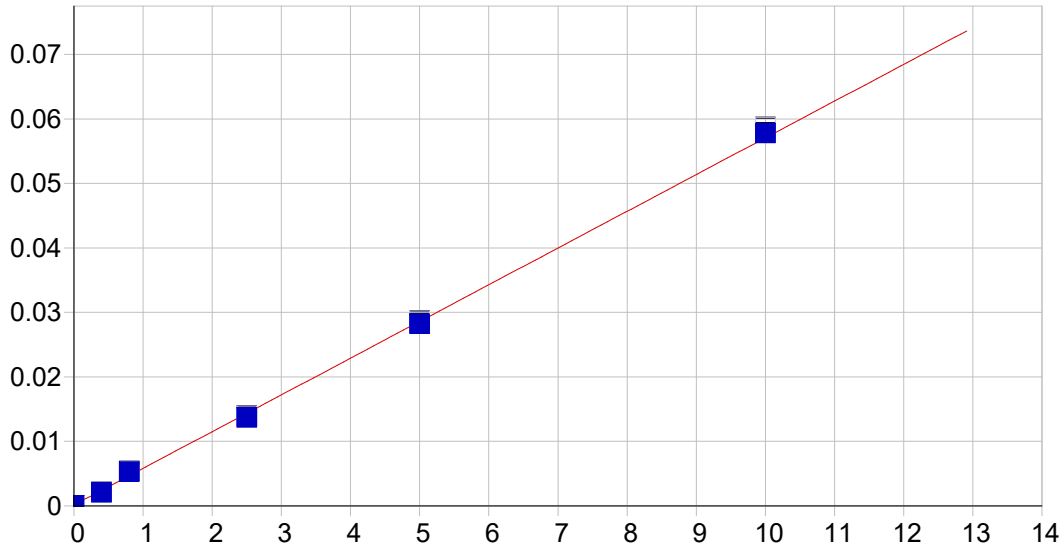


Ti 336.121 {100}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002804	Re-Slope:	1.000000
A1 (Gain):	0.493531	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999255	Status:	OK.
Std Error of Est:	0.000632		
Predicted MDL:	0.000760		
Predicted MQL:	0.002532		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00280	.000	1
S1	.04000	.03690	-.003	-7.75	.02100	.000	1
S3	2.5000	2.3859	-.114	-4.56	1.1799	.001	1
S4	5.0000	4.8625	-.137	-2.75	2.4017	.009	1
S5	10.000	10.141	.141	1.41	5.0060	.007	1
S2	.80000	.91355	.114	14.2	.45353	.001	1

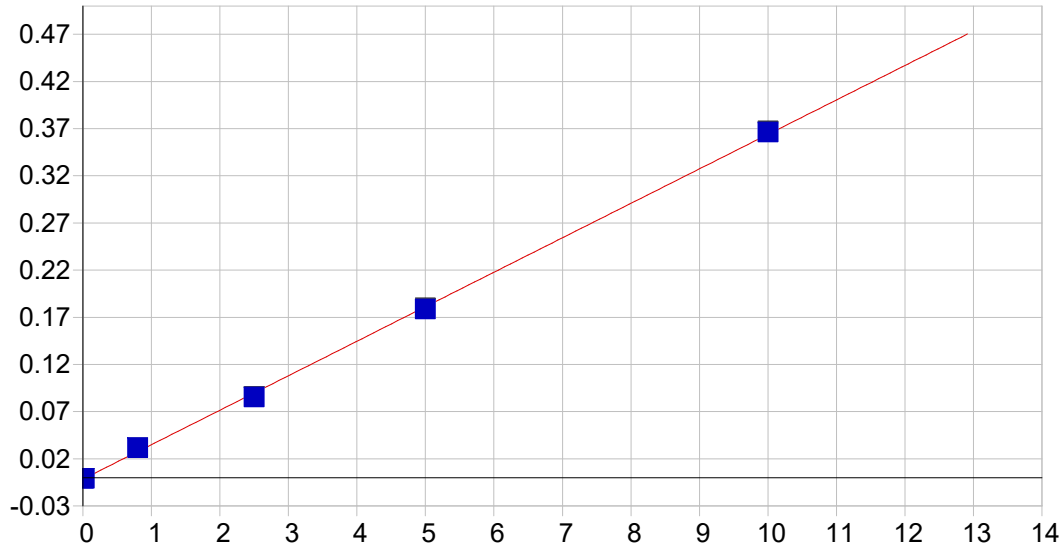


Si 288.158 {117}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000131	Re-Slope:	1.000000
A1 (Gain):	0.005693	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999257	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.009152		
Predicted MQL:	0.030508		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00013	.000	1
S1	.40000	.34721	-.053	-13.2	.00211	.000	1
S3	2.5000	2.3846	-.115	-4.62	.01392	.000	1
S4	5.0000	4.9352	-.065	-1.30	.02866	.000	1
S5	10.000	10.127	.127	1.27	.05864	.000	1
S2	.80000	.90542	.105	13.2	.00535	.000	1

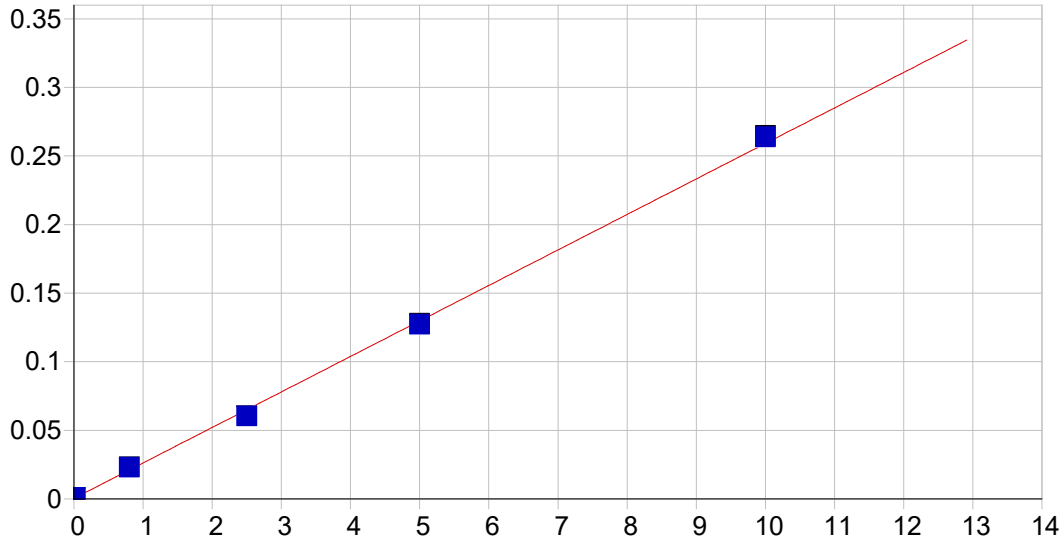


P 177.495 {490}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001597	Re-Slope:	1.000000
A1 (Gain):	0.036551	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999383	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.002693		
Predicted MQL:	0.008976		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00160	.000	1
S1	.02000	.01878	-.001	-6.08	-.00091	.000	1
S3	2.5000	2.3837	-.116	-4.65	.08551	.000	1
S4	5.0000	4.9364	-.064	-1.27	.17880	.001	1
S5	10.000	10.069	.069	.686	.36637	.001	1
S2	.80000	.91258	.113	14.1	.03175	.000	1

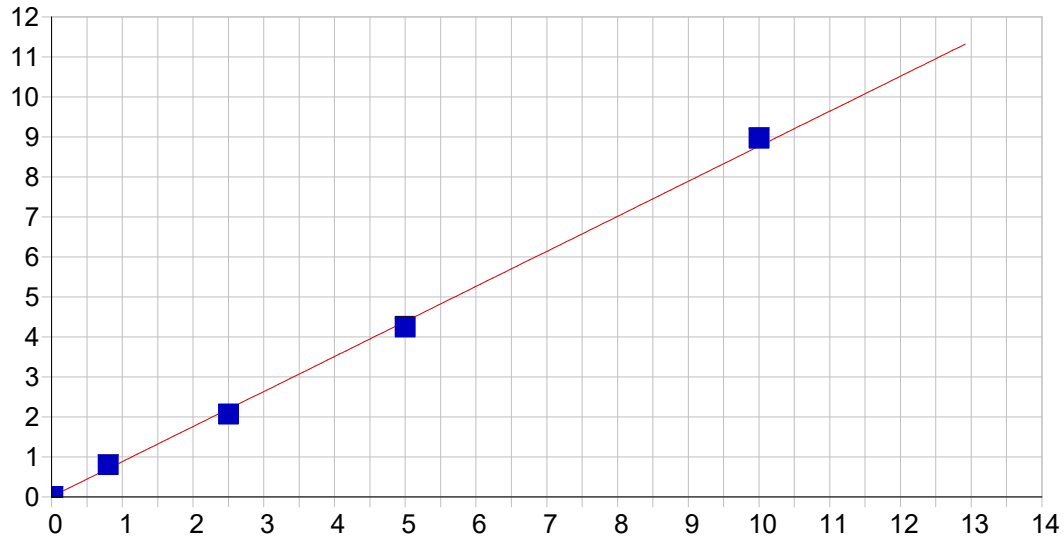


S 182.034 {485}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000353	Re-Slope:	1.000000
A1 (Gain):	0.025880	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999293	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.003714		
Predicted MQL:	0.012379		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00035	.000	1
S1	.02000	.01882	-.001	-5.90	.00082	.000	1
S3	2.5000	2.3242	-.176	-7.03	.06034	.000	1
S4	5.0000	4.9070	-.093	-1.86	.12701	.001	1
S5	10.000	10.190	.190	1.90	.26339	.001	1
S2	.80000	.88023	.080	10.0	.02308	.000	1

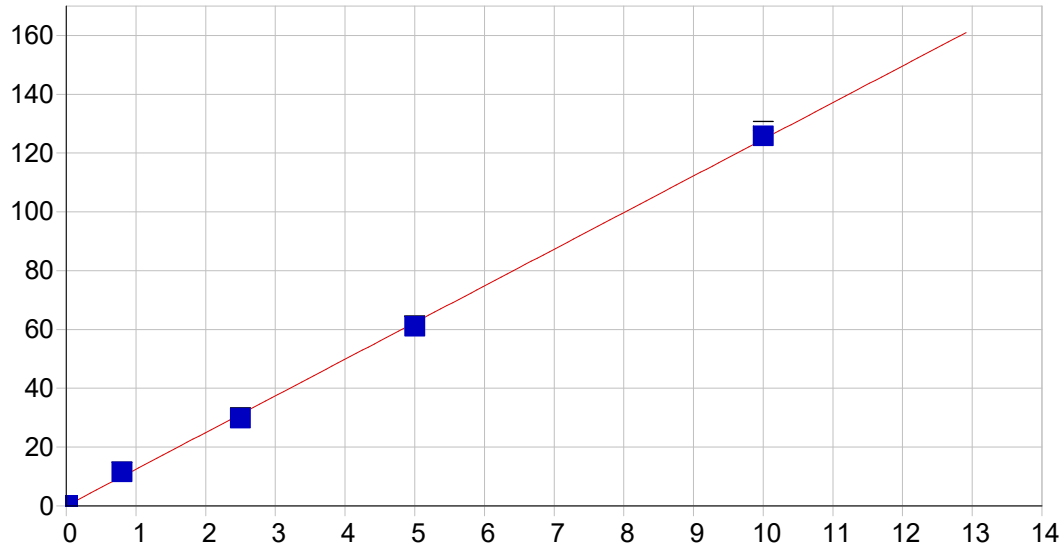


Li 670.784 { 50}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006851	Re-Slope:	1.000000
A1 (Gain):	0.875933	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999056	Status:	OK.
Std Error of Est:	0.000893		
Predicted MDL:	0.001249		
Predicted MQL:	0.004165		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00685	.001	1
S5	10.000	10.218	.218	2.18	8.9651	.016	1
S4	5.0000	4.8323	-.168	-3.35	4.2436	.021	1
S3	2.5000	2.3451	-.155	-6.20	2.0630	.006	1
S1	.02000	.01737	-.003	-13.1	.02238	.001	1
S2	.80000	.90720	.107	13.4	.80213	.002	1

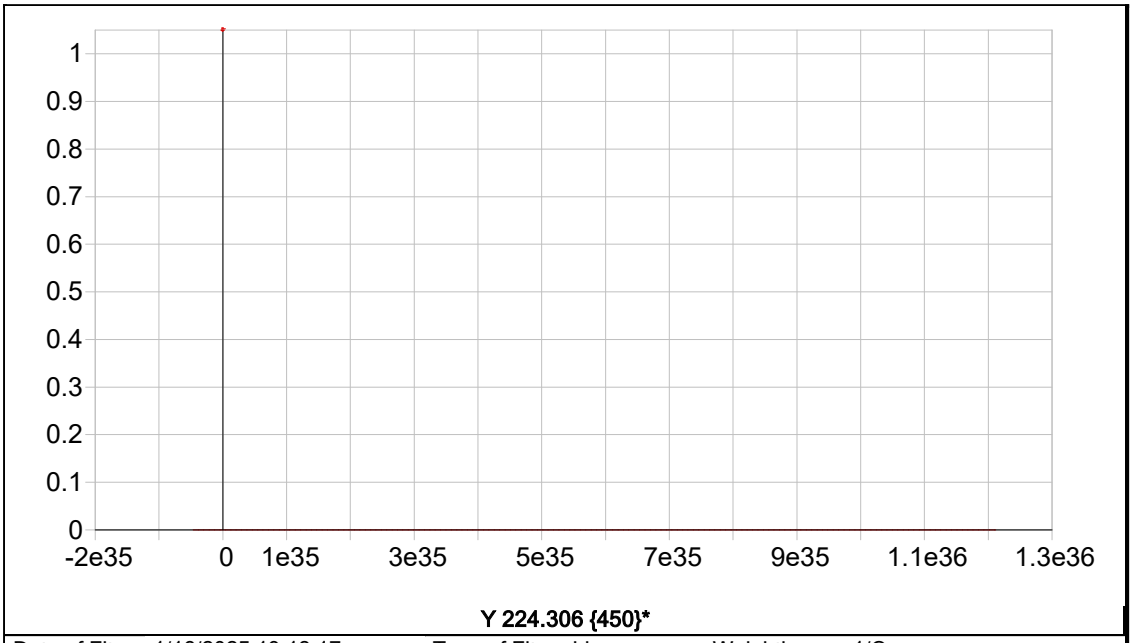


Sr 407.771 { 83}

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001647	Re-Slope:	1.000000
A1 (Gain):	12.468623	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999283	Status:	OK.
Std Error of Est:	0.011081		
Predicted MDL:	0.000051		
Predicted MQL:	0.000171		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00164	.000	1
S1	.02000	.01863	-.001	-6.86	.23516	.001	1
S3	2.5000	2.3891	-.111	-4.43	29.822	.267	1
S4	5.0000	4.9001	-.100	-2.00	61.162	.187	1
S5	10.000	10.090	.090	.903	125.94	1.53	1
S2	.80000	.92177	.122	15.2	11.505	.024	1

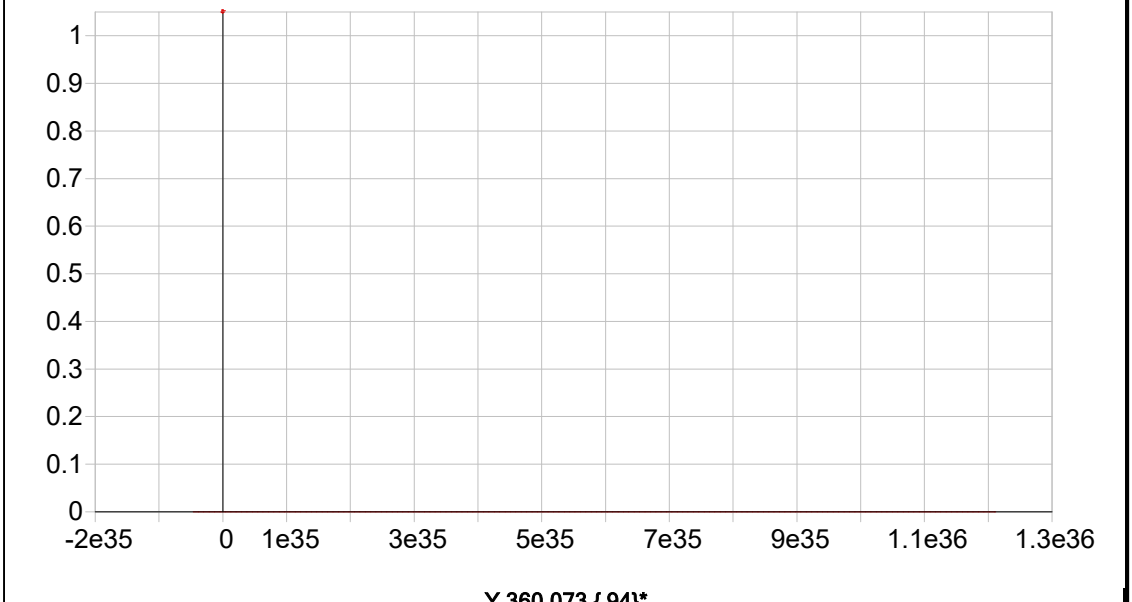


Y 224.306 {450}*

Date of Fit:	1/16/2025 19:18:17	Type of Fit:	Linear	Weighting:	1/Conc

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

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



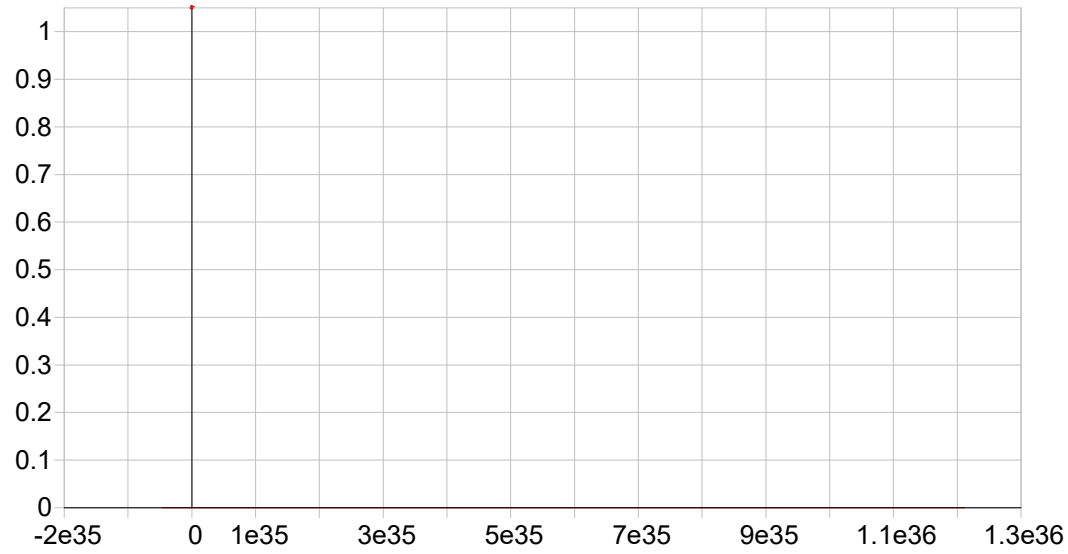
Y 360.073 { 94}*

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

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

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					

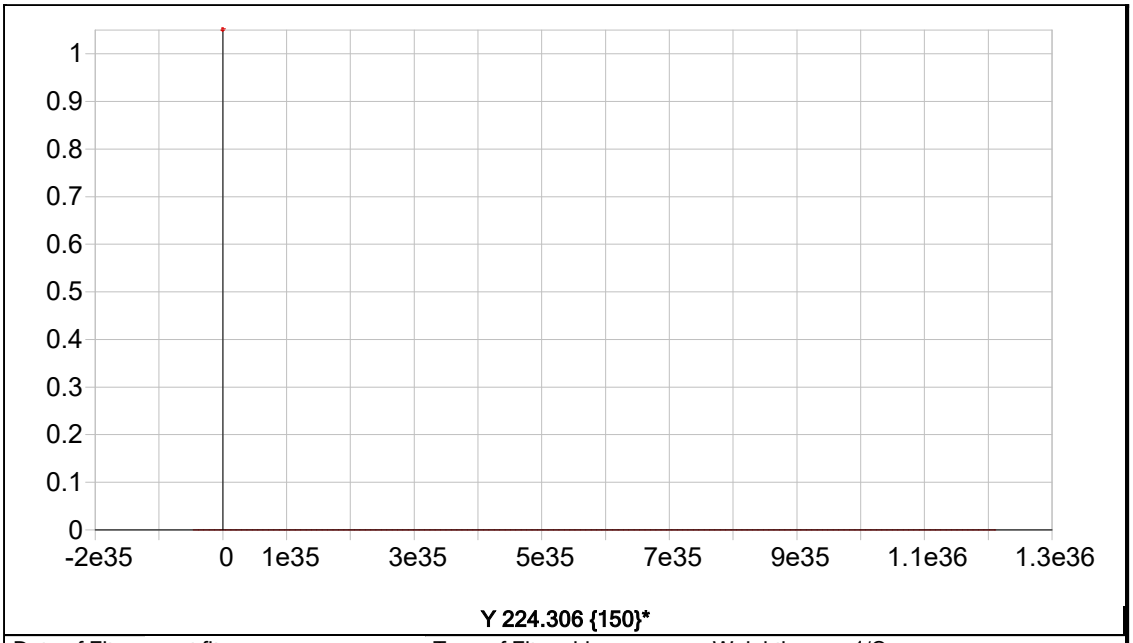
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

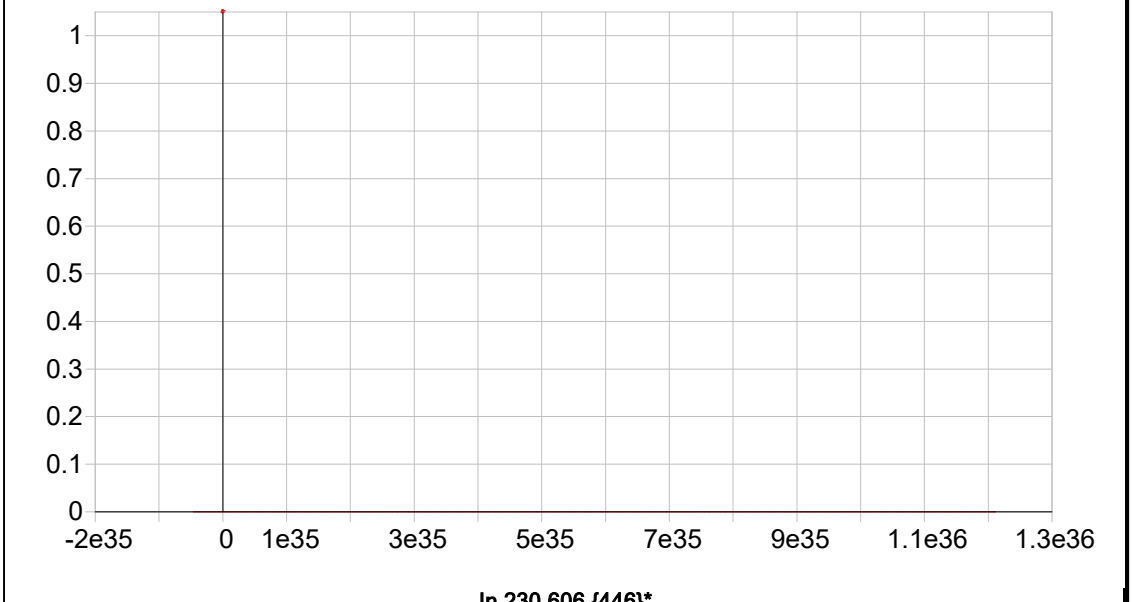


Y 224.306 {150}*

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:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S0 Acquired: 1/16/2025 18:47:44 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	-.00022	-.00013	-.00010	.00046	.00042	.00064	.04739	-.00038
Stddev	.00008	.00009	.00029	.00004	.00019	.00018	.00155	.00011
%RSD	38.809	67.995	290.71	8.8526	45.711	27.234	3.2733	28.832
#1	-.00017	-.00013	.00021	.00046	.00060	.00051	.04582	-.00026
#2	-.00031	-.00022	-.00015	.00050	.00022	.00058	.04743	-.00041
#3	-.00017	-.00004	-.00037	.00042	.00045	.00084	.04892	-.00047

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	.00011	.00095	-.00001	.00001	-.00058	.00001	-.00007	-.00024
Stddev	.00018	.00043	.00005	.00003	.00005	.00002	.00014	.00006
%RSD	162.11	45.730	419.23	309.65	8.1469	130.36	191.26	26.451
#1	.00032	.00131	.00002	.00004	-.00062	-.00001	.00007	-.00017
#2	.00002	.00047	.00002	-.00000	-.00053	.00002	-.00008	-.00030
#3	-.00001	.00107	-.00007	-.00001	-.00058	.00002	-.00021	-.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	.00008	-.00158	.00128	-.00005	.00277	-.00079	.00343	.00029
Stddev	.00011	.00016	.00000	.00024	.00090	.00009	.00028	.00006
%RSD	142.40	10.045	.31869	467.22	32.360	11.966	8.2363	19.920
#1	.00020	-.00166	.00128	.00015	.00225	-.00069	.00374	.00029
#2	.00002	-.00140	.00128	-.00032	.00380	-.00088	.00338	.00023
#3	.00001	-.00169	.00127	.00001	.00225	-.00080	.00318	.00034

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	.00033	.00280	.00013	-.00160	.00035	.00685	.00164
Stddev	.00006	.00025	.00002	.00003	.00003	.00071	.00046
%RSD	19.459	8.8935	15.203	2.0678	8.3824	10.429	27.955
#1	.00031	.00254	.00012	-.00161	.00033	.00728	.00217
#2	.00027	.00283	.00015	-.00162	.00034	.00725	.00142
#3	.00040	.00304	.00012	-.00156	.00039	.00603	.00133

Sample Name: S0 Acquired: 1/16/2025 18:47:44 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2789.4	54855.	10208.	1934.5	4212.6
Stddev	1.8	114.	34.	5.6	8.7
%RSD	.06588	.20830	.33526	.28954	.20677
#1	2790.5	54723.	10177.	1928.3	4221.9
#2	2787.2	54910.	10244.	1939.2	4211.2
#3	2790.3	54931.	10202.	1936.0	4204.7

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S1 Acquired: 1/16/2025 18:52:12 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.00104	.00221	.00250	.00203	.00839	.00759	.29909	.02923
Stddev	.00004	.00013	.00022	.00014	.00005	.00024	.00175	.00005
%RSD	4.0935	5.9916	8.8979	6.7757	.53889	3.1727	.58676	.18016
#1	.00099	.00219	.00225	.00189	.00840	.00774	.29967	.02929
#2	.00106	.00235	.00256	.00203	.00842	.00732	.29712	.02918
#3	.00106	.00208	.00268	.00216	.00834	.00772	.30048	.02922

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	.01385	.10965	.00223	.02538	.01484	.00047	.01254	.03742
Stddev	.00016	.00012	.00011	.00002	.00027	.00002	.00051	.00027
%RSD	1.1634	.10833	4.7860	.09201	1.8328	4.0767	4.0973	.72686
#1	.01386	.10963	.00231	.02539	.01453	.00049	.01232	.03710
#2	.01400	.10955	.00227	.02536	.01495	.00046	.01218	.03759
#3	.01368	.10978	.00211	.02540	.01504	.00046	.01313	.03755

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	.02443	.00106	.02408	.00484	.12993	.00921	.05231	.14175
Stddev	.00018	.00007	.00018	.00005	.00093	.00011	.00058	.00046
%RSD	.75409	6.6497	.72978	1.0427	.71419	1.1968	1.1109	.32511
#1	.02450	.00100	.02427	.00489	.13099	.00932	.05287	.14197
#2	.02458	.00103	.02392	.00479	.12955	.00921	.05171	.14122
#3	.02423	.00114	.02406	.00483	.12926	.00910	.05234	.14205

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	.00494	.02100	.00211	-.00091	.00082	.02238	.23516
Stddev	.00008	.00034	.00004	.00007	.00001	.00061	.00138
%RSD	1.5590	1.6243	1.6798	7.4281	1.8202	2.7153	.58618
#1	.00496	.02135	.00211	-.00092	.00083	.02306	.23561
#2	.00501	.02066	.00215	-.00097	.00080	.02188	.23362
#3	.00486	.02099	.00208	-.00084	.00082	.02222	.23626

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S1 Acquired: 1/16/2025 18:52:12 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2806.5	54221.	10100.	1963.7	4205.7
Stddev	6.6	120.	35.	4.6	7.2
%RSD	.23479	.22141	.34596	.23200	.17231
#1	2799.2	54085.	10082.	1963.2	4197.3
#2	2811.9	54313.	10140.	1968.5	4209.6
#3	2808.4	54265.	10078.	1959.5	4210.2

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S2 Acquired: 1/16/2025 18:56:35 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.05044	.06136	.22534	.07541	.15377	.13468	5.0533	.23441
Stddev	.00037	.00055	.00063	.00053	.00059	.00069	.0043	.00284
%RSD	.73576	.89601	.28097	.70075	.38423	.50880	.08593	1.2135
#1	.05007	.06159	.22528	.07533	.15379	.13503	5.0583	.23740
#2	.05044	.06074	.22475	.07492	.15317	.13511	5.0508	.23174
#3	.05081	.06176	.22601	.07597	.15436	.13389	5.0507	.23408

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	1.0828	.26470	.04366	.41209	.17355	.00472	.30104	.08407
Stddev	.0037	.00065	.00006	.00145	.00097	.00003	.00059	.00045
%RSD	.34638	.24503	.12829	.35301	.56119	.70504	.19530	.53864
#1	1.0817	.26539	.04361	.41157	.17272	.00468	.30170	.08457
#2	1.0797	.26461	.04372	.41097	.17330	.00474	.30083	.08393
#3	1.0870	.26410	.04367	.41373	.17462	.00473	.30058	.08370

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	.29764	.05991	.05555	.05900	1.4677	.02253	.45521	.68326
Stddev	.00125	.00015	.00055	.00055	.0018	.00022	.00305	.00275
%RSD	.41893	.25244	.98188	.93425	.12383	.95970	.67023	.40183
#1	.29768	.06000	.05510	.05963	1.4697	.02231	.45797	.68175
#2	.29637	.05999	.05616	.05876	1.4672	.02274	.45193	.68160
#3	.29886	.05973	.05538	.05862	1.4661	.02255	.45573	.68643

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	.11295	.45353	.00535	.03175	.02308	.80213	11.505
Stddev	.00025	.00081	.00003	.00011	.00012	.00231	.024
%RSD	.21859	.17962	.57571	.35490	.53431	.28822	.21156
#1	.11275	.45433	.00536	.03174	.02315	.80312	11.532
#2	.11288	.45270	.00532	.03187	.02294	.79948	11.487
#3	.11323	.45355	.00538	.03165	.02315	.80378	11.495

Sample Name: S2 Acquired: 1/16/2025 18:56:35 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2789.4	55263.	10061.	1964.1	4141.4
Stddev	9.0	216.	61.	6.0	12.0
%RSD	.32361	.39018	.60277	.30475	.28951
#1	2795.6	55303.	9990.9	1961.9	4145.7
#2	2793.6	55030.	10101.	1959.5	4150.7
#3	2779.1	55455.	10090.	1970.9	4127.9

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S3 Acquired: 1/16/2025 19:00:44 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.13385	.15981	.60024	.19737	.40544	.35947	13.173	.62790
Stddev	.00007	.00066	.00127	.00037	.00108	.00115	.028	.00132
%RSD	.05073	.41478	.21145	.18621	.26743	.32047	.21406	.21010
#1	.13379	.15961	.59936	.19722	.40603	.36073	13.141	.62860
#2	.13392	.15926	.59965	.19711	.40419	.35846	13.186	.62871
#3	.13383	.16054	.60169	.19779	.40610	.35922	13.193	.62637

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	2.8814	.69348	.11643	1.0931	.45484	.01196	.77528	.22290
Stddev	.0083	.00177	.00075	.0030	.00035	.00006	.00209	.00081
%RSD	.28617	.25482	.64768	.27710	.07700	.50090	.26957	.36520
#1	2.8779	.69280	.11647	1.0921	.45489	.01200	.77291	.22365
#2	2.8755	.69216	.11717	1.0908	.45447	.01198	.77684	.22302
#3	2.8909	.69549	.11566	1.0966	.45516	.01189	.77610	.22203

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	.78609	.15941	.13966	.15669	3.9080	.06041	1.2169	1.8053
Stddev	.00254	.00086	.00082	.00017	.0352	.00036	.0035	.0047
%RSD	.32282	.53698	.58381	.10565	.89955	.60144	.29029	.25872
#1	.78479	.16003	.13914	.15650	3.9356	.06051	1.2202	1.8057
#2	.78447	.15976	.14060	.15677	3.9199	.06072	1.2173	1.8005
#3	.78901	.15843	.13925	.15679	3.8684	.06001	1.2131	1.8098

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	.30098	1.1799	.01392	.08551	.06034	2.0630	29.822
Stddev	.00148	.0005	.00009	.00011	.00025	.0060	.267
%RSD	.49119	.04582	.62809	.13390	.42229	.29121	.89555
#1	.30001	1.1794	.01394	.08553	.06025	2.0560	30.106
#2	.30026	1.1804	.01400	.08539	.06013	2.0661	29.576
#3	.30268	1.1798	.01382	.08562	.06062	2.0667	29.784

Sample Name: S3 Acquired: 1/16/2025 19:00:44 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2802.6	54955.	10008.	1917.8	4122.4
Stddev	5.1	466.	34.	17.6	9.1
%RSD	.18083	.84753	.33819	.91676	.22132
#1	2800.1	55022.	10012.	1911.6	4125.1
#2	2808.4	54460.	9971.9	1904.2	4129.9
#3	2799.2	55384.	10039.	1937.7	4112.2

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: S4 Acquired: 1/16/2025 19:04:56 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.27492	.32245	1.2171	.40421	.82453	.73678	27.102	1.2699
Stddev	.00218	.00207	.0086	.00318	.00662	.00296	.259	.0047
%RSD	.79252	.64250	.70211	.78630	.80318	.40234	.95408	.37179
#1	.27385	.32369	1.2119	.40210	.82061	.73531	26.919	1.2685
#2	.27349	.32359	1.2124	.40266	.82081	.73484	27.398	1.2660
#3	.27743	.32006	1.2269	.40786	.83218	.74020	26.990	1.2752

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	5.8920	1.4079	.23118	2.2243	.91217	.02455	1.5714	.45770
Stddev	.0397	.0055	.00061	.0161	.00744	.00010	.0067	.00102
%RSD	.67393	.39214	.26236	.72252	.81521	.39444	.42686	.22393
#1	5.8710	1.4049	.23183	2.2160	.90706	.02467	1.5663	.45658
#2	5.8673	1.4046	.23063	2.2141	.90875	.02450	1.5689	.45792
#3	5.9378	1.4143	.23107	2.2428	.92070	.02450	1.5790	.45859

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	1.5959	.32182	.29217	.32142	7.8394	.12495	2.4630	3.6098
Stddev	.0108	.00152	.00086	.00091	.0045	.00011	.0156	.0233
%RSD	.67571	.47118	.29602	.28462	.05718	.08948	.63155	.64639
#1	1.5902	.32354	.29310	.32037	7.8374	.12507	2.4635	3.5974
#2	1.5891	.32066	.29200	.32208	7.8363	.12485	2.4473	3.5953
#3	1.6083	.32127	.29140	.32179	7.8445	.12492	2.4784	3.6367

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	.61296	2.4017	.02866	.17880	.12701	4.2436	61.162
Stddev	.00371	.0088	.00007	.00075	.00073	.0211	.187
%RSD	.60472	.36599	.24131	.41690	.57092	.49635	.30545
#1	.61126	2.3961	.02869	.17855	.12639	4.2301	61.339
#2	.61041	2.3973	.02858	.17822	.12683	4.2328	61.180
#3	.61722	2.4118	.02870	.17964	.12781	4.2679	60.967

Sample Name: S4 Acquired: 1/16/2025 19:04:56 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2715.1	53477.	9748.6	1866.7	3913.6
Stddev	15.9	208.	30.6	1.1	20.9
%RSD	.58475	.38818	.31353	.05858	.53307
#1	2720.1	53263.	9766.1	1866.4	3920.3
#2	2727.8	53488.	9766.3	1865.7	3930.2
#3	2697.3	53678.	9713.3	1867.8	3890.2

Sample Name: S5 Acquired: 1/16/2025 19:09:13 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.55361	.64615	2.4520	.81027	1.6524	1.5341	55.266	2.5712
Stddev	.00184	.00140	.0083	.00461	.0071	.0039	.712	.0109
%RSD	.33320	.21699	.34023	.56944	.42712	.25713	1.2874	.42537
#1	.55258	.64468	2.4511	.80812	1.6498	1.5311	55.603	2.5633
#2	.55250	.64748	2.4442	.80713	1.6471	1.5327	54.449	2.5667
#3	.55573	.64630	2.4608	.81557	1.6604	1.5386	55.748	2.5837

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	11.888	2.9086	.45271	4.5035	1.7994	.04916	3.2517	.95053
Stddev	.031	.0055	.00042	.0134	.0080	.00026	.0068	.00231
%RSD	.26119	.19009	.09275	.29636	.44320	.52989	.21006	.24338
#1	11.889	2.9024	.45268	4.5003	1.7963	.04931	3.2513	.94795
#2	11.857	2.9103	.45314	4.4921	1.7935	.04932	3.2451	.95124
#3	11.919	2.9131	.45230	4.5182	1.8085	.04886	3.2587	.95241

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	3.2107	.63956	.60679	.66710	15.563	.25676	5.0396	7.1907
Stddev	.0078	.00124	.00258	.00026	.059	.00079	.0175	.0236
%RSD	.24219	.19338	.42596	.03914	.37824	.30910	.34637	.32847
#1	3.2090	.63973	.60942	.66722	15.629	.25761	5.0299	7.1844
#2	3.2038	.64070	.60668	.66680	15.545	.25662	5.0291	7.1708
#3	3.2191	.63825	.60425	.66727	15.516	.25605	5.0597	7.2168

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	1.2344	5.0060	.05864	.36637	.26339	8.9651	125.94
Stddev	.0024	.0066	.00011	.00088	.00087	.0160	1.53
%RSD	.19656	.13284	.18990	.23983	.33138	.17886	1.2186
#1	1.2340	5.0073	.05860	.36666	.26285	8.9648	126.67
#2	1.2322	4.9988	.05877	.36538	.26292	8.9491	126.97
#3	1.2370	5.0119	.05856	.36706	.26439	8.9812	124.18

Sample Name: S5 Acquired: 1/16/2025 19:09:13 Type: Cal
Method: NON EPA-6010-200.7(v2611) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2662.5	52982.	9389.2	1812.0	3762.4
Stddev	7.8	148.	29.3	9.3	8.2
%RSD	.29174	.27923	.31233	.51559	.21879
#1	2661.8	52953.	9420.1	1812.1	3759.8
#2	2670.6	52850.	9386.0	1802.6	3771.7
#3	2655.1	53142.	9361.7	1821.3	3755.8

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICV01 Acquired: 1/16/2025 19:18:55 Type: Unk
Method: NON EPA-6010-200.7(v2612) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9886074	1.002109	.9653630	.9799905	.9483247	2.308930
Stddev	.0023553	.011476	.0011578	.0006226	.0007222	.018699
%RSD	.2382437	1.145135	.1199304	.0635365	.0761567	.8098367
#1	.9892242	1.006548	.9665412	.9804768	.9491319	2.300447
#2	.9905929	1.010703	.9642268	.9792887	.9477396	2.295977
#3	.9860050	.989077	.9653210	.9802060	.9481025	2.330366

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5013434	.4724298	.4843726	9.257740	.5076188	.4894661
Stddev	.0026088	.0016994	.0003538	.021239	.0006065	.0006546
%RSD	.5203668	.3597240	.0730318	.2294181	.1194778	.1337334
#1	.4998567	.4704675	.4846234	9.254170	.5070510	.4892532
#2	.4998178	.4733960	.4839680	9.238513	.5075476	.4889444
#3	.5043557	.4734259	.4845264	9.280538	.5082577	.4902006

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5010880	9.642468	.4786560	5.463625	.4931437	.2495611
Stddev	.0004177	.027151	.0011895	.014051	.0010203	.0003971
%RSD	.0833504	.2815735	.2485121	.2571818	.2068884	.1591383
#1	.5012359	9.661248	.4779727	5.468385	.4927280	.2495954
#2	.5006165	9.611337	.4779657	5.447812	.4923969	.2499399
#3	.5014116	9.654818	.4800295	5.474678	.4943062	.2491479

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.131078	.4546857	.9884187	9.474524	2.670106	2.351374
Stddev	.007760	.0006033	.0022167	.062950	.011454	.002913
%RSD	.0849876	.1326781	.2242660	.6644148	.4289701	.1238711
#1	9.133733	.4540963	.9903204	9.537845	2.663408	2.354708
#2	9.137162	.4553019	.9889516	9.411952	2.683332	2.349323
#3	9.122339	.4546588	.9859841	9.473776	2.663579	2.350091

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICV01 Acquired: 1/16/2025 19:18:55 Type: Unk
Method: NON EPA-6010-200.7(v2612) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	2.306208	F 2.230234	F 1.879995	F .0094157	F -.006947	F -.002579
Stddev	.005411	.005809	.003393	.0010657	.004801	.000194
%RSD	.2346488	.2604591	.1804676	11.31791	69.10679	7.520345
#1	2.311898	2.231632	1.883791	.0086753	-.010157	-.002379
#2	2.305602	2.223854	1.878935	.0106370	-.001428	-.002593
#3	2.301126	2.235217	1.877258	.0089347	-.009256	-.002766

Elem	Sr4077
Units	ppm
Avg	F -.008473
Stddev	.000027
%RSD	.3238602
#1	-.008484
#2	-.008442
#3	-.008493

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.457	54926.59	10313.29	1965.528	4164.964
Stddev	4.912	30.82	28.46	8.772	3.500
%RSD	.1742796	.0561155	.2759518	.4462717	.0840316
#1	2814.396	54929.75	10345.48	1955.605	4163.242
#2	2823.916	54955.70	10302.92	1968.730	4168.991
#3	2817.058	54894.30	10291.47	1972.248	4162.658

Sample Name: LLICV01 Acquired: 1/16/2025 19:27:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0222158	.0371353	.0106465	.0196046	.0474413	.0967161	.0888729
Stddev	.0009405	.0013892	.0007237	.0036751	.0006795	.0053139	.0008606
%RSD	4.233528	3.740990	6.797690	18.74595	1.432243	5.494362	.9683452
#1	.0232965	.0358661	.0098140	.0203996	.0466848	.1028384	.0886659
#2	.0215826	.0369201	.0109998	.0155971	.0479997	.0940102	.0881347
#3	.0217684	.0386195	.0111258	.0228170	.0476395	.0932997	.0898182

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055871	.0056494	1.872203	.0093735	.0280595	.0209338	.0925776
Stddev	.0000237	.0000264	.004007	.0002113	.0001801	.0004480	.0053530
%RSD	.4237544	.4663984	.2140044	2.254370	.6420008	2.140001	5.782131
#1	.0055793	.0056780	1.871266	.0092786	.0282343	.0208953	.0898385
#2	.0056137	.0056444	1.868748	.0092262	.0278745	.0205063	.0891484
#3	.0055683	.0056260	1.876595	.0096156	.0280698	.0213997	.0987458

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0191866	1.999462	.0375566	.0100743	1.843954	.0384330	.0409895
Stddev	.0004546	.011516	.0001742	.0002481	.025597	.0008867	.0005265
%RSD	2.369388	.5759500	.4637425	2.462318	1.388144	2.307102	1.284517
#1	.0191842	1.990678	.0374129	.0099809	1.844150	.0384693	.0412208
#2	.0196424	2.012500	.0377503	.0103555	1.869452	.0375287	.0413608
#3	.0187332	1.995208	.0375067	.0098865	1.818260	.0393010	.0403869

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.885746	.0981581	.1949683	.0371896	.0370190	.3548171	.0180679
Stddev	.015816	.0003122	.0004410	.0005354	.0007720	.0086513	.0007386
%RSD	.8387354	.3180101	.2261787	1.439726	2.085393	2.438237	4.088111
#1	1.867783	.0983407	.1948450	.0366087	.0371785	.3587981	.0173275
#2	1.891869	.0977977	.1946021	.0376634	.0361797	.3607613	.0188047
#3	1.897585	.0983360	.1954578	.0372966	.0376987	.3448920	.0180714

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: LLICV01 Acquired: 1/16/2025 19:27:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0173870	.0182413	.0181119
Stddev	.0038738	.0019184	.0000910
%RSD	22.28016	10.51700	.5024211
#1	.0132162	.0160283	.0180327
#2	.0208724	.0192624	.0180916
#3	.0180723	.0194333	.0182113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2851.972	54646.54	10366.44	1918.874	4314.686
Stddev	5.066	400.50	38.32	7.858	9.506
%RSD	.1776265	.7328944	.3696720	.4094938	.2203086
#1	2846.187	54583.02	10338.51	1914.106	4304.915
#2	2855.619	54281.59	10350.68	1914.572	4323.902
#3	2854.109	55075.00	10410.13	1927.943	4315.242

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICB01 Acquired: 1/16/2025 19:32:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0016394	.0008378	.0003683	-.001694	.0007771	-.005206	-.001394
Stddev	.0004437	.0024842	.0012899	.001103	.0006228	.003512	.000676
%RSD	27.06486	296.5035	350.2567	65.07371	80.13817	67.45965	48.44963
#1	.0016898	.0034442	-.000705	-.001745	.0012941	-.004115	-.000614
#2	.0011727	-.001503	.001799	-.002771	.0009514	-.002369	-.001771
#3	.0020558	.000572	.000011	-.000567	.0000858	-.009134	-.001798

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000167	-.000041	-.012348	-.000147	.0000225	-.000024	-.002661
Stddev	.0000186	.000134	.005757	.000043	.0000806	.000252	.005404
%RSD	111.7208	325.5496	46.62542	29.40238	358.0441	1031.746	203.0743
#1	.0000332	-.000126	-.018291	-.000187	.0000625	.000266	.003575
#2	-.000004	.000113	-.006797	-.000102	-.000070	-.000160	-.005966
#3	.000020	-.000110	-.011955	-.000151	.000075	-.000180	-.005592

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000330	-.000268	-.000267	-.000097	-.017534	.0009971	-.000501
Stddev	.000031	.009226	.000192	.000141	.015238	.0004666	.000161
%RSD	9.429217	3447.521	71.86848	145.9910	86.90408	46.79359	32.03517
#1	-.000325	.009202	-.000440	-.000201	-.035088	.0014357	-.000511
#2	-.000364	-.009230	-.000299	.000064	-.009793	.0005068	-.000336
#3	-.000302	-.000775	-.000061	-.000154	-.007721	.0010487	-.000656

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.037085	.0019362	-.000295	-.000773	.0000683	.0106050	.0005609
Stddev	.008226	.0005991	.000149	.000324	.0004094	.0043100	.0008937
%RSD	22.18089	30.94361	50.61153	41.92163	599.7771	40.64145	159.3368
#1	-.030491	.0013334	-.000225	-.000502	-.000379	.0115818	.0014666
#2	-.046302	.0019438	-.000193	-.001132	.000160	.0058904	.0005365
#3	-.034462	.0025316	-.000466	-.000685	.000424	.0143427	-.000320

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICB01 Acquired: 1/16/2025 19:32:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003374	-.001234	-.000138
Stddev	.000620	.000597	.000062
%RSD	18.38448	48.39424	44.82757
#1	-.003086	-.000612	-.000199
#2	-.002950	-.001288	-.000076
#3	-.004086	-.001803	-.000139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.720	55566.48	10649.78	1938.751	4304.622
Stddev	1.211	309.11	14.96	13.023	4.969
%RSD	.0426601	.5562970	.1405134	.6717354	.1154225
#1	2837.714	55641.11	10644.38	1944.569	4299.058
#2	2840.064	55831.45	10666.69	1947.851	4306.191
#3	2838.381	55226.89	10638.26	1923.833	4308.616

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CRI01 Acquired: 1/16/2025 19:36:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0238199	.0384144	.0107840	.0179710	.0483773	.0901326	.0849902
Stddev	.0016569	.0012071	.0009839	.0017031	.0004770	.0034309	.0003517
%RSD	6.955885	3.142220	9.123515	9.477020	.9859788	3.806534	.4137625
#1	.0220503	.0396044	.0096594	.0191730	.0479313	.0863984	.0853028
#2	.0240750	.0384478	.0114858	.0160221	.0483205	.0931456	.0850583
#3	.0253344	.0371910	.0112069	.0187181	.0488802	.0908538	.0846094

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056446	.0057209	1.827997	.0097476	.0283433	.0212336	.0864304
Stddev	.0000086	.0000569	.016895	.0004706	.0003098	.0001136	.0017493
%RSD	.1527945	.9939659	.9242388	4.827907	1.093138	.5351171	2.023961
#1	.0056539	.0057522	1.832645	.0101029	.0284509	.0213037	.0880462
#2	.0056369	.0056553	1.842082	.0092139	.0279940	.0212946	.0866724
#3	.0056430	.0057553	1.809265	.0099261	.0285851	.0211025	.0845728

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0188250	1.937736	.0378250	.0098910	1.749700	.0360974	.0411868
Stddev	.0001810	.013456	.0001279	.0002540	.001846	.0012468	.0001613
%RSD	.9614811	.6944417	.3381236	2.568168	.1055190	3.453936	.3916064
#1	.0190227	1.940531	.0377788	.0096289	1.748457	.0373485	.0410015
#2	.0186674	1.923102	.0377266	.0099082	1.751822	.0360889	.0412952
#3	.0187850	1.949576	.0379695	.0101360	1.748822	.0348550	.0412639

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.875907	.0970387	.1960944	.0376986	.0343385	.3415072	.0206779
Stddev	.028299	.0006044	.0005440	.0003424	.0006593	.0026053	.0005131
%RSD	1.508570	.6228274	.2774183	.9081598	1.920095	.7628842	2.481133
#1	1.843326	.0972218	.1959671	.0375077	.0350989	.3444795	.0210538
#2	1.894376	.0975305	.1956253	.0374942	.0339247	.3404234	.0208866
#3	1.890018	.0963640	.1966908	.0380938	.0339920	.3396188	.0200934

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CRI01 Acquired: 1/16/2025 19:36:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0153282	.0167916	.0176455
Stddev	.0030556	.0007535	.0000976
%RSD	19.93473	4.487633	.5532996
#1	.0123141	.0175621	.0175777
#2	.0184237	.0160562	.0177574
#3	.0152467	.0167567	.0176014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2841.172	54617.17	10381.65	1924.075	4291.833
Stddev	4.557	151.89	16.27	8.920	4.932
%RSD	.1603817	.2781049	.1567233	.4635963	.1149248
#1	2835.975	54700.83	10363.32	1926.307	4286.511
#2	2844.481	54708.83	10387.25	1931.668	4296.251
#3	2843.061	54441.84	10394.38	1914.251	4292.736

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICSA01 Acquired: 1/16/2025 19:40:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057453	.0092092	.0069734	-.017905	-.002336	233.6967
Stddev	.0020411	.0031694	.0007902	.003300	.002784	.2244
%RSD	35.52687	34.41589	11.33198	18.43283	119.1807	.0960107
#1	.0068319	.0055709	.0063280	-.015313	.000380	233.4379
#2	.0070133	.0106859	.0078547	-.016780	-.002205	233.8159
#3	.0033908	.0113708	.0067374	-.021620	-.005183	233.8363

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047454	.0013275	-.001619	220.8554	.0566345	.0014440
Stddev	.0009582	.0000256	.000081	.4993	.0003764	.0001692
%RSD	20.19163	1.930539	4.992595	.2260568	.6645613	11.71519
#1	.0045715	.0013544	-.001613	220.3305	.0566358	.0016349
#2	.0038860	.0013034	-.001703	220.9115	.0562575	.0013125
#3	.0057786	.0013246	-.001542	221.3243	.0570102	.0013846

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0207753	97.77702	.0038449	238.4753	.0023642	-.003328
Stddev	.0004462	.05532	.0002761	.6582	.0003314	.000193
%RSD	2.147904	.0565733	7.180654	.2760159	14.01594	5.809325
#1	.0211984	97.83907	.0039038	237.8507	.0022211	-.003487
#2	.0203091	97.73286	.0040868	238.4124	.0021284	-.003112
#3	.0208186	97.75914	.0035441	239.1627	.0027430	-.003383

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0485025	.0097312	.0033507	.0274517	.0518062	-.000264
Stddev	.0089917	.0014851	.0002131	.0149750	.0008003	.000247
%RSD	18.53869	15.26121	6.359898	54.55038	1.544865	93.43032
#1	.0382585	.0113987	.0034019	.0435279	.0527015	-.000265
#2	.0521596	.0092437	.0031166	.0249288	.0515572	-.000017
#3	.0550895	.0085511	.0035335	.0138984	.0511600	-.000510

Sample Name: ICSA01 Acquired: 1/16/2025 19:40:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.003809	-.002241	.0306748	.0057718	-.018151	F -.036352
Stddev	.000544	.000410	.0031474	.0022050	.000756	.001034
%RSD	14.29349	18.31352	10.26043	38.20296	4.165720	2.845628
#1	-.003539	-.001790	.0340255	.0040199	-.017499	-.037023
#2	-.004436	-.002341	.0302183	.0082478	-.017973	-.035160
#3	-.003453	-.002592	.0277807	.0050477	-.018980	-.036871

Elem	Sr4077
Units	ppm
Avg	-.007945
Stddev	.000105
%RSD	1.323424
#1	-.007824
#2	-.008001
#3	-.008011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2570.730	49221.96	10063.29	1749.062	3584.963
Stddev	8.136	105.85	36.85	2.902	7.740
%RSD	.3164907	.2150402	.3662018	.1659089	.2159137
#1	2568.039	49297.40	10097.58	1746.492	3579.781
#2	2579.871	49267.53	10067.97	1752.209	3593.861
#3	2564.281	49100.96	10024.33	1748.486	3581.247

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICSAB01 Acquired: 1/16/2025 19:45:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1133536	.0977636	.0532615	.0306324	.5799962	232.2608
Stddev	.0026867	.0044695	.0011636	.0014185	.0049592	.3112
%RSD	2.370174	4.571736	2.184773	4.630588	.8550465	.1339867
#1	.1131866	.0973076	.0543590	.0321949	.5849962	231.9456
#2	.1161199	.1024435	.0520414	.0294257	.5750787	232.5678
#3	.1107544	.0935395	.0533839	.0302766	.5799136	232.2690

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4472967	.4664555	.9648644	219.5387	.5539463	.4897524
Stddev	.0000874	.0013461	.0047720	.2856	.0026937	.0023446
%RSD	.0195501	.2885720	.4945792	.1300722	.4862821	.4787301
#1	.4473017	.4669285	.9702985	219.7537	.5567795	.4924225
#2	.4472068	.4649368	.9613565	219.6476	.5536414	.4888049
#3	.4473815	.4675012	.9629384	219.2147	.5514180	.4880298

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4921794	97.72628	.4431884	236.4392	.9683642	.2104217
Stddev	.0014291	.50157	.0022856	.5056	.0040484	.0009940
%RSD	.2903608	.5132440	.5157173	.2138436	.4180692	.4723636
#1	.4938137	98.23652	.4456515	236.6766	.9723732	.2115462
#2	.4915596	97.70849	.4427780	236.7824	.9642775	.2096606
#3	.4911648	97.23385	.4411359	235.8586	.9684419	.2100583

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0555507	.4460654	1.028427	.0152804	1.004875	1.059090
Stddev	.0139580	.0009565	.006717	.0195762	.003560	.002029
%RSD	25.12651	.2144216	.6531125	128.1134	.3542531	.1915666
#1	.0550452	.4460873	1.036160	-.007156	1.004111	1.061132
#2	.0418523	.4470108	1.024045	.028882	1.001758	1.057074
#3	.0697545	.4450982	1.025076	.024115	1.008754	1.059063

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: ICSAB01 Acquired: 1/16/2025 19:45:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	1.065419	.9649733	.9162091	F .0124803	F -.016875	F -.036845
Stddev	.005363	.0011068	.0125539	.0001862	.007073	.000356
%RSD	.5033250	.1146996	1.370202	1.491931	41.91528	.9658088
#1	1.071251	.9643510	.9255854	.0122654	-.019404	-.037238
#2	1.064306	.9662512	.9210952	.0125945	-.008885	-.036544
#3	1.060701	.9643177	.9019468	.0125809	-.022336	-.036752

Elem	Sr4077
Units	ppm
Avg	F -.007889
Stddev	.000461
%RSD	5.838643
#1	-.008391
#2	-.007791
#3	-.007485

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2552.972	49238.51	10107.52	1746.021	3566.557
Stddev	2.983	153.44	27.37	12.554	11.355
%RSD	.1168264	.3116177	.2708104	.7190272	.3183827
#1	2549.993	49062.24	10091.22	1731.606	3553.469
#2	2555.958	49311.19	10139.12	1751.894	3573.787
#3	2552.964	49342.10	10092.22	1754.561	3572.415

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCV01 Acquired: 1/16/2025 19:49:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.765204	4.794443	4.753220	4.759676	4.752933	9.473893	9.355956
Stddev	.019388	.042397	.025810	.016600	.019602	.016169	.096185
%RSD	.4068665	.8842987	.5429951	.3487658	.4124178	.1706662	1.028066
#1	4.760533	4.788820	4.743440	4.765579	4.750535	9.465672	9.332307
#2	4.748578	4.755137	4.733730	4.740931	4.734640	9.492520	9.461760
#3	4.786501	4.839370	4.782491	4.772518	4.773624	9.463486	9.273801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2393910	2.379501	23.70783	.9761183	2.386360	1.203112	4.855603
Stddev	.0019992	.011050	.06740	.0038816	.011095	.004981	.037147
%RSD	.8351206	.4643844	.2842775	.3976556	.4649445	.4140070	.7650332
#1	.2397108	2.376775	23.73231	.9749486	2.383630	1.202298	4.851815
#2	.2412110	2.370070	23.75957	.9729561	2.376884	1.198587	4.820495
#3	.2372511	2.391659	23.63162	.9804503	2.398565	1.208449	4.894499

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.362966	23.72235	2.392313	1.212405	24.00081	2.372006	2.437433
Stddev	.008900	.05731	.010822	.004620	.16539	.003820	.015786
%RSD	.3766573	.2415777	.4523657	.3810442	.6890929	.1610294	.6476665
#1	2.357231	23.69070	2.390288	1.213955	23.96625	2.368283	2.427766
#2	2.373219	23.78850	2.382646	1.207209	23.85543	2.375916	2.428884
#3	2.358448	23.68784	2.404004	1.216050	24.18075	2.371821	2.455650

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.03378	4.849133	4.803639	4.796893	4.704922	5.211101	4.742992
Stddev	.24270	.037071	.020989	.027044	.011104	.041624	.018712
%RSD	1.009813	.7644832	.4369480	.5637853	.2360133	.7987568	.3945145
#1	24.02899	4.848714	4.798337	4.785082	4.705710	5.187891	4.746178
#2	23.79351	4.886411	4.785809	4.777764	4.715610	5.186257	4.722892
#3	24.27884	4.812273	4.826771	4.827834	4.693444	5.259155	4.759907

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCV01 Acquired: 1/16/2025 19:49:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.697507	4.687449	4.705052
Stddev	.027061	.011173	.053580
%RSD	.5760716	.2383594	1.138772
#1	4.709862	4.679882	4.720443
#2	4.666474	4.700282	4.749251
#3	4.716186	4.682183	4.645460

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.728	53737.16	9878.789	1889.158	3977.018
Stddev	9.435	160.54	73.914	7.207	15.889
%RSD	.3422407	.2987496	.7482125	.3814903	.3995170
#1	2755.209	53699.36	9871.779	1890.401	3974.767
#2	2766.830	53913.23	9808.630	1895.663	3993.912
#3	2748.145	53598.90	9955.959	1881.411	3962.375

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCB01 Acquired: 1/16/2025 19:53:16 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0007314	.0015632	-.000107	.0017020	-.000293	.0072523	-.000127
Stddev	.0004259	.0013229	.001622	.0013636	.000737	.0050965	.000515
%RSD	58.23461	84.62625	1521.587	80.12132	251.2866	70.27478	405.3253
#1	.0004875	.0025392	.000014	.0032446	.000089	.0016064	.000456
#2	.0004834	.0000576	-.001785	.0012038	.000174	.0115131	-.000315
#3	.0012232	.0020929	.001451	.0006574	-.001143	.0086373	-.000521

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000517	.0001798	.0040451	-.000137	.0002715	.0001769	.0033975
Stddev	.0000333	.0001214	.0064641	.000123	.0001103	.0004763	.0050470
%RSD	64.36958	67.51603	159.8015	89.92162	40.64064	269.2361	148.5503
#1	.0000434	.0000762	-.002609	.000001	.0003690	-.000349	.0078705
#2	.0000883	.0001498	.010301	-.000176	.0001517	.000299	.0043962
#3	.0000233	.0003134	.004443	-.000235	.0002938	.000580	-.002074

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003470	.0123292	-.000149	-.000119	-.006970	.0012387	-.000188
Stddev	.0001681	.0129501	.000091	.000321	.009964	.0008445	.000227
%RSD	48.44423	105.0359	61.06772	269.2475	142.9535	68.17388	120.8930
#1	.0001985	.0010724	-.000200	.000218	-.017341	.0021091	-.000273
#2	.0003130	.0264822	-.000044	-.000421	-.006098	.0011843	-.000359
#3	.0005296	.0094330	-.000203	-.000154	.002529	.0004228	.000069

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.013867	.0065482	.0001464	.0000327	.0005909	.0050595	.0024748
Stddev	.023407	.0001379	.0001530	.0002448	.0005765	.0067005	.0008926
%RSD	168.7950	2.105755	104.5154	748.2674	97.55597	132.4342	36.06619
#1	-.020368	.0066633	.0001894	.0001616	.0000559	.0127736	.0014457
#2	.012103	.0063954	-.000024	.0001861	.0012014	.0017188	.0029412
#3	-.033336	.0065860	.000273	-.000250	.0005154	.0006862	.0030376

Sample Name: CCB01 Acquired: 1/16/2025 19:53:16 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003444	-.001198	.0001688
Stddev	.004331	.000365	.0000366
%RSD	125.7461	30.46889	21.67624
#1	-.000009	-.001169	.0001685
#2	-.008309	-.001576	.0002056
#3	-.002014	-.000848	.0001324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2839.994	54958.32	10339.50	1955.803	4283.740
Stddev	2.808	191.54	179.62	1.993	10.858
%RSD	.0988872	.3485175	1.737226	.1018856	.2534726
#1	2841.213	55062.96	10205.05	1954.767	4290.843
#2	2841.987	54737.26	10269.96	1958.100	4289.137
#3	2836.782	55074.75	10543.50	1954.541	4271.241

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1074-01 Acquired: 1/16/2025 19:57:37 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0535012	-.036515	.2272059	-.055538	-.003651	82.44025
Stddev	.0009737	.002481	.0021463	.001333	.000896	.06965
%RSD	1.819938	6.794950	.9446468	2.400398	24.52930	.0844798
#1	.0545667	-.037009	.2290853	-.056317	-.004239	82.38634
#2	.0526578	-.033824	.2248671	-.053999	-.002620	82.41553
#3	.0532790	-.038712	.2276654	-.056298	-.004094	82.51888

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4897941	.0066452	.0080670	528.4240	.3773892	.1684478
Stddev	.0017507	.0001029	.0001749	.6616	.0007432	.0007534
%RSD	.3574250	1.548823	2.167699	.1251969	.1969202	.4472672
#1	.4878972	.0065650	.0082668	528.4112	.3765423	.1678486
#2	.4901375	.0067612	.0079419	527.7690	.3776930	.1682011
#3	.4913476	.0066094	.0079922	529.0919	.3779323	.1692936

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.207117	247.1290	2.356748	349.6354	.3160491	-.007130
Stddev	.006091	1.2889	.007781	.6661	.0013878	.000125
%RSD	.1899322	.5215297	.3301738	.1905106	.4390933	1.751332
#1	3.202866	245.6873	2.347861	349.2703	.3147231	-.007268
#2	3.204391	247.5302	2.360044	350.4042	.3159329	-.007097
#3	3.214096	248.1696	2.362339	349.2317	.3174913	-.007025

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.355494	.3461286	.6310956	43.88438	.1980454	.0362640
Stddev	.030327	.0016027	.0017824	.18060	.0010172	.0005634
%RSD	.6962894	.4630354	.2824320	.4115464	.5136217	1.553749
#1	4.320515	.3462316	.6324786	43.71076	.1969772	.0369094
#2	4.371551	.3476773	.6317241	43.87113	.1981565	.0360125
#3	4.374417	.3444769	.6290841	44.07124	.1990025	.0358701

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1074-01 Acquired: 1/16/2025 19:57:37 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019731	8.462872	4.861861	F 10.22920	F 19.99168	.0470258
Stddev	.0016573	.010103	.020183	.05063	.05972	.0005628
%RSD	83.99402	.1193770	.4151345	.4949354	.2987368	1.196741
#1	.0020173	8.451208	4.841704	10.19994	19.94779	.0464717
#2	.0036080	8.468863	4.861810	10.20000	19.96757	.0475968
#3	.0002942	8.468545	4.882070	10.28766	20.05969	.0470088

Elem	Sr4077
Units	ppm
Avg	.0551242
Stddev	.0008159
%RSD	1.480124
#1	.0560282
#2	.0544424
#3	.0549020

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3082.819	60833.06	12409.09	2135.151	3277.140
Stddev	3.237	183.37	23.76	9.065	5.468
%RSD	.1049975	.3014258	.1914792	.4245463	.1668550
#1	3082.950	61038.63	12425.84	2138.139	3279.170
#2	3085.988	60686.36	12381.89	2124.970	3281.304
#3	3079.519	60774.20	12419.52	2142.346	3270.948

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1074-02 Acquired: 1/16/2025 20:01:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001887	-.007730	.0038146	.0030281	-.000369	.0827453	.1588536
Stddev	.001654	.001887	.0016268	.0006718	.000305	.0062853	.0003898
%RSD	87.69421	24.40899	42.64687	22.18583	82.65438	7.595994	.2453633
#1	-.003158	-.008963	.0052239	.0022988	-.000713	.0773787	.1592383
#2	-.002486	-.005558	.0020343	.0031639	-.000258	.0811972	.1588637
#3	-.000016	-.008668	.0041855	.0036216	-.000135	.0896600	.1584589

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000039	.0001654	75.68371	.0009966	.0164905	.0695692	.2100650
Stddev	.000068	.0000106	.31356	.0001128	.0000778	.0007211	.0027425
%RSD	174.6605	6.402892	.4143089	11.31831	.4719836	1.036529	1.305563
#1	-.000107	.0001614	75.90569	.0010875	.0164043	.0693937	.2103796
#2	.000028	.0001573	75.82045	.0008704	.0165556	.0689520	.2126367
#3	-.000037	.0001774	75.32500	.0010320	.0165115	.0703618	.2071788

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4471933	22.93268	.0154588	-.000694	303.8625	.0002788	.1189193
Stddev	.0023956	.05658	.0004528	.000295	.6627	.0005373	.0004151
%RSD	.5357049	.2467362	2.929322	42.52671	.2180863	192.7273	.3490435
#1	.4489561	22.94339	.0155013	-.000368	303.8137	-.000147	.1186284
#2	.4481582	22.98315	.0149862	-.000942	303.2255	.000101	.1187349
#3	.4444657	22.87152	.0158889	-.000771	304.5482	.000882	.1193946

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.043680	.0212711	.0012698	-.002360	-.001505	1.047929	.0092251
Stddev	.052206	.0000598	.0002877	.000565	.000581	.007852	.0033569
%RSD	1.715211	.2811957	22.66002	23.95500	38.61318	.7493151	36.38829
#1	3.023651	.0212081	.0010328	-.001879	-.000945	1.056792	.0098759
#2	3.102934	.0212782	.0015900	-.002983	-.001465	1.041840	.0122089
#3	3.004455	.0213271	.0011866	-.002218	-.002106	1.045154	.0055905

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1074-02 Acquired: 1/16/2025 20:01:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.208035	-.013167	.0638585
Stddev	.010391	.001069	.0002089
%RSD	.8601766	8.117721	.3270598
#1	1.200322	-.011981	.0640069
#2	1.203931	-.013465	.0639489
#3	1.219851	-.014055	.0636197

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2609.569	53514.49	9996.858	1849.223	3710.506
Stddev	12.847	159.95	46.044	7.104	16.581
%RSD	.4923146	.2988875	.4605870	.3841387	.4468577
#1	2614.767	53359.78	9961.871	1846.212	3719.387
#2	2619.003	53504.46	9979.683	1844.120	3720.754
#3	2594.937	53679.21	10049.02	1857.336	3691.377

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1076-01 Acquired: 1/16/2025 20:06:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1035118	.0120860	24.36666	-.057220	.4139344	53.42214
Stddev	.0011914	.0017590	.01156	.001967	.0008815	.03919
%RSD	1.150986	14.55426	.0474334	3.437626	.2129630	.0733580
#1	.1037072	.0141099	24.36874	-.055117	.4142246	53.46270
#2	.1022348	.0112223	24.35420	-.057529	.4129443	53.41923
#3	.1045935	.0109258	24.37703	-.059014	.4146342	53.38449

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2637445	.0080085	-.007210	29.48980	.3148138	.0481917
Stddev	.0008152	.0000472	.000211	.08325	.0001283	.0002883
%RSD	.3090813	.5895339	2.933201	.2823118	.0407644	.5982970
#1	.2645664	.0080070	-.007437	29.58579	.3149618	.0483760
#2	.2637310	.0079621	-.007175	29.44637	.3147340	.0478594
#3	.2629362	.0080565	-.007018	29.43725	.3147455	.0483396

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.828114	293.6404	1.673046	23.21184	.1170418	-.003577
Stddev	.002719	1.2006	.005091	.00477	.0004875	.000297
%RSD	.0961267	.4088659	.3042902	.0205441	.4165333	8.298828
#1	2.831219	294.9418	1.678751	23.21436	.1175330	-.003515
#2	2.826964	293.4035	1.671422	23.20634	.1165580	-.003315
#3	2.826159	292.5759	1.668965	23.21483	.1170342	-.003899

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.348138	.3333658	1.282574	11.15399	.1846895	.0119163
Stddev	.041693	.0020073	.008947	.03935	.0010429	.0001518
%RSD	.9588634	.6021364	.6976136	.3527846	.5646579	1.274138
#1	4.392855	.3356211	1.289621	11.19548	.1858925	.0117415
#2	4.341225	.3317749	1.272508	11.14927	.1841352	.0119916
#3	4.310333	.3327014	1.285593	11.11721	.1840409	.0120157

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1076-01 Acquired: 1/16/2025 20:06:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.48868	1.379509	4.115632	4.262277	1.809170	.0523197
Stddev	.01243	.001596	.030580	.002595	.007068	.0011907
%RSD	.1185541	.1157199	.7430175	.0608855	.3907027	2.275882
#1	10.50217	1.381285	4.139383	4.264251	1.817279	.0535524
#2	10.47767	1.378194	4.126384	4.259338	1.804310	.0511759
#3	10.48620	1.379048	4.081128	4.263243	1.805920	.0522309

Elem	Sr4077
Units	ppm
Avg	-.104540
Stddev	.000562
%RSD	.5378710
#1	-.105167
#2	-.104373
#3	-.104080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2908.702	56073.50	10933.57	1981.347	4031.781
Stddev	2.260	117.70	34.51	12.988	2.911
%RSD	.0776867	.2098964	.3156608	.6554935	.0722022
#1	2906.190	55989.91	10920.97	1977.653	4029.195
#2	2909.343	56208.09	10972.61	1995.782	4034.934
#3	2910.571	56022.49	10907.12	1970.607	4031.214

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1076-02 Acquired: 1/16/2025 20:10:19 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003442	-.005907	2.948247	.0019079	.0047183	.0927483	.2528256
Stddev	.000594	.001888	.011871	.0010846	.0003899	.0080078	.0009834
%RSD	17.26975	31.97246	.4026558	56.84923	8.263439	8.633919	.3889580
#1	-.004049	-.003928	2.940988	.0007301	.0049283	.0939416	.2519732
#2	-.002860	-.007690	2.941806	.0021281	.0049583	.1000926	.2539015
#3	-.003418	-.006101	2.961946	.0028656	.0042684	.0842109	.2526022

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000031	.0007480	19.91954	.0029477	.0044482	.0586371	.5028010
Stddev	.000009	.0001375	.05240	.0002215	.0001389	.0004366	.0021040
%RSD	28.54027	18.38887	.2630707	7.513436	3.122890	.7445441	.4184646
#1	-.000037	.0008414	19.87791	.0031684	.0045201	.0581492	.5050253
#2	-.000021	.0005900	19.90232	.0027255	.0045364	.0589908	.5025351
#3	-.000034	.0008125	19.97838	.0029491	.0042880	.0587712	.5008425

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2968399	2.100301	.0060662	-.000328	332.7665	.0007591	.7511802
Stddev	.0008674	.022906	.0002425	.000101	4.3029	.0008056	.0009696
%RSD	.2922026	1.090586	3.996754	30.92986	1.293068	106.1301	.1290801
#1	.2958486	2.075420	.0059226	-.000356	336.4726	.0011596	.7504952
#2	.2972120	2.120512	.0063461	-.000215	333.7793	-.000168	.7507558
#3	.2974592	2.104970	.0059298	-.000411	328.0475	.001286	.7522897

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.708672	.0509815	.0004212	-.000546	-.000199	1.371455	.0163827
Stddev	.023053	.0002573	.0001709	.000437	.000379	.010431	.0019304
%RSD	1.349154	.5047340	40.58146	80.06490	190.9161	.7605451	11.78308
#1	1.690357	.0512571	.0004299	-.000149	-.000556	1.378975	.0146773
#2	1.734558	.0507475	.0005876	-.001015	-.000239	1.375842	.0159924
#3	1.701101	.0509398	.0002460	-.000474	.000199	1.359547	.0184784

Sample Name: Q1076-02 Acquired: 1/16/2025 20:10:19 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7704013	-.005280	.0682405
Stddev	.0018562	.000790	.0000674
%RSD	.2409400	14.95898	.0987990
#1	.7711699	-.005008	.0681627
#2	.7682843	-.006170	.0682770
#3	.7717498	-.004662	.0682817

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2664.958	51358.86	10264.60	1816.094	3822.961
Stddev	9.242	109.41	10.58	7.188	13.059
%RSD	.3467936	.2130337	.1030828	.3957752	.3416014
#1	2673.763	51303.87	10276.80	1822.785	3831.694
#2	2665.775	51287.85	10259.22	1808.496	3829.241
#3	2655.334	51484.86	10257.80	1817.000	3807.948

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1077-01 Acquired: 1/16/2025 20:14:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0987469	.0037361	.2105461	-.056704	-.000677	91.36244	.3872841
Stddev	.0011578	.0024417	.0024079	.002813	.002848	.16085	.0006575
%RSD	1.172477	65.35427	1.143663	4.961372	420.7179	.1760552	.1697658
#1	.0985059	.0057088	.2109283	-.055193	-.002830	91.24771	.3868419
#2	.1000063	.0010053	.2127401	-.059950	.002552	91.29331	.3869707
#3	.0977286	.0044943	.2079700	-.054968	-.001752	91.54630	.3880396

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088894	-.007281	47.62872	.3537569	.0580745	.3096779	307.5891
Stddev	.0000381	.000098	.17303	.0005899	.0001814	.0029627	1.1221
%RSD	.4286078	1.349812	.3632810	.1667576	.3123821	.9566980	.3647918
#1	.0089332	-.007391	47.44025	.3543538	.0582416	.3074560	308.4486
#2	.0088715	-.007253	47.66551	.3537428	.0578815	.3085361	307.9989
#3	.0088636	-.007200	47.78039	.3531742	.0581005	.3130416	306.3197

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.156733	23.40421	.1039446	-.007626	5.652015	.5256680	.4015501
Stddev	.005003	.09679	.0007596	.000292	.020663	.0017124	.0015141
%RSD	.4325137	.4135785	.7307514	3.827983	.3655788	.3257638	.3770672
#1	1.150957	23.34350	.1044041	-.007524	5.675775	.5236971	.4032982
#2	1.159511	23.35330	.1030678	-.007398	5.638253	.5267917	.4006519
#3	1.159730	23.51584	.1043618	-.007955	5.642017	.5265152	.4007001

