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DATA PACKAGE

METALS

PROJECT NAME : CON ED UTEN MOUNT VERNON, NY

CDM SMITH

110 Fieldcrest Ave

Raritan Center

Edison, NJ - 08837

Phone No: 732-225-7000

ORDER ID : Q1915

ATTENTION : Marcie Ann Encinas

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1915

Project ID : Con Ed UTEN Mount Vernon, NY

Client : CDM Smith

Lab Sample Number	Client Sample Number
Q1915-01	WC-04282025

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 11:32 am, May 15, 2025

Date: 5/15/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

CDM Smith
Project Name: Con Ed UTEN Mount Vernon, NY
Project # N/A
Chemtech Project # Q1915
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 04/29/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Ignitability, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP Mercury,TCLP ICP Metals.

C. Analytical Techniques:
The analysis of TCLP ICP Metals was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of TCLP Mercury was based on method 7470A and TCLP extraction method was 1311.

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: This Data package has been revised due to Data Package type change as per Client Request.

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 11:32 am, May 15, 2025

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DATA REPORTING QUALIFIERS- INORGANIC

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

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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1915 MATRIX: TCLP

METHOD: 6010D,7470A,1311

		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.			
	The Matrix Spike analysis met criteria for all samples. The Matrix Spike Duplicate analysis met criteria for all samples.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
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:

This Data package has been revised due to Data Package type change as per Client Request.

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 10:03 am, May 15, 2025

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1915

	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:** 05/15/2025

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LAB CHRONICLE

OrderID:	Q1915	**OrderDate:**	4/29/2025 2:29:00 PM
Client:	CDM Smith	**Project:**	Con Ed UTEN Mount Vernon, NY
Contact:	Marcie Ann Encinas	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1915-01	**WC-04282025**	**TCLP**			**04/28/25**			**04/29/25**
			TCLP ICP Metals	6010D		04/30/25	05/01/25	
			TCLP Mercury	7470A		04/30/25	05/01/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1915 **Order ID:** Q1915

Client: CDM Smith **Project ID:** Con Ed UTEN Mount Vernon, NY

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WC-04282025								
Q1915-01	WC-04282025	TCLP	Barium	4600		72.8	500	ug/L
Q1915-01	WC-04282025	TCLP	Cadmium	7.22	J	2.50	30.0	ug/L
Q1915-01	WC-04282025	TCLP	Lead	896		11.5	60.0	ug/L

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	CDM Smith	Date Collected:	04/28/25
Project:	Con Ed UTEN Mount Vernon, NY	Date Received:	04/29/25
Client Sample ID:	WC-04282025	SDG No.:	Q1915
Lab Sample ID:	Q1915-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	25.6	100	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7440-39-3	Barium	4600		1	72.8	500	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7440-43-9	Cadmium	7.22	J	1	2.50	30.0	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7440-47-3	Chromium	50.0	U	1	10.6	50.0	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7439-92-1	Lead	896		1	11.5	60.0	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7439-97-6	Mercury	2.00	U	1	0.76	2.00	ug/L	04/30/25 13:30	05/01/25 14:43	7470A	
7782-49-2	Selenium	100	U	1	48.2	100	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050
7440-22-4	Silver	50.0	U	1	8.10	50.0	ug/L	04/30/25 13:35	05/01/25 20:07	6010D	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP METALS				

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: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV112	Mercury	3.81	4.0	95	90 - 110	CV	05/01/2025	11:47	LB135623

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV62	Mercury	4.80	5.0	96	90 - 110	CV	05/01/2025	11:58	LB135623
CCV63	Mercury	5.01	5.0	100	90 - 110	CV	05/01/2025	12:49	LB135623
CCV64	Mercury	5.09	5.0	102	90 - 110	CV	05/01/2025	13:19	LB135623
CCV65	Mercury	4.77	5.0	95	90 - 110	CV	05/01/2025	13:58	LB135623
CCV66	Mercury	4.60	5.0	92	90 - 110	CV	05/01/2025	14:29	LB135623
CCV67	Mercury	4.61	5.0	92	90 - 110	CV	05/01/2025	15:23	LB135623

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	1010	1000	100	90 - 110	P	05/01/2025	13:44	LB135636
	Barium	495	520	95	90 - 110	P	05/01/2025	13:44	LB135636
	Cadmium	508	510	100	90 - 110	P	05/01/2025	13:44	LB135636
	Chromium	506	520	97	90 - 110	P	05/01/2025	13:44	LB135636
	Lead	989	1000	99	90 - 110	P	05/01/2025	13:44	LB135636
	Selenium	1040	1000	104	90 - 110	P	05/01/2025	13:44	LB135636
	Silver	240	250	96	90 - 110	P	05/01/2025	13:44	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	23.7	20.0	119	80 - 120	P	05/01/2025	14:01	LB135636
	Barium	95.8	100	96	80 - 120	P	05/01/2025	14:01	LB135636
	Cadmium	6.39	6.0	107	80 - 120	P	05/01/2025	14:01	LB135636
	Chromium	10.5	10.0	105	80 - 120	P	05/01/2025	14:01	LB135636
	Lead	13.1	12.0	109	80 - 120	P	05/01/2025	14:01	LB135636
	Selenium	22.9	20.0	114	80 - 120	P	05/01/2025	14:01	LB135636
	Silver	10.2	10.0	102	80 - 120	P	05/01/2025	14:01	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	5090	5000	102	90 - 110	P	05/01/2025	15:05	LB135636
	Barium	9650	10000	96	90 - 110	P	05/01/2025	15:05	LB135636
	Cadmium	2500	2500	100	90 - 110	P	05/01/2025	15:05	LB135636
	Chromium	1000	1000	100	90 - 110	P	05/01/2025	15:05	LB135636
	Lead	5010	5000	100	90 - 110	P	05/01/2025	15:05	LB135636
	Selenium	5140	5000	103	90 - 110	P	05/01/2025	15:05	LB135636
	Silver	1250	1250	100	90 - 110	P	05/01/2025	15:05	LB135636
CCV02	Arsenic	4930	5000	99	90 - 110	P	05/01/2025	16:00	LB135636
	Barium	10200	10000	102	90 - 110	P	05/01/2025	16:00	LB135636
	Cadmium	2470	2500	99	90 - 110	P	05/01/2025	16:00	LB135636
	Chromium	995	1000	100	90 - 110	P	05/01/2025	16:00	LB135636
	Lead	4980	5000	100	90 - 110	P	05/01/2025	16:00	LB135636
	Selenium	4960	5000	99	90 - 110	P	05/01/2025	16:00	LB135636
	Silver	1220	1250	98	90 - 110	P	05/01/2025	16:00	LB135636
CCV03	Arsenic	5040	5000	101	90 - 110	P	05/01/2025	17:03	LB135636
	Barium	9950	10000	100	90 - 110	P	05/01/2025	17:03	LB135636
	Cadmium	2510	2500	100	90 - 110	P	05/01/2025	17:03	LB135636
	Chromium	988	1000	99	90 - 110	P	05/01/2025	17:03	LB135636
	Lead	5010	5000	100	90 - 110	P	05/01/2025	17:03	LB135636
	Selenium	5060	5000	101	90 - 110	P	05/01/2025	17:03	LB135636
	Silver	1220	1250	97	90 - 110	P	05/01/2025	17:03	LB135636
CCV04	Arsenic	5160	5000	103	90 - 110	P	05/01/2025	17:49	LB135636
	Barium	10000	10000	100	90 - 110	P	05/01/2025	17:49	LB135636
	Cadmium	2470	2500	99	90 - 110	P	05/01/2025	17:49	LB135636
	Chromium	987	1000	99	90 - 110	P	05/01/2025	17:49	LB135636
	Lead	4950	5000	99	90 - 110	P	05/01/2025	17:49	LB135636
	Selenium	5240	5000	105	90 - 110	P	05/01/2025	17:49	LB135636
	Silver	1250	1250	100	90 - 110	P	05/01/2025	17:49	LB135636
CCV05	Arsenic	5090	5000	102	90 - 110	P	05/01/2025	18:36	LB135636
	Barium	9950	10000	100	90 - 110	P	05/01/2025	18:36	LB135636
	Cadmium	2500	2500	100	90 - 110	P	05/01/2025	18:36	LB135636
	Chromium	984	1000	98	90 - 110	P	05/01/2025	18:36	LB135636
	Lead	4980	5000	100	90 - 110	P	05/01/2025	18:36	LB135636
	Selenium	5150	5000	103	90 - 110	P	05/01/2025	18:36	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1230	1250	98	90 - 110	P	05/01/2025	18:36	LB135636
CCV06	Arsenic	4990	5000	100	90 - 110	P	05/01/2025	19:23	LB135636
	Barium	9830	10000	98	90 - 110	P	05/01/2025	19:23	LB135636
	Cadmium	2460	2500	98	90 - 110	P	05/01/2025	19:23	LB135636
	Chromium	980	1000	98	90 - 110	P	05/01/2025	19:23	LB135636
	Lead	4920	5000	98	90 - 110	P	05/01/2025	19:23	LB135636
	Selenium	5030	5000	101	90 - 110	P	05/01/2025	19:23	LB135636
	Silver	1240	1250	99	90 - 110	P	05/01/2025	19:23	LB135636
CCV07	Arsenic	5090	5000	102	90 - 110	P	05/01/2025	20:11	LB135636
	Barium	9790	10000	98	90 - 110	P	05/01/2025	20:11	LB135636
	Cadmium	2500	2500	100	90 - 110	P	05/01/2025	20:11	LB135636
	Chromium	995	1000	100	90 - 110	P	05/01/2025	20:11	LB135636
	Lead	4980	5000	100	90 - 110	P	05/01/2025	20:11	LB135636
	Selenium	5120	5000	102	90 - 110	P	05/01/2025	20:11	LB135636
	Silver	1250	1250	100	90 - 110	P	05/01/2025	20:11	LB135636
CCV08	Arsenic	5180	5000	104	90 - 110	P	05/01/2025	20:24	LB135636
	Barium	9880	10000	99	90 - 110	P	05/01/2025	20:24	LB135636
	Cadmium	2490	2500	100	90 - 110	P	05/01/2025	20:24	LB135636
	Chromium	980	1000	98	90 - 110	P	05/01/2025	20:24	LB135636
	Lead	4990	5000	100	90 - 110	P	05/01/2025	20:24	LB135636
	Selenium	5270	5000	105	90 - 110	P	05/01/2025	20:24	LB135636
	Silver	1240	1250	99	90 - 110	P	05/01/2025	20:24	LB135636

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	1060	1000	106	90 - 110	P	05/02/2025	13:47	LB135654
	Barium	518	520	100	90 - 110	P	05/02/2025	13:47	LB135654
	Cadmium	493	510	97	90 - 110	P	05/02/2025	13:47	LB135654
	Chromium	503	520	97	90 - 110	P	05/02/2025	13:47	LB135654
	Lead	966	1000	97	90 - 110	P	05/02/2025	13:47	LB135654
	Selenium	1040	1000	104	90 - 110	P	05/02/2025	13:47	LB135654
	Silver	230	250	92	90 - 110	P	05/02/2025	13:47	LB135654

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	19.0	20.0	95	80 - 120	P	05/02/2025	15:03	LB135654
	Barium	81.5	100	82	80 - 120	P	05/02/2025	15:03	LB135654
	Cadmium	5.51	6.0	92	80 - 120	P	05/02/2025	15:03	LB135654
	Chromium	10.1	10.0	101	80 - 120	P	05/02/2025	15:03	LB135654
	Lead	11.1	12.0	93	80 - 120	P	05/02/2025	15:03	LB135654
	Selenium	16.8	20.0	84	80 - 120	P	05/02/2025	15:03	LB135654
	Silver	10.8	10.0	108	80 - 120	P	05/02/2025	15:03	LB135654

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	5450	5000	109	90 - 110	P	05/02/2025	16:01	LB135654
	Barium	9540	10000	95	90 - 110	P	05/02/2025	16:01	LB135654
	Cadmium	2440	2500	98	90 - 110	P	05/02/2025	16:01	LB135654
	Chromium	1010	1000	101	90 - 110	P	05/02/2025	16:01	LB135654
	Lead	4820	5000	96	90 - 110	P	05/02/2025	16:01	LB135654
	Selenium	5460	5000	109	90 - 110	P	05/02/2025	16:01	LB135654
	Silver	1270	1250	102	90 - 110	P	05/02/2025	16:01	LB135654
CCV02	Arsenic	5240	5000	105	90 - 110	P	05/02/2025	16:34	LB135654
	Barium	9720	10000	97	90 - 110	P	05/02/2025	16:34	LB135654
	Cadmium	2390	2500	96	90 - 110	P	05/02/2025	16:34	LB135654
	Chromium	1000	1000	100	90 - 110	P	05/02/2025	16:34	LB135654
	Lead	4740	5000	95	90 - 110	P	05/02/2025	16:34	LB135654
	Selenium	5240	5000	105	90 - 110	P	05/02/2025	16:34	LB135654
	Silver	1260	1250	101	90 - 110	P	05/02/2025	16:34	LB135654

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Metals

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CRDL STANDARD FOR AA & ICP

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.17	0.2	86	40 - 160	CV	05/01/2025	12:05	LB135623
CRI01	Arsenic	23.3	20.0	116	40 - 160	P	05/01/2025	14:16	LB135636
	Barium	93.6	100	94	40 - 160	P	05/01/2025	14:16	LB135636
	Cadmium	6.36	6.0	106	40 - 160	P	05/01/2025	14:16	LB135636
	Chromium	10.6	10.0	106	40 - 160	P	05/01/2025	14:16	LB135636
	Lead	13.3	12.0	111	40 - 160	P	05/01/2025	14:16	LB135636
	Selenium	23.1	20.0	115	40 - 160	P	05/01/2025	14:16	LB135636
	Silver	10.6	10.0	106	40 - 160	P	05/01/2025	14:16	LB135636
CRI01	Arsenic	21.5	20.0	108	40 - 160	P	05/02/2025	15:12	LB135654
	Barium	80.2	100	80	40 - 160	P	05/02/2025	15:12	LB135654
	Cadmium	5.66	6.0	94	40 - 160	P	05/02/2025	15:12	LB135654
	Chromium	10.6	10.0	106	40 - 160	P	05/02/2025	15:12	LB135654
	Lead	12.1	12.0	101	40 - 160	P	05/02/2025	15:12	LB135654
	Selenium	23.5	20.0	117	40 - 160	P	05/02/2025	15:12	LB135654
	Silver	10.7	10.0	107	40 - 160	P	05/02/2025	15:12	LB135654

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB112	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	11:49	LB135623

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB62	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	12:01	LB135623
CCB63	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	12:51	LB135623
CCB64	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	13:23	LB135623
CCB65	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	14:02	LB135623
CCB66	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	14:40	LB135623
CCB67	Mercury	0.20	+/-0.20	U	0.20	CV	05/01/2025	15:25	LB135623

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	14:11	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	14:11	LB135636
	Cadmium	6.00	+/-6.00	U	6.00	P	05/01/2025	14:11	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	14:11	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	14:11	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	14:11	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	14:11	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	15:12	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	15:12	LB135636
	Cadmium	6.00	+/-6.00	U	6.00	P	05/01/2025	15:12	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	15:12	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	15:12	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	15:12	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	15:12	LB135636
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	16:04	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	16:04	LB135636
	Cadmium	0.60	+/-6.00	J	6.00	P	05/01/2025	16:04	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	16:04	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	16:04	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	16:04	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	16:04	LB135636
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	17:07	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	17:07	LB135636
	Cadmium	0.88	+/-6.00	J	6.00	P	05/01/2025	17:07	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	17:07	LB135636
	Lead	3.14	+/-12.0	J	12.0	P	05/01/2025	17:07	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	17:07	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	17:07	LB135636
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	17:53	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	17:53	LB135636
	Cadmium	0.92	+/-6.00	J	6.00	P	05/01/2025	17:53	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	17:53	LB135636
	Lead	2.63	+/-12.0	J	12.0	P	05/01/2025	17:53	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	17:53	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	17:53	LB135636
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	18:40	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	18:40	LB135636
	Cadmium	0.89	+/-6.00	J	6.00	P	05/01/2025	18:40	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	18:40	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	18:40	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	18:40	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	18:40	LB135636
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	19:27	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	19:27	LB135636
	Cadmium	6.00	+/-6.00	U	6.00	P	05/01/2025	19:27	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	19:27	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	19:27	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	19:27	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	19:27	LB135636
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	20:15	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	20:15	LB135636
	Cadmium	6.00	+/-6.00	U	6.00	P	05/01/2025	20:15	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	20:15	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	20:15	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	20:15	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	20:15	LB135636
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	05/01/2025	20:28	LB135636
	Barium	100	+/-100	U	100	P	05/01/2025	20:28	LB135636
	Cadmium	6.00	+/-6.00	U	6.00	P	05/01/2025	20:28	LB135636
	Chromium	10.0	+/-10.0	U	10.0	P	05/01/2025	20:28	LB135636
	Lead	12.0	+/-12.0	U	12.0	P	05/01/2025	20:28	LB135636
	Selenium	20.0	+/-20.0	U	20.0	P	05/01/2025	20:28	LB135636
	Silver	10.0	+/-10.0	U	10.0	P	05/01/2025	20:28	LB135636

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	05/02/2025	15:08	LB135654
	Barium	100	+/-100	U	100	P	05/02/2025	15:08	LB135654
	Cadmium	6.00	+/-6.00	U	6.00	P	05/02/2025	15:08	LB135654
	Chromium	10.0	+/-10.0	U	10.0	P	05/02/2025	15:08	LB135654
	Lead	12.0	+/-12.0	U	12.0	P	05/02/2025	15:08	LB135654
	Selenium	20.0	+/-20.0	U	20.0	P	05/02/2025	15:08	LB135654
	Silver	10.0	+/-10.0	U	10.0	P	05/02/2025	15:08	LB135654

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	05/02/2025	16:05	LB135654
	Barium	100	+/-100	U	100	P	05/02/2025	16:05	LB135654
	Cadmium	6.00	+/-6.00	U	6.00	P	05/02/2025	16:05	LB135654
	Chromium	10.0	+/-10.0	U	10.0	P	05/02/2025	16:05	LB135654
	Lead	12.0	+/-12.0	U	12.0	P	05/02/2025	16:05	LB135654
	Selenium	20.0	+/-20.0	U	20.0	P	05/02/2025	16:05	LB135654
	Silver	10.0	+/-10.0	U	10.0	P	05/02/2025	16:05	LB135654
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	05/02/2025	16:38	LB135654
	Barium	100	+/-100	U	100	P	05/02/2025	16:38	LB135654
	Cadmium	6.00	+/-6.00	U	6.00	P	05/02/2025	16:38	LB135654
	Chromium	10.0	+/-10.0	U	10.0	P	05/02/2025	16:38	LB135654
	Lead	12.0	+/-12.0	U	12.0	P	05/02/2025	16:38	LB135654
	Selenium	20.0	+/-20.0	U	20.0	P	05/02/2025	16:38	LB135654
	Silver	10.0	+/-10.0	U	10.0	P	05/02/2025	16:38	LB135654

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Metals
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PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167774TB		**WATER**		**Batch Number:**	**PB167806**		**Prep Date:**	**04/30/2025**	
	Mercury	2.00	<2.00	U	2.00	CV	05/01/2025	14:45	LB135623

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167806BL		**WATER**		**Batch Number:**	**PB167806**		**Prep Date:**	**04/30/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	05/01/2025	12:28	LB135623

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Metals
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PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167774TB		**WATER**		**Batch Number:**	**PB167808**		**Prep Date:**	**04/30/2025**	
	Arsenic	100	<100	U	100	P	05/01/2025	16:37	LB135636
	Barium	500	<500	U	500	P	05/01/2025	16:37	LB135636
	Cadmium	30.0	<30.0	U	30.0	P	05/01/2025	16:37	LB135636
	Chromium	50.0	<50.0	U	50.0	P	05/01/2025	16:37	LB135636
	Lead	60.0	<60.0	U	60.0	P	05/01/2025	16:37	LB135636
	Selenium	100	<100	U	100	P	05/01/2025	16:37	LB135636
	Silver	50.0	<50.0	U	50.0	P	05/01/2025	16:37	LB135636

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167805TB		**WATER**		**Batch Number:**	**PB167808**		**Prep Date:**	**04/30/2025**	
	Arsenic	100	<100	U	100	P	05/01/2025	20:20	LB135636
	Barium	500	<500	U	500	P	05/01/2025	20:20	LB135636
	Cadmium	30.0	<30.0	U	30.0	P	05/01/2025	20:20	LB135636
	Chromium	15.9	<50.0	J	50.0	P	05/01/2025	20:20	LB135636
	Lead	60.0	<60.0	U	60.0	P	05/01/2025	20:20	LB135636
	Selenium	100	<100	U	100	P	05/01/2025	20:20	LB135636
	Silver	50.0	<50.0	U	50.0	P	05/01/2025	20:20	LB135636

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167808BL		**WATER**		**Batch Number:**	**PB167808**		**Prep Date:**	**04/30/2025**	
	Arsenic	100	<100	U	100	P	05/01/2025	16:23	LB135636
	Barium	500	<500	U	500	P	05/01/2025	16:23	LB135636
	Cadmium	30.0	<30.0	U	30.0	P	05/01/2025	16:23	LB135636
	Chromium	50.0	<50.0	U	50.0	P	05/01/2025	16:23	LB135636
	Lead	60.0	<60.0	U	60.0	P	05/01/2025	16:23	LB135636
	Selenium	100	<100	U	100	P	05/01/2025	16:23	LB135636
	Silver	50.0	<50.0	U	50.0	P	05/01/2025	16:23	LB135636

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Metals
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INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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	Arsenic	2.11			-20	20	05/01/2025	14:35	LB135636
	Barium	0.52	6.0	9	-94	106	05/01/2025	14:35	LB135636
	Cadmium	-4.57	1.0	457	-5	7	05/01/2025	14:35	LB135636
	Chromium	53.0	52.0	102	42	62	05/01/2025	14:35	LB135636
	Lead	-4.15			-12	12	05/01/2025	14:35	LB135636
	Selenium	-9.38			-20	20	05/01/2025	14:35	LB135636
	Silver	1.45			-10	10	05/01/2025	14:35	LB135636
ICSAB01	Arsenic	120	104	115	88.4	120	05/01/2025	14:39	LB135636
	Barium	487	537	91	437	637	05/01/2025	14:39	LB135636
	Cadmium	1080	972	111	826	1120	05/01/2025	14:39	LB135636
	Chromium	583	542	108	460	624	05/01/2025	14:39	LB135636
	Lead	52.5	49.0	107	37	61	05/01/2025	14:39	LB135636
	Selenium	45.9	46.0	100	26	66	05/01/2025	14:39	LB135636
	Silver	203	201	101	170	232	05/01/2025	14:39	LB135636
ICSA01	Arsenic	0.098			-20	20	05/02/2025	15:30	LB135654
	Barium	-5.67	6.0	94	-94	106	05/02/2025	15:30	LB135654
	Cadmium	-2.89	1.0	289	-5	7	05/02/2025	15:30	LB135654
	Chromium	53.8	52.0	104	42	62	05/02/2025	15:30	LB135654
	Lead	4.14			-12	12	05/02/2025	15:30	LB135654
	Selenium	-1.90			-20	20	05/02/2025	15:30	LB135654
	Silver	-0.66			-10	10	05/02/2025	15:30	LB135654
ICSAB01	Arsenic	115	104	111	88.4	120	05/02/2025	15:46	LB135654
	Barium	464	537	86	437	637	05/02/2025	15:46	LB135654
	Cadmium	996	972	102	826	1120	05/02/2025	15:46	LB135654
	Chromium	560	542	103	460	624	05/02/2025	15:46	LB135654
	Lead	51.7	49.0	106	37	61	05/02/2025	15:46	LB135654
	Selenium	57.3	46.0	125	26	66	05/02/2025	15:46	LB135654
	Silver	193	201	96	170	232	05/02/2025	15:46	LB135654

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1915

contract: CAMP02 **lab code:** CHEM **case no.:** Q1915 **sas no.:** Q1915

matrix: Water **sample id:** Q1901-08 **client id:** B-167-SB01MS

Percent Solids for Sample: NA **Spiked ID:** Q1901-08MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	39.1		2.00	U	40.0	98		CV

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1915

contract: CAMP02 **lab code:** CHEM **case no.:** Q1915 **sas no.:** Q1915

matrix: Water **sample id:** Q1901-08 **client id:** B-167-SB01MSD

Percent Solids for Sample: NA **Spiked ID:** Q1901-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	40.9		2.00	U	40.0	102		CV

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1915

contract: CAMP02 **lab code:** CHEM **case no.:** Q1915 **sas no.:** Q1915

matrix: Water **sample id:** Q1913-02 **client id:** WC-12-A-202504MS

Percent Solids for Sample: NA **Spiked ID:** Q1913-02MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4220		100	U	4000	106		P
Barium	ug/L	75 - 125	1020		500	U	1000	102		P
Cadmium	ug/L	75 - 125	943		30.0	U	1000	94		P
Chromium	ug/L	75 - 125	2180		122		2000	103		P
Lead	ug/L	75 - 125	4570		60.0	U	5000	91		P
Selenium	ug/L	75 - 125	10100		100	U	10000	101		P
Silver	ug/L	75 - 125	385		50.0	U	380	101		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1915

contract: CAMP02 **lab code:** CHEM **case no.:** Q1915 **sas no.:** Q1915

matrix: Water **sample id:** Q1913-02 **client id:** WC-12-A-202504MSD

Percent Solids for Sample: NA **Spiked ID:** Q1913-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4060		100	U	4000	102		P
Barium	ug/L	75 - 125	965		500	U	1000	96		P
Cadmium	ug/L	75 - 125	908		30.0	U	1000	91		P
Chromium	ug/L	75 - 125	2100		122		2000	99		P
Lead	ug/L	75 - 125	4400		60.0	U	5000	88		P
Selenium	ug/L	75 - 125	9630		100	U	10000	96		P
Silver	ug/L	75 - 125	366		50.0	U	380	96		P

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Metals
- 5b -

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Matrix: Water **Sample ID:** Q1901-08 **Client ID:** B-167-SB01DUP

Percent Solids for Sample: NA **Duplicate ID** Q1901-08DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	2.00	U	2.00	U			CV

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Matrix: Water **Sample ID:** Q1901-08MS **Client ID:** B-167-SB01MSD

Percent Solids for Sample: NA **Duplicate ID** Q1901-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	39.1		40.9		4		CV

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Matrix: Water **Sample ID:** Q1913-02 **Client ID:** WC-12-A-202504DUP

Percent Solids for Sample: NA **Duplicate ID** Q1913-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	500	U	500	U			P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	122		113		8		P
Lead	ug/L	20	60.0	U	60.0	U			P
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Matrix: Water **Sample ID:** Q1913-02MS **Client ID:** WC-12-A-202504MSD

Percent Solids for Sample: NA **Duplicate ID** Q1913-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	4220		4060		4		P
Barium	ug/L	20	1020		965		6		P
Cadmium	ug/L	20	943		908		4		P
Chromium	ug/L	20	2180		2100		4		P
Lead	ug/L	20	4570		4400		4		P
Selenium	ug/L	20	10100		9630		5		P
Silver	ug/L	20	385		366		5		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: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167806BS							
Mercury	ug/L	4.0	3.34		84	80 - 120	CV

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LABORATORY CONTROL SAMPLE SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167808BS							
Arsenic	ug/L	4000	3770		94	80 - 120	P
Barium	ug/L	1000	826		83	80 - 120	P
Cadmium	ug/L	1000	943		94	80 - 120	P
Chromium	ug/L	2000	1870		94	80 - 120	P
Lead	ug/L	5000	4630		93	80 - 120	P
Selenium	ug/L	10000	9600		96	80 - 120	P
Silver	ug/L	380	346		91	80 - 120	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

B-167-SB01L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135623 **Lab Sample ID :** Q1901-08L **SDG No.:** Q1915

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	2.00	U	10.0	U			CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-12-A-202504L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135654 **Lab Sample ID :** Q1913-02L **SDG No.:** Q1915

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
Arsenic	100	U	500	U			P
Barium	500	U	2500	U			P
Cadmium	30.0	U	150	U			P
Chromium	122		122	J	0		P
Lead	60.0	U	300	U			P
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1915 **SAS No.:** Q1915

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
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q1915 **SAS No.:** Q1915

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167806**						
PB167774TB	PB167774TB	MB	WATER	04/30/2025	3.0	30.0	
PB167806BL	PB167806BL	MB	WATER	04/30/2025	30.0	30.0	
PB167806BS	PB167806BS	LCS	WATER	04/30/2025	30.0	30.0	
Q1901-08DUP	B-167-SB01DUP	DUP	WATER	04/30/2025	3.0	30.0	
Q1901-08MS	B-167-SB01MS	MS	WATER	04/30/2025	3.0	30.0	
Q1901-08MSD	B-167-SB01MSD	MSD	WATER	04/30/2025	3.0	30.0	
Q1915-01	WC-04282025	SAM	WATER	04/30/2025	3.0	30.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q1915

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q1915 **SAS No.:** Q1915

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167808**						
PB167774TB	PB167774TB	MB	WATER	04/30/2025	5.0	25.0	
PB167805TB	PB167805TB	MB	WATER	04/30/2025	5.0	25.0	
PB167808BL	PB167808BL	MB	WATER	04/30/2025	5.0	25.0	
PB167808BS	PB167808BS	LCS	WATER	04/30/2025	5.0	25.0	
Q1913-02DUP	WC-12-A-202504DUP	DUP	WATER	04/30/2025	5.0	25.0	
Q1913-02MS	WC-12-A-202504MS	MS	WATER	04/30/2025	5.0	25.0	
Q1913-02MSD	WC-12-A-202504MSD	MSD	WATER	04/30/2025	5.0	25.0	
Q1915-01	WC-04282025	SAM	WATER	04/30/2025	5.0	25.0	

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metals
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ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q1915 **Sas no.:** Q1915 **Sdg no.:** Q1915

Instrument id number: **Method:** **Run number:** LB135623

Start date: 05/01/2025 **End date:** 05/01/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1117	HG
S0.2	S0.2	1	1119	HG
S2.5	S2.5	1	1122	HG
S5	S5	1	1126	HG
S7.5	S7.5	1	1131	HG
S10	S10	1	1136	HG
ICV112	ICV112	1	1147	HG
ICB112	ICB112	1	1149	HG
CCV62	CCV62	1	1158	HG
CCB62	CCB62	1	1201	HG
CRA	CRA	1	1205	HG
PB167806BL	PB167806BL	1	1228	HG
PB167806BS	PB167806BS	1	1230	HG
Q1901-08DUP	B-167-SB01DUP	1	1235	HG
Q1901-08MS	B-167-SB01MS	1	1239	HG
Q1901-08MSD	B-167-SB01MSD	1	1241	HG
CCV63	CCV63	1	1249	HG
CCB63	CCB63	1	1251	HG
CCV64	CCV64	1	1319	HG
CCB64	CCB64	1	1323	HG
CCV65	CCV65	1	1358	HG
CCB65	CCB65	1	1402	HG
CCV66	CCV66	1	1429	HG
CCB66	CCB66	1	1440	HG
Q1915-01	WC-04282025	1	1443	HG
PB167774TB	PB167774TB	1	1445	HG
Q1901-08L	B-167-SB01L	5	1449	HG
CCV67	CCV67	1	1523	HG
CCB67	CCB67	1	1525	HG

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metals
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ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q1915 **Sas no.:** Q1915 **Sdg no.:** Q1915

Instrument id number: **Method:** **Run number:** LB135636

Start date: 05/01/2025 **End date:** 05/01/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1227	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1231	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1236	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1240	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1244	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1248	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1344	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1401	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1411	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1416	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1435	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1439	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1505	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1512	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1600	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1604	Ag,As,Ba,Cd,Cr,Pb,Se
PB167808BL	PB167808BL	1	1623	Ag,As,Ba,Cd,Cr,Pb,Se
PB167808BS	PB167808BS	1	1633	Ag,As,Ba,Cd,Cr,Pb,Se
PB167774TB	PB167774TB	1	1637	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1703	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1707	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1749	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1753	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1836	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1840	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1923	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1927	Ag,As,Ba,Cd,Cr,Pb,Se
Q1915-01	WC-04282025	1	2007	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	2011	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	2015	Ag,As,Ba,Cd,Cr,Pb,Se
PB167805TB	PB167805TB	1	2020	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	2024	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	2028	Ag,As,Ba,Cd,Cr,Pb,Se

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

metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

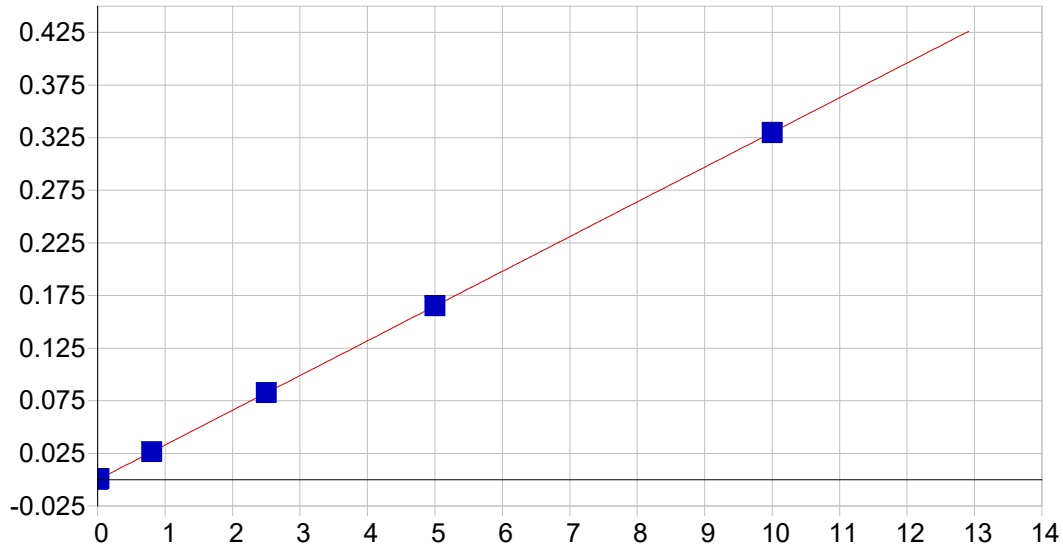
Lab code: CHEM **Case no.:** Q1915 **Sas no.:** Q1915 **Sdg no.:** Q1915

Instrument id number: **Method:** **Run number:** LB135654

Start date: 05/02/2025 **End date:** 05/02/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1234	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1238	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1242	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1246	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1251	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1255	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1347	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1503	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1508	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1512	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1530	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1546	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1601	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1605	Ag,As,Ba,Cd,Cr,Pb,Se
Q1913-02DUP	WC-12-A-202504DUP	1	1613	Ag,As,Ba,Cd,Cr,Pb,Se
Q1913-02L	WC-12-A-202504L	5	1618	Ag,As,Ba,Cd,Cr,Pb,Se
Q1913-02MS	WC-12-A-202504MS	1	1622	Ag,As,Ba,Cd,Cr,Pb,Se
Q1913-02MSD	WC-12-A-202504MSD	1	1626	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1634	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1638	Ag,As,Ba,Cd,Cr,Pb,Se