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.17359	.2259341	.0051265	.0065645	1.959442	5.831406	5.569980
Stddev	.02339	.0036204	.0001889	.0004770	.006745	.029984	.004911
%RSD	.2298847	1.602409	3.684485	7.266738	.3442243	.5141745	.0881758
#1	10.19670	.2293828	.0052214	.0070658	1.953788	5.865451	5.571571
#2	10.17413	.2262560	.0049089	.0061162	1.957629	5.819837	5.564471
#3	10.14993	.2221636	.0052490	.0065114	1.966908	5.808931	5.573899

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1077-01 Acquired: 1/16/2025 20:14:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.605734	.1077139	-.074432
Stddev	.006446	.0007847	.001510
%RSD	.1787591	.7285339	2.029018
#1	3.611354	.1077036	-.075811
#2	3.598698	.1085037	-.074666
#3	3.607149	.1069344	-.072818

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2874.366	56338.93	11032.84	1984.774	3894.676
Stddev	2.843	121.04	60.88	9.677	8.681
%RSD	.0989021	.2148424	.5518156	.4875432	.2228859
#1	2873.885	56250.70	11099.79	1974.920	3885.747
#2	2877.419	56289.17	11017.95	1985.139	3903.084
#3	2871.794	56476.92	10980.79	1994.263	3895.197

Sample Name: Q1048-01 Acquired: 1/16/2025 20:18:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002562	-.008263	.0006613	.0046648	.0026725	16.92376
Stddev	.001435	.001200	.0004703	.0024304	.0004390	.00973
%RSD	56.00397	14.52326	71.11881	52.10165	16.42627	.0574731
#1	-.000931	-.006968	.0001182	.0066784	.0031233	16.92378
#2	-.003126	-.008483	.0009319	.0019650	.0026478	16.93347
#3	-.003628	-.009337	.0009338	.0053510	.0022464	16.91401

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000341	-.000045	-.000348	9.043874	.4686079	.0045079
Stddev	.000241	.000045	.000045	.033330	.0022577	.0000868
%RSD	70.67952	100.7018	13.02270	.3685413	.4817852	1.924583
#1	-.000618	.000007	-.000298	9.006608	.4666815	.0045698
#2	-.000181	-.000071	-.000359	9.054179	.4680501	.0045451
#3	-.000223	-.000071	-.000387	9.070835	.4710922	.0044087

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0251606	2.256647	.0409998	2.642969	.0810683	-.000893
Stddev	.0002441	.007117	.0002515	.005171	.0005537	.000613
%RSD	.9702473	.3153712	.6133089	.1956695	.6829682	68.58748
#1	.0248930	2.256577	.0407361	2.641949	.0806861	-.001179
#2	.0253711	2.249566	.0412369	2.648574	.0808156	-.000190
#3	.0252176	2.263799	.0410265	2.638383	.0817032	-.001311

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2218.631	.0007987	2.326026	276.2537	6.046825	.0216184
Stddev	18.888	.0009281	.001581	2.0588	.036148	.0001058
%RSD	.8513246	116.1976	.0679669	.7452458	.5977932	.4892719
#1	2227.625	.0018627	2.326370	277.1159	6.024656	.0215055
#2	2196.927	.0001561	2.327406	273.9040	6.088537	.0217152
#3	2231.341	.0003773	2.324301	277.7412	6.027282	.0216344

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1048-01 Acquired: 1/16/2025 20:18:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0410206	.0002833	1.188040	5.339415	F 1095.992	.0025524
Stddev	.0006387	.0008292	.009380	.026774	1.550	.0000939
%RSD	1.556890	292.6657	.7895058	.5014435	.1413974	3.677785
#1	.0415351	.0011904	1.194573	5.317833	1095.371	.0026198
#2	.0412208	-.000436	1.177292	5.331036	1094.849	.0024451
#3	.0403058	.000095	1.192255	5.369377	1097.756	.0025921

Elem	Sr4077
Units	ppm
Avg	.0333135
Stddev	.0001062
%RSD	.3188665
#1	.0332753
#2	.0332317
#3	.0334335

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2423.728	46029.96	9960.175	1632.204	3247.558
Stddev	4.302	92.32	53.064	2.882	2.396
%RSD	.1774794	.2005689	.5327594	.1765926	.0737729
#1	2426.423	45988.13	9996.412	1630.299	3246.491
#2	2425.995	46135.79	9899.267	1630.793	3250.302
#3	2418.767	45965.95	9984.846	1635.520	3245.881

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1049-01 Acquired: 1/16/2025 20:23:07 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0737957	.0004860	.5623598	-.011932	.0097194	17.37085
Stddev	.0016609	.0025335	.0005105	.003595	.0028097	.02625
%RSD	2.250621	521.2742	.0907818	30.12827	28.90855	.1510956
#1	.0748911	-.001171	.5625665	-.016015	.0064917	17.36727
#2	.0718847	.003402	.5617783	-.010535	.0110481	17.34657
#3	.0746114	-.000773	.5627345	-.009245	.0116183	17.39870

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4652510	.0018380	.0001323	220.3544	.0637629	.0244676
Stddev	.0018119	.0001005	.0000999	.3494	.0003516	.0001052
%RSD	.3894492	5.465096	75.54290	.1585560	.5513686	.4300835
#1	.4647490	.0019011	.0002241	220.1361	.0641679	.0243548
#2	.4637430	.0018909	.0000259	220.1698	.0635843	.0245632
#3	.4672610	.0017222	.0001468	220.7574	.0635365	.0244849

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1797936	78.26208	5.664685	25.73673	.0453134	-.000874
Stddev	.0008621	.36087	.015244	.07223	.0003361	.000301
%RSD	.4794695	.4611032	.2691012	.2806643	.7417655	34.49331
#1	.1789506	77.87810	5.660820	25.77201	.0451606	-.000529
#2	.1797568	78.31394	5.651746	25.65363	.0456988	-.001089
#3	.1806735	78.59422	5.681489	25.78453	.0450809	-.001003

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	528.5254	.0451854	.8722411	39.72687	.1105694	.0056930
Stddev	9.3203	.0006608	.0032005	.24091	.0008064	.0005258
%RSD	1.763451	1.462383	.3669304	.6064076	.7293195	9.235180
#1	538.5138	.0449892	.8751541	39.45122	.1096766	.0051144
#2	527.0012	.0459221	.8688151	39.83233	.1112448	.0058233
#3	520.0611	.0446450	.8727541	39.89707	.1107868	.0061414

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1049-01 Acquired: 1/16/2025 20:23:07 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0186435	.5312543	F 29.77494	1.231103	F 22.46871	-.003386
Stddev	.0005111	.0012702	.10790	.002928	.06171	.000592
%RSD	2.741459	.2390989	.3623772	.2378093	.2746368	17.47102
#1	.0185007	.5305192	29.65435	1.227982	22.46876	-.003219
#2	.0192109	.5305226	29.80811	1.233788	22.40697	-.002895
#3	.0182191	.5327210	29.86236	1.231541	22.53038	-.004043

Elem	Sr4077
Units	ppm
Avg	3.216079
Stddev	.025587
%RSD	.7956022
#1	3.214152
#2	3.191509
#3	3.242575

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2541.765	50151.32	10276.12	1736.600	3523.437
Stddev	4.987	96.20	54.40	2.881	6.881
%RSD	.1962106	.1918105	.5294066	.1659253	.1952855
#1	2546.029	50056.99	10213.31	1734.407	3530.879
#2	2542.985	50147.68	10308.40	1735.528	3517.307
#3	2536.281	50249.28	10306.66	1739.863	3522.123

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1081-01 Acquired: 1/16/2025 20:30:46 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003537	-.003847	.0028443	.0032462	.0002047	.0064639	.0018069
Stddev	.002167	.001661	.0002583	.0003417	.0013150	.0026411	.0002254
%RSD	61.26399	43.18496	9.082571	10.52502	642.2179	40.85920	12.47255
#1	-.005907	-.003233	.0029837	.0035843	.0017225	.0093370	.0020587
#2	-.003048	-.002580	.0025462	.0029011	-.000594	.0041417	.0016240
#3	-.001657	-.005728	.0030030	.0032532	-.000515	.0059130	.0017380

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	-.000165	4.149910	.0004296	.0070783	.0098885	.2112403
Stddev	.000027	.000028	.034607	.0003545	.0000995	.0000923	.0039286
%RSD	27.69292	17.22746	.8339191	82.52527	1.405848	.9331801	1.859795
#1	-.000130	-.000133	4.115961	.0000308	.0069798	.0099938	.2070328
#2	-.000082	-.000177	4.148631	.0007093	.0070765	.0098499	.2118757
#3	-.000084	-.000185	4.185140	.0005488	.0071788	.0098218	.2148126

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090970	2.024218	.0100109	-.000565	11.98812	.0011347	.0233346
Stddev	.0000481	.019845	.0001550	.000443	.05286	.0009176	.0001319
%RSD	.5290715	.9803768	1.547807	78.33902	.4409304	80.86574	.5651562
#1	.0090421	2.002954	.0098409	-.000306	11.94448	.0019453	.0231976
#2	.0091167	2.027455	.0100475	-.001076	12.04690	.0001386	.0234607
#3	.0091321	2.042245	.0101442	-.000313	11.97298	.0013201	.0233455

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8929051	.0065343	.0001806	-.000126	-.000461	5.321433	.0124120
Stddev	.0295350	.0006690	.0000798	.000636	.001003	.012349	.0015636
%RSD	3.307740	10.23846	44.15449	503.7066	217.7746	.2320633	12.59738
#1	.9104671	.0064035	.0002401	.000439	-.000755	5.334003	.0125796
#2	.9094420	.0059404	.0000900	-.000003	-.001284	5.320977	.0107713
#3	.8588062	.0072591	.0002118	-.000814	.000657	5.309318	.0138850

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1081-01 Acquired: 1/16/2025 20:30:46 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5723322	-.003805	.0271201
Stddev	.0026799	.000564	.0001955
%RSD	.4682446	14.83344	.7206789
#1	.5695192	-.003853	.0269005
#2	.5726218	-.004344	.0271848
#3	.5748555	-.003218	.0272750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2805.826	55183.18	10425.44	1918.124	4270.448
Stddev	6.983	209.40	13.19	6.985	6.999
%RSD	.2488920	.3794591	.1265198	.3641413	.1638995
#1	2798.641	55243.63	10440.52	1921.132	4266.367
#2	2812.588	54950.20	10419.76	1910.139	4278.530
#3	2806.250	55355.70	10416.04	1923.100	4266.447

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1081-04 Acquired: 1/16/2025 20:35:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004021	-.004972	-.000142	.0008272	.0006930	-.003652	.0017281
Stddev	.001595	.001479	.000551	.0003732	.0010119	.009351	.0003517
%RSD	39.65385	29.74324	386.6301	45.11808	146.0111	256.0511	20.35418
#1	-.004727	-.006366	-.000167	.0005967	.0000583	.005320	.0021293
#2	-.002196	-.005130	.000420	.0006271	.0018600	-.002936	.0014728
#3	-.005141	-.003421	-.000680	.0012578	.0001609	-.013340	.0015821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000178	-.000157	4.358222	.0047698	.0080099	.0056266	.0263944
Stddev	.000051	.000033	.018072	.0001133	.0002646	.0003153	.0038077
%RSD	28.53325	20.70513	.4146532	2.376146	3.303071	5.603176	14.42627
#1	-.000203	-.000120	4.372916	.0046783	.0082675	.0058241	.0225267
#2	-.000212	-.000178	4.363705	.0047346	.0080234	.0052630	.0301392
#3	-.000120	-.000174	4.338044	.0048966	.0077388	.0057927	.0265174

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106184	2.039404	.0115495	-.000448	11.32868	.0020409	.0172111
Stddev	.0002647	.012597	.0003526	.000679	.08508	.0016357	.0005254
%RSD	2.492836	.6176822	3.053241	151.7735	.7510215	80.14530	3.052726
#1	.0108194	2.025170	.0118252	-.000398	11.38858	.0023418	.0167019
#2	.0103185	2.043931	.0111521	.000206	11.36617	.0002757	.0177513
#3	.0107173	2.049113	.0116711	-.001150	11.23130	.0035052	.0171800

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8975440	.0072373	.0005140	-.000870	-.000116	5.143089	.0291255
Stddev	.0489780	.0005718	.0000277	.000284	.000608	.035187	.0014431
%RSD	5.456890	7.901193	5.381503	32.66063	523.5605	.6841632	4.954597
#1	.9454008	.0070584	.0004884	-.001186	-.000743	5.160147	.0306670
#2	.8997143	.0067763	.0005433	-.000636	-.000074	5.166495	.0289028
#3	.8475170	.0078772	.0005104	-.000789	.000469	5.102624	.0278068

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1081-04 Acquired: 1/16/2025 20:35:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5388672	-.004080	.0290764
Stddev	.0029791	.000835	.0000467
%RSD	.5528372	20.45994	.1606016
#1	.5395085	-.003818	.0291296
#2	.5414733	-.003408	.0290577
#3	.5356197	-.005015	.0290420

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2851.318	55739.82	10416.74	1943.056	4370.128
Stddev	7.887	72.60	19.42	7.868	8.820
%RSD	.2766024	.1302483	.1864745	.4049480	.2018275
#1	2855.327	55686.42	10415.63	1935.732	4368.500
#2	2856.394	55710.55	10436.70	1942.061	4379.650
#3	2842.232	55822.48	10397.90	1951.374	4362.236

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1048-01DLX2 Acquired: 1/16/2025 20:39:23 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0871463	.1904593	.1007878	.2159993	.0833235	8.889927
Stddev	.0022158	.0052864	.0009331	.0007215	.0011907	.002390
%RSD	2.542593	2.775590	.9258462	.3340480	1.428959	.0268803
#1	.0850226	.1844698	.0997356	.2165655	.0825465	8.888931
#2	.0869724	.1924339	.1011128	.2151869	.0827297	8.888197
#3	.0894439	.1944741	.1015150	.2162455	.0846943	8.892654

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0190318	.0190421	.0211858	4.827410	.2815450	.0236270
Stddev	.0001827	.0000704	.0000771	.018191	.0014467	.0001469
%RSD	.9600672	.3698191	.3639575	.3768271	.5138467	.6216799
#1	.0189400	.0191005	.0212610	4.830623	.2799122	.0234788
#2	.0192422	.0189639	.0211897	4.807826	.2820558	.0237725
#3	.0189132	.0190619	.0211069	4.843780	.2826669	.0236298

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0426597	1.504090	.0416716	1.560570	.0954314	.0075490
Stddev	.0003662	.001627	.0004387	.013723	.0000794	.0001875
%RSD	.8585482	.1081714	1.052846	.8793448	.0832087	2.483899
#1	.0430809	1.503000	.0417700	1.564920	.0955119	.0076606
#2	.0424811	1.505961	.0411921	1.545199	.0954292	.0076538
#3	.0424169	1.503311	.0420529	1.571590	.0953531	.0073325

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1208.508	.0308399	1.183522	139.1060	3.321593	.0524872
Stddev	10.903	.0017665	.000958	.6733	.016349	.0004901
%RSD	.9021744	5.727994	.0809411	.4839914	.4922178	.9337554
#1	1219.167	.0325119	1.184492	138.4796	3.336076	.0524734
#2	1197.376	.0289920	1.183496	139.8180	3.303864	.0520041
#3	1208.982	.0310157	1.182577	139.0205	3.324840	.0529840

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: Q1048-01DLX2 Acquired: 1/16/2025 20:39:23 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0933155	.0197445	.6885651	3.309865	F 610.9208	.0298137
Stddev	.0011792	.0002132	.0020887	.006880	1.6633	.0013528
%RSD	1.263679	1.080019	.3033480	.2078642	.2722647	4.537545
#1	.0935521	.0195346	.6909750	3.303243	609.0511	.0283687
#2	.0943585	.0199609	.6874449	3.316977	611.4753	.0300223
#3	.0920360	.0197379	.6872755	3.309376	612.2360	.0310501

Elem	Sr4077
Units	ppm
Avg	.0372025
Stddev	.0000196
%RSD	.0527612
#1	.0371971
#2	.0372243
#3	.0371862

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.261	48626.86	10238.38	1727.891	3486.591
Stddev	7.961	49.03	47.25	1.163	4.835
%RSD	.3121652	.1008216	.4615226	.0673166	.1386738
#1	2541.073	48678.13	10192.51	1728.004	3481.017
#2	2554.595	48580.44	10286.90	1726.675	3489.659
#3	2555.114	48622.00	10235.74	1728.993	3489.096

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCV02 Acquired: 1/16/2025 20:43:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.573259	4.707069	4.638476	4.539855	4.600267	9.324224	9.243798
Stddev	.000728	.020422	.005932	.016117	.014939	.018934	.110848
%RSD	.0159286	.4338586	.1278863	.3550108	.3247398	.2030596	1.199163
#1	4.572439	4.689363	4.633574	4.526317	4.584527	9.346066	9.338940
#2	4.573830	4.729410	4.645070	4.535564	4.602025	9.314136	9.122077
#3	4.573509	4.702434	4.636784	4.557683	4.614249	9.312471	9.270378

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2373188	2.321158	23.27911	.9717561	2.335587	1.170872	4.777113
Stddev	.0012432	.001902	.07349	.0015869	.002529	.001216	.029292
%RSD	.5238518	.0819273	.3157066	.1633049	.1082698	.1038890	.6131750
#1	.2386324	2.319046	23.35347	.9723159	2.332765	1.171732	4.786590
#2	.2371634	2.321692	23.20652	.9729873	2.337648	1.169481	4.744255
#3	.2361606	2.322735	23.27732	.9699652	2.336347	1.171404	4.800493

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.318446	23.26818	2.338624	1.208891	23.73871	2.335318	2.412781
Stddev	.011608	.05437	.002699	.000749	.12012	.014690	.012269
%RSD	.5006617	.2336786	.1153938	.0619823	.5060127	.6290479	.5085119
#1	2.331807	23.31549	2.335658	1.209113	23.83695	2.350641	2.426713
#2	2.310839	23.20878	2.339278	1.208056	23.60479	2.321355	2.408044
#3	2.312693	23.28027	2.340935	1.209505	23.77438	2.333957	2.403587

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.90633	4.805624	4.737601	4.684208	4.633717	5.132917	4.544924
Stddev	.10789	.028660	.003771	.009756	.016362	.043471	.008942
%RSD	.4512941	.5963784	.0795927	.2082788	.3531022	.8469064	.1967445
#1	23.87483	4.837842	4.733787	4.674675	4.652214	5.100261	4.535292
#2	23.81771	4.796062	4.737689	4.683775	4.627796	5.116232	4.546518
#3	24.02647	4.782967	4.741327	4.694173	4.621139	5.182259	4.552961

Sample Name: CCV02 Acquired: 1/16/2025 20:43:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.540628	4.591582	4.657260
Stddev	.016311	.023064	.049041
%RSD	.3592261	.5023209	1.053009
#1	4.522623	4.617729	4.686353
#2	4.554418	4.574124	4.684787
#3	4.544842	4.582894	4.600639

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.212	53907.44	9951.922	1890.850	4113.637
Stddev	5.982	142.24	42.914	8.345	6.232
%RSD	.2107776	.2638594	.4312175	.4413579	.1514983
#1	2831.518	53886.83	9902.417	1881.559	4107.925
#2	2840.082	54058.86	9974.781	1893.279	4112.703
#3	2843.036	53776.63	9978.569	1897.711	4120.283

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCB02 Acquired: 1/16/2025 20:47:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019304	.0004833	-.000402	-.001569	.0001668	-.003553
Stddev	.0008550	.0004725	.000854	.001015	.0010241	.001018
%RSD	44.29213	97.77291	212.1434	64.71750	613.7941	28.64976
#1	.0023576	.0007654	.000180	-.002431	-.000774	-.004026
#2	.0024876	-.000062	-.000004	-.000450	.001258	-.002385
#3	.0009460	.000747	-.001382	-.001825	.000017	-.004249

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009873	.0000847	.0001802	-.005198	-.000078	.0000997
Stddev	.0004310	.0000299	.0001047	.010926	.000338	.0001546
%RSD	43.65573	35.23711	58.07769	210.1804	431.0493	155.0386
#1	.0013516	.0000825	.0000625	-.005077	.000174	.0000517
#2	.0005115	.0000561	.0002626	.005666	-.000462	.0002727
#3	.0010989	.0001156	.0002156	-.016184	.000053	-.000025

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000090	-.004829	.0000240	.0091217	.0000431	-.000422
Stddev	.0000869	.002399	.0004091	.0063558	.0002025	.000234
%RSD	971.0536	49.68530	1707.541	69.67841	470.1927	55.43863
#1	.0000744	-.003806	-.000204	.0084827	.0001795	-.000154
#2	-.000090	-.007570	.000496	.0031094	.0001394	-.000587
#3	.000042	-.003110	-.000220	.0157728	-.000190	-.000525

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2466098	.0015978	-.000335	.2044721	.0072057	.0003524
Stddev	.0078428	.0018235	.000277	.0481978	.0006810	.0002021
%RSD	3.180259	114.1262	82.77447	23.57181	9.451268	57.34286
#1	.2543672	.0016885	-.000321	.1582568	.0079706	.0004304
#2	.2386842	.0033741	-.000065	.2007259	.0069815	.0001229
#3	.2467779	-.000269	-.000619	.2544338	.0066650	.0005038

Sample Name: CCB02 Acquired: 1/16/2025 20:47:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000200	-.000026	.0151369	.0025422	F .0374158	.0027861
Stddev	.000659	.000672	.0048335	.0027567	.0061848	.0006336
%RSD	329.2530	2545.629	31.93213	108.4402	16.52992	22.74278
#1	-.000244	-.000177	.0130891	.0034615	.0433991	.0028557
#2	.000479	.000708	.0116643	.0047217	.0378008	.0021206
#3	-.000836	-.000610	.0206572	-.000557	.0310475	.0033821

Elem	Sr4077
Units	ppm
Avg	.0002113
Stddev	.0000025
%RSD	1.168326
#1	.0002124
#2	.0002085
#3	.0002130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2855.541	55733.02	10473.03	1978.900	4300.669
Stddev	3.702	46.54	40.95	5.674	3.425
%RSD	.1296272	.0835108	.3909769	.2867393	.0796473
#1	2852.519	55690.78	10505.97	1975.699	4297.079
#2	2859.670	55725.36	10427.18	1975.549	4303.902
#3	2854.435	55782.92	10485.94	1985.452	4301.026

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: LR1 Acquired: 1/16/2025 20:51:59 Type: Unk
Method: NON EPA-6010-200.7(v2613) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0445149	.1043826	.0552078	-.168794	-.006192	1999.215	.0129894
Stddev	.0035680	.0064445	.0072656	.005467	.012003	19.206	.0014206
%RSD	8.015281	6.173903	13.16038	3.238664	193.8335	.9606791	10.93680
#1	.0411721	.0970495	.0635060	-.175105	.000875	2019.689	.0126709
#2	.0482720	.1091448	.0499895	-.165532	.000599	1996.362	.0145422
#3	.0441006	.1069535	.0521279	-.165745	-.020051	1981.596	.0117551

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094597	-.016626	1883.750	.0000108	.0258283	-.617995	1027.152
Stddev	.0002836	.002294	11.555	.0010243	.0008115	.012138	12.876
%RSD	2.998318	13.79833	.6133922	9452.828	3.141754	1.964112	1.253528
#1	.0094047	-.015369	1890.351	.0007660	.0252776	-.609086	1017.469
#2	.0092076	-.019274	1870.408	.0004216	.0254471	-.631820	1041.764
#3	.0097668	-.015235	1890.492	-.001155	.0267602	-.613080	1022.223

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.091105	1686.653	.0081205	-.014044	2036.030	.0659782	.0180632
Stddev	.000581	12.582	.0007372	.002949	12.021	.0003961	.0016665
%RSD	.6378522	.7459478	9.078311	20.99656	.5904203	.6002887	9.225827
#1	-.091743	1677.916	.0072891	-.016386	2026.715	.0662071	.0197769
#2	-.090968	1680.969	.0083777	-.010733	2031.775	.0655209	.0179643
#3	-.090605	1701.074	.0086946	-.015013	2049.600	.0662067	.0164484

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1242.891	.6744082	-.008126	.0125591	-.038041	.1606838	.0670968
Stddev	1.496	.0184113	.000581	.0044297	.001618	.0042559	.0094145
%RSD	.1203612	2.729992	7.144735	35.27124	4.252000	2.648627	14.03115
#1	1244.337	.6658508	-.008330	.0160733	-.039573	.1591391	.0594571
#2	1241.350	.6955408	-.008577	.0075832	-.036350	.1574159	.0776143
#3	1242.986	.6618330	-.007471	.0140207	-.038200	.1654963	.0642191

Sample Name: LR1 Acquired: 1/16/2025 20:51:59 Type: Unk
Method: NON EPA-6010-200.7(v2613) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.211389	-.303369	-1.01597
Stddev	.009526	.002108	.01281
%RSD	4.506493	.6947473	1.261037
#1	-.200723	-.305211	-1.00634
#2	-.214394	-.301070	-1.03051
#3	-.219051	-.303826	-1.01105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2008.842	39705.76	8912.581	1380.095	2549.921
Stddev	4.367	74.29	32.217	2.087	5.288
%RSD	.2173778	.1870902	.3614833	.1511926	.2073847
#1	2009.756	39726.33	8919.775	1382.401	2555.554
#2	2012.680	39623.36	8940.594	1379.544	2549.147
#3	2004.091	39767.59	8877.375	1378.339	2545.063

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: LR2 Acquired: 1/16/2025 20:56:56 Type: Unk
Method: NON EPA-6010-200.7(v2613) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0130225	-.012333	261.7955	.0115272	.0019461	.1149251	97.03538
Stddev	.0041715	.001211	.5861	.0023338	.0015306	.0149675	.54631
%RSD	32.03318	9.816788	.2238875	20.24634	78.64830	13.02371	.5629975
#1	.0113210	-.011135	261.4073	.0095627	.0019760	.1276390	96.52347
#2	.0099707	-.012308	261.5095	.0109118	.0034616	.1187069	96.97211
#3	.0177759	-.013555	262.4698	.0141071	.0004008	.0984294	97.61057

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003248	-.004733	.2771960	.0108123	-.009637	272.4558	.0337777
Stddev	.000077	.000054	.0021901	.0001041	.000397	.3212	.0055811
%RSD	2.385738	1.131024	.7900847	.9624558	4.116931	.1179013	16.52303
#1	-.003280	-.004674	.2796142	.0107331	-.009179	272.6724	.0322645
#2	-.003159	-.004747	.2753460	.0107736	-.009839	272.6082	.0399593
#3	-.003304	-.004778	.2766277	.0109301	-.009891	272.0867	.0291092

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.73109	.0449754	50.44478	.0032307	.4340192	-.012582	35.59722
Stddev	.38573	.0182260	.10641	.0004521	.0308249	.001811	.26124
%RSD	.9243281	40.52431	.2109379	13.99368	7.102192	14.39195	.7338865
#1	41.31089	.0569550	50.38424	.0033705	.4664251	-.014665	35.87519
#2	41.81327	.0539705	50.38244	.0027252	.4305664	-.011698	35.35676
#3	42.06912	.0240005	50.56764	.0035964	.4050661	-.011383	35.55971

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3987990	-.000569	-.009022	-.004941	-.036797	-.004707	3.055586
Stddev	.0072065	.000561	.000327	.001042	.000262	.008735	.017040
%RSD	1.807044	98.58201	3.628505	21.09155	.7115361	185.5860	.5576640
#1	.4059118	-.000109	-.009116	-.003741	-.036870	-.005631	3.070979
#2	.3989830	-.001194	-.009292	-.005625	-.036507	.004454	3.058503
#3	.3915023	-.000403	-.008658	-.005456	-.037015	-.012943	3.037276

Sample Name: LR2 Acquired: 1/16/2025 20:56:56 Type: Unk
Method: NON EPA-6010-200.7(v2613) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0112602	.0018942	.0013007
Stddev	.0044936	.0003642	.0000255
%RSD	39.90694	19.22902	1.958444
#1	.0159110	.0022698	.0012800
#2	.0109274	.0018702	.0013291
#3	.0069423	.0015425	.0012930

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2549.873	55728.12	10465.22	1921.895	4193.858
Stddev	8.647	184.91	10.86	6.333	7.052
%RSD	.3391174	.3318016	.1037485	.3294981	.1681562
#1	2556.898	55747.55	10465.57	1919.318	4200.211
#2	2552.506	55534.26	10454.19	1917.256	4195.093
#3	2540.216	55902.54	10475.90	1929.109	4186.270

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCV03 Acquired: 1/16/2025 21:01:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.684451	4.769964	4.716371	4.661982	4.704157	9.422283	9.326963
Stddev	.013996	.030505	.011970	.021656	.011873	.006320	.025125
%RSD	.2987697	.6395200	.2537910	.4645201	.2523999	.0670800	.2693767
#1	4.669339	4.736527	4.708526	4.637241	4.694547	9.419043	9.346399
#2	4.687050	4.796277	4.710438	4.671205	4.700494	9.429567	9.298592
#3	4.696966	4.777087	4.730148	4.677499	4.717430	9.418240	9.335899

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2373160	2.354860	23.32394	.9715917	2.367937	1.210943	4.806202
Stddev	.0019378	.004539	.07546	.0007183	.004930	.003756	.032846
%RSD	.8165391	.1927381	.3235304	.0739288	.2082162	.3101921	.6834037
#1	.2375758	2.352406	23.30390	.9724157	2.366045	1.208014	4.796544
#2	.2352614	2.352077	23.26053	.9710977	2.364233	1.209638	4.842794
#3	.2391108	2.360097	23.40740	.9712617	2.373533	1.215178	4.779268

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.331762	23.37103	2.375348	1.211072	23.66573	2.344548	2.378504
Stddev	.008454	.08126	.004140	.000521	.16480	.003582	.012588
%RSD	.3625613	.3476930	.1743091	.0430019	.6963675	.1527777	.5292441
#1	2.333091	23.30914	2.373135	1.211097	23.67815	2.343913	2.364201
#2	2.322723	23.34091	2.372784	1.211579	23.82397	2.341326	2.383411
#3	2.339473	23.46305	2.380124	1.210539	23.49507	2.348405	2.387899

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.81786	4.812384	4.789826	4.757125	4.661764	5.143397	4.713895
Stddev	.16659	.036613	.011045	.010701	.001405	.020216	.011960
%RSD	.6994130	.7608175	.2305995	.2249391	.0301471	.3930543	.2537115
#1	23.73978	4.814393	4.779518	4.750483	4.662380	5.134082	4.703596
#2	24.00914	4.774807	4.788476	4.751423	4.660156	5.166592	4.711076
#3	23.70465	4.847951	4.801485	4.769469	4.662757	5.129518	4.727012

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCV03 Acquired: 1/16/2025 21:01:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.626462	4.613484	4.707086
Stddev	.001756	.004713	.046978
%RSD	.0379613	.1021594	.9980309
#1	4.626982	4.610597	4.725563
#2	4.624505	4.610931	4.653679
#3	4.627900	4.618922	4.742017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.741	54455.41	10014.47	1905.315	4042.949
Stddev	2.709	75.57	77.93	7.445	1.206
%RSD	.0969033	.1387742	.7781973	.3907522	.0298215
#1	2798.861	54401.36	9995.04	1911.676	4043.854
#2	2793.979	54423.12	10100.28	1897.127	4041.581
#3	2794.385	54541.77	9948.09	1907.144	4043.414

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCB03 Acquired: 1/16/2025 21:10:24 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0016163	-.000940	.0036396	-.001103	-.000462	.0154244	.0009978
Stddev	.0010454	.000597	.0014006	.001427	.000964	.0037002	.0004454
%RSD	64.68083	63.52046	38.48277	129.3182	208.7933	23.98920	44.63672
#1	.0004739	-.000846	.0027833	-.001234	-.001490	.0193775	.0013077
#2	.0018498	-.000396	.0052560	-.002460	-.000318	.0120439	.0004874
#3	.0025252	-.001579	.0028796	.000384	.000423	.0148519	.0011983

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000480	-.000022	.0090215	-.000081	-.000118	.0037014	.0029597
Stddev	.0000422	.000016	.0018006	.000208	.000025	.0001951	.0016247
%RSD	87.88653	69.82647	19.95851	257.0310	21.36778	5.269941	54.89280
#1	.0000533	-.000005	.0071600	-.000274	-.000103	.0037552	.0027253
#2	.0000872	-.000029	.0107542	-.000108	-.000147	.0038640	.0046888
#3	.0000034	-.000034	.0091505	.000139	-.000104	.0034851	.0014650

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008557	.0160467	.0006753	-.000160	.2104854	.0024735	.0002334
Stddev	.0003320	.0077996	.0000977	.000336	.0113446	.0008148	.0001244
%RSD	38.80130	48.60563	14.47230	210.3018	5.389735	32.94168	53.32477
#1	.0012066	.0073382	.0007336	-.000329	.2099903	.0032378	.0001056
#2	.0008140	.0184123	.0007299	-.000378	.1993965	.0016162	.0003542
#3	.0005465	.0223896	.0005625	.000227	.2220695	.0025665	.0002403

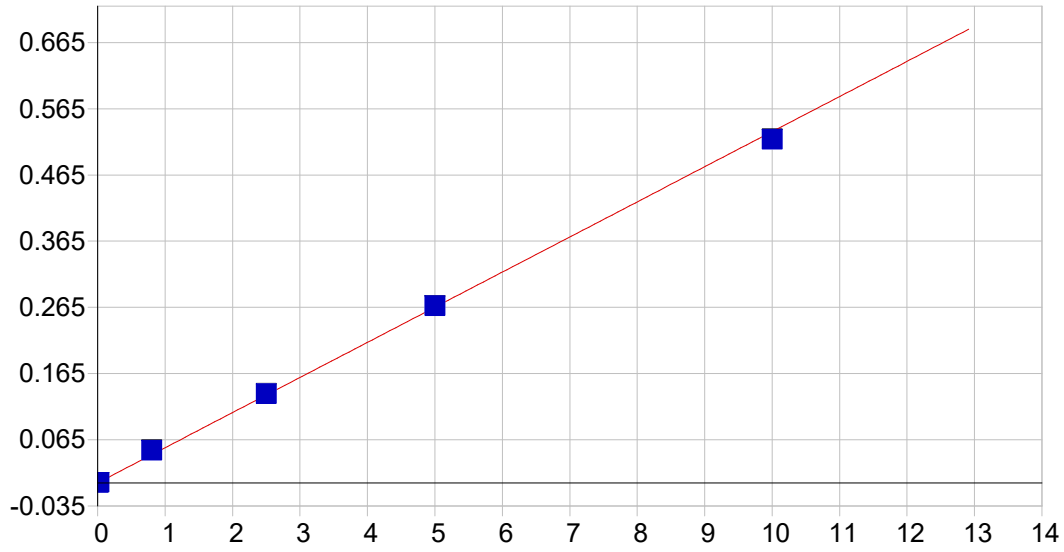
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1368811	.0005453	.0001194	-.000305	-.000108	.0066744	.0028227
Stddev	.0193744	.0004593	.0004930	.000975	.000400	.0062869	.0020299
%RSD	14.15415	84.23403	412.7870	319.8322	371.6680	94.19435	71.91073
#1	.1217404	.0008576	-.000094	-.001373	.000210	.0057538	.0051658
#2	.1587146	.0000179	-.000231	-.000078	.000024	.0008985	.0017030
#3	.1301884	.0007603	.000683	.000537	-.000556	.0133707	.0015993

Reviewed By:Jaswal
On:1/20/2025 7:26:55 AM
Inst Id :P4
LB :LB134315

Sample Name: CCB03 Acquired: 1/16/2025 21:10:24 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0041325	-.000278	.0000037
Stddev	.0030221	.000305	.0000321
%RSD	73.13036	109.8318	864.3108
#1	.0058991	-.000582	-.000016
#2	.0058554	.000029	.000041
#3	.0006429	-.000281	-.000014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2889.998	55811.75	10554.63	1965.951	4387.264
Stddev	7.899	316.61	72.32	5.096	8.424
%RSD	.2733285	.5672768	.6852288	.2591970	.1920063
#1	2894.426	55757.32	10481.21	1961.033	4395.065
#2	2894.689	56152.04	10625.80	1965.613	4388.396
#3	2880.878	55525.89	10556.88	1971.208	4378.332

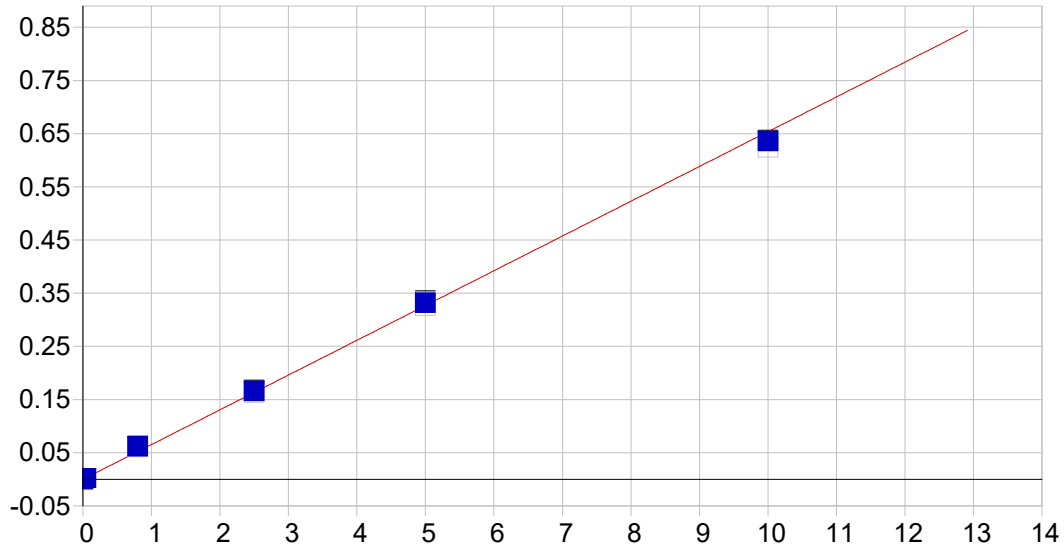


As 189.042 {479}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000050	Re-Slope:	1.000000
A1 (Gain):	0.053051	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999260	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.002757		
Predicted MQL:	0.009191		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00005	.000	1
S1	.02000	.01961	-.000	-1.96	.00098	.000	1
S3	2.5000	2.5431	.043	1.72	.13472	.001	1
S4	5.0000	5.0406	.041	.812	.26707	.000	1
S5	10.000	9.7858	-.214	-2.14	.51853	.000	1
S2	.80000	.93088	.131	16.4	.04929	.000	1

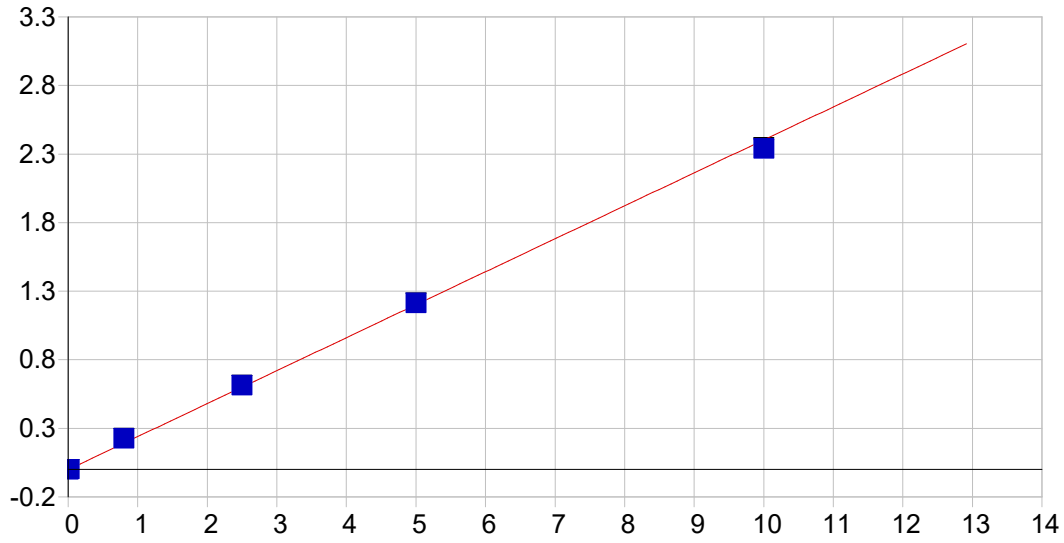


Tl 190.856 {477}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000065	Re-Slope:	1.000000
A1 (Gain):	0.065382	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998983	Status:	OK.
Std Error of Est:	0.000096		
Predicted MDL:	0.002085		
Predicted MQL:	0.006949		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00007	.000	1
S1	.04000	.03897	-.001	-2.58	.00232	.000	1
S3	2.5000	2.5432	.043	1.73	.16320	.002	1
S4	5.0000	5.0777	.078	1.55	.32590	.004	1
S5	10.000	9.7334	-.267	-2.67	.62428	.002	1
S2	.80000	.94670	.147	18.3	.06087	.001	1

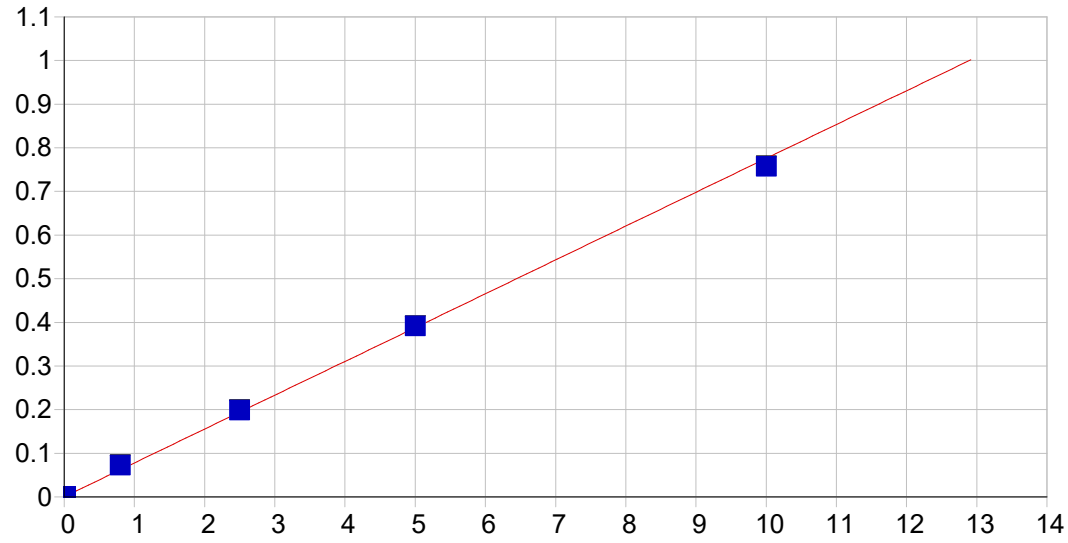


Pb 220.353 {453}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000454	Re-Slope:	1.000000
A1 (Gain):	0.240360	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999048	Status:	OK.
Std Error of Est:	0.000190		
Predicted MDL:	0.001243		
Predicted MQL:	0.004144		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00046	.000	1
S1	.01200	.01247	.000	3.93	.00249	.000	1
S3	2.5000	2.5569	.057	2.27	.61345	.001	1
S4	5.0000	5.0537	.054	1.07	1.2129	.001	1
S5	10.000	9.7437	-.256	-2.56	2.3389	.006	1
S2	.80000	.94525	.145	18.2	.22654	.000	1

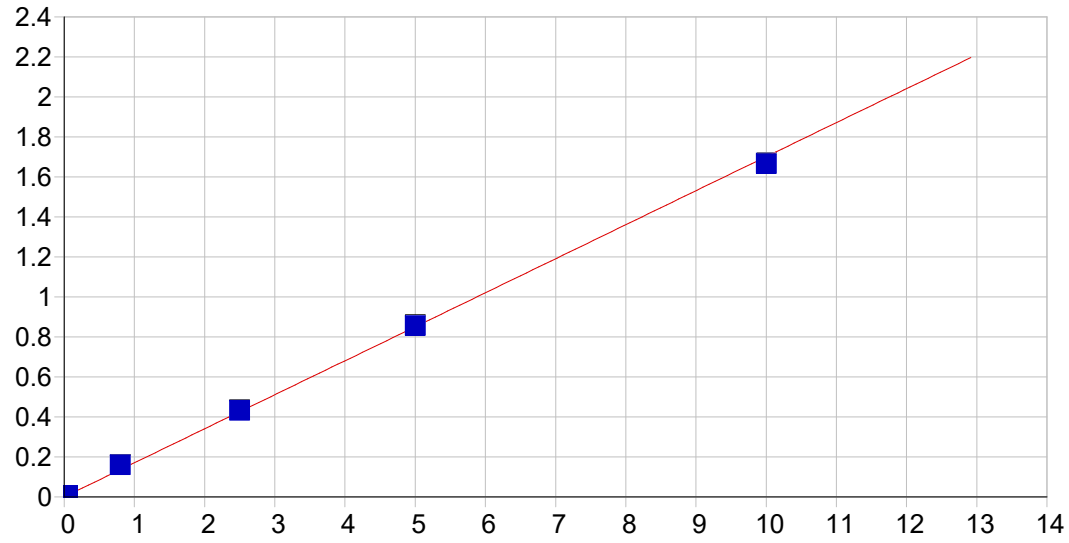


Se 196.090 {472}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000343	Re-Slope:	1.000000
A1 (Gain):	0.077538	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999168	Status:	OK.
Std Error of Est:	0.000074		
Predicted MDL:	0.002577		
Predicted MQL:	0.008591		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00034	.000	1
S1	.02000	.02060	.001	3.00	.00194	.000	1
S3	2.5000	2.5559	.056	2.24	.19847	.001	1
S4	5.0000	5.0455	.045	.909	.39145	.001	1
S5	10.000	9.7620	-.238	-2.38	.75706	.001	1
S2	.80000	.93607	.136	17.0	.07291	.000	1

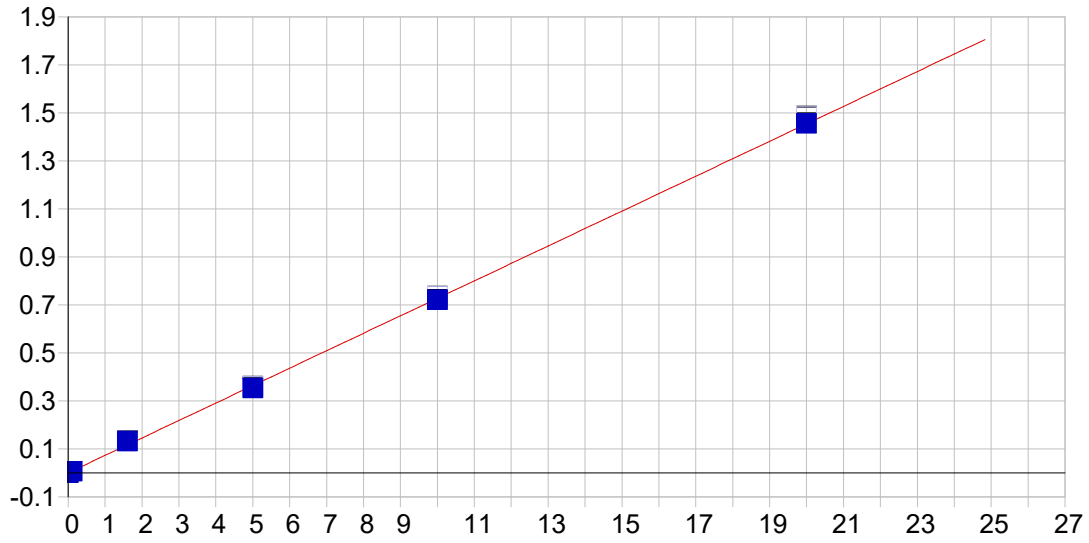


Sb 206.833 {463}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000348	Re-Slope:	1.000000
A1 (Gain):	0.170076	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999227	Status:	OK.
Std Error of Est:	0.000249		
Predicted MDL:	0.001478		
Predicted MQL:	0.004925		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00035	.000	1
S1	.05000	.04936	-.001	-1.29	.00876	.000	1
S3	2.5000	2.5370	.037	1.48	.43299	.002	1
S4	5.0000	5.0303	.030	.607	.85820	.002	1
S5	10.000	9.7957	-.204	-2.04	1.6710	.000	1
S2	.80000	.93757	.138	17.2	.16017	.000	1

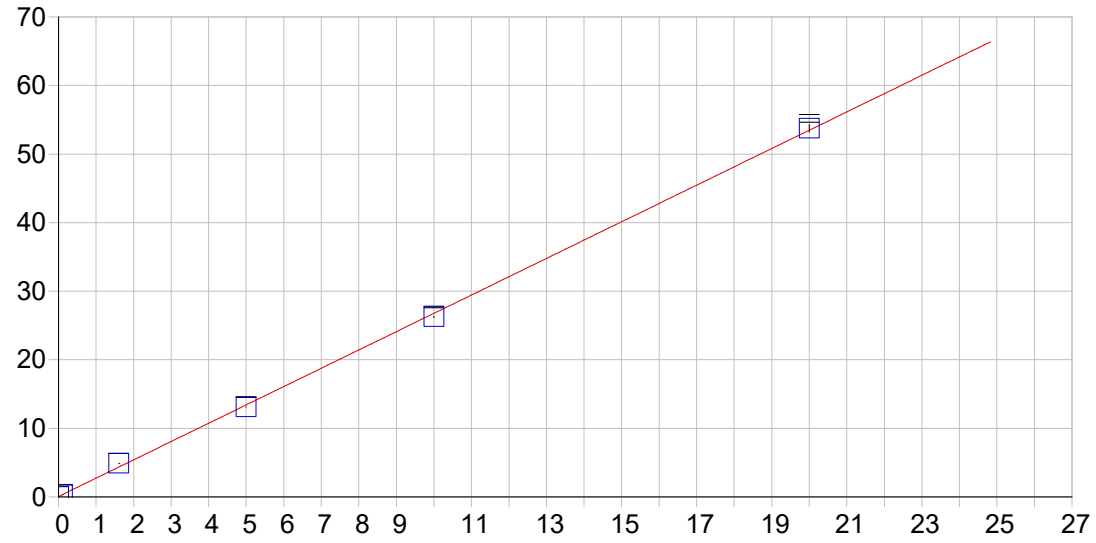


Al 396.152 { 85}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000268	Re-Slope:	1.000000
A1 (Gain):	0.072705	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999597	Status:	OK.
Std Error of Est:	0.000156		
Predicted MDL:	0.008973		
Predicted MQL:	0.029909		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00027	.000	1
S1	.10000	.09611	-.004	-3.89	.00782	.000	1
S3	5.0000	4.8548	-.145	-2.90	.36029	.001	1
S4	10.000	9.9216	-.078	-.784	.73573	.000	1
S5	20.000	20.025	.025	.123	1.4844	.002	1
S2	1.6000	1.8031	.203	12.7	.13362	.001	1

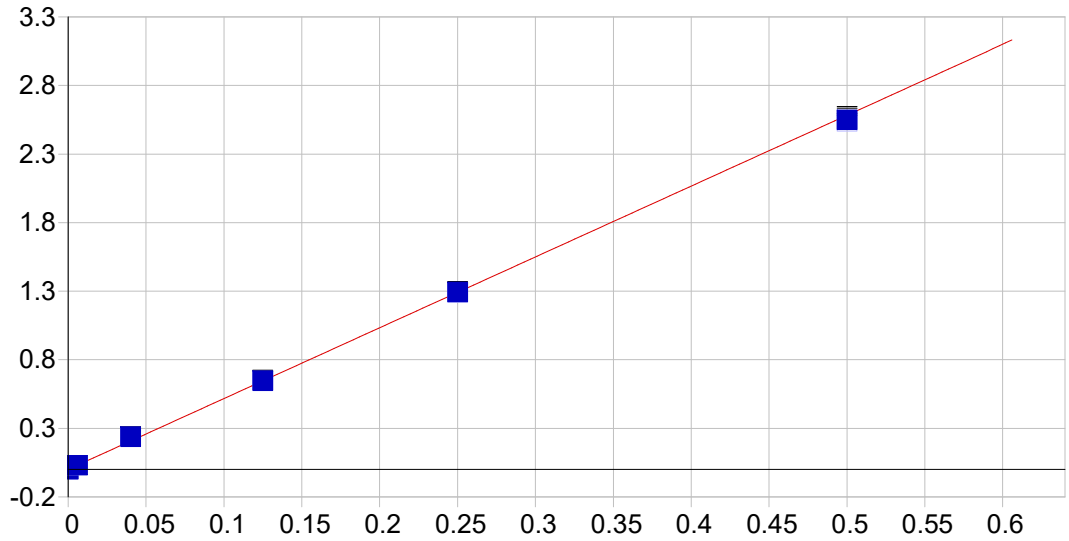


Ba 493.409 { 68}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.067053	Re-Slope:	1.000000
A1 (Gain):	2.670385	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999531	Status:	OK.
Std Error of Est:	0.006064		
Predicted MDL:	0.000785		
Predicted MQL:	0.002617		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.06705	.001	1
S1	.10000	.09107	-.009	-8.93	.31023	.003	1
S3	5.0000	4.8867	-.113	-2.27	13.117	.041	1
S4	10.000	9.8081	-.192	-1.92	26.258	.131	1
S5	20.000	20.107	.107	.535	53.761	.551	1
S2	1.6000	1.8071	.207	12.9	4.8926	.010	1

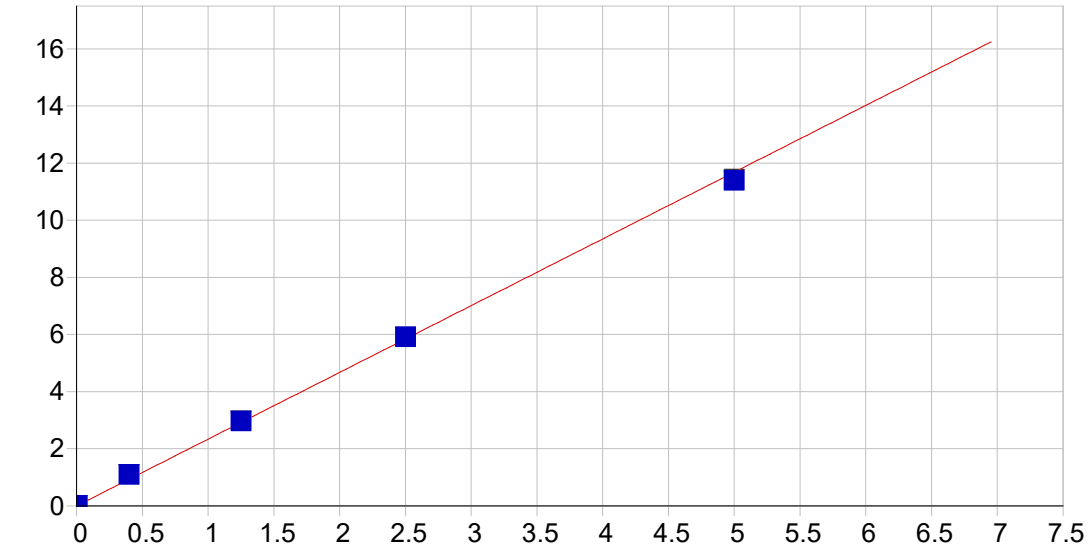


Be 234.861 {144}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	5.167041	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999436	Status:	OK.
Std Error of Est:	0.000497		
Predicted MDL:	0.000058		
Predicted MQL:	0.000193		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00001	.000	1
S1	.00600	.00589	-.000	-1.87	.03018	.000	1
S3	.12500	.12536	.000	.289	.64485	.003	1
S4	.25000	.25048	.000	.192	1.2884	.003	1
S5	.50000	.49316	-.007	-1.37	2.5366	.026	1
S2	.04000	.04611	.006	15.3	.23732	.001	1

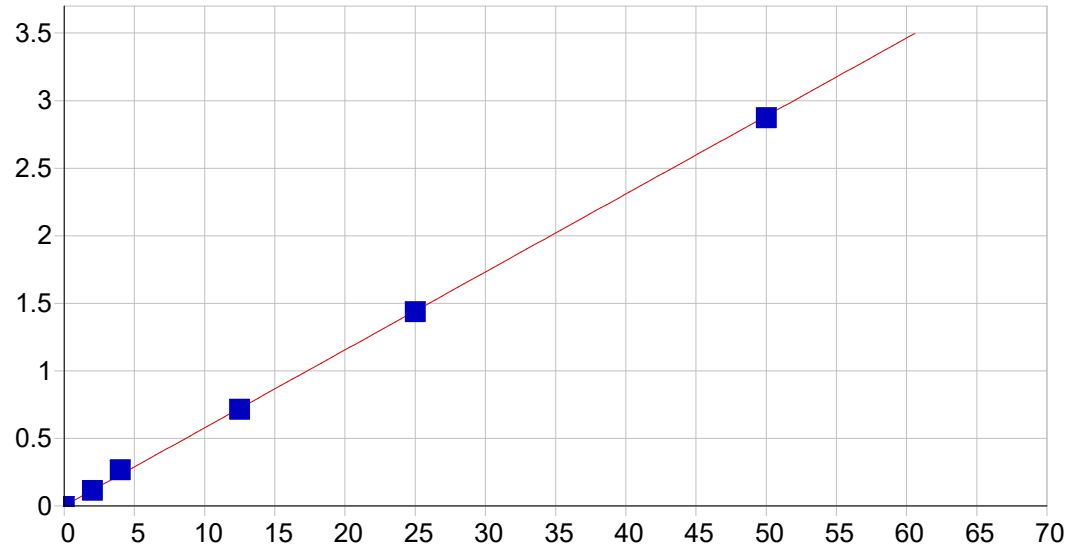


Cd 226.502 {449}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000250	Re-Slope:	1.000000
A1 (Gain):	2.337032	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999170	Status:	OK.
Std Error of Est:	0.000865		
Predicted MDL:	0.000097		
Predicted MQL:	0.000324		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00025	.000	1
S1	.00600	.00589	-.000	-1.81	.01408	.000	1
S3	1.2500	1.2724	.022	1.79	2.9763	.005	1
S4	2.5000	2.5325	.033	1.30	5.9236	.003	1
S5	5.0000	4.8776	-.122	-2.45	11.409	.027	1
S2	.40000	.46760	.068	16.9	1.0938	.003	1

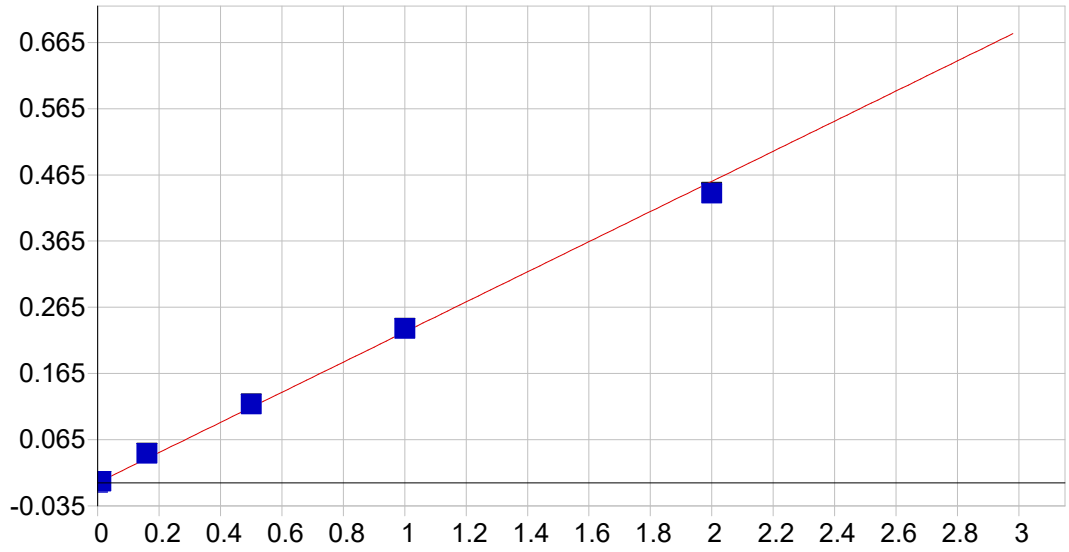


Ca 373.690 { 90}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000541	Re-Slope:	1.000000
A1 (Gain):	0.057708	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999504	Status:	OK.
Std Error of Est:	0.000962		
Predicted MDL:	0.010902		
Predicted MQL:	0.036340		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00019	-.000	.000	.00053	.000	1
S2	4.0000	4.5910	.591	14.8	.26548	.001	1
S3	12.500	12.359	-.141	-1.13	.71375	.001	1
S4	25.000	24.852	-.148	-.592	1.4347	.004	1
S5	50.000	49.758	-.242	-.485	2.8720	.005	1
S1	2.0000	1.9405	-.060	-2.98	.11252	.000	1

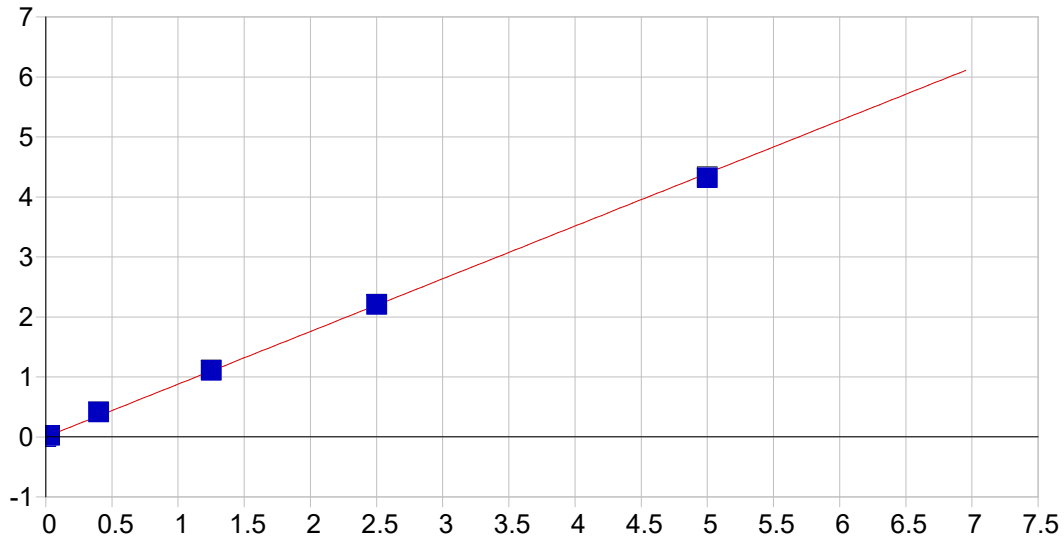


Cr 267.716 {126}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000052	Re-Slope:	1.000000
A1 (Gain):	0.227573	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998341	Status:	OK.
Std Error of Est:	0.000097		
Predicted MDL:	0.000411		
Predicted MQL:	0.001371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00005	.000	1
S1	.01000	.00905	-.001	-9.48	.00211	.000	1
S3	.50000	.52154	.022	4.31	.11877	.000	1
S4	1.0000	1.0236	.024	2.36	.23305	.000	1
S5	2.0000	1.9211	-.079	-3.94	.43739	.001	1
S2	.16000	.19472	.035	21.7	.04438	.000	1

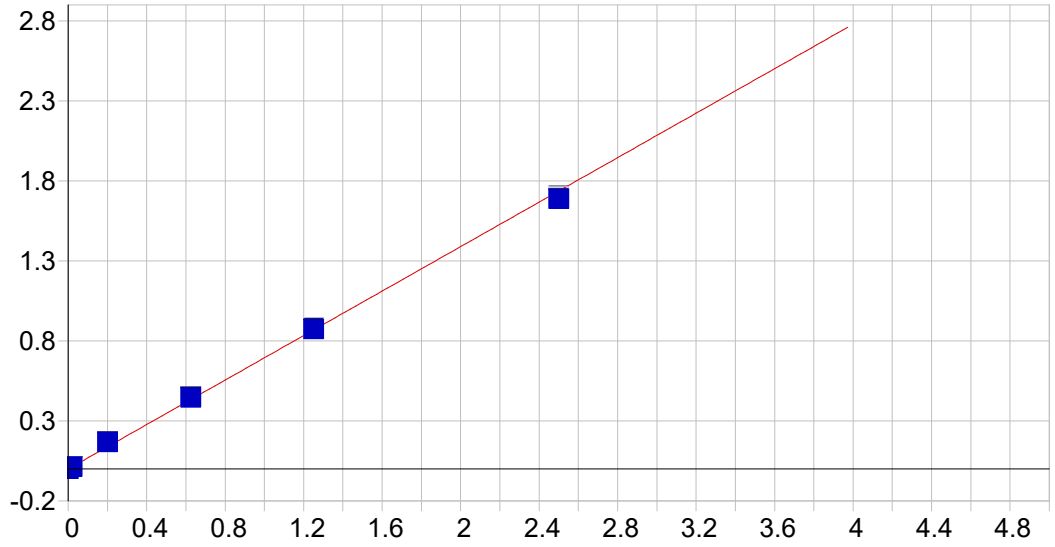


Co 228.616 {448}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000116	Re-Slope:	1.000000
A1 (Gain):	0.878625	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999286	Status:	OK.
Std Error of Est:	0.000676		
Predicted MDL:	0.000230		
Predicted MQL:	0.000766		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00011	.000	1
S1	.03000	.02910	-.001	-2.99	.02558	.000	1
S3	1.2500	1.2618	.012	.946	1.1106	.003	1
S4	2.5000	2.5081	.008	.322	2.2075	.002	1
S5	5.0000	4.9132	-.087	-1.74	4.3244	.011	1
S2	.40000	.46779	.068	16.9	.41173	.001	1

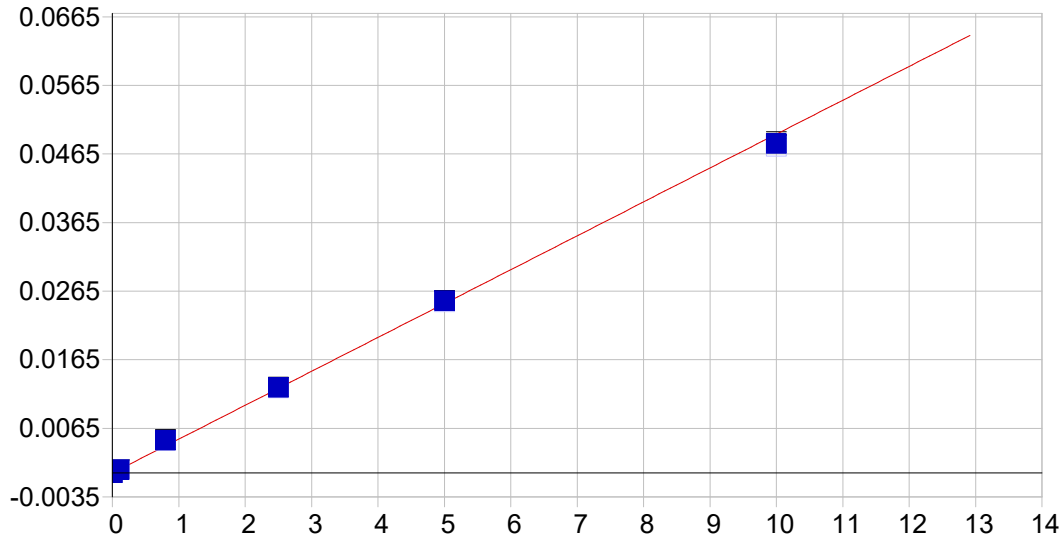


Cu 224.700 {450}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000597	Re-Slope:	1.000000
A1 (Gain):	0.694960	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998786	Status:	OK.
Std Error of Est:	0.000406		
Predicted MDL:	0.000462		
Predicted MQL:	0.001540		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00060	.000	1
S1	.02000	.02162	.002	8.10	.01460	.000	1
S3	.62500	.64332	.018	2.93	.45062	.001	1
S4	1.2500	1.2596	.010	.772	.88309	.001	1
S5	2.5000	2.4289	-.071	-2.85	1.7039	.002	1
S2	.20000	.24153	.042	20.8	.16858	.001	1

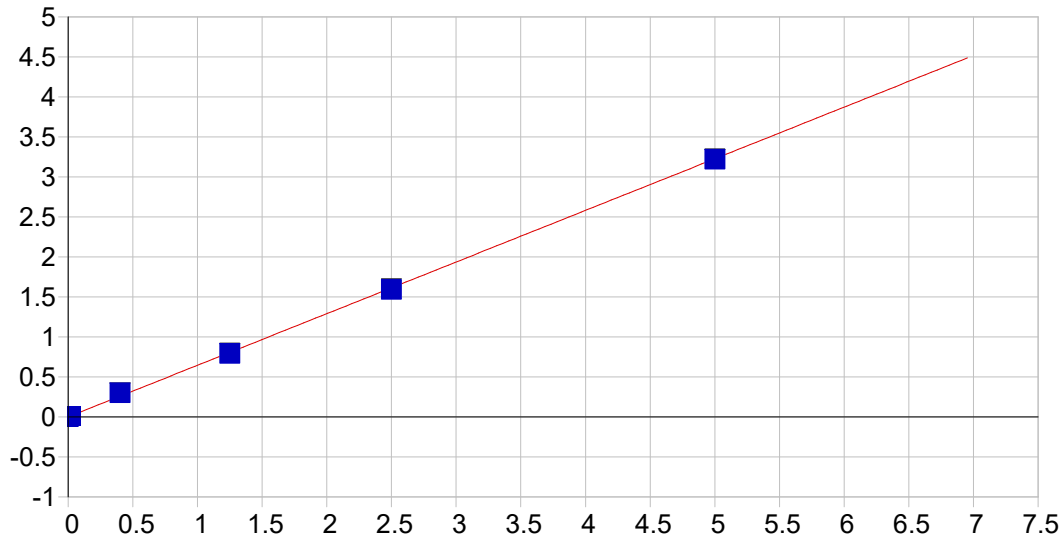


Fe 240.488 {140}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000019	Re-Slope:	1.000000
A1 (Gain):	0.004941	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998775	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.006050		
Predicted MQL:	0.020165		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	-.00002	.000	1
S1	.10000	.09778	-.002	-2.22	.00046	.000	1
S3	2.5000	2.5277	.028	1.11	.01237	.000	1
S4	5.0000	5.0841	.084	1.68	.02489	.000	1
S5	10.000	9.7232	-.277	-2.77	.04760	.000	1
S2	.80000	.96718	.167	20.9	.00473	.000	1

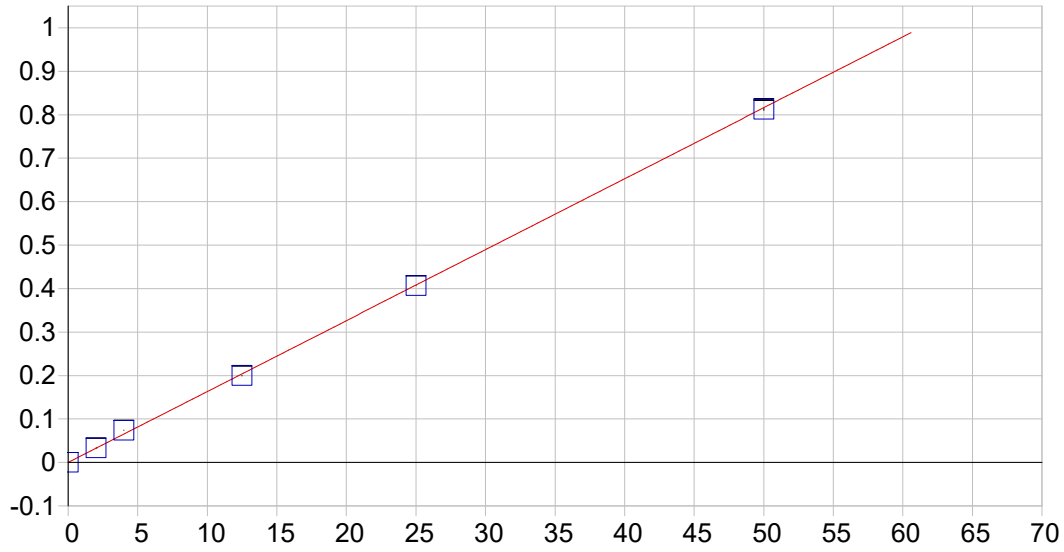


Mn 257.610 {131}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000088	Re-Slope:	1.000000
A1 (Gain):	0.645329	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999423	Status:	OK.
Std Error of Est:	0.000364		
Predicted MDL:	0.000391		
Predicted MQL:	0.001305		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.02000	.01940	-.001	-3.02	.01261	.000	1
S3	1.2500	1.2290	-.021	-1.68	.79339	.003	1
S4	2.5000	2.4696	-.030	-1.22	1.5941	.006	1
S5	5.0000	4.9893	-.011	-.214	3.2205	.002	1
S2	.40000	.46272	.063	15.7	.29875	.000	1

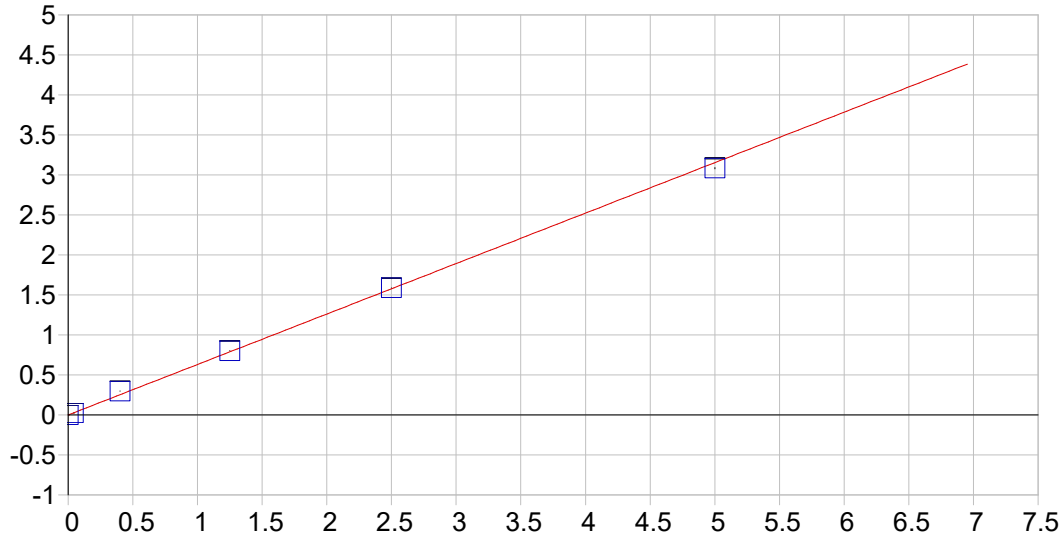


Mg 279.079 {121}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000053	Re-Slope:	1.000000
A1 (Gain):	0.016320	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999560	Status:	OK.
Std Error of Est:	0.000256		
Predicted MDL:	0.017299		
Predicted MQL:	0.057665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00026	-.000	.000	-.00006	.000	1
S2	4.0000	4.5417	.542	13.5	.07407	.001	1
S3	12.500	12.225	-.275	-2.20	.19946	.001	1
S4	25.000	24.923	-.077	-.310	.40669	.000	1
S5	50.000	49.757	-.243	-.485	.81200	.002	1
S1	2.0000	2.0530	.053	2.65	.03345	.000	1