METAL
RAW DATA

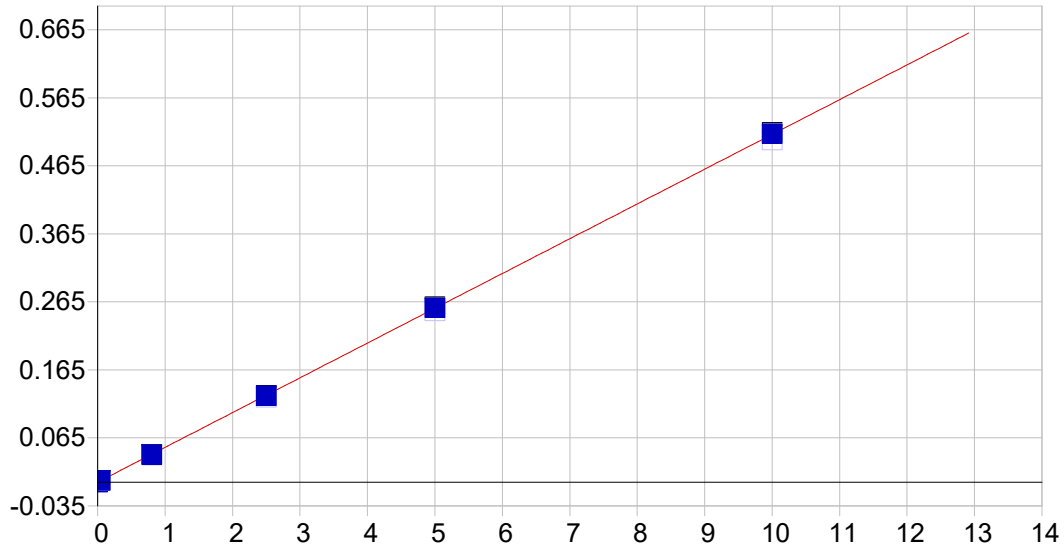


As 189.042 {479}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000056	Re-Slope:	1.000000
A1 (Gain):	0.033002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.003906		
Predicted MQL:	0.013020		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00006	.000	1
S1	.02000	.02282	.003	14.1	.00069	.000	1
S3	2.5000	2.5021	.002	.082	.08243	.000	1
S4	5.0000	5.0031	.003	.061	.16488	.000	1
S5	10.000	9.9895	-.010	-.105	.32927	.001	1
S2	.80000	.80254	.003	.317	.02640	.000	1

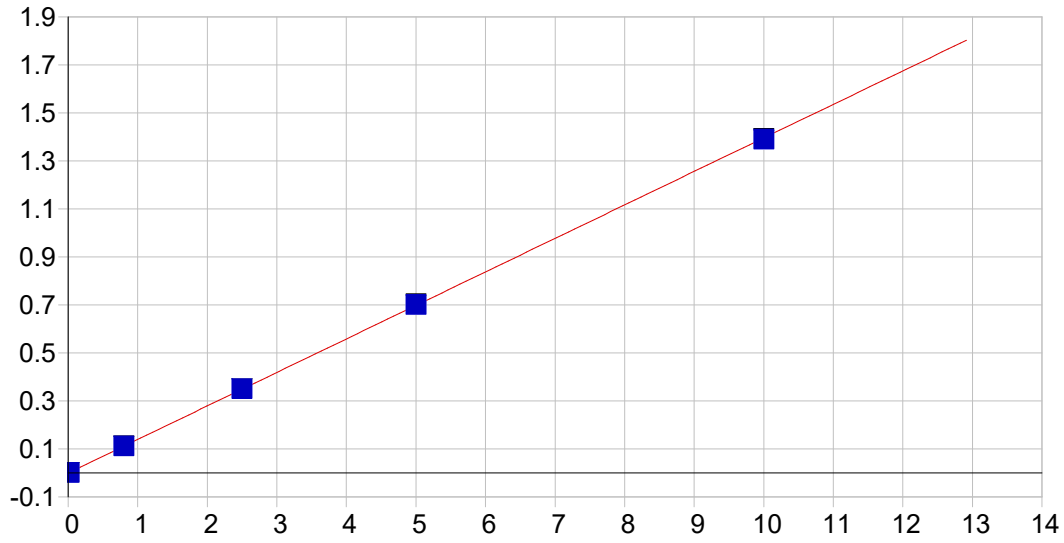


Tl 190.856 {477}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000066	Re-Slope:	1.000000
A1 (Gain):	0.051134	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.002385		
Predicted MQL:	0.007951		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.04000	.04101	.001	2.52	.00190	.000	1
S3	2.5000	2.4821	-.018	-.714	.12450	.001	1
S4	5.0000	5.0120	.012	.239	.25150	.001	1
S5	10.000	10.020	.020	.200	.50288	.002	1
S2	.80000	.78492	-.015	-1.88	.03932	.000	1

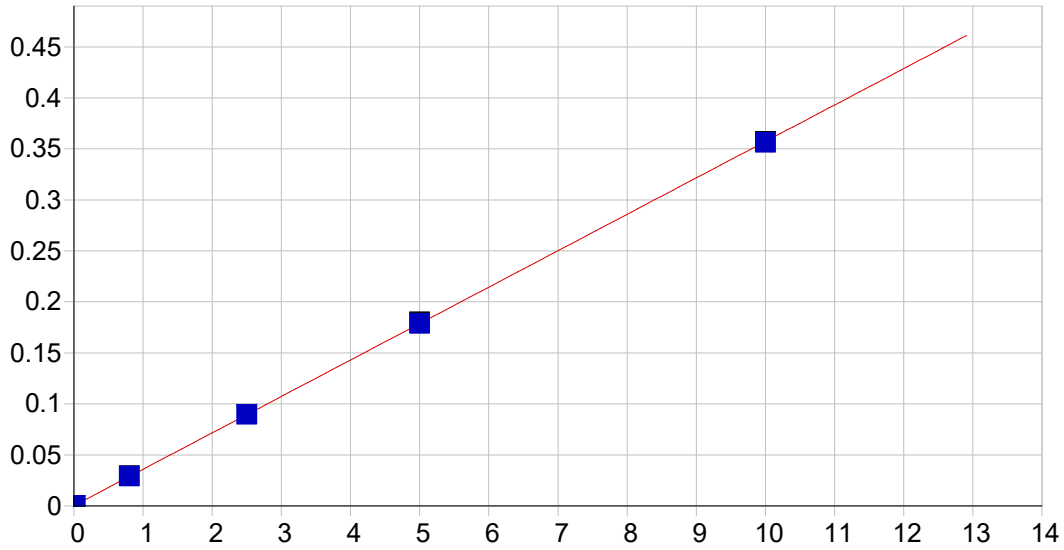


Pb 220.353 {453}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000138	Re-Slope:	1.000000
A1 (Gain):	0.139598	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.002026		
Predicted MQL:	0.006752		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.01200	.01065	-.001	-11.2	.00132	.000	1
S3	2.5000	2.5165	.016	.660	.35080	.000	1
S4	5.0000	5.0238	.024	.476	.70045	.003	1
S5	10.000	9.9583	-.042	-.417	1.3886	.003	1
S2	.80000	.80278	.003	.348	.11181	.000	1

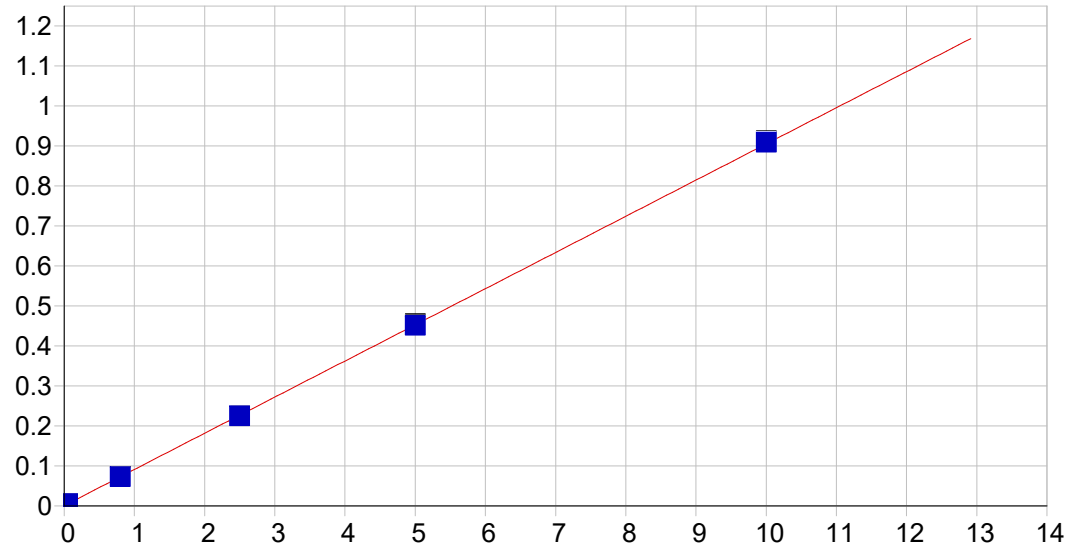


Se 196.090 {472}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000216	Re-Slope:	1.000000
A1 (Gain):	0.035704	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.004701		
Predicted MQL:	0.015670		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00022	.000	1
S1	.02000	.02311	.003	15.6	.00104	.000	1
S3	2.5000	2.5052	.005	.207	.08963	.000	1
S4	5.0000	5.0055	.005	.110	.17887	.001	1
S5	10.000	9.9737	-.026	-.263	.35619	.001	1
S2	.80000	.81254	.013	1.57	.02922	.000	1

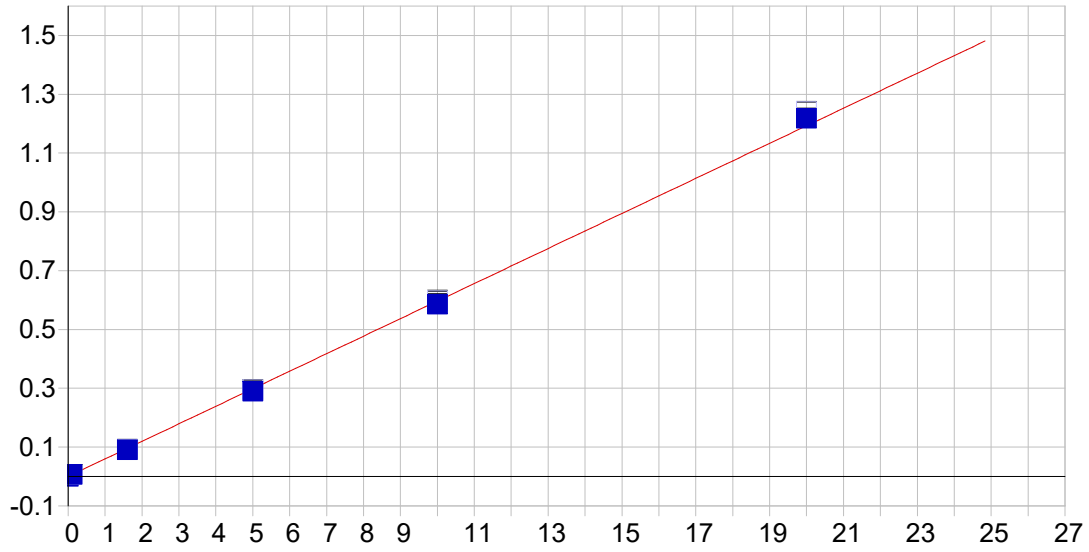


Sb 206.833 {463}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000669	Re-Slope:	1.000000
A1 (Gain):	0.090445	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.002645		
Predicted MQL:	0.008816		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00067	.000	1
S1	.05000	.05134	.001	2.68	.00532	.000	1
S3	2.5000	2.4775	-.022	-.899	.22536	.000	1
S4	5.0000	4.9789	-.021	-.422	.45221	.003	1
S5	10.000	10.046	.046	.460	.91173	.001	1
S2	.80000	.79625	-.004	-.469	.07288	.000	1

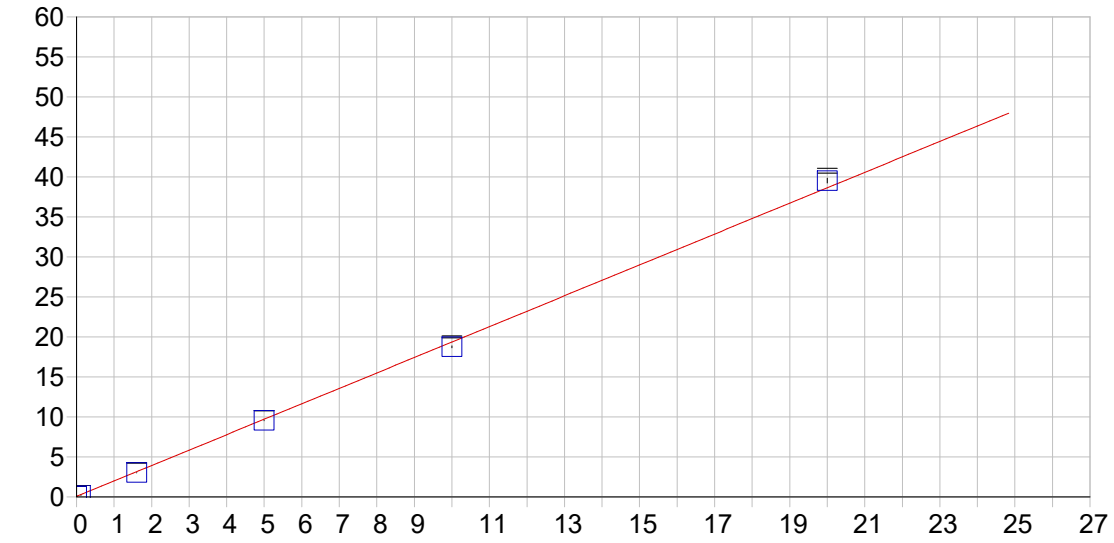


Al 396.152 { 85}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000350	Re-Slope:	1.000000
A1 (Gain):	0.059624	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999718	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.010038		
Predicted MQL:	0.033461		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00035	.001	1
S1	.10000	.09927	-.001	-.727	.00673	.000	1
S3	5.0000	4.8531	-.147	-2.94	.29549	.001	1
S4	10.000	9.8214	-.179	-1.79	.59751	.002	1
S5	20.000	20.418	.418	2.09	1.2409	.001	1
S2	1.6000	1.5082	-.092	-5.74	.09212	.001	1

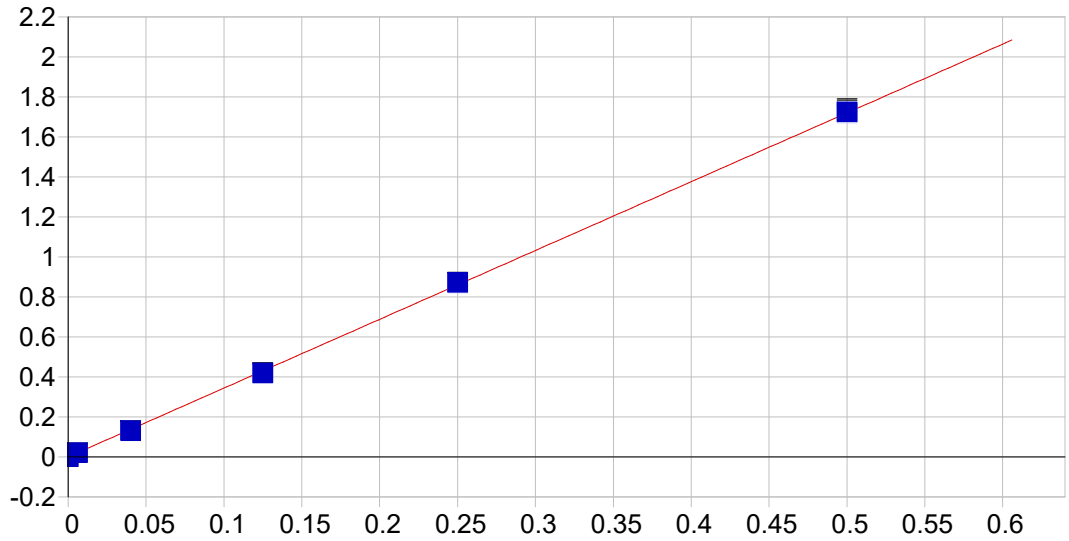


Ba 493.409 { 68}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.063024	Re-Slope:	1.000000
A1 (Gain):	1.929082	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999671	Status:	OK.
Std Error of Est:	0.003672		
Predicted MDL:	0.001260		
Predicted MQL:	0.004199		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.06304	.001	1
S1	.10000	.09593	-.004	-4.07	.24807	.001	1
S3	5.0000	4.9158	-.084	-1.68	9.5460	.017	1
S4	10.000	9.6907	-.309	-3.09	18.757	.130	1
S5	20.000	20.460	.460	2.30	39.532	.296	1
S2	1.6000	1.5375	-.063	-3.91	3.0289	.010	1

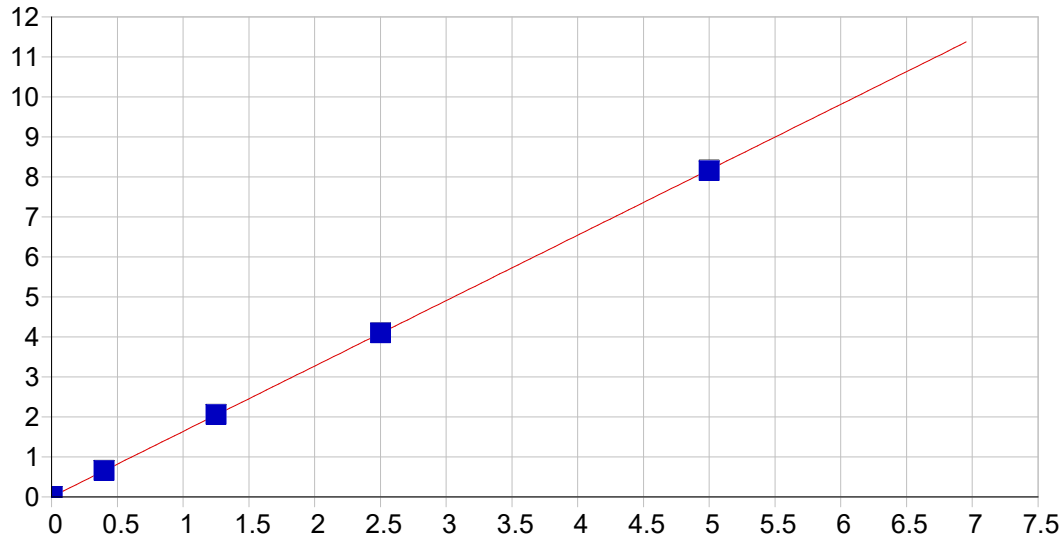


Be 234.861 {144}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000109	Re-Slope:	1.000000
A1 (Gain):	3.439797	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999862	Status:	OK.
Std Error of Est:	0.000164		
Predicted MDL:	0.000070		
Predicted MQL:	0.000233		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00011	.000	1
S1	.00600	.00619	.000	3.11	.02123	.000	1
S3	.12500	.12172	-.003	-2.62	.41689	.003	1
S4	.25000	.25353	.004	1.41	.86835	.002	1
S5	.50000	.50161	.002	.323	1.7179	.016	1
S2	.04000	.03795	-.002	-5.13	.13002	.001	1

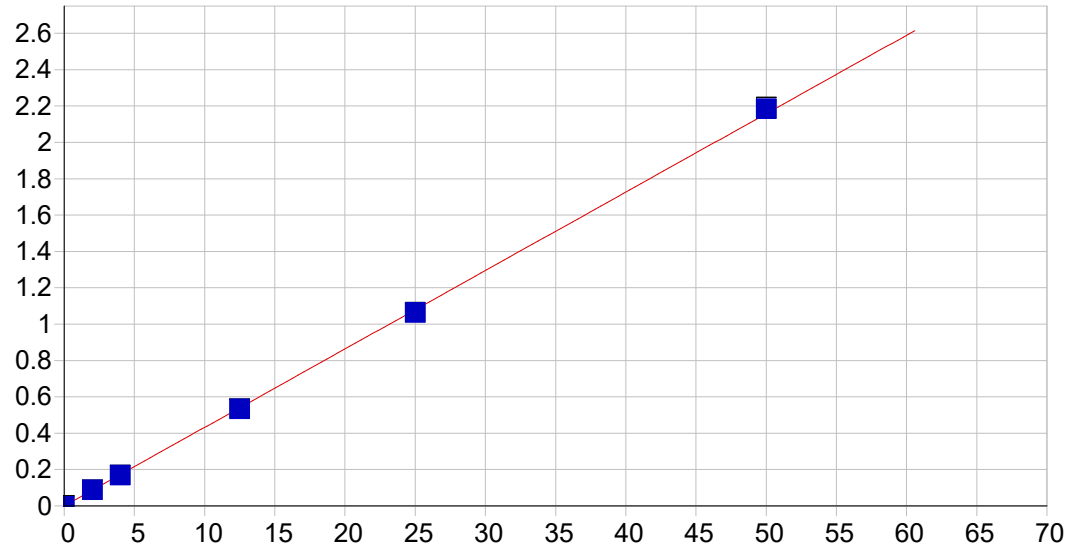


Cd 226.502 {449}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000558	Re-Slope:	1.000000
A1 (Gain):	1.635578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.000118		
Predicted MQL:	0.000394		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00056	.000	1
S1	.00600	.00620	.000	3.34	.01075	.000	1
S3	1.2500	1.2588	.009	.704	2.0612	.002	1
S4	2.5000	2.5058	.006	.234	4.1027	.011	1
S5	5.0000	4.9825	-.018	-.351	8.1570	.015	1
S2	.40000	.40269	.003	.673	.65977	.001	1

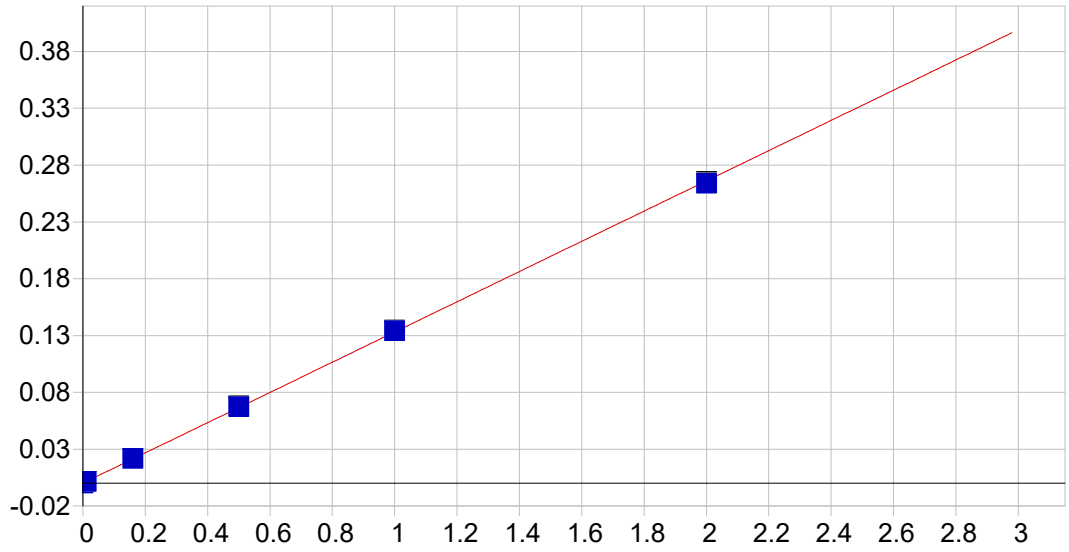


Ca 373.690 { 90}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000538	Re-Slope:	1.000000
A1 (Gain):	0.043149	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.000316		
Predicted MDL:	0.012960		
Predicted MQL:	0.043201		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00054	.000	1
S2	4.0000	3.8944	-.106	-2.64	.16858	.001	1
S3	12.500	12.357	-.143	-1.14	.53374	.001	1
S4	25.000	24.619	-.381	-1.53	1.0628	.003	1
S5	50.000	50.611	.611	1.22	2.1843	.010	1
S1	2.0000	2.0191	.019	.954	.08766	.000	1

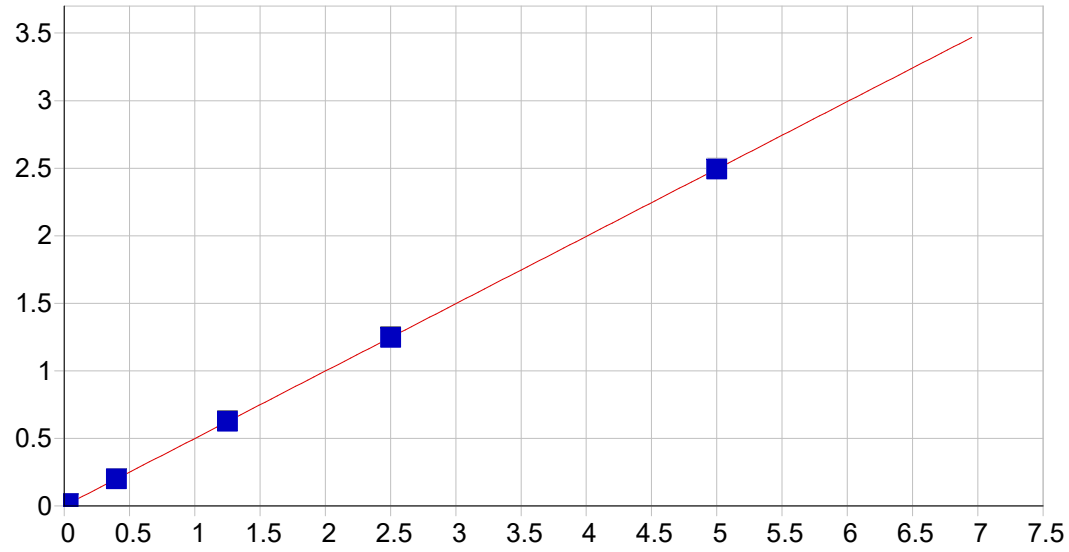


Cr 267.716 {126}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000053	Re-Slope:	1.000000
A1 (Gain):	0.133040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.000506		
Predicted MQL:	0.001686		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00005	.000	1
S1	.01000	.00999	-.000	-.055	.00138	.000	1
S3	.50000	.50611	.006	1.22	.06741	.000	1
S4	1.0000	1.0073	.007	.729	.13410	.001	1
S5	2.0000	1.9839	-.016	-.807	.26406	.001	1
S2	.16000	.16274	.003	1.71	.02171	.000	1

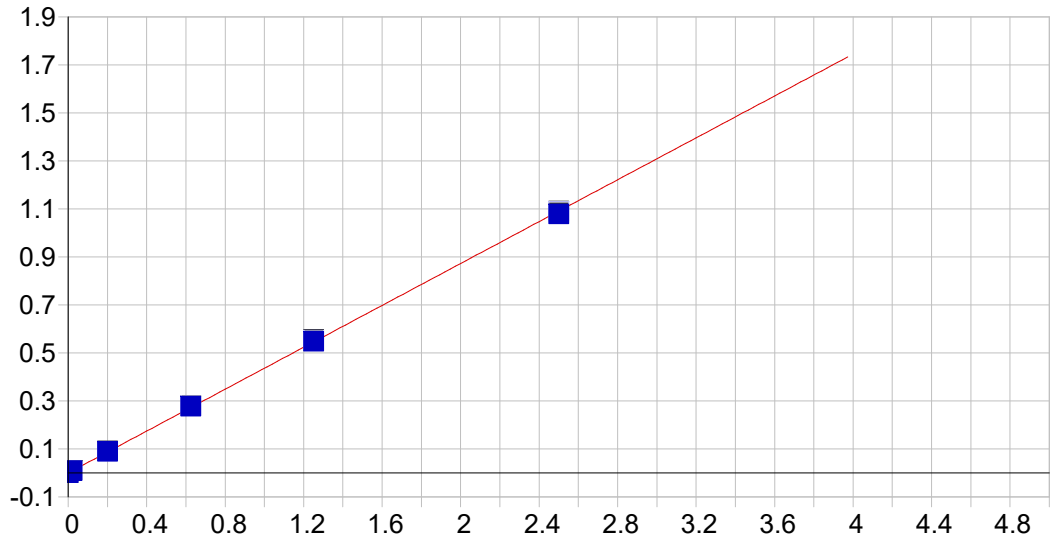


Co 228.616 {448}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000310	Re-Slope:	1.000000
A1 (Gain):	0.498739	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.000386		
Predicted MQL:	0.001286		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00031	.000	1
S1	.03000	.03053	.001	1.76	.01547	.000	1
S3	1.2500	1.2553	.005	.420	.62741	.001	1
S4	2.5000	2.4969	-.003	-.123	1.2477	.004	1
S5	5.0000	4.9966	-.003	-.068	2.4965	.003	1
S2	.40000	.40071	.001	.177	.20050	.000	1

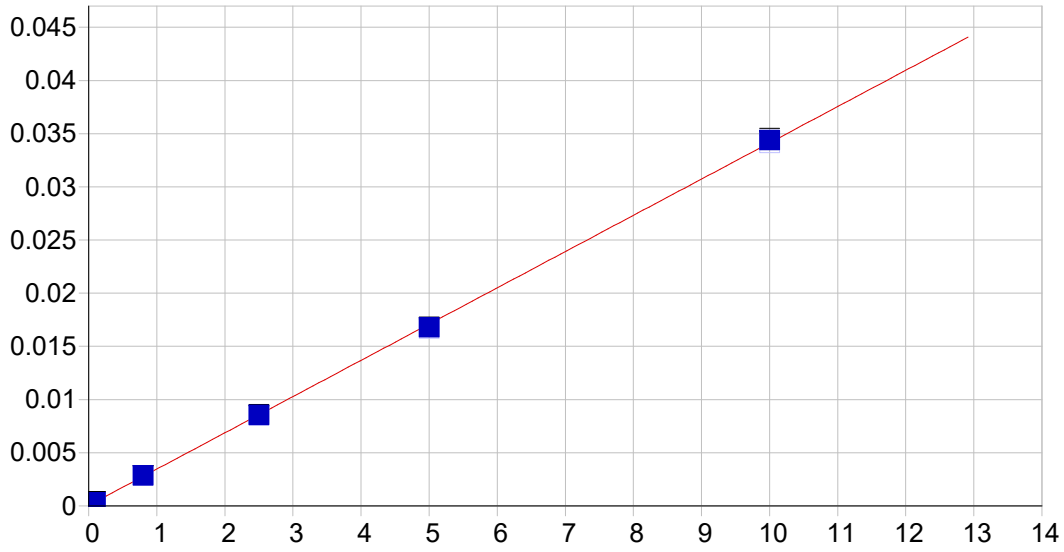


Cu 224.700 {450}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000184	Re-Slope:	1.000000
A1 (Gain):	0.436322	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000077		
Predicted MDL:	0.000601		
Predicted MQL:	0.002004		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00019	.000	1
S1	.02000	.02235	.002	11.7	.00968	.000	1
S3	.62500	.63721	.012	1.95	.28057	.000	1
S4	1.2500	1.2565	.006	.520	.55349	.002	1
S5	2.5000	2.4727	-.027	-1.09	1.0896	.001	1
S2	.20000	.20621	.006	3.11	.09066	.000	1

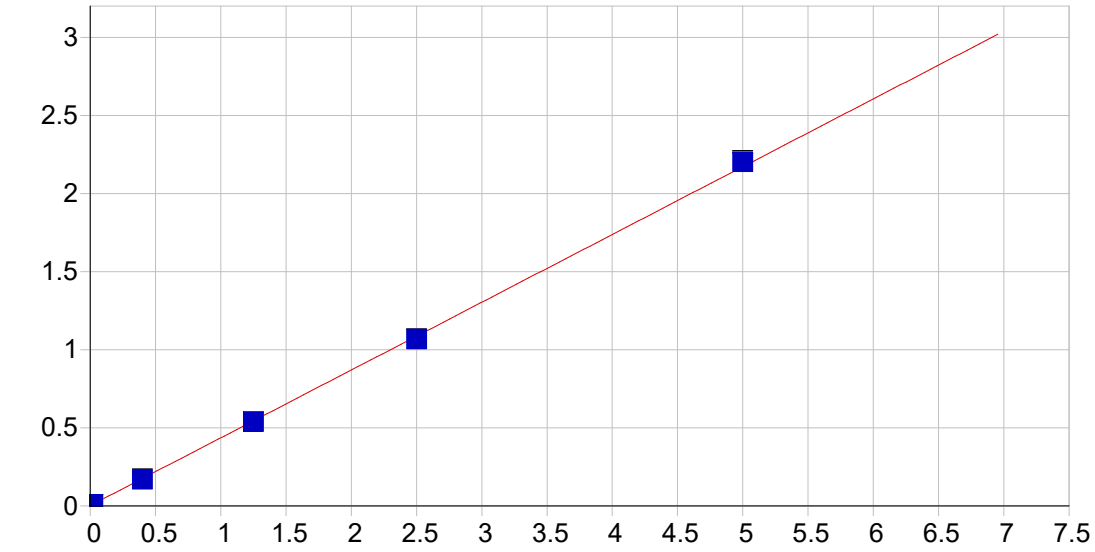


Fe 240.488 {140}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000051	Re-Slope:	1.000000
A1 (Gain):	0.003409	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.006559		
Predicted MQL:	0.021863		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00005	.000	1
S1	.10000	.09531	-.005	-4.69	.00037	.000	1
S3	2.5000	2.4958	-.004	-.169	.00849	.000	1
S4	5.0000	4.9140	-.086	-1.72	.01666	.000	1
S5	10.000	10.076	.076	.756	.03411	.000	1
S2	.80000	.81927	.019	2.41	.00282	.000	1

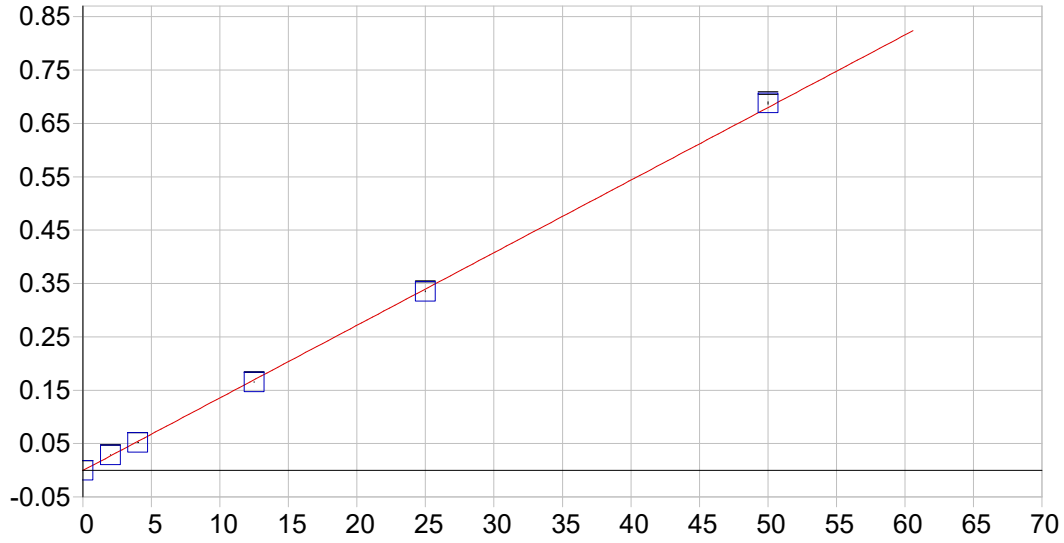


Mn 257.610 {131}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001969	Re-Slope:	1.000000
A1 (Gain):	0.433916	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999876	Status:	OK.
Std Error of Est:	0.000113		
Predicted MDL:	0.000481		
Predicted MQL:	0.001603		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00197	.000	1
S1	.02000	.02036	.000	1.79	.01081	.000	1
S3	1.2500	1.2350	-.015	-1.20	.53797	.002	1
S4	2.5000	2.4555	-.044	-1.78	1.0677	.001	1
S5	5.0000	5.0703	.070	1.41	2.2025	.007	1
S2	.40000	.38878	-.011	-2.80	.17070	.001	1

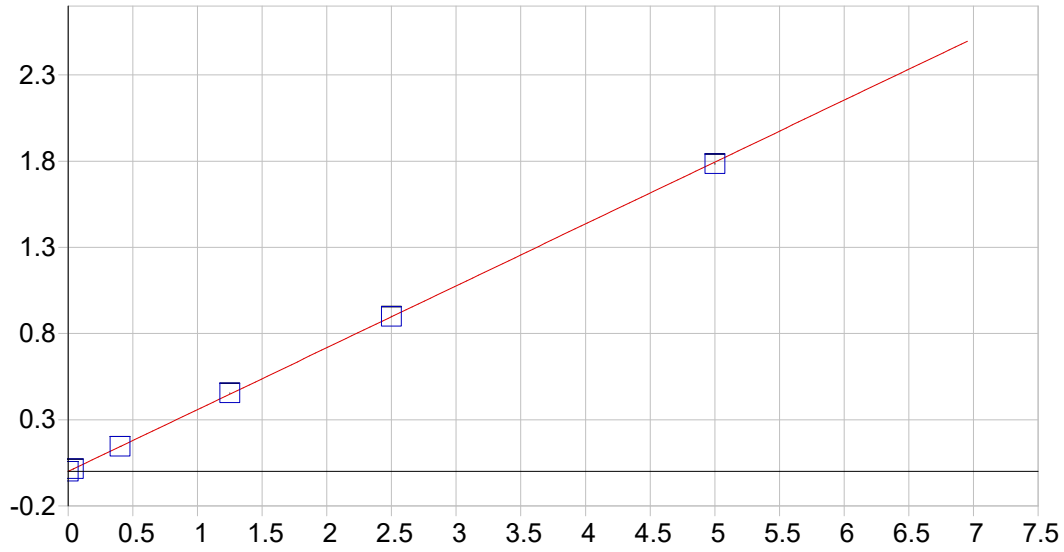


Mg 279.079 {121}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000465	Re-Slope:	1.000000
A1 (Gain):	0.013604	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999804	Status:	OK.
Std Error of Est:	0.000143		
Predicted MDL:	0.017739		
Predicted MQL:	0.059131		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	-.00046	.000	1
S2	4.0000	3.8631	-.137	-3.42	.05209	.000	1
S3	12.500	12.177	-.323	-2.59	.16518	.000	1
S4	25.000	24.671	-.329	-1.31	.33515	.001	1
S5	50.000	50.640	.640	1.28	.68841	.002	1
S1	2.0000	2.1491	.149	7.45	.02877	.000	1

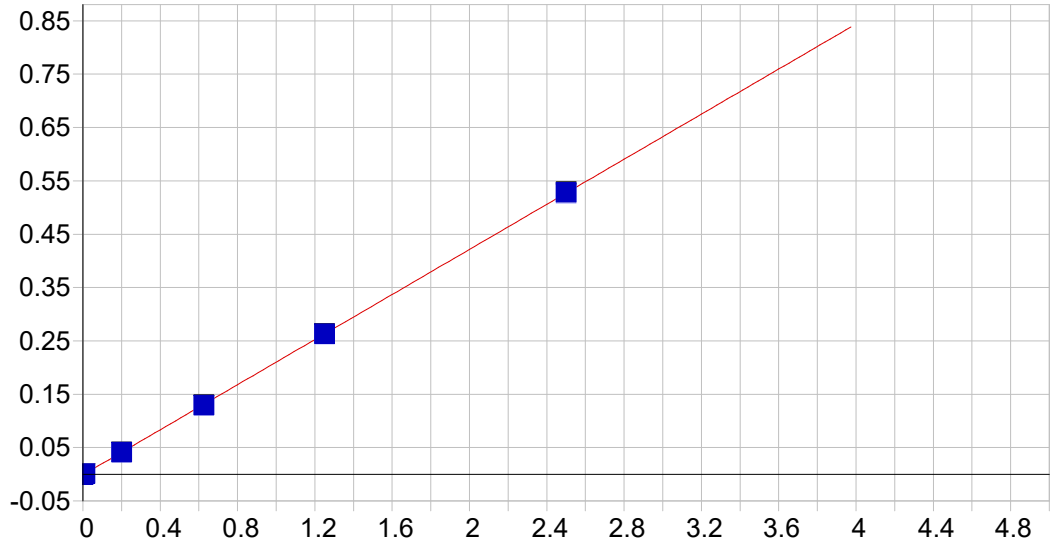


Ni 231.604 {446}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000284	Re-Slope:	1.000000
A1 (Gain):	0.359030	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.000488		
Predicted MQL:	0.001626		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00029	.000	1
S1	.04000	.04137	.001	3.44	.01457	.000	1
S3	1.2500	1.2673	.017	1.38	.45470	.001	1
S4	2.5000	2.5048	.005	.191	.89900	.002	1
S5	5.0000	4.9717	-.028	-.566	1.7847	.002	1
S2	.40000	.40489	.005	1.22	.14508	.001	1

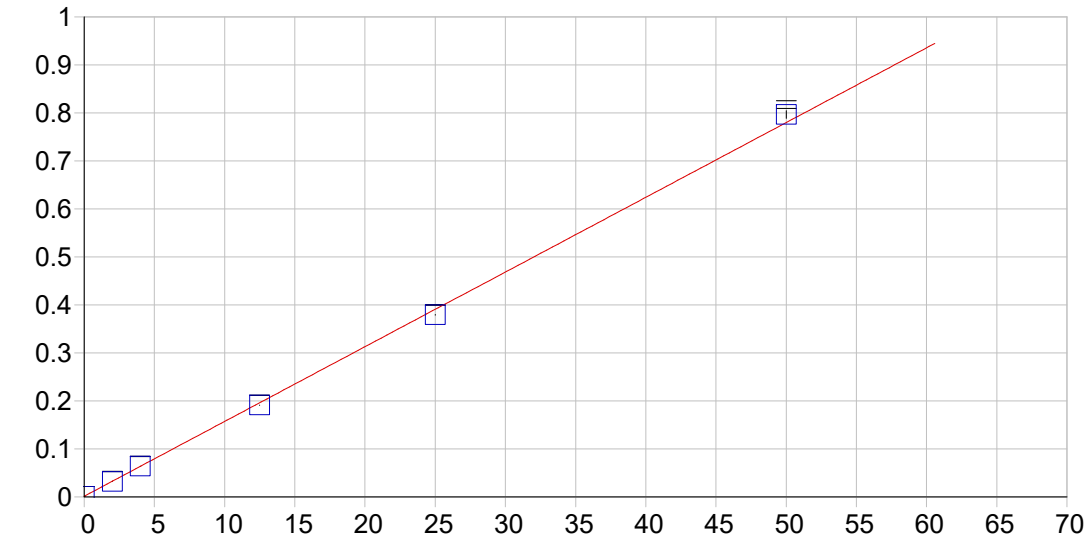


Ag 328.068 {103}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001189	Re-Slope:	1.000000
A1 (Gain):	0.211315	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.000453		
Predicted MQL:	0.001510		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00119	.000	1
S1	.01000	.01038	.000	3.76	.00099	.000	1
S3	.62500	.61822	-.007	-1.09	.12893	.000	1
S4	1.2500	1.2507	.001	.059	.26206	.000	1
S5	2.5000	2.5046	.005	.182	.52597	.001	1
S2	.20000	.20112	.001	.558	.04114	.000	1

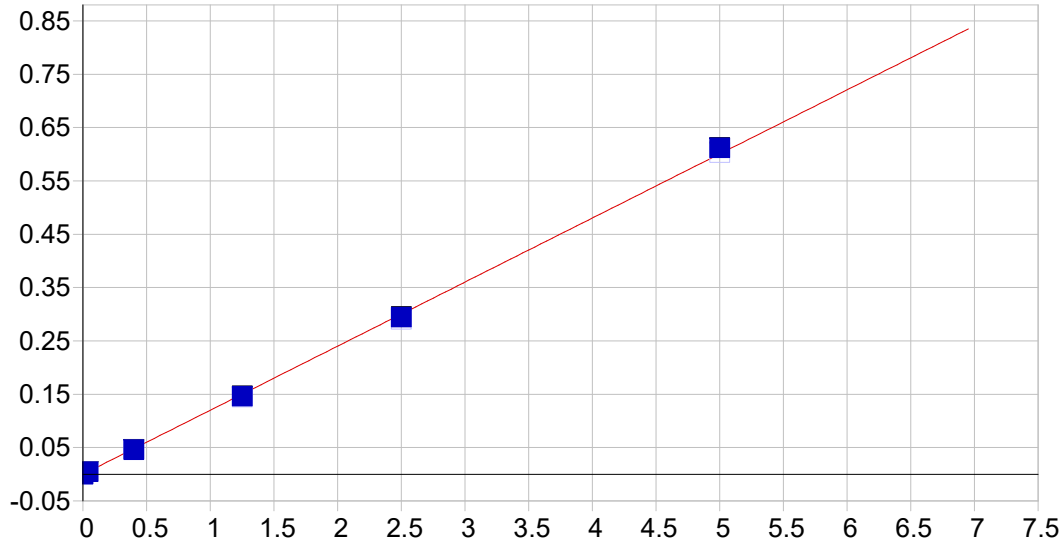


Na 589.592 { 57}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001458	Re-Slope:	1.000000
A1 (Gain):	0.015569	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999717	Status:	OK.
Std Error of Est:	0.000196		
Predicted MDL:	0.012982		
Predicted MQL:	0.043274		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	.00146	.000	1
S2	4.0000	4.0062	.006	.156	.06383	.000	1
S3	12.500	12.191	-.309	-2.48	.19125	.000	1
S4	25.000	24.263	-.737	-2.95	.37921	.000	1
S5	50.000	51.072	1.07	2.14	.79660	.008	1
S1	2.0000	1.9686	-.031	-1.57	.03211	.000	1

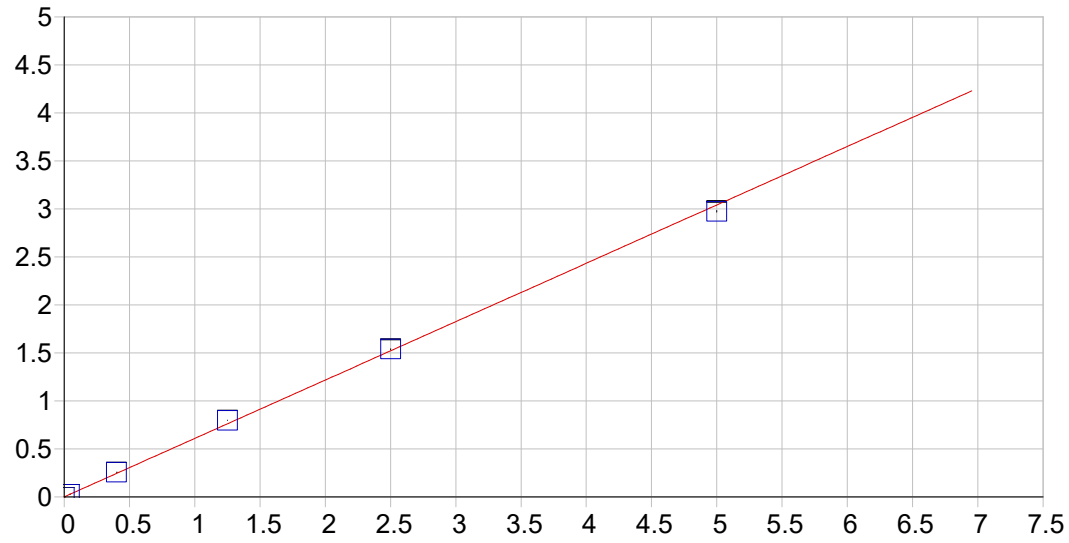


V 292.402 {115}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000090	Re-Slope:	1.000000
A1 (Gain):	0.120132	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000059		
Predicted MDL:	0.002113		
Predicted MQL:	0.007043		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00009	.000	1
S1	.04000	.04064	.001	1.61	.00461	.000	1
S3	1.2500	1.2186	-.031	-2.51	.14412	.000	1
S4	2.5000	2.4515	-.048	-1.94	.29004	.001	1
S5	5.0000	5.0935	.093	1.87	.60304	.001	1
S2	.40000	.38571	-.014	-3.57	.04554	.000	1

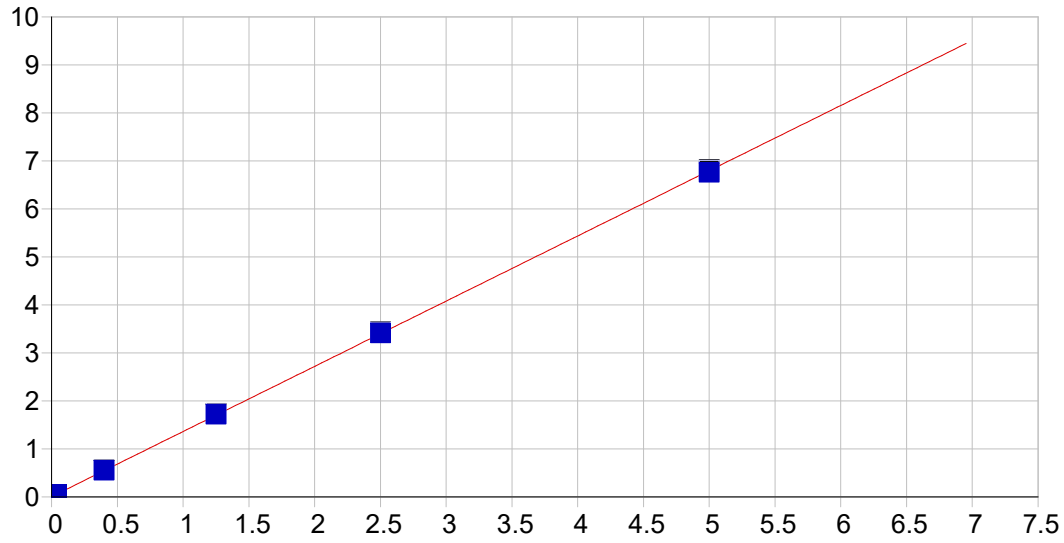


Zn 206.200 {464}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001123	Re-Slope:	1.000000
A1 (Gain):	0.608113	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999630	Status:	OK.
Std Error of Est:	0.000388		
Predicted MDL:	0.000278		
Predicted MQL:	0.000926		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00112	.000	1
S1	.04000	.04369	.004	9.23	.02769	.000	1
S3	1.2500	1.3101	.060	4.80	.79778	.003	1
S4	2.5000	2.5280	.028	1.12	1.5384	.005	1
S5	5.0000	4.8899	-.110	-2.20	2.9747	.010	1
S2	.40000	.41836	.018	4.59	.25553	.000	1

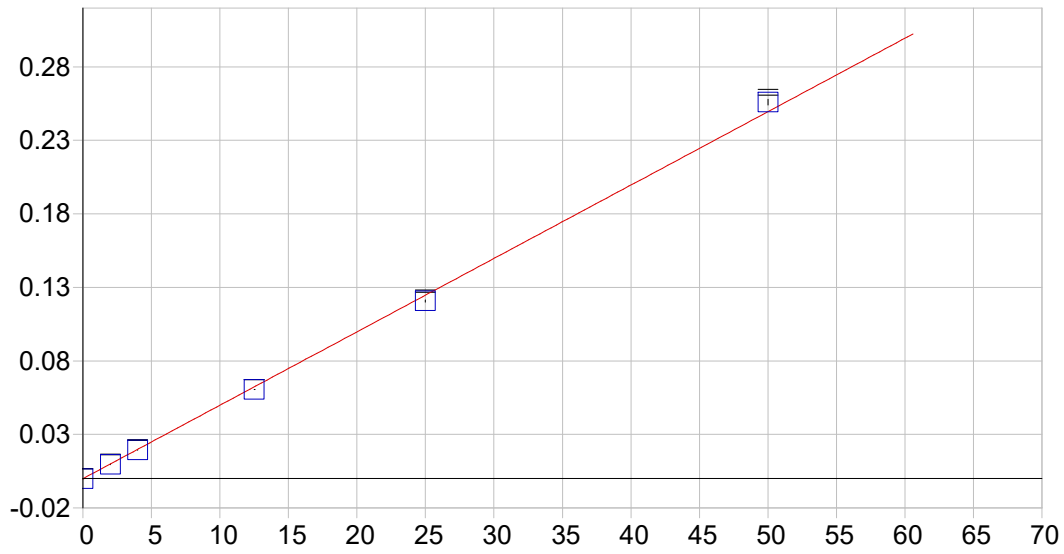


Zn 213.856 {158}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003373	Re-Slope:	1.000000
A1 (Gain):	1.358539	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.000255		
Predicted MDL:	0.000428		
Predicted MQL:	0.001425		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00337	.000	1
S1	.04000	.04277	.003	6.93	.06186	.001	1
S3	1.2500	1.2633	.013	1.06	1.7314	.007	1
S4	2.5000	2.5077	.008	.309	3.4338	.008	1
S5	5.0000	4.9712	-.029	-.576	6.8042	.015	1
S2	.40000	.40500	.005	1.25	.55736	.002	1

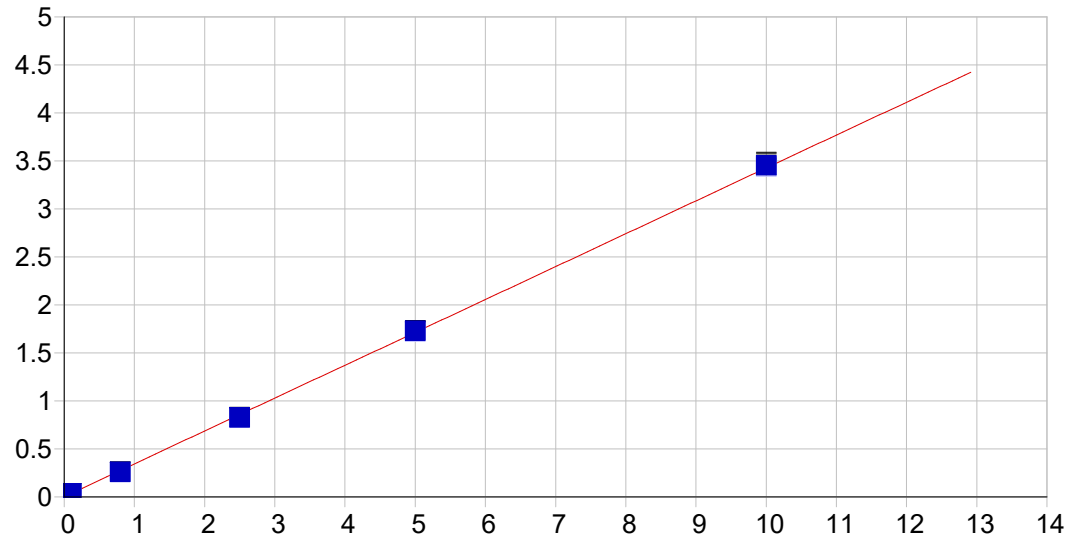


K 766.490 { 44}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000106	Re-Slope:	1.000000
A1 (Gain):	0.004993	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999612	Status:	OK.
Std Error of Est:	0.000074		
Predicted MDL:	0.042916		
Predicted MQL:	0.143054		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	-.00011	.000	1
S2	4.0000	3.9007	-.099	-2.48	.01937	.000	1
S3	12.500	12.139	-.361	-2.89	.06050	.000	1
S4	25.000	24.209	-.791	-3.16	.12076	.001	1
S5	50.000	51.297	1.30	2.59	.25600	.002	1
S1	2.0000	1.9538	-.046	-2.31	.00965	.000	1

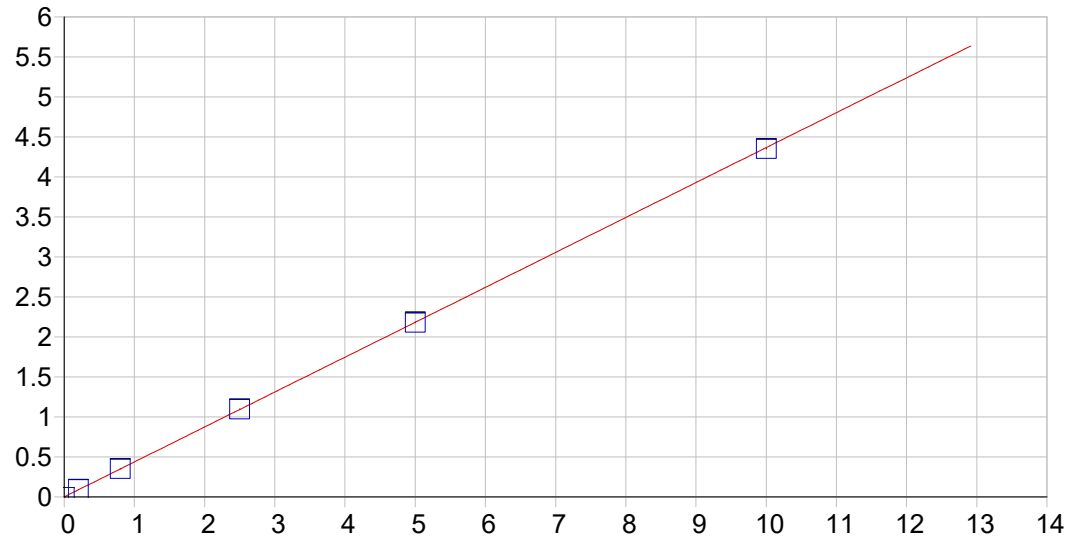


B 249.678 {135}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001719	Re-Slope:	1.000000
A1 (Gain):	0.342428	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999787	Status:	OK.
Std Error of Est:	0.000370		
Predicted MDL:	0.000886		
Predicted MQL:	0.002955		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00172	.000	1
S1	.10000	.10746	.007	7.46	.03828	.001	1
S3	2.5000	2.4114	-.089	-3.54	.82348	.003	1
S4	5.0000	5.0453	.045	.906	1.7214	.003	1
S5	10.000	10.084	.084	.845	3.4390	.030	1
S2	.80000	.75139	-.049	-6.08	.25774	.000	1

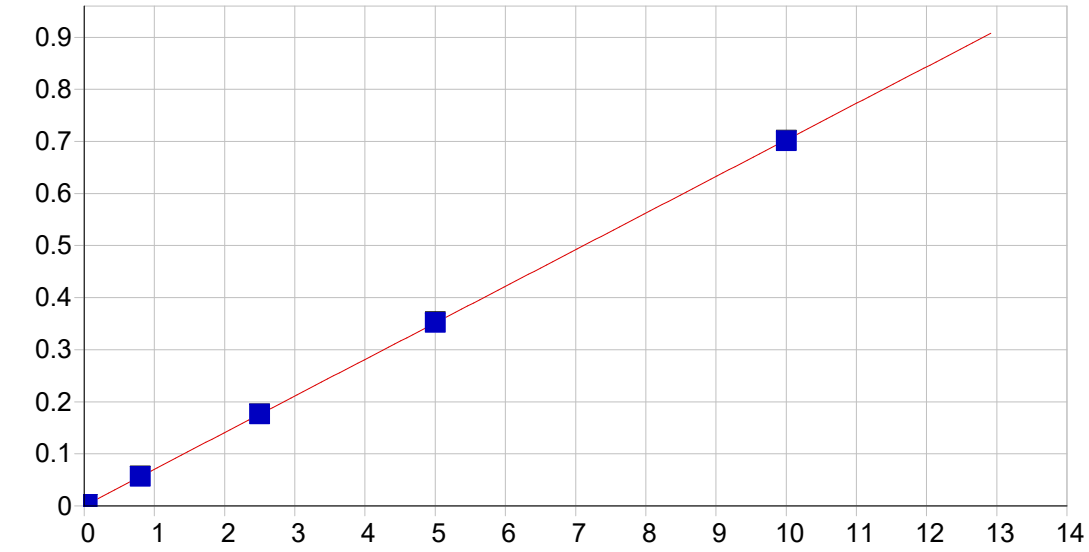


Mo 202.030 {467}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000578	Re-Slope:	1.000000
A1 (Gain):	0.436523	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.000267		
Predicted MDL:	0.000402		
Predicted MQL:	0.001341		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00057	.000	1
S1	.20000	.21446	.014	7.23	.09420	.000	1
S3	2.5000	2.5136	.014	.544	1.0978	.001	1
S4	5.0000	4.9966	-.003	-.069	2.1817	.007	1
S5	10.000	9.9699	-.030	-.301	4.3527	.004	1
S2	.80000	.80552	.006	.690	.35221	.001	1

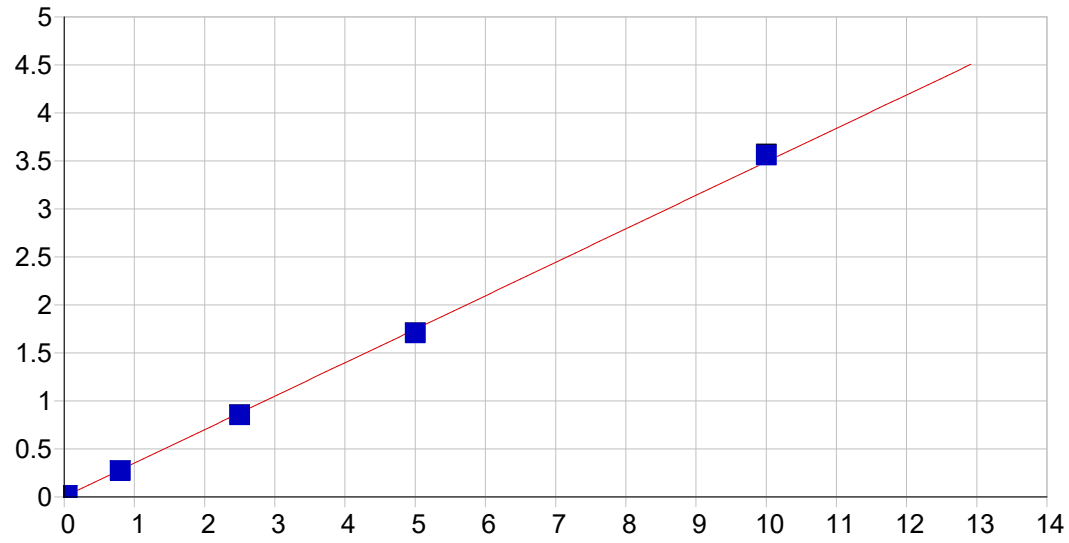


Sn 189.989 {478}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000226	Re-Slope:	1.000000
A1 (Gain):	0.070255	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.001231		
Predicted MQL:	0.004105		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00023	.000	1
S1	.04000	.03959	-.000	-1.02	.00300	.000	1
S3	2.5000	2.5071	.007	.286	.17619	.000	1
S4	5.0000	5.0110	.011	.220	.35192	.001	1
S5	10.000	9.9768	-.023	-.232	.70043	.001	1
S2	.80000	.80550	.006	.688	.05676	.000	1

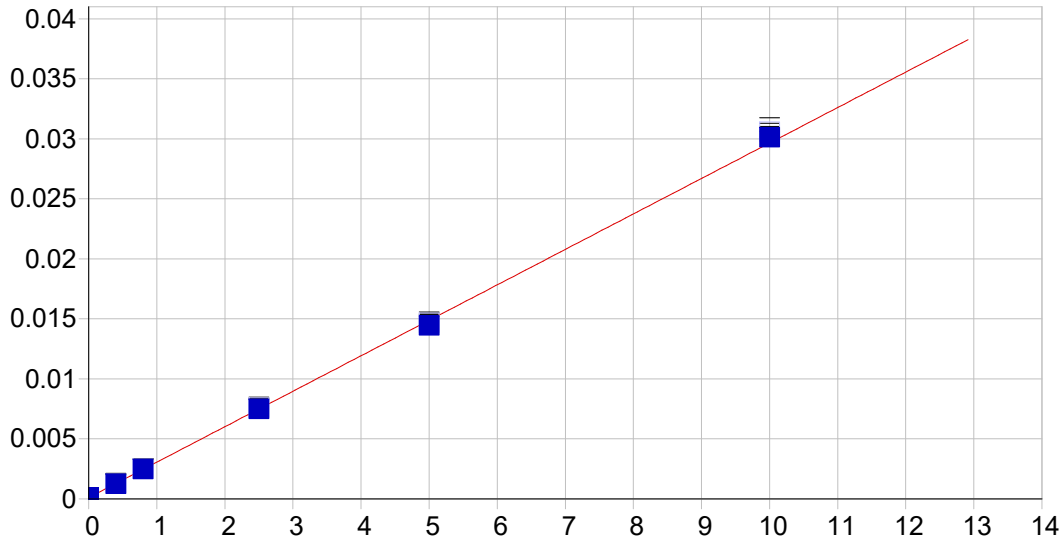


Ti 336.121 {100}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002866	Re-Slope:	1.000000
A1 (Gain):	0.348670	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999756	Status:	OK.
Std Error of Est:	0.000255		
Predicted MDL:	0.001046		
Predicted MQL:	0.003487		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00287	.000	1
S1	.04000	.04044	.000	1.09	.01695	.000	1
S3	2.5000	2.4403	-.060	-2.39	.85342	.003	1
S4	5.0000	4.8871	-.113	-2.26	1.7062	.002	1
S5	10.000	10.200	.200	2.00	3.5580	.011	1
S2	.80000	.77232	-.028	-3.46	.27205	.001	1

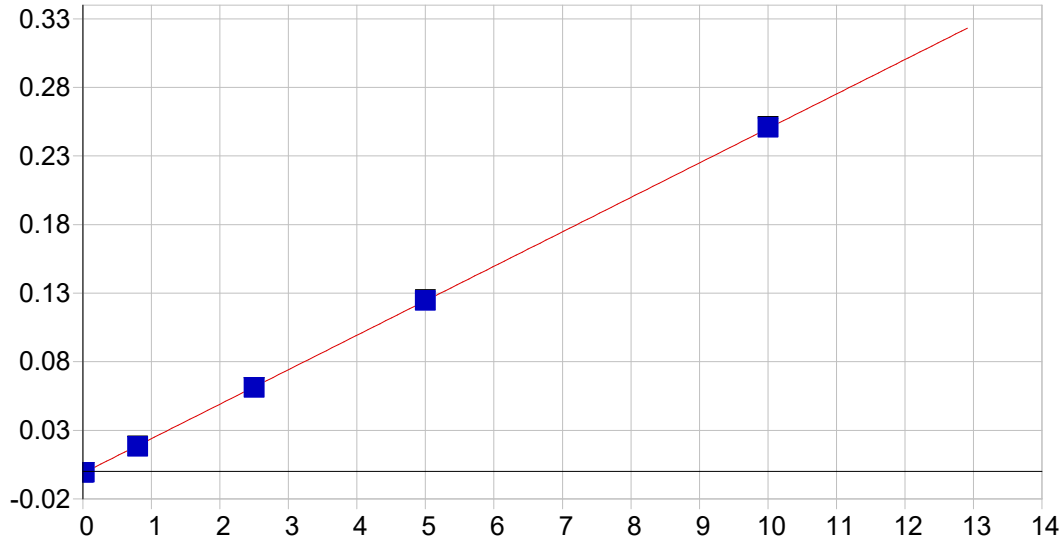


Si 288.158 {117}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000105	Re-Slope:	1.000000
A1 (Gain):	0.002954	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999811	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.013208		
Predicted MQL:	0.044027		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00011	.000	1
S1	.40000	.38790	-.012	-3.03	.00125	.000	1
S3	2.5000	2.4980	-.002	-.080	.00760	.000	1
S4	5.0000	4.8525	-.148	-2.95	.01466	.000	1
S5	10.000	10.160	.160	1.60	.03057	.000	1
S2	.80000	.80119	.001	.149	.00251	.000	1

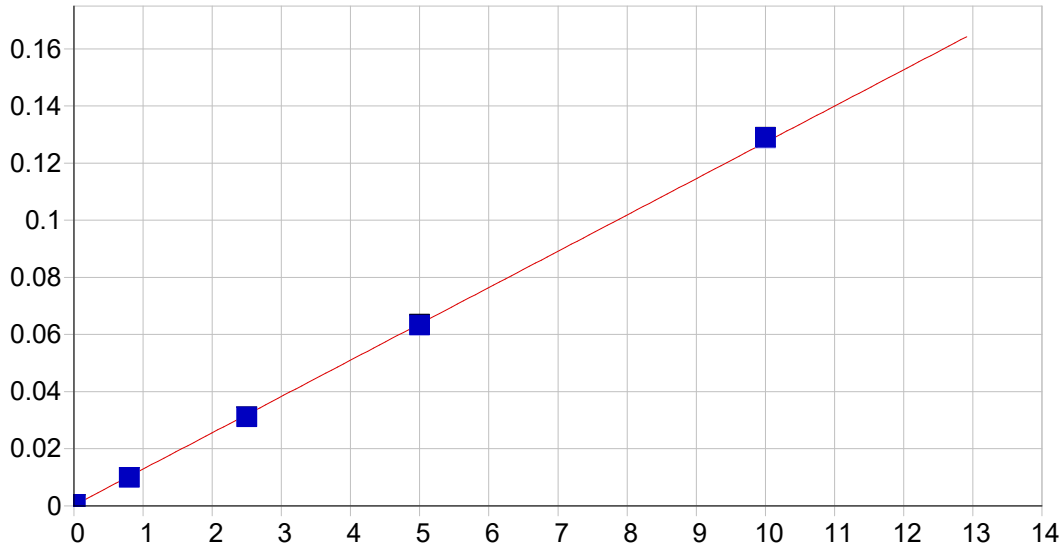


P 177.495 {490}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001187	Re-Slope:	1.000000
A1 (Gain):	0.025125	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.003851		
Predicted MQL:	0.012837		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00119	.000	1
S1	.02000	.02455	.005	22.8	-.00057	.000	1
S3	2.5000	2.4790	-.021	-.840	.06109	.000	1
S4	5.0000	5.0071	.007	.141	.12459	.000	1
S5	10.000	10.036	.036	.363	.25093	.001	1
S2	.80000	.77307	-.027	-3.37	.01823	.000	1

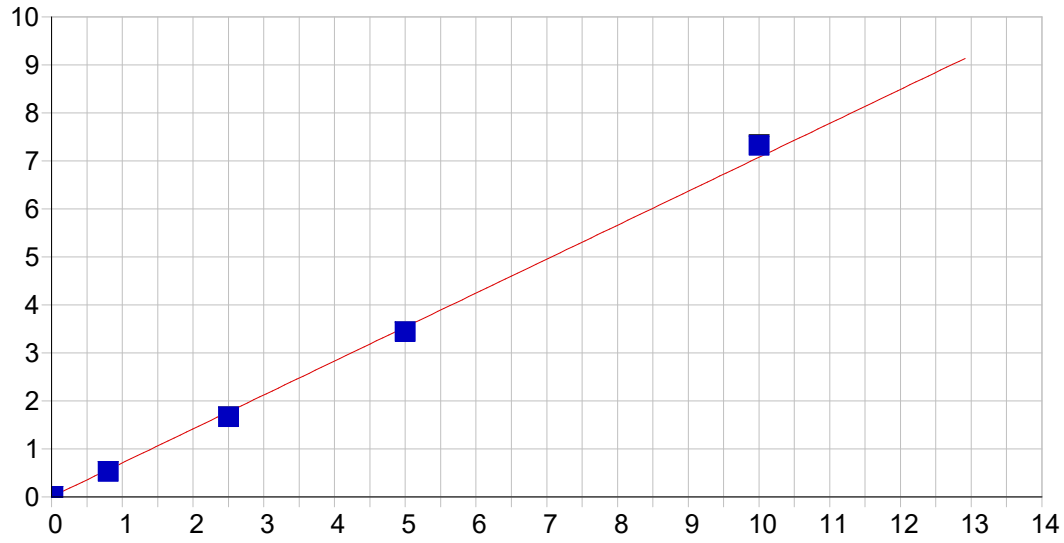


S 182.034 {485}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000191	Re-Slope:	1.000000
A1 (Gain):	0.012708	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.005968		
Predicted MQL:	0.019895		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00019	.000	1
S1	.02000	.01644	-.004	-17.8	.00039	.000	1
S3	2.5000	2.4396	-.060	-2.41	.03111	.000	1
S4	5.0000	4.9674	-.033	-.652	.06315	.000	1
S5	10.000	10.131	.131	1.31	.12860	.000	1
S2	.80000	.76559	-.034	-4.30	.00989	.000	1