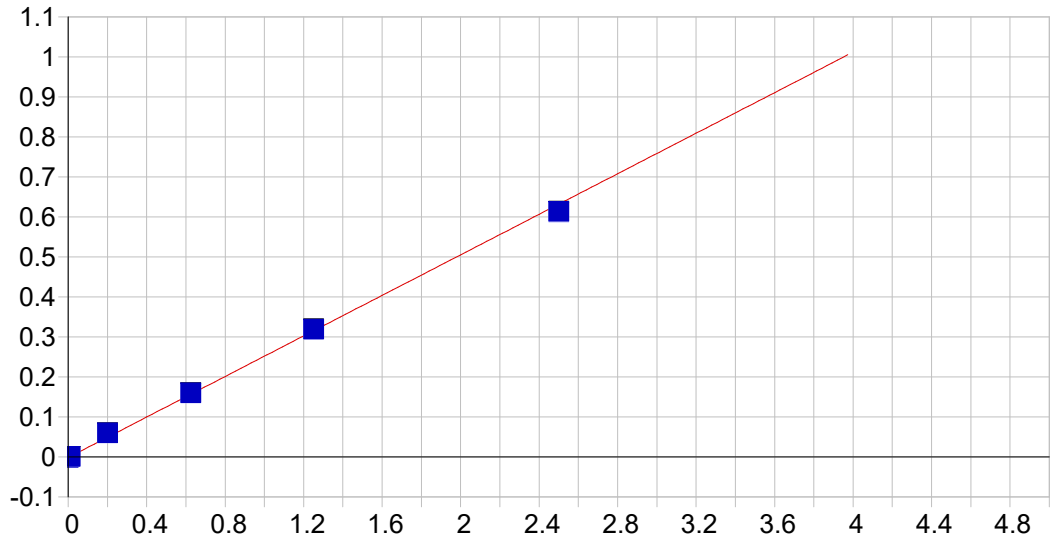


Ni 231.604 {446}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000163	Re-Slope:	1.000000
A1 (Gain):	0.630694	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999140	Status:	OK.
Std Error of Est:	0.000614		
Predicted MDL:	0.000357		
Predicted MQL:	0.001190		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00017	.000	1
S1	.04000	.03954	-.000	-1.14	.02478	.000	1
S3	1.2500	1.2710	.021	1.68	.80144	.001	1
S4	2.5000	2.5156	.016	.624	1.5864	.001	1
S5	5.0000	4.8917	-.108	-2.17	3.0850	.007	1
S2	.40000	.47218	.072	18.0	.29764	.001	1

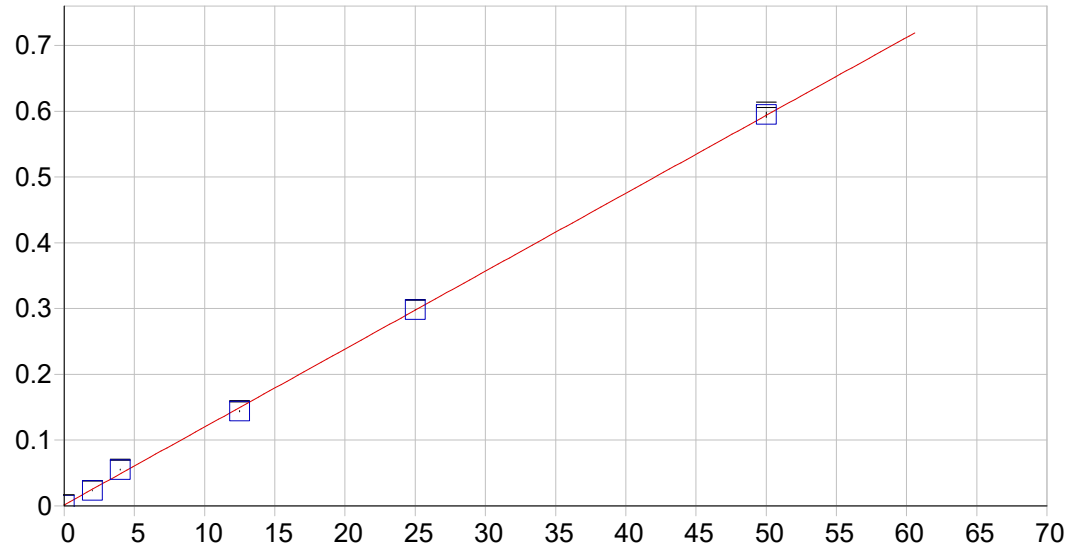


Ag 328.068 {103}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001600	Re-Slope:	1.000000
A1 (Gain):	0.253390	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998770	Status:	OK.
Std Error of Est:	0.000104		
Predicted MDL:	0.000483		
Predicted MQL:	0.001609		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00160	.000	1
S1	.01000	.00968	-.000	-3.18	.00084	.000	1
S3	.62500	.63780	.013	2.05	.15938	.000	1
S4	1.2500	1.2671	.017	1.37	.31822	.001	1
S5	2.5000	2.4287	-.071	-2.85	.61131	.000	1
S2	.20000	.24164	.042	20.8	.05943	.000	1

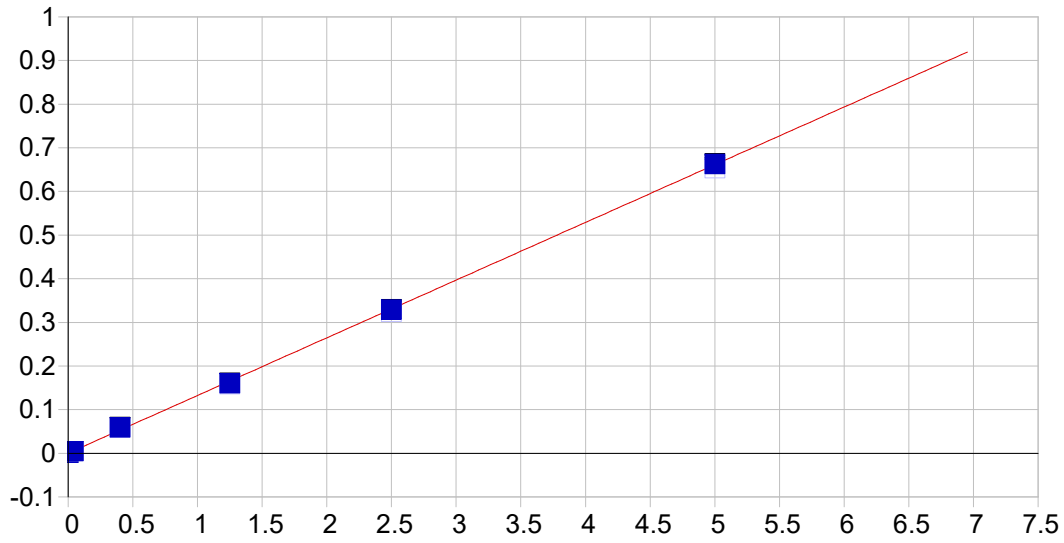


Na 589.592 { 57}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001576	Re-Slope:	1.000000
A1 (Gain):	0.011845	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999457	Status:	OK.
Std Error of Est:	0.000207		
Predicted MDL:	0.017356		
Predicted MQL:	0.057853		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00158	.000	1
S2	4.0000	4.5243	.524	13.1	.05517	.001	1
S3	12.500	12.027	-.473	-3.78	.14404	.001	1
S4	25.000	25.028	.028	.114	.29804	.000	1
S5	50.000	50.092	.092	.184	.59491	.004	1
S1	2.0000	1.8286	-.171	-8.57	.02324	.000	1

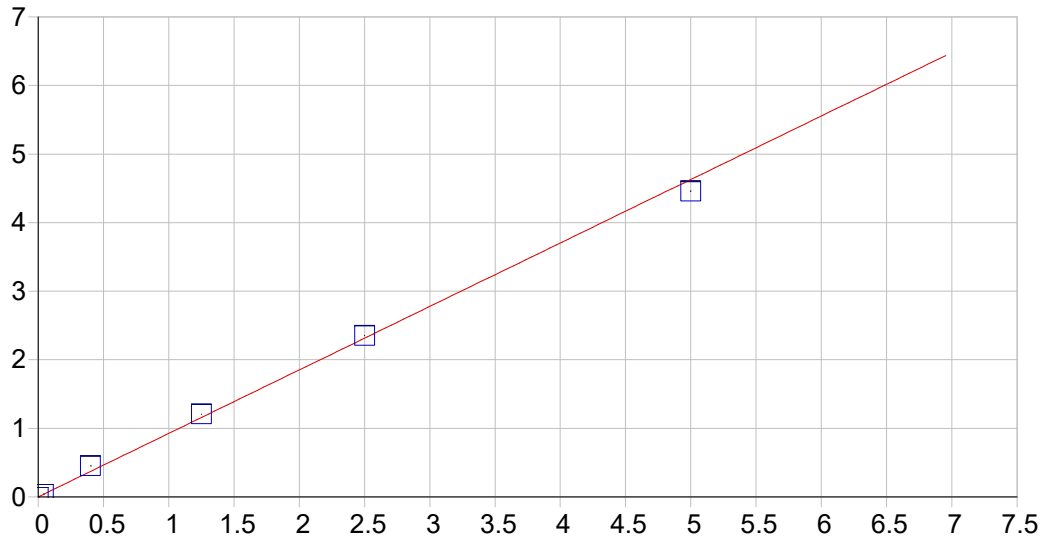


V 292.402 {115}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000209	Re-Slope:	1.000000
A1 (Gain):	0.132206	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999606	Status:	OK.
Std Error of Est:	0.000086		
Predicted MDL:	0.002171		
Predicted MQL:	0.007238		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.04000	.03587	-.004	-10.3	.00475	.000	1
S3	1.2500	1.2126	-.037	-2.99	.15811	.000	1
S4	2.5000	2.4860	-.014	-.559	.32406	.001	1
S5	5.0000	5.0089	.009	.179	.65278	.002	1
S2	.40000	.44648	.046	11.6	.05847	.000	1

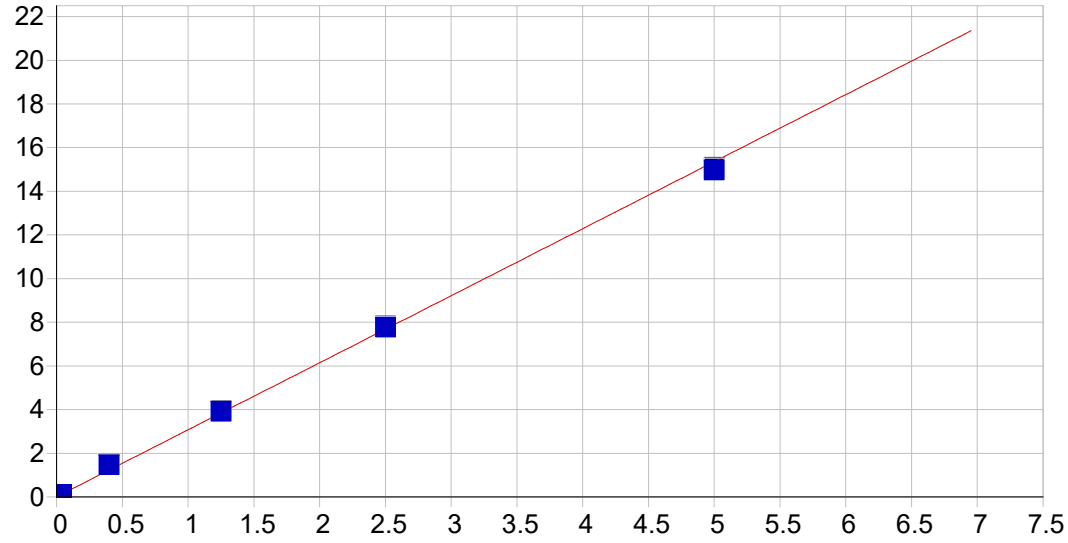


Zn 206.200 {464}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000681	Re-Slope:	1.000000
A1 (Gain):	0.925660	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998392	Status:	OK.
Std Error of Est:	0.001233		
Predicted MDL:	0.000214		
Predicted MQL:	0.000712		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00067	.000	1
S1	.04000	.04254	.003	6.34	.04006	.000	1
S3	1.2500	1.3025	.052	4.20	1.2063	.003	1
S4	2.5000	2.5419	.042	1.68	2.3536	.003	1
S5	5.0000	4.8144	-.186	-3.71	4.4572	.007	1
S2	.40000	.48869	.089	22.2	.45304	.001	1

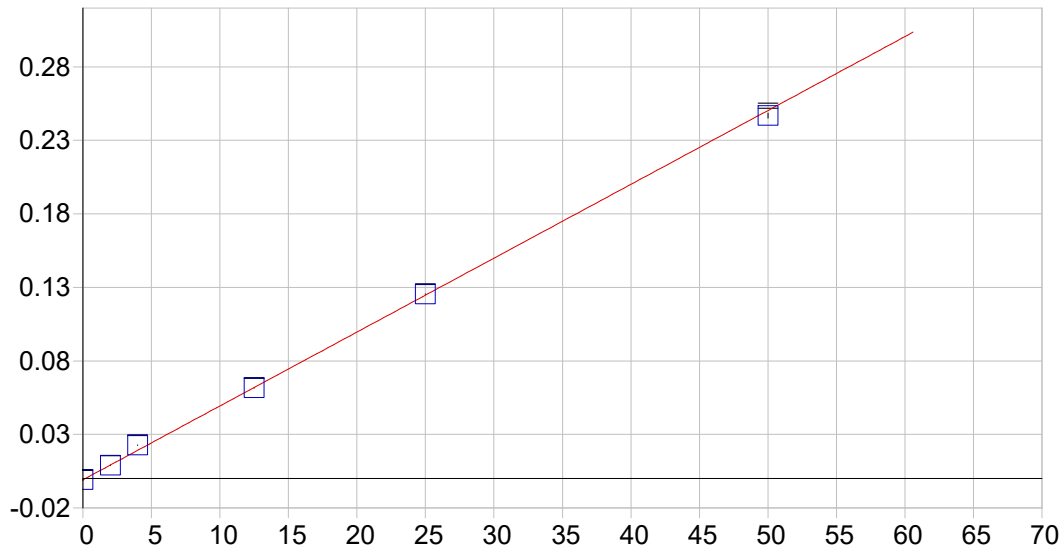


Zn 213.856 {158}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003038	Re-Slope:	1.000000
A1 (Gain):	3.070788	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998968	Status:	OK.
Std Error of Est:	0.003298		
Predicted MDL:	0.000277		
Predicted MQL:	0.000922		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00301	.001	1
S1	.04000	.04101	.001	2.52	.12982	.000	1
S3	1.2500	1.2732	.023	1.85	3.9394	.011	1
S4	2.5000	2.5276	.028	1.10	7.8181	.014	1
S5	5.0000	4.8704	-.130	-2.59	15.066	.038	1
S2	.40000	.47780	.078	19.4	1.4788	.011	1

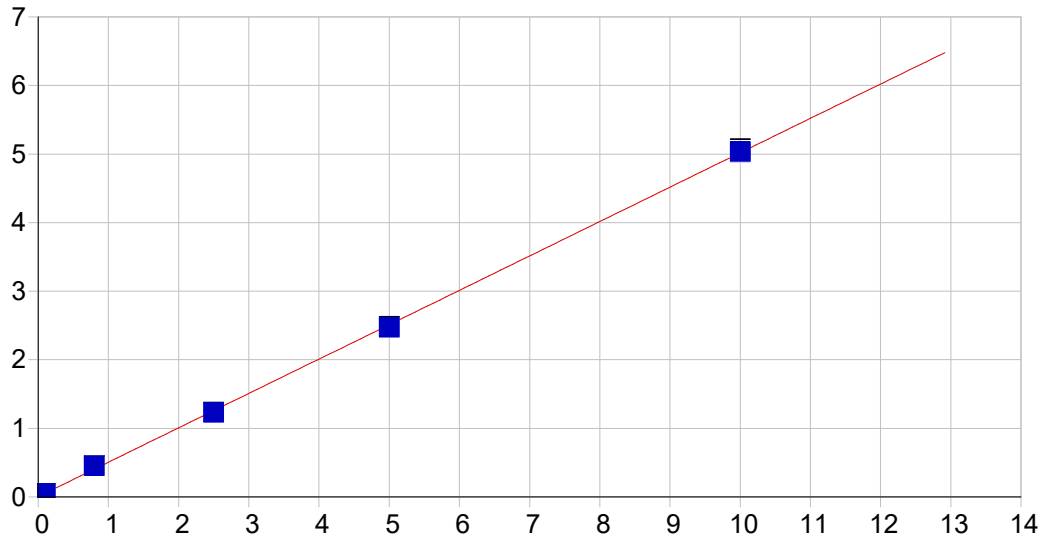


K 766.490 { 44}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000894	Re-Slope:	1.000000
A1 (Gain):	0.005025	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999295	Status:	OK.
Std Error of Est:	0.000100		
Predicted MDL:	0.047108		
Predicted MQL:	0.157026		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00026	-.000	.000	-.00090	.000	1
S2	4.0000	4.6917	.692	17.3	.02268	.000	1
S3	12.500	12.435	-.065	-.524	.06159	.000	1
S4	25.000	25.125	.125	.502	.12536	.000	1
S5	50.000	49.306	-.694	-1.39	.24686	.002	1
S1	2.0000	1.9426	-.057	-2.87	.00887	.000	1

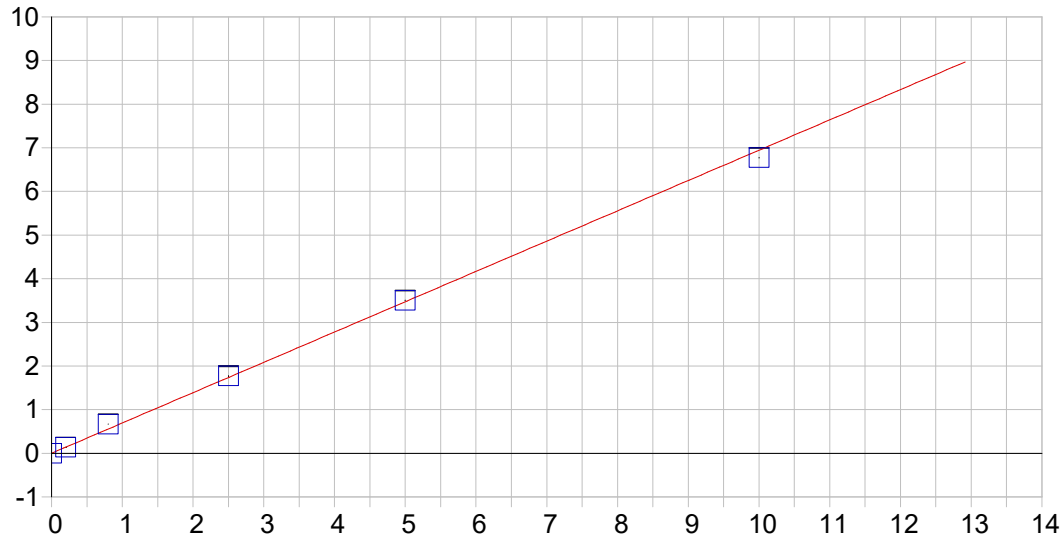


B 249.678 {135}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004127	Re-Slope:	1.000000
A1 (Gain):	0.501427	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999622	Status:	OK.
Std Error of Est:	0.000722		
Predicted MDL:	0.000737		
Predicted MQL:	0.002458		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00412	.000	1
S1	.10000	.09829	-.002	-1.71	.05320	.001	1
S3	2.5000	2.4465	-.053	-2.14	1.2284	.006	1
S4	5.0000	4.9290	-.071	-1.42	2.4707	.010	1
S5	10.000	10.030	.030	.300	5.0236	.044	1
S2	.80000	.89625	.096	12.0	.45275	.002	1

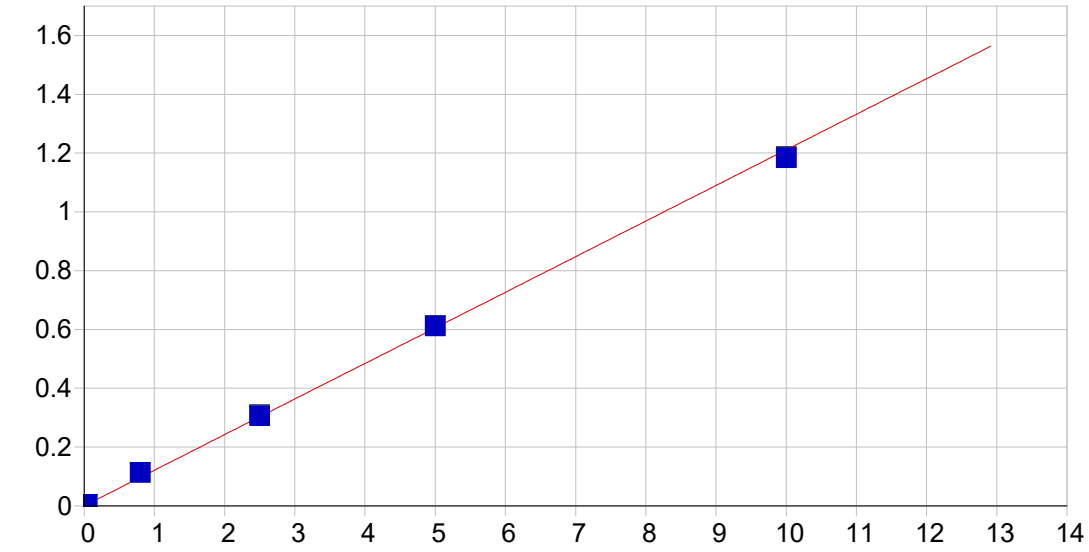


Mo 202.030 {467}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000226	Re-Slope:	1.000000
A1 (Gain):	0.694485	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998955	Status:	OK.
Std Error of Est:	0.002365		
Predicted MDL:	0.000301		
Predicted MQL:	0.001002		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00004	-.000	.000	.00020	.000	1
S1	.20000	.19935	-.001	-.326	.13867	.001	1
S3	2.5000	2.5462	.046	1.85	1.7685	.008	1
S4	5.0000	5.0398	.040	.796	3.5003	.007	1
S5	10.000	9.7557	-.244	-2.44	6.7754	.006	1
S2	.80000	.95888	.159	19.9	.66615	.002	1

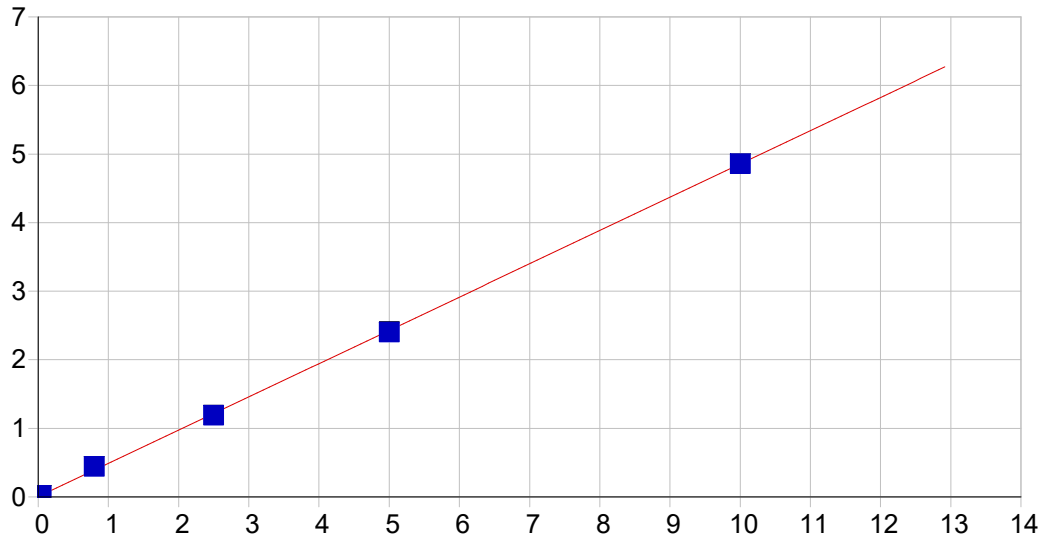


Sn 189.989 {478}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000270	Re-Slope:	1.000000
A1 (Gain):	0.121053	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999257	Status:	OK.
Std Error of Est:	0.000155		
Predicted MDL:	0.000852		
Predicted MQL:	0.002840		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00027	.000	1
S1	.04000	.03957	-.000	-1.06	.00506	.000	1
S3	2.5000	2.5373	.037	1.49	.30711	.001	1
S4	5.0000	5.0520	.052	1.04	.61121	.001	1
S5	10.000	9.7805	-.219	-2.19	1.1830	.003	1
S2	.80000	.93055	.131	16.3	.11282	.000	1

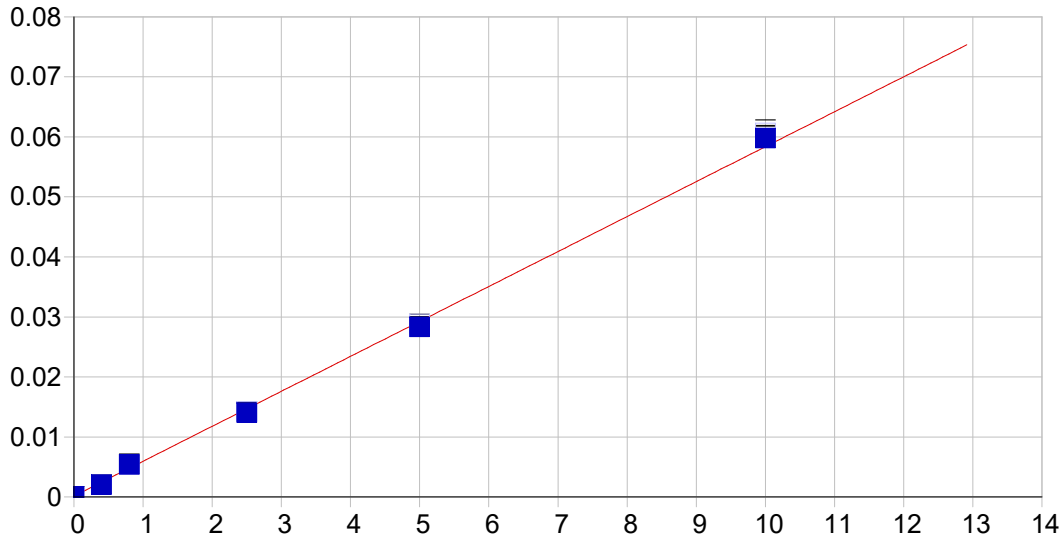


Ti 336.121 {100}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002213	Re-Slope:	1.000000
A1 (Gain):	0.485370	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999541	Status:	OK.
Std Error of Est:	0.000488		
Predicted MDL:	0.000862		
Predicted MQL:	0.002872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00221	.000	1
S1	.04000	.03842	-.002	-3.94	.02085	.000	1
S3	2.5000	2.4444	-.056	-2.22	1.1882	.003	1
S4	5.0000	4.9422	-.058	-1.16	2.4001	.005	1
S5	10.000	10.006	.006	.059	4.8570	.005	1
S2	.80000	.90905	.109	13.6	.44330	.000	1

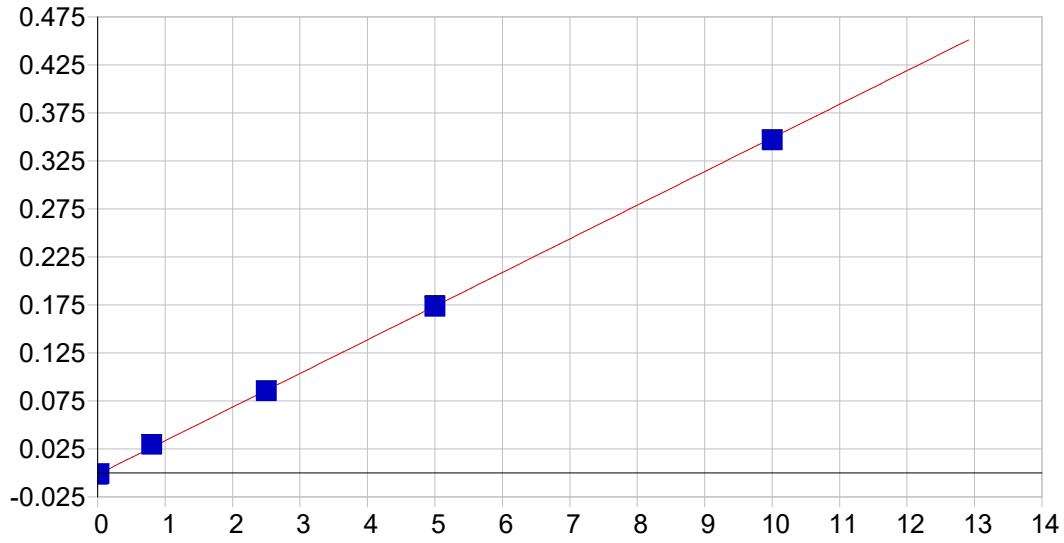


Si 288.158 {117}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000123	Re-Slope:	1.000000
A1 (Gain):	0.005825	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998848	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.009264		
Predicted MQL:	0.030880		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	.00012	.000	1
S1	.40000	.32234	-.078	-19.4	.00200	.000	1
S3	2.5000	2.3862	-.114	-4.55	.01424	.000	1
S4	5.0000	4.8447	-.155	-3.11	.02878	.000	1
S5	10.000	10.242	.242	2.42	.06065	.000	1
S2	.80000	.90376	.104	13.0	.00546	.000	1

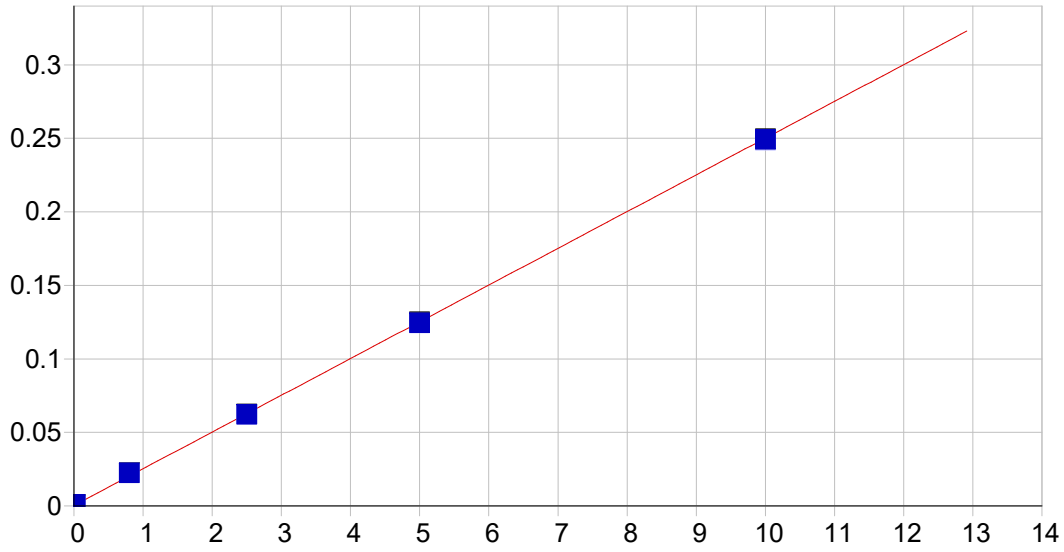


P 177.495 {490}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001602	Re-Slope:	1.000000
A1 (Gain):	0.035054	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.002714		
Predicted MQL:	0.009045		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00160	.000	1
S1	.02000	.01997	-.000	-.145	-.00090	.000	1
S3	2.5000	2.4822	-.018	-.713	.08539	.000	1
S4	5.0000	4.9881	-.012	-.239	.17322	.001	1
S5	10.000	9.9361	-.064	-.639	.34664	.001	1
S2	.80000	.89365	.094	11.7	.02972	.000	1

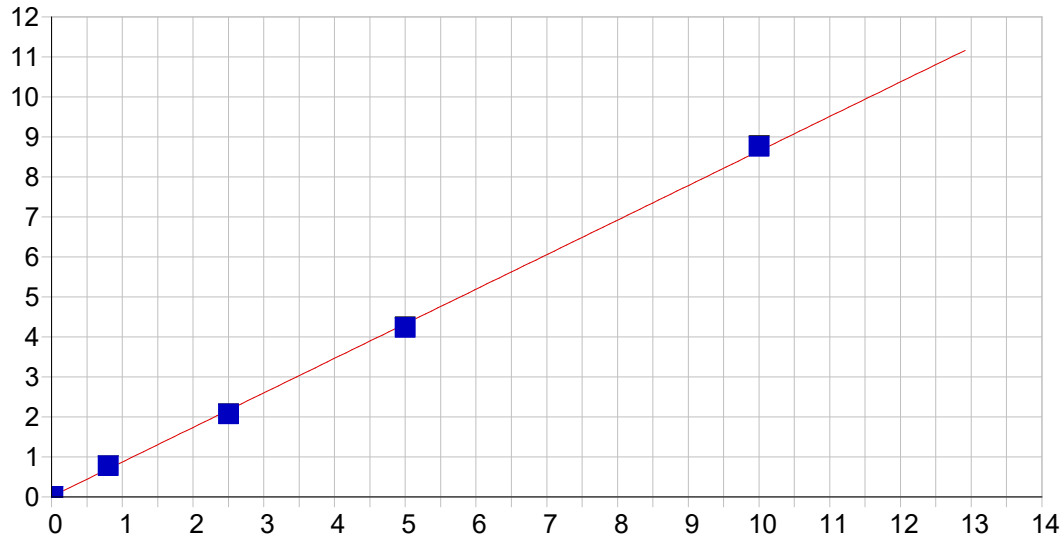


S 182.034 {485}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000289	Re-Slope:	1.000000
A1 (Gain):	0.024986	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999728	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.003721		
Predicted MQL:	0.012404		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00029	.000	1
S1	.02000	.02027	.000	1.35	.00077	.000	1
S3	2.5000	2.4777	-.022	-.893	.06203	.000	1
S4	5.0000	4.9744	-.026	-.513	.12426	.001	1
S5	10.000	9.9608	-.039	-.392	.24852	.000	1
S2	.80000	.88689	.087	10.9	.02240	.000	1

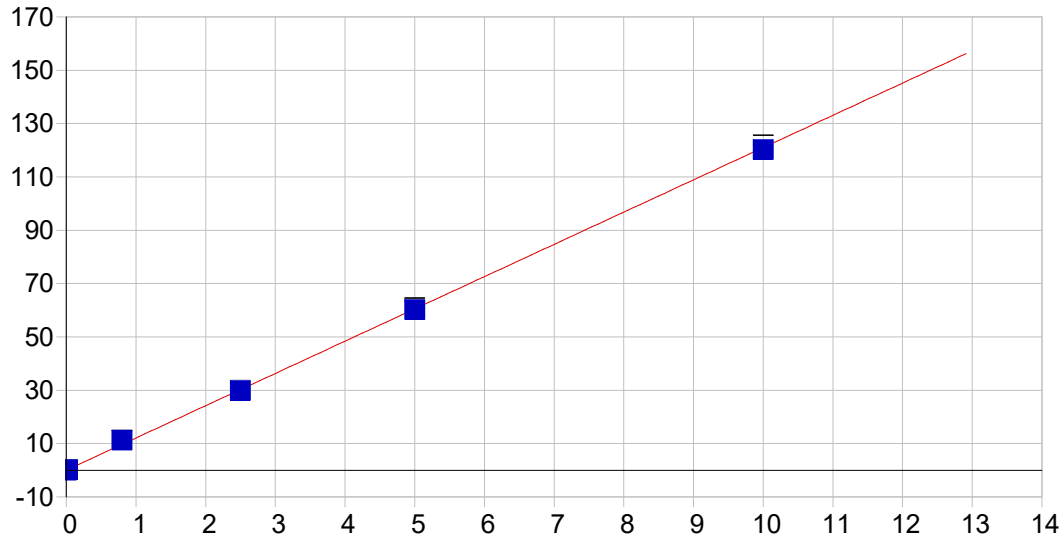


Li 670.784 { 50}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008706	Re-Slope:	1.000000
A1 (Gain):	0.863846	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999461	Status:	OK.
Std Error of Est:	0.000666		
Predicted MDL:	0.001382		
Predicted MQL:	0.004608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00871	.000	1
S5	10.000	10.135	.135	1.35	8.7713	.012	1
S4	5.0000	4.8924	-.108	-2.15	4.2389	.012	1
S3	2.5000	2.3859	-.114	-4.56	2.0717	.004	1
S1	.02000	.01718	-.003	-14.1	.02386	.000	1
S2	.80000	.88982	.090	11.2	.77799	.001	1

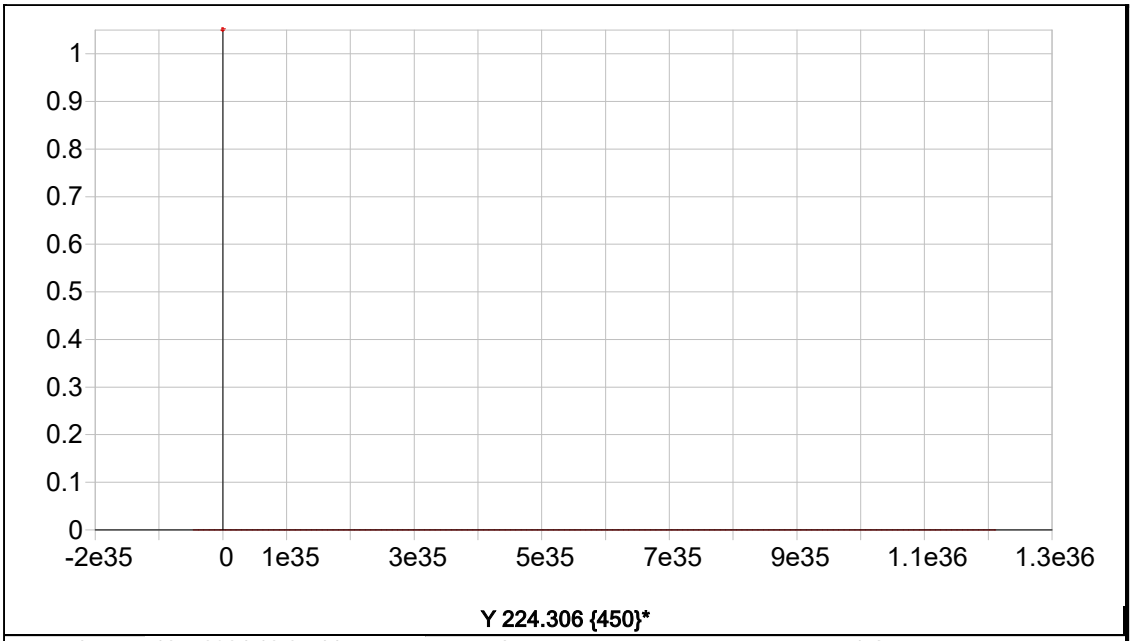


Sr 407.771 { 83}

Date of Fit:	1/17/2025 11:16:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000117	Re-Slope:	1.000000
A1 (Gain):	12.099287	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999442	Status:	OK.
Std Error of Est:	0.009482		
Predicted MDL:	0.000059		
Predicted MQL:	0.000197		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00014	.000	1
S1	.02000	.01905	-.001	-4.76	.23156	.000	1
S3	2.5000	2.4688	-.031	-1.25	29.901	.103	1
S4	5.0000	4.9750	-.025	-.501	60.254	.616	1
S5	10.000	9.9324	-.068	-.676	120.30	1.71	1
S2	.80000	.92482	.125	15.6	11.199	.026	1

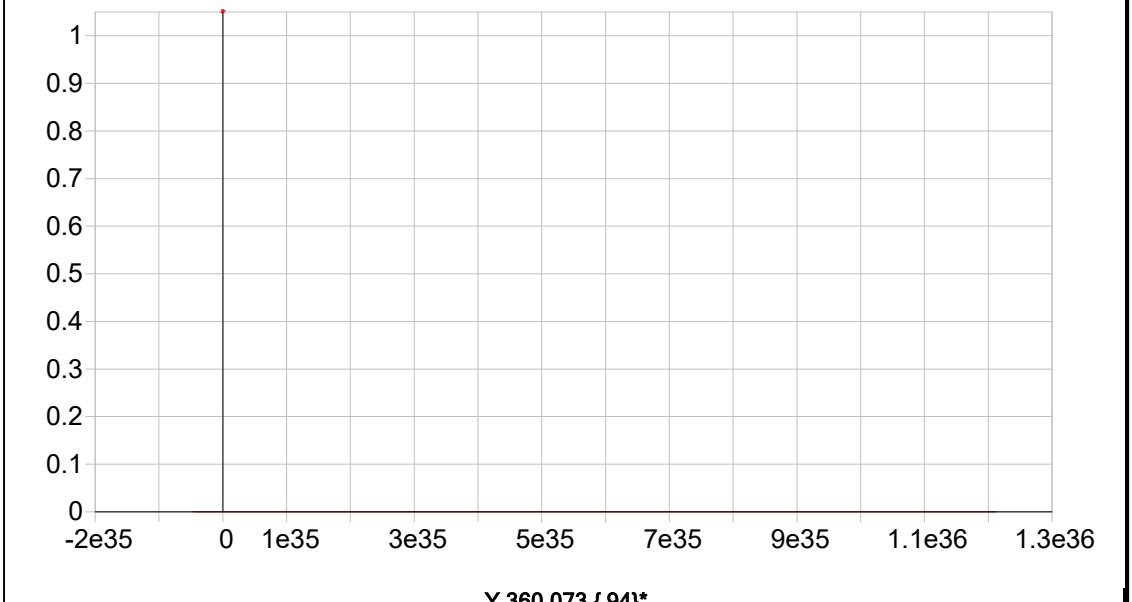


Y 224.306 {450}*

Date of Fit:	12/5/2024 12:27:44	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



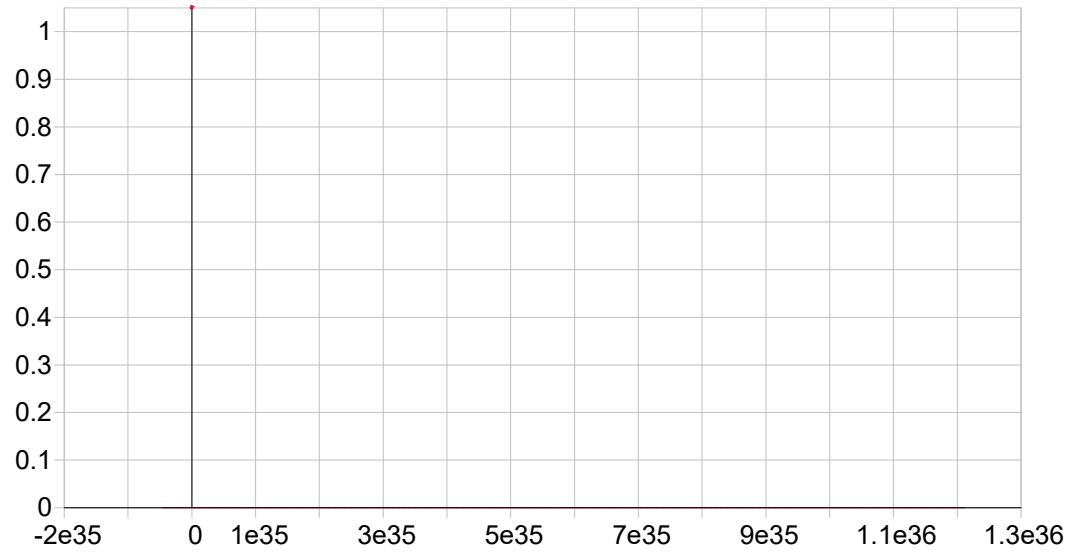
Y 360.073 { 94}*

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					

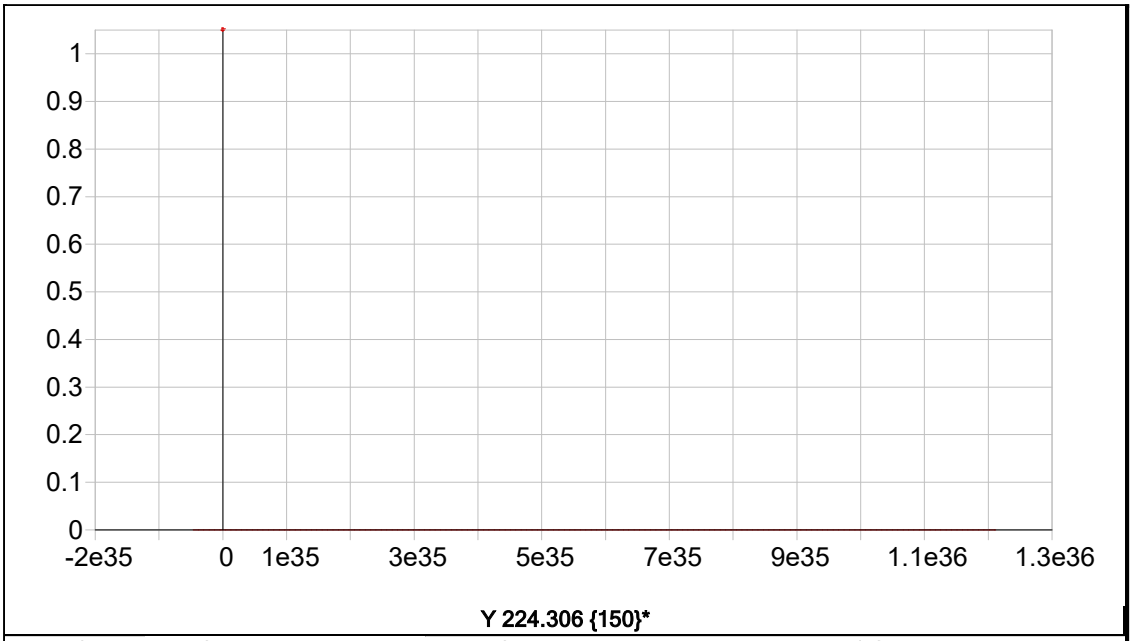
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

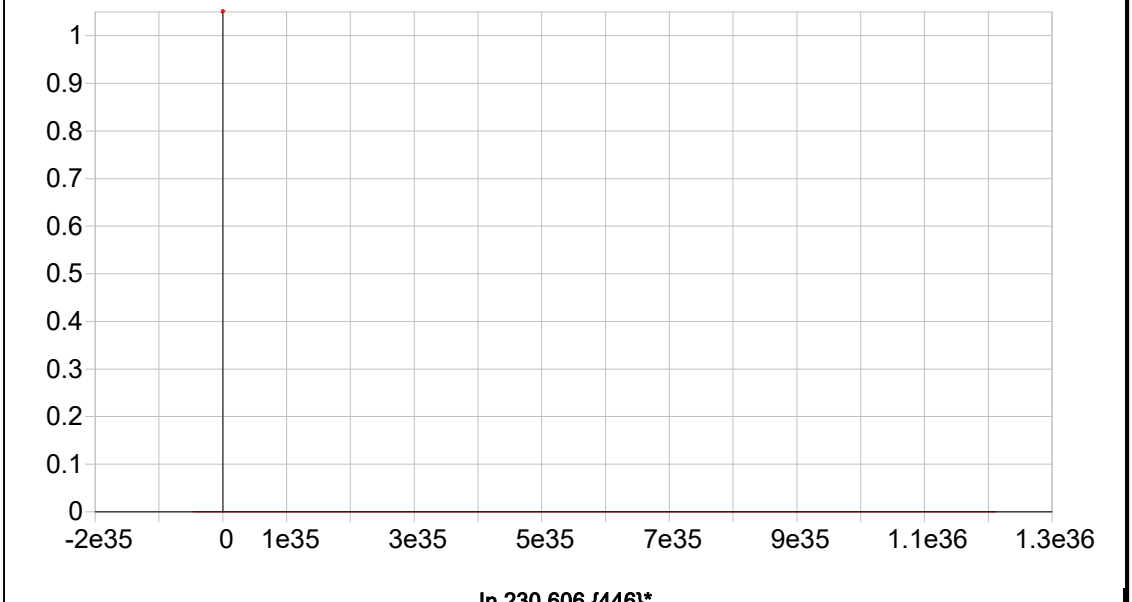
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S0 Acquired: 1/17/2025 10:51:07 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	-.00005	-.00007	-.00046	.00034	.00035	.00027	.06705	-.00001
Stddev	.00007	.00003	.00017	.00008	.00031	.00038	.00142	.00014
%RSD	135.41	49.844	36.876	23.685	88.547	140.74	2.1209	1072.5
#1	-.00013	-.00003	-.00030	.00025	.00030	.00067	.06598	.00005
#2	.00001	-.00007	-.00063	.00037	.00067	.00020	.06866	.00009
#3	-.00003	-.00009	-.00043	.00041	.00006	-.00007	.06651	-.00018

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	.00025	.00053	.00005	.00011	-.00060	-.00002	.00009	-.00006
Stddev	.00013	.00042	.00009	.00017	.00011	.00002	.00017	.00005
%RSD	53.630	79.862	167.92	155.30	18.130	91.551	195.51	83.042
#1	.00010	.00053	-.00005	.00031	-.00050	.00000	-.00002	-.00011
#2	.00029	.00011	.00011	-.00001	-.00072	-.00002	.00028	-.00005
#3	.00036	.00096	.00010	.00004	-.00059	-.00003	-.00000	-.00001

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	-.00017	-.00160	.00158	.00021	.00301	-.00090	.00412	.00020
Stddev	.00006	.00009	.00020	.00024	.00108	.00031	.00032	.00027
%RSD	34.660	5.5403	12.553	112.57	35.703	34.996	7.7641	133.68
#1	-.00018	-.00158	.00180	.00048	.00182	-.00103	.00444	.00048
#2	-.00010	-.00170	.00143	.00007	.00390	-.00112	.00412	.00016
#3	-.00022	-.00152	.00149	.00008	.00331	-.00054	.00380	-.00005

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	.00027	.00221	.00012	-.00160	.00029	.00871	-.00014
Stddev	.00010	.00032	.00001	.00002	.00004	.00019	.00017
%RSD	37.028	14.519	11.212	1.1028	14.093	2.1930	127.27
#1	.00024	.00189	.00013	-.00159	.00032	.00875	-.00018
#2	.00019	.00253	.00011	-.00162	.00030	.00850	.00005
#3	.00038	.00221	.00014	-.00159	.00024	.00887	-.00029

Sample Name: S0 Acquired: 1/17/2025 10:51:07 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	3013.0	57158.	9911.7	2148.1	4457.5
Stddev	5.7	85.	15.3	4.7	8.7
%RSD	.18934	.14793	.15419	.21729	.19433
#1	3019.5	57176.	9925.5	2142.9	4465.1
#2	3010.7	57232.	9895.3	2152.0	4459.4
#3	3008.8	57066.	9914.3	2149.3	4448.1

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S1 Acquired: 1/17/2025 10:55:31 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.00098	.00232	.00249	.00194	.00876	.00782	.31023	.03018
Stddev	.00006	.00005	.00032	.00010	.00019	.00029	.00278	.00027
%RSD	5.7458	2.3383	12.829	4.9843	2.2175	3.7096	.89461	.90526
#1	.00092	.00227	.00264	.00198	.00865	.00749	.31156	.03050
#2	.00104	.00230	.00212	.00201	.00898	.00796	.31210	.03000
#3	.00100	.00237	.00270	.00183	.00865	.00801	.30704	.03005

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	.01408	.11252	.00211	.02558	.01460	.00046	.01261	.03345
Stddev	.00014	.00026	.00004	.00023	.00011	.00003	.00008	.00017
%RSD	1.0109	.23491	1.6704	.91717	.72292	6.0058	.60457	.51891
#1	.01422	.11283	.00213	.02531	.01454	.00045	.01266	.03329
#2	.01409	.11237	.00207	.02571	.01473	.00044	.01265	.03342
#3	.01394	.11237	.00213	.02571	.01455	.00049	.01252	.03364

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	.02478	.00084	.02324	.00475	.12982	.00887	.05320	.13867
Stddev	.00013	.00004	.00026	.00026	.00035	.00011	.00060	.00074
%RSD	.51405	4.7843	1.1138	5.4039	.26954	1.2757	1.1284	.53552
#1	.02470	.00082	.02311	.00456	.13018	.00878	.05317	.13840
#2	.02471	.00088	.02307	.00504	.12981	.00882	.05381	.13810
#3	.02492	.00081	.02353	.00465	.12948	.00900	.05262	.13951

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	.00506	.02085	.00200	-.00090	.00077	.02386	.23156
Stddev	.00007	.00014	.00004	.00008	.00007	.00032	.00034
%RSD	1.3768	.68067	2.0563	8.9165	9.6401	1.3272	.14608
#1	.00498	.02070	.00205	-.00086	.00076	.02371	.23181
#2	.00508	.02088	.00199	-.00099	.00071	.02364	.23169
#3	.00511	.02097	.00198	-.00085	.00086	.02422	.23118

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S1 Acquired: 1/17/2025 10:55:31 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2937.5	56174.	9887.8	2093.6	4315.7
Stddev	2.5	84.	91.6	6.1	4.7
%RSD	.08606	.14999	.92641	.29099	.10965
#1	2935.3	56191.	9839.9	2095.2	4320.0
#2	2940.2	56082.	9830.2	2086.9	4316.4
#3	2936.8	56248.	9993.5	2098.8	4310.7

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S2 Acquired: 1/17/2025 10:59:55 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.04929	.06087	.22654	.07291	.16017	.13362	4.8926	.23732
Stddev	.00045	.00065	.00029	.00007	.00048	.00052	.0099	.00149
%RSD	.90684	1.0642	.12620	.10007	.29958	.38641	.20228	.62970
#1	.04895	.06052	.22629	.07282	.15985	.13309	4.8817	.23860
#2	.04912	.06047	.22646	.07296	.15995	.13365	4.8951	.23767
#3	.04980	.06162	.22685	.07293	.16073	.13413	4.9010	.23568

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	1.0938	.26548	.04438	.41173	.16858	.00473	.29875	.07407
Stddev	.0029	.00057	.00014	.00124	.00068	.00008	.00045	.00055
%RSD	.26082	.21372	.30769	.30115	.40385	1.6645	.15205	.74898
#1	1.0923	.26485	.04432	.41110	.16816	.00467	.29823	.07423
#2	1.0920	.26596	.04427	.41093	.16822	.00470	.29909	.07452
#3	1.0971	.26562	.04453	.41316	.16937	.00482	.29892	.07345

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	.29764	.05943	.05517	.05847	1.4788	.02268	.45275	.66615
Stddev	.00066	.00025	.00064	.00046	.0109	.00017	.00248	.00236
%RSD	.22105	.41413	1.1555	.78177	.73939	.75278	.54732	.35459
#1	.29713	.05923	.05466	.05809	1.4662	.02250	.45426	.66521
#2	.29741	.05936	.05496	.05833	1.4845	.02272	.45410	.66441
#3	.29838	.05970	.05588	.05897	1.4857	.02283	.44989	.66884

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	.11282	.44330	.00546	.02972	.02240	.77799	11.199
Stddev	.00038	.00029	.00003	.00009	.00009	.00134	.026
%RSD	.33991	.06586	.49681	.29729	.40268	.17204	.23215
#1	.11255	.44302	.00548	.02978	.02233	.77724	11.171
#2	.11265	.44327	.00543	.02962	.02237	.77720	11.204
#3	.11326	.44360	.00547	.02976	.02250	.77954	11.223

Sample Name: S2 Acquired: 1/17/2025 10:59:55 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2945.2	55673.	10265.	2033.9	4312.7
Stddev	8.8	249.	69.	8.8	12.1
%RSD	.30011	.44768	.67103	.43041	.28141
#1	2946.5	55961.	10266.	2043.4	4315.7
#2	2953.4	55517.	10196.	2032.3	4323.1
#3	2935.8	55542.	10333.	2026.1	4299.4

Sample Name: S3 Acquired: 1/17/2025 11:04:05 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.13472	.16320	.61345	.19847	.43299	.36029	13.117	.64485
Stddev	.00050	.00166	.00098	.00103	.00186	.00113	.041	.00330
%RSD	.37439	1.0192	.15929	.52057	.42946	.31276	.31083	.51188
#1	.13425	.16132	.61254	.19779	.43228	.35938	13.147	.64272
#2	.13467	.16448	.61334	.19795	.43159	.36155	13.132	.64865
#3	.13525	.16380	.61448	.19966	.43510	.35993	13.070	.64317

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	2.9763	.71375	.11877	1.1106	.45062	.01237	.79339	.19946
Stddev	.0051	.00147	.00006	.0026	.00098	.00003	.00295	.00087
%RSD	.17042	.20572	.05099	.23804	.21775	.22524	.37177	.43530
#1	2.9709	.71416	.11882	1.1081	.45003	.01239	.79575	.19956
#2	2.9770	.71498	.11880	1.1105	.45009	.01237	.79433	.20028
#3	2.9809	.71213	.11870	1.1134	.45176	.01234	.79008	.19855

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	.80144	.15938	.14404	.15811	3.9394	.06159	1.2284	1.7685
Stddev	.00103	.00028	.00099	.00030	.0105	.00016	.0057	.0084
%RSD	.12840	.17595	.68644	.18846	.26698	.26709	.46401	.47473
#1	.80085	.15940	.14517	.15827	3.9501	.06169	1.2221	1.7608
#2	.80085	.15910	.14335	.15830	3.9390	.06140	1.2333	1.7673
#3	.80263	.15966	.14359	.15777	3.9291	.06168	1.2299	1.7775

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	.30711	1.1882	.01424	.08539	.06203	2.0717	29.901
Stddev	.00147	.0031	.00003	.00027	.00017	.0043	.103
%RSD	.47935	.25789	.18095	.31658	.27700	.20678	.34527
#1	.30543	1.1911	.01427	.08512	.06201	2.0730	29.800
#2	.30773	1.1887	.01423	.08566	.06187	2.0752	30.006
#3	.30817	1.1850	.01422	.08540	.06222	2.0670	29.897

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S3 Acquired: 1/17/2025 11:04:05 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2860.3	54807.	9992.7	1982.0	4112.6
Stddev	5.9	204.	64.7	8.2	3.2
%RSD	.20545	.37220	.64705	.41451	.07833
#1	2864.0	54673.	10015.	1974.2	4116.3
#2	2863.3	54706.	9919.8	1981.1	4110.7
#3	2853.5	55042.	10043.	1990.6	4110.8

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: S4 Acquired: 1/17/2025 11:08:17 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.26707	.32590	1.2129	.39145	.85820	.73573	26.258	1.2884
Stddev	.00030	.00402	.0014	.00087	.00192	.00039	.131	.0032
%RSD	.11166	1.2321	.11301	.22211	.22338	.05338	.49997	.24872
#1	.26673	.32128	1.2114	.39068	.85744	.73527	26.367	1.2913
#2	.26724	.32790	1.2135	.39128	.85677	.73598	26.295	1.2850
#3	.26725	.32852	1.2139	.39239	.86038	.73593	26.113	1.2890

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	5.9236	1.4347	.23305	2.2075	.88309	.02489	1.5941	.40669
Stddev	.0034	.0037	.00044	.0017	.00093	.00001	.0062	.00050
%RSD	.05656	.25620	.19089	.07606	.10499	.05708	.38922	.12245
#1	5.9197	1.4361	.23325	2.2066	.88221	.02489	1.6011	.40716
#2	5.9251	1.4305	.23336	2.2064	.88299	.02491	1.5892	.40674
#3	5.9259	1.4375	.23254	2.2094	.88406	.02488	1.5920	.40617

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	1.5864	.31822	.29804	.32406	7.8181	.12536	2.4707	3.5003
Stddev	.0011	.00066	.00048	.00064	.0139	.00017	.0098	.0070
%RSD	.07122	.20775	.16253	.19748	.17807	.13473	.39871	.20014
#1	1.5852	.31892	.29840	.32333	7.8105	.12537	2.4816	3.4938
#2	1.5866	.31813	.29749	.32453	7.8342	.12518	2.4625	3.4993
#3	1.5874	.31761	.29822	.32431	7.8097	.12552	2.4681	3.5077

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	.61121	2.4001	.02878	.17322	.12426	4.2389	60.254
Stddev	.00111	.0053	.00001	.00082	.00060	.0116	.616
%RSD	.18230	.21992	.04873	.47141	.47916	.27334	1.0217
#1	.61012	2.4054	.02877	.17245	.12363	4.2515	59.764
#2	.61235	2.3948	.02879	.17313	.12433	4.2288	60.053
#3	.61117	2.4002	.02877	.17408	.12481	4.2363	60.945

Sample Name: S4 Acquired: 1/17/2025 11:08:17 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2848.2	54098.	9834.4	1945.9	4041.6
Stddev	3.0	10.	25.6	5.9	2.5
%RSD	.10453	.01938	.25983	.30411	.06073
#1	2845.0	54088.	9808.3	1952.1	4038.9
#2	2848.7	54098.	9859.3	1940.3	4042.4
#3	2850.9	54109.	9835.6	1945.5	4043.6

Sample Name: S5 Acquired: 1/17/2025 11:12:31 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	.51853	.62428	2.3389	.75706	1.6710	1.4844	53.761	2.5366
Stddev	.00026	.00156	.0064	.00125	.0003	.0020	.551	.0257
%RSD	.05044	.25015	.27546	.16465	.02041	.13351	1.0256	1.0148
#1	.51827	.62312	2.3413	.75562	1.6706	1.4866	53.869	2.5618
#2	.51853	.62366	2.3316	.75779	1.6712	1.4838	54.250	2.5377
#3	.51879	.62606	2.3438	.75776	1.6711	1.4827	53.163	2.5103

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	11.409	2.8720	.43739	4.3244	1.7039	.04760	3.2205	.81200
Stddev	.027	.0048	.00144	.0108	.0015	.00025	.0022	.00227
%RSD	.23839	.16726	.33011	.24887	.08916	.51819	.06713	.27968
#1	11.417	2.8772	.43817	4.3242	1.7023	.04733	3.2212	.81460
#2	11.379	2.8709	.43827	4.3138	1.7041	.04767	3.2180	.81042
#3	11.431	2.8678	.43572	4.3353	1.7053	.04781	3.2222	.81097

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	3.0850	.61131	.59491	.65278	15.066	.24686	5.0236	6.7754
Stddev	.0074	.00019	.00420	.00205	.038	.00176	.0440	.0059
%RSD	.23870	.03100	.70615	.31352	.25200	.71117	.87665	.08772
#1	3.0851	.61110	.59129	.65406	15.093	.24518	5.0683	6.7698
#2	3.0776	.61135	.59393	.65042	15.082	.24671	5.0223	6.7748
#3	3.0923	.61147	.59952	.65387	15.022	.24868	4.9803	6.7817

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	1.1830	4.8570	.06065	.34664	.24852	8.7713	120.30
Stddev	.0027	.0052	.00050	.00052	.00042	.0123	1.71
%RSD	.22825	.10731	.81756	.14912	.17094	.13962	1.4209
#1	1.1840	4.8628	.06010	.34655	.24828	8.7776	121.11
#2	1.1799	4.8557	.06079	.34618	.24828	8.7572	118.33
#3	1.1850	4.8526	.06107	.34720	.24901	8.7791	121.45

Sample Name: S5 Acquired: 1/17/2025 11:12:31 Type: Cal
Method: NON EPA-6010-200.7(v2490) Mode: IR Corr. Factor: 1.000000
User: Kareem 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	2806.7	54811.	9525.1	1930.8	3926.7
Stddev	6.1	167.	82.5	4.9	9.8
%RSD	.21648	.30485	.86562	.25178	.25006
#1	2800.1	54898.	9453.9	1934.2	3916.3
#2	2808.0	54619.	9506.0	1925.3	3935.8
#3	2812.0	54917.	9615.5	1933.0	3928.0

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICV01 Acquired: 1/17/2025 11:21:49 Type: Unk
Method: NON EPA-6010-200.7(v2615) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.030474	1.027582	.9988133	1.029846	.9918412	2.352533
Stddev	.002511	.009223	.0020182	.007972	.0056656	.007675
%RSD	.2436336	.8975742	.2020553	.7740718	.5712229	.3262532
#1	1.029009	1.034055	.9964830	1.023381	.9869268	2.354523
#2	1.029040	1.017021	.9999930	1.027403	.9905586	2.359017
#3	1.033373	1.031669	.9999638	1.038753	.9980381	2.344058

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4868611	.4623760	.5011382	9.280969	.5187054	.5046754
Stddev	.0007596	.0037176	.0011333	.009763	.0019897	.0009452
%RSD	.1560285	.8040223	.2261381	.1051957	.3835886	.1872836
#1	.4871920	.4587924	.5004593	9.275227	.5197638	.5036087
#2	.4859922	.4621210	.5005089	9.275438	.5164102	.5050090
#3	.4873992	.4662145	.5024465	9.292242	.5199423	.5054085

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5172935	9.621265	.4686557	5.455175	.5078646	.2503725
Stddev	.0017025	.053644	.0016031	.017567	.0014945	.0006112
%RSD	.3291099	.5575600	.3420691	.3220200	.2942763	.2441219
#1	.5161238	9.678712	.4675217	5.438557	.5061867	.2501812
#2	.5165100	9.612608	.4679556	5.473557	.5083538	.2510565
#3	.5192466	9.572476	.4704898	5.453409	.5090531	.2498799

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.49931	.4570355	.9986168	9.501129	2.375485	2.428469
Stddev	.05484	.0017324	.0031636	.049301	.018594	.009829
%RSD	.5222746	.3790541	.3168024	.5188943	.7827463	.4047384
#1	10.56135	.4589337	.9996559	9.519223	2.355331	2.426580
#2	10.47929	.4555397	.9950642	9.538827	2.379154	2.419722
#3	10.45731	.4566330	1.001130	9.445338	2.391972	2.439106

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICV01 Acquired: 1/17/2025 11:21:49 Type: Unk
Method: NON EPA-6010-200.7(v2615) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	2.355412	F 2.207515	F 1.822904	F .0074599	F -.009294	F -.003690
Stddev	.002736	.002958	.015026	.0022696	.003215	.000711
%RSD	.1161412	.1340087	.8243035	30.42348	34.59431	19.27026
#1	2.356415	2.207791	1.833564	.0048406	-.006705	-.004329
#2	2.352316	2.204429	1.829429	.0088434	-.008284	-.003818
#3	2.357504	2.210326	1.805718	.0086957	-.012893	-.002924

Elem	Sr4077
Units	ppm
Avg	F -.008419
Stddev	.000097
%RSD	1.155923
#1	-.008531
#2	-.008363
#3	-.008362

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2904.396	57040.37	10711.00	1986.784	4261.375
Stddev	8.637	80.55	63.48	5.879	7.691
%RSD	.2973768	.1412170	.5926590	.2959223	.1804731
#1	2911.171	56947.77	10767.22	1982.033	4268.159
#2	2907.347	57094.24	10723.63	1993.359	4262.945
#3	2894.670	57079.10	10642.16	1984.960	4253.020

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LLICV01 Acquired: 1/17/2025 11:26:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0221084	.0383903	.0129700	.0210525	.0512970	.0933106
Stddev	.0017907	.0012530	.0006951	.0016485	.0004083	.0032933
%RSD	8.099632	3.263905	5.359498	7.830658	.7958857	3.529360
#1	.0206666	.0370057	.0122808	.0211645	.0517662	.0911226
#2	.0215457	.0387189	.0136709	.0193507	.0510225	.0917110
#3	.0241129	.0394462	.0129583	.0226421	.0511024	.0970981

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0847658	.0054659	.0058111	1.871222	.0096570	.0292230
Stddev	.0005973	.0000797	.0000397	.002073	.0005788	.0000824
%RSD	.7046138	1.458100	.6835145	.1107949	5.993427	.2820314
#1	.0840784	.0055316	.0057965	1.871922	.0091105	.0291624
#2	.0851573	.0053772	.0058560	1.872854	.0095970	.0291898
#3	.0850618	.0054888	.0057806	1.868889	.0102634	.0293169

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0219671	.1017442	.0185204	1.948133	.0391806	.0102817
Stddev	.0006334	.0022746	.0003471	.026278	.0001330	.0002850
%RSD	2.883419	2.235579	1.874085	1.348890	.3393433	2.771816
#1	.0221590	.0993218	.0186073	1.930849	.0390277	.0104254
#2	.0224823	.1038345	.0181381	1.935177	.0392690	.0104662
#3	.0212599	.1020763	.0188158	1.978373	.0392451	.0099535

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.854204	.0364747	.0422374	2.054146	.0988228	.2034533
Stddev	.014111	.0011134	.0005841	.026625	.0009622	.0006559
%RSD	.7610422	3.052624	1.382861	1.296169	.9736285	.3223902
#1	1.845096	.0352081	.0429062	2.048844	.0999271	.2032810
#2	1.847058	.0369169	.0418273	2.083023	.0983765	.2029008
#3	1.870459	.0372991	.0419788	2.030571	.0981648	.2041782

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LLICV01 Acquired: 1/17/2025 11:26:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0386223	.0372224	.3544233	.0184536	.0174858	F .0149957
Stddev	.0006580	.0005732	.0062270	.0015554	.0016217	.0015475
%RSD	1.703638	1.540036	1.756929	8.428606	9.274632	10.31933
#1	.0393457	.0375126	.3502910	.0201475	.0164840	.0134232
#2	.0380593	.0375925	.3513936	.0170896	.0166165	.0165168
#3	.0384620	.0365621	.3615854	.0181236	.0193568	.0150472

Elem	Sr4077
Units	ppm
Avg	.0184737
Stddev	.0000621
%RSD	.3361583
#1	.0184952
#2	.0185222
#3	.0184037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.690	56319.18	10934.70	2003.134	4393.744
Stddev	3.314	102.32	33.65	6.146	5.901
%RSD	.1126549	.1816757	.3077542	.3068043	.1343119
#1	2943.922	56437.26	10898.67	2007.610	4393.871
#2	2943.266	56263.59	10940.10	2005.665	4399.581
#3	2937.882	56256.70	10965.32	1996.127	4387.780

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICB01 Acquired: 1/17/2025 11:30:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.001553	-.000134	.0011880	.0000348	.0011165	-.003025	-.005366
Stddev	.000574	.001078	.0004114	.0006995	.0009624	.003030	.000952
%RSD	36.96502	805.6150	34.63251	2011.885	86.19947	100.1596	17.73646
#1	-.000975	-.000587	.0012499	.0002710	.0008240	.000395	-.004397
#2	-.001560	-.000910	.0007491	.0005856	.0021913	-.005373	-.005401
#3	-.002123	.001096	.0015650	-.000752	.0003343	-.004097	-.006300

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000028	-.000126	-.014129	-.000194	-.000092	.0001449	.0000182
Stddev	.000010	.000112	.003178	.000331	.000099	.0001311	.0047811
%RSD	37.01035	89.20734	22.49232	170.9151	107.4220	90.48927	26257.13
#1	-.000027	-.000096	-.013528	.000127	-.000202	.0000068	-.003194
#2	-.000038	-.000032	-.011294	-.000534	-.000014	.0002677	.005513
#3	-.000018	-.000250	-.017564	-.000174	-.000059	.0001601	-.002265

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000171	.0057518	.0001667	.0001536	.0042882	-.000561	-.000415
Stddev	.000185	.0021543	.0001448	.0005220	.0137101	.002832	.000110
%RSD	108.0994	37.45347	86.83784	339.7481	319.7200	504.7412	26.59409
#1	-.000044	.0035343	.0002357	-.000423	.0142490	-.003810	-.000426
#2	-.000383	.0058845	.0002641	.000289	.0099639	.001383	-.000519
#3	-.000086	.0078367	.0000003	.000594	-.011348	.000744	-.000299

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0910002	-.000003	-.000135	.0001487	.0007922	.0070914	.0006480
Stddev	.0409457	.000455	.000231	.0003525	.0006483	.0070245	.0012464
%RSD	44.99511	15490.42	170.7989	237.1151	81.83642	99.05723	192.3661
#1	.0442926	.000459	.000066	-.000232	.0012585	.0102290	.0000216
#2	.1080022	-.000451	-.000388	.000463	.0010662	-.000955	.0020833
#3	.1207059	-.000017	-.000084	.000215	.0000519	.012000	-.000161

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICB01 Acquired: 1/17/2025 11:30:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002668	-.003754	-.000044
Stddev	.003223	.000767	.000024
%RSD	120.8012	20.43143	54.94663
#1	.000900	-.003997	-.000017
#2	-.003534	-.004370	-.000052
#3	-.005370	-.002895	-.000062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2957.646	56603.57	10857.15	2024.237	4431.938
Stddev	5.619	126.11	41.72	4.776	8.610
%RSD	.1899807	.2227931	.3842174	.2359555	.1942825
#1	2962.654	56482.12	10811.16	2024.401	4433.976
#2	2958.713	56733.87	10867.77	2028.929	4439.347
#3	2951.569	56594.73	10892.53	2019.381	4422.492

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CRI01 Acquired: 1/17/2025 11:35:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0192323	.0390411	.0124209	.0207275	.0502635	.0883553	.0853118
Stddev	.0021141	.0002919	.0001751	.0012411	.0015073	.0052165	.0008345
%RSD	10.99255	.7475622	1.410009	5.987545	2.998825	5.903987	.9781945
#1	.0196269	.0389497	.0125206	.0221100	.0511695	.0936433	.0843817
#2	.0169487	.0393678	.0122186	.0197094	.0510974	.0882093	.0855587
#3	.0211214	.0388060	.0125234	.0203631	.0485235	.0832134	.0859950

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056049	.0058241	1.876732	.0094341	.0288706	.0214167	.0976943
Stddev	.0000593	.0000793	.001899	.0001269	.0001037	.0001840	.0042088
%RSD	1.057286	1.361393	.1011699	1.345353	.3592331	.8592563	4.308134
#1	.0056732	.0057905	1.878010	.0095493	.0288477	.0212599	.1021628
#2	.0055746	.0059146	1.874551	.0092980	.0287802	.0213710	.0938053
#3	.0055670	.0057671	1.877636	.0094551	.0289838	.0216193	.0971147

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189824	1.959084	.0384847	.0099957	1.805613	.0358516	.0411576
Stddev	.0000677	.027480	.0003723	.0001303	.010628	.0007070	.0001201
%RSD	.3566867	1.402702	.9673532	1.303173	.5886240	1.971920	.2918829
#1	.0189673	1.945732	.0381631	.0101439	1.795488	.0359561	.0410613
#2	.0189235	1.940831	.0383985	.0099440	1.804670	.0350982	.0411194
#3	.0190564	1.990689	.0388925	.0098992	1.816682	.0365005	.0412922

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.994140	.0935950	.2006374	.0384260	.0377954	.3336241	.0192147
Stddev	.034932	.0008188	.0006805	.0001132	.0005188	.0027142	.0011663
%RSD	1.751752	.8748056	.3391601	.2945821	1.372760	.8135623	6.070014
#1	2.034144	.0945174	.2005120	.0384391	.0379874	.3315518	.0191051
#2	1.969662	.0929541	.2000284	.0383068	.0381909	.3326241	.0181070
#3	1.978614	.0933136	.2013719	.0385321	.0372079	.3366965	.0204320

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CRI01 Acquired: 1/17/2025 11:35:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0178448	.0147142	.0184076
Stddev	.0011712	.0002959	.0000714
%RSD	6.563036	2.010693	.3875921
#1	.0171923	.0148087	.0184167
#2	.0191968	.0149513	.0183322
#3	.0171452	.0143827	.0184740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2934.594	56628.53	10561.25	2034.957	4361.720
Stddev	7.252	188.05	30.57	4.169	13.839
%RSD	.2471220	.3320706	.2894077	.2048598	.3172825
#1	2934.823	56750.75	10577.16	2030.147	4356.335
#2	2941.728	56722.85	10580.57	2037.218	4377.443
#3	2927.230	56411.99	10526.01	2037.508	4351.384

Sample Name: ICSA01 Acquired: 1/17/2025 11:39:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018548	.0101662	.0096672	-.013609	-.001383	230.4428
Stddev	.0025853	.0012860	.0013210	.003336	.001437	.0704
%RSD	139.3869	12.64977	13.66445	24.51243	103.8768	.0305460
#1	-.001114	.0087449	.0085640	-.017424	-.001928	230.3615
#2	.003067	.0105044	.0111310	-.012169	.000246	230.4818
#3	.003612	.0112492	.0093066	-.011235	-.002467	230.4850

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001168	.0012048	-.001588	214.8490	.0549995	.0010868
Stddev	.001145	.0000937	.000153	.0435	.0004505	.0001205
%RSD	98.01137	7.774321	9.631535	.0202349	.8190560	11.08559
#1	-.001882	.0011178	-.001702	214.8092	.0547705	.0009515
#2	-.001775	.0013039	-.001649	214.8424	.0555184	.0011262
#3	.000152	.0011928	-.001414	214.8954	.0547095	.0011826

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0206139	95.88055	.0032301	226.1613	.0025205	-.002424
Stddev	.0003874	.32916	.0002772	.1072	.0003979	.000291
%RSD	1.879430	.3433073	8.580711	.0473890	15.78596	11.99629
#1	.0202203	96.22583	.0029249	226.0565	.0020716	-.002261
#2	.0209948	95.84551	.0032990	226.1567	.0026600	-.002760
#3	.0206267	95.57031	.0034663	226.2707	.0028298	-.002252

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0470481	.0067076	.0031023	.1221941	.0427801	-.000237
Stddev	.0072258	.0009263	.0002836	.0131054	.0010240	.000091
%RSD	15.35829	13.80964	9.142520	10.72509	2.393596	38.36982
#1	.0430907	.0063470	.0030982	.1189367	.0435433	-.000310
#2	.0553881	.0060158	.0028207	.1366210	.0431805	-.000135
#3	.0426656	.0077600	.0033879	.1110246	.0416164	-.000267