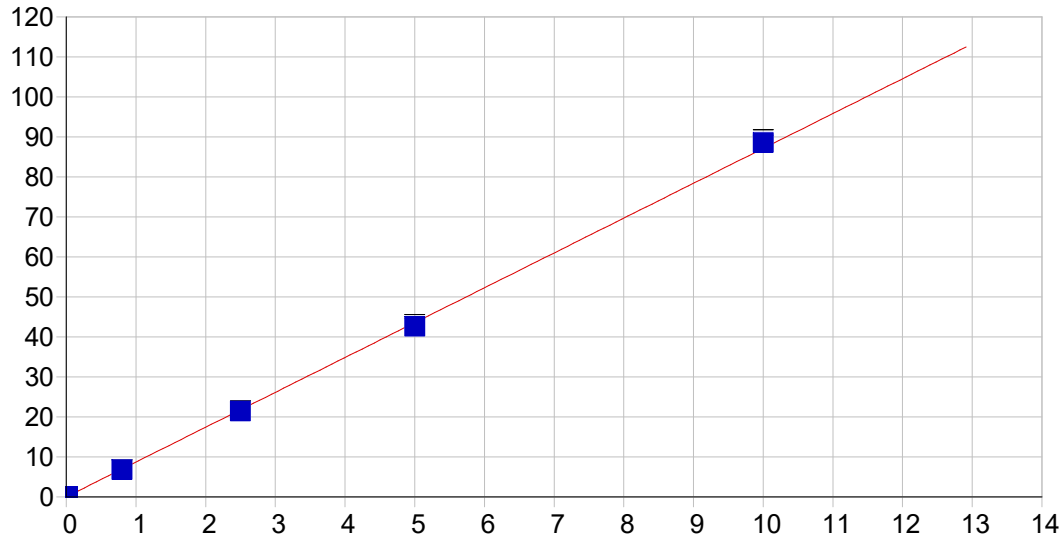


Li 670.784 { 50}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001461	Re-Slope:	1.000000
A1 (Gain):	0.707361	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999215	Status:	OK.
Std Error of Est:	0.000658		
Predicted MDL:	0.001598		
Predicted MQL:	0.005325		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00146	.001	1
S5	10.000	10.347	.347	3.47	7.3242	.015	1
S4	5.0000	4.8566	-.143	-2.87	3.4386	.002	1
S3	2.5000	2.3561	-.144	-5.75	1.6690	.004	1
S1	.02000	.01827	-.002	-8.66	.01461	.001	1
S2	.80000	.74179	-.058	-7.28	.52646	.002	1

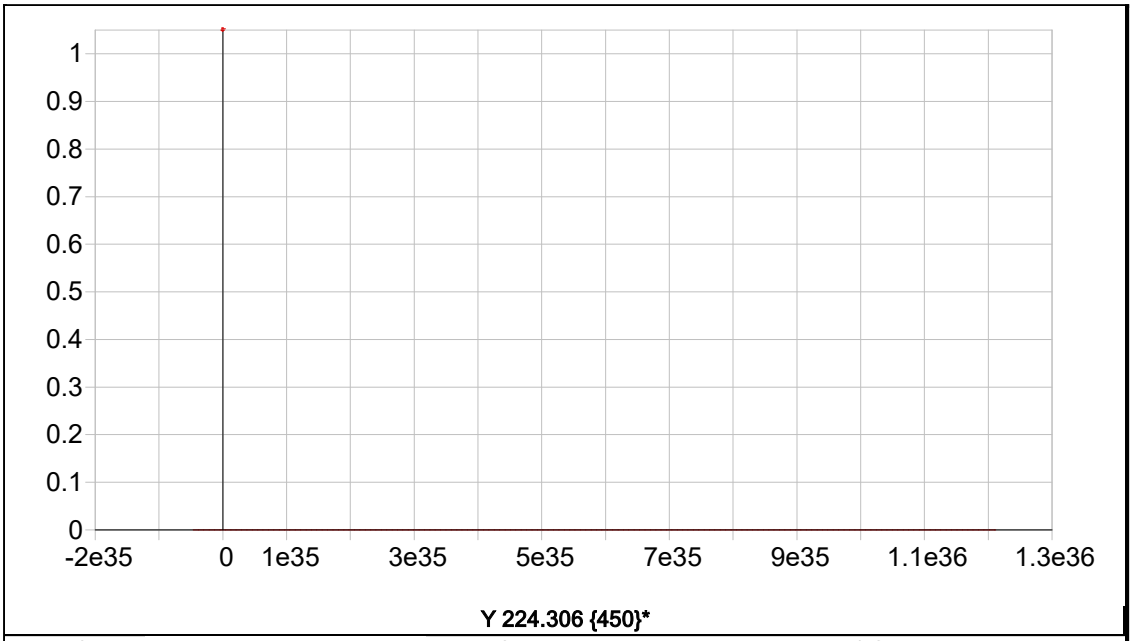


Sr 407.771 { 83}

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002496	Re-Slope:	1.000000
A1 (Gain):	8.711785	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999826	Status:	OK.
Std Error of Est:	0.003817		
Predicted MDL:	0.000088		
Predicted MQL:	0.000293		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00251	.001	1
S1	.02000	.01954	-.000	-2.30	.17356	.001	1
S3	2.5000	2.4592	-.041	-1.63	21.448	.173	1
S4	5.0000	4.8919	-.108	-2.16	42.661	.473	1
S5	10.000	10.170	.170	1.70	88.682	.698	1
S2	.80000	.77973	-.020	-2.53	6.8020	.024	1

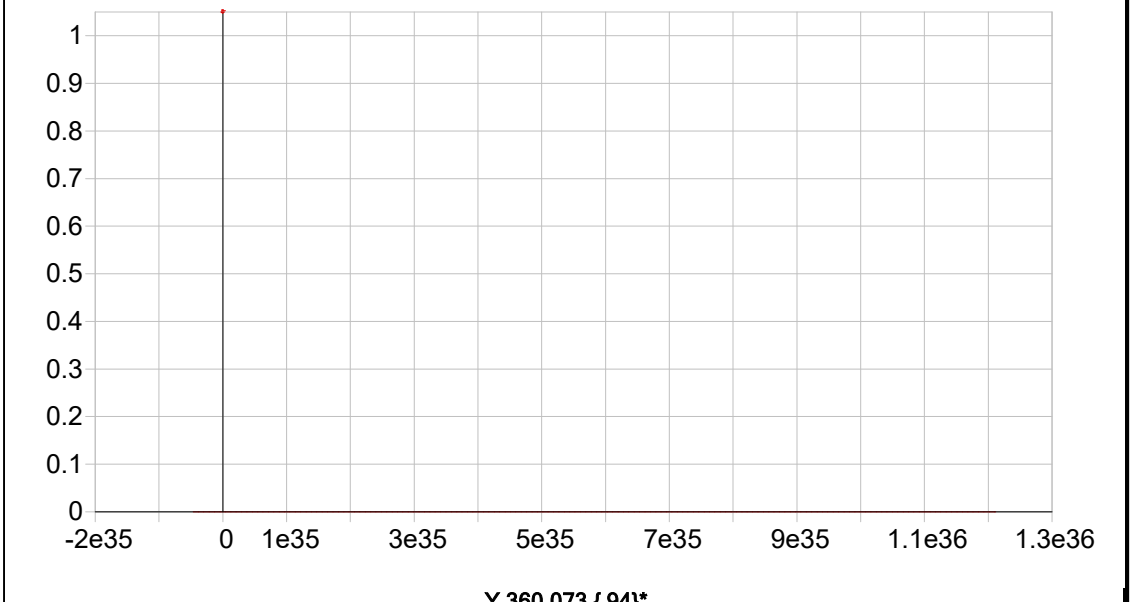


Y 224.306 {450}*

Date of Fit:	5/1/2025 13:00:19	Type of Fit:	Linear	Weighting:	1/Conc

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

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



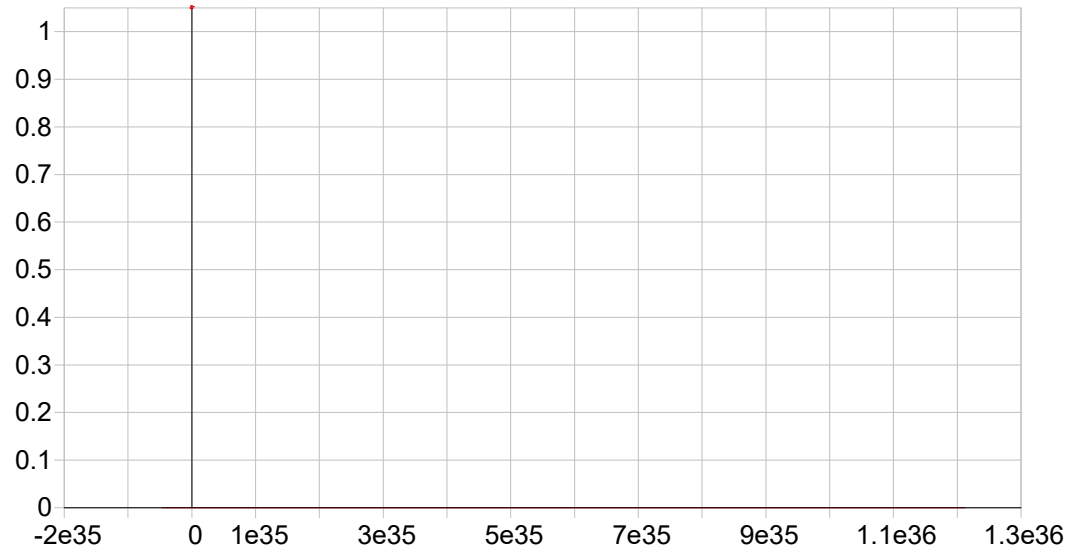
Y 360.073 { 94}*

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

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

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

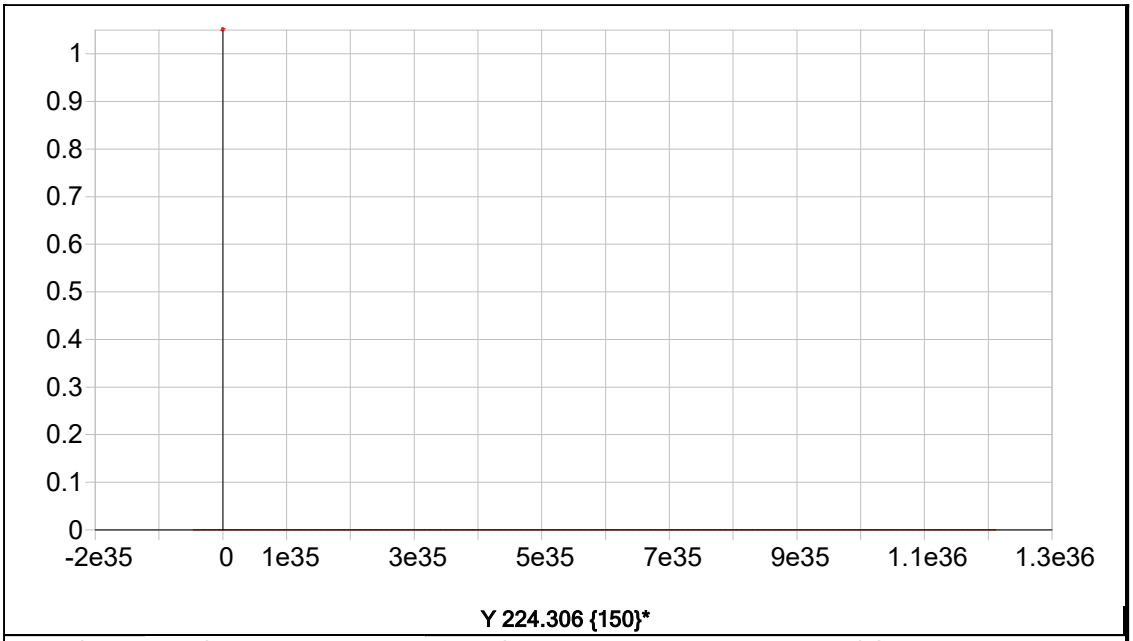
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 371.030 { 91}*

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

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

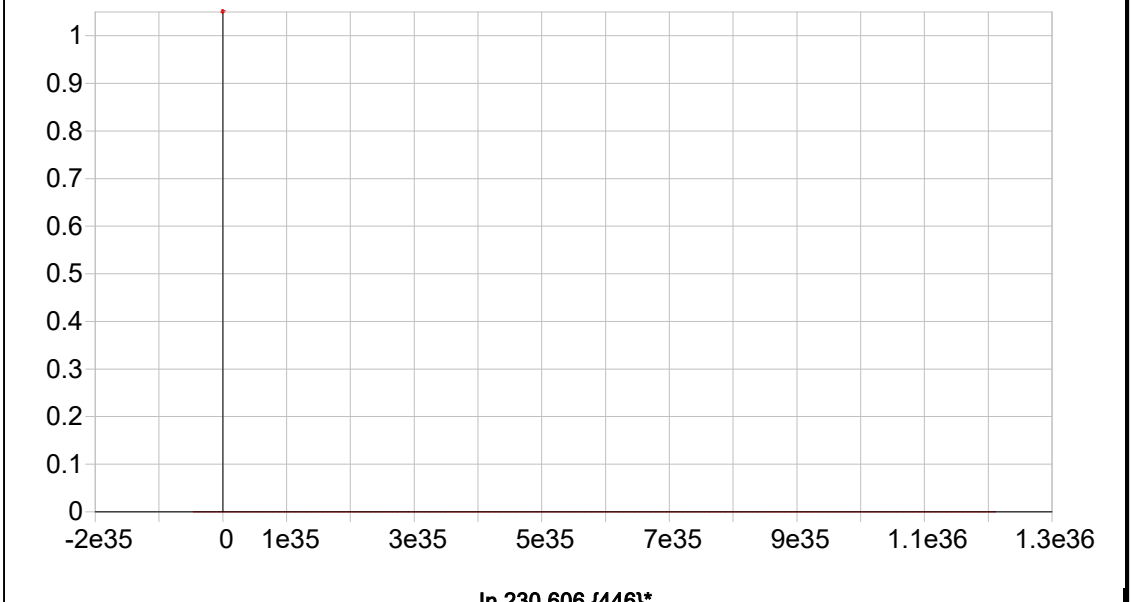


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

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

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

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					
Std. Name	**Stated Conc.**	**Found Conc.**	**Difference**	**% Diff.**	**(S)IR**	**Std Dev**	**Emphasis**

Sample Name: S0 Acquired: 5/1/2025 12:27:34 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.00006	-.00007	-.00014	.00022	.00067	.00035	.06304	.00011
Stddev	.00007	.00007	.00008	.00010	.00016	.00051	.00053	.00039
%RSD	133.67	103.20	58.474	46.313	23.473	144.73	.84052	357.86
#1	-.00012	-.00014	-.00015	.00032	.00050	.00088	.06330	-.00029
#2	-.00007	-.00006	-.00005	.00013	.00069	.00031	.06244	.00050
#3	.00003	.00000	-.00021	.00020	.00082	-.00014	.06340	.00012

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	.00056	.00054	.00005	.00031	-.00019	.00005	.00197	-.00046
Stddev	.00020	.00041	.00009	.00012	.00010	.00002	.00021	.00017
%RSD	35.171	76.127	175.66	39.886	52.964	42.583	10.805	37.303
#1	.00078	.00061	.00009	.00026	-.00018	.00006	.00217	-.00039
#2	.00042	.00091	.00012	.00022	-.00009	.00003	.00175	-.00034
#3	.00047	.00010	-.00005	.00045	-.00028	.00007	.00199	-.00066

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	-.00029	-.00119	.00146	-.00009	.00337	-.00011	.00172	.00057
Stddev	.00003	.00001	.00006	.00013	.00035	.00016	.00020	.00003
%RSD	12.066	.73750	4.3104	141.17	10.475	153.57	11.793	4.5147
#1	-.00032	-.00118	.00144	-.00021	.00374	-.00029	.00150	.00055
#2	-.00027	-.00120	.00141	-.00011	.00304	-.00002	.00176	.00060
#3	-.00026	-.00119	.00153	.00005	.00333	-.00000	.00190	.00056

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00023	.00287	.00011	-.00119	.00019	.00146	.00251
Stddev	.00004	.00014	.00003	.00004	.00001	.00109	.00113
%RSD	17.614	4.8373	27.613	3.4015	5.3308	74.238	44.995
#1	.00024	.00272	.00010	-.00114	.00019	.00267	.00143
#2	.00025	.00300	.00008	-.00121	.00019	.00117	.00241
#3	.00018	.00288	.00013	-.00121	.00020	.00056	.00368

Sample Name: S0 Acquired: 5/1/2025 12:27:34 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3219.5	73115.	10711.	3018.6	4938.8
Stddev	8.6	82.	16.	15.0	7.9
%RSD	.26635	.11208	.14816	.49710	.15934
#1	3228.0	73147.	10720.	3006.2	4944.5
#2	3219.4	73022.	10719.	3035.3	4942.1
#3	3210.9	73176.	10692.	3014.3	4929.9

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S1 Acquired: 5/1/2025 12:31:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.00069	.00190	.00132	.00104	.00532	.00673	.24807	.02123
Stddev	.00007	.00005	.00025	.00003	.00012	.00013	.00102	.00036
%RSD	10.100	2.6886	19.323	3.0417	2.3128	1.9708	.41289	1.6942
#1	.00075	.00191	.00146	.00107	.00545	.00678	.24890	.02140
#2	.00071	.00184	.00102	.00101	.00532	.00658	.24840	.02082
#3	.00062	.00194	.00147	.00105	.00520	.00684	.24693	.02149

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	.01075	.08766	.00138	.01547	.00968	.00037	.01081	.02877
Stddev	.00005	.00034	.00007	.00025	.00020	.00003	.00007	.00014
%RSD	.46432	.38269	4.8028	1.6198	2.0567	9.3979	.64168	.49669
#1	.01073	.08755	.00144	.01554	.00976	.00041	.01089	.02864
#2	.01071	.08739	.00140	.01568	.00946	.00036	.01077	.02892
#3	.01081	.08804	.00131	.01519	.00984	.00035	.01077	.02875

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	.01457	.00099	.03211	.00461	.06186	.00965	.03828	.09420
Stddev	.00015	.00009	.00031	.00022	.00089	.00018	.00059	.00044
%RSD	1.0252	9.5799	.97247	4.7686	1.4423	1.8644	1.5515	.46294
#1	.01463	.00110	.03189	.00465	.06264	.00962	.03880	.09375
#2	.01468	.00093	.03246	.00481	.06206	.00984	.03763	.09462
#3	.01440	.00094	.03197	.00438	.06089	.00948	.03840	.09421

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	.00300	.01695	.00125	-.00057	.00039	.01461	.17356
Stddev	.00002	.00017	.00004	.00005	.00001	.00066	.00074
%RSD	.53769	1.0027	3.3041	9.3732	3.0084	4.5137	.42584
#1	.00302	.01686	.00122	-.00057	.00039	.01396	.17280
#2	.00300	.01685	.00130	-.00052	.00038	.01528	.17428
#3	.00299	.01715	.00125	-.00062	.00040	.01459	.17361

Sample Name: S1 Acquired: 5/1/2025 12:31:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3223.6	72084.	10533.	3005.7	4963.0
Stddev	3.6	93.	68.	21.2	8.3
%RSD	.11035	.12894	.64689	.70483	.16635
#1	3227.5	72192.	10482.	3002.5	4963.2
#2	3220.5	72034.	10610.	2986.3	4954.6
#3	3222.7	72028.	10507.	3028.3	4971.1

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S2 Acquired: 5/1/2025 12:36:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.02640	.03932	.11181	.02922	.07288	.09212	3.0289	.13002
Stddev	.00017	.00022	.00010	.00029	.00039	.00067	.0099	.00050
%RSD	.63617	.55799	.08636	.97959	.53887	.72890	.32551	.38684
#1	.02645	.03954	.11170	.02949	.07327	.09280	3.0394	.13000
#2	.02621	.03910	.11187	.02892	.07289	.09212	3.0276	.12953
#3	.02654	.03931	.11187	.02924	.07248	.09146	3.0198	.13053

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	.65977	.16858	.02171	.20050	.09066	.00282	.17070	.05209
Stddev	.00099	.00051	.00005	.00046	.00019	.00000	.00092	.00004
%RSD	.14937	.30408	.25263	.23184	.21337	.13772	.53936	.08329
#1	.66089	.16906	.02167	.20102	.09088	.00282	.17177	.05209
#2	.65904	.16804	.02168	.20035	.09056	.00282	.17017	.05204
#3	.65936	.16864	.02177	.20013	.09054	.00282	.17017	.05213

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	.14508	.04114	.06383	.04554	.55736	.01937	.25774	.35221
Stddev	.00056	.00010	.00035	.00040	.00219	.00014	.00044	.00108
%RSD	.38375	.25141	.54565	.87610	.39272	.73280	.17014	.30739
#1	.14520	.04121	.06344	.04599	.55911	.01952	.25820	.35343
#2	.14448	.04119	.06397	.04542	.55806	.01936	.25733	.35138
#3	.14557	.04102	.06409	.04522	.55490	.01923	.25770	.35181

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	.05676	.27205	.00251	.01823	.00989	.52646	6.8020
Stddev	.00024	.00065	.00001	.00016	.00003	.00215	.0238
%RSD	.42346	.23834	.53476	.90170	.28995	.40867	.35019
#1	.05701	.27274	.00250	.01835	.00991	.52872	6.8289
#2	.05674	.27146	.00250	.01805	.00986	.52443	6.7933
#3	.05653	.27195	.00252	.01830	.00991	.52623	6.7838

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S2 Acquired: 5/1/2025 12:36:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3145.0	71426.	10850.	2970.1	4784.6
Stddev	9.6	149.	45.	7.2	12.1
%RSD	.30668	.20813	.41229	.24074	.25283
#1	3133.9	71343.	10803.	2964.2	4770.7
#2	3151.6	71598.	10893.	2968.1	4791.8
#3	3149.4	71337.	10853.	2978.1	4791.4

Sample Name: S3 Acquired: 5/1/2025 12:40:27 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.08243	.12450	.35080	.08963	.22536	.29549	9.5460	.41689
Stddev	.00027	.00068	.00021	.00019	.00031	.00098	.0174	.00260
%RSD	.32538	.54951	.05866	.20980	.13878	.33084	.18192	.62483
#1	.08214	.12448	.35102	.08944	.22518	.29517	9.5611	.41977
#2	.08248	.12520	.35061	.08982	.22518	.29659	9.5498	.41619
#3	.08267	.12383	.35077	.08963	.22572	.29472	9.5270	.41471

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	2.0612	.53374	.06741	.62741	.28057	.00849	.53797	.16518
Stddev	.0020	.00121	.00046	.00068	.00004	.00004	.00224	.00043
%RSD	.09878	.22713	.67574	.10813	.01517	.42816	.41715	.26319
#1	2.0632	.53444	.06793	.62806	.28052	.00845	.53778	.16519
#2	2.0613	.53444	.06720	.62671	.28061	.00853	.54031	.16561
#3	2.0591	.53234	.06709	.62746	.28057	.00848	.53583	.16474

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	.45470	.12893	.19125	.14412	1.7314	.06050	.82348	1.0978
Stddev	.00074	.00031	.00037	.00027	.0072	.00005	.00328	.0010
%RSD	.16190	.24164	.19222	.18898	.41384	.07824	.39844	.08848
#1	.45555	.12923	.19086	.14423	1.7321	.06054	.82722	1.0979
#2	.45433	.12894	.19133	.14432	1.7382	.06045	.82213	1.0968
#3	.45422	.12861	.19158	.14381	1.7239	.06051	.82108	1.0988

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	.17619	.85342	.00760	.06109	.03111	1.6690	21.448
Stddev	.00018	.00278	.00006	.00006	.00005	.0036	.173
%RSD	.09954	.32561	.75495	.09628	.17049	.21758	.80579
#1	.17602	.85371	.00753	.06115	.03107	1.6730	21.641
#2	.17637	.85605	.00761	.06106	.03117	1.6660	21.309
#3	.17617	.85051	.00764	.06105	.03109	1.6680	21.392

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S3 Acquired: 5/1/2025 12:40:27 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3168.5	73034.	10624.	2985.8	4756.0
Stddev	7.0	53.	30.	19.6	12.5
%RSD	.22146	.07257	.28201	.65809	.26297
#1	3160.6	73074.	10597.	2983.6	4742.4
#2	3170.7	72974.	10619.	2967.3	4758.3
#3	3174.1	73054.	10656.	3006.4	4767.1

Sample Name: S4 Acquired: 5/1/2025 12:44:38 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.16488	.25150	.70045	.17887	.45221	.59751	18.757	.86835
Stddev	.00044	.00132	.00296	.00133	.00322	.00229	.130	.00178
%RSD	.26985	.52675	.42258	.74186	.71117	.38315	.69208	.20494
#1	.16467	.25287	.70348	.17824	.45023	.59509	18.607	.86706
#2	.16457	.25141	.69756	.17797	.45049	.59781	18.837	.86760
#3	.16539	.25023	.70032	.18039	.45592	.59964	18.828	.87038

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	4.1027	1.0628	.13410	1.2477	.55349	.01666	1.0677	.33515
Stddev	.0106	.0032	.00054	.0036	.00230	.00001	.0007	.00093
%RSD	.25833	.29852	.40219	.29140	.41513	.08944	.06680	.27860
#1	4.1142	1.0591	.13472	1.2512	.55281	.01666	1.0685	.33409
#2	4.0934	1.0648	.13380	1.2439	.55161	.01664	1.0671	.33585
#3	4.1003	1.0644	.13378	1.2481	.55605	.01667	1.0675	.33552

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	.89900	.26206	.37921	.29004	3.4338	.12076	1.7214	2.1817
Stddev	.00230	.00031	.00049	.00106	.0084	.00075	.0035	.0073
%RSD	.25576	.11860	.12949	.36575	.24407	.62095	.20233	.33515
#1	.90044	.26241	.37959	.28889	3.4394	.12162	1.7199	2.1790
#2	.89635	.26196	.37938	.29098	3.4242	.12045	1.7190	2.1761
#3	.90022	.26181	.37865	.29025	3.4380	.12022	1.7254	2.1900

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	.35192	1.7062	.01466	.12459	.06315	3.4386	42.661
Stddev	.00118	.0021	.00008	.00050	.00032	.0020	.473
%RSD	.33581	.12218	.54290	.39872	.50506	.05713	1.1077
#1	.35289	1.7047	.01458	.12472	.06323	3.4366	42.149
#2	.35060	1.7053	.01473	.12405	.06280	3.4386	42.755
#3	.35225	1.7086	.01468	.12502	.06342	3.4406	43.080

Sample Name: S4 Acquired: 5/1/2025 12:44:38 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3135.7	70312.	10011.	2897.1	4655.6
Stddev	6.2	181.	16.	6.0	21.7
%RSD	.19619	.25694	.16163	.20808	.46565
#1	3129.0	70204.	10025.	2891.0	4632.4
#2	3137.0	70210.	9993.3	2897.4	4659.0
#3	3141.1	70520.	10014.	2903.1	4675.4

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S5 Acquired: 5/1/2025 12:48:55 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.32927	.50288	1.3886	.35619	.91173	1.2409	39.532	1.7179
Stddev	.00068	.00187	.0030	.00100	.00114	.0013	.296	.0158
%RSD	.20636	.37240	.21585	.28206	.12486	.10748	.74826	.91890
#1	.32902	.50357	1.3894	.35505	.91042	1.2424	39.690	1.7343
#2	.33003	.50430	1.3853	.35693	.91248	1.2401	39.716	1.7028
#3	.32874	.50076	1.3911	.35659	.91230	1.2402	39.191	1.7165

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	8.1570	2.1843	.26406	2.4965	1.0896	.03411	2.2025	.68841
Stddev	.0149	.0095	.00129	.0033	.0013	.00017	.0075	.00246
%RSD	.18219	.43587	.48714	.13235	.11501	.50995	.33965	.35743
#1	8.1656	2.1953	.26319	2.4976	1.0889	.03401	2.2111	.69123
#2	8.1398	2.1793	.26554	2.4928	1.0910	.03431	2.1987	.68667
#3	8.1655	2.1783	.26347	2.4991	1.0889	.03400	2.1977	.68734

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	1.7847	.52597	.79660	.60304	6.8042	.25600	3.4390	4.3527
Stddev	.0023	.00115	.00817	.00072	.0145	.00199	.0302	.0045
%RSD	.12749	.21948	1.0251	.11936	.21375	.77692	.87693	.10226
#1	1.7852	.52569	.78854	.60387	6.8029	.25416	3.4681	4.3498
#2	1.7822	.52723	.80487	.60254	6.8193	.25811	3.4079	4.3578
#3	1.7867	.52497	.79640	.60272	6.7903	.25574	3.4412	4.3504

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	.70043	3.5580	.03057	.25093	.12860	7.3242	88.682
Stddev	.00110	.0109	.00035	.00054	.00016	.0153	.698
%RSD	.15705	.30637	1.1445	.21586	.12073	.20946	.78730
#1	.69967	3.5704	.03020	.25151	.12873	7.3419	88.284
#2	.69992	3.5532	.03090	.25086	.12865	7.3149	88.274
#3	.70169	3.5502	.03059	.25043	.12843	7.3159	89.488

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: S5 Acquired: 5/1/2025 12:48:55 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v26) 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	3149.4	70625.	10066.	2865.8	4623.8
Stddev	3.7	454.	67.	21.8	2.4
%RSD	.11724	.64241	.66664	.75927	.05278
#1	3149.3	70868.	9988.2	2869.8	4621.0
#2	3145.8	70102.	10104.	2842.3	4625.1
#3	3153.2	70906.	10105.	2885.2	4625.3

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICV01 Acquired: 5/1/2025 13:44:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.005003	1.030806	.9893893	1.043131	1.023121	2.391553
Stddev	.006159	.009223	.0068710	.011822	.004695	.006117
%RSD	.6128088	.8947501	.6944655	1.133298	.4588613	.2557821
#1	1.000131	1.021784	.9827612	1.038951	1.018440	2.395382
#2	1.002954	1.030417	.9889269	1.033968	1.023094	2.394779
#3	1.011926	1.040218	.9964798	1.056475	1.027829	2.384498

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4947237	.4957575	.5081073	9.240337	.5057631	.4966798
Stddev	.0008532	.0025452	.0021485	.007004	.0019247	.0020541
%RSD	.1724694	.5133872	.4228506	.0757998	.3805507	.4135770
#1	.4937532	.4929096	.5057627	9.232660	.5066997	.4943283
#2	.4953564	.4978098	.5085771	9.241972	.5035494	.4975864
#3	.4950613	.4965530	.5099821	9.246379	.5070402	.4981248

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5084552	9.102889	.4759451	5.539289	.5001090	.2401272
Stddev	.0016724	.028282	.0009516	.015744	.0022524	.0002006
%RSD	.3289106	.3106936	.1999390	.2842238	.4503852	.0835491
#1	.5074595	9.133699	.4756593	5.548075	.4979087	.2399771
#2	.5075201	9.078107	.4770069	5.521112	.5000081	.2403550
#3	.5103859	9.096862	.4751692	5.548679	.5024102	.2400493

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.020509	.4661532	.9821166	8.968918	F .0272228	F -.001551
Stddev	.032632	.0015575	.0037439	.013809	.0006896	.000231
%RSD	.3617505	.3341156	.3812065	.1539596	2.533026	14.90612
#1	9.057944	.4678509	.9863702	8.963923	.0277606	-.001315
#2	9.005507	.4658184	.9806584	8.958302	.0264454	-.001777
#3	8.998076	.4647904	.9793213	8.984529	.0274624	-.001563

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICV01 Acquired: 5/1/2025 13:44:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	F .0047180	F .0000986	F -.006504	F .0093797	F -.002277	F -.002804
Stddev	.0011377	.0006040	.007541	.0024441	.002946	.001004
%RSD	24.11482	612.5765	115.9423	26.05702	129.3659	35.79800
#1	.0056098	.0007911	-.013528	.0121626	.001082	-.003226
#2	.0034366	-.000176	.001465	.0083947	-.004421	-.001658
#3	.0051074	-.000319	-.007450	.0075819	-.003492	-.003527

Elem	Sr4077
Units	ppm
Avg	F -.007805
Stddev	.000090
%RSD	1.149179
#1	-.007901
#2	-.007792
#3	-.007723

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.743	71498.23	10170.00	2935.578	4804.938
Stddev	12.427	78.24	43.09	12.315	20.697
%RSD	.3945292	.1094328	.4237221	.4195096	.4307440
#1	3161.422	71481.24	10207.56	2924.760	4826.692
#2	3151.123	71429.89	10122.96	2932.993	4802.630
#3	3136.684	71583.58	10179.48	2948.980	4785.492

Sample Name: LLICV01 Acquired: 5/1/2025 14:01:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0237101	.0420218	.0131056	.0229051	.0534949	.0954475
Stddev	.0015663	.0006617	.0020246	.0014155	.0016971	.0054961
%RSD	6.605978	1.574660	15.44830	6.179992	3.172436	5.758254
#1	.0249409	.0426465	.0116110	.0223171	.0529911	.0906058
#2	.0219470	.0413285	.0122961	.0245199	.0553868	.1014216
#3	.0242424	.0420904	.0154097	.0218784	.0521067	.0943152

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0958111	.0060927	.0063948	2.042152	.0105342	.0312763
Stddev	.0004086	.0000553	.0000488	.015917	.0003774	.0006492
%RSD	.4264449	.9084293	.7627730	.7794304	3.583031	2.075546
#1	.0960173	.0060853	.0063783	2.045003	.0107429	.0305426
#2	.0960756	.0061514	.0063564	2.056451	.0107613	.0315102
#3	.0953405	.0060414	.0064497	2.025002	.0100985	.0317761

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0228731	.1058405	.0213263	2.164153	.0426687	.0101728
Stddev	.0003938	.0011092	.0001997	.022058	.0001696	.0001541
%RSD	1.721529	1.047978	.9363202	1.019247	.3975092	1.514557
#1	.0224205	.1070788	.0215361	2.143601	.0426069	.0103477
#2	.0231370	.1049381	.0211385	2.187459	.0425388	.0100570
#3	.0230618	.1055046	.0213042	2.161398	.0428606	.0101138

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.031261	.0411385	.0430087	2.125135	.1043375	.2197622
Stddev	.018904	.0005162	.0002976	.020302	.0014260	.0011450
%RSD	.9306775	1.254676	.6919573	.9553490	1.366739	.5210096
#1	2.012094	.0412408	.0430952	2.104951	.1047037	.2191396
#2	2.049891	.0415959	.0426774	2.124900	.1055447	.2190634
#3	2.031798	.0405789	.0432535	2.145554	.1027641	.2210836

Sample Name: LLICV01 Acquired: 5/1/2025 14:01:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0404375	.0420061	.4154339	F .0260943	.0181956	F .0149480
Stddev	.0008021	.0011572	.0042445	.0021464	.0060451	.0010459
%RSD	1.983688	2.754903	1.021695	8.225348	33.22300	6.996951
#1	.0413340	.0412983	.4151822	.0258258	.0250062	.0161423
#2	.0397876	.0433416	.4197986	.0283623	.0161154	.0145064
#3	.0401907	.0413785	.4113208	.0240949	.0134653	.0141954

Elem	Sr4077
Units	ppm
Avg	.0202213
Stddev	.0000699
%RSD	.3456933
#1	.0202944
#2	.0202144
#3	.0201551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.572	72644.31	10873.21	2979.854	4834.693
Stddev	6.778	212.81	26.29	14.205	5.885
%RSD	.2150006	.2929531	.2418111	.4766931	.1217331
#1	3159.651	72889.99	10849.12	2995.962	4840.616
#2	3151.925	72525.88	10869.25	2974.477	4834.615
#3	3146.141	72517.05	10901.25	2969.123	4828.846