Sample Name: ICSA01 Acquired: 1/17/2025 11:39:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.003356	-.001014	.0215893	.0016204	-.018101	F -.036938
Stddev	.001239	.000203	.0040845	.0039764	.002492	.001002
%RSD	36.93109	20.01092	18.91915	245.3874	13.76894	2.711671
#1	-.004704	-.000965	.0242935	.0027213	-.019933	-.035797
#2	-.002266	-.000840	.0168908	.0049304	-.015263	-.037669
#3	-.003097	-.001236	.0235836	-.002790	-.019107	-.037349

Elem	Sr4077
Units	ppm
Avg	-.006220
Stddev	.000124
%RSD	1.994954
#1	-.006286
#2	-.006298
#3	-.006077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.677	50789.26	10375.89	1812.370	3707.803
Stddev	4.183	62.68	41.67	2.315	7.235
%RSD	.1572613	.1234047	.4016288	.1277420	.1951157
#1	2660.644	50819.67	10404.07	1814.078	3702.237
#2	2663.291	50830.94	10395.59	1813.295	3715.981
#3	2655.095	50717.18	10328.02	1809.735	3705.192

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSAB01 Acquired: 1/17/2025 11:43:45 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1103366	.0973501	.0575451	.0316701	.6059007	235.6710
Stddev	.0037852	.0025394	.0005227	.0024951	.0004465	.1962
%RSD	3.430614	2.608489	.9083113	7.878272	.0736885	.0832721
#1	.1139114	.0948005	.0581283	.0345031	.6054469	235.6729
#2	.1063712	.0998791	.0571188	.0297997	.6059159	235.4739
#3	.1107273	.0973708	.0573882	.0307076	.6063395	235.8664

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4549439	.4534873	.9712811	218.4067	.5602765	.4936602
Stddev	.0003925	.0020527	.0037652	.2734	.0016640	.0018485
%RSD	.0862823	.4526492	.3876570	.1251819	.2969927	.3744547
#1	.4547522	.4552053	.9692120	218.5931	.5603143	.4927542
#2	.4546840	.4540425	.9690041	218.5341	.5619213	.4924395
#3	.4553954	.4512141	.9756271	218.0928	.5585940	.4957870

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4963375	100.5718	.4483251	229.4038	.9740552	.2160302
Stddev	.0023709	.1955	.0008397	.4149	.0040025	.0000963
%RSD	.4776755	.1943560	.1873041	.1808696	.4109161	.0445891
#1	.4947367	100.3687	.4487496	229.6389	.9736386	.2159210
#2	.4952146	100.5880	.4473579	229.6478	.9702773	.2160663
#3	.4990613	100.7587	.4488678	228.9248	.9782498	.2161033

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0735249	.4513308	1.048234	.1107885	.9411042	1.058940
Stddev	.0164304	.0022089	.003736	.0427359	.0029936	.003228
%RSD	22.34670	.4894084	.3563927	38.57429	.3180911	.3048699
#1	.0684802	.4503676	1.052423	.0729073	.9438693	1.055898
#2	.0918862	.4497671	1.045247	.1571174	.9415181	1.058595
#3	.0602084	.4538577	1.047032	.1023409	.9379253	1.062327

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSAB01 Acquired: 1/17/2025 11:43:45 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	1.029085	.9536635	.8949008	F .0099025	F -.024523	F -.037157
Stddev	.002413	.0009841	.0155538	.0040369	.006589	.000377
%RSD	.2344350	.1031890	1.738047	40.76674	26.86879	1.013633
#1	1.027229	.9539330	.8892607	.0068992	-.029110	-.036723
#2	1.028215	.9544847	.8829540	.0083167	-.016973	-.037358
#3	1.031812	.9525728	.9124878	.0144915	-.027487	-.037391

Elem	Sr4077
Units	ppm
Avg	F -.008191
Stddev	.000248
%RSD	3.022048
#1	-.008006
#2	-.008095
#3	-.008472

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2670.748	50523.73	10642.75	1785.118	3738.094
Stddev	6.735	92.64	34.06	2.288	10.331
%RSD	.2521623	.1833677	.3200380	.1281735	.2763729
#1	2669.889	50600.79	10619.56	1787.488	3738.141
#2	2677.871	50420.94	10626.82	1782.921	3748.402
#3	2664.485	50549.45	10681.85	1784.945	3727.740

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSADLX20 Acquired: 1/17/2025 11:47:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000752	-.000555	.0012448	-.002787	-.000186	11.73751	-.005662
Stddev	.001820	.001476	.0006101	.002498	.000439	.00915	.000577
%RSD	242.1563	266.1447	49.01174	89.65434	236.1605	.0779441	10.19714
#1	-.001915	-.001284	.0007549	-.005570	-.000597	11.73818	-.005831
#2	-.001686	.001144	.0019282	-.000738	-.000238	11.72805	-.006137
#3	.001346	-.001525	.0010513	-.002052	.000277	11.74631	-.005020

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000760	-.000236	11.39843	.0022096	-.000016	.0013052	4.996810
Stddev	.0000309	.000059	.02309	.0001100	.000117	.0001396	.051763
%RSD	40.67943	24.98746	.2025692	4.977980	746.3910	10.69422	1.035911
#1	.0000463	-.000300	11.37532	.0021980	-.000142	.0014619	5.046471
#2	.0001080	-.000222	11.39848	.0021058	.000088	.0011941	4.943175
#3	.0000738	-.000185	11.42150	.0023249	.000007	.0012596	5.000783

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000149	11.65390	.0002816	.0005479	.0157268	-.001585	-.000307
Stddev	.000284	.02824	.0002878	.0000370	.0085311	.001080	.000276
%RSD	190.8592	.2423614	102.1920	6.755811	54.24589	68.14144	89.81521
#1	.000170	11.65477	.0000684	.0005457	.0086151	-.000527	-.000354
#2	-.000243	11.68169	.0006090	.0005120	.0251858	-.001542	-.000011
#3	-.000374	11.62522	.0001675	.0005860	.0133794	-.002687	-.000556

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0651774	-.000420	-.000173	-.001291	.0001879	.0038564	-.000335
Stddev	.0440167	.000679	.000159	.000692	.0003996	.0047372	.001930
%RSD	67.53363	161.6525	91.90834	53.60331	212.6765	122.8407	576.6092
#1	.0728051	.000227	-.000034	-.001940	.0006493	.0087542	.001877
#2	.1048817	-.000360	-.000346	-.000563	-.000038	-.000702	-.001675
#3	.0178454	-.001126	-.000139	-.001368	-.000048	.003517	-.001206

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSADLX20 Acquired: 1/17/2025 11:47:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000629	-.003416	-.000267
Stddev	.0014106	.000906	.000065
%RSD	2243.054	26.52870	24.23527
#1	.0003148	-.003933	-.000340
#2	.0013306	-.003944	-.000245
#3	-.001457	-.002369	-.000216

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.389	55862.67	10885.34	1971.602	4371.769
Stddev	5.004	273.73	92.25	6.368	7.494
%RSD	.1701215	.4899974	.8474355	.3229949	.1714248
#1	2935.853	55588.55	10988.40	1964.826	4365.032
#2	2942.721	56136.00	10810.50	1977.464	4370.432
#3	2945.591	55863.48	10857.12	1972.517	4379.841

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSABDLX20 Acquired: 1/17/2025 11:52:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066916	.0035819	.0037793	.0031615	.0293487	11.88095	.0186677
Stddev	.0006002	.0011631	.0008948	.0014208	.0009195	.02931	.0007461
%RSD	8.970069	32.47199	23.67813	44.94093	3.132894	.2466904	3.996753
#1	.0060515	.0037758	.0046624	.0021471	.0303524	11.90152	.0188146
#2	.0067816	.0023340	.0028731	.0025520	.0285471	11.89394	.0193294
#3	.0072418	.0046358	.0038023	.0047853	.0291466	11.84739	.0178591

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0240780	.0494399	11.57617	.0279990	.0244875	.0267051	4.957169
Stddev	.0000461	.0002458	.01891	.0002802	.0001810	.0003065	.022477
%RSD	.1913250	.4972650	.1633199	1.000562	.7393004	1.147886	.4534287
#1	.0240277	.0495513	11.59229	.0281686	.0243615	.0265476	4.965797
#2	.0241180	.0491581	11.55536	.0281528	.0246950	.0265093	4.974053
#3	.0240885	.0496103	11.58085	.0276757	.0244061	.0270583	4.931656

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238969	11.86217	.0496448	.0104681	.0140885	.0233853	.0513715
Stddev	.0003419	.03976	.0001691	.0002406	.0096757	.0011105	.0006066
%RSD	1.430926	.3352103	.3406482	2.298230	68.67797	4.748693	1.180829
#1	.0241136	11.89836	.0494853	.0103937	.0047274	.0245642	.0519017
#2	.0240743	11.86854	.0498221	.0102735	.0240507	.0223590	.0507100
#3	.0235027	11.81960	.0496271	.0107371	.0134875	.0232327	.0515028

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0475084	.0465086	.0534986	.0505150	.0505235	.0465117	.0014951
Stddev	.0114621	.0003534	.0000477	.0008340	.0006007	.0020687	.0009325
%RSD	24.12640	.7597688	.0890898	1.650978	1.188935	4.447595	62.36774
#1	.0444758	.0467692	.0535361	.0497389	.0502428	.0479446	.0022533
#2	.0601819	.0466502	.0535147	.0504092	.0501146	.0474505	.0017780
#3	.0378677	.0461064	.0534449	.0513968	.0512132	.0441402	.0004540

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: ICSABDLX20 Acquired: 1/17/2025 11:52:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000548	-.004180	-.000203
Stddev	.001499	.000426	.000062
%RSD	273.2844	10.18145	30.59716
#1	-.001816	-.003845	-.000144
#2	.001105	-.004659	-.000268
#3	-.000934	-.004037	-.000197

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2913.265	55889.51	10627.20	1984.498	4301.128
Stddev	3.825	43.73	23.94	4.093	13.864
%RSD	.1312879	.0782381	.2252687	.2062517	.3223394
#1	2909.320	55860.84	10601.83	1982.765	4285.420
#2	2916.957	55867.86	10649.39	1989.172	4311.660
#3	2913.518	55939.84	10630.39	1981.556	4306.304

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV01 Acquired: 1/17/2025 11:56:26 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.931060	4.676425	4.945129	4.897738	5.008369	9.869653	9.944299
Stddev	.012877	.093817	.025373	.016524	.005040	.009076	.049726
%RSD	.2611455	2.006177	.5130887	.3373743	.1006339	.0919585	.5000467
#1	4.924417	4.609421	4.931498	4.892749	5.006492	9.863160	9.988193
#2	4.922861	4.636208	4.929485	4.884284	5.004537	9.880023	9.890295
#3	4.945903	4.783647	4.974404	4.916181	5.014079	9.865775	9.954408

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2419333	2.463385	24.38629	1.012630	2.469627	1.253529	5.082512
Stddev	.0009543	.008411	.05684	.001660	.007755	.000229	.033561
%RSD	.3944331	.3414382	.2330850	.1638928	.3140266	.0182650	.6603283
#1	.2426451	2.461880	24.38060	1.014501	2.468925	1.253394	5.069443
#2	.2408489	2.455828	24.44576	1.011336	2.462246	1.253399	5.120642
#3	.2423057	2.472447	24.33250	1.012053	2.477709	1.253793	5.057451

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.417002	23.98461	2.466022	1.266182	25.22996	2.443512	2.562360
Stddev	.006735	.09761	.006272	.003653	.28319	.006828	.010871
%RSD	.2786612	.4069770	.2543497	.2884768	1.122421	.2794475	.4242701
#1	2.417276	23.89071	2.466637	1.270128	25.23719	2.436904	2.574482
#2	2.423597	23.97756	2.459465	1.265499	25.50946	2.450541	2.553475
#3	2.410135	24.08555	2.471964	1.262919	24.94323	2.443089	2.559123

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.58705	4.768845	5.047026	4.899993	4.892145	4.841326	4.887771
Stddev	.22299	.014788	.014652	.025263	.016901	.035478	.030994
%RSD	.8714914	.3101058	.2902997	.5155754	.3454647	.7328114	.6341066
#1	25.63388	4.783029	5.043315	4.886342	4.887755	4.841406	4.864511
#2	25.78291	4.753519	5.034587	4.884493	4.910808	4.876763	4.875846
#3	25.34437	4.769986	5.063177	4.929145	4.877873	4.805808	4.922956

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV01 Acquired: 1/17/2025 11:56:26 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.752206	4.881753	4.984739
Stddev	.032468	.022093	.030169
%RSD	.6832147	.4525710	.6052189
#1	4.726175	4.876466	5.018959
#2	4.741855	4.906010	4.973275
#3	4.788587	4.862782	4.961983

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2885.954	54834.26	10228.04	1938.914	4157.318
Stddev	2.616	94.33	29.92	9.240	8.767
%RSD	.0906338	.1720185	.2925412	.4765551	.2108857
#1	2885.845	54758.86	10223.18	1929.764	4157.939
#2	2888.622	54803.90	10260.09	1948.242	4165.758
#3	2883.394	54940.03	10200.84	1938.735	4148.257

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB01 Acquired: 1/17/2025 12:00:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.000219	-.000322	.0009252	.0009060	.0017488	.0034495	-.007702
Stddev	.001702	.002166	.0010218	.0008827	.0008457	.0047497	.000864
%RSD	777.2640	672.5857	110.4318	97.43592	48.35861	137.6942	11.22295
#1	-.002051	.001078	-.000237	.0019166	.0027250	-.002035	-.006737
#2	.000081	-.002817	.001684	.0002859	.0012831	.006243	-.007965
#3	.001313	.000773	.001328	.0005154	.0012383	.006140	-.008404

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	.0000008	-.007484	-.000571	-.000210	-.000003	.0087776
Stddev	.000021	.0000888	.001934	.000367	.000253	.000279	.0036878
%RSD	102.4287	11879.00	25.84090	64.16513	120.7845	9199.129	42.01347
#1	-.000020	-.000084	-.006840	-.000965	-.000458	-.000276	.0129631
#2	-.000000	.000093	-.009657	-.000509	.000049	-.000015	.0073637
#3	-.000043	-.000007	-.005954	-.000240	-.000220	.000282	.0060060

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000413	-.004453	.0000652	.0002242	-.033416	-.001408	-.000387
Stddev	.000116	.004534	.0000806	.0002831	.013797	.001440	.000151
%RSD	28.02622	101.8001	123.7377	126.2903	41.28788	102.3025	38.89204
#1	-.000520	-.004859	.0000493	.0005407	-.045268	-.000960	-.000402
#2	-.000428	.000270	.0001526	-.000005	-.018270	-.000245	-.000230
#3	-.000290	-.008770	-.000006	.000137	-.036711	-.003019	-.000530

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.012395	.0060585	.0000483	-.000343	.0006924	.0020830	.0000556
Stddev	.018898	.0004282	.0000794	.000532	.0002396	.0073132	.0027571
%RSD	152.4573	7.067424	164.4584	155.0336	34.60176	351.0945	4956.999
#1	-.002597	.0056752	.0000664	.000268	.0009601	.0097350	.0001146
#2	-.034180	.0065206	-.000039	-.000597	.0006188	-.004836	.0027828
#3	-.000410	.0059799	.000117	-.000701	.0004982	.001350	-.002731

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB01 Acquired: 1/17/2025 12:00:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002963	-.002399	.0000364
Stddev	.000573	.000524	.0000366
%RSD	19.35086	21.85446	100.4552
#1	-.002311	-.002653	.0000598
#2	-.003188	-.001796	.0000553
#3	-.003390	-.002749	-.000006

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2909.172	56797.69	10609.07	2024.997	4370.478
Stddev	9.170	89.44	29.04	9.244	10.950
%RSD	.3152179	.1574666	.2737273	.4564837	.2505401
#1	2909.189	56726.24	10640.55	2022.247	4371.361
#2	2918.334	56897.99	10583.33	2035.303	4380.959
#3	2899.993	56768.84	10603.34	2017.440	4359.113

Sample Name: PB166054BL Acquired: 1/17/2025 12:05:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002485	-.002726	.0009410	.0027543	.0004605	.0015652	-.008502
Stddev	.003677	.000353	.0008116	.0011025	.0002624	.0076944	.000758
%RSD	147.9830	12.95528	86.25452	40.02758	56.99005	491.6088	8.920495
#1	-.005223	-.002872	.0000283	.0015139	.0004817	-.005710	-.008162
#2	-.003926	-.002982	.0015817	.0031268	.0007117	.000786	-.007972
#3	.001695	-.002323	.0012129	.0036224	.0001881	.009619	-.009370

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000018	-.000151	.0125540	-.000369	-.000179	-.000051	-.000803
Stddev	.000037	.000071	.0025102	.000053	.000217	.000245	.001992
%RSD	202.7796	47.22886	19.99556	14.37708	121.0216	478.7246	248.1454
#1	.000011	-.000206	.0138809	-.000429	.000064	.000092	.000818
#2	-.000006	-.000071	.0141223	-.000351	-.000251	-.000334	-.000199
#3	-.000060	-.000177	.0096588	-.000328	-.000351	.000088	-.003027

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000121	-.014735	.0003132	.0005854	-.027101	-.002686	-.000011
Stddev	.000118	.014869	.0002754	.0003005	.006302	.000709	.000182
%RSD	97.65439	100.9120	87.92916	51.33159	23.25231	26.40067	1633.526
#1	-.000200	-.031670	.0001248	.0003889	-.033568	-.002743	.000186
#2	.000015	-.003817	.0006292	.0009314	-.026756	-.001950	-.000171
#3	-.000179	-.008718	.0001855	.0004360	-.020979	-.003364	-.000048

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009102	-.001588	.0001149	-.000477	.0007675	.0069999	-.000174
Stddev	.044121	.000836	.0001705	.000575	.0003258	.0003070	.000729
%RSD	484.7507	52.61607	148.4295	120.5015	42.44714	4.385755	418.3074
#1	-.017424	-.000628	.0002836	-.000168	.0007001	.0069592	-.000996
#2	-.048469	-.001985	.0001183	-.001141	.0004806	.0067152	.000080
#3	.038588	-.002151	-.000057	-.000123	.0011216	.0073252	.000393

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166054BL Acquired: 1/17/2025 12:05:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005048	-.002068	.0000442
Stddev	.000794	.000325	.0000473
%RSD	15.72337	15.71346	107.0749
#1	-.005701	-.002241	.0000345
#2	-.005279	-.002270	.0000024
#3	-.004165	-.001693	.0000955

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.560	55593.42	10691.88	1957.011	4416.704
Stddev	5.005	255.60	10.64	5.195	9.790
%RSD	.1717398	.4597655	.0995097	.2654434	.2216663
#1	2919.201	55537.65	10699.08	1957.136	4422.552
#2	2915.224	55370.31	10679.66	1951.755	4422.160
#3	2909.256	55872.30	10696.90	1962.143	4405.402

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166054BS Acquired: 1/17/2025 12:09:20 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8055568	1.866302	.9703883	1.967861	.8047391	1.876402
Stddev	.0061610	.009776	.0007966	.002946	.0019285	.003592
%RSD	.7648168	.5238255	.0820868	.1497028	.2396435	.1914191
#1	.8099456	1.855236	.9702663	1.964588	.8025293	1.872988
#2	.8082113	1.869905	.9712388	1.968692	.8060820	1.880149
#3	.7985134	1.873765	.9696598	1.970301	.8056060	1.876068

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1674675	.1864893	.1933838	.9586660	.4052656	.1948713
Stddev	.0006459	.0006942	.0005844	.0128853	.0014869	.0003847
%RSD	.3856986	.3722200	.3021886	1.344088	.3668886	.1974201
#1	.1676573	.1865139	.1928562	.9734892	.4069661	.1944610
#2	.1667479	.1871708	.1940119	.9501431	.4042104	.1952239
#3	.1679972	.1857831	.1932831	.9523656	.4046202	.1949289

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3082670	2.963178	.1834210	1.782600	.4922275	.0753710
Stddev	.0000941	.019994	.0010051	.011200	.0014541	.0004625
%RSD	.0305407	.6747577	.5479538	.6283140	.2954165	.6136759
#1	.3081697	2.985914	.1841832	1.775385	.4906967	.0755518
#2	.3083577	2.948335	.1837979	1.795503	.4935904	.0757159
#3	.3082736	2.955284	.1822820	1.776912	.4923955	.0748454

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.640180	.2734236	.2091066	9.648003	.2705565	.4072262
Stddev	.017326	.0007785	.0007616	.077938	.0017785	.0005202
%RSD	.6562594	.2847223	.3642293	.8078157	.6573427	.1277366
#1	2.659418	.2742026	.2095002	9.736073	.2701328	.4066379
#2	2.625805	.2726456	.2082287	9.587934	.2725086	.4074153
#3	2.635315	.2734227	.2095910	9.620003	.2690281	.4076253

Sample Name: PB166054BS Acquired: 1/17/2025 12:09:20 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6768115	.1864636	F .7375839	5.548329	F -.013817	.1836638
Stddev	.0031362	.0012940	.0086334	.015217	.003435	.0020517
%RSD	.4633761	.6939968	1.170494	.2742547	24.85871	1.117108
#1	.6739250	.1859868	.7323555	5.531148	-.013746	.1843353
#2	.6801486	.1854755	.7328473	5.560105	-.010418	.1813605
#3	.6763608	.1879284	.7475488	5.553735	-.017287	.1852957

Elem	Sr4077
Units	ppm
Avg	.1833633
Stddev	.0006340
%RSD	.3457384
#1	.1840586
#2	.1828174
#3	.1832138

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2880.333	55205.79	10545.27	1933.217	4305.044
Stddev	5.587	234.63	24.32	9.613	10.260
%RSD	.1939677	.4250041	.2306678	.4972726	.2383168
#1	2885.507	54939.62	10522.43	1928.342	4315.186
#2	2874.409	55382.62	10542.53	1944.291	4294.671
#3	2881.083	55295.14	10570.85	1927.018	4305.274

Sample Name: PB166037BL Acquired: 1/17/2025 12:13:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002017	-.002101	.0021593	.0013239	.0019543	.0010006	-.010094
Stddev	.002652	.000308	.0009163	.0023531	.0007350	.0102290	.000926
%RSD	131.4774	14.64850	42.43635	177.7440	37.60716	1022.302	9.174604
#1	.000898	-.002456	.0016358	.0017020	.0011433	.0102662	-.009025
#2	-.004288	-.001938	.0016247	-.001195	.0021433	-.009976	-.010647
#3	-.002662	-.001910	.0032173	.003465	.0025764	.002712	-.010611

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	-.000089	.0067291	-.000422	-.000138	-.000326	.0045944
Stddev	.000007	.000026	.0082065	.000218	.000016	.000263	.0052585
%RSD	33.07714	28.93468	121.9556	51.67125	11.62697	80.64139	114.4544
#1	-.000015	-.000098	.0129862	-.000188	-.000123	-.000625	.0106240
#2	-.000020	-.000110	-.002563	-.000458	-.000138	-.000222	.0009596
#3	-.000029	-.000060	.009764	-.000620	-.000155	-.000131	.0021995

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000345	-.007104	.0001335	.0006570	-.008059	-.002026	-.000115
Stddev	.000213	.009543	.0002853	.0003520	.019955	.000728	.000375
%RSD	61.68295	134.3363	213.5894	53.57160	247.6139	35.94541	325.5221
#1	-.000500	-.018122	-.000147	.0010622	.009125	-.001856	-.000548
#2	-.000432	-.001749	.000423	.0004812	-.029945	-.001399	.000084
#3	-.000102	-.001441	.000124	.0004275	-.003357	-.002825	.000118

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0297132	-.003690	-.000082	-.000198	.0005773	.0075547	-.000207
Stddev	.0325266	.000333	.000138	.000898	.0002473	.0022134	.002322
%RSD	109.4688	9.033306	167.1383	452.7258	42.83549	29.29794	1123.907
#1	.0672312	-.003877	.000028	-.001218	.0006847	.0092177	.002465
#2	.0124629	-.003887	-.000237	.000476	.0002945	.0050425	-.001733
#3	.0094453	-.003305	-.000038	.000147	.0007528	.0084040	-.001352

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166037BL Acquired: 1/17/2025 12:13:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005294	-.003206	-.000002
Stddev	.000871	.000869	.000029
%RSD	16.44729	27.12190	1400.395
#1	-.005399	-.003919	-.000028
#2	-.004375	-.003461	-.000006
#3	-.006107	-.002237	.000029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.218	56225.83	10292.89	2000.160	4382.830
Stddev	10.781	290.89	37.84	12.716	15.658
%RSD	.3695715	.5173684	.3675942	.6357557	.3572511
#1	2929.030	55990.95	10251.62	1988.077	4398.157
#2	2907.907	56135.32	10301.09	1998.976	4366.861
#3	2914.717	56551.22	10325.95	2013.427	4383.473

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166037BS Acquired: 1/17/2025 12:17:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7697811	1.957314	.9492838	1.884660	.7609191	1.849983
Stddev	.0034030	.014910	.0026198	.005157	.0032293	.003454
%RSD	.4420670	.7617703	.2759720	.2736368	.4243971	.1866936
#1	.7659924	1.963916	.9490527	1.882364	.7572541	1.853582
#2	.7707730	1.940242	.9467872	1.881050	.7621569	1.849672
#3	.7725779	1.967783	.9520114	1.890567	.7633465	1.846695

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1780453	.1881695	.1877339	.9590904	.3980163	.1905238
Stddev	.0018441	.0005809	.0001148	.0090881	.0017501	.0001354
%RSD	1.035726	.3086883	.0611721	.9475731	.4396990	.0710630
#1	.1796619	.1876142	.1877653	.9690081	.3962217	.1905260
#2	.1784372	.1881212	.1876066	.9511612	.3997182	.1903873
#3	.1760368	.1887729	.1878298	.9571019	.3981090	.1906581

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3008386	2.945606	.1901637	1.831524	.4785544	.0741077
Stddev	.0007993	.031107	.0003156	.017875	.0005326	.0003277
%RSD	.2656964	1.056048	.1659557	.9759553	.1112932	.4422287
#1	.2999920	2.965147	.1904570	1.810894	.4779404	.0739186
#2	.3009438	2.961937	.1902045	1.841262	.4788314	.0739183
#3	.3015802	2.909735	.1898298	1.842415	.4788914	.0744861

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.761054	.2780007	.2035445	9.504966	.2720380	.3961754
Stddev	.020377	.0004656	.0014421	.063197	.0013601	.0008894
%RSD	.7379996	.1674848	.7085110	.6648873	.4999722	.2245039
#1	2.783553	.2779981	.2022730	9.547574	.2711067	.3953385
#2	2.755769	.2775364	.2032490	9.534969	.2714086	.3960784
#3	2.743841	.2784676	.2051115	9.432356	.2735989	.3971094

Sample Name: PB166037BS Acquired: 1/17/2025 12:17:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6519155	.1852080	F .7033848	5.349880	F -.013883	.1891681
Stddev	.0013574	.0002315	.0071054	.015105	.001206	.0006987
%RSD	.2082156	.1250206	1.010168	.2823340	8.690055	.3693667
#1	.6528639	.1854705	.6977202	5.344573	-.014725	.1899585
#2	.6503606	.1850327	.7113572	5.338145	-.014423	.1889129
#3	.6525219	.1851207	.7010769	5.366922	-.012501	.1886328

Elem	Sr4077
Units	ppm
Avg	.1865096
Stddev	.0007962
%RSD	.4268792
#1	.1874180
#2	.1861773
#3	.1859333

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2996.337	56625.03	10446.66	2026.900	4500.089
Stddev	4.429	210.64	55.42	10.989	4.770
%RSD	.1478096	.3719908	.5305300	.5421508	.1060007
#1	3000.260	56867.35	10495.98	2038.526	4498.287
#2	2991.534	56485.76	10457.31	2025.489	4496.483
#3	2997.217	56521.96	10386.68	2016.685	4505.498

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166047BL Acquired: 1/17/2025 12:21:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000479	-.002140	.0019979	.0012539	-.000003	-.001528	-.007392
Stddev	.0012976	.001151	.0004147	.0009806	.000907	.003409	.001628
%RSD	2709.765	53.76126	20.75497	78.20124	28021.20	223.0505	22.01823
#1	-.000918	-.001266	.0015415	.0004150	-.000202	-.003388	-.009152
#2	-.000462	-.001711	.0023515	.0010148	-.000794	-.003603	-.007085
#3	.001523	-.003444	.0021007	.0023320	.000986	.002406	-.005940

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000038	-.000050	.0049342	-.000593	-.000334	.0001029	.0035093
Stddev	.000021	.000059	.0022936	.000376	.000097	.0000362	.0067020
%RSD	56.81332	116.5138	46.48416	63.32241	29.00938	35.15855	190.9797
#1	-.000039	-.000000	.0044633	-.000890	-.000446	.0000776	.0017717
#2	-.000016	-.000036	.0074267	-.000718	-.000270	.0000868	-.002153
#3	-.000059	-.000115	.0029126	-.000171	-.000287	.0001443	.010909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000526	-.009733	.0002227	.0003616	-.009278	-.001499	-.000152
Stddev	.0002193	.003241	.0001576	.0001318	.009651	.000987	.000028
%RSD	417.1255	33.29570	70.78681	36.44125	104.0107	65.85051	18.48020
#1	-.000176	-.012146	.0003701	.0004532	-.019965	-.002366	-.000184
#2	.000071	-.011002	.0002414	.0002106	-.006671	-.001707	-.000140
#3	.000262	-.006049	.0000565	.0004210	-.001200	-.000425	-.000132

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0524933	-.004391	-.000138	.0005387	.0006743	.0005034	-.000130
Stddev	.0047801	.000720	.000168	.0003426	.0001325	.0027713	.001831
%RSD	9.106078	16.40198	122.0713	63.60024	19.65537	550.5531	1409.125
#1	.0499382	-.003715	.000051	.0007417	.0005380	.0031279	-.002017
#2	.0580080	-.004309	-.000271	.0007312	.0008028	.0007766	.001638
#3	.0495339	-.005149	-.000194	.0001431	.0006821	-.002394	-.000010

Sample Name: PB166047BL Acquired: 1/17/2025 12:21:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004394	-.002983	-.000055
Stddev	.002791	.000270	.000028
%RSD	63.52530	9.056119	51.57573
#1	-.003103	-.003058	-.000022
#2	-.007596	-.002684	-.000070
#3	-.002482	-.003208	-.000072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2942.231	56620.02	10706.45	1993.111	4479.561
Stddev	4.415	122.94	90.48	11.570	2.000
%RSD	.1500407	.2171363	.8451028	.5805109	.0446384
#1	2946.820	56502.35	10798.33	1980.142	4478.857
#2	2938.015	56747.63	10703.60	2002.374	4481.817
#3	2941.859	56610.09	10617.43	1996.818	4478.008

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166047BS Acquired: 1/17/2025 12:26:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8021110	1.978358	.9705027	1.964797	.7976425	1.873524
Stddev	.0072212	.039576	.0072842	.016644	.0066504	.004714
%RSD	.9002706	2.000436	.7505631	.8471247	.8337587	.2516250
#1	.7986845	1.957091	.9647481	1.960168	.7936299	1.876084
#2	.7972410	1.953962	.9680674	1.950956	.7939784	1.876406
#3	.8104076	2.024020	.9786925	1.983265	.8053191	1.868084

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1781930	.1861867	.1923780	.9581632	.4066108	.1947990
Stddev	.0005561	.0007482	.0014440	.0066238	.0003356	.0016407
%RSD	.3120568	.4018339	.7505774	.6913029	.0825425	.8422512
#1	.1787971	.1858226	.1916700	.9609528	.4069363	.1936202
#2	.1780793	.1870472	.1914248	.9506009	.4062659	.1941038
#3	.1777026	.1856903	.1940393	.9629360	.4066303	.1966728

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3091162	3.043902	.1876001	1.820405	.4897762	.0754144
Stddev	.0021898	.018285	.0017486	.012649	.0032064	.0003641
%RSD	.7084003	.6007101	.9320825	.6948608	.6546663	.4828382
#1	.3076651	3.063901	.1865517	1.828433	.4885375	.0754727
#2	.3080486	3.039764	.1896187	1.805823	.4873738	.0757459
#3	.3116351	3.028040	.1866299	1.826958	.4934171	.0750247

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.805363	.2800559	.2080568	9.968985	.2678918	.4093332
Stddev	.026090	.0015947	.0013870	.024606	.0005096	.0040427
%RSD	.9300117	.5694225	.6666437	.2468239	.1902224	.9876220
#1	2.834088	.2809223	.2082001	9.967332	.2673792	.4075994
#2	2.798863	.2782155	.2093667	9.994375	.2678978	.4064465
#3	2.783137	.2810298	.2066038	9.945247	.2683984	.4139535

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166047BS Acquired: 1/17/2025 12:26:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6748877	.1882976	.7463504	5.464075	F -.014432	.1888924
Stddev	.0056170	.0003445	.0026533	.032681	.003155	.0009216
%RSD	.8322861	.1829585	.3554987	.5981130	21.85926	.4878926
#1	.6711510	.1882259	.7437253	5.451394	-.011454	.1878312
#2	.6721649	.1886723	.7490310	5.439634	-.014105	.1894919
#3	.6813472	.1879946	.7462948	5.501196	-.017738	.1893540

Elem	Sr4077
Units	ppm
Avg	.1865986
Stddev	.0006707
%RSD	.3594465
#1	.1867990
#2	.1871462
#3	.1858505

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2935.246	55577.51	10702.89	1969.361	4426.660
Stddev	15.948	87.07	16.19	8.681	22.024
%RSD	.5433184	.1566671	.1512357	.4408163	.4975280
#1	2941.126	55486.22	10720.22	1959.505	4436.288
#2	2947.418	55659.64	10688.16	1972.705	4442.231
#3	2917.193	55586.67	10700.29	1975.872	4401.462

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166025TB Acquired: 1/17/2025 12:30:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004241	-.008876	.0000794	.0045573	.0014419	.0069976
Stddev	.001999	.000537	.0000669	.0007897	.0002126	.0049543
%RSD	47.12515	6.055308	84.24117	17.32828	14.74218	70.79999
#1	-.005995	-.008255	.0001182	.0054634	.0015849	.0101136
#2	-.002065	-.009190	.0000022	.0041932	.0011976	.0012847
#3	-.004663	-.009181	.0001179	.0040154	.0015432	.0095944

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006153	-.000179	-.000177	.0040311	.0004297	-.000569
Stddev	.001459	.000053	.000069	.0067666	.0001487	.000188
%RSD	23.70717	29.73851	38.97641	167.8611	34.59953	32.95743
#1	-.007808	-.000192	-.000207	.0055990	.0005818	-.000388
#2	-.005595	-.000121	-.000098	.0098760	.0004224	-.000762
#3	-.005056	-.000225	-.000225	-.003382	.0002847	-.000557

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002760	.0076177	.0022861	.0035384	.0010766	.0004847
Stddev	.0000919	.0007998	.0001147	.0034767	.0002196	.0003567
%RSD	33.30440	10.49902	5.016633	98.25775	20.39918	73.57784
#1	.0003807	.0085185	.0022506	.0075485	.0009715	.0002097
#2	.0002085	.0069910	.0024144	.0016969	.0013290	.0003568
#3	.0002389	.0073437	.0021935	.0013697	.0009293	.0008877

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 313.7831	-.002856	.0011793	.0485694	-.005452	.0002943
Stddev	4.7465	.001334	.0001066	.0275739	.000580	.0002588
%RSD	1.512673	46.70747	9.035316	56.77219	10.63093	87.94607
#1	317.4476	-.001472	.0012246	.0797446	-.006071	.0002372
#2	315.4803	-.004133	.0010576	.0273785	-.004921	.0000688
#3	308.4212	-.002962	.0012557	.0385849	-.005365	.0005769

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166025TB Acquired: 1/17/2025 12:30:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003954	.0008773	.0127756	.0068945	F .0298318	-.005722
Stddev	.0003723	.0004099	.0069073	.0013268	.0011257	.000219
%RSD	94.15911	46.72029	54.06633	19.24400	3.773420	3.825615
#1	.0002913	.0013252	.0202154	.0053821	.0291565	-.005772
#2	.0008086	.0005210	.0115452	.0078624	.0292077	-.005483
#3	.0000862	.0007856	.0065662	.0074391	.0311313	-.005912

Elem	Sr4077
Units	ppm
Avg	-.000044
Stddev	.000035
%RSD	79.58278
#1	-.000063
#2	-.000004
#3	-.000066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2741.979	53336.26	10778.12	1865.552	3944.849
Stddev	2.198	151.91	34.17	5.264	3.712
%RSD	.0801631	.2848123	.3170301	.2821745	.0941029
#1	2742.127	53196.84	10812.50	1860.503	3943.147
#2	2744.100	53313.79	10777.71	1871.007	3942.293
#3	2739.711	53498.15	10744.16	1865.146	3949.107

Sample Name: PB166049BL Acquired: 1/17/2025 12:34:31 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001920	-.002040	.0012665	.0002823	.0002073	-.004188	-.006225
Stddev	.001586	.000362	.0004333	.0010451	.0010891	.002078	.001133
%RSD	82.62047	17.75869	34.21244	370.2439	525.3253	49.61592	18.19624
#1	-.000272	-.001764	.0014697	.0010118	.0014258	-.001844	-.005471
#2	-.002052	-.001905	.0007690	.0007501	-.000132	-.005804	-.007527
#3	-.003435	-.002450	.0015609	-.000915	-.000671	-.004917	-.005676

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000066	-.000063	-.001379	-.000282	-.000056	-.000124	.0009738
Stddev	.0000269	.000061	.005462	.000148	.000136	.000242	.0021020
%RSD	410.1378	96.92569	395.9228	52.34062	242.4487	194.9411	215.8509
#1	.0000338	-.000086	-.007573	-.000236	.000098	.000094	.0002817
#2	.0000059	.000006	.000687	-.000163	-.000106	-.000384	.0033347
#3	-.000020	-.000109	.002747	-.000448	-.000160	-.000083	-.000695

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000118	.0029469	-.000026	.0003935	.0314668	-.001281	-.000235
Stddev	.000092	.0066524	.000020	.0003340	.0062465	.000474	.000113
%RSD	78.23046	225.7438	75.78006	84.87216	19.85106	36.99587	47.96276
#1	-.000040	-.002896	-.000015	.0004228	.0273719	-.001546	-.000341
#2	-.000094	.010187	-.000049	.0000459	.0283720	-.001563	-.000247
#3	-.000219	.001549	-.000015	.0007119	.0386565	-.000734	-.000117

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0331190	-.005197	-.000150	.0004827	.0015963	.0056064	-.001221
Stddev	.0500554	.000268	.000253	.0005536	.0004858	.0069111	.000698
%RSD	151.1383	5.162206	169.0071	114.6756	30.43505	123.2709	57.14218
#1	-.021892	-.005388	-.000096	.0009355	.0015801	.0047955	-.001937
#2	.075983	-.004890	.000072	-.000134	.0020901	.0128872	-.001183
#3	.045266	-.005314	-.000426	.000647	.0011188	-.000863	-.000543

Sample Name: PB166049BL Acquired: 1/17/2025 12:34:31 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004440	-.001332	.0000016
Stddev	.001911	.000405	.0000247
%RSD	43.03968	30.40821	1524.129
#1	-.002629	-.001797	-.000011
#2	-.006437	-.001060	-.000014
#3	-.004254	-.001138	.000030

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2938.698	56203.18	10674.06	2005.384	4429.130
Stddev	.973	161.13	97.30	7.864	8.316
%RSD	.0330991	.2867001	.9115128	.3921355	.1877499
#1	2939.665	56369.33	10581.62	2004.672	4419.961
#2	2938.708	56192.65	10775.57	2013.580	4431.244
#3	2937.720	56047.58	10664.99	1997.901	4436.185

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166049BS Acquired: 1/17/2025 12:38:52 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7728830	1.963513	.9484583	1.885648	.7677727	1.860525
Stddev	.0046695	.021842	.0022959	.002709	.0043990	.010423
%RSD	.6041618	1.112383	.2420639	.1436756	.5729512	.5602365
#1	.7675483	1.979390	.9505687	1.887461	.7673246	1.872560
#2	.7748725	1.938604	.9460136	1.882534	.7636150	1.854377
#3	.7762283	1.972546	.9487926	1.886949	.7723786	1.854638

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1782236	.1874241	.1870360	.9601757	.3993986	.1902154
Stddev	.0008146	.0004276	.0004451	.0079956	.0002160	.0006699
%RSD	.4570926	.2281297	.2379645	.8327193	.0540790	.3521915
#1	.1788469	.1878668	.1871422	.9664005	.3993709	.1905293
#2	.1785222	.1870134	.1865475	.9629682	.3991979	.1894461
#3	.1773018	.1873921	.1874184	.9511584	.3996271	.1906707

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3005398	3.006355	.1896019	1.813587	.4772072	.0750697
Stddev	.0009695	.015261	.0010864	.020731	.0015473	.0001081
%RSD	.3226010	.5076253	.5730044	1.143115	.3242357	.1439746
#1	.3003888	3.023538	.1907587	1.809036	.4775919	.0751938
#2	.2996546	3.001150	.1894437	1.795510	.4755039	.0750192
#3	.3015760	2.994378	.1886032	1.836216	.4785259	.0749961

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.818950	.2782877	.2046402	9.787265	.2703839	.4002776
Stddev	.014020	.0025859	.0003856	.068463	.0017270	.0011676
%RSD	.4973437	.9292136	.1884088	.6995107	.6387101	.2917082
#1	2.828204	.2812246	.2050680	9.822806	.2717691	.3998016
#2	2.802820	.2763524	.2045331	9.830648	.2684490	.3994231
#3	2.825828	.2772862	.2043196	9.708340	.2709337	.4016080

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166049BS Acquired: 1/17/2025 12:38:52 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6545570	.1882249	F .7237674	5.405538	F -.009342	.1905280
Stddev	.0018234	.0009850	.0088268	.015364	.003312	.0005121
%RSD	.2785767	.5232890	1.219560	.2842328	35.45309	.2687956
#1	.6545138	.1881753	.7238772	5.404048	-.013020	.1899670
#2	.6527556	.1872656	.7148862	5.390973	-.006594	.1906466
#3	.6564017	.1892337	.7325387	5.421593	-.008412	.1909704

Elem	Sr4077
Units	ppm
Avg	.1869833
Stddev	.0004563
%RSD	.2440118
#1	.1875102
#2	.1867195
#3	.1867203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3012.248	56138.42	10564.33	2013.916	4544.154
Stddev	2.622	158.46	39.86	12.474	7.276
%RSD	.0870349	.2822654	.3772900	.6194067	.1601172
#1	3013.988	56022.24	10520.81	2000.700	4541.861
#2	3013.523	56074.10	10573.13	2015.564	4552.300
#3	3009.232	56318.93	10599.06	2025.484	4538.301

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166026TB Acquired: 1/17/2025 12:42:52 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004717	-.006590	.0015627	.0038808	.0006965	.0071463	-.008802
Stddev	.001055	.001431	.0011129	.0035669	.0003453	.0047309	.000780
%RSD	22.36207	21.71947	71.21923	91.91117	49.57151	66.20038	8.863266
#1	-.003755	-.006826	.0016958	.0018170	.0005336	.0089768	-.009665
#2	-.004551	-.005056	.0003892	.0018260	.0010931	.0017737	-.008147
#3	-.005844	-.007889	.0026031	.0079995	.0004629	.0106884	-.008594

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000159	-.000197	-.002075	-.000143	-.000407	.0004761	.0046075
Stddev	.000014	.000038	.008763	.000204	.000174	.0001912	.0020203
%RSD	9.077077	19.50302	422.3587	143.1364	42.82976	40.15240	43.84828
#1	-.000143	-.000165	.005551	-.000066	-.000335	.0006069	.0050459
#2	-.000165	-.000239	-.011647	.000012	-.000280	.0005647	.0024040
#3	-.000169	-.000186	-.000129	-.000374	-.000605	.0002567	.0063726

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008822	-.002245	.0010546	.0001239	320.7111	-.001421	.0012559
Stddev	.0001472	.008320	.0002865	.0002066	2.7781	.001979	.0003364
%RSD	16.68888	370.6190	27.16330	166.8182	.8662357	139.2860	26.78449
#1	.0009061	-.010265	.0008875	-.000104	323.0955	.000367	.0009067
#2	.0010161	-.002815	.0013853	.000178	317.6604	-.001083	.0012833
#3	.0007245	.006346	.0008909	.000298	321.3774	-.003547	.0015778

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0304258	-.005763	.0002662	.0000299	.0006559	.0123065	.0066722
Stddev	.0172419	.000464	.0001254	.0001971	.0005696	.0095243	.0017333
%RSD	56.66853	8.053030	47.11098	660.3289	86.83964	77.39230	25.97841
#1	.0418883	-.006268	.0002082	.0002520	.0006084	.0110075	.0053084
#2	.0105971	-.005664	.0001803	-.000038	.0001115	.0034984	.0086227
#3	.0387922	-.005355	.0004101	-.000124	.0012477	.0224136	.0060854

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166026TB Acquired: 1/17/2025 12:42:52 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0091106	-.004395	-.000051
Stddev	.0024025	.000770	.000030
%RSD	26.37022	17.51738	59.65220
#1	.0067586	-.003603	-.000016
#2	.0090125	-.005141	-.000063
#3	.0115605	-.004442	-.000073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2753.908	52466.69	10600.23	1840.671	3990.230
Stddev	3.349	143.70	61.76	12.267	8.406
%RSD	.1216257	.2738953	.5826382	.6664363	.2106531
#1	2756.260	52301.07	10570.71	1829.962	3997.775
#2	2755.391	52558.37	10671.21	1837.996	3991.744
#3	2750.073	52540.62	10558.78	1854.055	3981.170

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV02 Acquired: 1/17/2025 12:47:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.983624	4.961952	4.860422	5.026617	5.052976	9.634775	9.488490
Stddev	.013304	.008166	.002101	.013251	.008174	.017082	.106443
%RSD	.2669549	.1645730	.0432266	.2636243	.1617729	.1772923	1.121812
#1	4.980539	4.971142	4.862694	5.030179	5.055745	9.651912	9.568478
#2	4.998200	4.959187	4.858550	5.037723	5.059406	9.634664	9.529315
#3	4.972133	4.955527	4.860022	5.011949	5.043777	9.617749	9.367678

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2317299	2.427345	23.45315	.9867877	2.439609	1.249821	4.913047
Stddev	.0009386	.000569	.01750	.0085436	.000873	.003145	.079352
%RSD	.4050618	.0234273	.0746012	.8657982	.0357893	.2516557	1.615120
#1	.2315740	2.427849	23.45783	.9965567	2.439932	1.249813	5.004545
#2	.2327368	2.426729	23.43379	.9807122	2.438620	1.252970	4.863092
#3	.2308790	2.427457	23.46783	.9830944	2.440274	1.246679	4.871503

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.328631	22.85327	2.441387	1.233073	24.41277	2.381023	2.516711
Stddev	.007222	.03810	.002027	.009063	.29074	.005623	.018953
%RSD	.3101468	.1667062	.0830311	.7349655	1.190954	.2361662	.7530739
#1	2.336766	22.87849	2.443579	1.243529	24.74838	2.387409	2.538261
#2	2.326153	22.80944	2.439580	1.228197	24.25278	2.378849	2.509237
#3	2.322974	22.87186	2.441002	1.227492	24.23716	2.376812	2.502635

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.00981	4.671676	5.014659	4.860785	4.740632	5.162574	4.855004
Stddev	.35987	.013765	.008906	.002869	.014553	.049128	.013186
%RSD	1.438914	.2946438	.1775982	.0590188	.3069795	.9516154	.2716063
#1	25.39968	4.669229	5.011948	4.861786	4.756416	5.211808	4.868853
#2	24.69035	4.686500	5.024605	4.857550	4.737733	5.113553	4.853560
#3	24.93941	4.659299	5.007423	4.863020	4.727747	5.162362	4.842599

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV02 Acquired: 1/17/2025 12:47:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.869936	4.747472	4.851468
Stddev	.009272	.013065	.014000
%RSD	.1903951	.2751930	.2885683
#1	4.875048	4.761898	4.839426
#2	4.875527	4.744081	4.848150
#3	4.859233	4.736438	4.866829

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2826.418	55483.66	10439.98	1917.286	4075.247
Stddev	4.349	394.33	20.73	12.170	6.754
%RSD	.1538815	.7107138	.1985530	.6347265	.1657386
#1	2823.905	55033.97	10451.68	1903.947	4067.558
#2	2823.909	55770.36	10416.04	1920.125	4080.223
#3	2831.440	55646.67	10452.21	1927.784	4077.961

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB02 Acquired: 1/17/2025 12:51:32 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.000915	-.002590	.0016010	.0005760	.0006067	.0023479	-.006578
Stddev	.002612	.001054	.0011115	.0006536	.0010272	.0067369	.001050
%RSD	285.4373	40.70509	69.42441	113.4633	169.3205	286.9397	15.96499
#1	-.002846	-.003363	.0003284	.0012717	.0017191	-.000711	-.007778
#2	.002056	-.001389	.0020933	-.000025	.0004069	.010072	-.006133
#3	-.001955	-.003018	.0023812	.000481	-.000306	-.002317	-.005824

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000006	-.000043	.0014947	-.000442	-.000057	-.000223	.0000608
Stddev	.000010	.000027	.0077463	.000519	.000161	.000494	.0034257
%RSD	158.5879	62.04336	518.2392	117.4925	281.8902	221.8929	5636.945
#1	.000005	-.000022	-.003484	.000127	.000062	.000204	-.000797
#2	-.000012	-.000073	-.002451	-.000564	.000006	-.000764	-.002855
#3	-.000011	-.000034	.010419	-.000889	-.000240	-.000108	.003834

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000073	-.009232	.0002918	.0005816	.0121342	-.001758	.0000174
Stddev	.000170	.007322	.0002015	.0002604	.0082009	.000728	.0001141
%RSD	231.6632	79.30478	69.06162	44.76678	67.58493	41.41672	654.7817
#1	.000121	-.008694	.0003257	.0007376	.0099863	-.002559	.0000563
#2	-.000190	-.016808	.0004742	.0007261	.0052210	-.001136	.0001070
#3	-.000152	-.002195	.0000755	.0002810	.0211953	-.001580	-.000111

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0478843	.0054677	.0000750	.0001727	.0008538	.0125379	-.001757
Stddev	.0122437	.0003576	.0001502	.0003857	.0003153	.0075806	.002994
%RSD	25.56940	6.541064	200.1848	223.3604	36.92602	60.46156	170.4198
#1	.0520804	.0054513	-.000059	.0002474	.0012159	.0052062	-.004605
#2	.0340942	.0058333	.000047	-.000245	.0006403	.0203450	-.002030
#3	.0574783	.0051186	.000237	.000516	.0007052	.0120624	.001365

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB02 Acquired: 1/17/2025 12:51:32 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002196	-.001891	.0000511
Stddev	.002334	.001709	.0000161
%RSD	106.2632	90.35715	31.46506
#1	-.004712	-.000249	.0000507
#2	-.001777	-.003660	.0000673
#3	-.000101	-.001764	.0000352

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2904.401	56692.75	10713.72	2010.818	4350.503
Stddev	8.593	191.55	69.22	6.360	17.173
%RSD	.2958718	.3378714	.6460985	.3163107	.3947447
#1	2912.664	56912.88	10771.22	2003.848	4366.371
#2	2905.028	56601.36	10636.89	2012.298	4352.868
#3	2895.512	56564.01	10733.04	2016.308	4332.270

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166069BL Acquired: 1/17/2025 12:55:53 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001556	-.001271	.0013904	-.000049	.0008870	-.002178	-.007383
Stddev	.001042	.000921	.0003795	.003347	.0008067	.002851	.000259
%RSD	67.00266	72.43673	27.29736	6822.107	90.94342	130.9046	3.506011
#1	-.002717	-.000364	.0010140	-.001534	.0000209	-.002870	-.007675
#2	-.000700	-.002205	.0013842	.003784	.0010233	-.004619	-.007185
#3	-.001250	-.001243	.0017730	-.002397	.0016168	.000955	-.007287

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000005	-.000051	.0043496	-.000262	-.000074	.0002224	-.000527
Stddev	.000053	.000059	.0008608	.000372	.000260	.0000698	.007554
%RSD	1019.438	115.5138	19.79053	142.0182	351.9432	31.36912	1433.408
#1	-.000064	.000013	.0033925	-.000058	-.000373	.0002658	-.007485
#2	.000038	-.000104	.0045957	-.000036	.000051	.0002595	-.001605
#3	.000010	-.000064	.0050605	-.000692	.000100	.0001419	.007508

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000265	-.016561	.0002487	.0004530	.0188443	-.001482	.0001517
Stddev	.000161	.006702	.0002067	.0002914	.0081684	.000690	.0000722
%RSD	60.77640	40.47128	83.14263	64.32160	43.34684	46.55342	47.61317
#1	-.000450	-.018280	.0003375	.0001273	.0279234	-.002157	.0001890
#2	-.000165	-.022236	.0000124	.0005425	.0120911	-.001510	.0001977
#3	-.000179	-.009166	.0003962	.0006890	.0165184	-.000778	.0000685

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0768144	-.001139	.0000524	-.000303	.0002570	.0113150	-.001178
Stddev	.0199441	.000273	.0000225	.000309	.0008353	.0051408	.001843
%RSD	25.96398	23.93577	42.97565	101.8611	324.9693	45.43397	156.4686
#1	.0627395	-.001105	.0000780	.000053	-.000597	.0053792	.000899
#2	.0996375	-.001427	.0000441	-.000490	.001072	.0143352	-.002619
#3	.0680661	-.000885	.0000353	-.000471	.000296	.0142306	-.001814

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166069BL Acquired: 1/17/2025 12:55:53 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004003	-.002382	-.000020
Stddev	.003999	.000473	.000040
%RSD	99.92253	19.87366	198.6477
#1	-.003926	-.002526	-.000051
#2	-.000042	-.001853	.000025
#3	-.008040	-.002766	-.000034

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2943.625	57664.61	10821.43	2052.499	4430.716
Stddev	12.236	43.16	70.93	2.152	22.465
%RSD	.4156800	.0748421	.6555007	.1048431	.5070283
#1	2930.619	57620.69	10754.12	2051.550	4405.770
#2	2954.908	57706.96	10895.50	2050.984	4449.349
#3	2945.348	57666.19	10814.68	2054.962	4437.029

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166069BS Acquired: 1/17/2025 13:00:14 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7789141	1.945287	.9520019	1.916781	.7795586	1.846074
Stddev	.0010913	.008174	.0042433	.003147	.0033510	.002958
%RSD	.1401055	.4201949	.4457259	.1642006	.4298612	.1602180
#1	.7793818	1.952587	.9496389	1.914118	.7772068	1.848096
#2	.7796936	1.946818	.9494662	1.915971	.7780735	1.847447
#3	.7776669	1.936456	.9569007	1.920255	.7833956	1.842679

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1757871	.1840812	.1887534	.9663367	.3937487	.1912055
Stddev	.0008088	.0005057	.0004928	.0045054	.0008766	.0004663
%RSD	.4601067	.2747200	.2610628	.4662293	.2226185	.2438816
#1	.1748532	.1837204	.1888620	.9646144	.3932342	.1913584
#2	.1762601	.1838639	.1882155	.9629467	.3932511	.1906819
#3	.1762480	.1846592	.1891829	.9714492	.3947608	.1915761

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3039632	2.949851	.1869189	1.766724	.4808514	.0740500
Stddev	.0017614	.005841	.0004726	.035379	.0011611	.0002331
%RSD	.5794619	.1980100	.2528544	2.002536	.2414722	.3147191
#1	.3030139	2.949278	.1864805	1.806061	.4806642	.0737958
#2	.3028800	2.955957	.1874196	1.756602	.4797953	.0742536
#3	.3059955	2.944318	.1868567	1.737509	.4820948	.0741006

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.767235	.2773973	.2036890	9.657712	.2678995	.4013297
Stddev	.021492	.0011717	.0013590	.079121	.0013569	.0009842
%RSD	.7766739	.4223961	.6671677	.8192506	.5065090	.2452451
#1	2.745299	.2787385	.2052522	9.574420	.2682667	.4004075
#2	2.788254	.2765727	.2030265	9.666847	.2663968	.4012156
#3	2.768152	.2768807	.2027885	9.731869	.2690351	.4023660

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166069BS Acquired: 1/17/2025 13:00:14 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6578456	.1858685	F .7148638	5.507713	F -.010278	.1882681
Stddev	.0010580	.0011995	.0095655	.011545	.002149	.0020944
%RSD	.1608312	.6453720	1.338083	.2096105	20.90392	1.112440
#1	.6566260	.1845186	.7041175	5.504440	-.009626	.1859485
#2	.6585169	.1868121	.7224475	5.498158	-.012677	.1900202
#3	.6583940	.1862748	.7180262	5.520541	-.008531	.1888357

Elem	Sr4077
Units	ppm
Avg	.1861456
Stddev	.0008126
%RSD	.4365581
#1	.1852072
#2	.1866154
#3	.1866141

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.207	57234.31	10676.11	2023.030	4454.184
Stddev	5.421	196.72	15.02	1.695	10.065
%RSD	.1832601	.3437181	.1407173	.0837924	.2259617
#1	2961.709	57428.52	10680.71	2023.169	4456.237
#2	2960.950	57035.17	10688.29	2021.269	4463.065
#3	2951.962	57239.24	10659.32	2024.650	4443.252

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166084BL Acquired: 1/17/2025 13:04:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003393	-.000694	.0014972	.0013622	.0011089	-.000977	-.008104
Stddev	.001231	.000801	.0009197	.0015062	.0017027	.002126	.000560
%RSD	36.29574	115.3900	61.43101	110.5675	153.5471	217.6151	6.907324
#1	-.001987	.000061	.0014567	.0030614	.0026715	.001135	-.007863
#2	-.004279	-.001534	.0005984	.0008339	-.000706	-.000949	-.008744
#3	-.003912	-.000610	.0024365	.0001914	.001361	-.003118	-.007705

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000040	-.000006	.0054842	-.000300	-.000191	-.000031	.0014186
Stddev	.0000537	.000027	.0135961	.000278	.000287	.000132	.0038277
%RSD	1343.155	465.4213	247.9147	92.74038	150.5945	426.0151	269.8255
#1	-.000052	.000018	.0065216	-.000117	-.000522	-.000077	.0008725
#2	.000008	-.000034	-.008601	-.000163	-.000036	.000118	.0054900
#3	.000056	-.000001	.018532	-.000621	-.000014	-.000134	-.002107

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000361	-.016133	-.000038	.0004943	-.005661	-.000504	.0004831
Stddev	.000370	.013140	.000356	.0002622	.011548	.001346	.0001434
%RSD	102.7394	81.44682	933.2311	53.03738	203.9799	266.8508	29.67337
#1	-.000602	-.031104	-.000373	.0007811	.005155	-.001828	.0003737
#2	.000066	-.006515	.000336	.0002669	-.017822	.000863	.0004302
#3	-.000545	-.010779	-.000077	.0004351	-.004317	-.000549	.0006454

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018224	-.004265	-.000201	.0000622	.0001645	.0032688	-.000044
Stddev	.0059750	.000610	.000139	.0008324	.0003716	.0011531	.002443
%RSD	327.8637	14.30493	69.16591	1337.256	225.8733	35.27580	5538.778
#1	-.004811	-.004624	-.000360	-.000551	.0005173	.0019737	-.002482
#2	.006781	-.003560	-.000146	-.000272	.0001995	.0041839	.002404
#3	.003497	-.004610	-.000099	.001010	-.000223	.0036488	-.000054

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166084BL Acquired: 1/17/2025 13:04:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005683	-.002388	-.000019
Stddev	.002295	.000248	.000036
%RSD	40.37872	10.38563	187.9006
#1	-.003352	-.002511	-.000045
#2	-.005756	-.002550	-.000035
#3	-.007940	-.002103	.000022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.576	57219.99	10846.32	2010.379	4517.215
Stddev	25.825	143.89	103.31	8.833	44.953
%RSD	.8728940	.2514652	.9525091	.4393572	.9951476
#1	2968.975	57327.43	10774.39	2010.983	4536.637
#2	2977.581	57276.03	10799.88	2018.894	4549.190
#3	2929.172	57056.52	10964.71	2001.259	4465.816

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166084BS Acquired: 1/17/2025 13:08:34 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7908118	1.970627	.9602600	1.956825	.7843397	1.861855
Stddev	.0029038	.008881	.0011089	.004923	.0023208	.007033
%RSD	.3671992	.4506551	.1154818	.2516037	.2958884	.3777453
#1	.7888007	1.971863	.9595836	1.951451	.7867581	1.866666
#2	.7894937	1.978825	.9596565	1.961118	.7821307	1.853783
#3	.7941409	1.961193	.9615398	1.957907	.7841302	1.865115

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1737782	.1867086	.1903190	.9697120	.3988397	.1930119
Stddev	.0007340	.0001553	.0002782	.0133283	.0002879	.0002877
%RSD	.4223552	.0831726	.1461880	1.374463	.0721959	.1490480
#1	.1746013	.1866416	.1903340	.9829271	.3991122	.1928751
#2	.1731916	.1865980	.1900336	.9699358	.3988685	.1928181
#3	.1735418	.1868861	.1905895	.9562732	.3985385	.1933424

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3066638	2.967542	.1865213	1.765450	.4848763	.0750670
Stddev	.0008611	.024371	.0010095	.007310	.0005449	.0005818
%RSD	.2808004	.8212551	.5412310	.4140573	.1123873	.7751104
#1	.3075529	2.994729	.1876265	1.772039	.4844420	.0748300
#2	.3058337	2.960242	.1862895	1.766724	.4846991	.0757300
#3	.3066049	2.947656	.1856478	1.757587	.4854878	.0746411

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.738141	.2784443	.2067740	9.722058	.2710644	.4028842
Stddev	.020556	.0024176	.0009868	.070906	.0007785	.0006906
%RSD	.7507194	.8682626	.4772368	.7293301	.2871864	.1714201
#1	2.758482	.2790582	.2057604	9.799988	.2718202	.4035158
#2	2.738565	.2804957	.2077316	9.704838	.2711078	.4021468
#3	2.717377	.2757788	.2068300	9.661348	.2702651	.4029899

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: PB166084BS Acquired: 1/17/2025 13:08:34 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6570991	.1850922	F .7274793	5.444287	F -.012672	.1876504
Stddev	.0010850	.0022771	.0043516	.015562	.001538	.0021240
%RSD	.1651114	1.230239	.5981760	.2858443	12.13351	1.131891
#1	.6558583	.1874973	.7236551	5.427941	-.014447	.1897850
#2	.6575696	.1848096	.7322142	5.445995	-.011773	.1876290
#3	.6578694	.1829696	.7265687	5.458924	-.011795	.1855371

Elem	Sr4077
Units	ppm
Avg	.1870860
Stddev	.0010113
%RSD	.5405270
#1	.1882355
#2	.1866891
#3	.1863335

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.736	56531.57	10638.11	1995.706	4452.789
Stddev	10.371	157.68	10.76	7.670	11.600
%RSD	.3512378	.2789269	.1011016	.3843489	.2605216
#1	2950.543	56477.51	10634.18	1996.281	4456.846
#2	2964.028	56408.03	10629.87	1987.764	4461.816
#3	2943.637	56709.17	10650.28	2003.073	4439.705

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01 Acquired: 1/17/2025 13:12:34 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0517617	.0008372	.1655066	-.033745	.0029501	73.55181
Stddev	.0009126	.0014228	.0007960	.000153	.0004839	.07831
%RSD	1.763084	169.9576	.4809167	.4527900	16.40445	.1064727
#1	.0509134	.0009681	.1646514	-.033851	.0034318	73.63717
#2	.0516445	-.000647	.1656426	-.033815	.0029544	73.53497
#3	.0527273	.002190	.1662258	-.033570	.0024639	73.48329

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3345541	.0060731	-.006050	127.5227	.1504686	.0857905
Stddev	.0012130	.0000161	.000210	.3844	.0004190	.0001423
%RSD	.3625773	.2651270	3.467656	.3013980	.2784593	.1658316
#1	.3354999	.0060906	-.006207	127.6843	.1503337	.0858566
#2	.3331865	.0060697	-.006131	127.0840	.1509384	.0856272
#3	.3349760	.0060590	-.005812	127.7999	.1501337	.0858877

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2596315	220.2579	2.432278	18.63193	.0834534	.0004860
Stddev	.0006718	1.2769	.012813	.06352	.0005235	.0003675
%RSD	.2587350	.5797423	.5267894	.3409062	.6273188	75.61397
#1	.2602896	221.5050	2.432678	18.70254	.0831890	.0001645
#2	.2589469	220.3155	2.419270	18.61379	.0840564	.0008866
#3	.2596581	218.9531	2.444887	18.57945	.0831149	.0004068

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.965125	.3592369	.3632011	7.737041	.1646378	.0049807
Stddev	.034847	.0021667	.0006991	.061796	.0024008	.0003646
%RSD	.5841823	.6031381	.1924889	.7987022	1.458216	7.320619
#1	5.998621	.3583210	.3639709	7.790672	.1667670	.0053604
#2	5.967687	.3576786	.3630267	7.750986	.1651105	.0049484
#3	5.929068	.3617112	.3626056	7.669463	.1620358	.0046333

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01 Acquired: 1/17/2025 13:12:34 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031162	1.655696	F 11.22882	3.967097	9.526374	.0355169
Stddev	.0009390	.006118	.04415	.024323	.011747	.0009681
%RSD	30.13171	.3695061	.3931498	.6131064	.1233080	2.725647
#1	.0040694	1.660607	11.20357	3.994330	9.539801	.0366140
#2	.0030870	1.648843	11.27979	3.959428	9.517991	.0351537
#3	.0021922	1.657639	11.20309	3.947533	9.521332	.0347829

Elem	Sr4077
Units	ppm
Avg	.4256454
Stddev	.0029731
%RSD	.6984866
#1	.4282410
#2	.4224017
#3	.4262934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.470	57082.66	11563.13	2022.529	3981.853
Stddev	6.989	127.91	89.61	5.763	3.933
%RSD	.2369616	.2240761	.7749378	.2849579	.0987765
#1	2949.530	57177.83	11623.16	2023.933	3984.739
#2	2956.429	56937.26	11606.10	2016.194	3983.447
#3	2942.451	57132.89	11460.13	2027.461	3977.373

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01DUP Acquired: 1/17/2025 13:16:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0476596	.0023647	.1666968	-.034518	.0023561	73.79099
Stddev	.0004413	.0039113	.0004462	.003693	.0009045	.14831
%RSD	.9258731	165.4036	.2677001	10.69849	38.39059	.2009924
#1	.0476590	.0060844	.1666849	-.033234	.0030725	73.90996
#2	.0481011	.0027232	.1662566	-.031638	.0013397	73.62482
#3	.0472186	-.001714	.1671489	-.038681	.0026562	73.83818

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3321928	.0062841	-.005104	128.4450	.1514962	.0851767
Stddev	.0011365	.0001031	.000412	.1931	.0001382	.0002895
%RSD	.3421184	1.639999	8.079179	.1503249	.0911963	.3398494
#1	.3317564	.0063630	-.004795	128.5637	.1515669	.0848685
#2	.3313392	.0061675	-.005573	128.2222	.1515846	.0852188
#3	.3334829	.0063217	-.004946	128.5490	.1513370	.0854429

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2838038	220.0118	2.408300	19.17509	.0848088	-.001318
Stddev	.0013200	1.2748	.011841	.03141	.0001905	.000362
%RSD	.4651284	.5794222	.4916742	.1637908	.2246376	27.45167
#1	.2841512	218.5604	2.410595	19.19596	.0847056	-.001716
#2	.2823448	220.9501	2.395479	19.13897	.0846921	-.001229
#3	.2849154	220.5247	2.418824	19.19035	.0850286	-.001008

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.880289	.3662800	.3682635	7.733913	.1635420	.0046813
Stddev	.055878	.0010609	.0013714	.011394	.0032744	.0003411
%RSD	.9502578	.2896404	.3724043	.1473250	2.002152	7.287042
#1	5.817224	.3663587	.3674951	7.723999	.1598055	.0046982
#2	5.900016	.3651820	.3698469	7.746361	.1659107	.0050136
#3	5.923629	.3672994	.3674486	7.731380	.1649098	.0043320

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01DUP Acquired: 1/17/2025 13:16:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039029	1.688048	F 11.55414	4.170713	9.491546	.0368571
Stddev	.0003545	.007735	.07002	.011650	.016045	.0004030
%RSD	9.082777	.4582308	.6059996	.2793401	.1690450	1.093323
#1	.0036625	1.689995	11.47789	4.162528	9.474006	.0371860
#2	.0043101	1.679525	11.61556	4.165559	9.495150	.0364076
#3	.0037362	1.694623	11.56896	4.184051	9.505483	.0369778

Elem	Sr4077
Units	ppm
Avg	.4309949
Stddev	.0023573
%RSD	.5469344
#1	.4319345
#2	.4283127
#3	.4327374

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3000.424	57344.30	11402.54	2050.012	4037.442
Stddev	7.331	143.55	56.01	9.346	4.832
%RSD	.2443408	.2503316	.4911765	.4559082	.1196686
#1	3007.077	57504.04	11351.81	2060.133	4042.189
#2	3001.631	57226.09	11462.64	2041.707	4037.605
#3	2992.565	57302.77	11393.16	2048.197	4032.530

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01LX5 Acquired: 1/17/2025 13:20:45 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078243	-.001846	.0348144	-.006825	.0004239	15.50446	.0624678
Stddev	.0012917	.001997	.0008267	.001983	.0009896	.01865	.0004135
%RSD	16.50874	108.1344	2.374522	29.05817	233.4269	.1203059	.6619820
#1	.0090884	-.003887	.0356590	-.008464	-.000268	15.52501	.0620687
#2	.0078777	-.001756	.0340070	-.004620	.001557	15.49975	.0624404
#3	.0065067	.000103	.0347772	-.007390	-.000017	15.48861	.0628944

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013430	-.001504	27.14246	.0317529	.0167656	.0634522	45.47758
Stddev	.0000160	.000041	.06628	.0002110	.0001373	.0007206	.32647
%RSD	1.188702	2.699882	.2442034	.6646164	.8189224	1.135645	.7178614
#1	.0013265	-.001515	27.20953	.0315259	.0166670	.0631363	45.72921
#2	.0013583	-.001538	27.14085	.0317896	.0167074	.0642768	45.10868
#3	.0013442	-.001459	27.07699	.0319432	.0169224	.0629435	45.59486

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5154588	4.058458	.0173307	.0001958	1.143698	.0761075	.0746745
Stddev	.0017047	.022234	.0001374	.0005520	.006561	.0015387	.0004441
%RSD	.3307208	.5478523	.7927804	281.8718	.5736578	2.021753	.5947261
#1	.5168737	4.082582	.0174330	.0008217	1.143098	.0773499	.0743337
#2	.5159364	4.054003	.0171745	-.000222	1.137458	.0765862	.0745131
#3	.5135662	4.038788	.0173847	-.000012	1.150539	.0743863	.0751768

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.576308	.0285652	.0009072	-.001431	.3555456	2.376271	.8293997
Stddev	.026601	.0006544	.0001696	.000512	.0015691	.017190	.0037704
%RSD	1.687533	2.290775	18.69100	35.80738	.4413225	.7234141	.4545889
#1	1.578256	.0293149	.0009616	-.000987	.3573140	2.388290	.8319402
#2	1.548787	.0281090	.0007171	-.001314	.3550030	2.356581	.8250676
#3	1.601882	.0282716	.0010428	-.001991	.3543198	2.383942	.8311913

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01LX5 Acquired: 1/17/2025 13:20:45 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.890420	.0047267	.0891039
Stddev	.004871	.0007335	.0002965
%RSD	.2576888	15.51856	.3327085
#1	1.885408	.0040013	.0894312
#2	1.890717	.0054680	.0888534
#3	1.895137	.0047108	.0890272

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2964.501	56837.46	10983.77	2029.187	4322.719
Stddev	6.373	37.30	63.92	3.653	7.361
%RSD	.2149764	.0656315	.5819784	.1800400	.1702820
#1	2967.224	56880.54	11003.92	2029.129	4330.621
#2	2969.060	56815.50	10912.20	2032.870	4321.480
#3	2957.218	56816.35	11035.19	2025.564	4316.057

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01MS Acquired: 1/17/2025 13:25:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8031061	1.877553	1.100841	1.741269	.7463548	74.99446
Stddev	.0041530	.019598	.002313	.005643	.0026437	.04620
%RSD	.5171155	1.043785	.2100680	.3240852	.3542098	.0616007
#1	.8044081	1.897872	1.099164	1.745931	.7492375	74.98829
#2	.7984581	1.876019	1.099881	1.734995	.7440437	75.04343
#3	.8064521	1.858767	1.103479	1.742880	.7457832	74.95165

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4901226	.1699993	.1837365	127.6901	.5143432	.2771144
Stddev	.0008864	.0004888	.0002055	.2659	.0004038	.0005516
%RSD	.1808467	.2875140	.1118405	.2082184	.0784996	.1990706
#1	.4911283	.1703308	.1837061	127.9958	.5147028	.2773148
#2	.4897842	.1702290	.1835479	127.5617	.5139064	.2764906
#3	.4894552	.1694379	.1839555	127.5128	.5144204	.2775378

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5519950	218.3068	2.482755	20.21242	.5640374	.0704342
Stddev	.0007166	.7018	.007108	.02333	.0010595	.0006069
%RSD	.1298169	.3214693	.2862933	.1154334	.1878337	.8616385
#1	.5516823	218.8110	2.490356	20.22718	.5631638	.0705045
#2	.5514880	217.5053	2.476273	20.18552	.5637325	.0697953
#3	.5528148	218.6040	2.481635	20.22456	.5652158	.0710029

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.636998	.6107503	.6800158	17.60797	.3909446	.3866051
Stddev	.029182	.0027881	.0027096	.08840	.0007357	.0009830
%RSD	.3378707	.4565011	.3984665	.5020284	.1881874	.2542707
#1	8.669938	.6138140	.6804030	17.66044	.3901044	.3863870
#2	8.626675	.6083620	.6825110	17.50591	.3912558	.3857495
#3	8.614381	.6100749	.6771334	17.65757	.3914735	.3876789

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01MS Acquired: 1/17/2025 13:25:02 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6679083	1.824449	F 11.76931	9.773654	9.500886	.2168921
Stddev	.0014274	.004602	.00916	.011142	.006323	.0009351
%RSD	.2137090	.2522385	.0777901	.1140014	.0665556	.4311194
#1	.6687021	1.829556	11.76601	9.782653	9.508058	.2178225
#2	.6662605	1.823169	11.76225	9.761191	9.496114	.2169013
#3	.6687623	1.820623	11.77965	9.777117	9.498486	.2159524

Elem	Sr4077
Units	ppm
Avg	.5939841
Stddev	.0016771
%RSD	.2823488
#1	.5956904
#2	.5939240
#3	.5923378

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2939.845	56858.05	11482.16	1993.176	3972.473
Stddev	3.484	137.99	42.10	4.925	4.271
%RSD	.1185232	.2426840	.3666727	.2470804	.1075071
#1	2936.823	56715.38	11448.59	1996.069	3968.575
#2	2943.656	56867.96	11468.49	1987.490	3977.038
#3	2939.056	56990.81	11529.39	1995.970	3971.805

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01MSD Acquired: 1/17/2025 13:28:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8171724	1.894810	1.118011	1.782974	.7498915	75.17025
Stddev	.0016661	.032604	.004120	.004841	.0050862	.04501
%RSD	.2038886	1.720681	.3684959	.2715170	.6782578	.0598818
#1	.8152778	1.925594	1.122746	1.788401	.7555151	75.20694
#2	.8184093	1.898187	1.116044	1.779100	.7485465	75.12002
#3	.8178301	1.860650	1.115244	1.781422	.7456130	75.18380

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4880296	.1757252	.1878260	126.9142	.5209524	.2814360
Stddev	.0013817	.0010549	.0010923	.2447	.0044787	.0006269
%RSD	.2831172	.6003213	.5815609	.1928146	.8597132	.2227400
#1	.4882818	.1748374	.1889384	126.7851	.5181751	.2821361
#2	.4892679	.1768914	.1877847	127.1964	.5185631	.2812452
#3	.4865392	.1754467	.1867549	126.7610	.5261191	.2809267

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5654544	214.8750	2.486324	20.28758	.5733816	.0700997
Stddev	.0008953	1.1906	.008196	.08079	.0023003	.0006702
%RSD	.1583293	.5540679	.3296424	.3982161	.4011887	.9560179
#1	.5664830	215.3338	2.487741	20.20024	.5756254	.0706279
#2	.5648509	213.5233	2.493719	20.30288	.5710286	.0693458
#3	.5650293	215.7679	2.477512	20.35963	.5734908	.0703253

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.189967	.6181546	.5753772	17.21846	.3933371	.3882291
Stddev	.014064	.0052468	.0019539	.11802	.0006234	.0003696
%RSD	.1717274	.8487871	.3395928	.6854273	.1584913	.0951973
#1	8.199081	.6241281	.5740708	17.23719	.3934632	.3884172
#2	8.173769	.6142920	.5744374	17.09220	.3926603	.3878033
#3	8.197051	.6160437	.5776235	17.32600	.3938879	.3884667

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01MSD Acquired: 1/17/2025 13:28:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6782789	1.835619	F 11.99824	F 10.03575	9.722324	.2146033
Stddev	.0035833	.002139	.11428	.02146	.027192	.0012286
%RSD	.5282974	.1165072	.9524981	.2138666	.2796869	.5725069
#1	.6812841	1.837767	11.98960	10.05782	9.752730	.2132690
#2	.6792393	1.835600	11.88852	10.01495	9.713903	.2156878
#3	.6743132	1.833490	12.11660	10.03448	9.700338	.2148531

Elem	Sr4077
Units	ppm
Avg	.5965551
Stddev	.0035443
%RSD	.5941350
#1	.5976892
#2	.5993936
#3	.5925825

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.164	56777.61	11237.61	1990.156	3915.116
Stddev	6.037	386.49	51.24	12.837	14.790
%RSD	.2071520	.6807172	.4559608	.6450198	.3777743
#1	2907.786	56919.51	11283.59	1998.381	3898.132
#2	2919.789	57073.09	11182.37	1996.724	3922.064
#3	2914.916	56340.22	11246.86	1975.365	3925.154

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01A Acquired: 1/17/2025 13:32:53 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7764638	1.808870	1.078296	1.687949	.7237697	75.88902
Stddev	.0028407	.011156	.001958	.004070	.0006015	.25422
%RSD	.3658535	.6167387	.1815489	.2410953	.0831069	.3349887
#1	.7777962	1.818581	1.080556	1.688031	.7239191	75.80974
#2	.7783933	1.796685	1.077177	1.691977	.7242823	76.17344
#3	.7732017	1.811344	1.077155	1.683839	.7231075	75.68389

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5029189	.1673249	.1786168	128.7197	.5018639	.2740048
Stddev	.0008455	.0014558	.0002938	.6202	.0011087	.0004151
%RSD	.1681244	.8700422	.1644924	.4817893	.2209218	.1514810
#1	.5023344	.1665924	.1784563	128.6184	.5031123	.2740587
#2	.5038884	.1690015	.1789559	129.3842	.5014854	.2743903
#3	.5025340	.1663809	.1784381	128.1564	.5009940	.2735654

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5470652	221.0038	2.554312	20.59122	.5535822	.0684310
Stddev	.0011529	1.4781	.009750	.11833	.0008770	.0004509
%RSD	.2107396	.6688280	.3816974	.5746472	.1584277	.6588610
#1	.5479813	222.6716	2.554374	20.62723	.5543441	.0687936
#2	.5474437	219.8559	2.564031	20.68735	.5537791	.0679262
#3	.5457707	220.4838	2.544531	20.45907	.5526235	.0685733

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.696365	.6198790	.5836690	17.44373	.3944435	.3766997
Stddev	.064071	.0022463	.0032411	.13769	.0008372	.0005589
%RSD	.7367604	.3623843	.5553068	.7893522	.2122553	.1483730
#1	8.756732	.6192387	.5874109	17.55756	.3950749	.3768963
#2	8.629141	.6223759	.5818620	17.29068	.3947618	.3771338
#3	8.703223	.6180222	.5817342	17.48295	.3934938	.3760690

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1068-01A Acquired: 1/17/2025 13:32:53 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6560648	1.899078	F 12.03318	9.755255	9.477137	.2185184
Stddev	.0032287	.005704	.06796	.022113	.031111	.0011072
%RSD	.4921354	.3003458	.5647979	.2266775	.3282738	.5066661
#1	.6589316	1.898867	12.09762	9.729731	9.464991	.2182206
#2	.6566956	1.904884	11.96217	9.768629	9.453932	.2197440
#3	.6525672	1.893482	12.03976	9.767404	9.512489	.2175905

Elem	Sr4077
Units	ppm
Avg	.6069930
Stddev	.0019059
%RSD	.3139850
#1	.6054165
#2	.6091110
#3	.6064515

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2974.244	57970.75	11499.43	2053.055	4000.375
Stddev	6.488	273.28	98.08	13.947	4.442
%RSD	.2181402	.4714081	.8529107	.6793284	.1110352
#1	2966.943	57684.56	11540.43	2037.460	3995.597
#2	2976.437	57998.73	11387.51	2057.374	4001.149
#3	2979.351	58228.96	11570.36	2064.333	4004.379

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV03 Acquired: 1/17/2025 13:36:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.729766	4.789446	4.695570	4.756881	4.814555	9.518909	9.552884
Stddev	.003250	.040708	.008846	.010690	.004275	.105801	.181214
%RSD	.0687129	.8499555	.1883903	.2247207	.0887992	1.111480	1.896959
#1	4.732362	4.757729	4.685367	4.744547	4.811501	9.640314	9.737415
#2	4.726121	4.835349	4.700260	4.762624	4.812722	9.470010	9.375179
#3	4.730815	4.775258	4.701084	4.763471	4.819441	9.446401	9.546057

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2312961	2.341584	23.39321	.9518228	2.359727	1.205179	4.901956
Stddev	.0014482	.003615	.23156	.0017900	.003802	.001896	.045529
%RSD	.6261290	.1543854	.9898722	.1880609	.1611050	.1573201	.9287920
#1	.2320117	2.337429	23.66042	.9538865	2.355524	1.203709	4.953838
#2	.2296294	2.343317	23.26804	.9506899	2.360729	1.204510	4.883365
#3	.2322473	2.344006	23.25117	.9508922	2.362927	1.207319	4.868664

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.360291	22.59460	2.358534	1.205947	24.57677	2.363205	2.444621
Stddev	.021349	.23331	.003498	.002354	.24798	.025833	.003755
%RSD	.9045151	1.032580	.1482925	.1952058	1.009001	1.093133	.1535865
#1	2.384667	22.86156	2.354758	1.208660	24.78777	2.393010	2.440303
#2	2.351289	22.49244	2.361663	1.204732	24.63890	2.349349	2.446438
#3	2.344917	22.42980	2.359180	1.204448	24.30363	2.347257	2.447121

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.46772	4.662663	4.840888	4.683575	4.747008	5.142282	4.829910
Stddev	.25980	.030075	.007800	.011463	.053334	.055050	.027017
%RSD	1.061811	.6450276	.1611181	.2447525	1.123532	1.070537	.5593785
#1	24.68727	4.682116	4.832248	4.671162	4.808406	5.191372	4.799452
#2	24.53500	4.628022	4.843003	4.693762	4.720456	5.152711	4.850985
#3	24.18090	4.677851	4.847411	4.685802	4.712161	5.082764	4.839292

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV03 Acquired: 1/17/2025 13:36:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.645488	4.781809	4.837142
Stddev	.016447	.052588	.080836
%RSD	.3540433	1.099756	1.671156
#1	4.626804	4.841983	4.878511
#2	4.657776	4.758777	4.743994
#3	4.651885	4.744666	4.888920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2883.143	55714.91	10278.37	1982.236	4148.112
Stddev	3.736	121.27	65.63	4.618	6.919
%RSD	.1295950	.2176684	.6384885	.2329513	.1668046
#1	2887.142	55594.44	10226.04	1978.016	4155.417
#2	2882.545	55713.31	10352.00	1987.169	4141.657
#3	2879.741	55836.97	10257.06	1981.523	4147.263

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB03 Acquired: 1/17/2025 13:41:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	.0010522	.0010388	.0012737	.0006508	.0003655	.0030901	-.008710
Stddev	.0010398	.0013613	.0005018	.0003743	.0002031	.0061753	.000291
%RSD	98.82882	131.0434	39.39705	57.50596	55.54979	199.8383	3.340578
#1	.0022176	.0006214	.0010915	.0003929	.0005963	.0101994	-.008777
#2	.0007198	.0025599	.0018412	.0010801	.0002859	.0000126	-.008961
#3	.0002192	-.000065	.0008885	.0004795	.0002144	-.000942	-.008391

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000053	-.000173	.0039348	-.000350	-.000034	-.000149	.0034172
Stddev	.000026	.000040	.0045222	.000300	.000127	.000371	.0016079
%RSD	49.04262	23.25663	114.9283	85.55835	370.2767	249.5438	47.05106
#1	-.000024	-.000195	.0089945	-.000026	.000075	-.000577	.0029203
#2	-.000075	-.000198	.0002868	-.000408	-.000005	.000083	.0052149
#3	-.000059	-.000127	.0025232	-.000617	-.000173	.000048	.0021165

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000238	-.004903	.0001956	.0006818	-.014966	-.001865	.0003514
Stddev	.000405	.009448	.0002389	.0001112	.008556	.000376	.0001484
%RSD	170.4508	192.7169	122.1490	16.30506	57.16811	20.14889	42.22548
#1	-.000289	.005988	.0000064	.0006372	-.005496	-.001437	.0003248
#2	.000191	-.009791	.0004641	.0005998	-.022137	-.002142	.0005114
#3	-.000615	-.010905	.0001163	.0008084	-.017265	-.002017	.0002182

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004357	.0044604	.0000487	-.000270	.0006595	.0173707	-.000325
Stddev	.008587	.0003779	.0001195	.000119	.0005630	.0063216	.001091
%RSD	197.0769	8.471262	245.2560	44.04621	85.37860	36.39205	335.2312
#1	.005435	.0041822	.0001083	-.000408	.0008306	.0122543	-.000169
#2	-.007900	.0048906	-.000089	-.000209	.0000307	.0244376	.000679
#3	-.010607	.0043085	.000127	-.000195	.0011171	.0154202	-.001486

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB03 Acquired: 1/17/2025 13:41:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004224	-.002046	.0000226
Stddev	.001633	.001721	.0000363
%RSD	38.65348	84.15044	160.2886
#1	-.003288	-.001088	.0000475
#2	-.006109	-.004033	.0000394
#3	-.003275	-.001016	-.000019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2982.636	57252.48	10755.69	2050.134	4528.474
Stddev	7.220	40.70	55.87	5.233	1.991
%RSD	.2420821	.0710810	.5194855	.2552491	.0439623
#1	2980.036	57276.90	10693.91	2053.635	4530.595
#2	2990.796	57205.50	10770.46	2044.119	4526.646
#3	2977.076	57275.03	10802.70	2052.648	4528.180

Sample Name: Q1036-02 Acquired: 1/17/2025 13:45:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003003	-.006324	.0016675	.0024893	.0016056	-.001271	.0159570
Stddev	.000780	.002054	.0004212	.0017146	.0003246	.006624	.0010966
%RSD	25.95788	32.47530	25.25926	68.87958	20.21656	521.0070	6.871918
#1	-.002163	-.004737	.0012829	.0011815	.0019489	-.008646	.0161935
#2	-.003704	-.008643	.0016021	.0018559	.0013037	.000656	.0169161
#3	-.003142	-.005591	.0021176	.0044304	.0015643	.004176	.0147615

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000161	-.000155	8.214424	.0013227	-.000256	.0018141	.0239937
Stddev	.000045	.000020	.041650	.0001385	.000124	.0002509	.0069887
%RSD	27.88255	12.73740	.5070364	10.46986	48.61472	13.82868	29.12730
#1	-.000182	-.000134	8.176519	.0014560	-.000395	.0016804	.0177834
#2	-.000109	-.000158	8.259012	.0011796	-.000155	.0016583	.0315617
#3	-.000191	-.000174	8.207741	.0013325	-.000218	.0021035	.0226361

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500451	2.400690	.0019383	.0007546	8.313693	-.001167	.0435666
Stddev	.0002905	.005190	.0004661	.0002813	.023499	.000643	.0001242
%RSD	.5805283	.2161837	24.04876	37.28298	.2826536	55.15775	.2851764
#1	.0503662	2.401062	.0015814	.0008767	8.313902	-.001821	.0435684
#2	.0498004	2.405684	.0024657	.0004328	8.290090	-.001143	.0434414
#3	.0499686	2.395325	.0017679	.0009543	8.337087	-.000535	.0436899

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.112859	.0224363	.0011335	-.000454	.0005364	.6458674	.0072109
Stddev	.053544	.0003504	.0002483	.000910	.0007251	.0104558	.0005146
%RSD	4.811396	1.561931	21.90683	200.4749	135.1677	1.618874	7.136484
#1	1.053722	.0226407	.0013638	.000166	.0011099	.6397991	.0066407
#2	1.158050	.0220316	.0008704	-.000029	.0007780	.6579407	.0073513
#3	1.126804	.0226364	.0011664	-.001499	-.000279	.6398625	.0076407

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02 Acquired: 1/17/2025 13:45:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.262062	-.006426	.0457677
Stddev	.028730	.000949	.0000685
%RSD	.6740979	14.77406	.1497500
#1	4.232964	-.006621	.0458322
#2	4.262814	-.005394	.0456957
#3	4.290410	-.007263	.0457750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.675	56539.86	11101.04	1970.150	4478.564
Stddev	14.870	190.37	43.82	7.010	25.329
%RSD	.5114171	.3366948	.3947270	.3557878	.5655541
#1	2918.573	56759.10	11094.99	1977.419	4503.516
#2	2913.718	56416.45	11060.55	1963.432	4479.301
#3	2890.735	56444.02	11147.56	1969.599	4452.875

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02DUP Acquired: 1/17/2025 13:49:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004839	-.007282	.0005415	.0015365	.0022568	.0040427	.0165156
Stddev	.003493	.000479	.0003066	.0005192	.0006593	.0058826	.0005815
%RSD	72.18300	6.581939	56.62610	33.79440	29.21419	145.5120	3.520963
#1	-.008739	-.007835	.0008859	.0009964	.0028914	.0021620	.0158509
#2	-.003776	-.006990	.0002982	.0020320	.0015753	-.000670	.0167655
#3	-.002001	-.007021	.0004403	.0015810	.0023038	.010636	.0169305

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000179	-.000211	8.069601	.0035270	-.000120	.0026011	.0284685
Stddev	.000017	.000061	.016110	.0003199	.000073	.0002625	.0024075
%RSD	9.392651	28.92717	.1996413	9.071212	60.46909	10.09037	8.456516
#1	-.000179	-.000281	8.074446	.0036430	-.000200	.0025209	.0281219
#2	-.000162	-.000166	8.082732	.0031653	-.000058	.0028943	.0310305
#3	-.000195	-.000187	8.051624	.0037728	-.000102	.0023881	.0262532

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0469027	2.330656	.0040108	.0009740	7.976024	-.000984	.0427697
Stddev	.0005288	.026542	.0001541	.0002488	.094426	.000538	.0002328
%RSD	1.127347	1.138841	3.842943	25.54474	1.183867	54.64574	.5442996
#1	.0463351	2.301560	.0041842	.0006894	7.984542	-.001475	.0428653
#2	.0469916	2.336864	.0038894	.0011501	8.065901	-.000410	.0429394
#3	.0473813	2.353545	.0039589	.0010825	7.877627	-.001067	.0425043

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.090495	.0206683	.0010598	-.000438	.0002835	.6061635	.0069456
Stddev	.033638	.0005318	.0002622	.000597	.0004962	.0062264	.0020629
%RSD	3.084647	2.572911	24.74254	136.3100	174.9950	1.027186	29.70027
#1	1.128764	.0205214	.0013587	-.000184	.0007084	.6060773	.0068194
#2	1.065607	.0202255	.0009523	-.001120	-.000262	.6124326	.0049488
#3	1.077113	.0212581	.0008684	-.000010	.000404	.5999807	.0090687

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02DUP Acquired: 1/17/2025 13:49:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.173160	-.005889	.0446596
Stddev	.022065	.001613	.0003127
%RSD	.5287363	27.38159	.7001266
#1	4.197130	-.005254	.0447939
#2	4.153694	-.004691	.0448827
#3	4.168657	-.007723	.0443022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2912.880	56657.96	11029.95	1959.337	4475.203
Stddev	6.630	79.63	62.11	2.663	10.167
%RSD	.2276090	.1405485	.5631058	.1358973	.2271783
#1	2907.497	56567.36	10989.86	1959.709	4469.380
#2	2920.286	56716.86	11101.49	1956.508	4486.942
#3	2910.858	56689.66	10998.48	1961.794	4469.286

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02LX5 Acquired: 1/17/2025 13:53:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002710	-.002626	.0008393	.0007090	.0005618	-.003684	-.005140
Stddev	.000702	.000598	.0006815	.0034523	.0003467	.004607	.000205
%RSD	25.89209	22.77566	81.19608	486.9104	61.71710	125.0535	3.996864
#1	-.002725	-.002127	.0016036	.0014193	.0001689	-.009001	-.005288
#2	-.003403	-.003289	.0006190	-.003043	.0006917	-.000884	-.004905
#3	-.002001	-.002463	.0002952	.003751	.0008248	-.001167	-.005226

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000040	-.000078	1.612319	.0003200	-.000132	.0005121	.0077159
Stddev	.000003	.000073	.003630	.0002638	.000161	.0003783	.0001629
%RSD	8.458475	93.62174	.2251716	82.42157	121.4976	73.87329	2.110664
#1	-.000038	-.000156	1.610257	.0003087	-.000071	.0003158	.0076383
#2	-.000044	-.000070	1.610189	.0005893	-.000315	.0002722	.0076064
#3	-.000038	-.000010	1.616511	.0000621	-.000011	.0009482	.0079031

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091100	.4686493	.0010147	.0006747	1.555827	-.001964	.0081850
Stddev	.0002201	.0090067	.0002109	.0002403	.017771	.000576	.0000930
%RSD	2.416051	1.921847	20.78039	35.61360	1.142250	29.32979	1.135755
#1	.0092788	.4582891	.0008428	.0003973	1.573314	-.002148	.0081777
#2	.0091901	.4746174	.0012500	.0008099	1.537784	-.002424	.0080959
#3	.0088611	.4730413	.0009513	.0008170	1.556383	-.001318	.0082814

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2179519	.0017659	.0001129	-.000097	.0008664	.1241527	-.000726
Stddev	.0176468	.0006051	.0001107	.000654	.0000526	.0009546	.000302
%RSD	8.096669	34.26631	97.96008	675.8289	6.073655	.7688577	41.58493
#1	.1978019	.0010677	.0001177	.000634	.0008685	.1230559	-.000503
#2	.2306525	.0020914	-.000000	-.000627	.0009179	.1247954	-.000606
#3	.2254013	.0021385	.000221	-.000296	.0008127	.1246069	-.001070

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02LX5 Acquired: 1/17/2025 13:53:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8738088	-.002980	.0089110
Stddev	.0028606	.000510	.0000296
%RSD	.3273750	17.10084	.3317595
#1	.8770283	-.003434	.0088778
#2	.8715591	-.003077	.0089344
#3	.8728391	-.002429	.0089208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2996.644	57166.25	10909.11	2028.647	4532.684
Stddev	4.674	156.11	6.60	.626	2.909
%RSD	.1559596	.2730798	.0605086	.0308512	.0641675
#1	2992.076	57252.02	10904.21	2028.142	4529.349
#2	3001.416	56986.06	10916.62	2029.347	4534.012
#3	2996.441	57260.67	10906.51	2028.453	4534.692

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02MS Acquired: 1/17/2025 13:58:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7649551	1.826135	.9067117	1.800543	.7613901	1.816032	.1958684
Stddev	.0039565	.004899	.0010968	.011252	.0042701	.016889	.0013651
%RSD	.5172156	.2682837	.1209590	.6249193	.5608323	.9299928	.6969256
#1	.7608361	1.823333	.9054617	1.790416	.7570039	1.835289	.1974129
#2	.7653030	1.831792	.9071604	1.798557	.7616325	1.809073	.1953683
#3	.7687261	1.823279	.9075130	1.812656	.7655338	1.803735	.1948238

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1738579	.1805180	9.319525	.3921550	.1871884	.2942164	2.891753
Stddev	.0008718	.0006120	.023757	.0003601	.0005289	.0010959	.013085
%RSD	.5014745	.3390045	.2549116	.0918227	.2825383	.3724713	.4525080
#1	.1743760	.1801376	9.336273	.3924042	.1868761	.2938019	2.893398
#2	.1743464	.1801924	9.329965	.3917422	.1868900	.2933883	2.877923
#3	.1728513	.1812239	9.292336	.3923187	.1877990	.2954591	2.903938

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2265975	4.132180	.4673743	.0705577	10.65817	.2730108	.2427268
Stddev	.0006846	.024646	.0015827	.0004383	.08385	.0006575	.0014870
%RSD	.3021018	.5964409	.3386396	.6211424	.7867129	.2408366	.6126253
#1	.2268556	4.159780	.4670680	.0705452	10.72312	.2733450	.2438641
#2	.2258215	4.112372	.4659671	.0710021	10.56351	.2734340	.2432722
#3	.2271155	4.124388	.4690877	.0701258	10.68788	.2722533	.2410441

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.54418	.2630167	.4085710	.6387227	.1806388	1.303079	5.457898
Stddev	.06360	.0014873	.0018930	.0020023	.0009965	.010149	.020859
%RSD	.6032114	.5654683	.4633136	.3134782	.5516326	.7788582	.3821813
#1	10.59353	.2619861	.4067459	.6368790	.1817391	1.314477	5.440259
#2	10.47240	.2647217	.4084420	.6384365	.1803801	1.295019	5.452513
#3	10.56660	.2623423	.4105252	.6408527	.1797972	1.299741	5.480922

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02MS Acquired: 1/17/2025 13:58:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.488479	.1786541	.2297919
Stddev	.007726	.0021568	.0007313
%RSD	.1721290	1.207246	.3182598
#1	4.487687	.1810226	.2306358
#2	4.481179	.1781361	.2293982
#3	4.496570	.1768034	.2293419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2831.950	56214.94	10570.56	1971.496	4281.220
Stddev	17.391	162.39	27.52	9.674	20.919
%RSD	.6141075	.2888789	.2603138	.4906936	.4886118
#1	2846.457	56039.53	10546.38	1960.325	4294.465
#2	2836.722	56360.05	10564.81	1977.034	4292.091
#3	2812.671	56245.26	10600.50	1977.128	4257.105

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02MSD Acquired: 1/17/2025 14:02:17 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7448190	1.798949	.8847559	1.756077	.7472876	1.809688	.1927985
Stddev	.0035554	.014625	.0048067	.006498	.0040684	.014930	.0008264
%RSD	.4773530	.8129649	.5432818	.3700423	.5444249	.8250206	.4286404
#1	.7409462	1.784106	.8800564	1.749766	.7502386	1.824577	.1935608
#2	.7455755	1.799397	.8845481	1.755716	.7426465	1.794716	.1919202
#3	.7479353	1.813345	.8896631	1.762748	.7489776	1.809770	.1929144

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1724365	.1758370	9.215692	.3898834	.1830688	.2878968	2.837955
Stddev	.0017121	.0007762	.013500	.0014889	.0005928	.0008642	.022038
%RSD	.9928841	.4414516	.1464910	.3818794	.3238258	.3001799	.7765373
#1	.1741467	.1750295	9.228305	.3898948	.1823975	.2877798	2.817768
#2	.1724402	.1759038	9.217318	.3883888	.1832886	.2870970	2.834632
#3	.1707225	.1765777	9.201452	.3913665	.1835204	.2888135	2.861466

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2229815	4.097034	.4556678	.0699534	10.36392	.2712114	.2408578
Stddev	.0005827	.036304	.0017999	.0002372	.10115	.0007408	.0021052
%RSD	.2613147	.8861038	.3949917	.3390829	.9759662	.2731391	.8740542
#1	.2235460	4.134718	.4536451	.0696863	10.27792	.2719339	.2416389
#2	.2223822	4.062288	.4562656	.0700345	10.33849	.2704536	.2424608
#3	.2230162	4.094096	.4570927	.0701395	10.47536	.2712467	.2384737

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.37105	.2614664	.4072539	.6214818	.1786155	1.272379	5.177238
Stddev	.12877	.0028999	.0015233	.0028351	.0005587	.017599	.023390
%RSD	1.241619	1.109076	.3740395	.4561828	.3127706	1.383133	.4517810
#1	10.24978	.2641602	.4060801	.6182420	.1786046	1.252524	5.151058
#2	10.35718	.2618419	.4067062	.6226951	.1791795	1.278560	5.184579
#3	10.50619	.2583971	.4089753	.6235084	.1780624	1.286054	5.196076

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02MSD Acquired: 1/17/2025 14:02:17 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.265944	.1771473	.2266031
Stddev	.022626	.0000704	.0006952
%RSD	.5303799	.0397383	.3067827
#1	4.244639	.1772034	.2269381
#2	4.263502	.1770683	.2270673
#3	4.289692	.1771702	.2258038

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2918.798	56749.04	10606.67	1981.026	4467.946
Stddev	4.800	335.47	79.47	8.163	12.978
%RSD	.1644548	.5911498	.7492736	.4120383	.2904649
#1	2920.942	56830.02	10515.02	1973.066	4482.093
#2	2922.151	57036.62	10648.49	1989.377	4465.155
#3	2913.299	56380.49	10656.51	1980.634	4456.591

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02A Acquired: 1/17/2025 14:06:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7722719	1.835478	.9044148	1.826069	.7686086	1.845013	.2001418
Stddev	.0022541	.007843	.0009750	.001951	.0027100	.011714	.0006050
%RSD	.2918729	.4273096	.1078034	.1068250	.3525895	.6348770	.3022800
#1	.7719664	1.841559	.9040068	1.824406	.7671445	1.857264	.2008403
#2	.7701861	1.838250	.9037101	1.825584	.7669455	1.843853	.1997994
#3	.7746631	1.826625	.9055275	1.828216	.7717358	1.833923	.1997856

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1691925	.1805772	9.401284	.3945778	.1870221	.2939092	2.985402
Stddev	.0005161	.0004304	.008921	.0009967	.0000710	.0010704	.012584
%RSD	.3050224	.2383593	.0948863	.2526088	.0379676	.3641900	.4215112
#1	.1688314	.1803068	9.403906	.3934832	.1870370	.2926900	2.997746
#2	.1697836	.1803512	9.408599	.3948171	.1870844	.2943433	2.985867
#3	.1689626	.1810736	9.391346	.3954331	.1869447	.2946944	2.972592

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2274985	4.199659	.4677242	.0706631	11.29621	.2783003	.2437205
Stddev	.0018014	.021189	.0005258	.0001380	.10465	.0011985	.0009737
%RSD	.7918426	.5045405	.1124190	.1952369	.9264263	.4306635	.3995120
#1	.2291775	4.203931	.4671172	.0706152	11.37103	.2789070	.2426111
#2	.2277223	4.218386	.4680141	.0705555	11.34098	.2790742	.2444335
#3	.2255956	4.176659	.4680412	.0708186	11.17662	.2769197	.2441169

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.98767	.2564142	.4123210	.6395950	.1832366	1.356588	5.339836
Stddev	.03367	.0011518	.0015790	.0005578	.0008427	.006871	.010867
%RSD	.3064773	.4491829	.3829586	.0872126	.4599026	.5065188	.2035026
#1	11.01509	.2561780	.4111847	.6399370	.1841897	1.357760	5.332179
#2	10.99784	.2576658	.4116543	.6389513	.1825899	1.349206	5.352274
#3	10.95009	.2553988	.4141241	.6398966	.1829304	1.362798	5.335056

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1036-02A Acquired: 1/17/2025 14:06:15 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.465221	.1839794	.2330958
Stddev	.001579	.0015037	.0011426
%RSD	.0353591	.8173321	.4901747
#1	4.463413	.1844552	.2342115
#2	4.465922	.1851877	.2331479
#3	4.466327	.1822954	.2319281

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2852.506	56360.60	10888.47	1947.227	4333.810
Stddev	10.637	136.31	32.90	7.965	9.007
%RSD	.3728991	.2418481	.3021626	.4090613	.2078224
#1	2857.891	56517.92	10926.00	1955.338	4336.115
#2	2859.373	56277.67	10864.62	1939.416	4341.440
#3	2840.253	56286.21	10874.78	1946.928	4323.875

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1069-02 Acquired: 1/17/2025 14:10:14 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005939	-.004666	.0008699	.0040611	.0014386	.0119723	.0850415
Stddev	.001433	.000513	.0017341	.0006482	.0016075	.0024910	.0008016
%RSD	24.12577	10.98592	199.3369	15.96144	111.7383	20.80632	.9425784
#1	-.005314	-.005154	-.000513	.0033460	.0015434	.0096405	.0855072
#2	-.004926	-.004132	.002815	.0046102	-.000219	.0145967	.0841159
#3	-.007579	-.004713	.000307	.0042271	.002991	.0116798	.0855013

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000176	-.000172	.3768328	.0001949	.0001124	.0008462	.0180839
Stddev	.000025	.000057	.0063125	.0000590	.0003088	.0001825	.0010323
%RSD	13.90653	33.43501	1.675142	30.25405	274.7451	21.56749	5.708187
#1	-.000198	-.000110	.3820820	.0002630	-.000228	.0006796	.0185727
#2	-.000181	-.000182	.3698285	.0001631	.000373	.0008177	.0187809
#3	-.000150	-.000224	.3785879	.0001587	.000192	.0010412	.0168980

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084238	.0913722	.0009947	.0006752	279.3156	-.000840	.1246139
Stddev	.0003028	.0091732	.0002340	.0003377	.9071	.000643	.0005614
%RSD	3.593966	10.03938	23.52576	50.02325	.3247561	76.54297	.4504770
#1	.0083617	.1019520	.0009884	.0010589	279.7624	-.001435	.1239944
#2	.0081569	.0865275	.0012318	.0004230	279.9126	-.000158	.1247583
#3	.0087528	.0856371	.0007639	.0005436	278.2718	-.000926	.1250889

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2629092	.0543850	.0003134	.0037362	.0006580	.2900400	.0046041
Stddev	.0356986	.0003869	.0001087	.0007168	.0001415	.0090246	.0013705
%RSD	13.57829	.7113213	34.69565	19.18451	21.49464	3.111491	29.76554
#1	.2232011	.0540023	.0004390	.0043616	.0004975	.2819124	.0051531
#2	.2923465	.0543768	.0002482	.0029540	.0007122	.2997518	.0056150
#3	.2731801	.0547759	.0002531	.0038930	.0007644	.2884559	.0030443

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1069-02 Acquired: 1/17/2025 14:10:14 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.308413	-.004932	.0044450
Stddev	.003461	.001121	.0000168
%RSD	.2644994	22.72194	.3780024
#1	1.305291	-.004868	.0044299
#2	1.307814	-.003844	.0044421
#3	1.312134	-.006083	.0044631

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2808.710	53454.88	10744.79	1876.538	4083.636
Stddev	8.810	130.34	29.91	3.440	13.953
%RSD	.3136748	.2438407	.2783664	.1833309	.3416748
#1	2813.675	53331.19	10759.34	1873.309	4094.694
#2	2813.918	53442.45	10764.63	1880.157	4088.254
#3	2798.538	53590.99	10710.39	1876.147	4067.960

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1040-01 Acquired: 1/17/2025 14:14:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003908	-.005542	.0059292	.0018409	.0019458	.0074248	-.008502
Stddev	.001600	.001003	.0013845	.0008425	.0009755	.0027749	.000338
%RSD	40.94568	18.09102	23.34978	45.76447	50.13319	37.37299	3.974644
#1	-.002972	-.004412	.0058592	.0013715	.0016498	.0103879	-.008259
#2	-.005756	-.005887	.0045811	.0028136	.0011526	.0048873	-.008360
#3	-.002997	-.006326	.0073473	.0013377	.0030350	.0069993	-.008888

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000152	-.000161	5.068351	.0008137	.0045039	.0062432	.2564124
Stddev	.000024	.000041	.010950	.0003348	.0001661	.0003417	.0017824
%RSD	15.96486	25.68725	.2160483	41.14318	3.688905	5.472769	.6951271
#1	-.000143	-.000123	5.080978	.0010795	.0046957	.0059675	.2549853
#2	-.000134	-.000205	5.062604	.0004377	.0044072	.0061368	.2558416
#3	-.000180	-.000154	5.061471	.0009240	.0044087	.0066255	.2584103

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0134083	2.037252	.0082458	.0006607	17.74813	-.000854	.0225746
Stddev	.0004798	.004026	.0002026	.0003219	.13224	.000178	.0001958
%RSD	3.578600	.1976040	2.456705	48.72749	.7450887	20.84201	.8672261
#1	.0128620	2.035096	.0082861	.0009466	17.74333	-.000746	.0226449
#2	.0136018	2.041896	.0080261	.0007235	17.61836	-.001060	.0227255
#3	.0137612	2.034762	.0084252	.0003120	17.88271	-.000757	.0223534

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.055441	.0014068	.0002619	-.000116	.0009314	5.189853	.0068708
Stddev	.016853	.0003454	.0001810	.000226	.0002760	.012415	.0017335
%RSD	1.596769	24.55052	69.13327	194.7909	29.63514	.2392098	25.22949
#1	1.056399	.0014891	.0003987	.000145	.0008932	5.193036	.0069890
#2	1.071794	.0010277	.0003302	-.000251	.0006765	5.176157	.0050813
#3	1.038129	.0017036	.0000566	-.000242	.0012245	5.200366	.0085422

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1040-01 Acquired: 1/17/2025 14:14:42 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7181569	-.005668	.0340022
Stddev	.0082109	.000452	.0000828
%RSD	1.143327	7.968582	.2434645
#1	.7178327	-.005587	.0339326
#2	.7101129	-.006155	.0340937
#3	.7265250	-.005263	.0339801

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.623	56738.27	10974.81	1997.562	4524.183
Stddev	15.551	173.47	62.41	5.407	17.542
%RSD	.5256173	.3057382	.5686450	.2706611	.3877469
#1	2956.632	56539.93	10927.07	1991.455	4525.858
#2	2975.073	56861.68	10951.92	1999.491	4540.827
#3	2944.163	56813.19	11045.43	2001.739	4505.863

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1040-03 Acquired: 1/17/2025 14:18:59 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003509	-.006096	.0013067	.0033542	.0020015	.0088764	-.008586
Stddev	.001258	.001710	.0008821	.0004138	.0004409	.0034739	.000607
%RSD	35.84472	28.04490	67.50491	12.33633	22.02643	39.13695	7.071688
#1	-.002246	-.004122	.0018250	.0029169	.0023142	.0126170	-.008437
#2	-.004762	-.007112	.0002882	.0034059	.0014973	.0082605	-.009253
#3	-.003519	-.007053	.0018070	.0037396	.0021930	.0057516	-.008067

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000198	-.000219	5.278772	.0000138	.0048571	.0011794	.0159062
Stddev	.000033	.000052	.012566	.0002495	.0001570	.0001516	.0017824
%RSD	16.83971	23.72783	.2380471	1805.457	3.232255	12.85655	11.20576
#1	-.000236	-.000255	5.271971	-.000249	.0049284	.0012773	.0157295
#2	-.000184	-.000243	5.271073	.000043	.0046771	.0012561	.0142187
#3	-.000174	-.000160	5.293273	.000247	.0049657	.0010047	.0177704

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0187052	2.132873	.0068584	.0006415	18.55396	-.001018	.0079400
Stddev	.0002887	.013099	.0002661	.0003018	.28617	.000683	.0000359
%RSD	1.543299	.6141330	3.879738	47.04779	1.542387	67.14691	.4523781
#1	.0187468	2.124708	.0071449	.0008146	18.70266	-.001332	.0079257
#2	.0183980	2.125929	.0066190	.0002930	18.73516	-.001488	.0079808
#3	.0189709	2.147981	.0068114	.0008168	18.22405	-.000234	.0079134

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.105997	.0013927	.0004357	-.000124	.0003441	5.332944	.0066376
Stddev	.038317	.0003239	.0001967	.000345	.0003627	.053399	.0018071
%RSD	3.464456	23.25833	45.15253	277.5791	105.3824	1.001312	27.22563
#1	1.120555	.0014014	.0004141	-.000426	.0007599	5.348117	.0087108
#2	1.134902	.0010646	.0006424	-.000198	.0001800	5.377115	.0053958
#3	1.062535	.0017123	.0002507	.000251	.0000926	5.273600	.0058063

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1040-03 Acquired: 1/17/2025 14:18:59 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8212489	-.004579	.0360239
Stddev	.0069297	.000899	.0000773
%RSD	.8437968	19.62899	.2146317
#1	.8246636	-.004858	.0360797
#2	.8132746	-.005304	.0360564
#3	.8258085	-.003573	.0359357

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2903.766	56259.18	10794.69	1992.350	4431.457
Stddev	9.155	206.07	104.56	7.751	15.212
%RSD	.3152718	.3662893	.9686384	.3890442	.3432831
#1	2903.812	56070.19	10803.80	1988.460	4433.291
#2	2912.898	56228.47	10894.41	1987.315	4445.669
#3	2894.589	56478.89	10685.88	2001.276	4415.411

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01 Acquired: 1/17/2025 14:23:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005041	-.010132	.0022183	.0035532	.0030691	17.42769
Stddev	.000933	.000851	.0008142	.0010984	.0014488	.02656
%RSD	18.49946	8.397788	36.70356	30.91378	47.20589	.1524046
#1	-.004255	-.009335	.0012972	.0022850	.0047325	17.40056
#2	-.006072	-.011028	.0025157	.0042060	.0020824	17.42886
#3	-.004797	-.010031	.0028419	.0041684	.0023925	17.45364

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008119	-.000120	-.000389	9.227319	.4710130	.0043925
Stddev	.000989	.000032	.000057	.026111	.0022951	.0003740
%RSD	12.17561	26.70005	14.59592	.2829800	.4872734	8.513217
#1	-.006992	-.000116	-.000425	9.257371	.4688042	.0044699
#2	-.008530	-.000090	-.000419	9.214407	.4708491	.0039860
#3	-.008836	-.000154	-.000324	9.210179	.4733857	.0047217

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0249400	2.359934	.0420062	2.609994	.0824360	.0002366
Stddev	.0002636	.022382	.0003041	.012761	.0006412	.0003516
%RSD	1.056800	.9484124	.7240175	.4889265	.7778418	148.6258
#1	.0248983	2.338410	.0422455	2.623263	.0826326	.0005073
#2	.0246997	2.358307	.0421091	2.597810	.0817195	.0003633
#3	.0252219	2.383085	.0416639	2.608908	.0829560	-.000161

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2404.746	-.000897	2.356550	293.3382	6.047199	.0224698
Stddev	22.798	.000828	.013408	2.4260	.067727	.0000963
%RSD	.9480552	92.29044	.5689612	.8270403	1.119981	.4286527
#1	2404.145	-.000560	2.365418	290.5797	6.116840	.0224941
#2	2382.255	-.000291	2.341125	295.1400	5.981562	.0223636
#3	2427.839	-.001841	2.363106	294.2949	6.043196	.0225516

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01 Acquired: 1/17/2025 14:23:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0418857	.0002595	1.196612	5.562011	F 1118.232	.0033483
Stddev	.0005965	.0005062	.013569	.023334	4.719	.0005474
%RSD	1.424071	195.0955	1.133971	.4195196	.4220394	16.34875
#1	.0421429	.0008196	1.181006	5.556660	1118.880	.0038147
#2	.0423104	.0001242	1.203205	5.541817	1113.221	.0034846
#3	.0412037	-.000165	1.205625	5.587555	1122.593	.0027456

Elem	Sr4077
Units	ppm
Avg	.0355827
Stddev	.0001357
%RSD	.3814306
#1	.0357199
#2	.0355797
#3	.0354485

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.038	45976.02	10042.64	1665.687	3299.431
Stddev	12.033	209.35	78.63	7.022	15.291
%RSD	.4871528	.4553451	.7829470	.4215435	.4634321
#1	2471.108	46145.32	9963.33	1667.376	3298.731
#2	2481.501	46040.79	10120.56	1671.710	3315.059
#3	2457.506	45741.93	10044.03	1657.975	3284.502

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV04 Acquired: 1/17/2025 14:27:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.905576	4.849585	4.842333	4.940653	4.999847	9.715420	9.450848
Stddev	.006599	.038359	.008443	.006010	.005517	.032566	.077379
%RSD	.1345246	.7909756	.1743622	.1216480	.1103371	.3351994	.8187538
#1	4.898849	4.805802	4.843963	4.933823	4.999496	9.752861	9.512630
#2	4.905839	4.865674	4.833194	4.943004	4.994514	9.693672	9.475858
#3	4.912039	4.877280	4.849843	4.945133	5.005531	9.699727	9.364058

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2379623	2.423193	23.64575	.9920822	2.436668	1.243974	4.940555
Stddev	.0028644	.003254	.12759	.0023586	.002361	.001373	.026620
%RSD	1.203710	.1342773	.5395943	.2377460	.0968846	.1104038	.5387983
#1	.2392795	2.424907	23.77548	.9895880	2.439202	1.245476	4.920358
#2	.2399313	2.419440	23.64136	.9942766	2.434531	1.242784	4.930586
#3	.2346763	2.425231	23.52041	.9923822	2.436271	1.243661	4.970720

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.354437	22.84350	2.435999	1.242131	24.67859	2.390250	2.519494
Stddev	.014112	.15191	.002658	.000979	.15737	.010475	.007511
%RSD	.5993758	.6650248	.1091232	.0788072	.6376900	.4382463	.2981204
#1	2.370082	22.96401	2.436907	1.241562	24.71152	2.402241	2.527946
#2	2.350563	22.89363	2.433006	1.243261	24.50736	2.385629	2.513580
#3	2.342667	22.67285	2.438085	1.241569	24.81689	2.382880	2.516957

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.12236	4.775734	4.994191	4.817095	4.773406	5.235876	4.888692
Stddev	.21125	.066630	.007869	.010078	.024646	.072731	.006226
%RSD	.8409030	1.395170	.1575696	.2092146	.5163286	1.389096	.1273645
#1	25.08634	4.823923	4.989295	4.812246	4.801414	5.196642	4.892925
#2	24.93144	4.803580	4.990011	4.810359	4.763770	5.191185	4.891609
#3	25.34931	4.699698	5.003269	4.828682	4.755032	5.319799	4.881543

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV04 Acquired: 1/17/2025 14:27:39 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.855193	4.768002	4.845645
Stddev	.006540	.023176	.072815
%RSD	.1346914	.4860813	1.502680
#1	4.853689	4.794577	4.856624
#2	4.862353	4.757451	4.912347
#3	4.849536	4.751979	4.767964

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.617	54273.64	10115.25	1895.182	4069.090
Stddev	9.452	86.48	118.47	5.216	14.586
%RSD	.3352392	.1593323	1.171215	.2752065	.3584623
#1	2811.787	54371.58	10039.77	1897.007	4057.894
#2	2830.117	54241.55	10054.19	1899.240	4085.585
#3	2816.945	54207.80	10251.80	1889.299	4063.791

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB04 Acquired: 1/17/2025 14:31:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001744	-.001537	.0012359	.0009051	.0014797	-.003242
Stddev	.002184	.001456	.0009239	.0038215	.0011908	.006673
%RSD	125.2002	94.76507	74.75380	422.2373	80.48112	205.8485
#1	-.004089	-.001965	.0003155	.0034065	.0004237	-.002171
#2	-.001373	-.002731	.0012290	.0028026	.0027704	-.010386
#3	.000230	.000086	.0021633	-.003494	.0012449	.002831

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008175	.0000038	-.000072	.0058607	-.000310	-.000120
Stddev	.000448	.0000310	.000104	.0057126	.000241	.000147
%RSD	5.481731	813.3068	145.5240	97.47202	77.67624	123.3347
#1	-.007750	.0000107	.000043	.0088405	-.000377	-.000276
#2	-.008643	.0000308	-.000096	-.000726	-.000043	-.000100
#3	-.008134	-.000030	-.000161	.009467	-.000509	.000017

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003318	.0006476	-.000210	-.010045	.0003743	.0008622
Stddev	.0001895	.0038754	.000153	.012147	.0001371	.0004270
%RSD	57.09572	598.4223	72.53994	120.9207	36.61905	49.51738
#1	.0001321	-.003827	-.000039	-.007875	.0003997	.0013427
#2	.0005090	.002940	-.000262	.000870	.0004968	.0007179
#3	.0003543	.002830	-.000330	-.023131	.0002263	.0005262

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1364989	-.000567	.0001232	.2009452	.0091967	.0000242
Stddev	.0215536	.001668	.0005360	.0480766	.0002860	.0000275
%RSD	15.79031	293.9943	435.0362	23.92522	3.110191	113.4092
#1	.1190033	.001337	.0007028	.2122890	.0094340	.0000496
#2	.1299174	-.001771	.0000213	.2423355	.0092771	.0000280
#3	.1605759	-.001269	-.000355	.1482111	.0088791	-.000005

Sample Name: CCB04 Acquired: 1/17/2025 14:31:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000449	.0010224	.0149448	-.001596	F .0175437	.0019257
Stddev	.000359	.0002939	.0037355	.002002	.0010895	.0006619
%RSD	80.05189	28.74188	24.99515	125.4087	6.210223	34.37127
#1	-.000835	.0013376	.0127071	-.003150	.0185152	.0022645
#2	-.000387	.0007561	.0192571	.000663	.0163657	.0023496
#3	-.000124	.0009734	.0128701	-.002302	.0177501	.0011630

Elem	Sr4077
Units	ppm
Avg	.0000641
Stddev	.0000376
%RSD	58.62780
#1	.0000214
#2	.0000786
#3	.0000923

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.557	56570.79	10874.48	2007.511	4471.203
Stddev	3.012	175.72	17.96	6.501	3.656
%RSD	.1020108	.3106133	.1651488	.3238233	.0817710
#1	2949.890	56414.10	10872.73	2001.109	4470.533
#2	2951.958	56537.50	10857.47	2014.106	4467.929
#3	2955.824	56760.77	10893.26	2007.316	4475.148

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01DUP Acquired: 1/17/2025 14:36:11 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003828	-.009404	.0021729	.0048261	.0028034	17.12951
Stddev	.002316	.004112	.0024378	.0024376	.0018862	.02414
%RSD	60.50647	43.72804	112.1928	50.50820	67.28423	.1409390
#1	-.002519	-.013665	.0048957	.0020135	.0040171	17.15505
#2	-.002463	-.005458	.0014301	.0061394	.0006303	17.10707
#3	-.006503	-.009090	.0001929	.0063254	.0037627	17.12640

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007602	-.000108	-.000304	9.078516	.4625306	.0042876
Stddev	.000455	.000019	.000070	.010919	.0004184	.0001403
%RSD	5.980286	17.07505	23.01277	.1202754	.0904507	3.273246
#1	-.007895	-.000113	-.000368	9.076785	.4621084	.0042626
#2	-.007078	-.000125	-.000229	9.068565	.4625383	.0044388
#3	-.007833	-.000088	-.000315	9.090197	.4629450	.0041614

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250685	2.293945	.0406664	2.541258	.0814003	.0007448
Stddev	.0003442	.000714	.0002131	.009868	.0004620	.0004218
%RSD	1.373157	.0311343	.5238991	.3883007	.5675758	56.63432
#1	.0253067	2.293491	.0408039	2.547115	.0809257	.0002618
#2	.0246738	2.293575	.0404210	2.529865	.0814267	.0009320
#3	.0252249	2.294768	.0407744	2.546794	.0818486	.0010406

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2298.888	-.002159	2.320903	286.6085	5.944033	.0221902
Stddev	20.972	.000646	.003427	.8259	.013874	.0000881
%RSD	.9122471	29.90487	.1476488	.2881480	.2334108	.3972180
#1	2317.358	-.001417	2.317071	286.8735	5.929930	.0222658
#2	2276.090	-.002465	2.321963	285.6826	5.957666	.0220934
#3	2303.217	-.002595	2.323674	287.2693	5.944502	.0222115

Sample Name: Q1048-01DUP Acquired: 1/17/2025 14:36:11 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0402621	.0008423	1.195043	5.514536	F 1107.849	.0028617
Stddev	.0002977	.0005652	.007939	.013836	2.452	.0008423
%RSD	.7393771	67.10071	.6642930	.2509042	.2213185	29.43187
#1	.0399743	.0002590	1.186325	5.507755	1106.409	.0035733
#2	.0402432	.0008804	1.196949	5.505398	1106.458	.0030801
#3	.0405688	.0013874	1.201855	5.530454	1110.680	.0019318

Elem	Sr4077
Units	ppm
Avg	.0349091
Stddev	.0001326
%RSD	.3797953
#1	.0349406
#2	.0347636
#3	.0350231

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2508.266	47068.64	10259.97	1694.307	3349.985
Stddev	1.067	106.26	8.76	1.836	5.733
%RSD	.0425196	.2257532	.0853516	.1083520	.1711351
#1	2509.251	47009.28	10255.29	1696.248	3350.783
#2	2508.414	47191.32	10270.07	1692.599	3355.277
#3	2507.133	47005.33	10254.54	1694.074	3343.894

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01LX5 Acquired: 1/17/2025 14:40:33 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000653	-.002801	.0022055	.0011662	.0019807	3.458014
Stddev	.001605	.001400	.0006001	.0017792	.0013415	.004527
%RSD	245.7607	50.00137	27.21145	152.5673	67.72725	.1309165
#1	-.000987	-.003736	.0028968	.0000965	.0035010	3.452818
#2	.001093	-.003477	.0019012	.0032200	.0014773	3.460121
#3	-.002065	-.001191	.0018184	.0001820	.0009637	3.461104

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009169	-.000092	-.000178	1.875374	.0944835	.0007372
Stddev	.000597	.000051	.000066	.001530	.0002859	.0001365
%RSD	6.515253	55.72927	36.74818	.0815595	.3026048	18.51447
#1	-.008887	-.000034	-.000104	1.875221	.0946658	.0006355
#2	-.008764	-.000130	-.000205	1.873927	.0946308	.0008923
#3	-.009855	-.000113	-.000226	1.876975	.0941540	.0006838

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055351	.4355033	.0082062	.5247667	.0168028	.0002098
Stddev	.0004337	.0042193	.0002735	.0140902	.0003775	.0001950
%RSD	7.835380	.9688238	3.332274	2.685045	2.246914	92.95086
#1	.0050362	.4358625	.0083429	.5290336	.0172291	.0000426
#2	.0057471	.4395315	.0078913	.5090362	.0166684	.0001627
#3	.0058220	.4311160	.0083843	.5362303	.0165108	.0004239

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	454.5894	-.000320	.4555332	51.75151	1.385208	.0044717
Stddev	1.5676	.000798	.0035543	.40649	.011539	.0001982
%RSD	.3448282	249.6555	.7802507	.7854577	.8330386	4.431428
#1	454.6747	-.000991	.4514371	51.65067	1.381514	.0045819
#2	456.1125	-.000532	.4578039	52.19893	1.375968	.0042429
#3	452.9809	.000563	.4573585	51.40494	1.398142	.0045903

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01LX5 Acquired: 1/17/2025 14:40:33 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080900	.0009566	.2282697	1.082968	F 263.6209	.0099214
Stddev	.0001776	.0004674	.0017614	.004026	.1753	.0009197
%RSD	2.194964	48.86369	.7716166	.3717243	.0665128	9.269624
#1	.0079204	.0004512	.2268281	1.087441	263.7620	.0090917
#2	.0080752	.0010454	.2302329	1.079635	263.4246	.0109103
#3	.0082746	.0013734	.2277480	1.081829	263.6761	.0097622

Elem	Sr4077
Units	ppm
Avg	.0070817
Stddev	.0000236
%RSD	.3338068
#1	.0070548
#2	.0070908
#3	.0070994

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2714.148	52284.34	10466.75	1887.177	3785.990
Stddev	3.697	173.48	57.15	3.134	11.459
%RSD	.1362208	.3317997	.5460620	.1660684	.3026567
#1	2710.274	52084.21	10428.89	1887.705	3772.963
#2	2714.530	52377.00	10532.50	1883.813	3790.498
#3	2717.638	52391.82	10438.87	1890.014	3794.509

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSD Acquired: 1/17/2025 14:58:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8325066	1.721150	.9187828	2.133578	.7875387	18.46597
Stddev	.0012798	.011950	.0014817	.003089	.0010047	.02094
%RSD	.1537297	.6943090	.1612677	.1447673	.1275735	.1133851
#1	.8339825	1.709554	.9170768	2.130898	.7885870	18.48818
#2	.8318322	1.733425	.9197478	2.132880	.7865842	18.44659
#3	.8317050	1.720470	.9195238	2.136956	.7874448	18.46315

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1719219	.1688329	.1925287	9.691186	.8294836	.1975497
Stddev	.0008054	.0005578	.0003545	.019980	.0020007	.0002535
%RSD	.4684445	.3304025	.1841439	.2061618	.2411987	.1283054
#1	.1726747	.1693450	.1921210	9.710592	.8286645	.1975371
#2	.1720183	.1682385	.1927648	9.670679	.8280224	.1973028
#3	.1710727	.1689151	.1927003	9.692288	.8317639	.1978093

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2912964	5.469417	.2171744	4.073576	.5648068	.0741045
Stddev	.0009687	.013064	.0007926	.031710	.0009160	.0004684
%RSD	.3325623	.2388562	.3649561	.7784299	.1621864	.6321077
#1	.2903504	5.480079	.2171890	4.094065	.5637501	.0745293
#2	.2912524	5.473328	.2163747	4.037051	.5652942	.0741822
#3	.2922864	5.454845	.2179597	4.089613	.5653760	.0736022

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2221.040	.2705968	2.442909	283.5906	5.960654	.4101862
Stddev	18.922	.0022245	.011407	.2927	.019093	.0014445
%RSD	.8519528	.8220707	.4669386	.1032138	.3203163	.3521566
#1	2231.586	.2681061	2.439528	283.5472	5.981882	.4089422
#2	2199.195	.2712983	2.455624	283.3220	5.944886	.4098459
#3	2232.340	.2723860	2.433575	283.9026	5.955193	.4117704

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSD Acquired: 1/17/2025 14:58:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6996439	.1807115	1.937162	F 11.92204	F 1087.749	.1975269
Stddev	.0008699	.0010400	.009433	.02686	2.057	.0004022
%RSD	.1243286	.5755181	.4869699	.2252675	.1891143	.2036363
#1	.6989680	.1815055	1.930793	11.89464	1085.641	.1979840
#2	.7006253	.1795342	1.932693	11.94831	1089.751	.1973697
#3	.6993384	.1810949	1.947999	11.92316	1087.856	.1972270

Elem	Sr4077
Units	ppm
Avg	.2158167
Stddev	.0003234
%RSD	.1498588
#1	.2159672
#2	.2154454
#3	.2160374

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2487.717	47687.89	10297.41	1700.518	3329.281
Stddev	1.158	131.92	44.99	12.765	3.828
%RSD	.0465427	.2766278	.4368627	.7506466	.1149708
#1	2488.008	47535.65	10245.56	1695.198	3326.305
#2	2488.702	47759.42	10326.01	1691.274	3327.939
#3	2486.442	47768.58	10320.67	1715.083	3333.599

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MS Acquired: 1/17/2025 15:04:38 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8512958	1.738646	.9281871	2.199580	.8099935	18.79870
Stddev	.0045949	.016153	.0044898	.013784	.0021914	.04788
%RSD	.5397518	.9290474	.4837200	.6266559	.2705485	.2546797
#1	.8463089	1.737407	.9247666	2.188288	.8074657	18.84595
#2	.8522204	1.723148	.9265234	2.195513	.8111589	18.75022
#3	.8553580	1.755383	.9332713	2.214940	.8113561	18.79992

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1729811	.1701046	.1953720	9.830115	.8428580	.2000229
Stddev	.0005153	.0010215	.0008793	.029460	.0032254	.0011540
%RSD	.2978806	.6005320	.4500603	.2996924	.3826722	.5769475
#1	.1735742	.1708323	.1947423	9.862564	.8465707	.1993582
#2	.1726432	.1705447	.1949971	9.822732	.8412570	.1993550
#3	.1727259	.1689368	.1963766	9.805048	.8407464	.2013554

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2951395	5.518285	.2197573	4.108616	.5723136	.0750252
Stddev	.0006898	.015993	.0010878	.022843	.0009724	.0001611
%RSD	.2337201	.2898265	.4949940	.5559695	.1699030	.2147518
#1	.2949175	5.506876	.2210089	4.134243	.5716840	.0751154
#2	.2945879	5.511412	.2192224	4.090397	.5718233	.0748392
#3	.2959129	5.536566	.2190405	4.101207	.5734335	.0751211

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2228.570	.2756353	2.460392	285.7670	5.996918	.4191984
Stddev	14.331	.0031159	.003510	1.2358	.031916	.0019093
%RSD	.6430639	1.130451	.1426447	.4324453	.5322041	.4554750
#1	2225.523	.2786312	2.461952	285.6040	6.012929	.4173716
#2	2244.180	.2724118	2.456373	284.6207	6.017658	.4190429
#3	2216.008	.2758629	2.462852	287.0761	5.960166	.4211807

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MS Acquired: 1/17/2025 15:04:38 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7093222	.1834720	1.957043	F 11.91902	F 1097.350	.2018903
Stddev	.0010962	.0002975	.003478	.06414	4.334	.0013246
%RSD	.1545394	.1621536	.1777220	.5381635	.3949681	.6560837
#1	.7080854	.1833131	1.953779	11.88349	1094.785	.2033892
#2	.7097071	.1838152	1.956648	11.88051	1094.911	.2014041
#3	.7101740	.1832877	1.960701	11.99307	1102.354	.2008775

Elem	Sr4077
Units	ppm
Avg	.2183260
Stddev	.0003441
%RSD	.1576067
#1	.2183359
#2	.2179771
#3	.2186650

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2432.173	47122.49	10157.52	1656.209	3271.828
Stddev	3.816	132.05	56.98	3.729	5.810
%RSD	.1568967	.2802256	.5609936	.2251800	.1775761
#1	2432.630	46971.77	10110.18	1651.904	3274.182
#2	2435.740	47177.85	10141.61	1658.451	3276.092
#3	2428.149	47217.84	10220.76	1658.272	3265.211

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01A Acquired: 1/17/2025 15:08:46 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8456607	1.764981	.9278057	2.187975	.8072478	18.63567
Stddev	.0014393	.007943	.0018686	.015093	.0038697	.03685
%RSD	.1701966	.4500500	.2014038	.6898091	.4793711	.1977418
#1	.8469338	1.756581	.9263742	2.179102	.8028007	18.66507
#2	.8459495	1.765992	.9299196	2.179421	.8098483	18.64760
#3	.8440990	1.772370	.9271232	2.205402	.8090945	18.59433

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1690957	.1678448	.1955135	9.729887	.8462805	.2002781
Stddev	.0001193	.0005868	.0001850	.011846	.0013145	.0004850
%RSD	.0705637	.3496302	.0946147	.1217538	.1553320	.2421691
#1	.1690113	.1672827	.1956361	9.741566	.8474841	.2005534
#2	.1692322	.1684536	.1953007	9.717880	.8448778	.1997181
#3	.1690436	.1677982	.1956036	9.730216	.8464797	.2005628

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2941673	5.500278	.2157885	4.046173	.5723848	.0746544
Stddev	.0005843	.045469	.0012480	.024116	.0011651	.0002142
%RSD	.1986239	.8266754	.5783680	.5960271	.2035519	.2868504
#1	.2941540	5.538329	.2170494	4.067924	.5710774	.0747755
#2	.2935898	5.449922	.2145537	4.020239	.5733135	.0747806
#3	.2947582	5.512583	.2157625	4.050357	.5727634	.0744071

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2172.169	.2717311	2.463571	285.8759	5.883509	.4187552
Stddev	11.548	.0039430	.003658	1.4435	.013021	.0005299
%RSD	.5316360	1.451074	.1484642	.5049352	.2213168	.1265370
#1	2167.637	.2731293	2.466954	287.3323	5.872165	.4183236
#2	2163.574	.2672795	2.464069	284.4457	5.897727	.4185953
#3	2185.295	.2747844	2.459690	285.8497	5.880634	.4193466

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01A Acquired: 1/17/2025 15:08:46 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7088766	.1810706	1.980538	F 11.90574	F 1095.598	.1962006
Stddev	.0008349	.0015832	.010551	.03050	.467	.0007323
%RSD	.1177817	.8743492	.5327388	.2561654	.0425958	.3732580
#1	.7080292	.1828841	1.990302	11.89230	1095.118	.1959649
#2	.7096985	.1799644	1.969345	11.88427	1095.627	.1970218
#3	.7089020	.1803633	1.981968	11.94065	1096.050	.1956152

Elem	Sr4077
Units	ppm
Avg	.2149576
Stddev	.0005217
%RSD	.2427146
#1	.2154097
#2	.2143867
#3	.2150765

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2448.520	47059.36	10316.39	1643.394	3291.478
Stddev	.644	198.21	6.79	7.447	5.280
%RSD	.0262989	.4211932	.0658146	.4531357	.1604285
#1	2448.957	46832.03	10309.69	1636.503	3285.977
#2	2448.824	47195.99	10316.20	1642.386	3291.950
#3	2447.781	47150.06	10323.26	1651.294	3296.506

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04 Acquired: 1/17/2025 15:12:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006777	-.008352	.0015835	.0032588	.0023791	.0195658	-.006724
Stddev	.000526	.002645	.0004683	.0006602	.0020964	.0096594	.001230
%RSD	7.759158	31.67270	29.57465	20.25782	88.11767	49.36866	18.29369
#1	-.007381	-.008507	.0019758	.0037523	.0009715	.0306071	-.006609
#2	-.006417	-.005632	.0017097	.0025089	.0047884	.0126776	-.005556
#3	-.006534	-.010916	.0010650	.0035153	.0013774	.0154127	-.008008

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000188	-.000213	4.423189	.0022231	.0082223	.0054045	.0373351
Stddev	.000014	.000096	.013780	.0003365	.0001079	.0001053	.0031473
%RSD	7.489868	44.91473	.3115352	15.13743	1.311986	1.947740	8.429871
#1	-.000204	-.000261	4.429141	.0021119	.0080982	.0055187	.0366125
#2	-.000176	-.000275	4.407433	.0026011	.0082752	.0053113	.0407809
#3	-.000186	-.000103	4.432992	.0019562	.0082935	.0053835	.0346120

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106879	1.986261	.0109704	.0003639	12.16949	-.000660	.0186966
Stddev	.0000821	.010888	.0004464	.0007508	.09463	.001408	.0001421
%RSD	.7684522	.5481608	4.068987	206.3515	.7775724	213.2865	.7600127
#1	.0106977	1.987635	.0108259	.0012278	12.11514	-.002131	.0186569
#2	.0106013	1.996397	.0106141	-.000131	12.11457	.000674	.0188543
#3	.0107647	1.974751	.0114711	-.000005	12.27876	-.000523	.0185785

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.149933	.0254762	.0002588	-.000616	.0029353	5.343567	.0246503
Stddev	.018275	.0006267	.0002055	.000213	.0004325	.031922	.0008788
%RSD	1.589212	2.459773	79.40578	34.67952	14.73536	.5973848	3.565097
#1	1.159860	.0260835	.0001727	-.000674	.0033446	5.336132	.0256413
#2	1.128843	.0255133	.0004933	-.000379	.0024828	5.316019	.0243438
#3	1.161094	.0248318	.0001103	-.000794	.0029785	5.378550	.0239658

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04 Acquired: 1/17/2025 15:12:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5741162	-.004799	.0305145
Stddev	.0052982	.000182	.0000825
%RSD	.9228513	3.783351	.2704497
#1	.5772213	-.004778	.0305404
#2	.5679986	-.004990	.0304221
#3	.5771288	-.004629	.0305809

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2885.104	56401.91	10876.26	1966.185	4388.583
Stddev	8.311	74.18	42.71	7.570	11.999
%RSD	.2880624	.1315249	.3926495	.3850232	.2734230
#1	2875.528	56483.93	10847.13	1974.375	4375.432
#2	2890.433	56382.27	10856.37	1964.736	4398.936
#3	2889.351	56339.52	10925.28	1959.444	4391.380

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04DUP Acquired: 1/17/2025 15:17:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006581	-.007630	.0014592	.0024295	.0011891	.0244255	-.007140
Stddev	.000565	.000548	.0013673	.0021331	.0005129	.0037032	.000723
%RSD	8.589081	7.179854	93.70738	87.79822	43.13783	15.16098	10.12750
#1	-.006011	-.008053	-.000042	.0021358	.0009018	.0270390	-.007209
#2	-.006592	-.007012	.002634	.0046943	.0008842	.0260497	-.007826
#3	-.007141	-.007827	.001786	.0004585	.0017813	.0201878	-.006385

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000171	-.000196	4.398019	.0023386	.0081647	.0048594	.0390873
Stddev	.000005	.000053	.017263	.0004400	.0001033	.0005649	.0022514
%RSD	3.028631	27.12021	.3925136	18.81665	1.265156	11.62509	5.759854
#1	-.000174	-.000223	4.406372	.0019228	.0080535	.0052335	.0385782
#2	-.000165	-.000229	4.378168	.0022936	.0081829	.0042096	.0415497
#3	-.000173	-.000134	4.409516	.0027994	.0082577	.0051350	.0371341

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106272	1.984479	.0112860	.0010770	11.92706	-.001725	.0178968
Stddev	.0000739	.012425	.0002120	.0002635	.05862	.000369	.0001536
%RSD	.6953618	.6261028	1.878676	24.46393	.4914760	21.38264	.8580351
#1	.0106426	1.974283	.0110419	.0009538	11.99458	-.001626	.0177702
#2	.0105468	1.998318	.0113923	.0008977	11.89742	-.001416	.0180676
#3	.0106922	1.980835	.0114239	.0013796	11.88918	-.002133	.0178526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.044887	.0202673	.0004470	.0005187	.0036646	5.242265	.0244819
Stddev	.005706	.0001333	.0000395	.0011969	.0001807	.009974	.0048242
%RSD	.5460714	.6578693	8.829492	230.7369	4.930039	.1902658	19.70515
#1	1.050989	.0202390	.0004190	-.000635	.0038525	5.250691	.0191314
#2	1.039684	.0204126	.0004921	.001755	.0036493	5.231252	.0258146
#3	1.043986	.0201504	.0004298	.000436	.0034921	5.244853	.0284996

Sample Name: Q1081-04DUP Acquired: 1/17/2025 15:17:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5632354	-.004492	.0304626
Stddev	.0069566	.001004	.0001154
%RSD	1.235112	22.35357	.3789602
#1	.5660027	-.005555	.0304934
#2	.5553210	-.004360	.0303349
#3	.5683826	-.003560	.0305595

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2865.012	56711.55	10818.79	1980.542	4349.359
Stddev	5.584	138.86	62.51	4.166	4.854
%RSD	.1948975	.2448484	.5777532	.2103569	.1116069
#1	2858.639	56801.62	10867.12	1984.191	4345.224
#2	2867.346	56781.41	10841.05	1981.431	4354.703
#3	2869.049	56551.64	10748.21	1976.002	4348.149

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04LX5 Acquired: 1/17/2025 15:21:31 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001431	-.002878	.0010448	.0021466	.0013137	.0032194	-.009314
Stddev	.002121	.002803	.0011505	.0016982	.0017749	.0024168	.001086
%RSD	148.2636	97.40870	110.1236	79.11110	135.1109	75.07181	11.66058
#1	-.000735	.000036	.0023361	.0012318	-.000401	.0022732	-.008254
#2	-.003813	-.003115	.0001287	.0011020	.001199	.0059662	-.010424
#3	.000255	-.005556	.0006696	.0041061	.003143	.0014188	-.009262

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000072	-.000098	.9027702	-.000214	.0015686	.0014293	.0070284
Stddev	.000040	.000103	.0011992	.000229	.0000728	.0003621	.0011269
%RSD	55.35715	104.5400	.1328310	106.8098	4.638133	25.33375	16.03383
#1	-.000049	-.000176	.9026394	.000047	.0016283	.0010130	.0083233
#2	-.000117	-.000138	.9040294	-.000311	.0015900	.0016712	.0062698
#3	-.000048	.000018	.9016418	-.000379	.0014876	.0016037	.0064920

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018152	.3990293	.0027560	.0008067	3.380148	-.000538	.0040166
Stddev	.0000840	.0081304	.0002098	.0004067	.035434	.000724	.0001759
%RSD	4.629280	2.037552	7.611721	50.42222	1.048309	134.5781	4.379064
#1	.0017825	.3914663	.0025502	.0006318	3.342440	-.000737	.0039167
#2	.0017524	.3979936	.0029695	.0005166	3.385249	-.001142	.0042197
#3	.0019107	.4076280	.0027482	.0012716	3.412756	.000265	.0039135

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.136276	.0116324	-.000126	-.000282	.0015378	1.073251	.0015846
Stddev	.018662	.0004770	.000087	.000412	.0002475	.009053	.0020259
%RSD	1.642383	4.100607	68.50133	145.7717	16.09214	.8435413	127.8494
#1	1.145660	.0121826	-.000196	-.000625	.0013247	1.083158	.0013122
#2	1.114785	.0113795	-.000154	.000174	.0014795	1.065406	-.000291
#3	1.148384	.0113351	-.000029	-.000397	.0018092	1.071189	.003733

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04LX5 Acquired: 1/17/2025 15:21:31 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1950765	.0102137	.0061505
Stddev	.0021434	.0007449	.0000734
%RSD	1.098740	7.292833	1.193203
#1	.1974666	.0107804	.0060685
#2	.1944378	.0104907	.0061729
#3	.1933251	.0093700	.0062100

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2946.086	56972.19	10729.65	2010.490	4465.944
Stddev	4.994	113.54	19.01	6.674	5.804
%RSD	.1695081	.1992946	.1771900	.3319790	.1299562
#1	2943.726	56887.19	10713.23	2002.813	4461.646
#2	2951.823	57101.14	10725.24	2013.742	4472.546
#3	2942.710	56928.24	10750.48	2014.916	4463.640

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01ADLX2 Acquired: 1/17/2025 15:25:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4197505	.8838742	.4812626	1.043872	.4035518	9.501366
Stddev	.0035927	.0082882	.0017393	.003368	.0028200	.032026
%RSD	.8559151	.9377137	.3613977	.3226846	.6988013	.3370672
#1	.4159671	.8762579	.4795836	1.043130	.4002957	9.537814
#2	.4201686	.8826635	.4830564	1.040937	.4051518	9.488558
#3	.4231159	.8927011	.4811477	1.047550	.4052080	9.477726

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0803795	.0859874	.0996109	4.994755	.4395135	.1023396
Stddev	.0000934	.0005973	.0001825	.007417	.0020001	.0004769
%RSD	.1161669	.6946365	.1832679	.1484908	.4550731	.4660390
#1	.0804186	.0866712	.0994052	5.001406	.4376044	.1018654
#2	.0802730	.0857234	.0997538	4.986757	.4415936	.1023342
#3	.0804470	.0855676	.0996737	4.996102	.4393425	.1028193

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1547237	2.782873	.1102992	2.099625	.2937414	.0374410
Stddev	.0000523	.009308	.0001078	.008884	.0010606	.0004043
%RSD	.0338062	.3344680	.0977039	.4231352	.3610619	1.079804
#1	.1547452	2.773432	.1102526	2.105407	.2925598	.0378654
#2	.1546640	2.783144	.1104225	2.104072	.2940534	.0373972
#3	.1547618	2.792042	.1102226	2.089395	.2946110	.0370604

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1137.191	.1376817	1.240487	141.2977	3.212415	.2125505
Stddev	17.042	.0012633	.002824	.8399	.023535	.0001460
%RSD	1.498588	.9175468	.2276760	.5943884	.7326343	.0687100
#1	1129.802	.1370275	1.240697	140.4031	3.238393	.2125865
#2	1125.090	.1368797	1.243201	141.4208	3.206339	.2123899
#3	1156.680	.1391379	1.237564	142.0693	3.192514	.2126752

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01ADLX2 Acquired: 1/17/2025 15:25:50 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3584161	.0925305	.9732813	5.838016	F 603.5487	.1060917
Stddev	.0017717	.0002106	.0079234	.020278	1.5127	.0007246
%RSD	.4943194	.2275655	.8140875	.3473414	.2506356	.6830052
#1	.3568757	.0927050	.9766550	5.822370	601.9362	.1067617
#2	.3603522	.0922966	.9642295	5.860925	604.9364	.1053227
#3	.3580203	.0925899	.9789596	5.830752	603.7737	.1061909

Elem	Sr4077
Units	ppm
Avg	.1089298
Stddev	.0001291
%RSD	.1184940
#1	.1090667
#2	.1088104
#3	.1089123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2569.399	48970.85	10505.27	1720.352	3531.644
Stddev	1.214	13.65	79.59	2.114	3.977
%RSD	.0472572	.0278811	.7576416	.1228766	.1126131
#1	2568.064	48971.12	10414.23	1720.484	3534.631
#2	2570.437	48984.36	10539.86	1722.397	3527.129
#3	2569.695	48957.06	10561.71	1718.176	3533.171

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSDLX2 Acquired: 1/17/2025 15:30:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4150612	.9029408	.4808021	1.039943	.4003945	9.222908
Stddev	.0020936	.0081731	.0032713	.005779	.0004156	.036159
%RSD	.5044054	.9051680	.6803811	.5557148	.1037962	.3920583
#1	.4165554	.9123387	.4845233	1.046238	.4005003	9.235237
#2	.4126683	.8989900	.4795033	1.038715	.3999362	9.251291
#3	.4159599	.8974937	.4783796	1.034877	.4007469	9.182197

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0772159	.0842860	.0992425	4.841927	.4267764	.1016805
Stddev	.0002132	.0002561	.0006822	.010785	.0013540	.0009859
%RSD	.2761217	.3037890	.6874467	.2227381	.3172577	.9695977
#1	.0774371	.0845628	.1000283	4.838325	.4278968	.1028043
#2	.0770118	.0842376	.0988991	4.854051	.4252719	.1009608
#3	.0771987	.0840577	.0988003	4.833403	.4271605	.1012765

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1547752	2.649537	.1078860	2.017292	.2922234	.0363348
Stddev	.0011637	.020184	.0004793	.008201	.0018310	.0000814
%RSD	.7518335	.7617902	.4442840	.4065265	.6265747	.2239247
#1	.1559340	2.661284	.1075496	2.026245	.2943365	.0364272
#2	.1536068	2.626231	.1084349	2.015486	.2911053	.0363035
#3	.1547850	2.661096	.1076737	2.010144	.2912285	.0362738

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1079.296	.1330803	1.203817	135.9344	3.160919	.2096269
Stddev	12.069	.0007634	.001408	.1554	.011791	.0011162
%RSD	1.118229	.5736259	.1169474	.1143251	.3730220	.5324439
#1	1085.896	.1336418	1.203910	135.9424	3.173913	.2109149
#2	1065.367	.1322111	1.202365	136.0857	3.157944	.2090205
#3	1086.627	.1333881	1.205176	135.7751	3.150901	.2089452

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSDLX2 Acquired: 1/17/2025 15:30:04 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3571929	.0893757	.9291785	5.926576	F 611.6449	.1019052
Stddev	.0032739	.0007776	.0067915	.027191	4.7473	.0007193
%RSD	.9165769	.8700874	.7309133	.4588028	.7761605	.7058242
#1	.3608559	.0891467	.9301309	5.957967	617.0951	.1014619
#2	.3561710	.0902421	.9219610	5.910301	609.4277	.1027350
#3	.3545518	.0887382	.9354434	5.911461	608.4117	.1015185

Elem	Sr4077
Units	ppm
Avg	.1062642
Stddev	.0004833
%RSD	.4548422
#1	.1062648
#2	.1067472
#3	.1057805

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2567.698	50224.29	10623.20	1776.290	3507.778
Stddev	14.101	113.15	28.35	.801	25.102
%RSD	.5491791	.2252962	.2669029	.0451051	.7156143
#1	2551.418	50123.03	10591.19	1776.739	3478.867
#2	2576.108	50346.43	10633.25	1776.765	3520.430
#3	2575.568	50203.41	10645.16	1775.365	3524.037

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV05 Acquired: 1/17/2025 15:34:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.767578	4.795024	4.752311	4.784221	4.859736	9.542097	9.416284
Stddev	.013042	.042404	.011513	.014862	.016015	.011575	.104084
%RSD	.2735644	.8843307	.2422544	.3106373	.3295380	.1213015	1.105365
#1	4.760086	4.749513	4.742025	4.767532	4.842266	9.555318	9.487650
#2	4.782638	4.833420	4.764747	4.796026	4.873722	9.533789	9.296853
#3	4.760010	4.802141	4.750159	4.789105	4.863221	9.537184	9.464348