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICB01 Acquired: 5/1/2025 14:11:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001024	-.000906	.0000900	-.001637	-.003880	.0027611	-.004659
Stddev	.002530	.001618	.0009733	.006480	.001735	.0068792	.000528
%RSD	247.0678	178.6369	1081.577	395.7660	44.70844	249.1517	11.33660
#1	.001805	-.000106	-.000864	-.006014	-.003010	.0027186	-.005224
#2	-.001809	-.002768	.000052	.005807	-.002752	-.004097	-.004178
#3	-.003069	.000157	.001082	-.004704	-.005877	.009661	-.004573

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000448	-.000315	.0023538	.0003906	-.000364	-.000092	-.009174
Stddev	.0000544	.000020	.0100354	.0003130	.000152	.000401	.006995
%RSD	121.3148	6.432294	426.3481	80.12967	41.79586	434.5040	76.25106
#1	.0000339	-.000297	.0138010	.0005394	-.000310	-.000448	-.001184
#2	.0001039	-.000311	-.004929	.0000310	-.000536	.000343	-.012143
#3	-.000003	-.000337	-.001811	.0006016	-.000246	-.000172	-.014194

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000152	.0229876	-.000062	-.000065	-.028506	.0008809	-.001137
Stddev	.000331	.0159319	.000298	.000461	.008291	.0008841	.000182
%RSD	217.8539	69.30617	479.1936	710.6420	29.08437	100.3668	15.96667
#1	-.000298	.0227350	.000259	.000445	-.036419	.0010766	-.001342
#2	.000227	.0390443	-.000331	-.000187	-.019883	-.000085	-.001071
#3	-.000386	.0071836	-.000115	-.000453	-.029215	.001651	-.000998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0828867	-.001369	-.000840	.0028320	.0007100	-.002005	.0025827
Stddev	.0656029	.001015	.000363	.0010005	.0017130	.008807	.0062290
%RSD	79.14770	74.14753	43.20135	35.32973	241.2491	439.3473	241.1791
#1	.1144626	-.000297	-.001240	.0027576	-.001204	-.004731	.0069400
#2	.0074668	-.002316	-.000532	.0038676	.001234	.007843	.0053600
#3	.1267308	-.001494	-.000747	.0018707	.002100	-.009126	-.004552

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICB01 Acquired: 5/1/2025 14:11:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0025879	-.004319	-.000177
Stddev	.0052724	.002339	.000041
%RSD	203.7284	54.16218	22.91753
#1	.0085039	-.006879	-.000216
#2	.0008744	-.002294	-.000181
#3	-.001615	-.003783	-.000135

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3133.910	72428.18	10841.10	2984.598	4805.618
Stddev	5.066	128.64	56.34	5.548	10.299
%RSD	.1616369	.1776056	.5196553	.1858890	.2143214
#1	3134.300	72441.96	10805.19	2988.771	4804.692
#2	3138.768	72549.37	10812.09	2978.302	4816.349
#3	3128.660	72293.21	10906.03	2986.720	4795.813

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CRI01 Acquired: 5/1/2025 14:16:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0232658	.0446168	.0132786	.0230887	.0536409	.1010266
Stddev	.0027086	.0015615	.0010336	.0034671	.0018511	.0106628
%RSD	11.64198	3.499831	7.783960	15.01658	3.450917	10.55445
#1	.0201400	.0458733	.0142947	.0208619	.0537867	.1034453
#2	.0247362	.0451085	.0122284	.0270834	.0517212	.1102723
#3	.0249212	.0428686	.0133127	.0213208	.0554148	.0893622

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0935955	.0060202	.0063648	2.032268	.0105705	.0306922
Stddev	.0001897	.0000851	.0000440	.008636	.0000406	.0001519
%RSD	.2026643	1.413832	.6913728	.4249486	.3836745	.4948525
#1	.0934300	.0060932	.0063715	2.035271	.0105240	.0305172
#2	.0935541	.0059267	.0064051	2.039002	.0105884	.0307896
#3	.0938025	.0060406	.0063178	2.022531	.0105990	.0307698

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0231302	.1040205	.0206944	2.150873	.0418563	.0105580
Stddev	.0001926	.0053900	.0004791	.002753	.0004710	.0004038
%RSD	.8327462	5.181676	2.315251	.1279872	1.125274	3.824407
#1	.0230640	.1101959	.0211966	2.148581	.0415459	.0110023
#2	.0233472	.1002617	.0202423	2.153926	.0423982	.0102134
#3	.0229795	.1016040	.0206443	2.150111	.0416247	.0104583

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.041768	.0415679	.0425017	2.175814	.1017147	.2184501
Stddev	.008629	.0013255	.0005831	.025353	.0012834	.0009755
%RSD	.4226139	3.188848	1.371896	1.165238	1.261763	.4465477
#1	2.051731	.0420508	.0430673	2.176602	.1031797	.2173567
#2	2.036916	.0400687	.0425352	2.150076	.1007886	.2192313
#3	2.036658	.0425844	.0419026	2.200764	.1011757	.2187621

Sample Name: CRI01 Acquired: 5/1/2025 14:16:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0408501	.0416598	.4172486	F .0301166	.0164368	.0147893
Stddev	.0017992	.0005070	.0063126	.0022063	.0018513	.0010053
%RSD	4.404465	1.217098	1.512903	7.325997	11.26337	6.797653
#1	.0389476	.0421104	.4150808	.0311266	.0166472	.0136502
#2	.0425242	.0411108	.4123056	.0275860	.0144893	.0151652
#3	.0410784	.0417581	.4243595	.0316371	.0181740	.0155525

Elem	Sr4077
Units	ppm
Avg	.0200708
Stddev	.0000873
%RSD	.4351795
#1	.0200850
#2	.0201501
#3	.0199772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.006	71990.81	10966.94	2975.806	4809.789
Stddev	13.506	173.30	65.54	11.331	20.758
%RSD	.4306799	.2407254	.5976104	.3807601	.4315882
#1	3148.421	71791.02	10891.52	2963.260	4825.761
#2	3137.972	72080.98	10999.30	2978.863	4817.282
#3	3121.624	72100.44	11010.01	2985.294	4786.325

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICSA01 Acquired: 5/1/2025 14:35:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0021111	.0064206	-.004152	-.009378	-.005479	227.9303
Stddev	.0037991	.0026445	.002486	.001700	.003156	.3255
%RSD	179.9606	41.18753	59.88352	18.12770	57.60679	.1427998
#1	.0061765	.0039272	-.006120	-.008162	-.007278	228.2745
#2	.0015058	.0061406	-.001358	-.008652	-.007324	227.6275
#3	-.001349	.0091939	-.004978	-.011320	-.001834	227.8888

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005234	.0011843	-.004575	214.9184	.0529780	.0002842
Stddev	.0016705	.0001248	.000156	.9602	.0002672	.0004158
%RSD	319.1327	10.53543	3.420194	.4467574	.5042577	146.3315
#1	.0024523	.0010789	-.004695	215.8483	.0529374	.0004586
#2	-.000428	.0013221	-.004398	213.9306	.0527334	.0005844
#3	-.000454	.0011519	-.004632	214.9763	.0532631	-.000190

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056378	96.92688	.0017381	227.0677	.0022493	.0014473
Stddev	.0005044	.72110	.0006603	.8834	.0001091	.0001319
%RSD	8.947061	.7439633	37.99197	.3890323	4.848914	9.109650
#1	.0050868	97.01492	.0014259	227.9723	.0023746	.0015949
#2	.0060769	96.16581	.0024966	226.2072	.0021755	.0013410
#3	.0057497	97.59992	.0012917	227.0237	.0021980	.0014061

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018871	.0025492	.0017536	.0962467	F .3071738	-.000597
Stddev	.005098	.0009430	.0003350	.0250299	.0041823	.000601
%RSD	27.01610	36.99336	19.10259	26.00593	1.361556	100.7835
#1	-.015692	.0017159	.0015511	.1209952	.3086095	-.000638
#2	-.016168	.0023588	.0021403	.0968003	.3024626	-.001176
#3	-.024751	.0035729	.0015695	.0709447	.3104491	.000024

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICSA01 Acquired: 5/1/2025 14:35:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001441	-.000687	.0172702	.0024360	-.012361	.0002086
Stddev	.001829	.000521	.0072972	.0082047	.005674	.0008404
%RSD	126.8763	75.84482	42.25287	336.8034	45.90403	402.8418
#1	-.001998	-.001240	.0254922	.0112207	-.011464	-.000398
#2	.000601	-.000614	.0115632	-.005029	-.018431	-.000144
#3	-.002927	-.000206	.0147553	.001116	-.007189	.001168

Elem	Sr4077
Units	ppm
Avg	-.000984
Stddev	.000373
%RSD	37.88974
#1	-.001116
#2	-.000563
#3	-.001272

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2871.030	65659.54	10857.06	2683.681	4185.023
Stddev	9.609	94.21	52.67	10.539	10.757
%RSD	.3346814	.1434776	.4851170	.3927033	.2570391
#1	2866.777	65566.44	10809.63	2677.270	4187.939
#2	2882.031	65754.82	10847.81	2677.928	4194.022
#3	2864.281	65657.36	10913.74	2695.844	4173.109

Sample Name: ICSAB01 Acquired: 5/1/2025 14:39:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.1195342	.1176163	.0524838	.0459372	.6679132	238.3707
Stddev	.0041731	.0024915	.0020103	.0060985	.0030741	.5254
%RSD	3.491156	2.118325	3.830355	13.27564	.4602482	.2204018
#1	.1219465	.1165063	.0533760	.0398873	.6650457	237.9243
#2	.1147155	.1204698	.0501819	.0520831	.6675352	238.2382
#3	.1219406	.1158726	.0538937	.0458412	.6711588	238.9496

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4871804	.5296888	1.083488	220.7112	.5833934	.5324388
Stddev	.0018268	.0041972	.001973	.8243	.0021465	.0018048
%RSD	.3749731	.7923830	.1821385	.3734798	.3679270	.3389717
#1	.4853514	.5254827	1.082091	219.8558	.5848102	.5324093
#2	.4890050	.5297067	1.085746	220.7773	.5809238	.5342581
#3	.4871847	.5338770	1.082627	221.5005	.5844462	.5306489

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5404812	90.18566	.4938083	236.7807	1.060022	.2028524
Stddev	.0020734	.32029	.0030131	.9938	.003026	.0005345
%RSD	.3836175	.3551456	.6101800	.4197239	.2854199	.2634887
#1	.5380924	90.53201	.4907287	235.7051	1.057636	.2023496
#2	.5418137	90.12480	.4939460	236.9721	1.063425	.2034137
#3	.5415376	89.90016	.4967502	237.6649	1.059005	.2027938

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008614	.4921414	1.086554	.1347409	F 1.186817	.9707502
Stddev	.005354	.0014040	.002654	.0211639	.008062	.0017256
%RSD	62.15736	.2852793	.2443027	15.70711	.6793210	.1777637
#1	-.011371	.4921364	1.086142	.1588166	1.178350	.9687695
#2	-.002443	.4935478	1.089390	.1263332	1.187697	.9719288
#3	-.012027	.4907399	1.084129	.1190727	1.194403	.9715524

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICSAB01 Acquired: 5/1/2025 14:39:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.9717493	.8930449	F .8359048	F .0043555	F -.012616	F -.001900
Stddev	.0023003	.0036600	.0110129	.0011284	.004361	.000974
%RSD	.2367193	.4098301	1.317485	25.90801	34.56862	51.26877
#1	.9712099	.8903351	.8296465	.0055116	-.007921	-.002789
#2	.9742713	.8915912	.8486209	.0042981	-.013385	-.000859
#3	.9697665	.8972084	.8294470	.0032569	-.016541	-.002052

Elem	Sr4077
Units	ppm
Avg	F .0060358
Stddev	.0006720
%RSD	11.13350
#1	.0053492
#2	.0060660
#3	.0066922

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.260	66137.72	9923.108	2682.569	4159.098
Stddev	11.299	240.24	63.729	11.864	11.533
%RSD	.3966877	.3632414	.6422251	.4422480	.2772957
#1	2861.305	65863.02	9985.313	2679.510	4171.247
#2	2841.924	66308.53	9926.054	2672.534	4148.301
#3	2841.551	66241.62	9857.958	2695.662	4157.745

Sample Name: ICSADLX20 Acquired: 5/1/2025 14:53:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020250	-.001534	-.000262	.0001138	-.004256	10.82141
Stddev	.0024228	.001374	.001265	.0007843	.001588	.10151
%RSD	119.6487	89.59285	482.3907	689.2633	37.31163	.9380347
#1	.0047577	-.003104	.001107	-.000280	-.005265	10.84314
#2	.0011774	-.000547	-.000507	-.000395	-.005078	10.91030
#3	.0001398	-.000952	-.001387	.001017	-.002426	10.71080

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003841	.0002623	-.000397	10.56748	.0030935	-.000556
Stddev	.000614	.0000680	.000060	.07200	.0001853	.000292
%RSD	15.97901	25.92439	15.02313	.6813265	5.990880	52.46505
#1	-.003501	.0003078	-.000359	10.58110	.0029044	-.000601
#2	-.003473	.0001841	-.000466	10.63169	.0031011	-.000823
#3	-.004550	.0002949	-.000367	10.48964	.0032749	-.000244

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000511	4.551992	-.001222	F 10.79173	.0004890	-.000226
Stddev	.000168	.019512	.000110	.07121	.0003095	.000354
%RSD	32.79771	.4286374	8.965452	.6598920	63.30185	156.6185
#1	-.000345	4.537612	-.001341	10.78117	.0007557	.000146
#2	-.000509	4.544161	-.001199	10.86764	.0005617	-.000265
#3	-.000680	4.574202	-.001126	10.72639	.0001496	-.000559

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.050178	.0008351	-.000170	.0733659	.0120716	-.001060
Stddev	.012082	.0020262	.000082	.0633392	.0004191	.000251
%RSD	24.07830	242.6315	48.22596	86.33330	3.471967	23.70643
#1	-.062153	.0026127	-.000162	.0035889	.0125034	-.000784
#2	-.050387	-.001371	-.000092	.1272340	.0120449	-.001121
#3	-.037992	.001264	-.000255	.0892747	.0116664	-.001276

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: ICSADLX20 Acquired: 5/1/2025 14:53:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055848	.0006443	-.001259	.0050123	-.004908	-.004152
Stddev	.0014562	.0002704	.012297	.0018152	.001172	.001400
%RSD	26.07477	41.97077	976.8556	36.21442	23.88716	33.71116
#1	.0039097	.0009189	.002137	.0054587	-.004393	-.002614
#2	.0065496	.0003782	-.014897	.0030155	-.004082	-.004489
#3	.0062951	.0006357	.008983	.0065626	-.006250	-.005352

Elem	Sr4077
Units	ppm
Avg	-.000050
Stddev	.000069
%RSD	137.5353
#1	-.000033
#2	.000008
#3	-.000126

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3143.423	70649.74	10867.00	2895.056	4824.496
Stddev	5.975	32.40	71.36	5.070	3.566
%RSD	.1900841	.0458641	.6566313	.1751150	.0739076
#1	3149.771	70650.30	10882.35	2889.271	4826.020
#2	3142.589	70681.86	10789.22	2897.173	4827.047
#3	3137.908	70617.06	10929.43	2898.724	4820.422

Sample Name: ICSABDLX20 Acquired: 5/1/2025 15:01:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0068541	.0051649	.0014643	.0058424	.0297698	11.77405	.0200129
Stddev	.0009034	.0018503	.0010428	.0015656	.0050028	.02735	.0002765
%RSD	13.18069	35.82509	71.21938	26.79720	16.80511	.2322846	1.381822
#1	.0059975	.0030496	.0026354	.0062790	.0244704	11.77388	.0196938
#2	.0077980	.0059620	.0011211	.0041048	.0344109	11.74679	.0201629
#3	.0067668	.0064832	.0006362	.0071433	.0304281	11.80148	.0201821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257157	.0551779	11.46180	.0303657	.0264106	.0272607	4.834866
Stddev	.0001586	.0000216	.04948	.0006430	.0006142	.0004688	.038983
%RSD	.6166039	.0391830	.4316635	2.117476	2.325476	1.719848	.8062879
#1	.0258961	.0551971	11.41111	.0298492	.0257014	.0277651	4.792144
#2	.0256521	.0551821	11.46432	.0310858	.0267647	.0271787	4.868507
#3	.0255987	.0551545	11.50996	.0301619	.0267657	.0268383	4.843946

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0242769	11.70809	.0543783	.0095933	-.037260	.0258181	.0539738
Stddev	.0006073	.04933	.0002621	.0003168	.009852	.0012969	.0006302
%RSD	2.501520	.4213482	.4819306	3.302702	26.44074	5.023186	1.167667
#1	.0238385	11.65193	.0543122	.0097659	-.026128	.0258935	.0540133
#2	.0249701	11.72792	.0546671	.0097863	-.044857	.0270757	.0533248
#3	.0240222	11.74443	.0541556	.0092276	-.040794	.0244852	.0545834

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0715155	.0123991	-.000851	.0048220	.0007404	-.001711	-.003389
Stddev	.0150803	.0005058	.000181	.0009876	.0008750	.022413	.004057
%RSD	21.08678	4.078884	21.21632	20.48043	118.1800	1309.762	119.6975
#1	.0713174	.0129722	-.000837	.0058897	.0015974	-.001936	.001166
#2	.0565353	.0120153	-.001039	.0046347	.0007756	-.024011	-.006614
#3	.0866940	.0122098	-.000678	.0039414	-.000152	.020813	-.004719

Sample Name: ICSABDLX20 Acquired: 5/1/2025 15:01:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.002795	-.005277	-.000007
Stddev	.005921	.000268	.000056
%RSD	211.8482	5.079409	748.8609
#1	-.003264	-.004986	.000021
#2	.003347	-.005332	-.000071
#3	-.008467	-.005514	.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3055.746	70945.61	10751.94	2889.935	4642.559
Stddev	4.913	121.73	19.57	5.861	10.545
%RSD	.1607718	.1715864	.1820279	.2028044	.2271456
#1	3055.679	71082.37	10729.35	2892.827	4634.140
#2	3050.868	70905.40	10763.55	2893.787	4639.150
#3	3060.693	70849.08	10762.93	2883.190	4654.387

Sample Name: CCV01 Acquired: 5/1/2025 15:05:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.090572	5.139961	5.007444	5.140078	5.108707	10.03592	9.654690
Stddev	.020217	.040402	.012398	.023672	.027293	.01365	.049619
%RSD	.3971453	.7860355	.2475829	.4605455	.5342509	.1360295	.5139339
#1	5.071705	5.177712	5.009891	5.124544	5.083254	10.02270	9.684983
#2	5.088098	5.097348	4.994006	5.128367	5.105338	10.03508	9.681659
#3	5.111912	5.144822	5.018436	5.167323	5.137528	10.04997	9.597427

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2558753	2.495787	24.50759	1.004896	2.499305	1.279236	4.822728
Stddev	.0005049	.008110	.04635	.002783	.009044	.003910	.016356
%RSD	.1973310	.3249473	.1891208	.2769323	.3618765	.3056291	.3391424
#1	.2556162	2.493321	24.52735	1.005741	2.496183	1.275962	4.807705
#2	.2564572	2.489196	24.45463	1.007159	2.492234	1.278181	4.820328
#3	.2555526	2.504843	24.54078	1.001789	2.509496	1.283565	4.840151

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.447957	24.57083	2.504211	1.246466	24.00065	2.451572	2.508436
Stddev	.005519	.03373	.009759	.001768	.07320	.004058	.008655
%RSD	.2254554	.1372609	.3896853	.1418373	.3049889	.1655202	.3450191
#1	2.444802	24.57529	2.502552	1.247427	23.91649	2.447389	2.517690
#2	2.444739	24.53510	2.495389	1.247545	24.03596	2.451836	2.507075
#3	2.454330	24.60211	2.514693	1.244425	24.04949	2.455491	2.500542

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.06075	5.083476	5.083260	5.006070	4.907601	4.783598	4.989939
Stddev	.07796	.007854	.015529	.021764	.016794	.036737	.018401
%RSD	.3240078	.1544985	.3054888	.4347534	.3422031	.7679836	.3687571
#1	23.97666	5.084848	5.071447	4.999789	4.899159	4.751090	5.006335
#2	24.13062	5.075027	5.077485	4.988136	4.896702	4.776250	4.970038
#3	24.07496	5.090554	5.100849	5.030283	4.926940	4.823454	4.993444

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV01 Acquired: 5/1/2025 15:05:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.022771	4.887400	4.970180
Stddev	.033439	.012084	.006110
%RSD	.6657464	.2472541	.1229357
#1	5.031216	4.875379	4.976976
#2	4.985919	4.887274	4.965140
#3	5.051177	4.899547	4.968424

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.020	71298.54	9989.040	2900.799	4667.452
Stddev	7.508	101.26	14.838	9.186	15.035
%RSD	.2418137	.1420241	.1485466	.3166727	.3221280
#1	3108.483	71313.68	9974.685	2890.332	4662.705
#2	3110.173	71190.56	9988.115	2907.519	4684.288
#3	3096.406	71391.38	10004.32	2904.547	4655.363

Sample Name: CCB01 Acquired: 5/1/2025 15:12:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0004914	.0013399	.0006927	-.001342	-.003029	-.001853	-.002716
Stddev	.0043474	.0007334	.0019178	.004769	.001607	.006694	.001625
%RSD	884.7579	54.73933	276.8681	355.2817	53.06520	361.2785	59.84447
#1	-.000898	.0020814	.0015781	-.006625	-.004651	.005870	-.001100
#2	.005364	.0013235	-.001508	.002648	-.002999	-.005994	-.004351
#3	-.002992	.0006148	.002008	-.000050	-.001437	-.005434	-.002696

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000774	.0001967	.0210879	.0006478	-.000192	-.000120	.0015455
Stddev	.0000425	.0001101	.0048593	.0003860	.000203	.000400	.0045648
%RSD	54.85852	55.95294	23.04303	59.58503	105.8202	334.4599	295.3663
#1	.0001234	.0002766	.0156002	.0008323	.000041	.000140	-.001019
#2	.0000397	.0000712	.0248451	.0002042	-.000328	-.000581	.006816
#3	.0000691	.0002424	.0228182	.0009068	-.000289	.000081	-.001160

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002229	.0332598	.0008332	.0001424	-.040835	.0013210	-.000417
Stddev	.000268	.0141678	.0002030	.0000879	.002041	.0005411	.000171
%RSD	12.04139	42.59725	24.36877	61.68851	4.998696	40.96248	40.94967
#1	-.002146	.0478107	.0010509	.0000718	-.043062	.0009402	-.000266
#2	-.002529	.0324595	.0006490	.0002408	-.040392	.0019403	-.000383
#3	-.002012	.0195091	.0007997	.0001147	-.039052	.0010823	-.000603

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0416640	.0041772	.0004140	.0185344	.0020447	-.002003	.0008958
Stddev	.0221880	.0009355	.0003682	.0005913	.0003857	.004769	.0043684
%RSD	53.25463	22.39620	88.93915	3.190247	18.86571	238.0744	487.6292
#1	.0388356	.0052408	.0006718	.0179020	.0017541	.001914	-.003593
#2	.0651306	.0038091	.0005778	.0186279	.0024823	-.007314	.001149
#3	.0210258	.0034817	-.000008	.0190734	.0018976	-.000610	.005132

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB01 Acquired: 5/1/2025 15:12:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004901	-.003207	.0015675
Stddev	.001950	.000704	.0002185
%RSD	39.78457	21.94890	13.94132
#1	-.002651	-.002933	.0013177
#2	-.005960	-.004006	.0017235
#3	-.006093	-.002680	.0016612

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3198.699	72134.17	11366.23	2945.957	4981.235
Stddev	6.007	264.52	61.77	17.094	8.419
%RSD	.1878061	.3667002	.5434895	.5802562	.1690196
#1	3198.973	71969.05	11296.66	2939.670	4985.271
#2	3204.565	72439.26	11414.66	2965.305	4986.876
#3	3192.560	71994.19	11387.36	2932.897	4971.557

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167781BL Acquired: 5/1/2025 15:17:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0009234	.0000429	.0009796	-.000002	-.004806	-.002907	-.005203
Stddev	.0031492	.0011220	.0005741	.002105	.000314	.003333	.002171
%RSD	341.0577	2617.643	58.60643	88626.01	6.530237	114.6378	41.73462
#1	.0004972	-.001229	.0015909	.001365	-.005136	.000105	-.007569
#2	.0042640	.000467	.0008961	-.002426	-.004770	-.006488	-.004736
#3	-.001991	.000891	.0004518	.001054	-.004512	-.002339	-.003303

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000218	-.000295	-.003665	.0002142	-.000561	-.000699	-.014065
Stddev	.0000201	.000050	.012220	.0003162	.000195	.000472	.001916
%RSD	92.38728	16.98043	333.3977	147.6527	34.80492	67.54026	13.62451
#1	.0000380	-.000325	-.014585	.0002950	-.000336	-.001205	-.016264
#2	.0000281	-.000322	.009534	.0004822	-.000684	-.000623	-.013178
#3	-.000001	-.000237	-.005944	-.000135	-.000663	-.000270	-.012753

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002825	.0276690	.0000539	.0000086	-.049446	-.000999	-.001006
Stddev	.000118	.0154615	.0004395	.0001112	.003207	.002025	.000279
%RSD	4.160606	55.88034	815.6034	1288.662	6.485748	202.7209	27.70080
#1	-.002764	.0100758	-.000453	-.000075	-.052457	-.001751	-.001118
#2	-.002960	.0390958	.000326	.000135	-.046074	.001294	-.000689
#3	-.002750	.0338353	.000289	-.000034	-.049807	-.002539	-.001210

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0666025	.0002259	-.000670	.0169953	.0009101	-.004329	.0023354
Stddev	.0510186	.0007469	.000153	.0011322	.0006277	.001966	.0002849
%RSD	76.60174	330.6050	22.82955	6.661725	68.96645	45.41893	12.19797
#1	.1235793	.0002613	-.000548	.0169331	.0013572	-.004722	.0024363
#2	.0510807	-.000538	-.000842	.0158956	.0001925	-.002196	.0025562
#3	.0251474	.000954	-.000620	.0181574	.0011806	-.006069	.0020139

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167781BL Acquired: 5/1/2025 15:17:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.005566	-.004945	-.000138
Stddev	.008047	.000646	.000052
%RSD	144.5650	13.06709	37.29619
#1	-.011509	-.004920	-.000179
#2	.003591	-.005603	-.000080
#3	-.008779	-.004311	-.000156

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.735	74966.54	10770.65	2997.843	4884.530
Stddev	7.336	197.43	35.96	21.341	6.384
%RSD	.2329092	.2633627	.3338590	.7118948	.1307054
#1	3142.886	75192.71	10802.99	3022.463	4877.991
#2	3157.476	74878.29	10777.04	2984.605	4890.748
#3	3148.842	74828.62	10731.93	2986.461	4884.850

Sample Name: PB167781BS Acquired: 5/1/2025 15:21:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7550829	1.967343	.9277028	1.912864	.7671203	1.796446
Stddev	.0024813	.011337	.0034090	.004806	.0052559	.003657
%RSD	.3286079	.5762372	.3674618	.2512225	.6851474	.2035520
#1	.7522844	1.980376	.9241154	1.914905	.7651682	1.800669
#2	.7559501	1.961890	.9280934	1.907375	.7631198	1.794343
#3	.7570141	1.959763	.9308996	1.916313	.7730730	1.794327

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1748368	.1756199	.1874424	.9301136	.3777754	.1835950
Stddev	.0010485	.0004286	.0007060	.0117061	.0008705	.0004412
%RSD	.5997180	.2440559	.3766573	1.258571	.2304312	.2403094
#1	.1749440	.1758601	.1868510	.9258641	.3780281	.1830961
#2	.1737388	.1751251	.1872520	.9211258	.3768064	.1839337
#3	.1758277	.1758746	.1882240	.9433510	.3784915	.1837551

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2894721	2.850489	.1823078	1.780074	.4627883	.0691900
Stddev	.0012503	.009604	.0005490	.006822	.0012309	.0001724
%RSD	.4319172	.3369248	.3011624	.3832363	.2659700	.2491548
#1	.2895793	2.848125	.1823849	1.786715	.4615986	.0692459
#2	.2881717	2.842288	.1817243	1.773084	.4627096	.0689965
#3	.2906653	2.861054	.1828142	1.780424	.4640566	.0693274

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.773455	.2722505	.1896437	9.306421	.2737691	.3911369
Stddev	.015232	.0017720	.0007833	.055558	.0011859	.0004620
%RSD	.5492233	.6508822	.4130589	.5969873	.4331764	.1181144
#1	2.783837	.2705476	.1902206	9.303002	.2747932	.3916425
#2	2.755968	.2740844	.1887519	9.252651	.2740443	.3907368
#3	2.780560	.2721194	.1899585	9.363609	.2724698	.3910315

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167781BS Acquired: 5/1/2025 15:21:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6722762	.1855572	.8105605	5.474834	F -.010667	.1833335
Stddev	.0020473	.0008432	.0128455	.012275	.005672	.0017164
%RSD	.3045296	.4544369	1.584769	.2242070	53.17875	.9362293
#1	.6703121	.1857709	.8039489	5.481872	-.015146	.1826295
#2	.6721189	.1846277	.8023675	5.481970	-.012566	.1820810
#3	.6743976	.1862730	.8253651	5.460660	-.004289	.1852900

Elem	Sr4077
Units	ppm
Avg	.1835270
Stddev	.0009893
%RSD	.5390780
#1	.1841323
#2	.1823853
#3	.1840635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.362	72433.35	10944.82	2957.664	4977.926
Stddev	5.392	44.37	6.71	6.989	9.482
%RSD	.1687403	.0612520	.0612990	.2362958	.1904754
#1	3200.606	72442.71	10937.33	2956.919	4987.982
#2	3195.646	72472.30	10946.88	2964.996	4976.648
#3	3189.834	72385.06	10950.26	2951.078	4969.148

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1911-01 Acquired: 5/1/2025 15:28:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0508899	.0067925	.9363701	-.014245	-.004558	66.00753	.7254481
Stddev	.0015566	.0013019	.0009541	.000578	.004014	.03552	.0011173
%RSD	3.058665	19.16598	.1018932	4.055449	88.06612	.0538062	.1540110
#1	.0508211	.0082567	.9373244	-.013781	-.007917	66.02311	.7267382
#2	.0493690	.0063552	.9363697	-.014892	-.005643	65.96689	.7248071
#3	.0524798	.0057656	.9354162	-.014063	-.000113	66.03260	.7247990

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056750	-.004044	28.17647	.1907186	.0769611	.3668267	159.2898
Stddev	.0000762	.000151	.03198	.0008278	.0003362	.0020115	.8323
%RSD	1.342457	3.722899	.1135129	.4340501	.4368424	.5483489	.5225331
#1	.0057456	-.003884	28.20191	.1899834	.0772936	.3675944	158.3864
#2	.0055943	-.004064	28.18695	.1916152	.0766213	.3683412	159.4577
#3	.0056851	-.004183	28.14057	.1905572	.0769682	.3645444	160.0255

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.190553	20.31701	.1351779	.0043898	3.837100	.1971040	.8465740
Stddev	.004709	.04076	.0003937	.0001593	.029802	.0021749	.0032353
%RSD	.2149528	.2006373	.2912511	3.629837	.7766930	1.103434	.3821677
#1	2.195953	20.36290	.1354904	.0042754	3.807953	.1974365	.8479163
#2	2.187303	20.28499	.1347357	.0043221	3.835829	.1990936	.8489222
#3	2.188402	20.30315	.1353076	.0045718	3.867517	.1947820	.8428836

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.129335	.5195723	.0028970	.0858647	2.347154	2.881253	6.022609
Stddev	.040753	.0033068	.0002359	.0010617	.003559	.026721	.039353
%RSD	.6648926	.6364516	8.141942	1.236531	.1516307	.9273946	.6534292
#1	6.083662	.5162592	.0026666	.0858344	2.351264	2.867504	6.049266
#2	6.142359	.5195848	.0028865	.0869412	2.345055	2.864206	6.041151
#3	6.161985	.5228728	.0031380	.0848184	2.345145	2.912048	5.977410

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1911-01 Acquired: 5/1/2025 15:28:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	4.360527	.1204915	-.027045
Stddev	.007907	.0005295	.000869
%RSD	.1813414	.4394349	3.214347
#1	4.365630	.1198802	-.026087
#2	4.364533	.1208017	-.027264
#3	4.351418	.1207928	-.027784

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3531.065	81100.89	12972.26	3305.129	4606.030
Stddev	8.576	202.94	57.53	4.195	7.469
%RSD	.2428793	.2502319	.4435057	.1269214	.1621615
#1	3521.471	81326.45	12905.95	3308.496	4599.262
#2	3533.739	81043.13	13008.91	3306.461	4604.786
#3	3537.986	80933.10	13001.92	3300.430	4614.044

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1920-01 Acquired: 5/1/2025 15:33:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0404896	.0032757	.1998744	-.021625	-.003496	97.86138	.3845475
Stddev	.0060007	.0022365	.0008009	.000658	.004665	.25268	.0026361
%RSD	14.82027	68.27375	.4006793	3.044723	133.4578	.2582048	.6855005
#1	.0468835	.0046947	.2006197	-.021836	-.008853	98.11705	.3858882
#2	.0396050	.0044348	.1990276	-.020888	-.000325	97.85529	.3862438
#3	.0349804	.0006976	.1999758	-.022153	-.001310	97.61179	.3815106

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074498	-.003759	12.30985	.1765726	.0869215	.2075269	168.2982
Stddev	.0000985	.000243	.06353	.0006211	.0004572	.0016565	.4899
%RSD	1.322229	6.457931	.5160872	.3517413	.5260377	.7982333	.2910893
#1	.0074846	-.003658	12.36606	.1768215	.0866609	.2067862	168.0749
#2	.0075262	-.004036	12.32256	.1770306	.0874494	.2063699	168.8599
#3	.0073386	-.003583	12.24092	.1758656	.0866541	.2094245	167.9597

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.666449	31.40087	.1484638	.0039360	5.195533	.2541411	.6034172
Stddev	.012574	.12615	.0004509	.0005205	.014449	.0013560	.0004448
%RSD	.4715767	.4017562	.3036981	13.22429	.2781076	.5335443	.0737166
#1	2.677082	31.45780	.1481001	.0044916	5.200304	.2556959	.6029591
#2	2.669695	31.48852	.1489683	.0038569	5.206994	.2535241	.6034452
#3	2.652570	31.25628	.1483230	.0034596	5.179302	.2532035	.6038474

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.756706	.5378597	.0001843	.0033076	3.884244	3.315523	5.991834
Stddev	.054187	.0033899	.0000954	.0011347	.014502	.022162	.014731
%RSD	.6985790	.6302506	51.75521	34.30729	.3733537	.6684256	.2458428
#1	7.698762	.5347372	.0001973	.0046004	3.900513	3.295225	5.998404
#2	7.765231	.5414652	.0000831	.0024764	3.879545	3.339168	5.974962
#3	7.806125	.5373768	.0002725	.0028459	3.872674	3.312176	6.002136

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1920-01 Acquired: 5/1/2025 15:33:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5475093	.1781949	-.101860
Stddev	.0049981	.0016942	.000710
%RSD	.9128761	.9507314	.6966303
#1	.5532804	.1783963	-.101138
#2	.5445823	.1764091	-.102557
#3	.5446652	.1797794	-.101883

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3418.619	79477.01	12297.81	3258.367	4524.652
Stddev	5.680	124.92	39.32	2.226	7.705
%RSD	.1661542	.1571779	.3197365	.0683283	.1702855
#1	3425.114	79570.18	12253.59	3260.916	4531.564
#2	3414.580	79335.06	12311.00	3256.803	4516.345
#3	3416.162	79525.79	12328.84	3257.383	4526.047