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2348286	2.372278	23.36334	.9658627	2.392211	1.219359	4.740792
Stddev	.0004545	.005017	.07216	.0009619	.003747	.002192	.024062
%RSD	.1935275	.2115048	.3088510	.0995868	.1566349	.1797477	.5075562
#1	.2351509	2.372407	23.40630	.9653073	2.393247	1.217070	4.724358
#2	.2350261	2.377230	23.40369	.9669734	2.395331	1.221438	4.768410
#3	.2343088	2.367197	23.28003	.9653075	2.388055	1.219571	4.729606

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.334899	22.61458	2.390080	1.208271	23.59439	2.357841	2.428844
Stddev	.004131	.03110	.005195	.002939	.05820	.003830	.010687
%RSD	.1769182	.1375068	.2173559	.2432366	.2466529	.1624393	.4400114
#1	2.338102	22.63465	2.392217	1.204878	23.56166	2.361572	2.417432
#2	2.336359	22.63032	2.393865	1.209907	23.66158	2.353919	2.430480
#3	2.330237	22.57876	2.384157	1.210028	23.55993	2.358030	2.438618

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.32246	4.743617	4.896411	4.740248	4.717479	4.957787	4.885390
Stddev	.02493	.004324	.015466	.015612	.008969	.013746	.015286
%RSD	.1024932	.0911471	.3158629	.3293516	.1901145	.2772595	.3128887
#1	24.29731	4.748608	4.879964	4.742402	4.727472	4.944083	4.873908
#2	24.32291	4.741003	4.910661	4.754671	4.710128	4.957703	4.902741
#3	24.34716	4.741240	4.898606	4.723671	4.714836	4.971574	4.879522

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV05 Acquired: 1/17/2025 15:34:18 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.789088	4.683750	4.823431
Stddev	.013151	.005130	.031630
%RSD	.2746106	.1095224	.6557550
#1	4.775697	4.689230	4.856808
#2	4.801986	4.682958	4.819584
#3	4.789582	4.679063	4.793900

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2869.641	56086.80	10131.01	1967.488	4128.873
Stddev	5.139	138.01	30.66	8.234	12.357
%RSD	.1790912	.2460596	.3026793	.4184780	.2992892
#1	2870.071	56169.25	10102.35	1976.955	4122.117
#2	2864.300	55927.47	10127.32	1963.512	4121.367
#3	2874.552	56163.67	10163.35	1961.998	4143.135

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB05 Acquired: 1/17/2025 15:38:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001898	-.001185	.0008440	.0010071	.0013037	-.002819
Stddev	.002207	.001001	.0006588	.0001629	.0007018	.010954
%RSD	116.3061	84.44553	78.05691	16.16988	53.82709	388.5938
#1	-.003689	-.000342	.0006829	.0009041	.0008219	.008770
#2	-.002573	-.000922	.0002807	.0009224	.0009804	-.013003
#3	.000568	-.002291	.0015684	.0011948	.0021088	-.004225

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008511	-.000056	-.000066	.0071214	-.000532	-.000264
Stddev	.000291	.000068	.000085	.0050713	.000106	.000190
%RSD	3.420016	121.9773	129.1030	71.21281	19.83025	71.69903
#1	-.008200	-.000068	-.000164	.0041008	-.000538	-.000046
#2	-.008777	-.000117	-.000016	.0042871	-.000635	-.000363
#3	-.008555	.000018	-.000018	.0129763	-.000424	-.000384

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002991	.0017709	-.000153	-.017237	.0002330	.0004953
Stddev	.0000763	.0015833	.000331	.017221	.0001570	.0001279
%RSD	25.52586	89.40579	215.8439	99.90431	67.39157	25.82449
#1	.0002457	.0019693	-.000506	-.031583	.0000675	.0006124
#2	.0002650	.0000978	.000152	-.021990	.0003799	.0005149
#3	.0003865	.0032457	-.000106	.001861	.0002516	.0003588

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6049670	-.002150	.0001431	.8951445	.0140751	-.000109
Stddev	.0209579	.001675	.0003443	.0257569	.0000889	.000116
%RSD	3.464304	77.89097	240.5926	2.877403	.6316566	106.3271
#1	.6035359	-.000544	.0004953	.9199543	.0140615	-.000033
#2	.5847613	-.002021	-.000193	.8685349	.0139938	-.000052
#3	.6266038	-.003886	.000127	.8969444	.0141700	-.000242

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB05 Acquired: 1/17/2025 15:38:29 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001892	.0008480	.0133745	-.002385	F .0558473	.0039995
Stddev	.0006614	.0001868	.0076710	.001504	.0011437	.0004961
%RSD	349.5899	22.03314	57.35567	63.07763	2.047861	12.40376
#1	-.000454	.0010115	.0209697	-.003882	.0558672	.0045669
#2	.000867	.0006444	.0056299	-.002400	.0569810	.0037836
#3	.000155	.0008880	.0135239	-.000873	.0546939	.0036479

Elem	Sr4077
Units	ppm
Avg	.0000335
Stddev	.0000285
%RSD	84.91119
#1	.0000299
#2	.0000636
#3	.0000070

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2918.101	55692.76	10721.98	1992.899	4366.597
Stddev	4.032	652.57	3.41	27.162	5.458
%RSD	.1381596	1.171734	.0318335	1.362961	.1250033
#1	2914.183	55066.03	10718.99	1965.310	4361.237
#2	2917.883	56368.42	10725.70	2019.614	4366.405
#3	2922.238	55643.85	10721.26	1993.771	4372.149

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSDDLX2 Acquired: 1/17/2025 15:42:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4134747	.8817673	.4769618	1.036477	.3988102	9.410977
Stddev	.0035028	.0098280	.0013824	.007223	.0012051	.026706
%RSD	.8471599	1.114585	.2898276	.6968813	.3021753	.2837766
#1	.4143805	.8723105	.4780223	1.030845	.3990646	9.437809
#2	.4164356	.8810627	.4774647	1.033966	.3974983	9.410723
#3	.4096080	.8919287	.4753984	1.044621	.3998679	9.384399

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0821161	.0855018	.0986895	4.974689	.4321901	.1014752
Stddev	.0003471	.0010632	.0002566	.012260	.0018495	.0000772
%RSD	.4227405	1.243480	.2600444	.2464454	.4279436	.0760446
#1	.0825080	.0866021	.0987698	4.987282	.4340460	.1015419
#2	.0819932	.0854235	.0988964	4.973994	.4321774	.1014932
#3	.0818472	.0844800	.0984023	4.962792	.4303470	.1013907

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1545259	2.728796	.1116391	2.108200	.2914120	.0372137
Stddev	.0004747	.023958	.0002022	.027479	.0002228	.0003769
%RSD	.3072114	.8779537	.1811258	1.303417	.0764419	1.012932
#1	.1546582	2.704625	.1117802	2.133625	.2915680	.0376273
#2	.1539991	2.729230	.1117296	2.111928	.2911569	.0368895
#3	.1549205	2.752534	.1114074	2.079048	.2915113	.0371244

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1128.764	.1374126	1.213923	138.0836	3.202290	.2102471
Stddev	11.371	.0012374	.003541	1.1705	.036927	.0001461
%RSD	1.007410	.9004769	.2916629	.8477037	1.153138	.0694662
#1	1138.113	.1387772	1.210941	136.9428	3.239456	.2102190
#2	1132.073	.1370969	1.212992	138.0261	3.201806	.2101171
#3	1116.105	.1363636	1.217836	139.2817	3.165608	.2104051

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01MSDDLX2 Acquired: 1/17/2025 15:42:49 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3551920	.0930347	.9532294	5.805769	F 603.9132	.1028492
Stddev	.0016097	.0008001	.0082453	.004860	.5002	.0007108
%RSD	.4531807	.8600444	.8649882	.0837180	.0828197	.6911190
#1	.3561276	.0937130	.9482839	5.810758	603.4371	.1030047
#2	.3561152	.0932389	.9486565	5.805502	604.4343	.1034694
#3	.3533334	.0921523	.9627479	5.801048	603.8682	.1020735

Elem	Sr4077
Units	ppm
Avg	.1091654
Stddev	.0000753
%RSD	.0689379
#1	.1092517
#2	.1091308
#3	.1091136

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2571.286	50033.24	10465.69	1766.664	3527.136
Stddev	19.354	113.22	120.13	8.959	17.481
%RSD	.7527068	.2262893	1.147865	.5071283	.4956078
#1	2576.586	49915.84	10343.70	1774.611	3532.688
#2	2587.438	50141.76	10469.51	1768.425	3541.166
#3	2549.834	50042.12	10583.87	1756.954	3507.553

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01DLX2 Acquired: 1/17/2025 15:47:01 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004493	-.003519	.0007731	.0021441	.0011408	8.353501
Stddev	.002585	.001431	.0011062	.0011457	.0005912	.021844
%RSD	57.53200	40.66217	143.0829	53.43545	51.82519	.2614935
#1	-.002289	-.002798	.0013529	.0009064	.0007192	8.346030
#2	-.007339	-.005166	-.000502	.0023584	.0008865	8.378100
#3	-.003852	-.002592	.001469	.0031676	.0018166	8.336372

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010853	-.000122	-.000221	4.420314	.2412789	.0021458
Stddev	.000405	.000020	.000068	.010425	.0005126	.0000631
%RSD	3.732894	16.46843	30.59793	.2358319	.2124559	2.942611
#1	-.010436	-.000130	-.000270	4.417181	.2407035	.0022111
#2	-.011245	-.000137	-.000144	4.431946	.2416869	.0020851
#3	-.010876	-.000099	-.000249	4.411815	.2414464	.0021410

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129856	1.196363	.0199870	1.231540	.0409132	.0008473
Stddev	.0004464	.011412	.0003184	.013321	.0002445	.0003308
%RSD	3.437937	.9538899	1.593228	1.081667	.5976908	39.04227
#1	.0130079	1.183204	.0202846	1.246826	.0410301	.0012229
#2	.0125284	1.202334	.0200251	1.225384	.0410774	.0005996
#3	.0134204	1.203550	.0196512	1.222411	.0406322	.0007193

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1129.268	-.001214	1.115406	134.6369	3.000475	.0108762
Stddev	11.213	.001302	.004196	1.3655	.025379	.0005950
%RSD	.9929811	107.2754	.3761974	1.014229	.8458335	5.470802
#1	1116.618	-.001545	1.110616	133.0960	3.026328	.0110960
#2	1137.985	.000222	1.118429	135.1177	2.999500	.0113300
#3	1133.202	-.002318	1.117175	135.6970	2.975598	.0102026

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01DLX2 Acquired: 1/17/2025 15:47:01 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198690	.0010650	.5800778	2.555862	F 594.5573	.0047836
Stddev	.0002527	.0008687	.0028672	.023469	4.2970	.0004398
%RSD	1.272043	81.57235	.4942846	.9182589	.7227264	9.194098
#1	.0200838	.0010865	.5830088	2.559245	596.1851	.0048604
#2	.0195905	.0001857	.5799457	2.577456	597.8026	.0043104
#3	.0199327	.0019227	.5772789	2.530884	589.6842	.0051799

Elem	Sr4077
Units	ppm
Avg	.0167335
Stddev	.0000892
%RSD	.5328165
#1	.0166461
#2	.0168243
#3	.0167302

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2598.119	49289.54	10724.93	1734.637	3569.702
Stddev	14.070	205.21	55.39	8.966	20.724
%RSD	.5415555	.4163402	.5164469	.5168699	.5805515
#1	2595.581	49511.01	10666.33	1744.989	3566.240
#2	2585.490	49251.79	10732.01	1729.354	3550.927
#3	2613.285	49105.82	10776.43	1729.568	3591.939

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01DUPDLX2 Acquired: 1/17/2025 15:51:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003283	-.006212	.0017808	.0020065	.0028815	8.428311
Stddev	.000901	.001608	.0006057	.0018231	.0004116	.022701
%RSD	27.44415	25.88473	34.01522	90.85792	14.28562	.2693428
#1	-.002443	-.007428	.0023918	-.000088	.0024409	8.419112
#2	-.003171	-.006820	.0011804	.002874	.0029474	8.411653
#3	-.004235	-.004389	.0017702	.003233	.0032562	8.454168

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009989	-.000080	-.000214	4.450345	.2443003	.0020651
Stddev	.000422	.000023	.000119	.018522	.0009762	.0002231
%RSD	4.224124	28.90829	55.89278	.4161912	.3995772	10.80424
#1	-.009729	-.000054	-.000329	4.429336	.2449291	.0019665
#2	-.010475	-.000099	-.000221	4.464319	.2431758	.0019082
#3	-.009761	-.000086	-.000091	4.457380	.2447961	.0023205

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0126354	1.186981	.0200705	1.241286	.0407473	.0005075
Stddev	.0006319	.006585	.0001720	.003702	.0003372	.0003412
%RSD	5.000797	.5548089	.8567604	.2982548	.8274479	67.23786
#1	.0129858	1.192760	.0200277	1.244625	.0411355	.0001853
#2	.0119060	1.188372	.0199240	1.241929	.0405793	.0004722
#3	.0130144	1.179812	.0202598	1.237305	.0405272	.0008649

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1137.110	-.000170	1.117655	135.0224	3.017029	.0109112
Stddev	5.796	.000566	.003876	.3195	.016991	.0002836
%RSD	.5097525	331.7703	.3467680	.2365934	.5631541	2.599077
#1	1140.011	-.000564	1.113209	135.1982	2.997442	.0111743
#2	1140.884	.000478	1.120318	135.2152	3.025848	.0109484
#3	1130.436	-.000424	1.119439	134.6536	3.027796	.0106108

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01DUPDLX2 Acquired: 1/17/2025 15:51:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0199620	.0008473	.5802223	2.526454	F 577.0016	.0057282
Stddev	.0011118	.0007540	.0036863	.005723	1.5066	.0008418
%RSD	5.569777	88.97799	.6353268	.2265090	.2611125	14.69529
#1	.0212442	.0005536	.5815504	2.522664	577.4915	.0059213
#2	.0192646	.0017040	.5760560	2.523661	575.3111	.0064565
#3	.0193772	.0002845	.5830606	2.533037	578.2024	.0048066

Elem	Sr4077
Units	ppm
Avg	.0167650
Stddev	.0001457
%RSD	.8693951
#1	.0166960
#2	.0169324
#3	.0166664

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2663.097	49194.15	10678.66	1740.661	3664.212
Stddev	7.696	94.03	29.62	5.963	10.403
%RSD	.2890032	.1911495	.2774093	.3425488	.2838949
#1	2655.135	49101.42	10712.85	1740.462	3652.450
#2	2663.658	49191.60	10660.87	1734.801	3667.982
#3	2670.497	49289.43	10662.24	1746.721	3672.204

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01LDLX10 Acquired: 1/17/2025 15:55:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000938	-.001470	.0016761	.0008257	.0010162	1.727514
Stddev	.000123	.001540	.0005148	.0015310	.0011976	.014777
%RSD	13.16271	104.7260	30.71166	185.4286	117.8493	.8554192
#1	-.000818	-.002902	.0015855	.0021844	.0014982	1.740128
#2	-.001065	.000158	.0012127	-.000833	-.000347	1.731159
#3	-.000930	-.001666	.0022301	.001126	.001898	1.711255

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008932	-.000045	-.000166	.9362467	.0491907	.0002280
Stddev	.000406	.000054	.000083	.0148323	.0002761	.0001538
%RSD	4.548729	118.1588	49.99181	1.584235	.5613259	67.45121
#1	-.008885	-.000044	-.000259	.9354404	.0492232	.0000568
#2	-.009360	.000008	-.000142	.9218340	.0488998	.0002727
#3	-.008552	-.000100	-.000098	.9514658	.0494492	.0003545

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033202	.2245737	.0039129	.2659776	.0084524	.0009483
Stddev	.0003244	.0048616	.0001689	.0122676	.0001477	.0001851
%RSD	9.771340	2.164823	4.316148	4.612269	1.747367	19.51624
#1	.0034262	.2277493	.0039542	.2644157	.0086216	.0010225
#2	.0029561	.2269948	.0037272	.2789513	.0083865	.0007376
#3	.0035784	.2189769	.0040574	.2545657	.0083492	.0010848

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	212.0908	-.000239	.2198173	24.74085	.6949449	.0021796
Stddev	2.0391	.001250	.0003924	.15194	.0047613	.0000675
%RSD	.9614083	523.1515	.1784976	.6141080	.6851312	3.094952
#1	213.5027	-.001576	.2202493	24.75298	.6931391	.0022530
#2	213.0167	.000901	.2194830	24.88636	.6913506	.0021204
#3	209.7531	-.000041	.2197196	24.58322	.7003449	.0021652

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1048-01LDLX10 Acquired: 1/17/2025 15:55:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040591	.0005778	.1183272	.5157419	F 128.0934	.0050469
Stddev	.0001115	.0002591	.0039522	.0022769	.6801	.0007115
%RSD	2.745666	44.83964	3.340091	.4414836	.5309789	14.09756
#1	.0039963	.0003078	.1215537	.5165926	128.8780	.0042938
#2	.0041878	.0008243	.1195092	.5174711	127.6697	.0051391
#3	.0039933	.0006011	.1139189	.5131622	127.7327	.0057078

Elem	Sr4077
Units	ppm
Avg	.0034043
Stddev	.0000081
%RSD	.2378881
#1	.0034108
#2	.0033952
#3	.0034070

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2790.070	55311.35	10729.56	1944.804	3972.394
Stddev	7.688	209.46	34.96	7.975	14.312
%RSD	.2755474	.3786897	.3258003	.4100416	.3602981
#1	2782.354	55218.86	10746.16	1940.026	3956.110
#2	2790.126	55164.05	10753.12	1940.376	3978.094
#3	2797.730	55551.13	10689.40	1954.010	3982.978

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04MS Acquired: 1/17/2025 16:00:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7234657	1.737744	.8707797	1.700736	.7325022	1.804681	.1716201
Stddev	.0035671	.017403	.0021462	.007058	.0025494	.007516	.0007092
%RSD	.4930552	1.001447	.2464638	.4149740	.3480437	.4164495	.4132234
#1	.7213452	1.737894	.8727635	1.694480	.7299411	1.796633	.1715275
#2	.7214679	1.755070	.8685016	1.699341	.7325258	1.805893	.1723711
#3	.7275840	1.720266	.8710739	1.708387	.7350398	1.811517	.1709618

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1689106	.1736339	5.186470	.3878714	.1886469	.2853027	2.880550
Stddev	.0005978	.0001254	.011655	.0004895	.0004194	.0012360	.008653
%RSD	.3538969	.0722264	.2247266	.1261878	.2223473	.4332077	.3004076
#1	.1689811	.1734908	5.195522	.3881137	.1881898	.2845533	2.870804
#2	.1694700	.1737245	5.190570	.3873080	.1887366	.2846255	2.887332
#3	.1682807	.1736864	5.173319	.3881923	.1890142	.2867292	2.883515

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1939016	3.615185	.4596453	.0587042	14.35058	.2699953	.2099699
Stddev	.0009855	.030139	.0007958	.0005846	.05423	.0029432	.0009839
%RSD	.5082663	.8336827	.1731288	.9958717	.3778663	1.090089	.4685868
#1	.1935147	3.617764	.4587506	.0593789	14.38550	.2694340	.2099177
#2	.1950219	3.643951	.4602741	.0583470	14.37814	.2731787	.2109789
#3	.1931682	3.583839	.4599111	.0583868	14.28811	.2673732	.2090132

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.45267	.2505567	.4045258	.6190849	.1823279	5.719696	5.061832
Stddev	.08212	.0007759	.0014282	.0004813	.0005798	.007596	.015839
%RSD	.7856207	.3096761	.3530585	.0777461	.3179986	.1327981	.3129037
#1	10.47130	.2508552	.4034991	.6195706	.1818176	5.717614	5.048753
#2	10.52387	.2511391	.4039215	.6190760	.1829584	5.728116	5.079442
#3	10.36283	.2496759	.4061569	.6186081	.1822075	5.713359	5.057300

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04MS Acquired: 1/17/2025 16:00:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5186682	.1810995	.2122812
Stddev	.0023283	.0021351	.0006732
%RSD	.4488971	1.178971	.3171061
#1	.5205721	.1793041	.2125119
#2	.5193601	.1834604	.2128087
#3	.5160724	.1805340	.2115230

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2942.531	56802.11	10646.95	1984.317	4480.734
Stddev	3.035	114.87	33.48	5.629	6.922
%RSD	.1031519	.2022249	.3144445	.2836740	.1544733
#1	2940.264	56923.86	10664.65	1989.805	4474.746
#2	2945.979	56695.65	10608.33	1978.556	4479.144
#3	2941.349	56786.81	10667.86	1984.590	4488.313

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04MSD Acquired: 1/17/2025 16:04:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7569198	1.776166	.8958799	1.792968	.7599554	1.805265	.1702659
Stddev	.0018242	.013338	.0016430	.007475	.0007633	.003009	.0004596
%RSD	.2410053	.7509160	.1833969	.4169094	.1004406	.1666779	.2699309
#1	.7552748	1.766868	.8958924	1.793355	.7597361	1.803257	.1703815
#2	.7566029	1.791447	.8942306	1.785308	.7593257	1.803813	.1697596
#3	.7588817	1.770182	.8975166	1.800243	.7608043	1.808725	.1706567

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1688219	.1795654	5.163149	.3907351	.1938295	.2937252	2.881476
Stddev	.0011296	.0003666	.023159	.0009016	.0006107	.0004322	.025946
%RSD	.6690932	.2041786	.4485360	.2307396	.3150795	.1471267	.9004425
#1	.1699541	.1791500	5.181402	.3900039	.1931969	.2932329	2.855238
#2	.1676949	.1797022	5.137098	.3917425	.1938758	.2940421	2.907119
#3	.1688166	.1798439	5.170947	.3904590	.1944157	.2939005	2.882072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1909282	3.597014	.4730569	.0591149	14.14237	.2704682	.2130315
Stddev	.0006811	.010561	.0014283	.0001599	.11930	.0019864	.0009985
%RSD	.3567136	.2936159	.3019382	.2704282	.8435742	.7344117	.4687246
#1	.1901611	3.600890	.4725155	.0589312	14.04189	.2722946	.2137098
#2	.1914616	3.585062	.4719784	.0591908	14.27422	.2707567	.2134997
#3	.1911621	3.605090	.4746768	.0592227	14.11099	.2683534	.2118849

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.36334	.2473724	.4094555	.6387544	.1817467	5.767512	5.290388
Stddev	.01419	.0015151	.0007662	.0021466	.0012400	.043610	.012919
%RSD	.1369305	.6124902	.1871322	.3360531	.6822744	.7561310	.2442053
#1	10.35190	.2490382	.4089596	.6385886	.1809012	5.720044	5.275604
#2	10.37922	.2460763	.4090689	.6366956	.1831701	5.805804	5.296052
#3	10.35890	.2470028	.4103380	.6409791	.1811687	5.776686	5.299508

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04MSD Acquired: 1/17/2025 16:04:08 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5400400	.1787685	.2103057
Stddev	.0005217	.0016690	.0003728
%RSD	.0966018	.9336338	.1772773
#1	.5394897	.1805455	.2105510
#2	.5401029	.1772340	.2104894
#3	.5405274	.1785261	.2098767

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.049	56570.04	10703.23	1967.084	4290.916
Stddev	1.169	107.80	63.76	1.574	1.490
%RSD	.0411126	.1905528	.5957019	.0800363	.0347170
#1	2844.552	56646.39	10634.32	1966.268	4292.589
#2	2842.713	56446.73	10760.12	1966.084	4289.733
#3	2844.883	56616.99	10715.24	1968.898	4290.426

Sample Name: Q1081-04A Acquired: 1/17/2025 16:08:07 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7540177	1.794898	.8990607	1.792883	.7606394	1.841635	.1738811
Stddev	.0010465	.008866	.0026916	.001957	.0032128	.002702	.0010621
%RSD	.1387939	.4939745	.2993804	.1091771	.4223798	.1467187	.6108361
#1	.7539310	1.804644	.9005460	1.794877	.7583134	1.844524	.1750918
#2	.7530172	1.792742	.8959537	1.790964	.7592996	1.839171	.1734451
#3	.7551049	1.787309	.9006824	1.792809	.7643053	1.841210	.1731063

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1691966	.1802148	5.255161	.3964203	.1944020	.2936559	2.977173
Stddev	.0008332	.0002336	.020185	.0025321	.0003582	.0009610	.019504
%RSD	.4924451	.1296139	.3840922	.6387333	.1842563	.3272389	.6551031
#1	.1693193	.1802742	5.277682	.3983919	.1943663	.2926692	2.990422
#2	.1699616	.1799573	5.249097	.3935648	.1940630	.2937098	2.954777
#3	.1683088	.1804129	5.238703	.3973043	.1947767	.2945888	2.986319

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1948910	3.673220	.4738781	.0602330	14.78477	.2755746	.2153631
Stddev	.0008050	.028673	.0004076	.0003814	.09131	.0010376	.0002764
%RSD	.4130706	.7805996	.0860060	.6332902	.6176196	.3765170	.1283366
#1	.1955084	3.703956	.4743395	.0606528	14.85096	.2746062	.2151881
#2	.1939805	3.647192	.4735671	.0599076	14.68059	.2754479	.2156817
#3	.1951841	3.668512	.4737277	.0601385	14.82274	.2766697	.2152194

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.67705	.2459656	.4113068	.6412297	.1855421	5.979752	5.247924
Stddev	.12257	.0011932	.0011361	.0005041	.0005143	.034426	.006236
%RSD	1.147987	.4850888	.2762136	.0786145	.2772008	.5757164	.1188257
#1	10.73335	.2456083	.4120463	.6412451	.1850575	5.974286	5.248320
#2	10.53645	.2472966	.4099987	.6407180	.1860817	5.948386	5.241500
#3	10.76136	.2449920	.4118754	.6417259	.1854871	6.016585	5.253953

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1081-04A Acquired: 1/17/2025 16:08:07 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5363716	.1826747	.2144242
Stddev	.0027139	.0005879	.0002289
%RSD	.5059790	.3218480	.1067341
#1	.5393742	.1822366	.2146881
#2	.5356473	.1833429	.2143041
#3	.5340933	.1824446	.2142803

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2857.892	55859.63	10733.40	1940.681	4314.192
Stddev	3.472	295.88	19.37	8.895	4.884
%RSD	.1214915	.5296893	.1804577	.4583579	.1132008
#1	2858.163	55930.28	10751.64	1941.109	4312.955
#2	2861.220	56113.80	10713.07	1949.355	4319.575
#3	2854.292	55534.82	10735.47	1931.580	4310.046

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01 Acquired: 1/17/2025 16:12:06 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1100104	-.009432	2.163780	-.038418	.0048464	111.3058	.6380233
Stddev	.0012164	.003685	.005047	.002313	.0019897	.2442	.0033282
%RSD	1.105702	39.07246	.2332496	6.021441	41.05581	.2193755	.5216364
#1	.1086129	-.005353	2.158293	-.041088	.0027795	111.5455	.6418663
#2	.1108307	-.010420	2.164825	-.037039	.0050110	111.0574	.6360857
#3	.1105877	-.012522	2.168223	-.037125	.0067487	111.3146	.6361180

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080034	.0041299	46.93861	.2878709	.1395663	.5833922	241.0239
Stddev	.0000127	.0002611	.05585	.0004722	.0004277	.0015525	.6469
%RSD	.1586519	6.322372	.1189808	.1640410	.3064251	.2661136	.2683826
#1	.0080170	.0042225	47.00083	.2878677	.1392625	.5830787	241.0298
#2	.0079919	.0038351	46.89282	.2883446	.1393811	.5820205	241.6678
#3	.0080012	.0043321	46.92219	.2874002	.1400554	.5850776	240.3741

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.282380	40.06708	.2914452	.0006830	3.198820	.4339443	1.857896
Stddev	.010940	.12136	.0008259	.0002700	.001744	.0003750	.005457
%RSD	.2554715	.3029044	.2833902	39.53555	.0545258	.0864290	.2937277
#1	4.292008	39.94728	.2905430	.0004105	3.200636	.4340230	1.864145
#2	4.270483	40.06402	.2921640	.0009505	3.198668	.4335361	1.855479
#3	4.284647	40.18995	.2916287	.0006879	3.197158	.4342737	1.854065

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.068738	.1323125	.0052860	.0443256	3.584059	4.097595	8.969990
Stddev	.033395	.0011842	.0003445	.0014231	.012263	.020040	.026985
%RSD	.4138764	.8950033	6.516500	3.210605	.3421669	.4890640	.3008365
#1	8.104937	.1323841	.0050900	.0454580	3.598213	4.098926	8.944084
#2	8.062145	.1334592	.0050842	.0447907	3.576610	4.116937	8.967948
#3	8.039131	.1310941	.0056837	.0427281	3.577353	4.076923	8.997938

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01 Acquired: 1/17/2025 16:12:06 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.316162	.0957830	-.057295
Stddev	.015764	.0002095	.000925
%RSD	.3652286	.2186669	1.615182
#1	4.303363	.0956896	-.056630
#2	4.311353	.0956366	-.058352
#3	4.333770	.0960230	-.056902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3222.780	63162.64	12666.29	2234.613	3952.632
Stddev	5.375	63.10	44.81	3.974	6.692
%RSD	.1667884	.0999067	.3537859	.1778602	.1692934
#1	3222.347	63235.48	12658.74	2230.527	3959.318
#2	3228.358	63127.62	12714.39	2234.846	3952.644
#3	3217.634	63124.80	12625.72	2238.465	3945.935

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV06 Acquired: 1/17/2025 16:16:11 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.824222	4.808674	4.784785	4.848527	4.893459	9.567177	9.627009
Stddev	.006339	.025299	.006786	.011914	.013921	.004309	.028253
%RSD	.1314010	.5261070	.1418144	.2457285	.2844842	.0450393	.2934760
#1	4.828234	4.784992	4.781988	4.856155	4.899378	9.571562	9.594435
#2	4.816914	4.805703	4.779845	4.834798	4.877556	9.567020	9.644859
#3	4.827518	4.835327	4.792522	4.854627	4.903442	9.562948	9.641732

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2334953	2.394757	23.48727	.9677605	2.406450	1.227604	4.936513
Stddev	.0014267	.002357	.09630	.0001755	.003256	.002701	.025429
%RSD	.6110298	.0984349	.4100189	.0181358	.1353201	.2200106	.5151293
#1	.2318497	2.392946	23.54639	.9678198	2.404735	1.229663	4.965865
#2	.2342511	2.393902	23.37614	.9678987	2.404409	1.224546	4.921143
#3	.2343852	2.397422	23.53926	.9675630	2.410206	1.228604	4.922530

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.358489	22.76317	2.408441	1.220748	24.57795	2.368322	2.457805
Stddev	.008903	.06197	.002902	.001654	.13590	.005937	.006852
%RSD	.3774742	.2722413	.1205058	.1354924	.5529452	.2506798	.2787699
#1	2.357169	22.70268	2.406693	1.222507	24.70362	2.369634	2.464635
#2	2.350321	22.76031	2.406838	1.220514	24.43372	2.361839	2.457847
#3	2.367978	22.82653	2.411791	1.219223	24.59652	2.373493	2.450932

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.87400	4.689898	4.893502	4.773966	4.754574	5.159312	4.968577
Stddev	.16441	.026428	.011071	.010614	.012347	.013974	.016185
%RSD	.6609702	.5635179	.2262315	.2223369	.2596807	.2708534	.3257392
#1	25.05118	4.659553	4.895867	4.763510	4.754140	5.175369	4.954960
#2	24.72638	4.702274	4.881440	4.773656	4.742450	5.152662	4.964300
#3	24.84443	4.707867	4.903199	4.784732	4.767132	5.149905	4.986470

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV06 Acquired: 1/17/2025 16:16:11 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.811108	4.748961	4.876094
Stddev	.001157	.009520	.031412
%RSD	.0240415	.2004738	.6442010
#1	4.812034	4.748739	4.879518
#2	4.809812	4.739553	4.843111
#3	4.811479	4.758590	4.905654

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.089	54926.14	10212.18	1950.465	4051.127
Stddev	4.527	38.57	59.20	1.506	9.635
%RSD	.1602403	.0702139	.5796944	.0772261	.2378451
#1	2828.550	54916.57	10278.54	1950.324	4061.589
#2	2826.750	54968.59	10193.20	1949.034	4049.174
#3	2819.966	54893.27	10164.79	1952.036	4042.617

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB06 Acquired: 1/17/2025 16:20:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006063	-.001001	.0006663	.0001352	.0009920	-.001410
Stddev	.0008931	.000818	.0005110	.0009675	.0007785	.005646
%RSD	147.3093	81.70630	76.70386	715.7725	78.47565	400.4272
#1	.0015387	-.000456	.0011458	.0007370	.0004612	.001554
#2	.0005218	-.000606	.0007243	-.000981	.0018858	.002136
#3	-.000242	-.001942	.0001287	.000649	.0006292	-.007920

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008767	-.000004	-.000068	.0178115	-.000309	-.000059
Stddev	.000892	.000069	.000065	.0081322	.000578	.000177
%RSD	10.17771	1715.365	96.52141	45.65708	187.0220	297.1156
#1	-.008265	-.000048	-.000032	.0131500	-.000036	.000144
#2	-.008239	-.000040	-.000027	.0272017	-.000973	-.000156
#3	-.009797	.000076	-.000143	.0130828	.000081	-.000167

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000209	.0057581	-.000202	-.004596	.0003485	.0009266
Stddev	.000081	.0032466	.000106	.015807	.0000867	.0001760
%RSD	38.63105	56.38201	52.53681	343.9249	24.86978	18.98989
#1	-.000295	.0094694	-.000213	-.003680	.0004473	.0010183
#2	-.000200	.0034441	-.000091	.010733	.0002852	.0010377
#3	-.000134	.0043610	-.000302	-.020841	.0003131	.0007237

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3046275	-.000851	.0005400	.5120159	.0082083	.0001047
Stddev	.0238033	.000972	.0002288	.0512509	.0006232	.0001831
%RSD	7.813914	114.1614	42.37103	10.00963	7.592270	174.9565
#1	.3004785	-.000237	.0007790	.4642469	.0086378	.0002875
#2	.2831714	-.000345	.0003231	.5056473	.0084936	-.000079
#3	.3302326	-.001972	.0005178	.5661534	.0074935	.000105

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB06 Acquired: 1/17/2025 16:20:22 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001551	.0005641	.0117535	-.002415	F .0263201	.0017986
Stddev	.0007524	.0002590	.0056253	.001484	.0013813	.0008113
%RSD	485.1832	45.90856	47.86036	61.42251	5.247934	45.10656
#1	-.000371	.0007974	.0106951	-.000702	.0274822	.0017529
#2	.001017	.0002855	.0067326	-.003268	.0266851	.0026317
#3	-.000181	.0006094	.0178328	-.003276	.0247930	.0010111

Elem	Sr4077
Units	ppm
Avg	.0000284
Stddev	.0000311
%RSD	109.6052
#1	.0000466
#2	-.000008
#3	.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2962.497	56621.92	10549.76	2030.642	4485.778
Stddev	5.568	154.45	16.42	2.214	9.152
%RSD	.1879345	.2727761	.1556200	.1090268	.2040337
#1	2963.321	56462.82	10546.93	2028.758	4485.163
#2	2967.606	56771.26	10534.94	2033.080	4495.222
#3	2956.563	56631.67	10567.41	2030.087	4476.948

Sample Name: Q1093-01DUP Acquired: 1/17/2025 16:24:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1126404	-.007285	2.159874	-.038030	.0035827	112.2127	.6386645
Stddev	.0053569	.004507	.013446	.001314	.0015348	.2139	.0010024
%RSD	4.755720	61.87379	.6225308	3.454235	42.83858	.1906262	.1569484
#1	.1074266	-.002862	2.151350	-.036573	.0044428	112.0795	.6379686
#2	.1123649	-.007119	2.152897	-.038392	.0044945	112.4594	.6398134
#3	.1181297	-.011872	2.175374	-.039124	.0018107	112.0992	.6382115

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077851	.0037867	46.95838	.2882705	.1391749	.5832686	242.6037
Stddev	.0000257	.0000306	.11418	.0010906	.0009348	.0023325	.2782
%RSD	.3305091	.8073873	.2431446	.3783179	.6716794	.3998942	.1146807
#1	.0077555	.0037586	46.85735	.2893968	.1384842	.5808198	242.3940
#2	.0078024	.0037821	47.08225	.2872196	.1388020	.5835220	242.4977
#3	.0077974	.0038193	46.93552	.2881950	.1402386	.5854640	242.9193

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.277048	40.40547	.2917421	.0022665	3.220403	.4358995	1.852064
Stddev	.006704	.12408	.0007382	.0003553	.016257	.0010784	.006671
%RSD	.1567439	.3070771	.2530352	15.67833	.5048233	.2474054	.3601739
#1	4.274491	40.27241	.2909505	.0018575	3.203420	.4346543	1.857785
#2	4.284655	40.51800	.2918641	.0024427	3.235822	.4365071	1.844737
#3	4.272000	40.42600	.2924118	.0024993	3.221967	.4365371	1.853670

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.161792	.1323078	.0050596	.0443972	3.612466	4.439370	8.926180
Stddev	.018688	.0018590	.0003316	.0015956	.007908	.028560	.046759
%RSD	.2289705	1.405089	6.553155	3.593924	.2189046	.6433326	.5238377
#1	8.142625	.1313065	.0046783	.0425879	3.609769	4.406507	8.916746
#2	8.162789	.1311640	.0052206	.0456030	3.621369	4.458182	8.884857
#3	8.179961	.1344529	.0052800	.0450008	3.606259	4.453422	8.976936

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01DUP Acquired: 1/17/2025 16:24:43 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.316726	.0958629	-.058896
Stddev	.026244	.0005702	.000724
%RSD	.6079649	.5948364	1.228650
#1	4.288194	.0958014	-.058880
#2	4.322152	.0964613	-.058181
#3	4.339834	.0953259	-.059628

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3179.543	63338.40	12808.35	2188.350	3918.676
Stddev	6.102	97.06	30.72	8.095	12.701
%RSD	.1919069	.1532353	.2398402	.3699000	.3241259
#1	3183.782	63229.18	12789.91	2181.987	3926.241
#2	3182.298	63414.75	12791.33	2197.461	3925.775
#3	3172.550	63371.28	12843.81	2185.603	3904.012

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01LX5 Acquired: 1/17/2025 16:28:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204245	-.001408	.4520120	-.006626	.0008538	25.71771	.1360931
Stddev	.0021017	.001581	.0011719	.001194	.0005382	.05658	.0006791
%RSD	10.29032	112.2412	.2592711	18.02704	63.03069	.2200033	.4989773
#1	.0220089	.000416	.4507793	-.006223	.0002507	25.72271	.1361394
#2	.0180402	-.002274	.4521449	-.005685	.0012850	25.77162	.1367479
#3	.0212243	-.002366	.4531118	-.007970	.0010258	25.65880	.1353921

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018859	-.000680	11.07223	.0680959	.0282510	.1398295	55.52086
Stddev	.0000414	.000109	.03110	.0006475	.0000958	.0005771	.51550
%RSD	2.196878	16.08243	.2808572	.9508898	.3391569	.4126850	.9284828
#1	.0018675	-.000793	11.05681	.0688330	.0281900	.1391786	56.07695
#2	.0018569	-.000574	11.10802	.0676189	.0282016	.1400316	55.05893
#3	.0019334	-.000673	11.05186	.0678357	.0283615	.1402784	55.42670

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9983142	9.402522	.0605703	.0009146	.8682546	.0996091	.4367447
Stddev	.0023390	.064119	.0001933	.0002913	.0113488	.0002198	.0006395
%RSD	.2342970	.6819340	.3191643	31.84639	1.307077	.2206536	.1464256
#1	.9982087	9.369494	.0604465	.0005792	.8576894	.0996828	.4362408
#2	1.000704	9.476422	.0607930	.0010605	.8802511	.0997826	.4365291
#3	.996030	9.361651	.0604713	.0011041	.8668234	.0993620	.4374641

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.078947	.0303686	.0010920	.0073381	.8518841	1.224268	1.817992
Stddev	.027001	.0011473	.0002943	.0005736	.0027136	.021822	.007412
%RSD	1.298780	3.777779	26.95028	7.816940	.3185370	1.782419	.4077052
#1	2.065221	.0315447	.0009696	.0079262	.8511756	1.247235	1.821080
#2	2.061566	.0292526	.0014277	.0067802	.8548816	1.203808	1.809536
#3	2.110053	.0303083	.0008786	.0073080	.8495950	1.221761	1.823361

Sample Name: Q1093-01LX5 Acquired: 1/17/2025 16:28:47 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8857341	.0207225	-.013510
Stddev	.0062901	.0005165	.000550
%RSD	.7101521	2.492300	4.069944
#1	.8926382	.0201876	-.014011
#2	.8842351	.0207615	-.012922
#3	.8803289	.0212183	-.013597

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2969.272	57234.89	11327.80	2022.993	4220.494
Stddev	3.504	299.68	65.64	6.732	2.517
%RSD	.1180176	.5235997	.5794209	.3327724	.0596283
#1	2967.648	56889.51	11374.40	2015.228	4222.602
#2	2973.294	57426.14	11252.74	2027.196	4221.172
#3	2966.876	57389.02	11356.27	2026.554	4217.708

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01MS Acquired: 1/17/2025 16:32:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7603688	1.731060	2.898504	1.466273	.2938717	121.1104
Stddev	.0024214	.002961	.007776	.002309	.0002974	.2465
%RSD	.3184477	.1710656	.2682720	.1574545	.1011916	.2035640
#1	.7588250	1.733606	2.897045	1.468833	.2938304	120.9200
#2	.7591218	1.731764	2.891561	1.465641	.2941876	121.3889
#3	.7631595	1.727810	2.906906	1.464347	.2935972	121.0224

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8924478	.1531130	.1819696	38.41806	.5988171	.3180264
Stddev	.0038414	.0010562	.0006519	.07250	.0022086	.0016099
%RSD	.4304357	.6898229	.3582586	.1887004	.3688334	.5062138
#1	.8883422	.1536261	.1819676	38.40036	.5989438	.3167673
#2	.8959547	.1538147	.1813187	38.49776	.5965478	.3174716
#3	.8930467	.1518983	.1826225	38.35605	.6009596	.3198404

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8948536	250.9003	4.468700	37.08282	.6944908	.0633242
Stddev	.0020816	1.9767	.009659	.09687	.0028897	.0007596
%RSD	.2326234	.7878565	.2161429	.2612276	.4160944	1.199521
#1	.8925561	249.1433	4.458566	36.97350	.6921660	.0624983
#2	.8953903	250.5171	4.477800	37.15797	.6935804	.0639928
#3	.8966143	253.0406	4.469733	37.11700	.6977262	.0634816

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.945185	.6655839	2.176526	16.23205	.3004503	.3377035
Stddev	.057423	.0020848	.002370	.11924	.0023094	.0016011
%RSD	.9658701	.3132266	.1088917	.7345819	.7686434	.4741247
#1	5.886181	.6639936	2.178887	16.11213	.3004331	.3361437
#2	5.948490	.6679441	2.176544	16.23344	.2981495	.3376237
#3	6.000884	.6648139	2.174147	16.35059	.3027682	.3393430

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01MS Acquired: 1/17/2025 16:32:58 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6225673	3.261130	3.009244	F 13.41602	4.184865	.2709739
Stddev	.0022019	.011972	.033408	.05380	.024964	.0017268
%RSD	.3536741	.3671265	1.110163	.4010064	.5965347	.6372557
#1	.6208579	3.249544	2.973154	13.35771	4.170462	.2690192
#2	.6217920	3.273455	3.015489	13.42662	4.170442	.2716104
#3	.6250519	3.260389	3.039087	13.46373	4.213691	.2722922

Elem	Sr4077
Units	ppm
Avg	.0626098
Stddev	.0014810
%RSD	2.365394
#1	.0632352
#2	.0636754
#3	.0609187

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3247.534	63067.34	12581.71	2212.588	4027.363
Stddev	10.140	132.70	77.48	2.133	14.924
%RSD	.3122318	.2104031	.6158487	.0963986	.3705684
#1	3252.519	63203.71	12563.74	2214.443	4036.743
#2	3254.215	63059.68	12514.80	2213.063	4035.192
#3	3235.866	62938.65	12666.61	2210.257	4010.153

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01MSD Acquired: 1/17/2025 16:36:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7643312	1.751052	2.931317	1.480266	.2924878	119.7640
Stddev	.0037283	.018095	.011993	.004528	.0012201	.3151
%RSD	.4877847	1.033382	.4091195	.3058602	.4171572	.2630849
#1	.7643872	1.731719	2.924985	1.481475	.2916025	119.4186
#2	.7605752	1.767583	2.923817	1.475257	.2919814	119.8378
#3	.7680311	1.753854	2.945148	1.484066	.2938796	120.0357

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8760185	.1550287	.1858452	37.49479	.5905724	.3208258
Stddev	.0063313	.0009949	.0010522	.17222	.0022649	.0010878
%RSD	.7227406	.6417736	.5661446	.4593090	.3835009	.3390633
#1	.8687187	.1540646	.1847746	37.30158	.5908143	.3197337
#2	.8793227	.1560519	.1858830	37.63215	.5881963	.3208343
#3	.8800143	.1549696	.1868779	37.55064	.5927066	.3219093

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9142252	238.5707	4.410202	36.74030	.7001862	.0609991
Stddev	.0019186	1.2527	.027891	.05909	.0024930	.0004925
%RSD	.2098580	.5250796	.6324255	.1608315	.3560509	.8073513
#1	.9121670	238.2950	4.378603	36.67315	.6976050	.0608133
#2	.9159641	237.4789	4.431392	36.78437	.7003730	.0606266
#3	.9145444	239.9383	4.420612	36.76337	.7025805	.0615575

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.503991	.6563261	2.118374	15.45384	.2866398	.3411357
Stddev	.037238	.0047902	.004975	.09747	.0025625	.0011345
%RSD	.6765646	.7298541	.2348681	.6307064	.8939689	.3325704
#1	5.479125	.6508228	2.123282	15.44221	.2888219	.3399142
#2	5.486044	.6585965	2.118505	15.36271	.2838181	.3413363
#3	5.546803	.6595589	2.113334	15.55661	.2872792	.3421565

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01MSD Acquired: 1/17/2025 16:36:54 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6291434	3.268452	3.300387	F 13.73433	4.232440	.2643049
Stddev	.0039889	.015435	.038886	.07266	.021708	.0020093
%RSD	.6340265	.4722542	1.178215	.5290032	.5128968	.7602227
#1	.6253992	3.250639	3.305278	13.65395	4.216868	.2620555
#2	.6286923	3.277884	3.259288	13.75375	4.223216	.2659220
#3	.6333387	3.276833	3.336596	13.79531	4.257237	.2649372

Elem	Sr4077
Units	ppm
Avg	.0707978
Stddev	.0015459
%RSD	2.183519
#1	.0693679
#2	.0724381
#3	.0705872

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3210.700	64388.39	12358.02	2246.011	3969.833
Stddev	8.161	219.00	70.69	3.524	14.568
%RSD	.2541783	.3401164	.5720038	.1569016	.3669707
#1	3219.181	64304.69	12428.94	2241.948	3983.858
#2	3210.019	64636.89	12287.57	2248.237	3970.865
#3	3202.902	64223.58	12357.56	2247.848	3954.776

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1093-01A Acquired: 1/17/2025 16:40:51 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7543364	1.738284	2.903681	1.459751	.2829166	120.3450
Stddev	.0037364	.016529	.011358	.005246	.0009053	.3526
%RSD	.4953229	.9508631	.3911466	.3593774	.3200016	.2930274
#1	.7503229	1.720061	2.902461	1.453833	.2820981	120.1965
#2	.7549721	1.752309	2.892983	1.463830	.2838890	120.0910
#3	.7577142	1.742481	2.915600	1.461591	.2827626	120.7476

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8709215	.1549134	.1837456	37.33339	.5959476	.3187725
Stddev	.0050740	.0005443	.0004763	.18588	.0020155	.0007911
%RSD	.5825994	.3513283	.2591884	.4978973	.3381990	.2481640
#1	.8663659	.1543246	.1832068	37.23611	.5944147	.3181495
#2	.8700087	.1550174	.1839194	37.21633	.5951975	.3185055
#3	.8763899	.1553981	.1841105	37.54772	.5982306	.3196625

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9037113	240.5563	4.370399	36.68066	.6942328	.0610523
Stddev	.0045296	1.0070	.022817	.06569	.0024600	.0002958
%RSD	.5012280	.4186319	.5220858	.1790770	.3543464	.4844938
#1	.8997087	240.1049	4.350997	36.75091	.6919613	.0607431
#2	.9027967	239.8540	4.364663	36.62076	.6938915	.0610815
#3	.9086284	241.7101	4.395537	36.67032	.6968456	.0613325

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.534285	.6524594	2.132495	15.59151	.2949194	.3383381
Stddev	.017182	.0022369	.009820	.08463	.0012044	.0014107
%RSD	.3104605	.3428456	.4604903	.5428127	.4083817	.4169405
#1	5.520005	.6533493	2.129207	15.56790	.2952960	.3368236
#2	5.529497	.6499145	2.124741	15.52118	.2935717	.3385759
#3	5.553353	.6541144	2.143537	15.68544	.2958905	.3396147

Sample Name: Q1093-01A Acquired: 1/17/2025 16:40:51 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6239957	3.459065	4.946068	F 13.56139	4.166597	.2638612
Stddev	.0043703	.011617	.040129	.06814	.021786	.0007512
%RSD	.7003758	.3358546	.8113262	.5024390	.5228812	.2847128
#1	.6209857	3.448325	4.938727	13.49254	4.144535	.2631681
#2	.6219930	3.457474	4.910117	13.56283	4.167159	.2637559
#3	.6290085	3.471396	4.989361	13.62880	4.188096	.2646595

Elem	Sr4077
Units	ppm
Avg	.0669514
Stddev	.0006424
%RSD	.9595485
#1	.0662166
#2	.0672310
#3	.0674067

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3255.657	63708.49	12415.73	2238.359	4031.941
Stddev	7.841	159.85	45.69	11.483	10.803
%RSD	.2408461	.2509112	.3679722	.5130222	.2679339
#1	3262.518	63742.23	12456.41	2242.318	4041.412
#2	3257.342	63848.78	12424.49	2247.339	4034.236
#3	3247.110	63534.47	12366.30	2225.420	4020.175

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1094-01 Acquired: 1/17/2025 16:44:48 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0592459	-.000472	.3363504	-.039968	.0026230	80.25212	.3854516
Stddev	.0035138	.001254	.0017624	.001693	.0009323	.20763	.0012677
%RSD	5.930904	265.7555	.5239800	4.235948	35.54227	.2587271	.3288958
#1	.0594655	-.001852	.3345285	-.041546	.0015722	80.09036	.3847272
#2	.0626447	-.000161	.3380467	-.038180	.0033508	80.17974	.3847121
#3	.0556274	.000597	.3364759	-.040177	.0029461	80.48625	.3869154

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064687	.0024270	493.8432	.1551408	.0939092	.3479976	204.5627
Stddev	.0000767	.0001849	2.2370	.0006138	.0001118	.0004756	.2482
%RSD	1.185318	7.616587	.4529719	.3956190	.1190732	.1366747	.1213548
#1	.0064696	.0025245	496.1265	.1547668	.0940332	.3485432	204.3831
#2	.0065450	.0022138	493.7474	.1558491	.0938161	.3476705	204.4590
#3	.0063917	.0025427	491.6556	.1548064	.0938782	.3477791	204.8460

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.931255	238.3830	.1699320	-.000187	10.59727	.2508443	.8025372
Stddev	.008234	.5435	.0005531	.000183	.06744	.0018770	.0016266
%RSD	.2094494	.2279789	.3254621	98.24687	.6363474	.7482598	.2026807
#1	3.935707	238.2234	.1703556	-.000298	10.57121	.2494950	.8033439
#2	3.921753	238.9883	.1693063	.000025	10.54675	.2500501	.8036028
#3	3.936304	237.9371	.1701342	-.000286	10.67384	.2529878	.8006649

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.94868	.1118351	.0033003	.0141499	2.401571	3.461170	7.116645
Stddev	.10003	.0017987	.0003012	.0011798	.007458	.023993	.026415
%RSD	.8371980	1.608335	9.127185	8.337891	.3105302	.6932034	.3711691
#1	11.87287	.1108165	.0035865	.0131589	2.400267	3.441603	7.121553
#2	11.91111	.1107769	.0029860	.0154549	2.394851	3.453968	7.088120
#3	12.06206	.1139119	.0033285	.0138358	2.409595	3.487939	7.140261

Sample Name: Q1094-01 Acquired: 1/17/2025 16:44:48 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.063052	.0633785	.4350947
Stddev	.018991	.0000957	.0016908
%RSD	.3132333	.1509575	.3885964
#1	6.054703	.0634860	.4354532
#2	6.049665	.0633027	.4332535
#3	6.084788	.0633469	.4365775

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2924.143	57706.34	11888.23	1988.819	3545.541
Stddev	5.451	151.14	50.83	5.966	8.436
%RSD	.1864079	.2619143	.4275286	.2999688	.2379258
#1	2926.240	57773.49	11859.94	1994.186	3547.409
#2	2928.235	57533.26	11857.84	1982.396	3552.885
#3	2917.955	57812.26	11946.90	1989.876	3536.327

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1098-01 Acquired: 1/17/2025 16:49:01 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0755290	-.020744	1.046816	-.057307	.0191075	185.5072	.7864220
Stddev	.0016038	.004558	.003443	.003029	.0012537	.3706	.0017492
%RSD	2.123364	21.97160	.3288923	5.286021	6.561091	.1997529	.2224231
#1	.0736773	-.018993	1.049257	-.060333	.0189169	185.9014	.7881054
#2	.0764385	-.017321	1.042878	-.054275	.0204456	185.4541	.7846138
#3	.0764713	-.025917	1.048313	-.057314	.0179601	185.1661	.7865468

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084902	.0024416	93.38018	.6757826	.2244907	1.398556	333.4396
Stddev	.0000264	.0003160	.10219	.0028556	.0004262	.004483	.5560
%RSD	.3107492	12.94350	.1094324	.4225642	.1898736	.3205146	.1667520
#1	.0084636	.0027558	93.49559	.6765912	.2249517	1.397490	333.8246
#2	.0084906	.0021238	93.34377	.6781466	.2241110	1.394703	333.6922
#3	.0085163	.0024451	93.30119	.6726098	.2244094	1.403476	332.8022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.497962	103.9330	.4614985	.0000109	15.90891	.7049463	2.601243
Stddev	.005618	.2479	.0007386	.0006497	.01722	.0034679	.004821
%RSD	.1248996	.2384790	.1600443	5981.063	.1082635	.4919317	.1853287
#1	4.498646	104.1782	.4617523	.0000147	15.92843	.7089453	2.606113
#2	4.492033	103.9383	.4606664	.0006586	15.90242	.7031261	2.596473
#3	4.503206	103.6826	.4620767	-.000641	15.89587	.7027676	2.601143

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.71522	.5254609	.0052730	.0315466	6.071164	4.469682	7.970681
Stddev	.09969	.0011126	.0002488	.0013371	.014030	.009797	.044194
%RSD	.5963997	.2117354	4.718013	4.238510	.2310954	.2191856	.5544530
#1	16.80825	.5256393	.0053623	.0307356	6.087335	4.479047	8.002675
#2	16.72743	.5264736	.0054647	.0330899	6.062230	4.470495	7.920255
#3	16.60999	.5242699	.0049918	.0308144	6.063926	4.459504	7.989114

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1098-01 Acquired: 1/17/2025 16:49:01 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.368326	.1775084	.3234762
Stddev	.019879	.0013271	.0011069
%RSD	.5901792	.7476429	.3421790
#1	3.386150	.1764147	.3240980
#2	3.346887	.1771257	.3221982
#3	3.371941	.1789849	.3241323

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3040.023	58145.78	12003.36	2024.365	3863.240
Stddev	1.452	255.15	34.17	5.330	7.001
%RSD	.0477774	.4388155	.2846399	.2632932	.1812235
#1	3038.642	57994.50	11972.44	2019.526	3855.187
#2	3041.538	58002.47	11997.60	2023.491	3866.655
#3	3039.889	58440.37	12040.04	2030.078	3867.879

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1099-01 Acquired: 1/17/2025 16:53:03 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0363427	-.012684	.3271375	-.041116	-.000282	124.7330	.6484439
Stddev	.0006247	.002370	.0020407	.002188	.002880	.2266	.0003307
%RSD	1.719044	18.68568	.6237949	5.320985	1021.392	.1816904	.0510039
#1	.0357867	-.009948	.3253894	-.039045	-.003036	124.5565	.6481209
#2	.0362228	-.014102	.3266431	-.043404	.002709	124.9885	.6487818
#3	.0370188	-.014002	.3293799	-.040899	-.000519	124.6539	.6484289

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077421	-.000706	92.00630	.1756203	.1356294	.4886694	260.9639
Stddev	.0000942	.000066	.06675	.0005570	.0001503	.0005404	.9974
%RSD	1.216731	9.379217	.0725514	.3171617	.1107863	.1105867	.3822175
#1	.0078027	-.000638	91.96735	.1754035	.1355729	.4880951	260.6033
#2	.0077901	-.000771	92.08338	.1762530	.1355155	.4887454	260.1969
#3	.0076336	-.000709	91.96817	.1752042	.1357997	.4891678	262.0915

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.857900	54.48577	.1910842	-.000150	12.74053	.5267053	.6129111
Stddev	.006927	.14015	.0001022	.000734	.06902	.0013627	.0017828
%RSD	.1795584	.2572267	.0534594	488.5334	.5417430	.2587274	.2908748
#1	3.864799	54.32748	.1909735	.000495	12.71581	.5274008	.6114509
#2	3.857955	54.59407	.1911748	.000003	12.68728	.5275799	.6123846
#3	3.850945	54.53576	.1911043	-.000948	12.81851	.5251351	.6148979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.440026	1.470730	.0040648	.0042243	4.132352	4.673906	7.332327
Stddev	.012726	.002881	.0002743	.0009025	.003242	.041685	.024183
%RSD	.1348099	.1958965	6.747111	21.36444	.0784467	.8918706	.3298092
#1	9.430337	1.474013	.0043435	.0032611	4.134683	4.634764	7.308853
#2	9.454438	1.468623	.0037952	.0050504	4.133724	4.669217	7.330966
#3	9.435301	1.469553	.0040556	.0043613	4.128650	4.717738	7.357160

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1099-01 Acquired: 1/17/2025 16:53:03 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.720786	.0807645	.0095076
Stddev	.005219	.0004142	.0010208
%RSD	.1105542	.5128795	10.73657
#1	4.714976	.0805101	.0099775
#2	4.722307	.0805410	.0102088
#3	4.725076	.0812425	.0083365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3250.918	62387.83	12546.84	2213.515	3933.758
Stddev	3.746	151.58	29.02	3.582	6.833
%RSD	.1152310	.2429710	.2313186	.1618143	.1737086
#1	3254.195	62507.36	12531.33	2215.798	3938.168
#2	3251.726	62438.81	12528.86	2209.387	3937.220
#3	3246.834	62217.33	12580.32	2215.360	3925.887

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01 Acquired: 1/17/2025 16:57:06 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000015	-.001637	.0011633	-.000847	.0004797	-.011786
Stddev	.003708	.001114	.0011451	.001781	.0007317	.002007
%RSD	24252.07	68.06756	98.44018	210.2205	152.5265	17.02661
#1	.004267	-.002923	.0021146	-.001914	-.000089	-.012427
#2	-.002180	-.000984	.0014828	.001209	.001305	-.009537
#3	-.002132	-.001003	-.000108	-.001837	.000224	-.013394

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0783482	.0000277	-.000065	87.94869	.0027527	-.000196
Stddev	.0012129	.0000402	.000026	.49756	.0005166	.000115
%RSD	1.548106	145.0579	39.48389	.5657333	18.76788	58.75036
#1	.0769651	-.000019	-.000046	87.37637	.0027907	-.000144
#2	.0788491	.000047	-.000095	88.27844	.0032492	-.000328
#3	.0792304	.000055	-.000055	88.19127	.0022181	-.000116

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013119	.0517776	.0038490	15.24354	.0189900	.0007361
Stddev	.0001908	.0058084	.0001449	.12343	.0002234	.0002385
%RSD	14.54084	11.21797	3.764127	.8097475	1.176562	32.39285
#1	.0012773	.0581349	.0037126	15.10138	.0192363	.0010072
#2	.0011408	.0504498	.0040011	15.32342	.0189333	.0005590
#3	.0015176	.0467480	.0038332	15.30583	.0188004	.0006422

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.3800	.0059354	.0341673	14.43641	.2772774	.0090843
Stddev	.3801	.0019613	.0004019	.07939	.0014943	.0000087
%RSD	.2527331	33.04350	1.176350	.5499236	.5389262	.0957500
#1	150.1397	.0080074	.0343163	14.35552	.2759111	.0090935
#2	150.1821	.0041077	.0344735	14.43950	.2788732	.0090833
#3	150.8182	.0056912	.0337122	14.51421	.2770477	.0090762

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01 Acquired: 1/17/2025 16:57:06 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003871	-.001046	F 10.44744	.1082527	F 23.04120	-.008677
Stddev	.000406	.000591	.02675	.0024218	.14617	.000940
%RSD	10.47611	56.53498	.2560362	2.237214	.6343770	10.83765
#1	-.003539	-.000375	10.42624	.1078414	23.16358	-.009353
#2	-.003752	-.001491	10.43858	.1108539	23.08067	-.007603
#3	-.004323	-.001271	10.47749	.1060628	22.87935	-.009075

Elem	Sr4077
Units	ppm
Avg	.8693308
Stddev	.0047669
%RSD	.5483405
#1	.8638992
#2	.8712741
#3	.8728191

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2847.014	54713.26	10748.59	1952.532	4077.498
Stddev	15.355	38.23	42.06	1.645	21.304
%RSD	.5393511	.0698741	.3912614	.0842318	.5224694
#1	2836.614	54728.43	10795.20	1954.430	4064.623
#2	2839.777	54741.59	10713.48	1951.522	4065.784
#3	2864.650	54669.78	10737.09	1951.644	4102.089

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01DUP Acquired: 1/17/2025 17:01:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007583	-.001862	.0016443	.0005727	-.000075	-.024087
Stddev	.0022559	.001582	.0011196	.0012370	.000529	.010040
%RSD	297.5068	84.97237	68.08798	215.9806	706.0047	41.68433
#1	.0033058	-.003681	.0005668	.0015318	.000531	-.014346
#2	-.000987	-.000813	.0015643	-.000823	-.000444	-.023512
#3	-.000044	-.001091	.0028017	.001010	-.000312	-.034402

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0789661	.0000059	.0000023	88.42069	.0031468	-.000256
Stddev	.0013629	.0000504	.0000738	.98774	.0002512	.000108
%RSD	1.725949	851.2207	3153.738	1.117092	7.982817	42.25039
#1	.0783939	.0000450	.0000645	88.21059	.0034285	-.000243
#2	.0779825	.0000237	-.000079	87.55491	.0030661	-.000370
#3	.0805218	-.000051	.000022	89.49658	.0029459	-.000155

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012989	.0245731	.0039085	15.36737	.0196033	.0006069
Stddev	.0004945	.0028621	.0001389	.17214	.0000743	.0002491
%RSD	38.07086	11.64726	3.554387	1.120145	.3787907	41.04919
#1	.0010159	.0274908	.0040492	15.30057	.0196021	.0005437
#2	.0018699	.0217700	.0039050	15.23865	.0196781	.0003954
#3	.0010109	.0244585	.0037714	15.56289	.0195296	.0008815

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.6404	.0064181	.0341320	14.40628	.2805755	.0092557
Stddev	.5318	.0021022	.0004954	.02517	.0058067	.0002739
%RSD	.3530259	32.75414	1.451553	.1747036	2.069552	2.959209
#1	150.6606	.0047126	.0337669	14.40410	.2823222	.0090927
#2	151.1618	.0087667	.0346960	14.43246	.2740960	.0091025
#3	150.0987	.0057749	.0339330	14.38227	.2853084	.0095719

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01DUP Acquired: 1/17/2025 17:01:21 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003954	-.001867	F 10.42637	.1101665	F 23.52413	-.008371
Stddev	.000620	.000303	.04795	.0013613	.11333	.000889
%RSD	15.67192	16.21208	.4598675	1.235699	.4817714	10.61731
#1	-.003254	-.002118	10.38702	.1098924	23.40256	-.007714
#2	-.004177	-.001531	10.47977	.1089631	23.54296	-.009382
#3	-.004432	-.001951	10.41230	.1116440	23.62686	-.008017

Elem	Sr4077
Units	ppm
Avg	.8774160
Stddev	.0091863
%RSD	1.046967
#1	.8761375
#2	.8689359
#3	.8871745

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2799.530	54202.42	10568.49	1938.634	4001.991
Stddev	16.440	73.20	165.97	8.693	18.546
%RSD	.5872509	.1350452	1.570380	.4483916	.4634312
#1	2812.572	54274.25	10579.62	1948.612	4019.696
#2	2804.954	54205.10	10728.61	1932.695	4003.572
#3	2781.063	54127.92	10397.24	1934.596	3982.704

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV07 Acquired: 1/17/2025 17:11:51 Type: Unk
Method: NON EPA-6010-200.7(v2616) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.826676	4.670342	4.766832	4.864093	4.906502	9.521428	9.181532
Stddev	.011723	.048513	.007591	.018980	.009135	.028117	.095087
%RSD	.2428710	1.038746	.1592394	.3902044	.1861761	.2953005	1.035629
#1	4.816886	4.706734	4.767419	4.873286	4.909121	9.552619	9.141737
#2	4.823474	4.615265	4.758965	4.842268	4.896344	9.498028	9.112808
#3	4.839666	4.689028	4.774113	4.876727	4.914042	9.513637	9.290051

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2326825	2.388616	23.07114	.9703148	2.394659	1.223787	4.772683
Stddev	.0014160	.004244	.02646	.0009511	.006358	.002799	.028192
%RSD	.6085520	.1776696	.1146672	.0980206	.2654912	.2287394	.5906871
#1	.2324532	2.386980	23.08368	.9692431	2.393179	1.224349	4.786891
#2	.2313951	2.385434	23.04075	.9710587	2.389172	1.220749	4.790943
#3	.2341991	2.393434	23.08899	.9706425	2.401626	1.226262	4.740214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.283864	27.18386	2.397703	1.207695	23.24662	2.339444	2.450755
Stddev	.005464	.08567	.004878	.000248	.05636	.003663	.002428
%RSD	.2392281	.3151494	.2034310	.0205533	.2424577	.1565796	.0990850
#1	2.286749	27.24156	2.395689	1.207820	23.25917	2.340748	2.453313
#2	2.277563	27.08542	2.394154	1.207409	23.29565	2.335308	2.450472
#3	2.287280	27.22459	2.403265	1.207856	23.18504	2.342277	2.448481

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.11398	4.639826	4.876800	4.736529	4.633661	5.144155	4.941051
Stddev	.06013	.027471	.010874	.014472	.010585	.012640	.005147
%RSD	.2493702	.5920624	.2229777	.3055302	.2284413	.2457090	.1041609
#1	24.16143	4.644231	4.878909	4.740216	4.643479	5.139476	4.939581
#2	24.13415	4.610420	4.865026	4.720570	4.622448	5.158467	4.936800
#3	24.04635	4.664829	4.886465	4.748800	4.635057	5.134522	4.946773

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV07 Acquired: 1/17/2025 17:11:51 Type: Unk
Method: NON EPA-6010-200.7(v2616) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.751973	4.606976	4.782755
Stddev	.017540	.017280	.019842
%RSD	.3691116	.3750879	.4148600
#1	4.752217	4.616035	4.770509
#2	4.734312	4.587049	4.772109
#3	4.769390	4.617842	4.805648

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2805.907	54782.08	10169.42	1910.958	4034.517
Stddev	3.510	98.41	45.44	6.749	5.009
%RSD	.1251074	.1796309	.4468265	.3531617	.1241634
#1	2807.643	54871.63	10178.54	1911.346	4036.859
#2	2808.210	54676.73	10209.61	1904.023	4037.927
#3	2801.866	54797.89	10120.11	1917.504	4028.766

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB07 Acquired: 1/17/2025 17:16:01 Type: Unk
Method: NON EPA-6010-200.7(v2616) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003170	-.000558	.0020894	.0026971	.0015172	.0035924
Stddev	.000362	.000536	.0016946	.0004587	.0013378	.0071687
%RSD	11.40405	95.97668	81.10506	17.00562	88.17854	199.5508
#1	-.002765	-.001129	.0030884	.0021869	.0026681	.0030429
#2	-.003284	-.000066	.0001328	.0028293	.0000494	.0110201
#3	-.003461	-.000479	.0030471	.0030751	.0018340	-.003286

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006989	-.000000	.0000573	.0018000	-.000457	.0000072
Stddev	.000638	.000033	.0001260	.0011489	.000255	.0001495
%RSD	9.123222	14524.34	219.8641	63.82943	55.86516	2086.999
#1	-.006457	.000019	.0001664	.0028826	-.000487	.0001085
#2	-.006815	.000019	-.000081	.0005946	-.000696	-.000165
#3	-.007696	-.000039	.000086	.0019227	-.000188	.000078

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001594	.0006942	.0000607	-.019054	.0002061	.0007669
Stddev	.0003928	.0047539	.0003878	.004928	.0001777	.0002412
%RSD	246.4883	684.7835	638.8238	25.86119	86.22858	31.44437
#1	.0001173	.0021821	.0002652	-.022386	.0001546	.0008100
#2	.0005715	-.004626	-.000387	-.013394	.0000598	.0005072
#3	-.000211	.004526	.000303	-.021383	.0004039	.0009837

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1746857	-.001739	.0000620	.2815815	.0068769	.0003997
Stddev	.0058844	.000704	.0001926	.0667486	.0002360	.0002015
%RSD	3.368579	40.48311	310.5505	23.70491	3.431605	50.40913
#1	.1678977	-.001017	.0001587	.2424567	.0066452	.0005855
#2	.1783426	-.001775	-.000160	.3586531	.0071170	.0004280
#3	.1778168	-.002423	.000187	.2436345	.0068684	.0001856

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB07 Acquired: 1/17/2025 17:16:01 Type: Unk
Method: NON EPA-6010-200.7(v2616) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001109	.0005878	.0112143	-.003735	F .0100039	.0006488
Stddev	.0007533	.0009794	.0022153	.001341	.0006925	.0007209
%RSD	679.1425	166.6104	19.75454	35.89992	6.922339	111.1269
#1	-.000617	.0016696	.0136135	-.002602	.0104110	-.000176
#2	.000062	-.000239	.0092463	-.005215	.0103965	.000962
#3	.000888	.000332	.0107831	-.003389	.0092043	.001160

Elem	Sr4077
Units	ppm
Avg	.0002141
Stddev	.0000233
%RSD	10.87417
#1	.0002171
#2	.0002357
#3	.0001894

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2922.195	55821.09	10466.59	1994.615	4394.567
Stddev	2.989	205.63	26.23	4.552	5.055
%RSD	.1022987	.3683711	.2506467	.2281957	.1150388
#1	2920.744	55640.48	10436.65	1992.734	4389.755
#2	2920.209	56044.88	10477.55	1999.806	4399.835
#3	2925.633	55777.91	10485.57	1991.305	4394.111

Sample Name: Q1097-01LX5 Acquired: 1/17/2025 17:22:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000397	-.001628	.0011730	.0016933	.0010133	-.016736	.0061958
Stddev	.001972	.001282	.0011415	.0009320	.0012893	.001038	.0007867
%RSD	496.8277	78.74273	97.31478	55.03902	127.2353	6.204655	12.69677
#1	.001875	-.001496	.0023623	.0009079	.0002868	-.016012	.0054982
#2	-.001668	-.002971	.0000863	.0014489	.0025019	-.016270	.0060407
#3	-.001397	-.000417	.0010703	.0027232	.0002512	-.017926	.0070484

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000200	-.000073	17.41456	-.000056	-.000086	.0003861	.0024594
Stddev	.0000469	.000064	.07813	.000362	.000186	.0004096	.0034854
%RSD	233.7972	87.26422	.4486290	648.8116	216.6340	106.0862	141.7152
#1	-.000032	-.000126	17.34321	-.000316	.000122	.0008589	.0014557
#2	.000058	-.000090	17.40243	.000358	-.000234	.0001415	.0063366
#3	.000034	-.000002	17.49804	-.000209	-.000145	.0001578	-.000414

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005851	2.974173	.0037503	.0010204	25.23995	-.000067	.0069542
Stddev	.0002299	.020845	.0002923	.0001068	.15708	.001229	.0001690
%RSD	39.28857	.7008667	7.793099	10.46472	.6223593	1846.127	2.429567
#1	.0008434	2.952113	.0034435	.0009472	25.41552	.000171	.0067592
#2	.0004031	2.976866	.0037818	.0009711	25.19162	-.001397	.0070580
#3	.0005087	2.993541	.0040254	.0011430	25.11271	.001026	.0070454

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.759628	.0613881	.0018305	-.001816	-.000432	1.900021	.0159298
Stddev	.032902	.0008017	.0001271	.000420	.000291	.006095	.0013593
%RSD	1.192266	1.306007	6.945648	23.13579	67.23094	.3208104	8.533179
#1	2.791839	.0605457	.0019446	-.001340	-.000663	1.904625	.0151027
#2	2.726076	.0614766	.0018536	-.001972	-.000106	1.893108	.0151882
#3	2.760970	.0621418	.0016934	-.002135	-.000528	1.902329	.0174987

Sample Name: Q1097-01LX5 Acquired: 1/17/2025 17:22:00 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.486236	-.002775	.1669045
Stddev	.015856	.000355	.0002937
%RSD	.3534382	12.78973	.1759910
#1	4.475364	-.002466	.1666346
#2	4.478914	-.003162	.1672173
#3	4.504430	-.002696	.1668614

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2852.274	54741.68	10115.71	1964.036	4210.369
Stddev	2.907	105.67	87.05	6.725	5.066
%RSD	.1019146	.1930334	.8605140	.3423840	.1203234
#1	2854.575	54749.75	10201.97	1961.138	4214.745
#2	2853.239	54843.08	10117.28	1971.724	4211.543
#3	2849.007	54632.21	10027.89	1959.246	4204.819

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01MS Acquired: 1/17/2025 17:26:17 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8224124	1.891570	.9473769	1.983305	.7981968	1.795954
Stddev	.0011036	.026717	.0006628	.009498	.0038898	.008807
%RSD	.1341858	1.412441	.0699571	.4789099	.4873249	.4903954
#1	.8217882	1.861568	.9466631	1.973181	.7963835	1.796253
#2	.8217624	1.900348	.9479727	1.984712	.7955447	1.787001
#3	.8236866	1.912794	.9474950	1.992021	.8026622	1.804608

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2541648	.1819780	.1907372	91.42056	.3859787	.1913107
Stddev	.0020997	.0008987	.0002650	.29419	.0005291	.0002902
%RSD	.8260987	.4938685	.1389134	.3217944	.1370787	.1516940
#1	.2550424	.1810254	.1906111	91.39570	.3859918	.1911389
#2	.2556833	.1828108	.1905588	91.72638	.3854432	.1911474
#3	.2517688	.1820979	.1910416	91.13959	.3865012	.1916458

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2921090	2.921554	.1801210	17.25278	.4976680	.0728305
Stddev	.0010672	.020674	.0017000	.04399	.0004060	.0004083
%RSD	.3653425	.7076540	.9438153	.2549985	.0815772	.5606688
#1	.2912981	2.944175	.1813215	17.25459	.4977511	.0727395
#2	.2917109	2.903635	.1808656	17.29584	.4972269	.0724753
#3	.2933180	2.916853	.1781757	17.20790	.4980260	.0732766

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.0683	.2795905	.2394065	24.44946	.5426122	.4065177
Stddev	.9918	.0016826	.0009064	.16562	.0042371	.0011548
%RSD	.6479684	.6018250	.3786192	.6773864	.7808662	.2840585
#1	154.1430	.2779087	.2384670	24.64066	.5377290	.4052442
#2	152.8735	.2812740	.2394769	24.35700	.5447931	.4068124
#3	152.1883	.2795889	.2402758	24.35071	.5453147	.4074966

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01MS Acquired: 1/17/2025 17:26:17 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6724853	.1790919	F 11.32616	6.258076	F 24.26328	.1777713
Stddev	.0006658	.0010133	.02324	.023674	.11526	.0006562
%RSD	.0990114	.5657769	.2051500	.3783007	.4750392	.3691055
#1	.6719505	.1787488	11.34419	6.232714	24.14015	.1779158
#2	.6722742	.1802321	11.29994	6.261921	24.28110	.1783431
#3	.6732310	.1782947	11.33436	6.279592	24.36859	.1770549

Elem	Sr4077
Units	ppm
Avg	1.072360
Stddev	.005506
%RSD	.5134291
#1	1.074541
#2	1.076440
#3	1.066097

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2748.603	54125.52	10445.24	1908.305	3924.166
Stddev	7.377	94.58	41.45	3.550	6.975
%RSD	.2683813	.1747419	.3968567	.1860441	.1777463
#1	2755.220	54122.06	10485.13	1905.283	3928.604
#2	2749.940	54221.79	10402.38	1912.215	3927.767
#3	2740.649	54032.72	10448.21	1907.417	3916.126

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01MSD Acquired: 1/17/2025 17:30:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8094623	1.867255	.9352036	1.951913	.7884820	1.791776
Stddev	.0061803	.010707	.0010291	.000935	.0026022	.003544
%RSD	.7635051	.5733916	.1100445	.0479161	.3300283	.1977714
#1	.8027638	1.877682	.9363472	1.951506	.7887699	1.789400
#2	.8106800	1.856289	.9349119	1.951251	.7909283	1.790079
#3	.8149430	1.867795	.9343519	1.952983	.7857478	1.795849

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2520953	.1796935	.1886670	90.69399	.3868865	.1891715
Stddev	.0002878	.0007748	.0002549	.03247	.0002146	.0003690
%RSD	.1141753	.4311899	.1350959	.0358045	.0554584	.1950415
#1	.2518402	.1792678	.1889449	90.65667	.3868393	.1893085
#2	.2524073	.1805879	.1884441	90.71577	.3871207	.1887536
#3	.2520384	.1792249	.1886121	90.70954	.3866995	.1894524

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2884497	2.979219	.1778706	17.05802	.4928382	.0734275
Stddev	.0005420	.037419	.0002288	.10084	.0012868	.0003637
%RSD	.1878895	1.255995	.1286576	.5911421	.2611055	.4952893
#1	.2879987	3.009461	.1781115	16.94465	.4936910	.0734555
#2	.2890509	2.937373	.1778442	17.13769	.4913580	.0737764
#3	.2882996	2.990823	.1776561	17.09172	.4934656	.0730506

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.1819	.2771365	.2419356	24.98857	.5359712	.4043479
Stddev	1.0777	.0010087	.0013633	.16558	.0021104	.0006869
%RSD	.6900163	.3639781	.5634995	.6626096	.3937428	.1698736
#1	157.0120	.2773708	.2431652	25.10671	.5340781	.4035550
#2	154.9640	.2780074	.2404695	24.79932	.5382466	.4047583
#3	156.5696	.2760313	.2421722	25.05969	.5355890	.4047306

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01MSD Acquired: 1/17/2025 17:30:13 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6645795	.1774348	F 11.59373	6.102822	F 23.74200	.1759820
Stddev	.0025955	.0002459	.04504	.006036	.01055	.0004726
%RSD	.3905491	.1385746	.3885123	.0989123	.0444461	.2685393
#1	.6675702	.1772123	11.64294	6.105480	23.74163	.1755662
#2	.6632531	.1773933	11.55454	6.095913	23.73163	.1758840
#3	.6629152	.1776988	11.58372	6.107073	23.75273	.1764960

Elem	Sr4077
Units	ppm
Avg	1.066914
Stddev	.001520
%RSD	.1424853
#1	1.068314
#2	1.065297
#3	1.067131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2778.691	53214.33	10593.97	1879.204	3974.310
Stddev	2.609	54.95	40.69	4.847	1.077
%RSD	.0938964	.1032551	.3841237	.2579227	.0270938
#1	2780.629	53196.66	10631.46	1873.627	3975.246
#2	2775.725	53275.94	10550.69	1882.392	3973.133
#3	2779.720	53170.39	10599.74	1881.594	3974.550

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01A Acquired: 1/17/2025 17:34:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7984541	1.862827	.9323882	1.932494	.7815364	1.785827
Stddev	.0028845	.009697	.0063442	.011089	.0040749	.004684
%RSD	.3612577	.5205526	.6804289	.5738291	.5213930	.2623025
#1	.8004902	1.873220	.9388247	1.944837	.7862218	1.791233
#2	.7997188	1.861242	.9321995	1.929273	.7788203	1.783295
#3	.7951533	1.854021	.9261404	1.923372	.7795670	1.782954

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2540009	.1821857	.1880749	90.86403	.3857394	.1891967
Stddev	.0017047	.0008889	.0010766	.52144	.0014197	.0006897
%RSD	.6711253	.4878915	.5724300	.5738695	.3680351	.3645344
#1	.2558331	.1832118	.1891249	91.45314	.3841555	.1897873
#2	.2524618	.1816902	.1881264	90.46172	.3868973	.1893641
#3	.2537079	.1816550	.1869735	90.67723	.3861654	.1884388

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2880646	2.968077	.1791192	17.02296	.4914736	.0730877
Stddev	.0013258	.032311	.0022612	.02658	.0017681	.0006126
%RSD	.4602257	1.088606	1.262390	.1561494	.3597591	.8382340
#1	.2890315	2.960670	.1816765	17.05279	.4932973	.0725612
#2	.2886090	2.940114	.1773841	17.01434	.4913566	.0729418
#3	.2865534	3.003449	.1782971	17.00177	.4897669	.0737601

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	154.1833	.2761012	.2424057	24.69296	.5438102	.4032399
Stddev	.4342	.0041197	.0015657	.01180	.0037782	.0012444
%RSD	.2816264	1.492111	.6458819	.0478042	.6947584	.3085899
#1	154.3566	.2774016	.2406634	24.70441	.5476586	.4040736
#2	153.6892	.2794138	.2436948	24.69362	.5401064	.4038365
#3	154.5042	.2714881	.2428589	24.68083	.5436655	.4018096

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: Q1097-01A Acquired: 1/17/2025 17:34:09 Type: Unk
Method: NON EPA-6010-200.7(v2490) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6624029	.1776505	F 11.32675	6.128622	F 23.61680	.1746667
Stddev	.0015452	.0018165	.07233	.019611	.07217	.0004355
%RSD	.2332728	1.022539	.6385345	.3199919	.3055805	.2493311
#1	.6635156	.1797169	11.24335	6.131200	23.69986	.1751430
#2	.6606386	.1763053	11.36466	6.146817	23.56936	.1742888
#3	.6630544	.1769293	11.37223	6.107850	23.58120	.1745684

Elem	Sr4077
Units	ppm
Avg	1.074471
Stddev	.006847
%RSD	.6372583
#1	1.081978
#2	1.068570
#3	1.072864

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.019	53471.65	10461.56	1906.236	3995.054
Stddev	3.889	149.69	51.21	10.966	6.817
%RSD	.1390976	.2799383	.4895248	.5752726	.1706308
#1	2793.413	53642.05	10402.43	1915.929	3990.709
#2	2794.155	53361.36	10491.31	1894.334	3991.542
#3	2800.490	53411.53	10490.94	1908.447	4002.911

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LR1 Acquired: 1/17/2025 17:37:48 Type: Unk
Method: NON EPA-6010-200.7(v2617) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0303187	.1182279	.0519270	-.125742	-.000131	1979.879	-.009145
Stddev	.0102697	.0075451	.0009029	.012312	.003993	24.658	.001889
%RSD	33.87262	6.381802	1.738791	9.791416	3044.043	1.245418	20.65181
#1	.0405612	.1198205	.0529259	-.114086	.004469	1955.232	-.011207
#2	.0303731	.1100136	.0516862	-.124521	-.002163	1979.858	-.008728
#3	.0200219	.1248495	.0511689	-.138619	-.002699	2004.548	-.007499

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087206	-.023273	1793.259	-.001271	.0247868	.1248801	1054.308
Stddev	.0002498	.001560	8.557	.001079	.0002669	.0129794	11.762
%RSD	2.864120	6.703193	.4771519	84.86342	1.076572	10.39349	1.115619
#1	.0086600	-.024400	1783.762	-.000404	.0245786	.1250931	1057.909
#2	.0085067	-.023927	1800.367	-.000930	.0250876	.1117955	1063.848
#3	.0089951	-.021492	1795.649	-.002479	.0246942	.1377517	1041.166

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.085948	1892.670	.0087548	.0096712	2018.585	.0497315	.0543156
Stddev	.000660	5.685	.0008058	.0018710	10.008	.0012682	.0028404
%RSD	.7676905	.3003898	9.204039	19.34599	.4957840	2.550087	5.229385
#1	-.085723	1886.731	.0096184	.0108037	2007.353	.0482906	.0539967
#2	-.085431	1898.063	.0080230	.0106984	2026.553	.0502257	.0516481
#3	-.086691	1893.217	.0086230	.0075117	2021.851	.0506782	.0573019

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1250.343	.6161408	-.007187	.0123557	-.038609	.1539838	.0674909
Stddev	6.739	.0198244	.000858	.0036776	.000610	.0248917	.0098091
%RSD	.5389666	3.217510	11.93592	29.76404	1.579408	16.16517	14.53399
#1	1244.523	.6255237	-.006704	.0132667	-.038824	.1575854	.0575007
#2	1257.726	.6295320	-.006680	.0154922	-.039082	.1768785	.0771084
#3	1248.782	.5933669	-.008177	.0083083	-.037921	.1274874	.0678637

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LR1 Acquired: 1/17/2025 17:37:48 Type: Unk
Method: NON EPA-6010-200.7(v2617) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.241873	-.288417	-1.04314
Stddev	.003428	.002591	.01178
%RSD	1.417115	.8983048	1.128844
#1	-.245322	-.286752	-1.04672
#2	-.241830	-.291402	-1.05271
#3	-.238467	-.287096	-1.02999

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2039.130	39841.55	9028.133	1393.446	2604.335
Stddev	3.733	151.06	50.020	2.740	10.010
%RSD	.1830565	.3791433	.5540479	.1966004	.3843650
#1	2039.488	39901.56	9084.375	1394.113	2612.696
#2	2035.232	39669.71	9011.400	1390.434	2593.243
#3	2042.672	39953.39	8988.625	1395.790	2607.067

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LR2 Acquired: 1/17/2025 17:42:45 Type: Unk
Method: NON EPA-6010-200.7(v2617) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071417	-.013568	F 34.81479	.0072164	-.003868	.0448544
Stddev	.0023653	.002084	.06735	.0048593	.003332	.0085854
%RSD	33.11892	15.36151	.1934448	67.33646	86.12073	19.14068
#1	.0082972	-.011169	34.80225	.0020317	-.007354	.0498260
#2	.0044208	-.014601	34.75460	.0116667	-.000716	.0497964
#3	.0087072	-.014934	34.88753	.0079508	-.003535	.0349408

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.7833	-.002872	-.005665	.1856256	.0126713	-.020451
Stddev	.6112	.000047	.000024	.0172712	.0001131	.000222
%RSD	.6064390	1.624009	.4316283	9.304314	.8922773	1.085086
#1	100.5633	-.002869	-.005637	.1989043	.0125512	-.020386
#2	100.3125	-.002919	-.005679	.1918724	.0126873	-.020268
#3	101.4740	-.002826	-.005680	.1661002	.0127756	-.020698

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	266.3015	-.003020	44.64484	-.108792	48.63126	.0038197
Stddev	1.4931	.004089	.31255	.004677	.07313	.0003135
%RSD	.5606907	135.4171	.7000886	4.299383	.1503681	8.208246
#1	267.4128	.000638	45.00410	-.108975	48.63661	.0036955
#2	264.6043	-.007434	44.49495	-.113376	48.55560	.0035872
#3	266.8874	-.002263	44.43546	-.104026	48.70156	.0041763

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4008555	-.013839	33.48652	.4056273	-.003298	-.008246
Stddev	.0143200	.001122	.24699	.0134630	.000345	.000116
%RSD	3.572354	8.110579	.7375750	3.319051	10.45663	1.405871
#1	.4135793	-.014990	33.26540	.4181845	-.003152	-.008158
#2	.4036390	-.013780	33.75307	.4072851	-.003692	-.008378
#3	.3853480	-.012748	33.44110	.3914121	-.003051	-.008204

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: LR2 Acquired: 1/17/2025 17:42:45 Type: Unk
Method: NON EPA-6010-200.7(v2617) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004104	-.037222	.0014913	2.121722	-.042669	-.000041
Stddev	.000911	.000803	.0081853	.007043	.003183	.000582
%RSD	22.20548	2.157577	548.8829	.3319507	7.460505	1405.092
#1	-.003070	-.037319	-.002723	2.123126	-.045607	.000243
#2	-.004789	-.036375	-.003728	2.127958	-.039287	-.000711
#3	-.004454	-.037972	.010925	2.114083	-.043114	.000344

Elem	Sr4077
Units	ppm
Avg	.0014036
Stddev	.0000478
%RSD	3.406273
#1	.0014172
#2	.0013505
#3	.0014432

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2646.961	56045.84	10683.72	1924.310	4302.798
Stddev	4.546	51.73	102.75	12.757	7.408
%RSD	.1717358	.0923014	.9617061	.6629186	.1721609
#1	2651.072	56105.56	10570.78	1939.023	4302.121
#2	2647.732	56014.83	10708.72	1917.577	4310.521
#3	2642.079	56017.12	10771.66	1916.331	4295.751

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV08 Acquired: 1/17/2025 17:52:13 Type: Unk
Method: NON EPA-6010-200.7(v2618) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.906484	4.790032	4.817519	4.953368	4.988803	9.658923	9.417559
Stddev	.023862	.067153	.019701	.029057	.022034	.015736	.083779
%RSD	.4863447	1.401928	.4089494	.5866141	.4416627	.1629194	.8896043
#1	4.932251	4.829374	4.840147	4.980055	5.011370	9.668109	9.450519
#2	4.902055	4.828230	4.808235	4.957636	4.987695	9.667908	9.322313
#3	4.885147	4.712494	4.804175	4.922413	4.967344	9.640753	9.479846

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2323514	2.413990	23.42272	.9875508	2.422312	1.238224	4.959493
Stddev	.0007638	.008939	.08116	.0013048	.008303	.006033	.008759
%RSD	.3287432	.3703027	.3465121	.1321281	.3427551	.4871904	.1766037
#1	.2323425	2.423915	23.46666	.9864058	2.431615	1.245141	4.959891
#2	.2315920	2.411480	23.32906	.9889714	2.419665	1.235477	4.950542
#3	.2331196	2.406573	23.47243	.9872751	2.415655	1.234054	4.968046

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.319697	27.30963	2.423452	1.231331	24.53075	2.364141	2.485047
Stddev	.012444	.13883	.009347	.001280	.09828	.009664	.007456
%RSD	.5364650	.5083507	.3856824	.1039594	.4006343	.4087889	.3000529
#1	2.322681	27.45243	2.434118	1.230459	24.43813	2.373432	2.484395
#2	2.306032	27.17515	2.419547	1.232801	24.52029	2.354142	2.477939
#3	2.330377	27.30131	2.416691	1.230734	24.63384	2.364849	2.492809

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.12174	4.634267	4.948139	4.796429	4.730772	5.291263	4.959599
Stddev	.03955	.013941	.022320	.019935	.015417	.015771	.005023
%RSD	.1574452	.3008236	.4510733	.4156154	.3258948	.2980501	.1012698
#1	25.09673	4.632182	4.971753	4.816507	4.735673	5.273054	4.962938
#2	25.10116	4.621485	4.945275	4.796138	4.713500	5.300528	4.962036
#3	25.16734	4.649132	4.927390	4.776641	4.743143	5.300208	4.953823

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCV08 Acquired: 1/17/2025 17:52:13 Type: Unk
Method: NON EPA-6010-200.7(v2618) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.843573	4.704144	4.791264
Stddev	.022348	.011654	.064458
%RSD	.4614049	.2477303	1.345319
#1	4.869377	4.699482	4.806865
#2	4.830407	4.695543	4.720438
#3	4.830935	4.717407	4.846490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2812.898	54299.16	10313.37	1894.947	4047.375
Stddev	12.839	43.46	31.05	8.163	17.480
%RSD	.4564480	.0800354	.3011124	.4307596	.4318852
#1	2801.249	54348.51	10309.76	1887.909	4033.416
#2	2810.781	54266.61	10346.06	1903.895	4041.728
#3	2826.665	54282.35	10284.27	1893.036	4066.980

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB08 Acquired: 1/17/2025 17:56:24 Type: Unk
Method: NON EPA-6010-200.7(v2618) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001618	-.001226	.0011827	.0017489	.0006789	.0029750	-.008591
Stddev	.000998	.001867	.0000678	.0012934	.0007616	.0027271	.000278
%RSD	61.69371	152.2189	5.736047	73.95399	112.1715	91.66727	3.240529
#1	-.001103	-.003344	.0011769	.0004724	.0002859	.0046674	-.008912
#2	-.000982	.000181	.0011179	.0030585	.0015567	-.000171	-.008447
#3	-.002768	-.000516	.0012532	.0017159	.0001942	.004428	-.008415

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000085	-.000058	.0043022	-.000053	-.000080	.0001833	.0014976
Stddev	.000059	.000107	.0021484	.000146	.000089	.0000182	.0067366
%RSD	68.72195	184.3873	49.93667	277.0509	111.2311	9.905107	449.8360
#1	-.000030	-.000165	.0063744	.000038	-.000001	.0001641	-.006181
#2	-.000080	-.000059	.0044473	.000025	-.000063	.0002002	.004258
#3	-.000147	.000050	.0020850	-.000221	-.000176	.0001856	.006416

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001143	-.005592	.0002833	.0011283	.2400740	-.001809	.0005034
Stddev	.0002877	.009524	.0001243	.0003206	.0124613	.001671	.0001410
%RSD	251.6400	170.3072	43.87260	28.41413	5.190599	92.41575	28.00412
#1	.0002591	-.001926	.0001959	.0007598	.2375048	.000118	.0003887
#2	.0003010	-.016405	.0004256	.0013431	.2290975	-.002864	.0004606
#3	-.000217	.001554	.0002284	.0012821	.2536196	-.002680	.0006607

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2116331	.0011640	.0000602	-.001187	.0007249	.0097791	-.005410
Stddev	.0425317	.0005767	.0002834	.000243	.0011485	.0100232	.001150
%RSD	20.09691	49.54097	471.0359	20.47989	158.4330	102.4959	21.26271
#1	.1921851	.0017714	.0002930	-.001253	-.000585	.0170491	-.005487
#2	.2604119	.0006239	.0001429	-.001390	.001199	.0139431	-.004222
#3	.1823023	.0010968	-.000255	-.000918	.001560	-.001655	-.006519

Reviewed By:jaswal
On:1/20/2025 10:09:42 PM
Inst Id :P4
LB :LB134334

Sample Name: CCB08 Acquired: 1/17/2025 17:56:24 Type: Unk
Method: NON EPA-6010-200.7(v2618) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0058488	-.000118	.0000037
Stddev	.0027647	.000225	.0000230
%RSD	47.27001	190.7401	617.8837
#1	.0084476	-.000376	.0000054
#2	.0061552	-.000009	-.000020
#3	.0029437	.000032	.000026

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.660	57260.23	10610.86	2031.947	4363.936
Stddev	5.160	209.68	48.30	7.111	2.647
%RSD	.1772257	.3661877	.4551724	.3499510	.0606566
#1	2905.797	57218.72	10583.12	2029.592	4361.005
#2	2913.669	57487.56	10582.84	2039.936	4364.652
#3	2915.514	57074.41	10666.63	2026.312	4366.151

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166054

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 BLOC K #1 2. N/A

Start Digest Date: 01/14/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 01/14/2025 **Time :** 15:40 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. # 1

Dig Technician Signature: SKD.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6000
LFS-2	0.25	M6009
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	MP83498
1:1 HCL	5.00	M6126
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1 CELL #50 Temp: 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/14/25 16:40	SKD. met digestion.	SO to Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB166054

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB166054BL	PBW054	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	16
PB166054BS	LCS054	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	17
Q1081-01	RW7-SP100-20250113	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	18
Q1081-04	RW7-SP303-20250113	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	19
Q1081-04MS	RW7-SP303-20250113MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	21
Q1081-04MSD	RW7-SP303-20250113MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	22
Q1081-04DUP	RW7-SP303-20250113DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	20

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB166054 **WorkList ID :** 186909 **Department :** Digestion **Date :** 01-14-2025 11:32:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1081-01	RW7-SP100-20250113	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	N41	01/13/2025	6010D
Q1081-04	RW7-SP303-20250113	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	N41	01/13/2025	6010D

Date/Time 11/14/25 12:00

Raw Sample Received by:

Raw Sample Relinquished by: JD CSM

Date/Time 11/14/25 13:00.

Raw Sample Received by: JDCSM

Raw Sample Relinquished by:

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134315

Review By	kareem	Review On	1/17/2025 12:44:07 PM
Supervise By	Jaswal	Supervise On	1/20/2025 7:26:55 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/16/25 18:47		Kareem	OK
2	S1	S1	CAL2	01/16/25 18:52		Kareem	OK
3	S2	S2	CAL3	01/16/25 18:56		Kareem	OK
4	S3	S3	CAL4	01/16/25 19:00		Kareem	OK
5	S4	S4	CAL5	01/16/25 19:04		Kareem	OK
6	S5	S5	CAL6	01/16/25 19:09		Kareem	OK
7	ICV01	ICV01	ICV	01/16/25 19:18		Kareem	OK
8	LLICV01	LLICV01	LLICV	01/16/25 19:27		Kareem	OK
9	ICB01	ICB01	ICB	01/16/25 19:32		Kareem	OK
10	CRI01	CRI01	CRDL	01/16/25 19:36		Kareem	OK
11	ICSA01	ICSA01	ICSA	01/16/25 19:40		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	01/16/25 19:45		Kareem	OK
13	CCV01	CCV01	CCV	01/16/25 19:49		Kareem	OK
14	CCB01	CCB01	CCB	01/16/25 19:53		Kareem	OK
15	Q1074-01	HACKENSACK-DGA	SAM	01/16/25 19:57		Kareem	OK
16	Q1074-02	HACKENSACK-DGA	SAM	01/16/25 20:01		Kareem	OK
17	Q1076-01	ARS20-0006	SAM	01/16/25 20:06		Kareem	OK
18	Q1076-02	ARS20-0006	SAM	01/16/25 20:10		Kareem	OK

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Instrument ID: P4

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Supervise By	Jaswal	Supervise On	1/20/2025 7:26:55 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

19	Q1077-01	TR-05-01132025	SAM	01/16/25 20:14		Kareem	OK
20	Q1048-01	WATER TREATMENT	SAM	01/16/25 20:18	Na high	Kareem	Dilution
21	Q1049-01	FRAC-TANK-257952	SAM	01/16/25 20:23		Kareem	OK
22	Q1081-01	RW7-SP100-2025011	SAM	01/16/25 20:30		Kareem	OK
23	Q1081-04	RW7-SP303-2025011	SAM	01/16/25 20:35	QC Set Missing , Need to Re-analyse	Kareem	Not Ok
24	Q1048-01DL	WATER TREATMENT	SAM	01/16/25 20:39	2x for Na	Kareem	Confirms
25	CCV02	CCV02	CCV	01/16/25 20:43		Kareem	OK
26	CCB02	CCB02	CCB	01/16/25 20:47		Kareem	OK
27	LR1	LR1	HIGH STD	01/16/25 20:51		Kareem	OK
28	LR2	LR2	HIGH STD	01/16/25 20:56		Kareem	OK
29	CCV03	CCV03	CCV	01/16/25 21:01		Kareem	OK
30	CCB03	CCB03	CCB	01/16/25 21:10		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/17/25 10:51		Kareem	OK
2	S1	S1	CAL2	01/17/25 10:55		Kareem	OK
3	S2	S2	CAL3	01/17/25 10:59		Kareem	OK
4	S3	S3	CAL4	01/17/25 11:04		Kareem	OK
5	S4	S4	CAL5	01/17/25 11:08		Kareem	OK
6	S5	S5	CAL6	01/17/25 11:12		Kareem	OK
7	ICV01	ICV01	ICV	01/17/25 11:21	ICV01 Fail for Al,Ba,Be,Ca,MgMn,V	Kareem	OK
8	LLICV01	LLICV01	LLICV	01/17/25 11:26		Kareem	OK
9	ICB01	ICB01	ICB	01/17/25 11:30		Kareem	OK
10	CRI01	CRI01	CRDL	01/17/25 11:35		Kareem	OK
11	ICSA01	ICSA01	ICSA	01/17/25 11:39		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	01/17/25 11:43		Kareem	OK
13	ICSADL	ICSADL	ICSA	01/17/25 11:47		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	01/17/25 11:52		Kareem	OK
15	CCV01	CCV01	CCV	01/17/25 11:56		Kareem	OK
16	CCB01	CCB01	CCB	01/17/25 12:00		Kareem	OK
17	PB166054BL	PB166054BL	MB	01/17/25 12:05		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

18	PB166054BS	PB166054BS	LCS	01/17/25 12:09	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
19	PB166037BL	PB166037BL	MB	01/17/25 12:13		Kareem	OK
20	PB166037BS	PB166037BS	LCS	01/17/25 12:17	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
21	PB166047BL	PB166047BL	MB	01/17/25 12:21		Kareem	OK
22	PB166047BS	PB166047BS	LCS	01/17/25 12:26	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
23	PB166025TB	PB166025TB	MB	01/17/25 12:30		Kareem	OK
24	PB166049BL	PB166049BL	MB	01/17/25 12:34		Kareem	OK
25	PB166049BS	PB166049BS	LCS	01/17/25 12:38	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
26	PB166026TB	PB166026TB	MB	01/17/25 12:42		Kareem	OK
27	CCV02	CCV02	CCV	01/17/25 12:47		Kareem	OK
28	CCB02	CCB02	CCB	01/17/25 12:51		Kareem	OK
29	PB166069BL	PB166069BL	MB	01/17/25 12:55		Kareem	OK
30	PB166069BS	PB166069BS	LCS	01/17/25 13:00	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
31	PB166084BL	PB166084BL	MB	01/17/25 13:04		Kareem	OK
32	PB166084BS	PB166084BS	LCS	01/17/25 13:08	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

33	Q1068-01	TR-06-1-10-2025	SAM	01/17/25 13:12		Kareem	OK
34	Q1068-01DUP	TR-06-1-10-2025DUP	DUP	01/17/25 13:16		Kareem	OK
35	Q1068-01L	TR-06-1-10-2025L	SD	01/17/25 13:20		Kareem	OK
36	Q1068-01MS	TR-06-1-10-2025MS	MS	01/17/25 13:25	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
37	Q1068-01MSD	TR-06-1-10-2025MSD	MSD	01/17/25 13:28	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
38	Q1068-01A	TR-06-1-10-2025A	PS	01/17/25 13:32	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
39	CCV03	CCV03	CCV	01/17/25 13:36		Kareem	OK
40	CCB03	CCB03	CCB	01/17/25 13:41		Kareem	OK
41	Q1036-02	NP-WS-002	SAM	01/17/25 13:45		Kareem	OK
42	Q1036-02DUP	NP-WS-002DUP	DUP	01/17/25 13:49		Kareem	OK
43	Q1036-02L	NP-WS-002L	SD	01/17/25 13:53		Kareem	OK
44	Q1036-02MS	NP-WS-002MS	MS	01/17/25 13:58	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
45	Q1036-02MSD	NP-WS-002MSD	MSD	01/17/25 14:02	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
46	Q1036-02A	NP-WS-002A	PS	01/17/25 14:06	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
47	Q1069-02	RW7B-CARBON-2025	SAM	01/17/25 14:10		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

48	Q1040-01	RW5-SP100-2025010	SAM	01/17/25 14:14		Kareem	OK
49	Q1040-03	RW5-SP303-2025010	SAM	01/17/25 14:18		Kareem	OK
50	Q1048-01	WATER TREATMENT	SAM	01/17/25 14:23	Na high	Kareem	Dilution
51	CCV04	CCV04	CCV	01/17/25 14:27		Kareem	OK
52	CCB04	CCB04	CCB	01/17/25 14:31		Kareem	OK
53	Q1048-01DUP	WATER TREATMENT	DUP	01/17/25 14:36	Na high	Kareem	Dilution
54	Q1048-01L	WATER TREATMENT	SD	01/17/25 14:40		Kareem	OK
55	Q1048-01MSD	WATER TREATMENT	MSD	01/17/25 14:58	Na high	Kareem	Dilution
56	Q1048-01MS	WATER TREATMENT	MS	01/17/25 15:04	Na high	Kareem	Dilution
57	Q1048-01A	WATER TREATMENT	PS	01/17/25 15:08	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
58	Q1081-04	RW7-SP303-2025011	SAM	01/17/25 15:12		Kareem	OK
59	Q1081-04DUP	RW7-SP303-2025011	DUP	01/17/25 15:17		Kareem	OK
60	Q1081-04L	RW7-SP303-2025011	SD	01/17/25 15:21		Kareem	OK
61	Q1048-01ADL	WATER TREATMENT	PS	01/17/25 15:25	NOT REQUIRED	Kareem	Not Ok
62	Q1048-01MSDL	WATER TREATMENT	MS	01/17/25 15:30	2x For Na	Kareem	Confirms
63	CCV05	CCV05	CCV	01/17/25 15:34		Kareem	OK
64	CCB05	CCB05	CCB	01/17/25 15:38		Kareem	OK
65	Q1048-01MSDDL	WATER TREATMENT	MSD	01/17/25 15:42	2x For Na	Kareem	Confirms
66	Q1048-01DL	WATER TREATMENT	SAM	01/17/25 15:47	2x For Na	Kareem	Confirms

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 # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

67	Q1048-01DUPDL	WATER TREATMENT	DUP	01/17/25 15:51	2x For Na	Kareem	Confirms
68	Q1048-01LDL	WATER TREATMENT	SD	01/17/25 15:55	NOT REQUIRED	Kareem	Not Ok
69	Q1081-04MS	RW7-SP303-2025011	MS	01/17/25 16:00	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
70	Q1081-04MSD	RW7-SP303-2025011	MSD	01/17/25 16:04	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
71	Q1081-04A	RW7-SP303-2025011	PS	01/17/25 16:08	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
72	Q1093-01	RT-3407	SAM	01/17/25 16:12		Kareem	OK
73	CCV06	CCV06	CCV	01/17/25 16:16		Kareem	OK
74	CCB06	CCB06	CCB	01/17/25 16:20		Kareem	OK
75	Q1093-01DUP	RT-3407DUP	DUP	01/17/25 16:24		Kareem	OK
76	Q1093-01L	RT-3407L	SD	01/17/25 16:28		Kareem	OK
77	Q1093-01MS	RT-3407MS	MS	01/17/25 16:32	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
78	Q1093-01MSD	RT-3407MSD	MSD	01/17/25 16:36	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
79	Q1093-01A	RT-3407A	PS	01/17/25 16:40	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
80	Q1094-01	72-11938	SAM	01/17/25 16:44		Kareem	OK
81	Q1098-01	OILY-STONE-COMP	SAM	01/17/25 16:49		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134334

Review By	kareem	Review On	1/20/2025 4:25:29 PM
Supervise By	jaswal	Supervise On	1/20/2025 10:09:42 PM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP83936,MP83937,MP83938,MP83939,MP83941
ICV Standard	MP83942
CCV Standard	MP83945
ICSA Standard	MP83943,MP83944
CRI Standard	MP83941
LCS Standard	
Chk Standard	MP83948,MP83949

82	Q1099-01	OR-02-01152025	SAM	01/17/25 16:53		Kareem	OK
83	Q1097-01	402	SAM	01/17/25 16:57		Kareem	OK
84	Q1097-01DUP	402DUP	DUP	01/17/25 17:01		Kareem	OK
85	CCV07	CCV07	CCV	01/17/25 17:11		Kareem	OK
86	CCB07	CCB07	CCB	01/17/25 17:16		Kareem	OK
87	Q1097-01L	402L	SD	01/17/25 17:22		Kareem	OK
88	Q1097-01MS	402MS	MS	01/17/25 17:26	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
89	Q1097-01MSD	402MSD	MSD	01/17/25 17:30	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
90	Q1097-01A	402A	PS	01/17/25 17:34	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
91	LR1	LR1	HIGH STD	01/17/25 17:37		Kareem	OK
92	LR2	LR2	HIGH STD	01/17/25 17:42		Kareem	OK
93	CCV08	CCV08	CCV	01/17/25 17:52		Kareem	OK
94	CCB08	CCB08	CCB	01/17/25 17:56		Kareem	OK

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

Prep Standard - Chemical Standard Summary

Order ID : Q1081

Test : Metals Group4

Prepbatch ID : PB166054,

Sequence ID/Qc Batch ID: LB134315,LB134334,

Standard ID :
MP83498,MP83500,MP83935,MP83936,MP83937,MP83938,MP83939,MP83940,MP83941,MP83942,MP83943,MP83944,MP83945,MP83948,MP83949,

Chemical ID :
M5130,M5192,M5218,M5223,M5288,M5295,M5296,M5390,M5393,M5429,M5466,M5467,M5496,M5497,M5515,M5658,M5697,M5698,M5747,M5748,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M5814,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5959,M5962,M5970,M5978,M5982,M5985,M6000,M6009,M6021,M6023,M6028,M6030,M6121,M6126,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83498	12/09/2024	01/16/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 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)	MP83500	12/06/2024	01/24/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = 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
514	CAL BLK (S0/ICB/CCB)	MP83935	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP83936	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5467 + 5.00000ml of M5802 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5982 + 455.00000ml of MP83500 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP83937	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 50.00000ml of MP83500 + 50.00000ml of MP83936 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP83938	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 25.00000ml of MP83936 + 75.00000ml of MP83500 = 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
3913	ICP AES STD S2	MP83939	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 16.00000ml of MP83936 + 184.00000ml of MP83500 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP83940	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 0.00200ml of M5982 + 0.00400ml of M5978 + 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M5818 + 0.05000ml of M5496 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5768 + 1.00000ml of M5806 + 2.00000ml of M5816 + 77.68000ml of MP83500 = 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
2951	ICP AES S1/CRI WORK STD	MP83941	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 2.00000ml of MP83940 + 98.00000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP83942	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.02500ml of M5982 + 0.10000ml of M5466 + 0.25000ml of M5218 + 10.00000ml of M5295 + 89.77500ml of MP83500 = 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
904	ICP AES ICSA SOLN	MP83943	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP83944	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5296 + 0.10000ml of M5970 + 0.10000ml of M5982 + 10.00000ml of M5130 + 10.00000ml of M5223 + 79.50000ml of MP83500 = 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
911	ICP AES CCV SOLN	MP83945	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 50.00000ml of MP83500 + 50.00000ml of MP83936 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP83948	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP83949	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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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	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

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	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

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-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

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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	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

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	03/18/2023 / bin	03/17/2023 / bin	M5497

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	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

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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

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	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

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.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

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	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

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	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

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	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

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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

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	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

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	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

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	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/30/2026	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6000

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	03/17/2028	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6009

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 #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

M6028

R 8/15/24

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

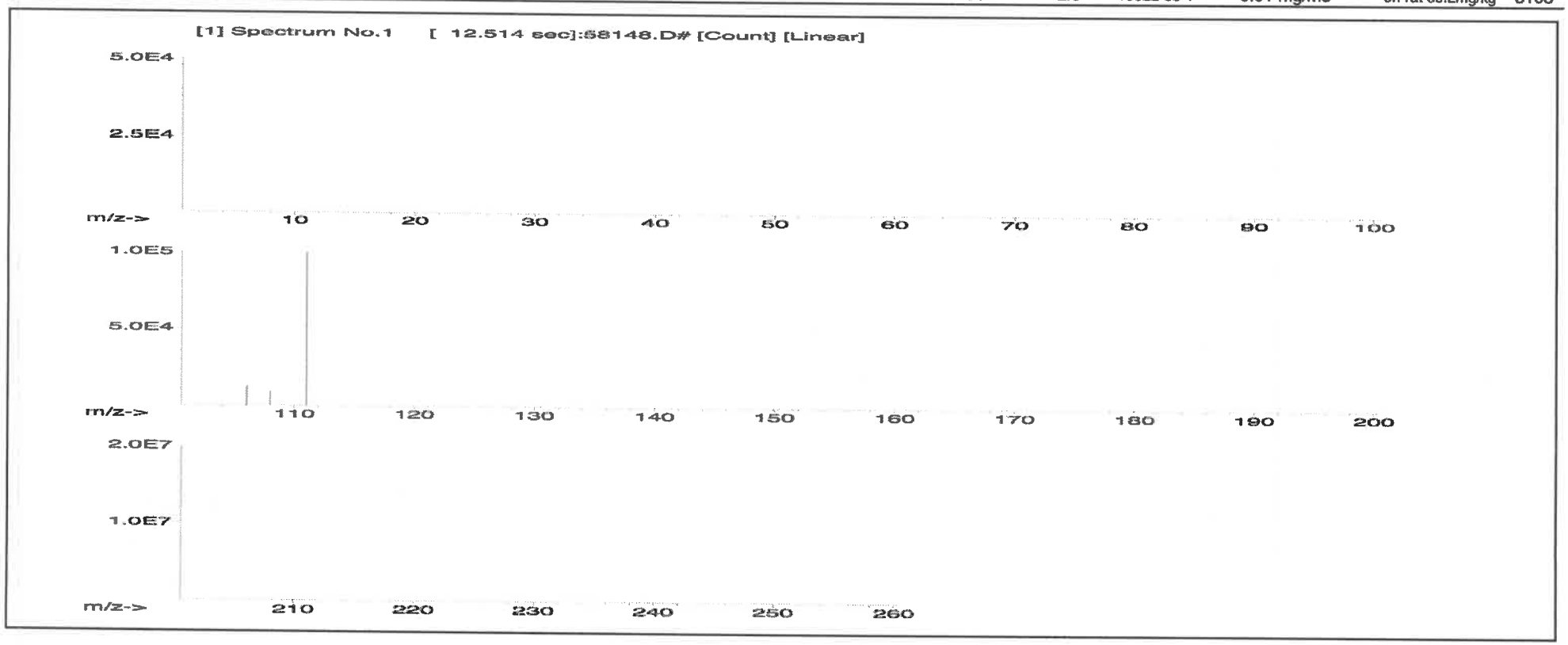
Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	± 5E-05 Balance Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 070124

Pedro Rentas
Reviewed By: Pedro L. Rentas 070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

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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.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

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

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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-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 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
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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

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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"

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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

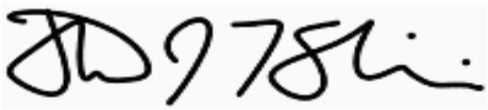
- Sealed TCT Bag Open Date: _____

- 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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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-MEB714159
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 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

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- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

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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

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 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 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

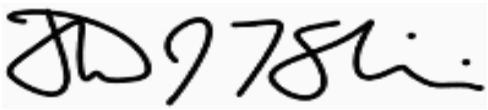
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES

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Certificate of Analysis

RD:05/14/2024

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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 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

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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



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5192 R: 06/17/22

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)

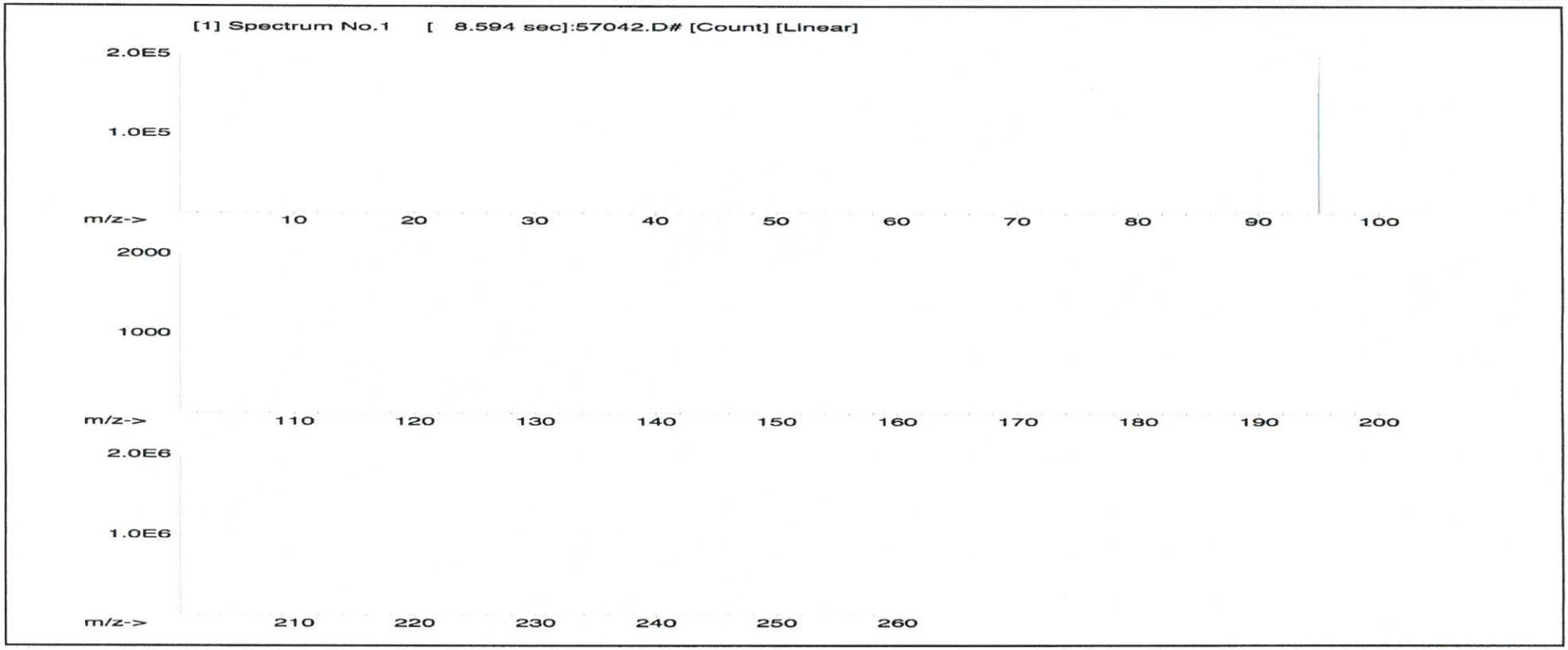
Expiration Date: 051725
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Volume shown below was diluted to (mL): 3000.41 0.058 Flask Uncertainty

Lot #	Solvent:		
MKBQ8597V	Ammonium hydroxide		
0.5%	15.0 (mL)	Ammonium hydroxide	

Formulated By: Lawrence Barry 051722

Reviewed By: Pedro L. Rentas 051722

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	022222	0.1000	300.0	0.084	1000	10001.0	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

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
Boron, B	**1 000 ± 7 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	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

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

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL
INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

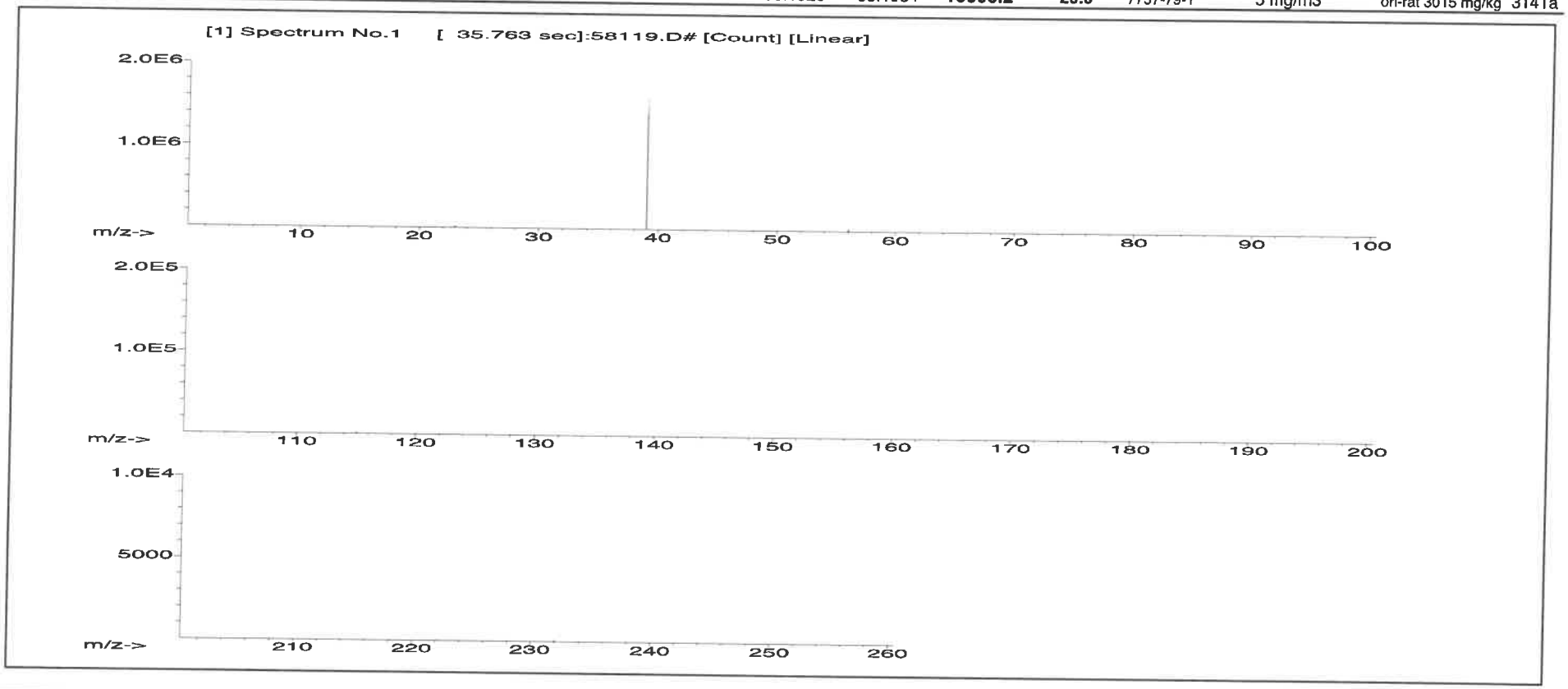
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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).

R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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R: 09/08/22 (BA)

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M5387 . M5389 . M5390 . M5391 . M5392

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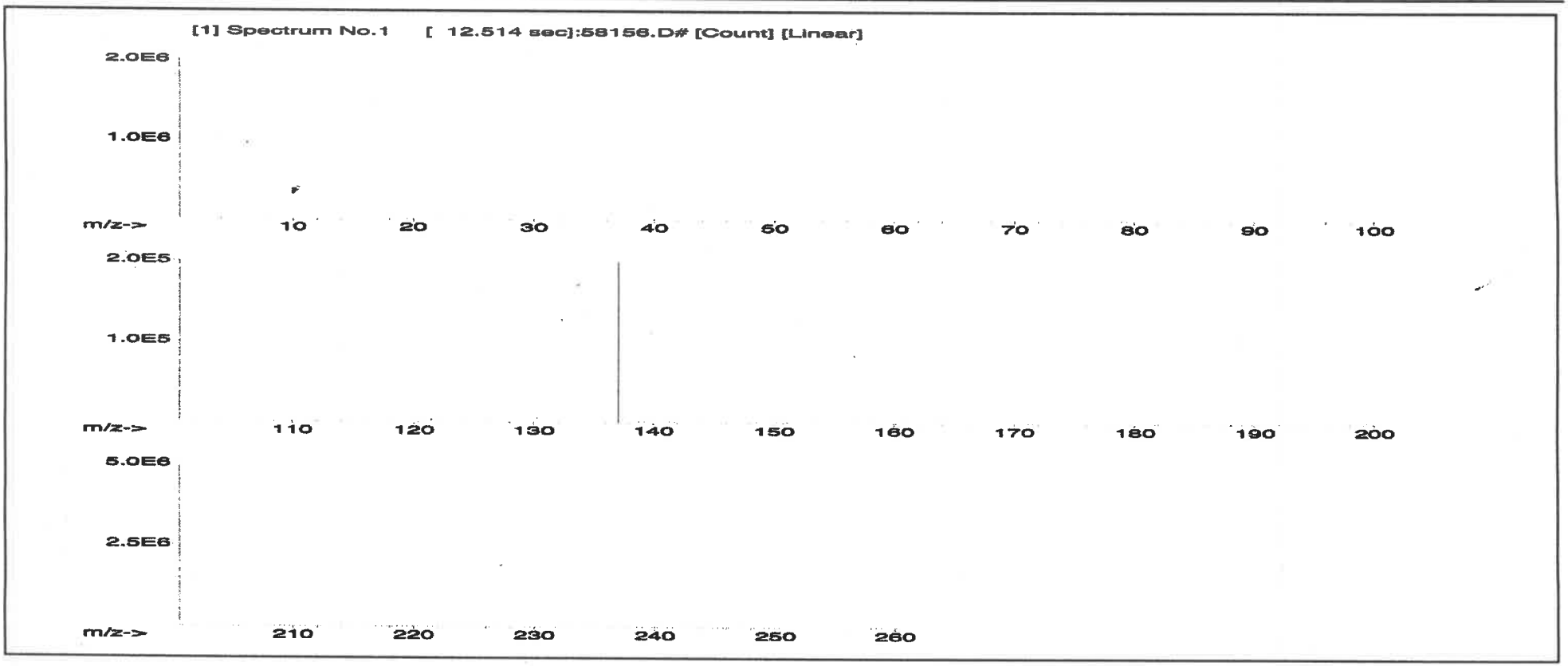
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**072122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	072125				
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	072122
Reviewed By:	Pedro L. Rentas	072122

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	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

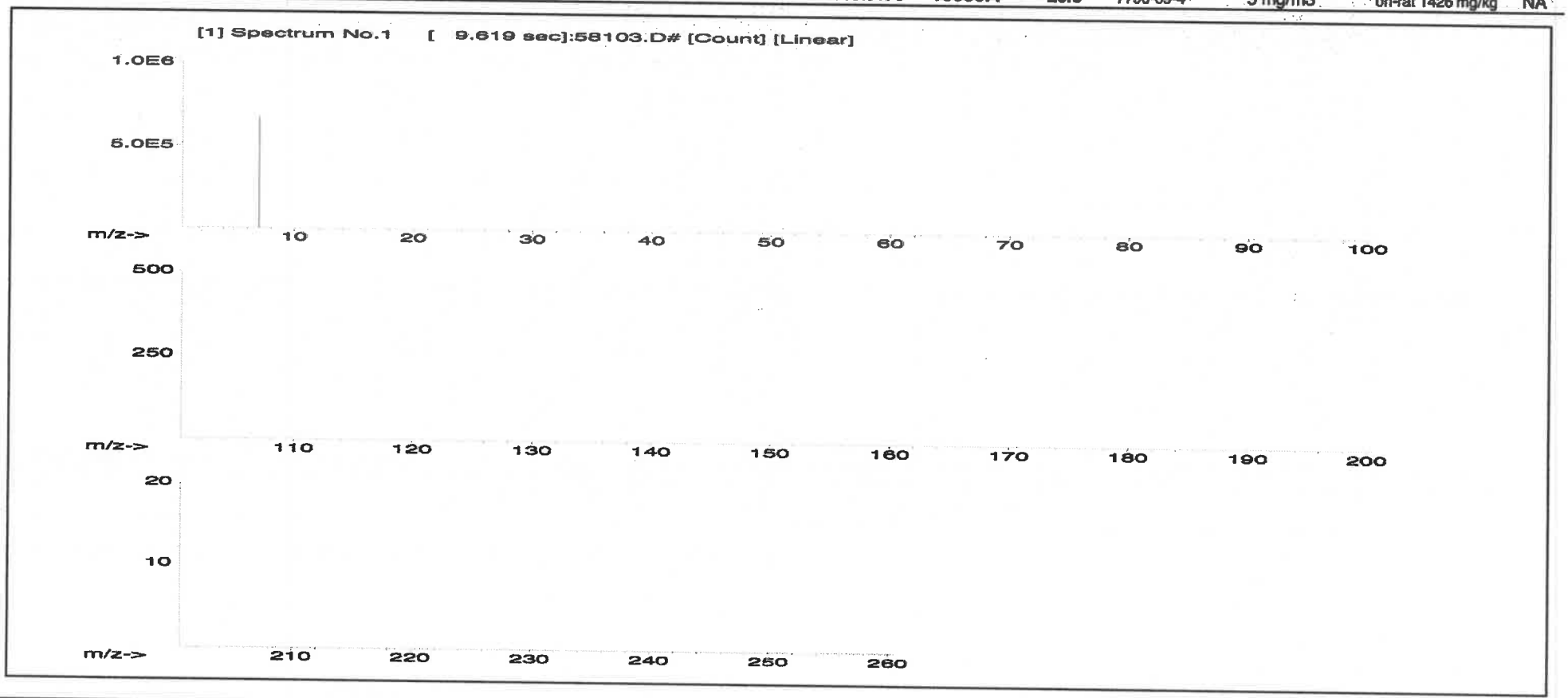
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

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. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



QUALITY-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	T	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.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M 5466

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R: 03/01/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

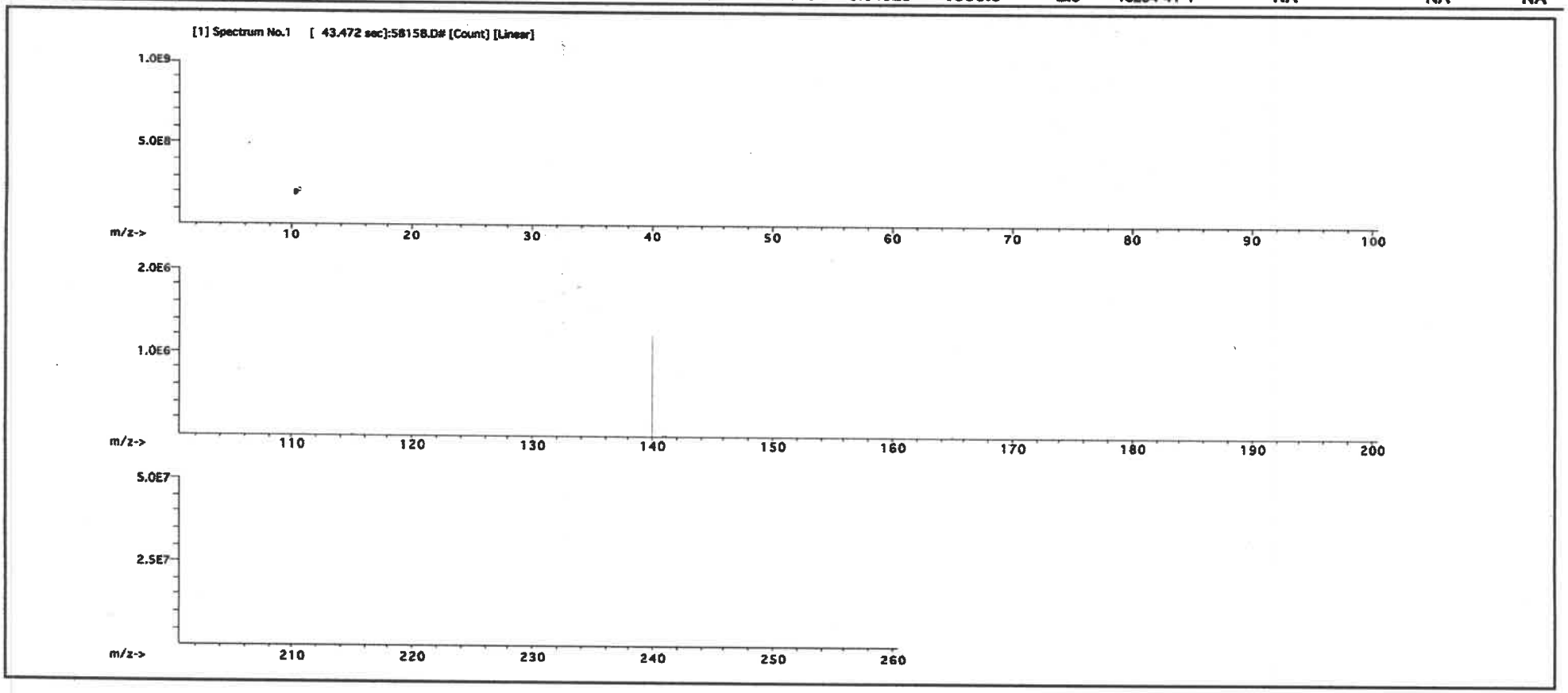
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By: Lawrence Barry 061322

Reviewed By: Pedro L. Rentas 061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



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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	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.
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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).

M5467 R: 03/01/23 (LA)

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

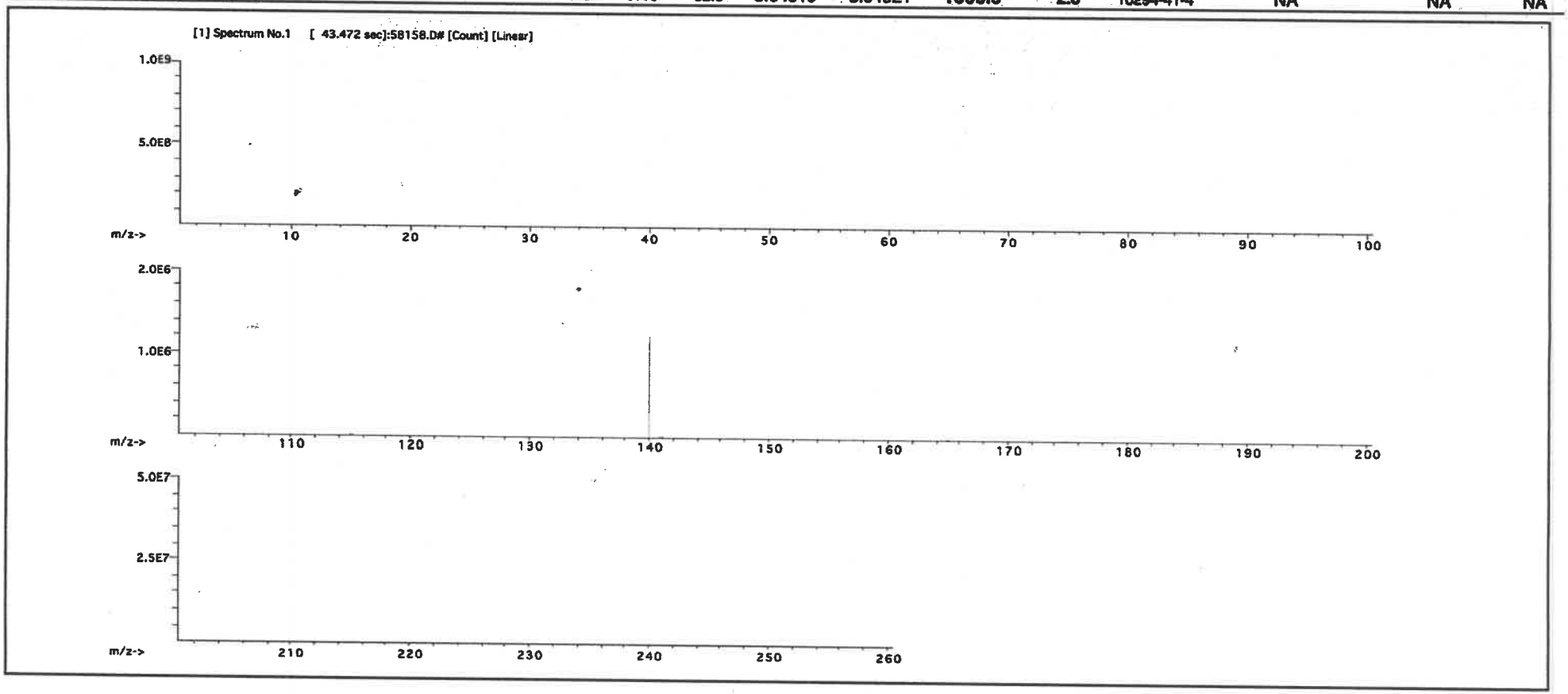
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

	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



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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	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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* 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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M5497 - M5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

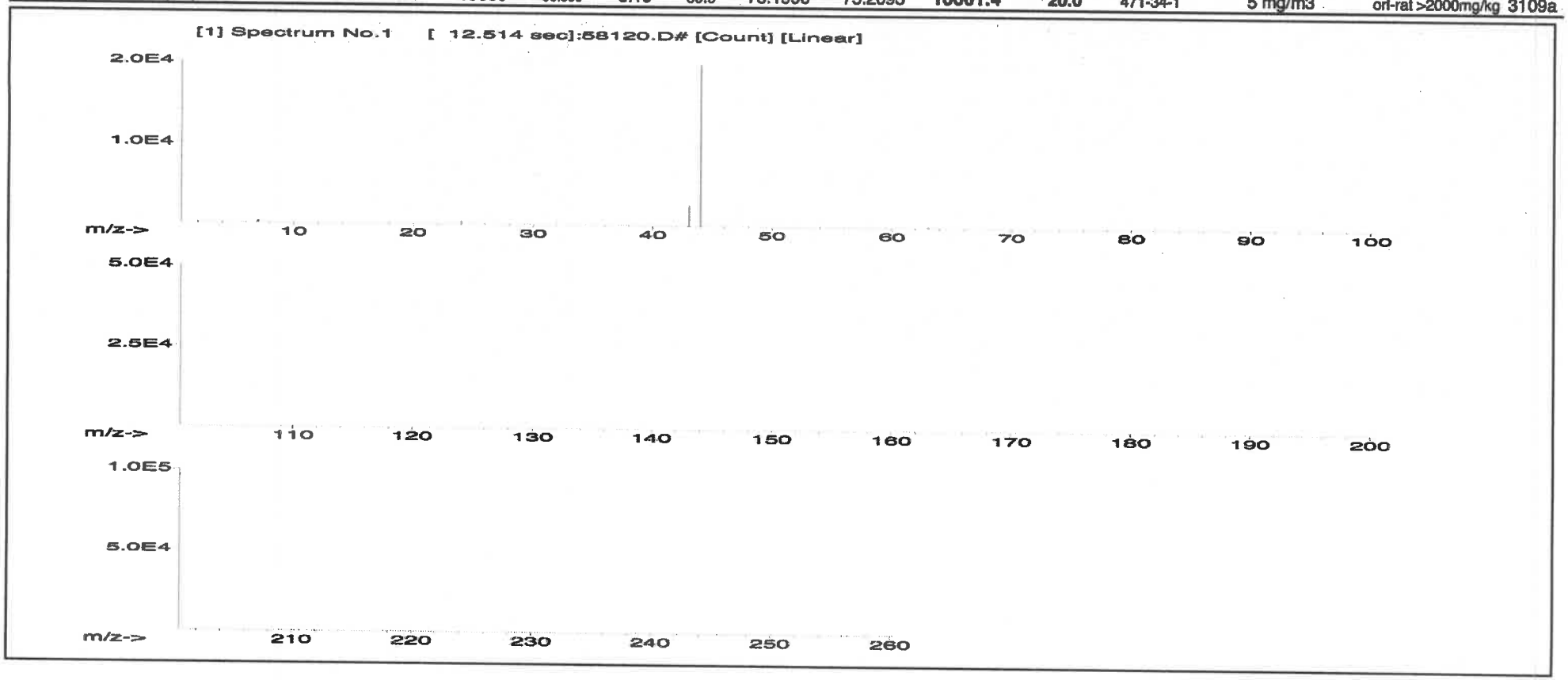
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<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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* 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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M5514 , M5515 R: 03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 092122
Description: Iron (Fe)

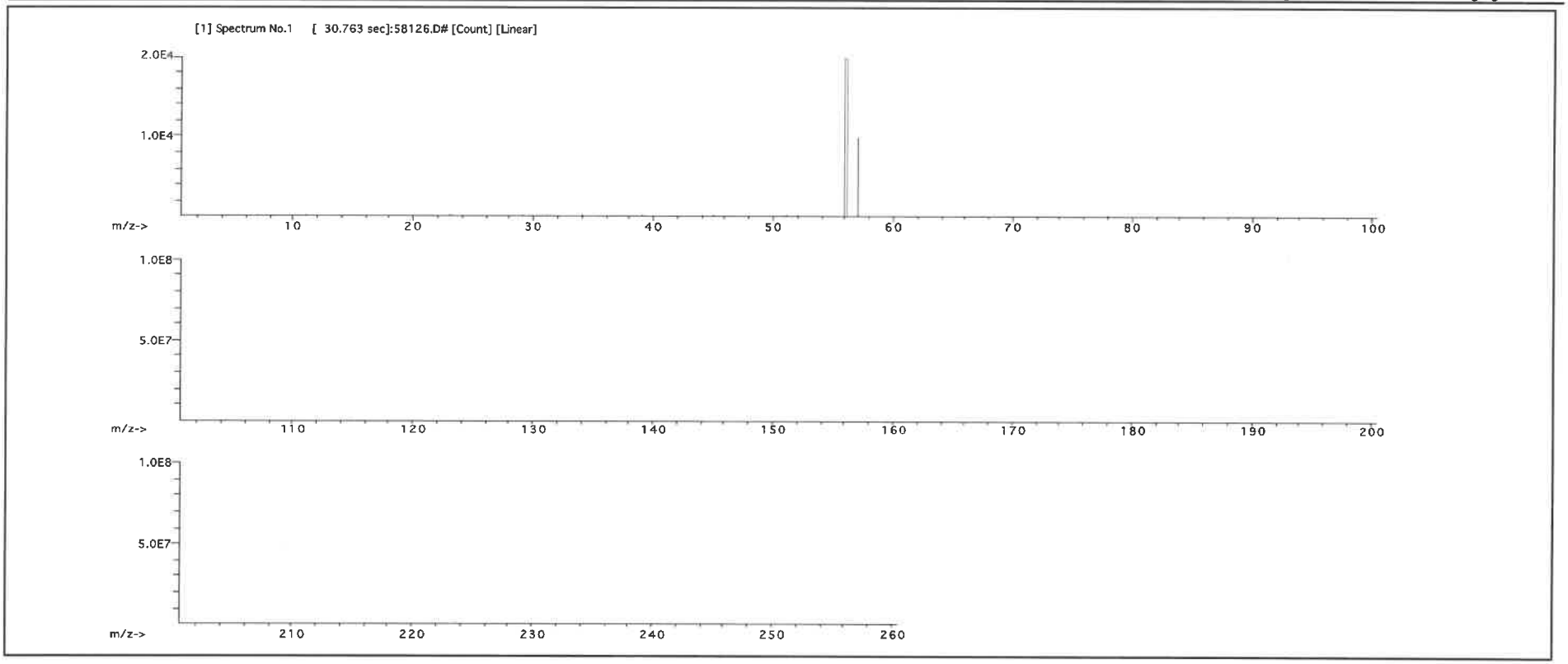
Expiration Date: 092125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1

	Lot #		
Solvent:	20510011	Nitric Acid	
7.0%	350.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.12	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

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	2224912-500	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



QC & METALS

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	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	<0.05
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:

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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M5658 R ! 8/25/23

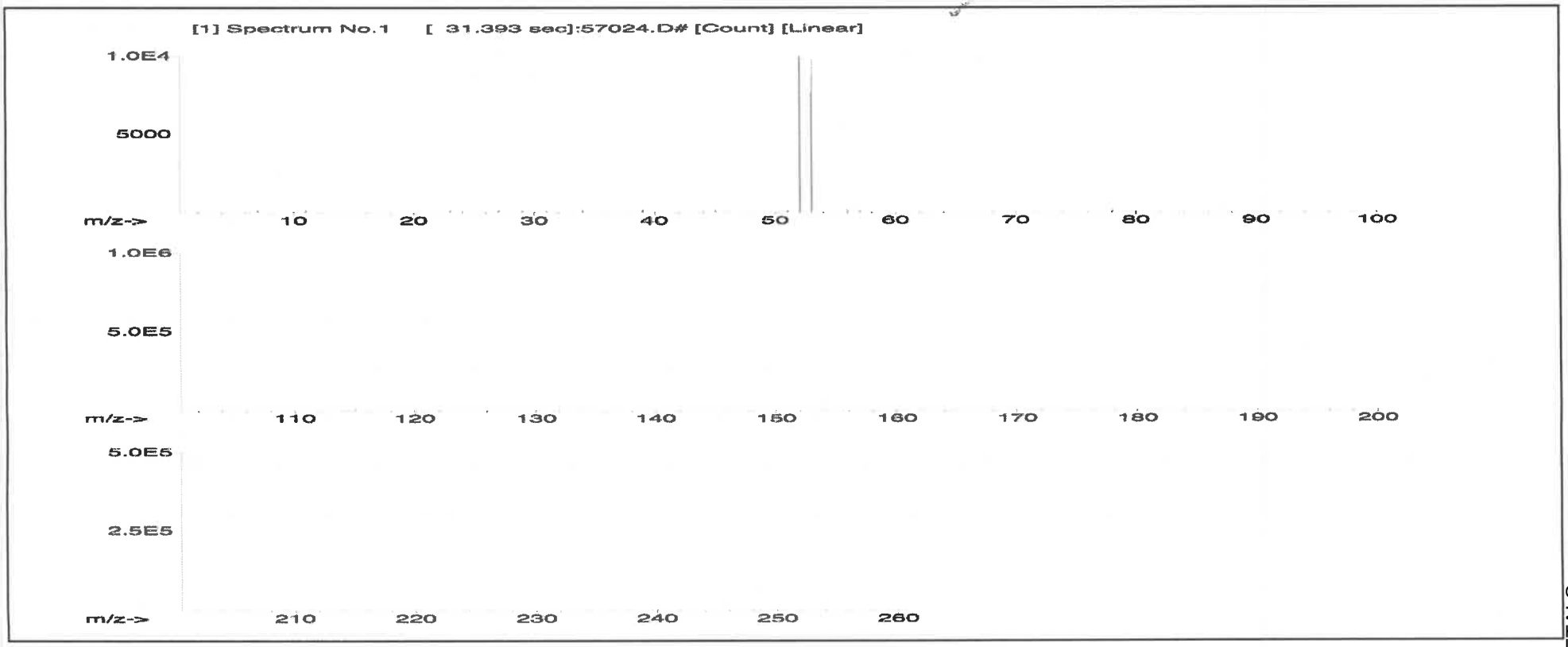
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CERTIFIED WEIGHT REPORT:

		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.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5697 R: 10/27/23

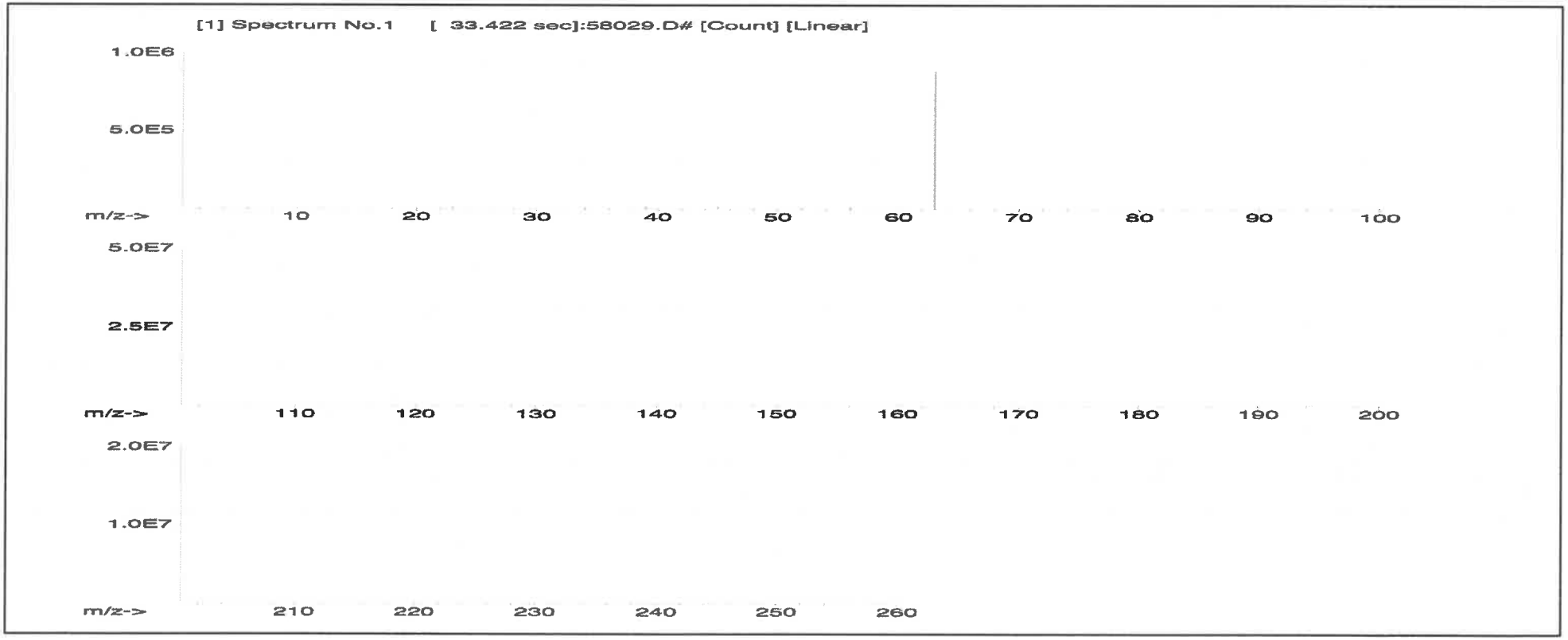
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**58029**	24002546	Nitric Acid
Lot Number:	**102523**		
Description:	**Copper (Cu)**		
		2.0%	40.0 (mL) Nitric Acid
Expiration Date:	102526		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05	Balance Uncertainty
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5648 R: 10/27/23

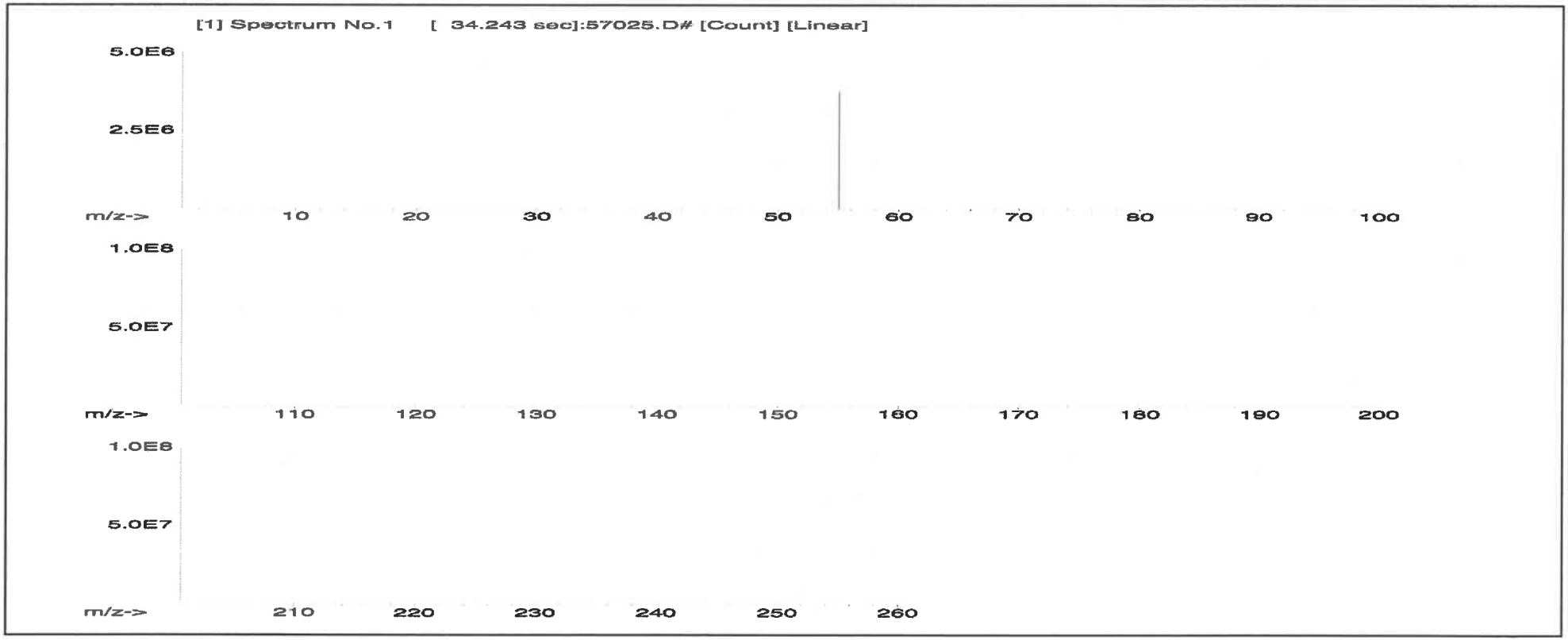
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**58025**	24002546	Nitric Acid
Lot Number:	**102623**		
Description:	**Manganese (Mn)**		
		2.0%	60.0 (mL) Nitric Acid
Expiration Date:	102626		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05	Balance Uncertainty
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