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1894-01 Acquired: 5/1/2025 15:38:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.005417	.0142077	-.005056	-.026034	-.003565	.0033437	.7940584
Stddev	.002368	.0015644	.001992	.000102	.001622	.0077019	.0004609
%RSD	43.71718	11.01083	39.39809	.3920655	45.48708	230.3363	.0580439
#1	-.004901	.0143774	-.007254	-.026148	-.004048	-.004463	.7944482
#2	-.003350	.0125653	-.003369	-.025950	-.004890	.003558	.7935497
#3	-.008001	.0156803	-.004545	-.026005	-.001757	.010936	.7941774

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022336	-.011219	3.291679	.0266302	.0015712	.0255816	196.5737
Stddev	.0000450	.000493	.013279	.0006926	.0003772	.0014851	.9867
%RSD	2.012936	4.394609	.4034186	2.600898	24.01080	5.805186	.5019324
#1	.0022631	-.011596	3.304503	.0271023	.0011358	.0239149	197.7059
#2	.0021819	-.010661	3.292549	.0269533	.0018023	.0260657	196.1175
#3	.0022559	-.011399	3.277987	.0258351	.0017754	.0267642	195.8976

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.708510	.3974416	.0124168	.0039446	401.8589	-.001859	.1976932
Stddev	.002400	.0202455	.0001227	.0005999	5.9604	.001444	.0004182
%RSD	.1404808	5.093950	.9880733	15.20763	1.483211	77.66668	.2115580
#1	1.711163	.4189340	.0123767	.0036918	408.5114	-.000295	.1976949
#2	1.706488	.3946600	.0125545	.0035126	397.0046	-.002142	.1972742
#3	1.707880	.3787307	.0123191	.0046296	400.0608	-.003142	.1981106

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8242638	.7059064	-.003489	-.002038	.0010174	.7985568	.3558582
Stddev	.0184799	.0037381	.000653	.000895	.0002229	.0108525	.0022445
%RSD	2.241987	.5295406	18.72505	43.90537	21.90863	1.359014	.6307356
#1	.8444697	.7102196	-.003050	-.002880	.0010145	.8056044	.3583428
#2	.8201019	.7038938	-.003178	-.002136	.0007960	.8040066	.3552544
#3	.8082197	.7036059	-.004240	-.001098	.0012417	.7860594	.3539773

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1894-01 Acquired: 5/1/2025 15:38:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.9165453	.0724198	-.165980
Stddev	.0038187	.0004227	.000843
%RSD	.4166407	.5836456	.5076719
#1	.9201720	.0726289	-.166947
#2	.9125599	.0726971	-.165587
#3	.9169040	.0719333	-.165406

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2983.760	68257.32	10452.41	2731.391	4443.887
Stddev	16.158	476.68	34.96	5.807	19.956
%RSD	.5415258	.6983592	.3345074	.2125841	.4490759
#1	2967.656	67744.49	10414.14	2725.468	4424.262
#2	2983.651	68340.57	10460.42	2731.629	4443.239
#3	2999.972	68686.89	10482.67	2737.074	4464.159

Sample Name: Q1894-02 Acquired: 5/1/2025 15:42:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004290	.0017139	-.001759	-.008625	-.003313	.0253150	.6488719
Stddev	.003115	.0005953	.000754	.002874	.000824	.0013958	.0030981
%RSD	72.59915	34.73388	42.88788	33.32854	24.88127	5.513542	.4774623
#1	-.001466	.0010378	-.002274	-.007726	-.002686	.0243022	.6452962
#2	-.007631	.0021593	-.002110	-.011841	-.003007	.0247357	.6505648
#3	-.003775	.0019446	-.000893	-.006307	-.004247	.0269071	.6507547

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005232	-.004809	1.695993	.0223246	.0018028	.0052353	67.77996
Stddev	.0000241	.000049	.019329	.0002334	.0002456	.0005001	.52154
%RSD	4.605537	1.020866	1.139664	1.045482	13.62307	9.553442	.7694596
#1	.0005021	-.004863	1.715046	.0225740	.0015765	.0047580	68.32671
#2	.0005181	-.004768	1.696533	.0221114	.0020640	.0057555	67.72522
#3	.0005495	-.004796	1.676400	.0222883	.0017681	.0051922	67.28795

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4972882	.1675329	.0034034	.0016648	454.7155	.0021051	.2993674
Stddev	.0038516	.0098821	.0004061	.0001994	2.8938	.0011675	.0013488
%RSD	.7745215	5.898619	11.93316	11.97592	.6363979	55.45894	.4505491
#1	.4948529	.1785507	.0034969	.0018685	454.7837	.0025052	.2999001
#2	.4952829	.1594525	.0037546	.0014701	457.5746	.0007902	.3003685
#3	.5017287	.1645954	.0029587	.0016559	451.7882	.0030199	.2978336

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8593006	.3649247	-.002187	-.002550	.0001797	.3919720	.8660035
Stddev	.0176722	.0011965	.000129	.001780	.0005882	.0071246	.0033403
%RSD	2.056580	.3278759	5.906121	69.78020	327.2996	1.817637	.3857121
#1	.8439035	.3653365	-.002076	-.003010	-.000462	.3917414	.8634199
#2	.8554015	.3658608	-.002329	-.004055	.000307	.3992091	.8697755
#3	.8785967	.3635766	-.002157	-.000586	.000694	.3849654	.8648151

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1894-02 Acquired: 5/1/2025 15:42:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.198327	.0206466	-.053017
Stddev	.001820	.0000268	.000426
%RSD	.1518999	.1297781	.8037219
#1	1.198867	.0206431	-.053453
#2	1.199816	.0206218	-.052997
#3	1.196298	.0206750	-.052601

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2983.661	69368.29	11396.53	2771.196	4429.895
Stddev	15.736	217.51	133.58	9.111	39.028
%RSD	.5274199	.3135522	1.172144	.3287855	.8810141
#1	2976.091	69137.08	11535.03	2760.682	4421.789
#2	2973.139	69398.95	11386.08	2776.142	4395.556
#3	3001.751	69568.84	11268.47	2776.765	4472.339

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1894-03 Acquired: 5/1/2025 15:47:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006224	.0004394	-.001346	-.002988	-.002166	.0307590	.4960701
Stddev	.001577	.0020555	.000605	.003437	.002836	.0018607	.0062832
%RSD	25.32948	467.7712	44.95010	115.0029	130.9526	6.049155	1.266598
#1	-.007886	.0005424	-.001976	-.003326	-.005184	.0319665	.4931614
#2	-.004750	.0024415	-.001292	-.006244	-.001755	.0316943	.4917684
#3	-.006036	-.001666	-.000770	.000605	.000443	.0286163	.5032806

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003519	-.003310	1.240197	.0158949	.0046350	.0052061	47.77660
Stddev	.0000280	.000082	.008966	.0000832	.0000300	.0004684	.35440
%RSD	7.955937	2.478435	.7229850	.5234992	.6463049	8.997776	.7417903
#1	.0003437	-.003404	1.241129	.0159730	.0046065	.0051000	47.85275
#2	.0003289	-.003252	1.230801	.0158074	.0046663	.0057186	47.39031
#3	.0003830	-.003274	1.248661	.0159044	.0046322	.0047999	48.08673

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3680313	.1460162	.0033287	.0015050	383.1045	-.000257	1.834157
Stddev	.0044131	.0040831	.0005262	.0003955	3.0092	.000938	.007500
%RSD	1.199101	2.796345	15.80795	26.27998	.7854877	365.4051	.4089090
#1	.3663819	.1434641	.0039258	.0011607	380.4397	.000799	1.835056
#2	.3646806	.1507255	.0029324	.0014173	382.5056	-.000572	1.826248
#3	.3730315	.1438590	.0031281	.0019370	386.3681	-.000997	1.841167

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6093297	.2568561	-.002035	-.002761	.0012285	.2618460	.7875631
Stddev	.0479424	.0017894	.000084	.000785	.0004701	.0162390	.0064956
%RSD	7.868056	.6966334	4.149287	28.41205	38.26471	6.201721	.8247744
#1	.6458166	.2566410	-.002130	-.002083	.0011608	.2465222	.7930184
#2	.5550307	.2551839	-.002007	-.003620	.0017287	.2601490	.7892933
#3	.6271419	.2587432	-.001969	-.002581	.0007959	.2788669	.7803775

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1894-03 Acquired: 5/1/2025 15:47:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7595598	.0144538	-.036050
Stddev	.0044089	.0015241	.000259
%RSD	.5804533	10.54496	.7177866
#1	.7559955	.0158713	-.036211
#2	.7581940	.0146483	-.035751
#3	.7644900	.0128417	-.036187

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3039.353	70027.70	10987.46	2787.011	4563.906
Stddev	16.370	533.02	137.31	28.385	42.528
%RSD	.5386162	.7611513	1.249727	1.018491	.9318304
#1	3027.128	69898.30	11086.49	2775.294	4532.065
#2	3032.980	70613.50	11045.19	2819.380	4547.450
#3	3057.952	69571.30	10830.71	2766.360	4612.203

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1904-02 Acquired: 5/1/2025 15:51:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006658	-.006583	.0054045	.0015679	-.001354	-.050201	.5662663
Stddev	.004385	.002203	.0012811	.0027192	.001025	.010023	.0013442
%RSD	65.86496	33.46453	23.70363	173.4253	75.75319	19.96644	.2373863
#1	-.001659	-.007998	.0039264	.0004952	-.002538	-.045241	.5663047
#2	-.008457	-.004045	.0061945	.0046598	-.000748	-.061737	.5675909
#3	-.009858	-.007705	.0060926	-.000451	-.000775	-.043625	.5649032

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000121	.0011948	97.50760	.0011088	-.000980	.0142637	.0032420
Stddev	.000052	.0001393	.42407	.0003019	.000203	.0005719	.0020417
%RSD	42.98452	11.65536	.4349049	27.23070	20.71384	4.009296	62.97582
#1	-.000086	.0010342	97.56561	.0014373	-.001121	.0148164	.0047797
#2	-.000097	.0012816	97.89968	.0010457	-.000748	.0143005	.0009255
#3	-.000181	.0012687	97.05752	.0008434	-.001072	.0136744	.0040208

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.058831	4.997402	.0062154	-.000139	401.0051	.0022827	.1771776
Stddev	.003513	.030311	.0002367	.000436	5.5736	.0004739	.0013828
%RSD	.3317652	.6065332	3.808761	314.5630	1.389896	20.76179	.7804695
#1	1.059633	5.012171	.0063617	-.000052	394.7292	.0022471	.1764385
#2	1.061873	5.017499	.0063423	.000248	402.9085	.0027735	.1763215
#3	1.054986	4.962538	.0059423	-.000612	405.3777	.0018276	.1787729

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.065245	.0489031	-.000483	-.005816	-.001905	1.665176	.0266372
Stddev	.010997	.0003758	.000571	.000148	.000872	.004923	.0009431
%RSD	.3587801	.7684330	118.2890	2.538462	45.77047	.2956656	3.540556
#1	3.072785	.0492953	-.000007	-.005903	-.002611	1.660743	.0255698
#2	3.070324	.0485462	-.001116	-.005899	-.000931	1.670475	.0269839
#3	3.052626	.0488679	-.000325	-.005645	-.002172	1.664311	.0273579

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1904-02 Acquired: 5/1/2025 15:51:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5972047	-.018405	.2229440
Stddev	.0053749	.000688	.0006729
%RSD	.9000074	3.740457	.3018316
#1	.5995887	-.018407	.2223149
#2	.6009751	-.017715	.2228635
#3	.5910501	-.019092	.2236535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2991.724	70406.74	11394.65	2734.530	4460.177
Stddev	8.816	157.22	75.65	11.146	25.646
%RSD	.2946830	.2232975	.6639287	.4075913	.5749918
#1	2993.791	70229.16	11375.65	2741.874	4452.793
#2	2999.324	70528.18	11330.31	2740.010	4488.705
#3	2982.059	70462.88	11477.99	2721.705	4439.033

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167800BL Acquired: 5/1/2025 15:56:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001950	-.001981	-.000396	-.000890	-.003543	-.010297	-.002344
Stddev	.000623	.000756	.002828	.002841	.002731	.002496	.000930
%RSD	31.94469	38.17597	713.8576	319.2898	77.09614	24.24274	39.69996
#1	-.002664	-.001222	-.002192	.001799	-.006390	-.009286	-.003307
#2	-.001518	-.002735	-.001860	-.000607	-.003292	-.013140	-.002274
#3	-.001668	-.001986	.002864	-.003862	-.000945	-.008465	-.001450

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000037	-.000420	.0359116	.0002519	-.000642	-.000858	-.003151
Stddev	.0000634	.000010	.0126284	.0001021	.000117	.000802	.006292
%RSD	1715.360	2.261593	35.16513	40.51044	18.19945	93.49140	199.6635
#1	-.000033	-.000429	.0422793	.0001344	-.000728	-.000142	-.009437
#2	-.000033	-.000411	.0440883	.0003183	-.000509	-.000707	-.003165
#3	.000077	-.000421	.0213671	.0003031	-.000688	-.001724	.003147

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001513	.0278834	-.000047	-.000247	.2425147	.0011840	-.000999
Stddev	.000229	.0137328	.000257	.000318	.0292101	.0006544	.000367
%RSD	15.13014	49.25087	543.3216	128.6701	12.04469	55.27158	36.74627
#1	-.001298	.0434505	.000146	-.000206	.2762413	.0007420	-.001394
#2	-.001486	.0227144	-.000340	.000048	.2253081	.0019359	-.000935
#3	-.001754	.0174851	.000052	-.000584	.2259947	.0008743	-.000668

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1518604	-.002119	-.001210	.0064730	.0003253	-.008013	-.000032
Stddev	.0072001	.000690	.000049	.0006603	.0004927	.003085	.003165
%RSD	4.741253	32.56031	4.028813	10.20123	151.4696	38.50468	9770.301
#1	.1536300	-.001726	-.001264	.0057108	-.000159	-.008758	.000564
#2	.1580106	-.002916	-.001169	.0068714	.000826	-.010658	-.003453
#3	.1439404	-.001716	-.001198	.0068368	.000309	-.004624	.002792

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167800BL Acquired: 5/1/2025 15:56:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.005056	.0026509	-.000151
Stddev	.003925	.0020681	.000046
%RSD	77.62602	78.01419	30.75031
#1	-.000672	.0039610	-.000107
#2	-.008244	.0002668	-.000145
#3	-.006252	.0037249	-.000200

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3264.699	73797.46	11406.96	3007.276	5022.580
Stddev	15.041	284.43	47.65	18.580	14.474
%RSD	.4607292	.3854136	.4177156	.6178379	.2881689
#1	3247.783	73488.42	11452.59	2989.121	5006.485
#2	3276.565	74048.25	11357.52	3026.254	5034.526
#3	3269.751	73855.72	11410.76	3006.453	5026.729

Sample Name: CCV02 Acquired: 5/1/2025 16:00:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	4.934531	5.100162	4.975163	4.958131	4.970711	9.811328	10.15804
Stddev	.013962	.016215	.020086	.003325	.011743	.018203	.00859
%RSD	.2829410	.3179399	.4037299	.0670607	.2362431	.1855310	.0845590
#1	4.934241	5.114985	4.993323	4.958301	4.982555	9.793614	10.15678
#2	4.948635	5.082844	4.978578	4.961367	4.970508	9.810385	10.15015
#3	4.920716	5.102658	4.953589	4.954724	4.959072	9.829984	10.16719

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2295066	2.474605	24.74963	.9954525	2.477989	1.245207	5.208307
Stddev	.0010259	.007470	.06826	.0027553	.006183	.002592	.052355
%RSD	.4469828	.3018496	.2758152	.2767890	.2495000	.2081809	1.005225
#1	.2284227	2.482197	24.76616	.9958359	2.483488	1.245026	5.243662
#2	.2296346	2.474356	24.80811	.9979961	2.479183	1.247886	5.233099
#3	.2304624	2.467264	24.67462	.9925256	2.471297	1.242710	5.148161

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.482892	24.46238	2.475900	1.223181	25.46035	2.483816	2.455934
Stddev	.004959	.11707	.006923	.001583	.10946	.002377	.012602
%RSD	.1997170	.4785638	.2796342	.1294233	.4299105	.0957068	.5131291
#1	2.478976	24.35222	2.482632	1.223344	25.58018	2.485351	2.466162
#2	2.488468	24.58531	2.476270	1.221523	25.43525	2.481078	2.441856
#3	2.481232	24.44963	2.468799	1.224676	25.36563	2.485020	2.459785

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.88807	4.602329	5.024717	4.958733	4.988722	5.050899	4.786809
Stddev	.11222	.027033	.009445	.018000	.003765	.019235	.019420
%RSD	.4334995	.5873665	.1879765	.3629962	.0754660	.3808306	.4056892
#1	26.01758	4.572478	5.033416	4.974690	4.989440	5.064490	4.806276
#2	25.81952	4.609352	5.026066	4.962288	4.992076	5.059317	4.786715
#3	25.82710	4.625157	5.014671	4.939220	4.984650	5.028889	4.767437

Sample Name: CCV02 Acquired: 5/1/2025 16:00:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	4.844104	4.811090	5.036998
Stddev	.002906	.009432	.014348
%RSD	.0599941	.1960417	.2848471
#1	4.846765	4.807556	5.043330
#2	4.844545	4.803935	5.020573
#3	4.841003	4.821778	5.047089

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3268.329	75035.56	11314.49	3030.012	4894.359
Stddev	4.235	140.66	46.37	16.405	5.190
%RSD	.1295786	.1874580	.4098049	.5414298	.1060423
#1	3266.130	74985.93	11366.94	3011.086	4889.205
#2	3265.645	74926.45	11278.95	3038.771	4894.287
#3	3273.211	75194.31	11297.58	3040.177	4899.584

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB02 Acquired: 5/1/2025 16:04:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0010046	.0016741	.0009501	.0044046	-.001786	-.002869	-.001086
Stddev	.0022167	.0012551	.0021431	.0039125	.002327	.001629	.000826
%RSD	220.6636	74.97047	225.5812	88.82799	130.2645	56.78823	76.07144
#1	.0035054	.0021512	-.001050	.0065235	-.004241	-.004258	-.000484
#2	.0002264	.0026206	.003212	.0068007	-.001506	-.001076	-.000747
#3	-.000718	.0002504	.000687	-.000110	.000387	-.003272	-.002028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001099	.0005980	.0127517	.0008978	.0005406	-.000054	-.006566
Stddev	.0000227	.0001251	.0062429	.0004412	.0000271	.000354	.000622
%RSD	20.62680	20.92429	48.95688	49.14464	5.010315	651.2085	9.470742
#1	.0001107	.0007346	.0068998	.0008465	.0005685	.000238	-.007263
#2	.0001321	.0004890	.0120323	.0004844	.0005388	-.000449	-.006070
#3	.0000868	.0005704	.0193231	.0013624	.0005144	.000048	-.006364

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002432	.0276026	.0010509	.0003135	.0118124	.0001052	-.000387
Stddev	.000372	.0033127	.0004371	.0001948	.0131823	.0007128	.000349
%RSD	15.27990	12.00131	41.59203	62.14258	111.5966	677.7207	90.18941
#1	-.002618	.0271036	.0015403	.0001448	.0085340	-.000036	.000010
#2	-.002004	.0245677	.0006995	.0002690	.0005788	-.000526	-.000647
#3	-.002674	.0311365	.0009127	.0005267	.0263246	.000878	-.000523

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0859876	.0072674	.0011762	.0183416	.0027501	.0143342	.0052483
Stddev	.0410426	.0004521	.0001684	.0006225	.0003246	.0090536	.0007066
%RSD	47.73081	6.221073	14.31448	3.393791	11.80290	63.16088	13.46259
#1	.0874411	.0069009	.0012235	.0184190	.0027207	.0225266	.0046013
#2	.0442376	.0077726	.0009892	.0176840	.0030884	.0158622	.0060022
#3	.1262842	.0071288	.0013158	.0189217	.0024412	.0046138	.0051413

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB02 Acquired: 5/1/2025 16:04:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.008051	-.000387	.0015999
Stddev	.003473	.000382	.0002028
%RSD	43.13923	98.75897	12.67393
#1	-.010977	.000005	.0018292
#2	-.004213	-.000758	.0015265
#3	-.008964	-.000408	.0014440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3280.334	73798.48	11304.49	3025.308	5091.029
Stddev	11.340	261.75	35.53	12.990	8.406
%RSD	.3456997	.3546845	.3143324	.4293675	.1651088
#1	3279.229	73515.80	11292.08	3012.727	5087.084
#2	3292.187	74032.46	11276.83	3038.671	5100.681
#3	3269.587	73847.19	11344.57	3024.526	5085.321

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167800BS Acquired: 5/1/2025 16:19:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7738181	1.959469	.9453728	1.965676	.7813501	1.817173
Stddev	.0078367	.011020	.0052598	.011482	.0090645	.007897
%RSD	1.012730	.5624204	.5563733	.5841294	1.160102	.4346016
#1	.7658979	1.948381	.9420198	1.955049	.7735814	1.808359
#2	.7739879	1.970420	.9426636	1.964124	.7791599	1.819556
#3	.7815685	1.959605	.9514349	1.977856	.7913090	1.823605

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1682920	.1890301	.1923862	.9209316	.3803265	.1873771
Stddev	.0014352	.0016033	.0014705	.0090345	.0014356	.0012426
%RSD	.8528193	.8482002	.7643227	.9810199	.3774578	.6631448
#1	.1667757	.1908334	.1914982	.9264126	.3805012	.1865801
#2	.1684709	.1884912	.1915770	.9105040	.3816666	.1867424
#3	.1696294	.1877656	.1940835	.9258782	.3788115	.1888088

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2938719	2.691017	.1794984	1.799735	.4741107	.0702020
Stddev	.0013460	.020677	.0008140	.037398	.0037699	.0006485
%RSD	.4580263	.7683827	.4534687	2.077968	.7951435	.9237845
#1	.2933494	2.667247	.1800218	1.842750	.4731506	.0703256
#2	.2928654	2.700961	.1785607	1.774926	.4709138	.0707799
#3	.2954008	2.704845	.1799129	1.781530	.4782678	.0695006

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.681549	.2718833	.1896421	8.804685	.2935439	.3918305
Stddev	.006787	.0015792	.0004751	.056831	.0023053	.0023048
%RSD	.2531005	.5808423	.2505010	.6454678	.7853401	.5882124
#1	2.674443	.2723051	.1895267	8.749032	.2960814	.3904139
#2	2.687964	.2732087	.1901643	8.862626	.2929717	.3905876
#3	2.682240	.2701360	.1892354	8.802396	.2915785	.3944899

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167800BS Acquired: 5/1/2025 16:19:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6861390	.1830180	.7747047	5.700436	F -.008807	.1854819
Stddev	.0070314	.0000135	.0068450	.034940	.006356	.0006596
%RSD	1.024777	.0073892	.8835593	.6129298	72.16642	.3556220
#1	.6839206	.1830224	.7676408	5.679859	-.016067	.1847249
#2	.6804844	.1830288	.7813074	5.680671	-.004247	.1857873
#3	.6940121	.1830029	.7751659	5.740778	-.006108	.1859334

Elem	Sr4077
Units	ppm
Avg	.1785819
Stddev	.0002597
%RSD	.1453948
#1	.1783013
#2	.1786306
#3	.1788137

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3140.044	71467.17	10232.30	2929.700	4840.272
Stddev	6.953	80.97	62.56	2.991	19.420
%RSD	.2214152	.1132995	.6114163	.1020869	.4012274
#1	3142.422	71373.75	10160.07	2928.305	4843.005
#2	3145.496	71517.20	10269.52	2933.134	4858.181
#3	3132.215	71510.56	10267.30	2927.662	4819.630

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167808BL Acquired: 5/1/2025 16:23:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001275	.0002709	-.000088	.0037348	-.001845	-.005657	-.004451
Stddev	.001757	.0011054	.002109	.0050680	.001072	.003065	.001209
%RSD	137.7494	408.0023	2384.811	135.6979	58.08902	54.18490	27.15260
#1	.000564	-.000346	-.000215	.0089836	-.002990	-.006079	-.003614
#2	-.002936	.001547	.002081	-.001131	-.000865	-.008490	-.005837
#3	-.001454	-.000388	-.002132	.003351	-.001681	-.002403	-.003903

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000350	-.000294	-.003621	.0004944	-.000491	-.000399	-.010326
Stddev	.0000104	.000043	.008292	.0002112	.000282	.000445	.000993
%RSD	29.65203	14.74139	229.0015	42.71591	57.42797	111.6654	9.618534
#1	.0000320	-.000339	.004057	.0004586	-.000177	.000115	-.009426
#2	.0000264	-.000290	-.002505	.0007212	-.000723	-.000647	-.010160
#3	.0000465	-.000253	-.012415	.0003034	-.000573	-.000664	-.011392

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001691	.0284136	.0002670	-.000084	-.021710	-.000305	-.000866
Stddev	.000057	.0214212	.0004459	.000150	.012295	.003125	.000380
%RSD	3.377998	75.39074	167.0053	178.2801	56.63331	1024.771	43.91595
#1	-.001755	.0073412	.0007697	.000008	-.029957	-.002155	-.001130
#2	-.001646	.0501674	-.000081	-.000003	-.027595	.003303	-.000430
#3	-.001672	.0277323	.000112	-.000257	-.007579	-.002062	-.001038

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0715393	.0000195	-.000914	.0070720	.0011523	-.000295	.0040333
Stddev	.0262629	.0005446	.000228	.0008713	.0005906	.014142	.0004944
%RSD	36.71115	2797.666	24.97538	12.32022	51.25105	4801.048	12.25836
#1	.0441723	.0004505	-.000789	.0078858	.0011868	.015927	.0045834
#2	.0739080	.0002005	-.001178	.0071775	.0017248	-.006776	.0038908
#3	.0965376	-.000593	-.000776	.0061528	.0005452	-.010034	.0036258

Sample Name: PB167808BL Acquired: 5/1/2025 16:23:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.003898	-.002765	-.000117
Stddev	.002298	.000715	.000073
%RSD	58.94922	25.85757	62.75990
#1	-.001442	-.003450	-.000192
#2	-.005995	-.002823	-.000112
#3	-.004258	-.002023	-.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3186.664	71904.79	11166.26	2939.070	4940.532
Stddev	7.062	392.53	38.58	8.502	10.550
%RSD	.2216041	.5458971	.3455333	.2892809	.2135423
#1	3178.689	72228.37	11122.30	2941.824	4928.543
#2	3189.181	72017.86	11181.97	2945.852	4944.650
#3	3192.123	71468.14	11194.52	2929.531	4948.401

Sample Name: PB167808BS Acquired: 5/1/2025 16:33:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7541796	1.936465	.9266840	1.920940	.8034505	1.780228
Stddev	.0064541	.003783	.0015832	.007229	.0017993	.005723
%RSD	.8557788	.1953810	.1708454	.3763238	.2239461	.3214558
#1	.7607950	1.933777	.9256017	1.913588	.8034255	1.780847
#2	.7478999	1.940792	.9259492	1.921193	.8016638	1.774221
#3	.7538440	1.934828	.9285011	1.928039	.8052621	1.785616

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1652609	.1827193	.1885424	.9059677	.3749301	.1836529
Stddev	.0005013	.0002008	.0006013	.0055966	.0019422	.0012466
%RSD	.3033433	.1098883	.3189234	.6177469	.5180153	.6787860
#1	.1656802	.1825303	.1882052	.9102991	.3758600	.1833190
#2	.1647056	.1829301	.1881853	.8996486	.3762325	.1826071
#3	.1653969	.1826975	.1892366	.9079554	.3726978	.1850324

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2880218	2.677126	.1772217	1.782760	.4647443	.0692337
Stddev	.0009911	.011763	.0014588	.005465	.0021451	.0004076
%RSD	.3441147	.4393857	.8231397	.3065544	.4615594	.5887088
#1	.2876648	2.669113	.1772674	1.782884	.4643648	.0694649
#2	.2872587	2.690631	.1786570	1.777234	.4628143	.0694731
#3	.2891420	2.671635	.1757406	1.788162	.4670538	.0687631

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.636830	.2663733	.1870902	8.658631	.2826803	.4045911
Stddev	.014968	.0026925	.0012862	.113129	.0007825	.0020271
%RSD	.5676649	1.010783	.6874790	1.306547	.2768102	.5010313
#1	2.648639	.2676218	.1885339	8.697126	.2827590	.4029776
#2	2.641855	.2632833	.1866706	8.747489	.2834204	.4039293
#3	2.619996	.2682149	.1860663	8.531278	.2818614	.4068664

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167808BS Acquired: 5/1/2025 16:33:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6953969	.1899801	.7982515	5.585789	F -.014295	.1816955
Stddev	.0029123	.0005004	.0214175	.004618	.005308	.0017412
%RSD	.4188026	.2633735	2.683052	.0826793	37.12873	.9582839
#1	.6939458	.1897197	.8192896	5.581902	-.015024	.1808676
#2	.6934951	.1896636	.7989912	5.584572	-.019200	.1805228
#3	.6987497	.1905569	.7764738	5.590894	-.008660	.1836962

Elem	Sr4077
Units	ppm
Avg	.1756348
Stddev	.0000841
%RSD	.0478904
#1	.1756862
#2	.1756805
#3	.1755377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3141.851	71463.02	10356.85	2908.204	4843.869
Stddev	3.717	409.70	8.47	10.720	5.212
%RSD	.1182985	.5733086	.0818039	.3686016	.1075943
#1	3143.704	71444.98	10366.29	2908.788	4848.392
#2	3137.572	71062.64	10349.91	2897.205	4845.045
#3	3144.276	71881.45	10354.36	2918.620	4838.170

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167774TB Acquired: 5/1/2025 16:37:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004856	-.002411	.0003621	.0034234	-.003109	-.006406	-.006651
Stddev	.001374	.001041	.0006580	.0042328	.001076	.009534	.001543
%RSD	28.30604	43.18682	181.6801	123.6457	34.60137	148.8318	23.20645
#1	-.005169	-.001331	-.000000	-.001054	-.002436	.000967	-.005828
#2	-.006046	-.002494	-.000035	.007360	-.004350	-.017172	-.005693
#3	-.003351	-.003409	.001122	.003964	-.002542	-.003012	-.008431

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000131	-.000284	-.002278	-.000308	-.000589	.0001701	-.011622
Stddev	.000081	.000125	.006653	.000333	.000036	.0003221	.006829
%RSD	62.21709	44.05851	292.1120	108.1993	6.110366	189.3008	58.75653
#1	-.000176	-.000355	-.002771	-.000105	-.000608	-.000065	-.003853
#2	-.000037	-.000357	-.008670	-.000692	-.000611	.000537	-.014341
#3	-.000180	-.000139	.004609	-.000127	-.000547	.000039	-.016673

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003014	.0042394	.0007684	-.000202	417.3100	-.000711	.0018516
Stddev	.000156	.0123082	.0002162	.000302	.4272	.001004	.0003845
%RSD	5.168811	290.3294	28.13003	149.5026	.1023732	141.1907	20.76672
#1	-.002838	.0127922	.0006890	-.000405	417.7935	-.001610	.0017498
#2	-.003136	-.009867	.0010130	.000145	416.9836	-.000894	.0015282
#3	-.003066	.009793	.0006032	-.000346	417.1528	.000372	.0022767

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0850426	-.002219	-.001052	-.000534	.0002443	-.004563	.0051579
Stddev	.0523981	.000567	.000278	.000765	.0009558	.001259	.0019567
%RSD	61.61392	25.53694	26.40012	143.4135	391.2555	27.59488	37.93607
#1	.1273937	-.002078	-.001335	-.000340	.0000895	-.003116	.0033112
#2	.1012883	-.002843	-.000780	-.001377	.0012680	-.005163	.0049538
#3	.0264458	-.001737	-.001040	.000116	-.000625	-.005411	.0072086

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167774TB Acquired: 5/1/2025 16:37:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0263575	-.005939	-.000201
Stddev	.0045546	.001406	.000021
%RSD	17.27988	23.68275	10.55384
#1	.0285906	-.006512	-.000200
#2	.0293645	-.006968	-.000223
#3	.0211174	-.004336	-.000181

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3032.350	69260.76	11511.99	2800.450	4502.743
Stddev	7.561	164.30	20.73	11.736	12.172
%RSD	.2493510	.2372207	.1801017	.4190853	.2703227
#1	3029.337	69402.47	11492.60	2811.359	4493.187
#2	3026.760	69299.16	11509.51	2801.958	4498.595
#3	3040.953	69080.66	11533.85	2788.032	4516.447

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167757BL Acquired: 5/1/2025 16:42:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.002412	-.000283	-.000652	-.000135	-.003899	-.004239	-.003719
Stddev	.001369	.002883	.001275	.000702	.001453	.005028	.000588
%RSD	56.74110	1019.949	195.3759	520.7707	37.27180	118.6124	15.80050
#1	-.003930	-.002745	.000074	.000236	-.003395	-.005989	-.003060
#2	-.002037	.002889	.000093	.000304	-.005537	.001430	-.003911
#3	-.001270	-.000992	-.002124	-.000945	-.002764	-.008160	-.004187

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000037	-.000277	-.001965	.0000243	-.000619	-.000076	-.009795
Stddev	.000051	.000036	.003009	.0001248	.000337	.000217	.010086
%RSD	140.8244	13.04437	153.0958	514.4066	54.44910	284.4177	102.9788
#1	-.000005	-.000318	.001041	-.000060	-.000801	.000129	-.011460
#2	-.000096	-.000251	-.004976	-.000034	-.000230	-.000055	-.018945
#3	-.000008	-.000263	-.001960	.000168	-.000827	-.000303	.001021

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001811	.0191320	-.000148	-.000231	.1265060	.0000747	-.001013
Stddev	.000390	.0051945	.000172	.000363	.0399441	.0020928	.000741
%RSD	21.52232	27.15067	115.6690	157.1727	31.57490	2802.654	73.10958
#1	-.002261	.0216524	-.000261	-.000280	.1689529	.0023880	-.001816
#2	-.001564	.0131582	-.000234	.000154	.1209104	-.000477	-.000356
#3	-.001610	.0225855	.000049	-.000567	.0896547	-.001687	-.000868

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0739601	-.001270	-.000908	.0066990	.0003253	.0070951	.0005825
Stddev	.0178719	.000132	.000138	.0010030	.0007033	.0139647	.0018762
%RSD	24.16429	10.42367	15.16410	14.97168	216.2174	196.8208	322.0887
#1	.0536303	-.001234	-.001066	.0056587	-.000118	-.008659	.0023999
#2	.0810543	-.001417	-.000838	.0067784	.001136	.011995	-.001347
#3	.0871957	-.001160	-.000818	.0076599	-.000042	.017949	.000695

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167757BL Acquired: 5/1/2025 16:42:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006312	-.001253	-.000183
Stddev	.003548	.000975	.000027
%RSD	56.20940	77.84195	14.47697
#1	-.009757	-.000131	-.000197
#2	-.002670	-.001900	-.000153
#3	-.006509	-.001727	-.000200

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3204.814	72221.35	10869.21	2962.332	4936.364
Stddev	7.613	139.68	5.14	20.430	6.704
%RSD	.2375476	.1934046	.0473128	.6896605	.1358181
#1	3213.255	72077.65	10863.57	2938.754	4943.957
#2	3202.720	72356.63	10873.63	2973.457	4931.261
#3	3198.468	72229.78	10870.44	2974.785	4933.875

Sample Name: PB167757BS Acquired: 5/1/2025 16:46:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7657740	1.976971	.9422010	1.939204	.7851114	1.828086
Stddev	.0017148	.022162	.0042723	.003893	.0006077	.003742
%RSD	.2239321	1.121010	.4534338	.2007473	.0774079	.2046999
#1	.7677311	1.955864	.9409494	1.934747	.7852976	1.826225
#2	.7650559	2.000055	.9386944	1.940925	.7844324	1.825640
#3	.7645350	1.974994	.9469593	1.941940	.7856043	1.832394

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1671341	.1920268	.1922304	.9240091	.3829256	.1868876
Stddev	.0014940	.0012442	.0006680	.0086595	.0002404	.0007900
%RSD	.8939127	.6479319	.3475221	.9371636	.0627815	.4227177
#1	.1675031	.1913499	.1920864	.9140300	.3826480	.1868449
#2	.1684090	.1934627	.1916461	.9284512	.3830665	.1861199
#3	.1654901	.1912678	.1929587	.9295462	.3830623	.1876981

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2915466	2.707004	.1813338	1.815903	.4715802	.0704709
Stddev	.0003423	.015421	.0002982	.002340	.0006126	.0001002
%RSD	.1174171	.5696625	.1644262	.1288667	.1299130	.1421397
#1	.2914422	2.704308	.1812763	1.813724	.4709220	.0705566
#2	.2919289	2.693108	.1816566	1.818376	.4716847	.0703608
#3	.2912686	2.723594	.1810686	1.815609	.4721339	.0704951

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.684509	.2727151	.1919477	8.786670	.2960090	.3985854
Stddev	.015953	.0022122	.0006819	.041907	.0007439	.0012200
%RSD	.5942531	.8111570	.3552431	.4769435	.2513112	.3060928
#1	2.683217	.2703129	.1921971	8.814174	.2957883	.3974518
#2	2.669242	.2746682	.1911762	8.738438	.2968383	.3984278
#3	2.701068	.2731643	.1924698	8.807399	.2954004	.3998766

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167757BS Acquired: 5/1/2025 16:46:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6877262	.1866244	.7880982	5.669327	F -.011869	.1859991
Stddev	.0013827	.0009644	.0114730	.011464	.004726	.0013636
%RSD	.2010531	.5167368	1.455783	.2022144	39.81506	.7331166
#1	.6878527	.1867553	.7966550	5.656156	-.012934	.1845858
#2	.6862846	.1875166	.7750611	5.674756	-.006702	.1873068
#3	.6890413	.1856012	.7925786	5.677067	-.015972	.1861048

Elem	Sr4077
Units	ppm
Avg	.1785898
Stddev	.0006523
%RSD	.3652390
#1	.1790762
#2	.1788446
#3	.1778486

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3193.467	71483.35	10173.90	2943.598	4911.318
Stddev	2.970	20.82	45.31	11.323	6.588
%RSD	.0929985	.0291275	.4453929	.3846571	.1341426
#1	3195.168	71475.27	10192.01	2950.240	4908.364
#2	3195.196	71467.79	10122.33	2950.030	4918.867
#3	3190.038	71507.00	10207.35	2930.524	4906.724

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167799BL Acquired: 5/1/2025 16:50:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.003901	.0002986	.0002963	-.000570	-.001570	-.003697	-.004636
Stddev	.000868	.0003605	.0016688	.001954	.003229	.003437	.001149
%RSD	22.26254	120.7647	563.2462	343.1291	205.6506	92.96810	24.78585
#1	-.003366	.0004277	-.001481	-.000057	-.005241	-.007326	-.003398
#2	-.003433	-.000109	.001830	.001077	-.000304	-.003271	-.005668
#3	-.004903	.000577	.000540	-.002729	.000834	-.000493	-.004842

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000139	-.000317	.0010526	.0004654	-.000208	-.000726	-.012863
Stddev	.0000173	.000120	.0032002	.0003195	.000270	.000247	.005957
%RSD	125.0633	37.93434	304.0152	68.65092	129.6128	34.06060	46.31040
#1	-.000006	-.000449	-.002206	.0008335	-.000385	-.000483	-.009824
#2	.000021	-.000214	.001174	.0003026	-.000343	-.000717	-.009038
#3	.000026	-.000289	.004190	.0002601	.000103	-.000977	-.019726

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002010	.0235109	-.000364	-.000543	-.031789	-.000280	-.001303
Stddev	.000280	.0084814	.000176	.000250	.001272	.000197	.000360
%RSD	13.95163	36.07443	48.28555	46.06163	4.000921	70.34701	27.63038
#1	-.002120	.0196754	-.000562	-.000760	-.033229	-.000061	-.001658
#2	-.002220	.0176247	-.000224	-.000269	-.030820	-.000336	-.000938
#3	-.001692	.0332325	-.000306	-.000598	-.031317	-.000442	-.001312

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0507436	-.000904	-.000715	.0062062	.0006911	.0008716	.0034784
Stddev	.0222197	.000417	.000421	.0012375	.0007514	.0056857	.0014897
%RSD	43.78821	46.16685	58.78737	19.93984	108.7248	652.3491	42.82756
#1	.0623674	-.001380	-.000230	.0076073	.0006455	-.004624	.0050514
#2	.0647403	-.000729	-.000978	.0057489	.0014643	.000508	.0020889
#3	.0251231	-.000603	-.000938	.0052625	-.000036	.006730	.0032949

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167799BL Acquired: 5/1/2025 16:50:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.003988	-.002321	-.000210
Stddev	.003394	.001276	.000061
%RSD	85.10340	54.98468	28.92429
#1	-.005700	-.002922	-.000173
#2	-.006186	-.003185	-.000281
#3	-.000079	-.000855	-.000178

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3154.991	72431.11	11301.33	2952.280	4851.462
Stddev	18.158	313.79	49.33	8.923	31.048
%RSD	.5755317	.4332220	.4365137	.3022275	.6399626
#1	3134.612	72114.18	11245.03	2942.064	4816.271
#2	3169.449	72437.50	11321.98	2956.231	4874.987
#3	3160.913	72741.66	11336.99	2958.544	4863.128

Sample Name: PB167799BS Acquired: 5/1/2025 16:55:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7423295	1.927752	.9148082	1.864145	.7891540	1.766641
Stddev	.0077660	.011606	.0017734	.003018	.0023108	.019894
%RSD	1.046165	.6020342	.1938542	.1619003	.2928195	1.126092
#1	.7374515	1.922483	.9167330	1.860784	.7865012	1.743797
#2	.7382521	1.941058	.9144511	1.865026	.7907284	1.780159
#3	.7512850	1.919716	.9132406	1.866624	.7902325	1.775967

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1627431	.1879381	.1864746	.9016624	.3763148	.1818631
Stddev	.0015816	.0018381	.0002804	.0040143	.0018702	.0002789
%RSD	.9718460	.9780361	.1503800	.4452124	.4969727	.1533568
#1	.1621786	.1858232	.1861834	.8977136	.3774507	.1820080
#2	.1615212	.1888405	.1864975	.9015346	.3741563	.1815416
#3	.1645295	.1891506	.1867428	.9057391	.3773373	.1820398

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2832282	2.616191	.1757369	1.767035	.4580830	.0692234
Stddev	.0010388	.016623	.0017632	.031507	.0017072	.0005816
%RSD	.3667794	.6353846	1.003299	1.783058	.3726871	.8402237
#1	.2828193	2.634704	.1737234	1.745183	.4583846	.0690999
#2	.2824560	2.611323	.1770046	1.752769	.4562451	.0687134
#3	.2844092	2.602545	.1764827	1.803152	.4596193	.0698568

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.584661	.2624092	.1885296	8.505199	.2876537	.4026713
Stddev	.011472	.0035620	.0005073	.083733	.0024040	.0008402
%RSD	.4438659	1.357437	.2690742	.9844909	.8357167	.2086574
#1	2.597864	.2582997	.1891094	8.599033	.2849861	.4022436
#2	2.577119	.2643154	.1881673	8.438094	.2883226	.4021310
#3	2.579000	.2646125	.1883122	8.478470	.2896524	.4036393

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167799BS Acquired: 5/1/2025 16:55:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6890655	.1879123	.7838721	5.442540	F -.013463	.1793887
Stddev	.0002564	.0010998	.0154801	.009530	.002568	.0008659
%RSD	.0372032	.5852672	1.974824	.1750930	19.07527	.4826940
#1	.6892910	.1869195	.8010902	5.433248	-.014782	.1788567
#2	.6891188	.1890945	.7794205	5.452290	-.015104	.1789215
#3	.6887866	.1877230	.7711055	5.442083	-.010504	.1803879

Elem	Sr4077
Units	ppm
Avg	.1729368
Stddev	.0009667
%RSD	.5589727
#1	.1718477
#2	.1736932
#3	.1732694

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3222.225	71374.67	10129.72	2919.507	4980.621
Stddev	7.891	476.22	77.10	20.332	10.596
%RSD	.2448951	.6672130	.7611032	.6964019	.2127349
#1	3227.727	70936.48	10209.14	2902.651	4986.486
#2	3225.764	71881.48	10124.85	2942.087	4986.986
#3	3213.184	71306.04	10055.18	2913.783	4968.389

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01 Acquired: 5/1/2025 16:59:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6431942	.0059248	3.941580	.0235379	.0018509	79.71898	.5480036
Stddev	.0014617	.0022323	.004420	.0047778	.0035058	.17985	.0004596
%RSD	.2272541	37.67783	.1121399	20.29817	189.4162	.2256106	.0838654
#1	.6419581	.0066264	3.939758	.0220610	-.001325	79.58282	.5483268
#2	.6428169	.0077221	3.938362	.0196730	.001265	79.65127	.5482065
#3	.6448075	.0034260	3.946620	.0288797	.005613	79.92287	.5474775

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094708	.0068191	17.52170	.2213784	.0465148	.4468777	165.9952
Stddev	.0001912	.0003463	.02542	.0015804	.0002149	.0012576	.9092
%RSD	2.018408	5.078520	.1450586	.7138894	.4619940	.2814308	.5477047
#1	.0096443	.0065464	17.54233	.2231780	.0462668	.4472736	166.7913
#2	.0095023	.0067022	17.49330	.2202164	.0466329	.4454697	166.1898
#3	.0092659	.0072088	17.52946	.2207408	.0466449	.4478897	165.0045

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.148272	11.68406	.1051962	.0000639	1.181958	.3006277	1.699269
Stddev	.005879	.09478	.0004954	.0002982	.003438	.0009468	.017851
%RSD	.2736767	.8111866	.4709482	466.6556	.2908785	.3149318	1.050485
#1	2.144237	11.59578	.1055731	-.000124	1.185855	.2995370	1.718366
#2	2.145562	11.67218	.1046351	.000408	1.180669	.3011078	1.683003
#3	2.155018	11.78422	.1053806	-.000092	1.179351	.3012382	1.696439

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.433032	.5207109	.0044110	.0179130	1.186883	3.024858	9.414204
Stddev	.026368	.0025630	.0001870	.0007958	.002859	.016626	.011475
%RSD	.4853226	.4922112	4.239803	4.442448	.2408894	.5496530	.1218946
#1	5.460834	.5221035	.0046168	.0170813	1.189408	3.037187	9.426034
#2	5.429879	.5222761	.0042515	.0186672	1.187462	3.031439	9.413459
#3	5.408382	.5177531	.0043647	.0179905	1.183778	3.005949	9.403119

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01 Acquired: 5/1/2025 16:59:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.623931	.1179317	-.050901
Stddev	.003451	.0014814	.000674
%RSD	.2124857	1.256149	1.324046
#1	1.627175	.1177077	-.051435
#2	1.620306	.1165751	-.051126
#3	1.624311	.1195124	-.050144

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3467.221	78187.34	10886.16	3177.484	4814.035
Stddev	6.068	258.09	45.38	16.204	10.862
%RSD	.1750184	.3300967	.4168519	.5099492	.2256236
#1	3465.582	77901.59	10918.07	3158.880	4816.084
#2	3473.940	78256.90	10906.20	3185.058	4823.727
#3	3462.140	78403.52	10834.21	3188.514	4802.295

Sample Name: CCV03 Acquired: 5/1/2025 17:03:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.040658	5.140151	5.007271	5.056661	5.040408	9.801566	9.954839
Stddev	.016350	.072154	.007540	.019921	.020120	.029520	.115932
%RSD	.3243559	1.403741	.1505835	.3939520	.3991669	.3011806	1.164579
#1	5.028099	5.066918	5.014824	5.034803	5.017990	9.833002	10.07829
#2	5.034729	5.211176	5.007247	5.061384	5.046339	9.797262	9.93794
#3	5.059144	5.142359	4.999744	5.073796	5.056895	9.774434	9.84828

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2277257	2.508453	24.44469	.9877434	2.496454	1.270653	5.236900
Stddev	.0007489	.003151	.04057	.0029690	.002613	.001983	.055782
%RSD	.3288465	.1256269	.1659741	.3005818	.1046577	.1560891	1.065175
#1	.2268622	2.506855	24.49107	.9873217	2.496481	1.268986	5.300039
#2	.2281971	2.506422	24.42720	.9909007	2.493829	1.270127	5.216367
#3	.2281178	2.512084	24.41580	.9850079	2.499054	1.272846	5.194295

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.442892	24.15775	2.503203	1.217747	25.27061	2.467669	2.464553
Stddev	.005765	.08576	.002252	.001667	.12127	.005329	.006164
%RSD	.2360115	.3550177	.0899664	.1368627	.4798927	.2159552	.2501236
#1	2.449534	24.25612	2.504015	1.219537	25.39194	2.473822	2.465769
#2	2.439955	24.09865	2.500658	1.217462	25.27049	2.464540	2.470019
#3	2.439186	24.11848	2.504936	1.216241	25.14939	2.464644	2.457871

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.57306	4.553956	5.055908	5.016308	4.940824	5.030529	5.011677
Stddev	.11210	.007924	.016983	.011884	.012356	.028149	.017829
%RSD	.4383571	.1740083	.3359102	.2369153	.2500700	.5595704	.3557570
#1	25.67374	4.547966	5.036304	5.002644	4.954943	5.062931	4.999640
#2	25.59318	4.550961	5.066143	5.022038	4.935535	5.016567	5.032160
#3	25.45226	4.562941	5.065279	5.024241	4.931993	5.012091	5.003231

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV03 Acquired: 5/1/2025 17:03:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.008534	4.780391	4.976784
Stddev	.023112	.006132	.021594
%RSD	.4614516	.1282672	.4339002
#1	5.000388	4.786055	4.967038
#2	5.034616	4.781236	4.961782
#3	4.990598	4.773880	5.001534

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3145.592	74252.23	11188.96	2955.040	4696.443
Stddev	6.807	110.80	18.26	6.690	10.831
%RSD	.2163961	.1492234	.1631623	.2263978	.2306237
#1	3145.572	74168.83	11210.03	2959.070	4688.632
#2	3138.796	74209.89	11177.81	2947.318	4691.891
#3	3152.409	74377.95	11179.04	2958.733	4708.808

Sample Name: CCB03 Acquired: 5/1/2025 17:07:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0013930	.0008312	.0031389	.0007963	-.002190	-.000859	-.001234
Stddev	.0025227	.0012682	.0010146	.0028296	.000860	.003110	.001143
%RSD	181.0960	152.5757	32.32293	355.3478	39.28755	361.9212	92.68068
#1	.0001810	.0021856	.0043022	.0022383	-.002201	.002595	-.000221
#2	-.000295	-.000328	.0026777	-.002464	-.003044	-.003436	-.001006
#3	.004293	.000636	.0024369	.002614	-.001324	-.001737	-.002474

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001353	.0008752	.0150256	.0005005	.0007817	.0000762	.0229115
Stddev	.0000204	.0002218	.0085683	.0003622	.0001607	.0001426	.0019554
%RSD	15.04340	25.33724	57.02471	72.36943	20.55961	187.1338	8.534775
#1	.0001527	.0011003	.0181495	.0005831	.0008501	.0002288	.0209981
#2	.0001129	.0006570	.0053337	.0001041	.0008968	-.000054	.0249064
#3	.0001404	.0008684	.0215937	.0008143	.0005981	.000053	.0228300

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005226	.0236119	.0009805	.0003539	-.038719	-.000339	.0002622
Stddev	.0003802	.0042085	.0005641	.0003034	.017060	.001567	.0001543
%RSD	72.75249	17.82360	57.53121	85.73456	44.06112	461.8997	58.85380
#1	.0001268	.0212828	.0016084	.0006800	-.021284	-.001452	.0004343
#2	.0005559	.0210828	.0008163	.0000800	-.039495	-.001018	.0002162
#3	.0008851	.0284701	.0005167	.0003016	-.055377	.001452	.0001362

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0654450	.0066134	.0016920	.0055185	.0018837	.0040171	.0082077
Stddev	.0234719	.0008581	.0002903	.0005240	.0004767	.0094401	.0010004
%RSD	35.86516	12.97541	17.15836	9.495006	25.30449	234.9944	12.18884
#1	.0465359	.0070906	.0019894	.0057888	.0013359	-.005478	.0070599
#2	.0580838	.0056227	.0016774	.0058521	.0021113	.013401	.0086689
#3	.0917152	.0071268	.0014093	.0049145	.0022038	.004129	.0088944

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB03 Acquired: 5/1/2025 17:07:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001773	-.002009	.0014798
Stddev	.001486	.000639	.0001618
%RSD	83.83232	31.81455	10.93132
#1	-.001889	-.002733	.0015428
#2	-.003198	-.001525	.0012960
#3	-.000232	-.001768	.0016005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3254.975	74647.74	10809.34	3015.777	5012.298
Stddev	3.427	339.08	72.97	9.926	2.364
%RSD	.1052894	.4542445	.6750687	.3291358	.0471572
#1	3252.138	74459.39	10739.42	3011.539	5011.539
#2	3254.005	75039.19	10803.57	3027.119	5010.408
#3	3258.783	74444.65	10885.02	3008.674	5014.948

Sample Name: Q1910-01DUP Acquired: 5/1/2025 17:11:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.6611198	.0038330	4.010328	.0208575	-.000109	68.09388	.5026671
Stddev	.0071106	.0013288	.030967	.0022272	.000382	.12771	.0029692
%RSD	1.075541	34.66866	.7721762	10.67815	350.2711	.1875565	.5906873
#1	.6569808	.0051977	3.990225	.0234289	-.000079	68.21744	.5042808
#2	.6570481	.0037580	3.994770	.0195323	.000257	68.10182	.5044800
#3	.6693303	.0025432	4.045989	.0196114	-.000505	67.96238	.4992405

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081668	.0076563	14.29530	.2110783	.0435018	.4653970	149.2855
Stddev	.0000964	.0003283	.05935	.0010184	.0002650	.0044334	.3631
%RSD	1.180720	4.287581	.4151673	.4824696	.6091138	.9526108	.2432203
#1	.0082778	.0074341	14.33502	.2103869	.0432429	.4638090	149.5673
#2	.0081186	.0075015	14.32379	.2122478	.0434899	.4619763	149.4136
#3	.0081040	.0080333	14.22707	.2106002	.0437725	.4704058	148.8758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.009030	10.56863	.1016759	.0013677	.9974678	.2733439	1.822813
Stddev	.007284	.04274	.0014292	.0002838	.0057014	.0010888	.000900
%RSD	.3625730	.4043624	1.405654	20.75342	.5715834	.3983073	.0493553
#1	2.016992	10.58544	.1005958	.0013673	1.003679	.2742424	1.821781
#2	2.007399	10.60040	.1011353	.0016518	.992473	.2736562	1.823230
#3	2.002699	10.52004	.1032965	.0010841	.996251	.2721332	1.823429

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.856092	.4802034	.0038797	.0201660	1.104644	3.501565	8.577178
Stddev	.014562	.0013714	.0001998	.0015222	.005595	.025446	.057312
%RSD	.2998725	.2855918	5.149494	7.548265	.5065106	.7266943	.6681879
#1	4.852548	.4817334	.0038928	.0198970	1.109891	3.477335	8.534738
#2	4.843628	.4790848	.0040726	.0218048	1.105284	3.499285	8.554424
#3	4.872098	.4797918	.0036737	.0187963	1.098756	3.528073	8.642373

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01DUP Acquired: 5/1/2025 17:11:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.677341	.1043474	-.052959
Stddev	.012673	.0000456	.000352
%RSD	.7555559	.0436665	.6641858
#1	1.663010	.1043850	-.052740
#2	1.681940	.1042967	-.053364
#3	1.687072	.1043606	-.052772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3313.379	76921.05	11229.62	3113.075	4612.830
Stddev	21.953	138.39	26.65	8.619	35.799
%RSD	.6625513	.1799088	.2373375	.2768690	.7760814
#1	3329.317	76948.03	11199.64	3113.467	4643.902
#2	3322.481	76771.16	11238.59	3104.266	4620.906
#3	3288.339	77043.96	11250.62	3121.491	4573.683

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01LX5 Acquired: 5/1/2025 17:15:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.1401592	.0015744	.7932269	.0051922	-.004214	16.58705	.1140574
Stddev	.0047062	.0015622	.0037782	.0019854	.000876	.06532	.0000824
%RSD	3.357750	99.22415	.4763127	38.23750	20.79878	.3938195	.0722485
#1	.1452863	.0033715	.7931488	.0045115	-.003574	16.64423	.1140917
#2	.1391555	.0008116	.7894882	.0074284	-.005213	16.60105	.1139634
#3	.1360359	.0005402	.7970435	.0036368	-.003854	16.51586	.1141171

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018623	.0000285	3.744717	.0465623	.0086961	.0939738	37.95407
Stddev	.0000569	.0000310	.008168	.0003876	.0001705	.0005798	.09052
%RSD	3.056282	108.5404	.2181174	.8323498	1.960088	.6169830	.2385089
#1	.0018864	.0000476	3.748482	.0463048	.0086340	.0944104	37.93301
#2	.0019032	.0000452	3.735345	.0463740	.0088890	.0933159	38.05327
#3	.0017973	-.000007	3.750323	.0470080	.0085655	.0941949	37.87594

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4560806	2.427543	.0204102	.0004804	.2394096	.0630379	.3585258
Stddev	.0006006	.002903	.0003951	.0003576	.0094719	.0011594	.0003775
%RSD	.1316795	.1195724	1.935881	74.43334	3.956361	1.839170	.1052865
#1	.4558931	2.430453	.0200859	.0003972	.2407521	.0633121	.3586040
#2	.4567525	2.427528	.0202945	.0001718	.2293380	.0640356	.3588581
#3	.4555961	2.424648	.0208503	.0008723	.2481386	.0617660	.3581154

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.232580	.1243576	-.000141	.0170322	.2482403	.6621938	1.931941
Stddev	.044980	.0009020	.000113	.0010841	.0007259	.0090250	.007691
%RSD	3.649290	.7253019	80.56986	6.364782	.2924093	1.362897	.3981196
#1	1.182816	.1241663	-.000234	.0178427	.2480755	.6693575	1.932706
#2	1.244581	.1253398	-.000014	.0174531	.2490345	.6520574	1.939221
#3	1.270343	.1235666	-.000174	.0158008	.2476111	.6651664	1.923896

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01LX5 Acquired: 5/1/2025 17:15:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.3239717	.0229805	-.012847
Stddev	.0035085	.0003612	.000130
%RSD	1.082951	1.571912	1.015491
#1	.3267802	.0226402	-.012783
#2	.3200389	.0229418	-.012997
#3	.3250960	.0233596	-.012760

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.920	73346.05	10997.00	2985.703	4781.420
Stddev	2.704	148.72	22.01	5.538	8.189
%RSD	.0845961	.2027665	.2001723	.1854933	.1712656
#1	3198.839	73420.41	10972.52	2990.134	4786.450
#2	3193.501	73174.82	11003.32	2987.480	4785.839
#3	3195.420	73442.93	11015.17	2979.494	4771.971

Sample Name: Q1910-01MS Acquired: 5/1/2025 17:20:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.569897	2.025354	5.739551	1.754923	.3905154	90.63741	.8017395
Stddev	.002074	.007034	.002269	.008021	.0034311	.08741	.0014870
%RSD	.1321123	.3472968	.0395347	.4570664	.8786095	.0964360	.1854708
#1	1.568085	2.033435	5.739435	1.745690	.3879270	90.73435	.8000450
#2	1.572159	2.020607	5.741875	1.758905	.3944072	90.61325	.8023467
#3	1.569447	2.022020	5.737341	1.760174	.3892120	90.56462	.8028268

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1777527	.2051862	16.22812	.6174927	.2465687	.7335398	209.8827
Stddev	.0007236	.0003846	.02580	.0012019	.0003191	.0008784	1.1952
%RSD	.4070858	.1874294	.1589781	.1946415	.1293993	.1197488	.5694636
#1	.1782733	.2054423	16.19890	.6161933	.2468829	.7345143	208.5647
#2	.1780584	.2047440	16.24773	.6185645	.2462450	.7328089	210.1870
#3	.1769264	.2053723	16.23774	.6177204	.2465783	.7332962	210.8963

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.507157	13.87093	.6151105	.0728228	3.802381	.5677739	2.146847
Stddev	.004798	.04732	.0004013	.0005187	.019407	.0011514	.004067
%RSD	.1913755	.3411653	.0652370	.7122217	.5103894	.2027876	.1894177
#1	2.512600	13.84503	.6154767	.0729282	3.781087	.5680503	2.143012
#2	2.505332	13.84220	.6146816	.0722595	3.806980	.5687619	2.151111
#3	2.503539	13.92555	.6151734	.0732806	3.819075	.5665095	2.146416

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.16207	.9064283	.3725434	.7028559	1.329923	5.503877	15.19329
Stddev	.08104	.0041316	.0012163	.0025602	.002925	.024385	.01553
%RSD	.5014141	.4558069	.3264713	.3642599	.2199038	.4430549	.1021852
#1	16.06894	.9016656	.3719904	.7023129	1.332789	5.487889	15.21073
#2	16.20075	.9085710	.3739379	.7006107	1.326943	5.491799	15.18097
#3	16.21653	.9090484	.3717019	.7056441	1.330034	5.531944	15.18817

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01MS Acquired: 5/1/2025 17:20:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.506569	.3309413	.0754479
Stddev	.006096	.0020940	.0010903
%RSD	.4046502	.6327531	1.445159
#1	1.509996	.3304506	.0766142
#2	1.510180	.3291361	.0752754
#3	1.499530	.3332371	.0744541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3417.874	77496.38	11967.01	3154.423	4681.690
Stddev	4.749	286.46	37.12	15.219	7.799
%RSD	.1389568	.3696415	.3101934	.4824799	.1665925
#1	3412.585	77817.75	11937.11	3170.224	4673.143
#2	3419.263	77267.87	11955.35	3139.860	4688.422
#3	3421.774	77403.52	12008.56	3153.187	4683.505

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01MSD Acquired: 5/1/2025 17:24:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.551844	2.038961	5.666271	1.795292	.4055011	88.06150	.7635152
Stddev	.004681	.017416	.008583	.009342	.0012553	.09028	.0024618
%RSD	.3016655	.8541522	.1514784	.5203858	.3095582	.1025170	.3224239
#1	1.557250	2.029242	5.675955	1.805872	.4057728	87.96109	.7642300
#2	1.549174	2.028574	5.663253	1.791829	.4041322	88.13595	.7607752
#3	1.549109	2.059067	5.659604	1.788176	.4065982	88.08747	.7655405

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1861005	.2102252	15.64100	.6214860	.2474426	.7524290	174.3940
Stddev	.0011492	.0001739	.00251	.0015864	.0003642	.0008634	1.5388
%RSD	.6175297	.0827303	.0160254	.2552511	.1471919	.1147534	.8823868
#1	.1847760	.2100366	15.64009	.6222452	.2476391	.7521594	176.1637
#2	.1868337	.2102597	15.64383	.6225500	.2476663	.7533951	173.3712
#3	.1866918	.2103793	15.63907	.6196627	.2470223	.7517325	173.6471

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.431811	13.95559	.6265843	.0712268	3.673183	.5585223	2.298025
Stddev	.007947	.04659	.0001997	.0003299	.024646	.0015294	.012829
%RSD	.3268076	.3338286	.0318693	.4631151	.6709622	.2738308	.5582691
#1	2.440493	13.91820	.6268114	.0715126	3.701054	.5567724	2.286135
#2	2.424895	13.94078	.6264363	.0713019	3.654265	.5596033	2.296318
#3	2.430046	14.00778	.6265053	.0708659	3.664231	.5591912	2.311623

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.64508	.8007968	.3777207	.7186005	1.328591	5.137126	15.64410
Stddev	.08921	.0046256	.0003774	.0004722	.001923	.037353	.01302
%RSD	.5701799	.5776201	.0999183	.0657099	.1447052	.7271111	.0832384
#1	15.74807	.8060683	.3781558	.7190161	1.330811	5.179008	15.65873
#2	15.59514	.7974162	.3775253	.7180870	1.327533	5.107260	15.63376
#3	15.59203	.7989061	.3774811	.7186983	1.327430	5.125112	15.63983

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01MSD Acquired: 5/1/2025 17:24:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.568688	.3190327	.1059023
Stddev	.007568	.0018393	.0007465
%RSD	.4824407	.5765100	.7048976
#1	1.559949	.3205218	.1050503
#2	1.573118	.3169768	.1064415
#3	1.572995	.3195995	.1062151

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3329.776	76416.37	11372.40	3133.459	4545.517
Stddev	5.497	172.83	45.32	11.083	2.635
%RSD	.1650830	.2261704	.3985228	.3536980	.0579612
#1	3323.776	76218.52	11424.73	3129.327	4543.802
#2	3330.985	76492.66	11346.88	3146.014	4548.550
#3	3334.568	76537.93	11345.60	3125.035	4544.197

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01A Acquired: 5/1/2025 17:28:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.377816	1.983850	4.852655	1.797397	.7232196	76.19533	.6992080
Stddev	.001245	.019823	.002306	.001451	.0020067	.20317	.0004736
%RSD	.0903488	.9991941	.0475146	.0807222	.2774736	.2666482	.0677373
#1	1.377261	1.962050	4.851526	1.797734	.7244946	76.42010	.6997546
#2	1.376945	2.000791	4.855308	1.795807	.7209065	76.14117	.6989495
#3	1.379242	1.988709	4.851131	1.798649	.7242578	76.02473	.6989198

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1790608	.2007231	17.04112	.5623664	.2354794	.7097478	165.7691
Stddev	.0006878	.0002460	.04641	.0012713	.0007158	.0006333	.5603
%RSD	.3841077	.1225815	.2723192	.2260571	.3039650	.0892343	.3379942
#1	.1788036	.2010028	17.09462	.5624246	.2361462	.7096801	166.1627
#2	.1785388	.2006265	17.01179	.5636075	.2355688	.7091510	166.0170
#3	.1798402	.2005400	17.01694	.5610670	.2347231	.7104123	165.1276

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.240657	12.73242	.5802719	.0668323	3.666533	.5418371	1.872820
Stddev	.006937	.05291	.0007030	.0006903	.029538	.0015880	.003082
%RSD	.3095998	.4155370	.1211592	1.032894	.8056042	.2930818	.1645874
#1	2.247151	12.71390	.5809343	.0670473	3.671561	.5419809	1.870511
#2	2.233349	12.69126	.5795342	.0673895	3.693235	.5401821	1.876320
#3	2.241471	12.79210	.5803471	.0660601	3.634804	.5433483	1.871628

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.79690	.7846121	.3693311	.6987053	1.325966	4.298104	14.98298
Stddev	.09960	.0039918	.0004580	.0029653	.001312	.016846	.02860
%RSD	.7219255	.5087645	.1240056	.4243947	.0989461	.3919395	.1908880
#1	13.84668	.7892213	.3695353	.6960399	1.326592	4.305947	14.95143
#2	13.86180	.7822745	.3688066	.6981766	1.324458	4.309598	15.00720
#3	13.68222	.7823406	.3696515	.7018993	1.326847	4.278767	14.99031

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1910-01A Acquired: 5/1/2025 17:28:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.663841	.2904858	.1136515
Stddev	.008484	.0022785	.0006478
%RSD	.5098850	.7843711	.5700229
#1	1.657614	.2907774	.1143838
#2	1.660405	.2926045	.1131530
#3	1.673504	.2880756	.1134178

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3340.598	77974.49	11325.78	3165.029	4603.894
Stddev	4.949	121.92	56.24	7.912	8.438
%RSD	.1481540	.1563566	.4965330	.2499711	.1832746
#1	3338.931	77871.95	11312.56	3159.114	4601.374
#2	3346.165	77942.23	11387.45	3161.958	4613.304
#3	3336.697	78109.30	11277.33	3174.016	4597.003

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-01 Acquired: 5/1/2025 17:32:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0283955	.0086307	.1364647	.0269746	-.006956	90.73314	.9112183
Stddev	.0019847	.0031130	.0021394	.0064907	.001831	.16801	.0053609
%RSD	6.989537	36.06893	1.567748	24.06237	26.32127	.1851712	.5883276
#1	.0280813	.0101587	.1384553	.0237226	-.005332	90.83880	.9166595
#2	.0305185	.0106845	.1367363	.0227527	-.006595	90.82121	.9110540
#3	.0265866	.0050490	.1342024	.0344485	-.008940	90.53940	.9059413

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106509	-.003177	22.14216	.1968027	.1223953	.4201790	214.9771
Stddev	.0001333	.000105	.03249	.0003137	.0005244	.0014469	.5707
%RSD	1.252010	3.315718	.1467168	.1593818	.4284747	.3443471	.2654471
#1	.0105672	-.003274	22.16830	.1964660	.1229862	.4213822	215.6350
#2	.0105809	-.003192	22.15240	.1968556	.1222147	.4185736	214.6803
#3	.0108047	-.003065	22.10579	.1970866	.1219850	.4205812	214.6161

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.033626	56.05888	.2536032	-.001386	6.456829	.2675996	.5692577
Stddev	.020333	.12224	.0001912	.000527	.031748	.0009006	.0012133
%RSD	.2890885	.2180652	.0754108	38.03600	.4916905	.3365595	.2131431
#1	7.056917	55.98953	.2535523	-.000789	6.481615	.2682358	.5690381
#2	7.019414	55.98708	.2534425	-.001579	6.467828	.2679940	.5705659
#3	7.024545	56.20003	.2538147	-.001789	6.421045	.2665690	.5681692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.62391	.7021081	.0029287	-.001166	2.647596	1.490530	7.321605
Stddev	.06726	.0026914	.0004961	.000735	.005134	.003753	.046456
%RSD	.4046043	.3833348	16.93921	63.03007	.1939217	.2518137	.6345080
#1	16.68144	.7050677	.0034372	-.000317	2.652861	1.494711	7.367249
#2	16.64034	.6998072	.0029028	-.001579	2.647324	1.489429	7.323189
#3	16.54996	.7014494	.0024460	-.001600	2.642604	1.487451	7.274377

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-01 Acquired: 5/1/2025 17:32:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.2317588	.3532812	-.090792
Stddev	.0066928	.0017113	.000412
%RSD	2.887843	.4843871	.4535266
#1	.2278884	.3544577	-.090779
#2	.2394870	.3540677	-.090387
#3	.2279009	.3513181	-.091210

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3467.583	79838.01	10866.00	3201.863	4584.901
Stddev	7.465	119.14	12.72	5.876	8.675
%RSD	.2152846	.1492276	.1170589	.1835335	.1892137
#1	3467.453	79875.70	10871.01	3204.711	4583.539
#2	3475.112	79933.74	10875.45	3205.773	4594.176
#3	3460.184	79704.58	10851.54	3195.105	4576.987

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-05 Acquired: 5/1/2025 17:36:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0303780	.0138172	.1745227	.0457991	-.008643	126.4165	1.264752
Stddev	.0012759	.0021043	.0005895	.0071416	.000798	.0184	.001740
%RSD	4.200082	15.22926	.3377860	15.59328	9.229996	.0145621	.1375912
#1	.0301313	.0113917	.1740983	.0399482	-.009373	126.4171	1.264307
#2	.0292435	.0151540	.1751958	.0436919	-.007792	126.4346	1.266672
#3	.0317593	.0149061	.1742740	.0537572	-.008765	126.3978	1.263278

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111355	-.009677	29.80300	.2440488	.1543083	.6497811	299.7043
Stddev	.0000481	.000223	.05475	.0012213	.0007003	.0007361	.8009
%RSD	.4316715	2.303718	.1837095	.5004361	.4537983	.1132825	.2672177
#1	.0110943	-.009428	29.78634	.2442469	.1550624	.6490806	299.3760
#2	.0111883	-.009742	29.75851	.2451589	.1541839	.6505483	300.6172
#3	.0111239	-.009860	29.86414	.2427406	.1536786	.6497145	299.1198