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. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the 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: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

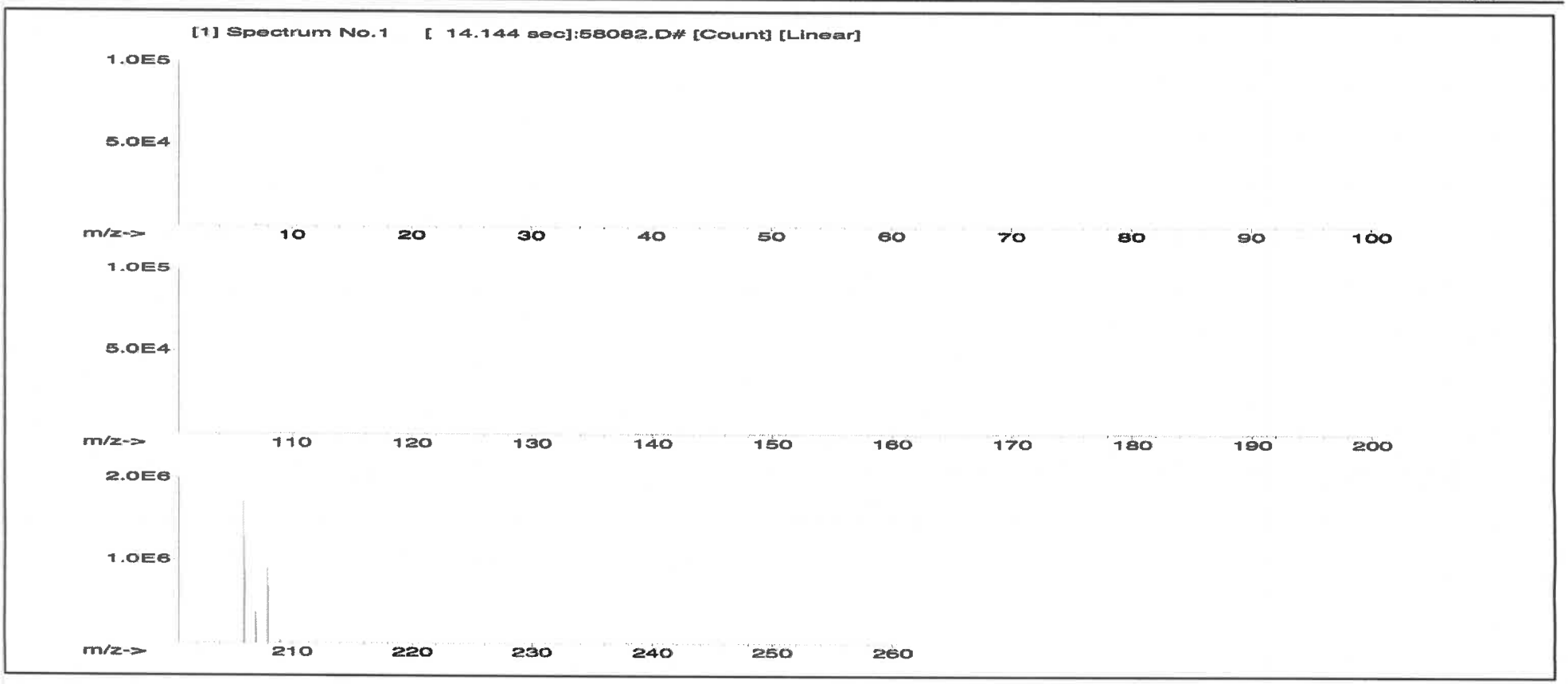
Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	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.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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R: 12/20/23 M5748

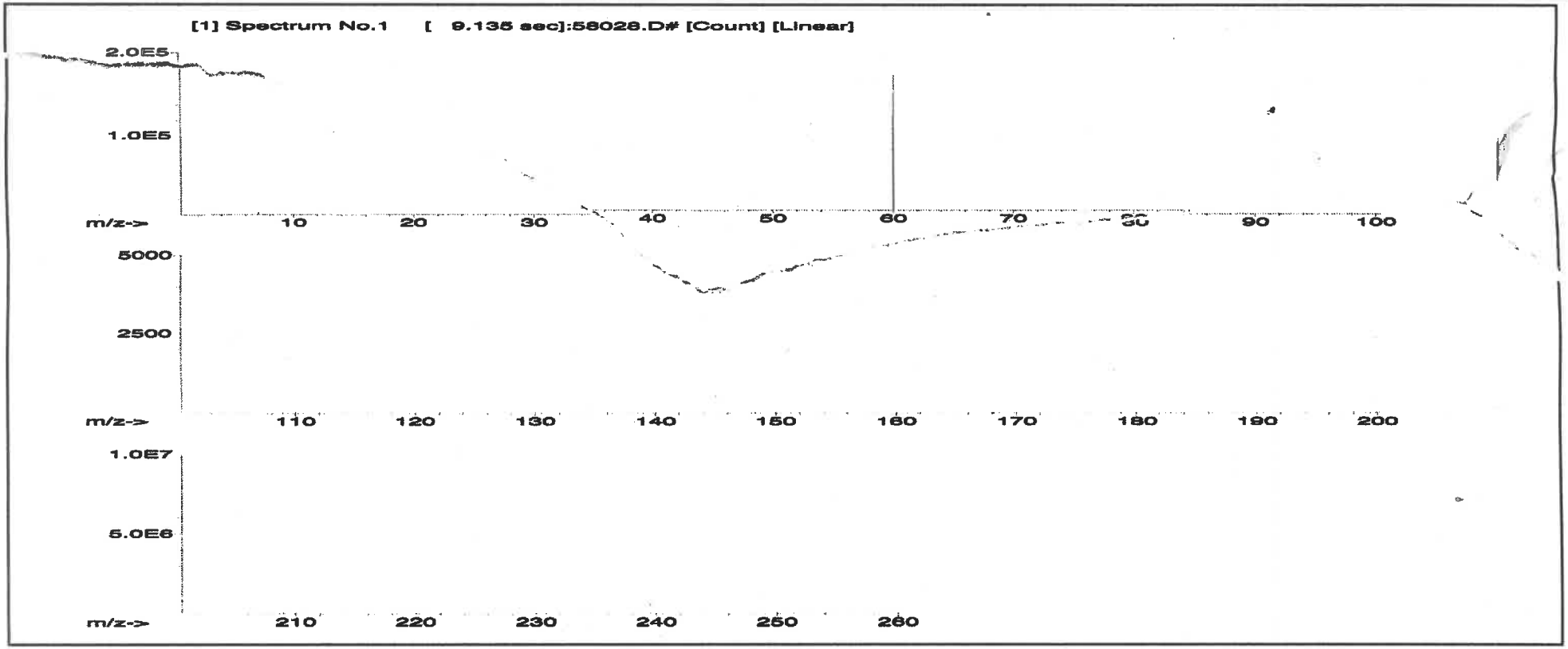
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CERTIFIED WEIGHT REPORT:

		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
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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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M5768 M5769 BP R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 BP R: 1/3/24

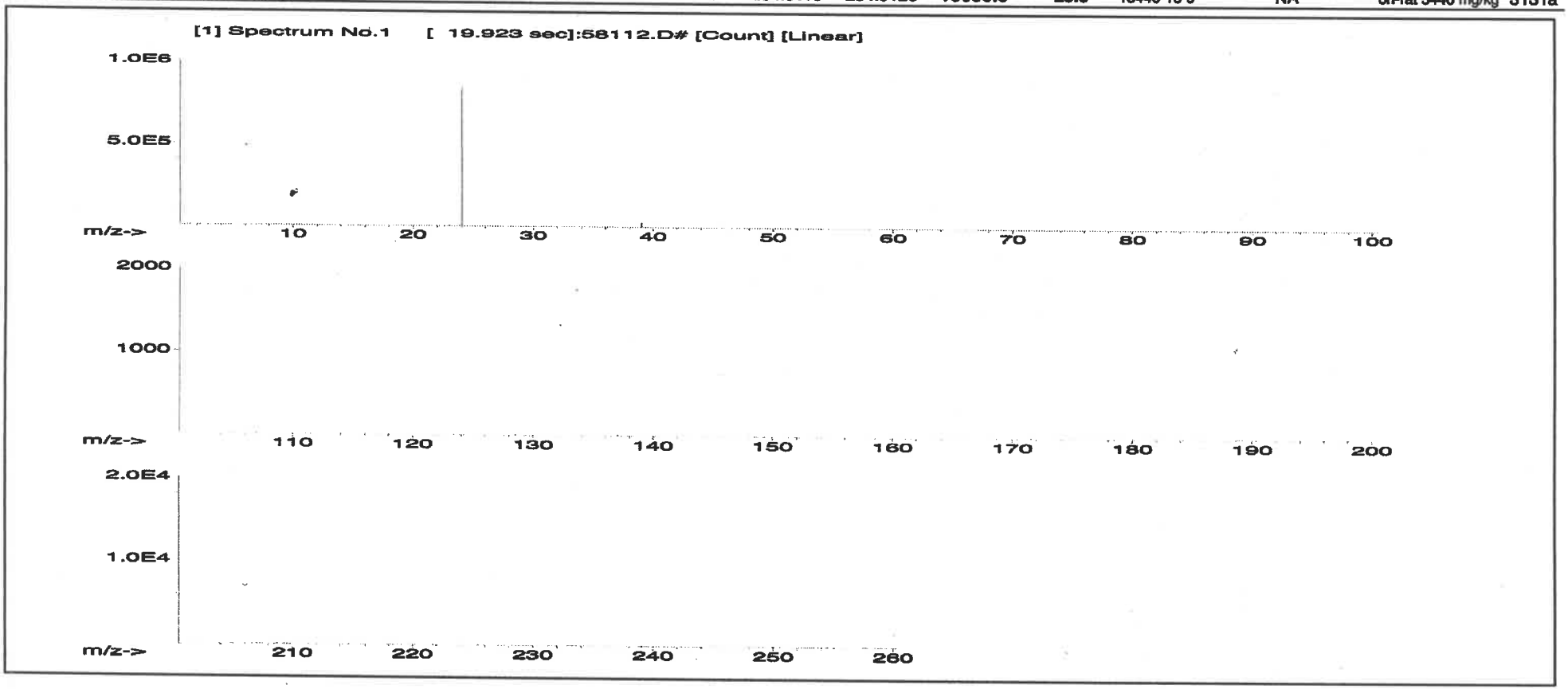
Lawrence Barry

Formulated By: Lawrence Barry 091823

Pedro Rentas

Reviewed By: Pedro L. Rentas 091823

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	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-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.
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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

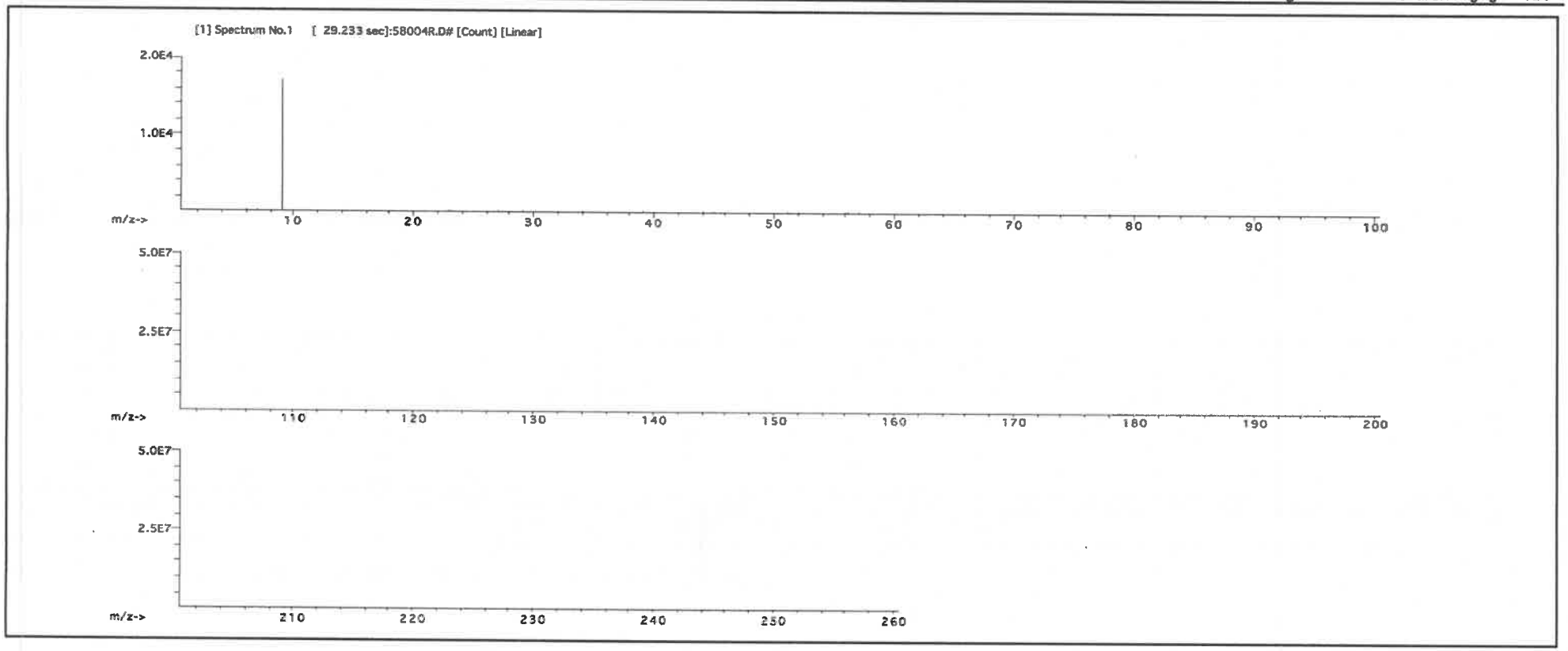
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



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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.

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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.
* 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)

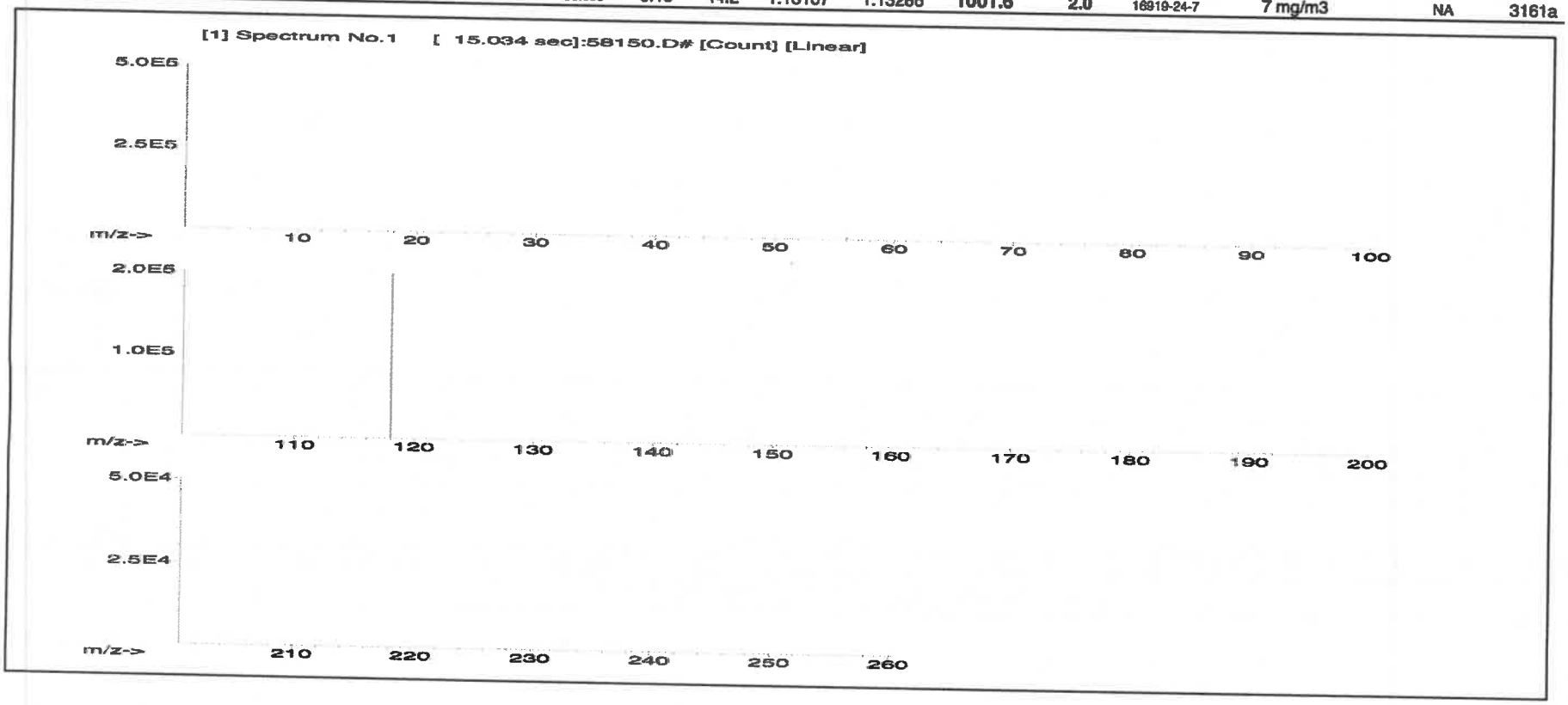
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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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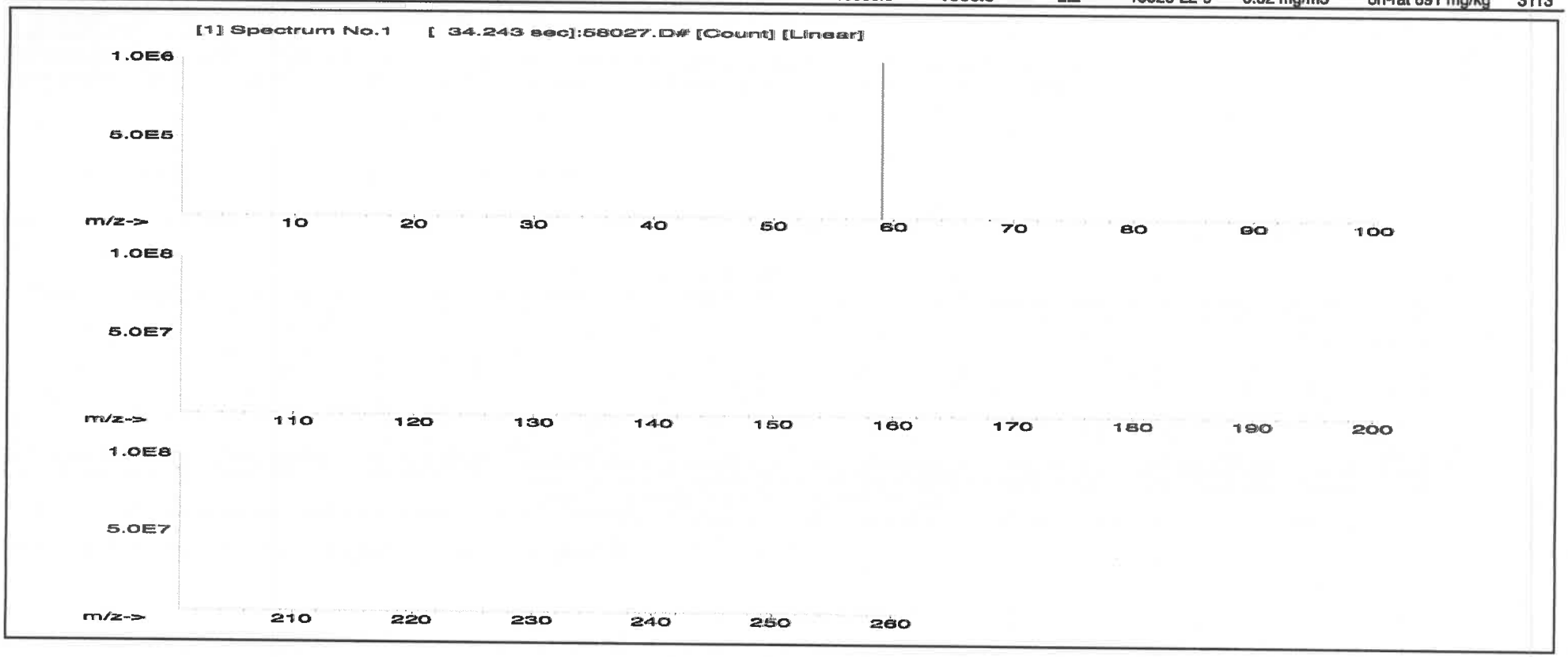
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CERTIFIED WEIGHT REPORT:

		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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CERTIFIED **WEIGHT** REPORT:

Part Number: 57033
Lot Number: 111323
Description: Arsenic (As)

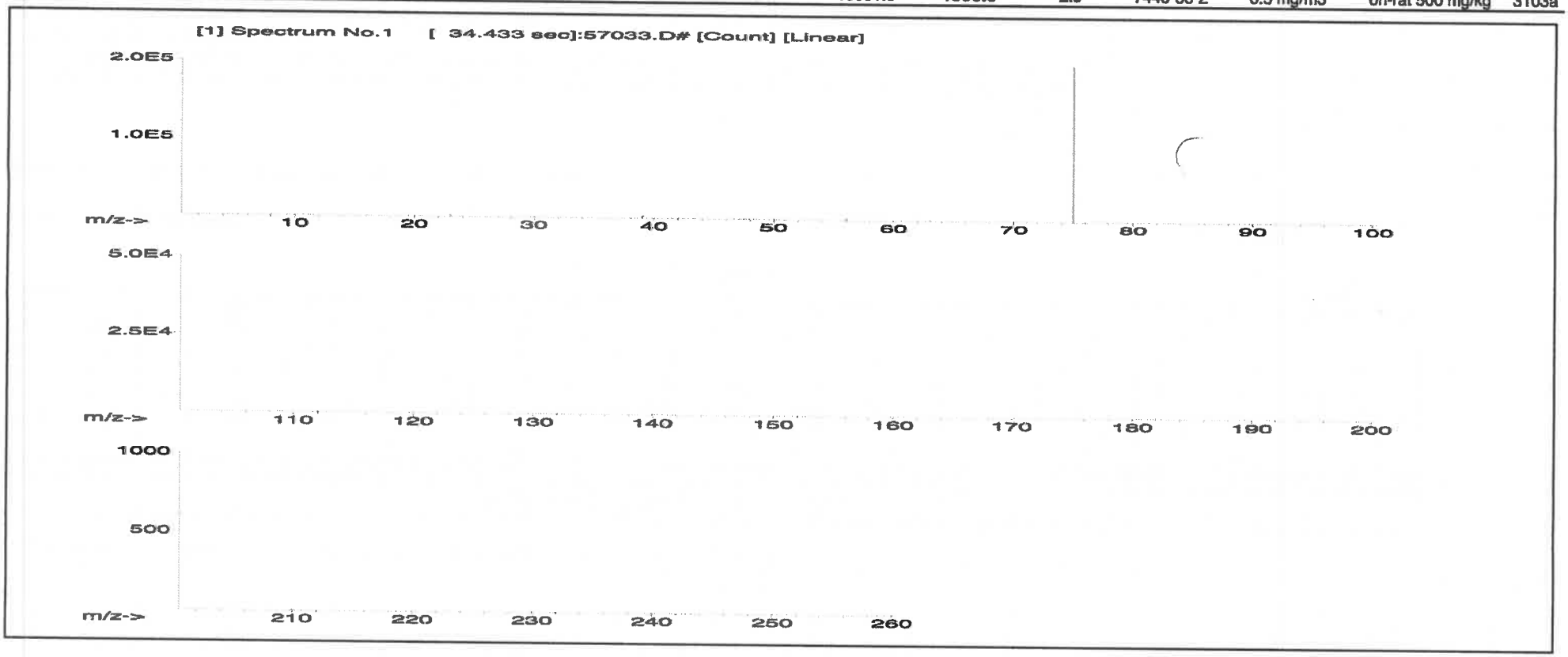
Expiration Date: 111326
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 4000.0

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
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

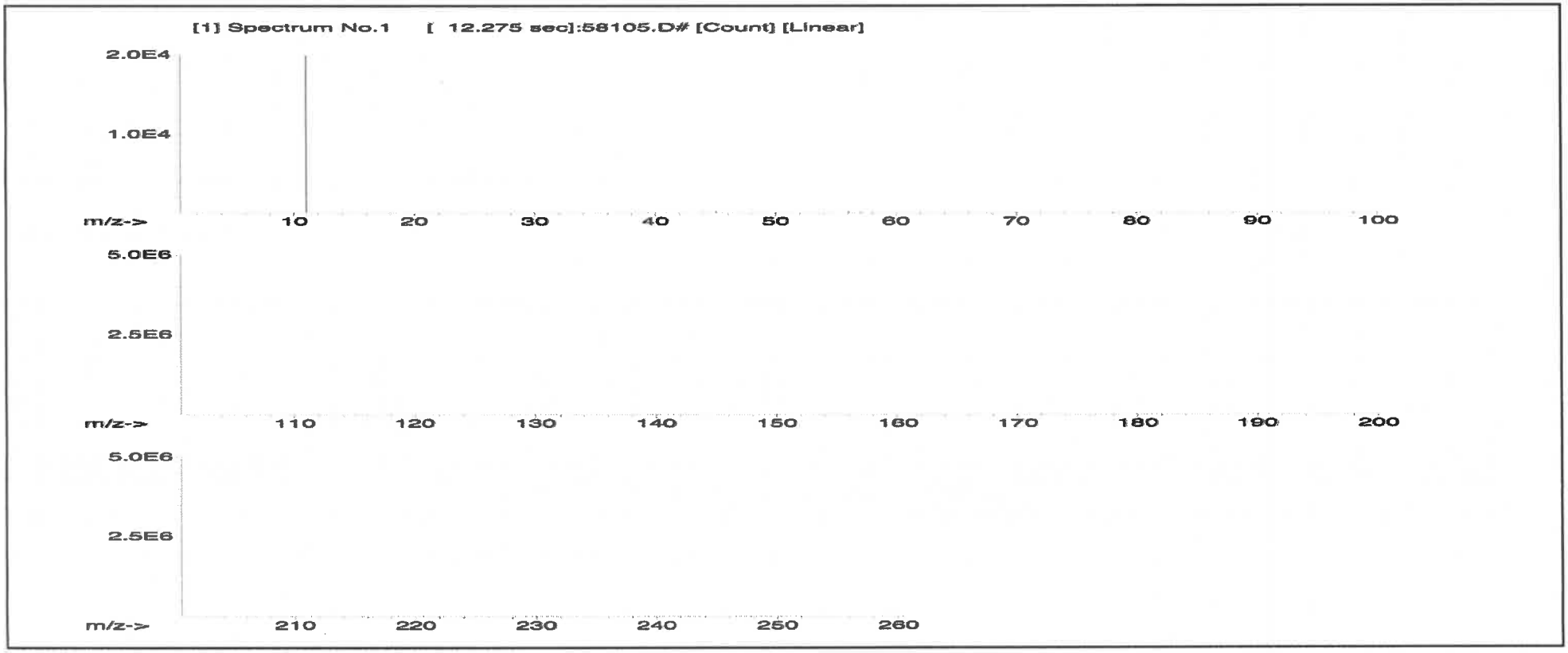
	Lot #			
Solvent:	MKBQ8597V	Ammonium hydroxide		
		2.0%	40.0 (mL)	Ammonium hydroxide

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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R1 02/09/24. M58165

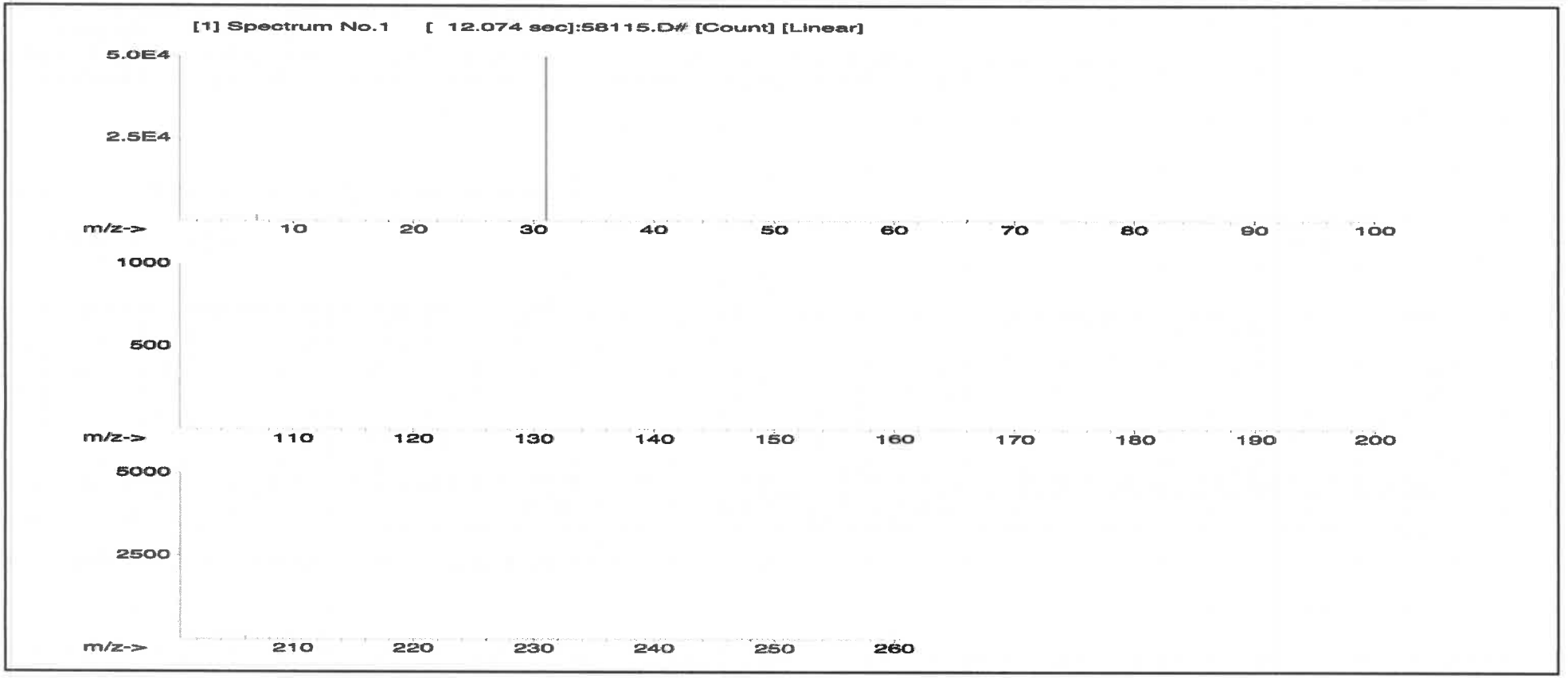
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CERTIFIED WEIGHT REPORT:

Part Number:	**57115**			**Lot #**	
Lot Number:	**041723**		**Solvent:**	21110221	Nitric Acid
Description:	**Phosphorous (P)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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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R: 02/09/24 M5816

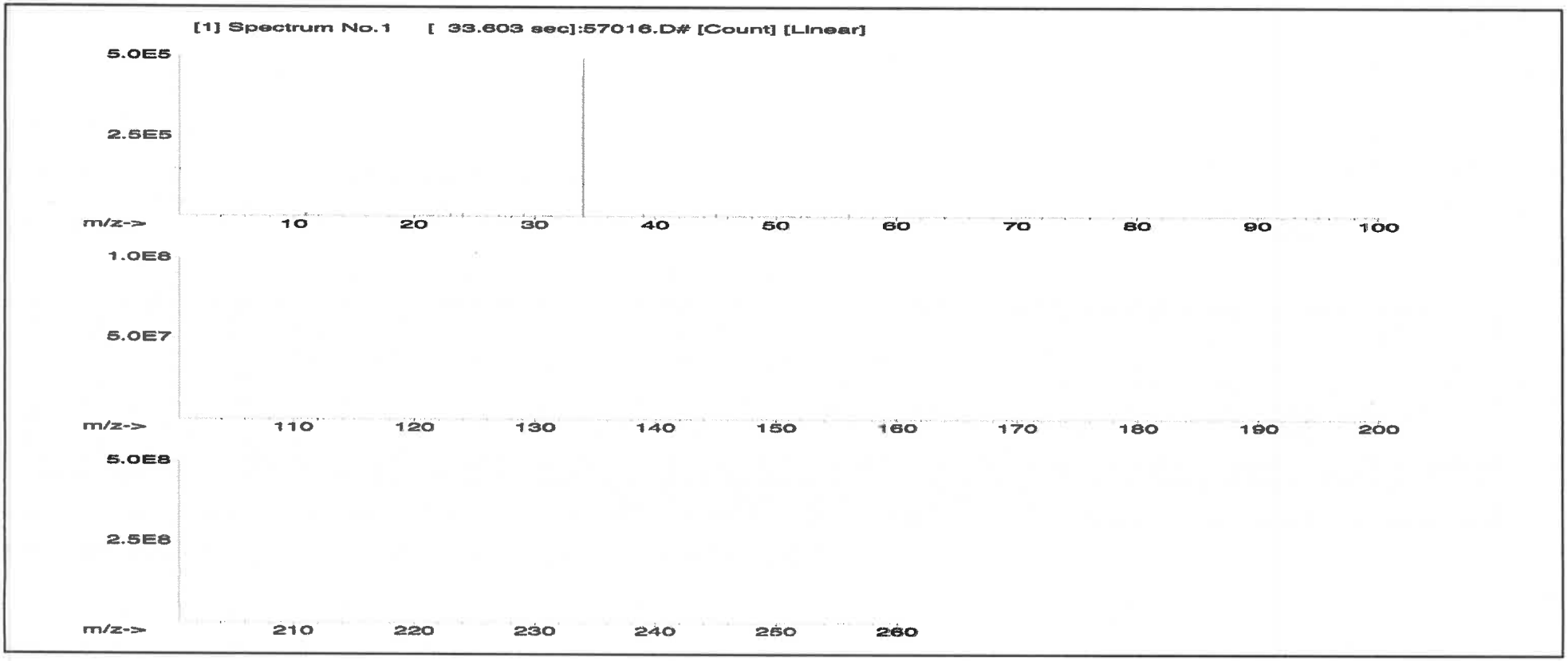
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**			
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
		Solvent:	**Lot #** 122923	ASTM Type 1 Water
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



Q1081-METALS

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5817

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CERTIFIED WEIGHT REPORT:

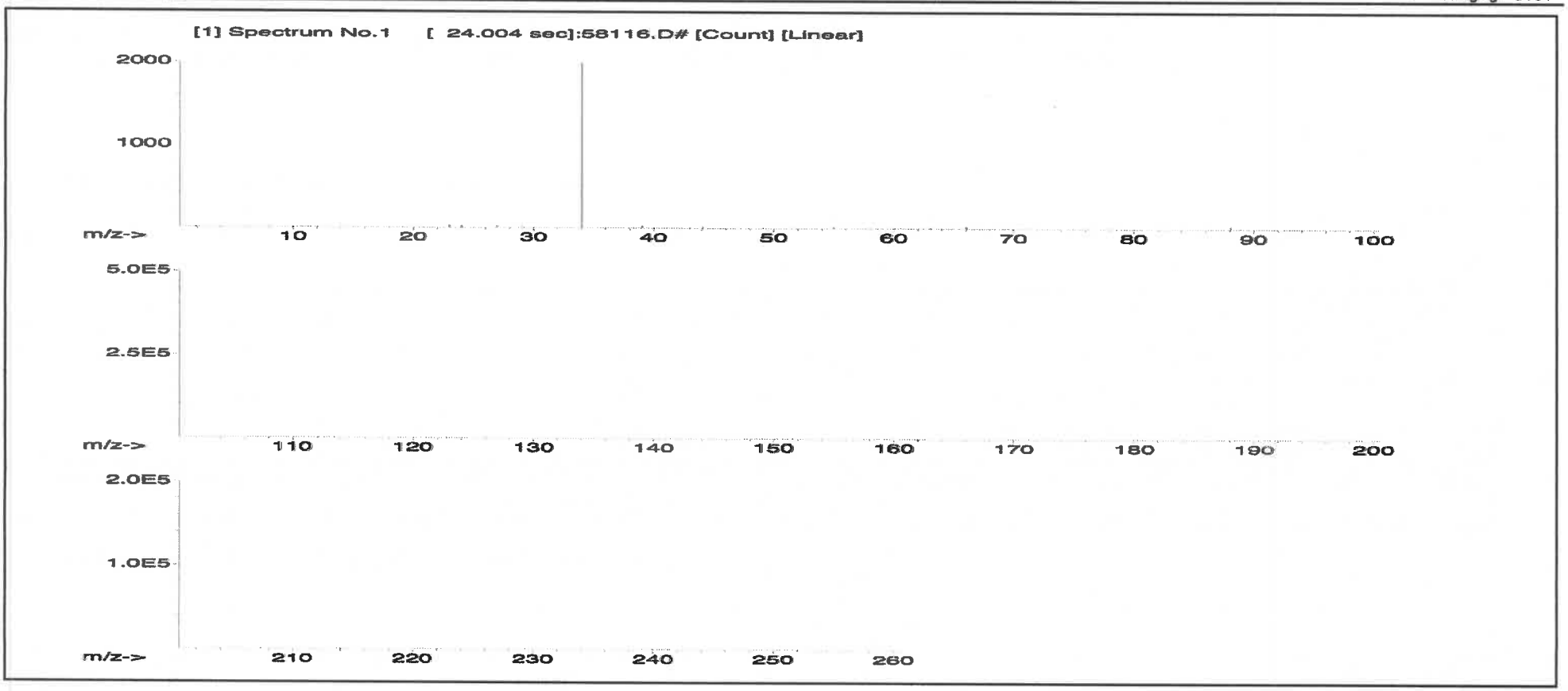
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
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): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	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.
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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 M.5818

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CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
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

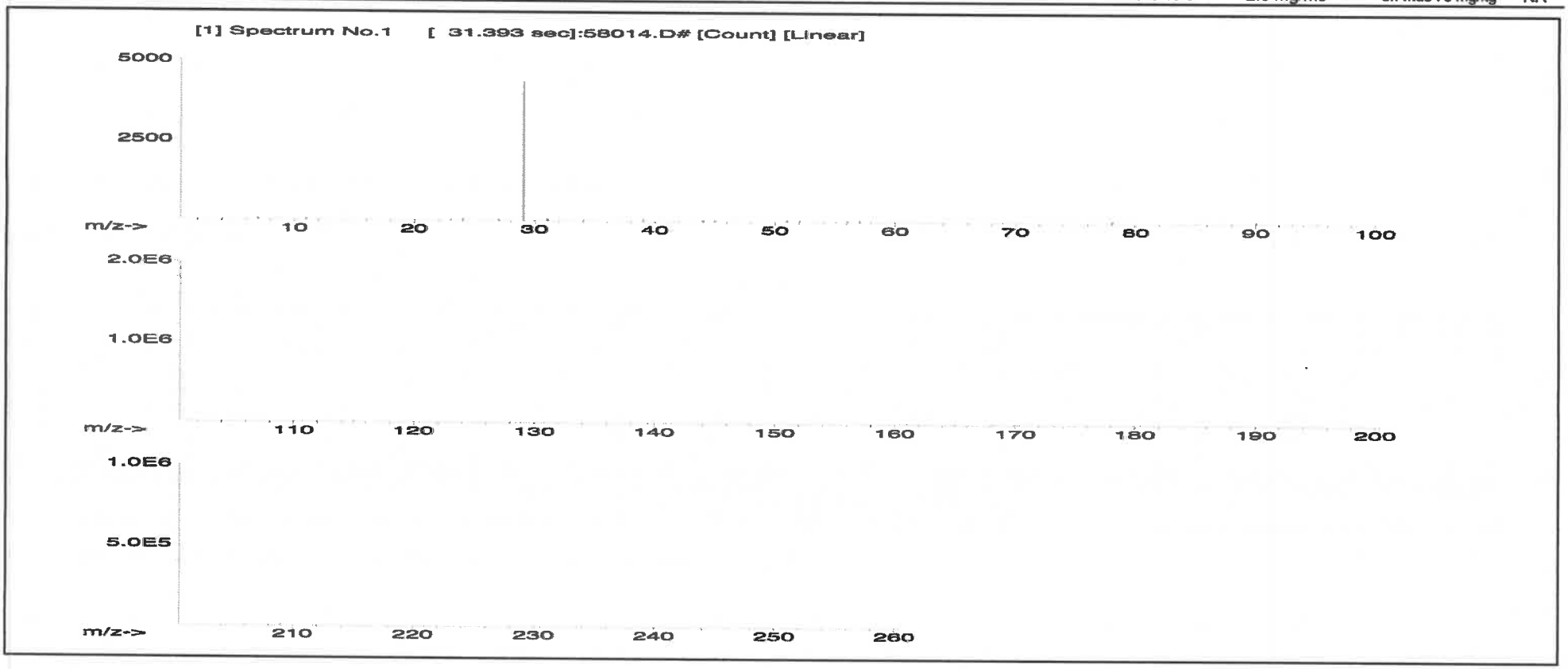
Solvent: 24002546 Nitric Acid
2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 122023

Pedro Rentas
Reviewed By: Pedro L. Rentas 122023

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 hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 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	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5819

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

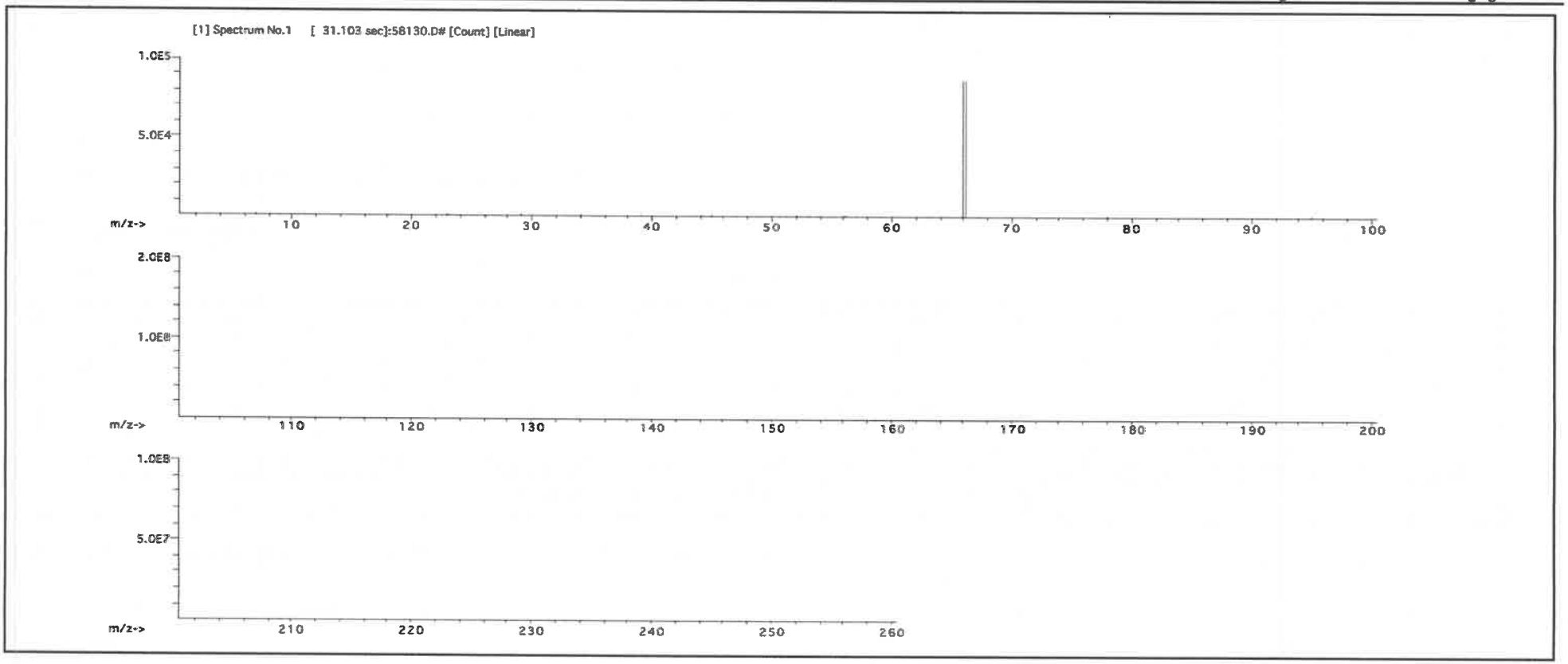
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

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	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5820

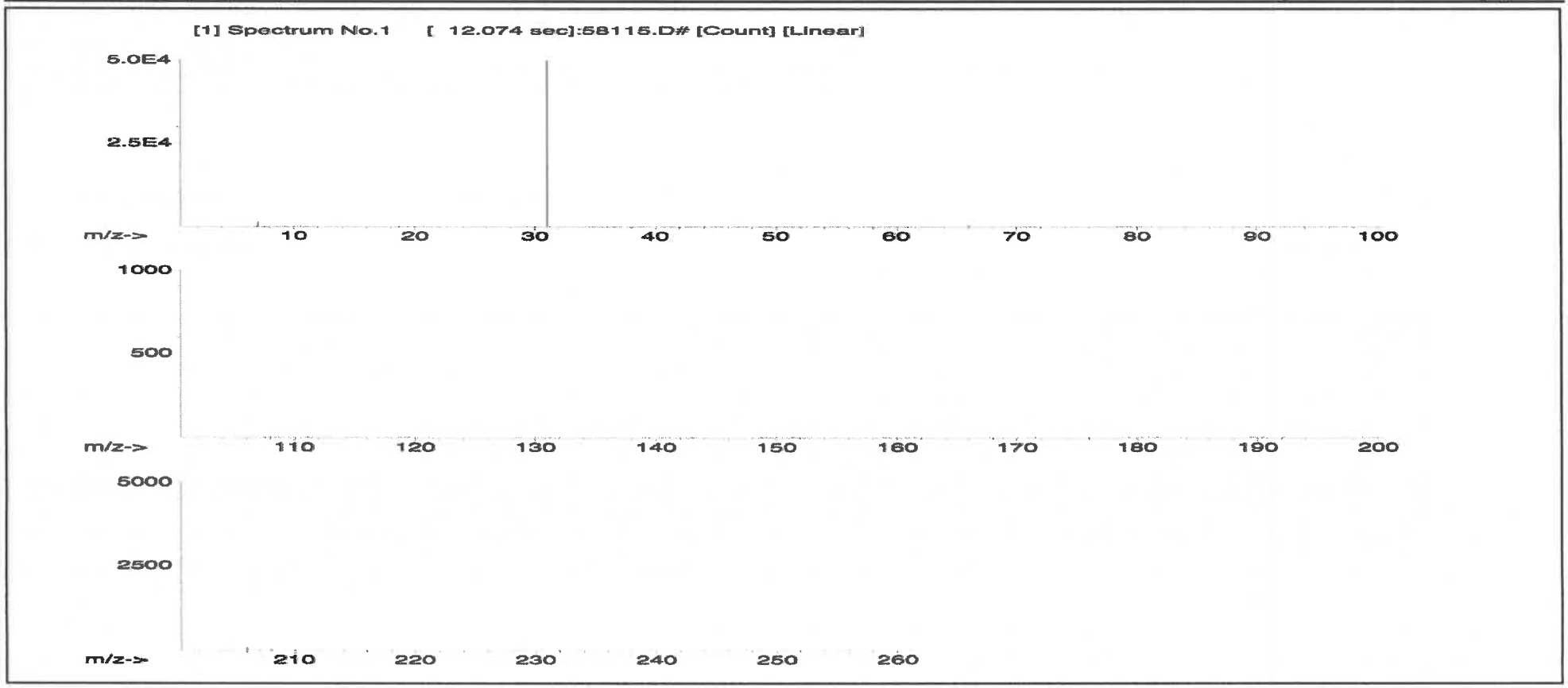
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry 091123
Reviewed By:	Pedro L. Rentas 091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



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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.
* 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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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

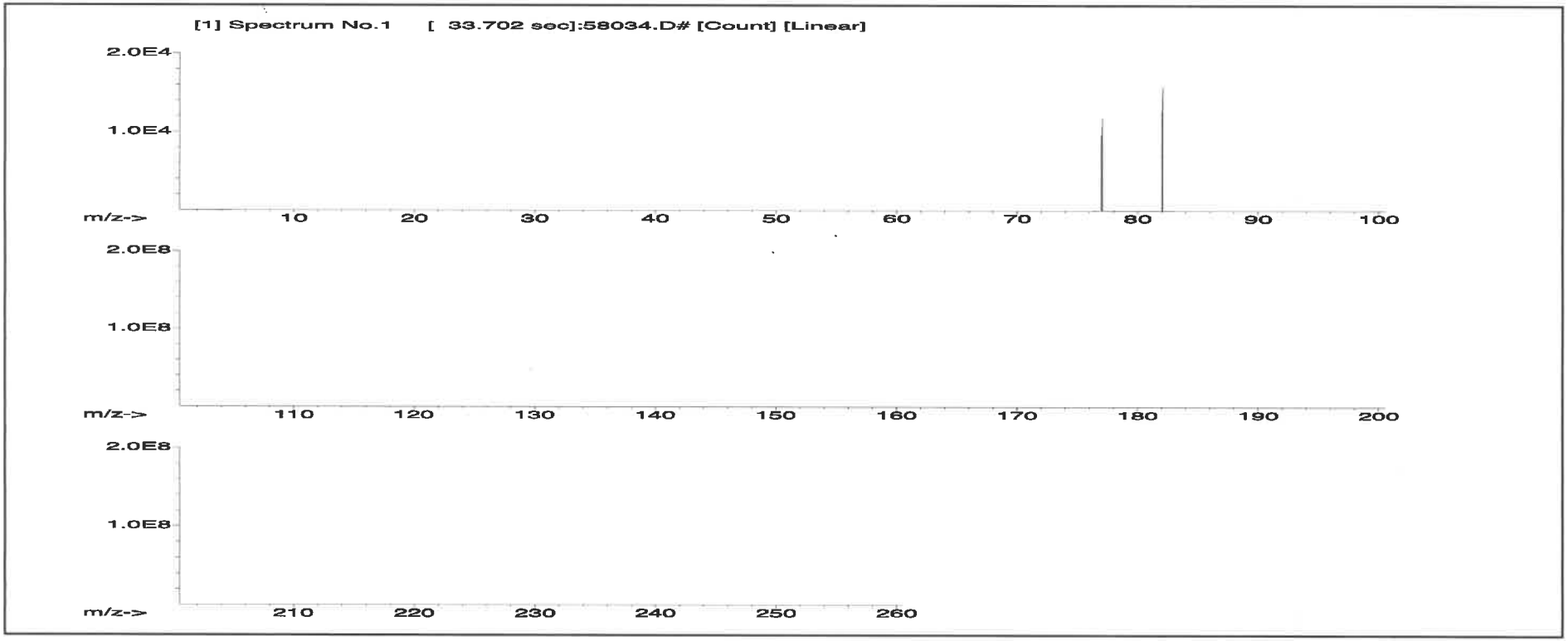
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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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).

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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

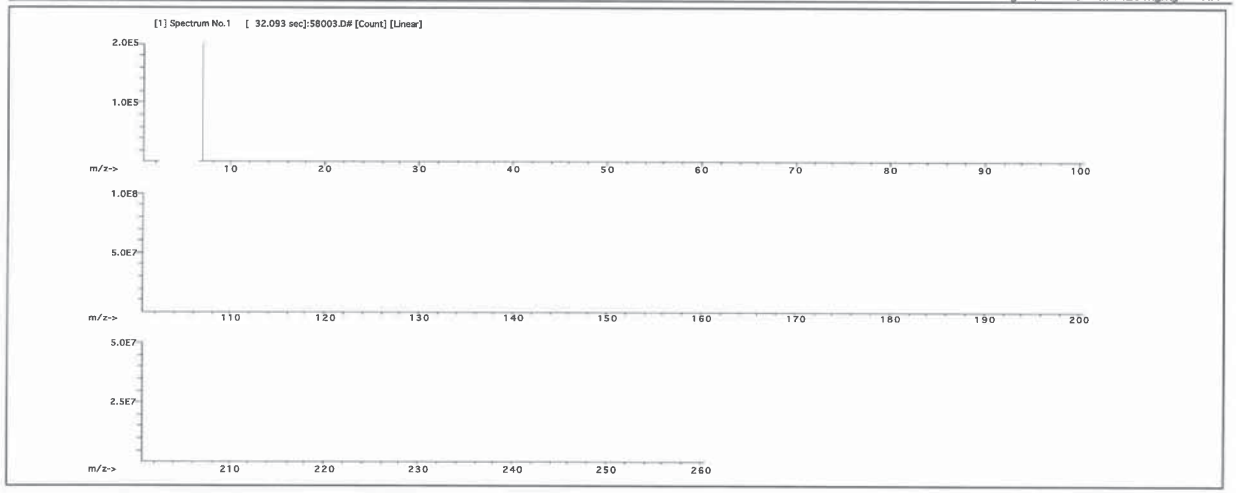
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

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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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	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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R: 2/22/24

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 865.01

ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGT11
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	TI Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**

ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/MM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)\,(x_i)$$

x_i = mean of Assay Method i with standard uncertainty $u_{char\,i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{char\,i})^2 \,/\, (\Sigma(1/u_{char\,i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $u_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 ($\pm$) = $U_{CRM/RM} = k\,(u^2_{char\,a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\,a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form In Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 for months in 1% 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.5798; 540.585.3030; Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on property stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozlkowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

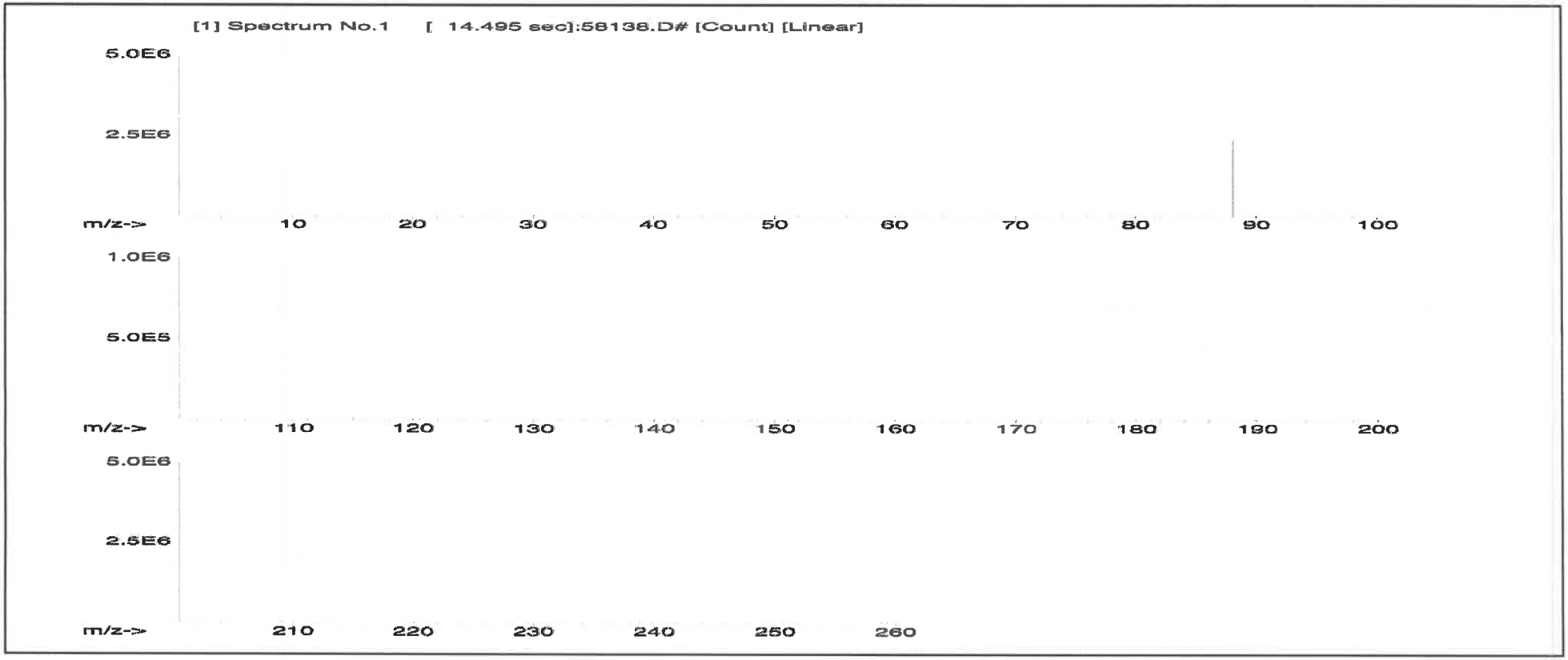
45982 R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:	**57038**			**Lot #**	
Lot Number:	**031524**		**Solvent:**	24002546	Nitric Acid
Description:	**Strontium (Sr)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	031527				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	<= 10	5
ACS – Residue after Ignition	<= 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	<= 0.005 %	< 0.005
ACS – Extractable Organic Substances	<= 5 ppm	1
ACS – Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities – Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities – Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	<= 1.0 ppb	< 0.2

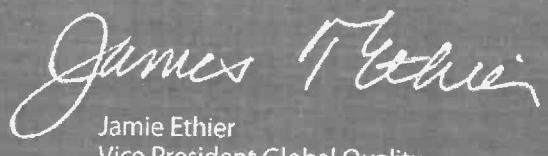
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



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
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Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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R: 01/03/24 M5806, M5807

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 | 0.06 Flask Uncertainty

	Lot #	
Solvent:	24002546	Nitric Acid
2%	60.0 (mL)	Nitric Acid

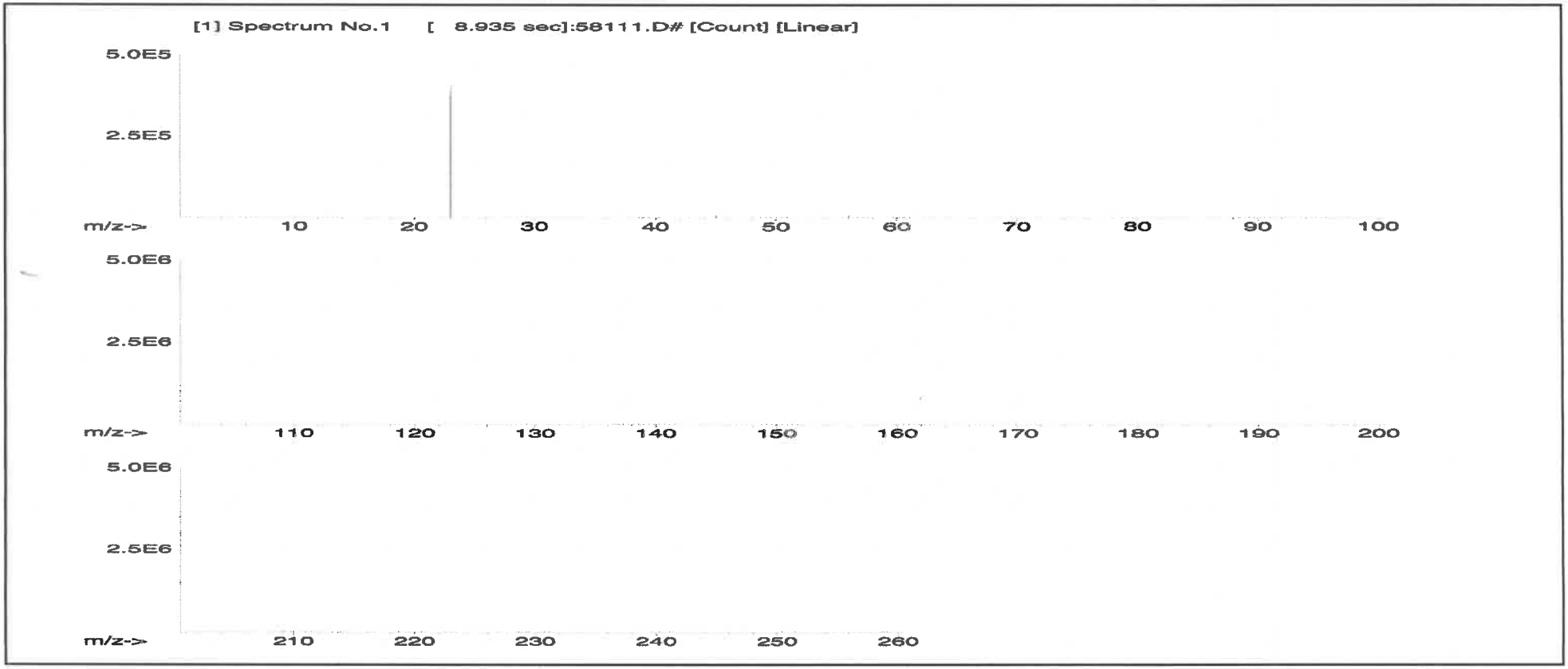
5E-05 Balance Uncertainty

Aleah O'Brady

Formulated By: Aleah O'Brady 122223

Reviewed By: Pedro L. Rentas 122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**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	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	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:

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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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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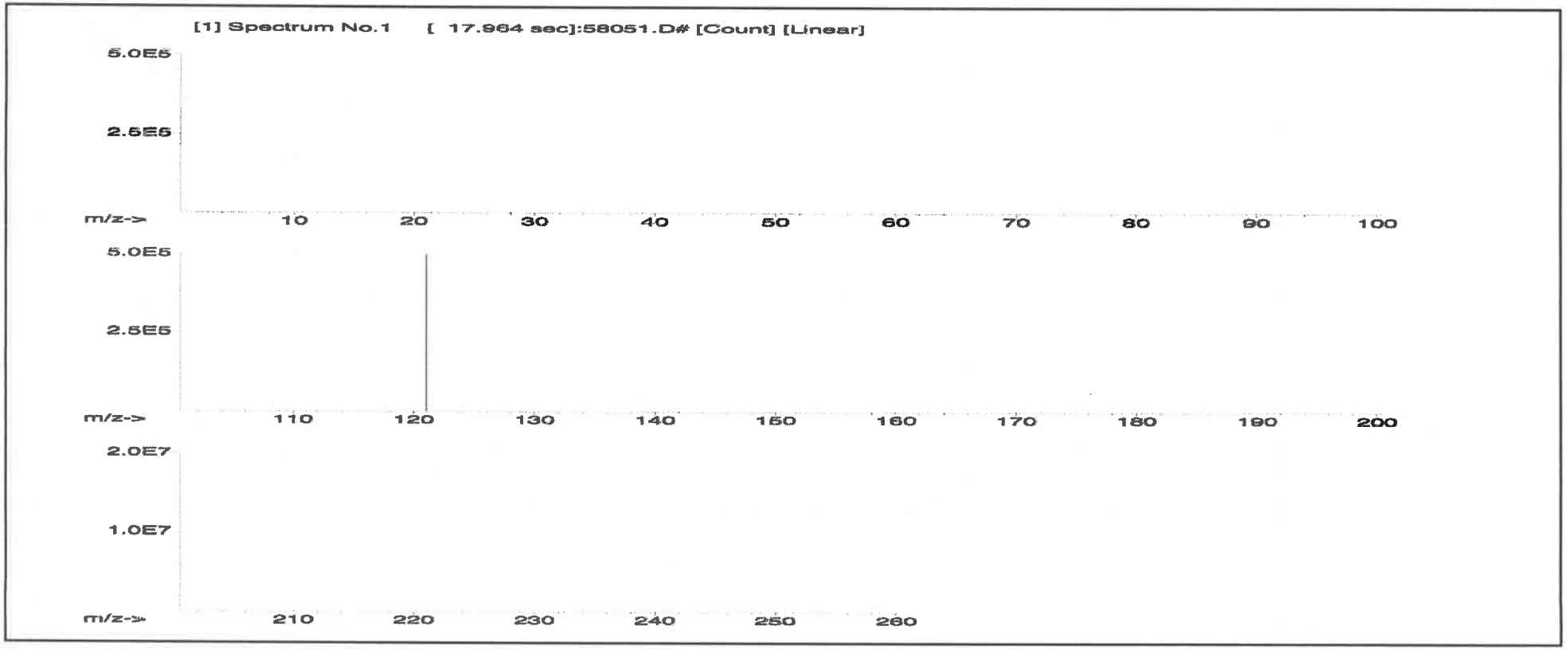
R: 01/03/24 M5802, M5803

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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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M6030

R: 8/5/24

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CERTIFIED WEIGHT REPORT:

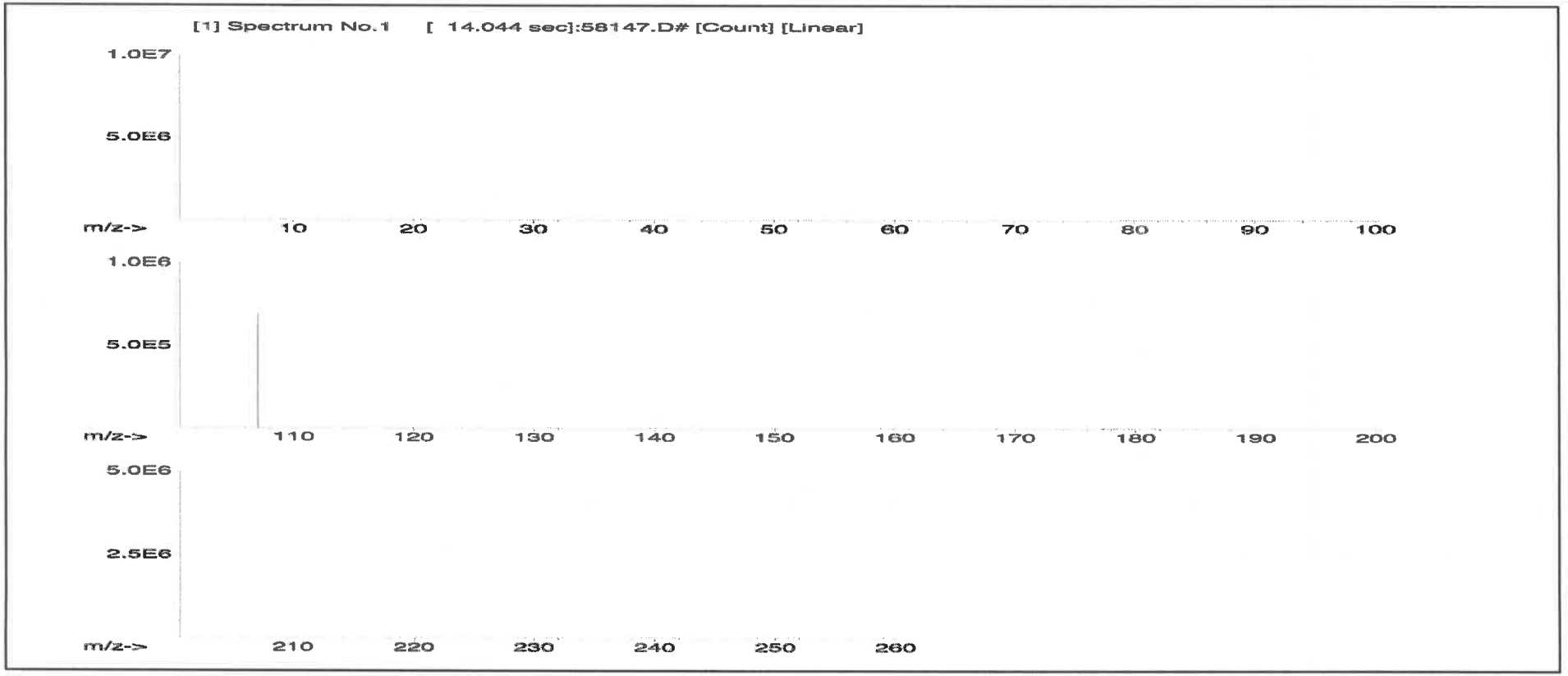
Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.30

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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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.
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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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M6023

R ! 8/5/24

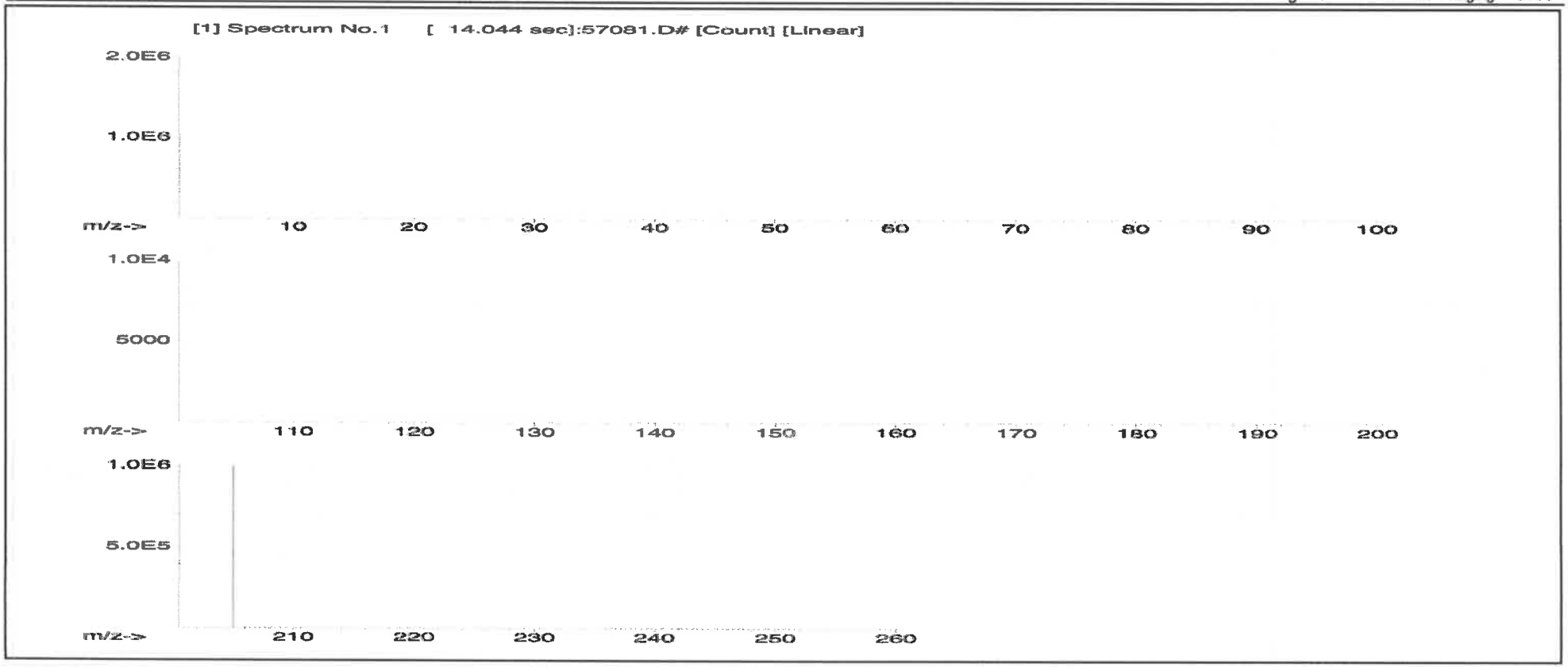
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CERTIFIED WEIGHT REPORT:

Part Number:	**57081**			**Lot #**	
Lot Number:	**062724**		**Solvent:**	24002546	Nitric Acid
Description:	**Thallium (Tl)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady		
Formulated By:	Aleah O'Brady	062724
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.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

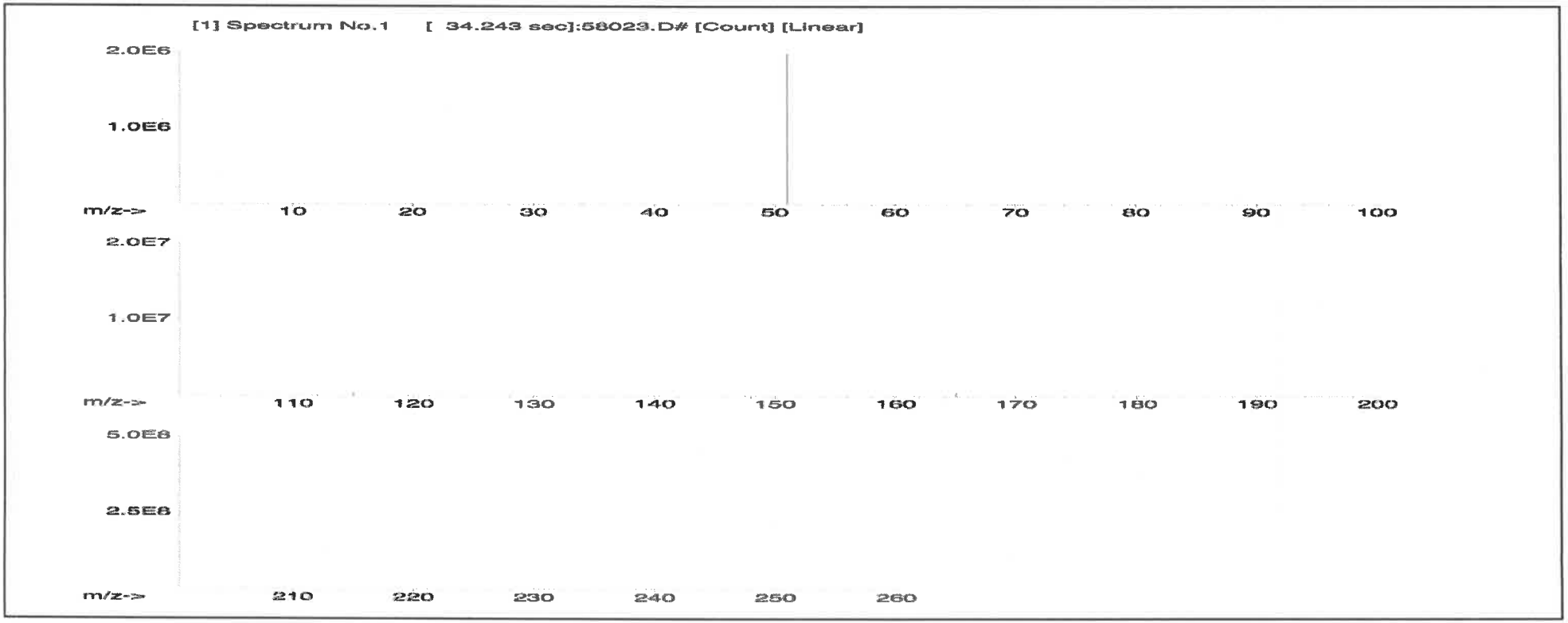
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: Q1081

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: PO#
ADDRESS: 4433 Corporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: RW7B	ADDRESS:
CITY: Virginia Beach STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu	CITY: STATE: ZIP:
ATTENTION: Ernie Wu	E-MAIL: ernie,wu@tetratech.com	ATTENTION: PHONE:
PHONE: 757-466-4901 FAX: 757-461-4148	PHONE: 757-466-4901 FAX: 757-461-4148	

DATA TURNAROUND INFORMATION

FAX: 10 DAYS*
HARD COPY: 10 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ❑ RESULTS ONLY
- ❑ RESULTS + QC
- ❑ New Jersey REDUCED
- ❑ New Jersey CLP
- ❑ EDD Format
- ❑ USEPA CLP
- ❑ New York State ASP "B"
- ❑ New York State ASP "A"
- ❑ Other

ANALYSIS

	1,4-Dioxane SW846 8270 SIM	Iron							
	1	2	3	4	5	6	7	8	9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
									B								<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.	RW7-SP100-20250113	GW		x	1/13/25	12:15	2	x	x								
2.	RW7-SP201-20250113	GW		x	1/13/25	12:17	1	x									
3.	RW7-SP302-20250113	GW		x	1/13/25	12:27	1	x									
4.	RW7-SP303-20250113	GW		x	1/13/25	12:29	2	x	x								
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	1/13/25 1520	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2. FedEx	1/14/25 0920	2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ❑ Compliant ❑ Non Compliant ❑ Cooler Temp 1.2°C
MeOH extraction requires an additional 4oz. Jar for percent solid ❑ Ice in Cooler?: Y
Comments:

Page ____ of ____

SHIPPED VIA: CLIENT: ❑ Hand Delivered ❑ Overnight
CHEMTECH: ❑ Picked Up ❑ Overnight

Shipment Complete ❑ YES ❑ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY

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