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.60850	71.97241	.3298668	.0050650	7.391023	.3299742	.7127176
Stddev	.01313	.10099	.0014912	.0001807	.035512	.0010222	.0034519
%RSD	.1237721	.1403225	.4520487	3.567263	.4804726	.3097826	.4843275
#1	10.60160	71.91748	.3300212	.0052487	7.384739	.3287959	.7148787
#2	10.60025	71.91080	.3312748	.0050589	7.429258	.3305038	.7087366
#3	10.62364	72.08897	.3283045	.0048875	7.359073	.3306230	.7145375

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.96289	1.027961	.0042216	-.000465	3.604398	2.112364	7.686264
Stddev	.10791	.002744	.0003041	.001063	.003983	.013927	.020087
%RSD	.4699313	.2669097	7.204773	228.6370	.1105094	.6593322	.2613316
#1	22.96309	1.027166	.0038730	-.000658	3.606910	2.096302	7.697679
#2	23.07070	1.031014	.0044333	-.001418	3.606480	2.121084	7.698042
#3	22.85488	1.025703	.0043584	.000681	3.599806	2.119706	7.663071

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-05 Acquired: 5/1/2025 17:36:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5703602	.4638701	-.147294
Stddev	.0001978	.0020723	.000757
%RSD	.0346771	.4467347	.5137968
#1	.5701550	.4615540	-.146852
#2	.5703761	.4655490	-.148167
#3	.5705496	.4645071	-.146862

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3503.173	79424.64	12605.22	3212.389	4521.520
Stddev	7.746	206.63	30.01	7.616	12.994
%RSD	.2211181	.2601565	.2380911	.2370750	.2873919
#1	3497.394	79617.72	12616.10	3203.655	4510.196
#2	3500.151	79206.71	12628.27	3215.864	4518.656
#3	3511.975	79449.50	12571.29	3217.647	4535.707

Sample Name: Q1890-01 Acquired: 5/1/2025 17:40:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.002097	-.004003	.1868954	.0011171	-.004319	4.279314
Stddev	.002630	.001647	.0046044	.0043658	.001622	.015247
%RSD	125.4294	41.15151	2.463646	390.8004	37.55725	.3562953
#1	-.004908	-.003233	.1921559	.0009665	-.003447	4.266668
#2	-.001688	-.005894	.1849331	.0055563	-.006190	4.296245
#3	.000305	-.002881	.1835971	-.003171	-.003320	4.275030

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1096145	-.000089	-.000571	338.4258	.2280793	.0021949
Stddev	.0024516	.000022	.000041	2.4303	.0025203	.0004221
%RSD	2.236557	24.44162	7.132430	.7181296	1.105009	19.23109
#1	.1123908	-.000093	-.000554	340.9683	.2308287	.0020976
#2	.1087050	-.000109	-.000542	338.1834	.2275307	.0026571
#3	.1077476	-.000066	-.000618	336.1258	.2258785	.0018299

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1904796	7.594804	.0179917	.0975391	.0337123	-.000290
Stddev	.0007252	.028550	.0006440	.0199976	.0004395	.000301
%RSD	.3807160	.3759177	3.579292	20.50217	1.303557	103.9657
#1	.1896581	7.596716	.0172570	.1186345	.0341253	-.000074
#2	.1907497	7.622350	.0182597	.0788585	.0332505	-.000161
#3	.1910309	7.565346	.0184583	.0951243	.0337610	-.000633

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	166.2474	.0242126	.0897988	427.5941	.0395182	.2693640
Stddev	1.1992	.0009939	.0000858	1.3622	.0006582	.0012846
%RSD	.7213508	4.104842	.0955102	.3185816	1.665554	.4769061
#1	164.9767	.0242399	.0898948	426.0702	.0402619	.2688635
#2	166.4064	.0251926	.0897719	428.0183	.0392821	.2684050
#3	167.3593	.0232054	.0897297	428.6937	.0390107	.2708236

Sample Name: Q1890-01 Acquired: 5/1/2025 17:40:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006411	-.008289	11.50914	.0697906	F 348.4050	.0464147
Stddev	.000785	.000974	.04466	.0005522	.4078	.0004466
%RSD	12.24625	11.74786	.3879987	.7911933	.1170453	.9621542
#1	-.007180	-.008902	11.46089	.0702350	348.8694	.0459510
#2	-.006442	-.008799	11.54902	.0691725	348.2403	.0464514
#3	-.005610	-.007166	11.51751	.0699644	348.1052	.0468419

Elem	Sr4077
Units	ppm
Avg	7.180516
Stddev	.051257
%RSD	.7138389
#1	7.239609
#2	7.153863
#3	7.148077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2927.890	71264.49	10017.11	2726.641	4340.228
Stddev	7.247	717.49	171.84	4.641	32.419
%RSD	.2475142	1.006793	1.715451	.1702124	.7469404
#1	2920.249	70522.57	9830.03	2721.701	4308.505
#2	2928.757	71316.14	10053.36	2727.312	4338.878
#3	2934.665	71954.75	10167.92	2730.911	4373.300

Sample Name: Q1896-03 Acquired: 5/1/2025 17:45:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0180621	-.000680	.2609784	.0040975	-.005235	43.46806
Stddev	.0008150	.001818	.0011877	.0024436	.001160	.07950
%RSD	4.512339	267.5420	.4550952	59.63747	22.15037	.1828934
#1	.0185633	.001408	.2603675	.0040327	-.004616	43.52270
#2	.0171217	-.001525	.2602205	.0016869	-.006573	43.37686
#3	.0185015	-.001921	.2623472	.0065729	-.004516	43.50463

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2555941	.0027042	-.001192	58.83172	.0571035	.0237435
Stddev	.0006848	.0000755	.000076	.08496	.0005175	.0003028
%RSD	.2679141	2.790690	6.337459	.1444061	.9062296	1.275326
#1	.2559238	.0027604	-.001186	58.88630	.0572681	.0240360
#2	.2548068	.0027338	-.001120	58.73384	.0565238	.0237631
#3	.2560516	.0026184	-.001271	58.87503	.0575187	.0234313

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1699084	52.17651	1.074770	17.56321	.0512634	-.000138
Stddev	.0003158	.35129	.004975	.03708	.0002006	.000156
%RSD	.1858892	.6732734	.4628621	.2111184	.3912984	112.9774
#1	.1701808	52.01624	1.076179	17.52085	.0514684	-.000077
#2	.1699821	51.93394	1.069243	17.57898	.0510675	-.000314
#3	.1695622	52.57936	1.078889	17.58980	.0512544	-.000022

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	158.4995	.0857388	.3643015	11.22261	.4307564	.0114433
Stddev	1.9903	.0011425	.0024935	.13328	.0032482	.0004241
%RSD	1.255721	1.332544	.6844672	1.187585	.7540775	3.705812
#1	159.2312	.0846684	.3671782	11.26440	.4306534	.0111189
#2	156.2469	.0856061	.3629675	11.07344	.4275609	.0112879
#3	160.0204	.0869418	.3627587	11.32998	.4340549	.0119232

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1896-03 Acquired: 5/1/2025 17:45:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0051423	.7790423	F 21.44824	1.842712	9.360699	.0537163
Stddev	.0010229	.0033522	.16990	.010068	.034797	.0013452
%RSD	19.89258	.4302983	.7921174	.5463821	.3717349	2.504348
#1	.0052790	.7764469	21.32366	1.853100	9.389508	.0524601
#2	.0040578	.7778529	21.37929	1.842038	9.370549	.0535530
#3	.0060899	.7828270	21.64178	1.832998	9.322038	.0551357

Elem	Sr4077
Units	ppm
Avg	.5136488
Stddev	.0022088
%RSD	.4300166
#1	.5151149
#2	.5111083
#3	.5147231

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3255.882	76466.40	11285.65	2995.953	4638.137
Stddev	5.758	130.46	37.06	12.843	3.457
%RSD	.1768633	.1706102	.3283941	.4286668	.0745321
#1	3262.342	76561.73	11277.43	2984.922	4641.760
#2	3254.016	76519.75	11253.39	3010.052	4637.776
#3	3251.287	76317.72	11326.14	2992.886	4634.874

Sample Name: CCV04 Acquired: 5/1/2025 17:49:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.158288	5.129078	4.952587	5.241654	5.210624	9.892666	9.997965
Stddev	.005794	.046927	.005442	.021294	.014803	.013030	.059305
%RSD	.1123294	.9149284	.1098828	.4062529	.2840992	.1317155	.5931693
#1	5.152286	5.132820	4.956848	5.233957	5.204321	9.906321	10.01396
#2	5.158727	5.174023	4.954456	5.265727	5.227536	9.891311	9.93230
#3	5.163850	5.080392	4.946456	5.225278	5.200016	9.880367	10.04763

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2291008	2.470808	23.97311	.9872363	2.476990	1.286882	5.261354
Stddev	.0014376	.003346	.07523	.0048539	.003587	.001593	.006023
%RSD	.6275095	.1354302	.3138020	.4916644	.1448324	.1237823	.1144719
#1	.2307373	2.474308	24.04371	.9919352	2.480395	1.286850	5.256264
#2	.2285243	2.467640	23.98163	.9822410	2.477331	1.288491	5.268003
#3	.2280410	2.470476	23.89398	.9875327	2.473244	1.285306	5.259796

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.400961	23.56044	2.483442	1.246933	26.51819	2.446614	2.539854
Stddev	.003465	.08439	.003743	.002144	.09441	.006439	.006854
%RSD	.1442986	.3581727	.1507356	.1719704	.3560129	.2631700	.2698572
#1	2.404412	23.65679	2.487148	1.247444	26.42521	2.443391	2.547769
#2	2.397483	23.52488	2.479662	1.244579	26.51542	2.454028	2.535897
#3	2.400988	23.49966	2.483517	1.248775	26.61396	2.442422	2.535897

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.33606	4.630486	5.113647	4.948776	4.917936	5.248432	4.868042
Stddev	.11051	.023950	.008956	.006199	.006280	.045208	.018972
%RSD	.4196217	.5172345	.1751426	.1252563	.1276995	.8613586	.3897226
#1	26.24203	4.657742	5.112474	4.954615	4.917888	5.209238	4.877463
#2	26.30836	4.620918	5.123132	4.949443	4.924240	5.238168	4.880459
#3	26.45778	4.612799	5.105335	4.942271	4.911680	5.297889	4.846204

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV04 Acquired: 5/1/2025 17:49:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.061557	4.908311	4.971610
Stddev	.023487	.008422	.044847
%RSD	.4640235	.1715932	.9020644
#1	5.079884	4.898607	5.006021
#2	5.069706	4.912609	4.920891
#3	5.035081	4.913718	4.987919

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3198.646	74756.37	11579.61	2920.052	4841.977
Stddev	11.526	455.04	96.62	10.704	16.425
%RSD	.3603335	.6087021	.8343986	.3665781	.3392143
#1	3199.957	74429.38	11470.32	2909.078	4835.166
#2	3209.461	75276.06	11653.70	2930.465	4860.712
#3	3186.521	74563.68	11614.79	2920.612	4830.054

Sample Name: CCB04 Acquired: 5/1/2025 17:53:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022629	.0030900	.0026334	.0038855	-.001011	.0035907	-.004628
Stddev	.0019310	.0009059	.0009006	.0030039	.002573	.0038253	.000425
%RSD	85.33226	29.31646	34.19972	77.31032	254.4425	106.5322	9.188729
#1	.0010209	.0039000	.0032906	.0016498	-.000837	.0019147	-.004394
#2	.0012802	.0032581	.0016068	.0073000	-.003666	.0079679	-.004371
#3	.0044877	.0021118	.0030028	.0027067	.001470	.0008895	-.005118

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001989	.0009154	.0211140	.0004595	.0006336	.0002091	.0063425
Stddev	.0000302	.0003157	.0063480	.0003527	.0003185	.0004381	.0019302
%RSD	15.16347	34.49024	30.06544	76.74172	50.27577	209.5506	30.43334
#1	.0002006	.0006108	.0138195	.0000987	.0003150	.0001758	.0070780
#2	.0002282	.0008942	.0241370	.0004766	.0006336	.0006629	.0041527
#3	.0001679	.0012412	.0253857	.0008034	.0009521	-.000211	.0077969

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018036	.0158617	.0013614	.0004639	-.012164	-.000207	.0029882
Stddev	.0004263	.0025926	.0006455	.0000342	.007526	.000686	.0003931
%RSD	23.63904	16.34479	47.41212	7.372591	61.87369	331.3026	13.15537
#1	.0013376	.0182279	.0007468	.0005033	-.003982	-.000497	.0034115
#2	.0021741	.0130905	.0013035	.0004424	-.018792	.000576	.0029185
#3	.0018990	.0162667	.0020338	.0004458	-.013717	-.000701	.0026346

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0837376	.0072955	.0021033	.0070750	.0030471	.0100999	.0052739
Stddev	.0245871	.0007264	.0003029	.0005717	.0013550	.0073322	.0045663
%RSD	29.36203	9.956569	14.39994	8.080464	44.46925	72.59708	86.58368
#1	.0832885	.0081230	.0017552	.0069042	.0018636	.0091495	.0006883
#2	.1085462	.0070004	.0023068	.0066082	.0027526	.0032892	.0098207
#3	.0593782	.0067631	.0022478	.0077126	.0045252	.0178609	.0053125

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB04 Acquired: 5/1/2025 17:53:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0046446	-.001179	.0014705
Stddev	.0040814	.000695	.0000586
%RSD	87.87288	58.90671	3.983405
#1	.0036272	-.000377	.0014180
#2	.0011682	-.001568	.0014600
#3	.0091385	-.001592	.0015337

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3277.689	74448.90	10755.96	2963.178	5111.980
Stddev	6.696	388.28	36.01	22.559	9.122
%RSD	.2042961	.5215392	.3347824	.7613231	.1784440
#1	3273.255	74025.80	10751.10	2937.727	5102.199
#2	3285.392	74788.91	10722.63	2980.709	5120.255
#3	3274.421	74532.00	10794.16	2971.099	5113.486

Sample Name: Q1901-06 Acquired: 5/1/2025 17:57:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004394	-.004050	.0003190	.0024086	-.002214	.0122269	-.007929
Stddev	.003348	.000944	.0019779	.0004831	.001634	.0033732	.000696
%RSD	76.19915	23.30253	620.0046	20.05687	73.82713	27.58831	8.782665
#1	-.001415	-.005137	.0021441	.0019233	-.002577	.0144801	-.008494
#2	-.003750	-.003451	-.001783	.0028894	-.003637	.0083488	-.008143
#3	-.008018	-.003560	.000596	.0024130	-.000429	.0138518	-.007151

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000178	-.000330	.0415428	-.000450	-.000596	.0002839	.0151332
Stddev	.000024	.000082	.0026610	.000085	.000218	.0006623	.0056092
%RSD	13.47802	24.92338	6.405554	18.95031	36.49162	233.2591	37.06553
#1	-.000204	-.000266	.0391128	-.000467	-.000456	.0009158	.0095495
#2	-.000172	-.000302	.0411291	-.000357	-.000847	.0003411	.0207675
#3	-.000158	-.000423	.0443864	-.000525	-.000487	-.000405	.0150826

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0133245	.0652289	-.000393	-.000493	-.014920	-.000569	.0012372
Stddev	.0001695	.0130073	.000228	.000179	.016836	.002445	.0003685
%RSD	1.271966	19.94105	57.92027	36.37186	112.8380	429.6182	29.78177
#1	.0131931	.0780552	-.000579	-.000638	-.021797	.002254	.0015724
#2	.0135158	.0520478	-.000461	-.000292	-.027229	-.001992	.0012965
#3	.0132646	.0655838	-.000139	-.000550	.004265	-.001969	.0008427

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1006408	.0011098	-.000620	-.001102	.0007241	.0349715	.0105454
Stddev	.0161081	.0006965	.000148	.000644	.0008569	.0119719	.0021866
%RSD	16.00556	62.75968	23.92070	58.45311	118.3408	34.23321	20.73540
#1	.0897944	.0010163	-.000510	-.001044	.0009278	.0221693	.0117628
#2	.0929783	.0018483	-.000788	-.001773	-.000216	.0458897	.0080210
#3	.1191498	.0004648	-.000561	-.000489	.001461	.0368556	.0118523

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06 Acquired: 5/1/2025 17:57:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5771050	-.007203	-.000064
Stddev	.0074407	.000391	.000072
%RSD	1.289308	5.431142	112.1629
#1	.5846131	-.007654	-.000034
#2	.5769684	-.006954	-.000012
#3	.5697336	-.007001	-.000146

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.927	75413.13	10758.84	2975.787	5014.170
Stddev	14.041	172.83	59.75	7.611	15.135
%RSD	.4357842	.2291725	.5553480	.2557575	.3018481
#1	3209.735	75610.87	10805.95	2983.936	4998.915
#2	3218.767	75290.93	10778.94	2968.863	5014.412
#3	3237.278	75337.60	10691.63	2974.560	5029.182

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06DUP Acquired: 5/1/2025 18:02:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004401	-.002274	.0025553	.0000473	-.002616	.0149000	-.008041
Stddev	.002017	.001910	.0010666	.0021246	.000620	.0091755	.000884
%RSD	45.83441	84.02379	41.74266	4488.354	23.69368	61.58025	10.99698
#1	-.002153	-.000220	.0027360	-.002189	-.003097	.0050688	-.008982
#2	-.006052	-.002603	.0014098	.002039	-.001917	.0163952	-.007227
#3	-.005000	-.003998	.0035200	.000293	-.002835	.0232360	-.007913

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000216	-.000392	.0546117	-.000154	-.000620	.0002015	.0473438
Stddev	.000056	.000080	.0073985	.000312	.000249	.0007010	.0044460
%RSD	26.06676	20.50572	13.54751	202.1747	40.14453	347.8763	9.390873
#1	-.000207	-.000391	.0460840	-.000325	-.000700	-.000272	.0436840
#2	-.000277	-.000473	.0584326	-.000345	-.000341	-.000131	.0522916
#3	-.000165	-.000312	.0593187	.000206	-.000820	.001007	.0460559

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102012	.0674474	-.000385	-.000443	-.049923	-.000863	.0087350
Stddev	.0002910	.0211080	.000132	.000411	.013003	.000864	.0003651
%RSD	2.852125	31.29545	34.22840	92.70171	26.04550	100.1434	4.179647
#1	.0105254	.0850250	-.000407	-.000296	-.064377	-.001745	.0088729
#2	.0101154	.0732810	-.000244	-.000126	-.046216	-.000017	.0083210
#3	.0099628	.0440361	-.000505	-.000907	-.039177	-.000827	.0090111

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0331205	.0008990	-.000676	.0001281	.0004018	.0240869	.0101930
Stddev	.0310981	.0005820	.000215	.0008165	.0005184	.0004452	.0028478
%RSD	93.89383	64.73499	31.82322	637.2427	129.0253	1.848417	27.93858
#1	-.002359	.0005268	-.000882	-.000814	.0009734	.0245885	.0106413
#2	.055654	.0015697	-.000693	.000569	-.000038	.0239336	.0127901
#3	.046066	.0006006	-.000453	.000629	.000270	.0237386	.0071477

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06DUP Acquired: 5/1/2025 18:02:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0746245	-.005554	-.000078
Stddev	.0027898	.002731	.000007
%RSD	3.738453	49.16523	8.374759
#1	.0751644	-.006302	-.000086
#2	.0716042	-.002527	-.000075
#3	.0771049	-.007832	-.000074

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3211.881	75594.27	11523.05	2966.821	4982.217
Stddev	13.271	948.64	27.22	25.051	13.816
%RSD	.4131776	1.254909	.2362121	.8443615	.2773039
#1	3226.958	76205.23	11503.14	2982.597	4997.490
#2	3206.717	74501.42	11554.06	2937.936	4970.590
#3	3201.969	76076.18	11511.94	2979.930	4978.571

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06LX5 Acquired: 5/1/2025 18:06:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001876	-.001320	-.000124	.0005299	-.003330	-.001216	-.006865
Stddev	.001429	.000785	.001086	.0036575	.000862	.013724	.001799
%RSD	76.17489	59.44886	875.7205	690.2295	25.89277	1128.469	26.20369
#1	-.001400	-.000518	-.001335	.0024970	-.003218	-.013599	-.008665
#2	-.000746	-.002087	.000198	-.003690	-.002529	.013540	-.006862
#3	-.003482	-.001357	.000765	.002783	-.004243	-.003589	-.005068

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000438	-.000312	.0079624	.0003333	-.000595	-.000294	-.008773
Stddev	.0000180	.000175	.0123819	.0003385	.000125	.000302	.004527
%RSD	41.17659	56.04982	155.5058	101.5543	21.00504	102.6974	51.60120
#1	.0000527	-.000474	.0160094	.0006358	-.000668	-.000641	-.012636
#2	.0000231	-.000335	.0141734	.0003965	-.000667	-.000152	-.003792
#3	.0000556	-.000127	-.006296	-.000032	-.000451	-.000090	-.009892

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001873	.0322883	-.000148	-.000450	-.032940	.0006457	-.000920
Stddev	.000232	.0066451	.000261	.000208	.001599	.0014142	.000300
%RSD	12.36896	20.58057	177.0037	46.19145	4.855726	219.0352	32.61286
#1	-.002081	.0256392	-.000443	-.000253	-.031100	-.000348	-.001175
#2	-.001915	.0322962	-.000051	-.000668	-.033997	.000020	-.000589
#3	-.001623	.0389295	.000052	-.000430	-.033722	.002265	-.000996

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0877531	.0001695	-.001208	.0055748	.0010240	.0048461	.0053778
Stddev	.0413986	.0001898	.000108	.0004364	.0018120	.0029190	.0005416
%RSD	47.17627	111.9876	8.970793	7.827260	176.9494	60.23280	10.07038
#1	.1157119	.0000717	-.001089	.0058501	-.000213	.0015332	.0055321
#2	.1073529	.0000485	-.001235	.0050717	.000181	.0070398	.0047758
#3	.0401943	.0003882	-.001301	.0058026	.003104	.0059655	.0058255

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06LX5 Acquired: 5/1/2025 18:06:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.000169	-.003509	-.000149
Stddev	.005092	.000518	.000010
%RSD	3016.705	14.75784	6.717881
#1	-.000189	-.003655	-.000158
#2	.004933	-.002933	-.000151
#3	-.005251	-.003937	-.000138

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3279.939	74573.16	11072.54	2990.813	5069.756
Stddev	3.370	404.17	10.76	8.806	10.110
%RSD	.1027391	.5419794	.0971719	.2944419	.1994253
#1	3279.886	74219.76	11064.06	2987.383	5074.334
#2	3276.596	74485.88	11068.91	2984.237	5058.166
#3	3283.335	75013.84	11084.64	3000.817	5076.766

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06MS Acquired: 5/1/2025 18:10:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7447257	1.903793	.9071658	1.799275	.7631357	1.812924	.1752979
Stddev	.0061570	.015948	.0053347	.002313	.0022763	.006684	.0020707
%RSD	.8267439	.8377014	.5880660	.1285452	.2982838	.3687048	1.181235
#1	.7514838	1.892593	.9040324	1.801866	.7605485	1.807616	.1761662
#2	.7394351	1.896734	.9041394	1.797418	.7648308	1.820431	.1767930
#3	.7432581	1.922052	.9133255	1.798542	.7640279	1.810727	.1729344

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1619623	.1840186	.9527910	.3737285	.1826911	.2869980	2.871513
Stddev	.0018794	.0000910	.0094549	.0006237	.0001550	.0006506	.026103
%RSD	1.160384	.0494352	.9923340	.1668927	.0848589	.2266910	.9090365
#1	.1617029	.1840378	.9606138	.3731271	.1828248	.2864177	2.875602
#2	.1639579	.1839195	.9554749	.3743724	.1827274	.2868748	2.843607
#3	.1602261	.1840983	.9422844	.3736860	.1825211	.2877013	2.895331

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1832086	1.788865	.4596327	.0665206	2.755872	.2763309	.2000087
Stddev	.0009009	.009938	.0006644	.0004375	.021419	.0027279	.0002129
%RSD	.4917163	.5555729	.1445600	.6577377	.7772230	.9871955	.1064272
#1	.1834107	1.777987	.4597647	.0660293	2.750557	.2781649	.1997636
#2	.1839912	1.797470	.4589122	.0668682	2.737610	.2776318	.2001150
#3	.1822238	1.791137	.4602213	.0666644	2.779448	.2731960	.2001475

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.291565	.2455820	.4033517	.6588388	.1875839	.7985782	5.235901
Stddev	.057136	.0029932	.0005828	.0003617	.0008742	.0163502	.011633
%RSD	.6149252	1.218838	.1444814	.0549051	.4660262	2.047411	.2221704
#1	9.290219	.2445726	.4031076	.6584225	.1868862	.8107558	5.222704
#2	9.235114	.2489495	.4040168	.6590171	.1885645	.8049837	5.244668
#3	9.349362	.2432240	.4029306	.6590768	.1873009	.7799951	5.240330

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06MS Acquired: 5/1/2025 18:10:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0195498	.1823496	.1842559
Stddev	.0042085	.0005581	.0004779
%RSD	21.52688	.3060644	.2593874
#1	.0189544	.1823943	.1840374
#2	.0240243	.1828841	.1848040
#3	.0156708	.1817705	.1839262

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3239.364	77900.70	11677.26	3025.184	5065.011
Stddev	3.314	169.41	88.37	10.249	3.932
%RSD	.1023056	.2174717	.7567818	.3387946	.0776317
#1	3241.859	77766.43	11680.55	3014.957	5067.413
#2	3235.604	78091.04	11587.29	3035.455	5060.474
#3	3240.630	77844.65	11763.94	3025.139	5067.148

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06MSD Acquired: 5/1/2025 18:14:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7600037	1.917132	.9296742	1.845934	.7864699	1.887978	.1791129
Stddev	.0033623	.004906	.0004901	.007245	.0011417	.008861	.0017357
%RSD	.4424104	.2559094	.0527120	.3924697	.1451647	.4693307	.9690747
#1	.7620419	1.921441	.9297063	1.853859	.7870645	1.879101	.1777406
#2	.7561228	1.918164	.9301474	1.844294	.7871916	1.888009	.1810641
#3	.7618463	1.911793	.9291689	1.839651	.7851537	1.896823	.1785340

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1769907	.1887119	.9906134	.3926982	.1878885	.2946389	2.909858
Stddev	.0004678	.0003421	.0102667	.0011006	.0003985	.0002067	.019722
%RSD	.2643221	.1812643	1.036396	.2802622	.2120874	.0701484	.6777556
#1	.1770058	.1884129	.9793972	.3938032	.1882294	.2944423	2.926827
#2	.1774507	.1886379	.9995461	.3916021	.1879858	.2948544	2.888222
#3	.1765155	.1890849	.9928967	.3926893	.1874504	.2946202	2.914526

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1966077	1.879340	.4719489	.0709544	2.832908	.2858142	.1968361
Stddev	.0016906	.004873	.0005108	.0004400	.010125	.0004096	.0011141
%RSD	.8598725	.2592756	.1082367	.6200989	.3574229	.1433063	.5660061
#1	.1958856	1.875188	.4721656	.0710828	2.825213	.2860989	.1960775
#2	.1985395	1.884704	.4713654	.0704645	2.829133	.2859990	.1981151
#3	.1953982	1.878126	.4723156	.0713160	2.844379	.2853448	.1963155

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.494800	.2669153	.4192693	.6728495	.1940185	.8341208	5.342901
Stddev	.054710	.0005971	.0005632	.0009267	.0010477	.0130787	.006717
%RSD	.5762130	.2237105	.1343292	.1377351	.5400100	1.567960	.1257204
#1	9.548118	.2664220	.4193297	.6718003	.1934389	.8484732	5.347915
#2	9.438796	.2667446	.4186783	.6731920	.1952280	.8228755	5.345519
#3	9.497485	.2675791	.4197998	.6735563	.1933887	.8310136	5.335269

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06MSD Acquired: 5/1/2025 18:14:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0460233	.1907003	.1894431
Stddev	.0026176	.0010487	.0002570
%RSD	5.687642	.5498969	.1356854
#1	.0487025	.1910579	.1896753
#2	.0458955	.1895197	.1894871
#3	.0434719	.1915234	.1891669

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3277.668	75357.68	11168.64	2971.124	5144.145
Stddev	2.573	254.74	21.72	11.573	3.947
%RSD	.0785091	.3380399	.1944724	.3894995	.0767246
#1	3277.049	75140.58	11159.11	2965.050	5148.701
#2	3280.495	75638.11	11153.31	2963.853	5141.952
#3	3275.461	75294.35	11193.49	2984.469	5141.781

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06A Acquired: 5/1/2025 18:19:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7510703	1.876767	.9073897	1.821498	.7747367	1.864663	.1702264
Stddev	.0063698	.019438	.0007020	.013570	.0005786	.005278	.0009806
%RSD	.8480988	1.035698	.0773687	.7450144	.0746780	.2830555	.5760365
#1	.7584245	1.897060	.9076638	1.826972	.7743543	1.859357	.1710719
#2	.7475042	1.858316	.9079133	1.831478	.7754023	1.869913	.1704558
#3	.7472823	1.874924	.9065919	1.806046	.7744536	1.864719	.1691514

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1772759	.1832613	.9567359	.3817734	.1826195	.2885725	2.742588
Stddev	.0006977	.0006157	.0023004	.0014627	.0005252	.0009166	.032073
%RSD	.3935632	.3359668	.2404471	.3831311	.2875892	.3176283	1.169438
#1	.1773351	.1838308	.9593873	.3809800	.1829866	.2890913	2.735022
#2	.1779421	.1833451	.9555504	.3808789	.1828540	.2891120	2.714974
#3	.1765505	.1826080	.9552700	.3834614	.1820179	.2875142	2.777767

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1901105	1.819116	.4597515	.0685814	2.682545	.2762455	.1927152
Stddev	.0012614	.013908	.0013548	.0004511	.017298	.0026393	.0006955
%RSD	.6635202	.7645563	.2946821	.6577102	.6448473	.9554062	.3609211
#1	.1907563	1.806913	.4613088	.0682190	2.666061	.2790296	.1921455
#2	.1909182	1.834259	.4591017	.0684386	2.681019	.2759270	.1925098
#3	.1886569	1.816175	.4588440	.0690865	2.700556	.2737799	.1934904

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.933261	.2673785	.4106004	.6566009	.1889706	.7963774	5.175455
Stddev	.030925	.0018531	.0018234	.0012740	.0010341	.0139766	.035840
%RSD	.3461828	.6930622	.4440868	.1940357	.5472219	1.755021	.6925051
#1	8.902276	.2692608	.4125251	.6556843	.1883922	.7802415	5.213784
#2	8.964127	.2673185	.4103773	.6580557	.1901644	.8041836	5.169805
#3	8.933381	.2655561	.4088987	.6560627	.1883551	.8047071	5.142775

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-06A Acquired: 5/1/2025 18:19:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0680300	.1839807	.1822959
Stddev	.0044852	.0014946	.0005747
%RSD	6.592891	.8123645	.3152435
#1	.0713017	.1838331	.1821662
#2	.0629173	.1855436	.1829243
#3	.0698711	.1825654	.1817971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3252.336	75397.29	10826.66	2962.478	5126.267
Stddev	7.965	438.79	32.25	23.751	11.355
%RSD	.2449027	.5819689	.2979046	.8017194	.2215158
#1	3243.799	75681.43	10814.65	2972.295	5113.362
#2	3253.641	75618.50	10802.13	2979.747	5130.708
#3	3259.568	74891.92	10863.19	2935.393	5134.730

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08 Acquired: 5/1/2025 18:23:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004173	-.004781	.0415833	.0028623	-.002450	-.071160	.1056504
Stddev	.002880	.000448	.0017554	.0027984	.001997	.006014	.0014961
%RSD	69.01267	9.375787	4.221300	97.76976	81.49410	8.451830	1.416058
#1	-.004225	-.005298	.0436022	.0023538	-.000705	-.074466	.1050525
#2	-.001268	-.004507	.0404176	.0058801	-.004628	-.064218	.1045457
#3	-.007027	-.004537	.0407301	.0003529	-.002019	-.074797	.1073530

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000101	.0004662	92.75758	-.000252	.0006323	.0057975	-.002978
Stddev	.000067	.0000519	.03018	.000315	.0003355	.0005815	.001032
%RSD	66.53045	11.12655	.0325375	124.9924	53.04881	10.02947	34.66967
#1	-.000140	.0004458	92.78948	-.000249	.0002450	.0052965	-.001965
#2	-.000023	.0005252	92.75378	-.000568	.0008262	.0056610	-.002939
#3	-.000140	.0004277	92.72948	.000062	.0008258	.0064351	-.004029

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3054477	1.365637	.0040493	-.000462	261.2268	.0009632	.0545639
Stddev	.0005245	.008258	.0001874	.000225	1.5889	.0011373	.0003547
%RSD	.1717085	.6047053	4.626970	48.63078	.6082422	118.0745	.6500893
#1	.3051222	1.369906	.0042450	-.000226	262.2921	.0022234	.0546026
#2	.3060527	1.370887	.0038716	-.000674	261.9878	.0000131	.0541914
#3	.3051682	1.356118	.0040315	-.000485	259.4005	.0006531	.0548976

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.082263	.0058891	-.000195	-.004976	-.002296	.6956410	.0299976
Stddev	.042518	.0001969	.000496	.001353	.000203	.0033804	.0023632
%RSD	3.928641	3.343907	255.0037	27.19297	8.835123	.4859443	7.877846
#1	1.131311	.0058566	.000044	-.006061	-.002077	.6918910	.0310710
#2	1.059613	.0057105	.000137	-.005407	-.002476	.6965778	.0316335
#3	1.055865	.0061003	-.000765	-.003460	-.002336	.6984542	.0272882

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08 Acquired: 5/1/2025 18:23:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5059914	-.019293	.1772323
Stddev	.0056751	.000248	.0002413
%RSD	1.121575	1.283035	.1361529
#1	.5096950	-.019464	.1774992
#2	.5088214	-.019405	.1770296
#3	.4994578	-.019009	.1771682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3061.138	71474.44	10647.52	2808.923	4558.230
Stddev	6.982	92.30	51.87	5.415	6.500
%RSD	.2280785	.1291349	.4871556	.1927647	.1425902
#1	3060.699	71516.56	10639.37	2810.789	4558.619
#2	3054.385	71368.60	10600.21	2802.822	4551.545
#3	3068.328	71538.17	10702.98	2813.157	4564.526

Sample Name: Q1901-08DUP Acquired: 5/1/2025 18:27:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.005404	-.002233	.0000927	.0030856	-.002418	-.010457	.0191782
Stddev	.004264	.001873	.0004084	.0040076	.000950	.000889	.0008745
%RSD	78.90160	83.86908	440.6697	129.8814	39.28097	8.496841	4.559758
#1	-.010327	-.000104	-.000135	-.001527	-.003288	-.009627	.0201747
#2	-.002902	-.003626	-.000151	.005074	-.001405	-.010351	.0185387
#3	-.002982	-.002969	.000564	.005710	-.002561	-.011394	.0188213

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000223	-.000389	42.25119	.0235367	-.000843	.0024974	.0074290
Stddev	.000072	.000036	.22594	.0005261	.000147	.0003640	.0051221
%RSD	32.16592	9.213820	.5347454	2.235050	17.45058	14.57716	68.94723
#1	-.000305	-.000429	42.51076	.0237470	-.000896	.0027289	.0102321
#2	-.000195	-.000360	42.14411	.0239251	-.000956	.0020777	.0015171
#3	-.000170	-.000378	42.09870	.0229380	-.000676	.0026854	.0105376

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001089	.0351944	.0021983	-.000235	6.568248	.0015889	.0045383
Stddev	.000288	.0152066	.0002643	.000131	.032639	.0002545	.0018375
%RSD	26.40646	43.20756	12.02311	55.75240	.4969215	16.01685	40.48774
#1	-.001282	.0466596	.0018954	-.000088	6.533640	.0018235	.0066534
#2	-.001227	.0179443	.0023171	-.000281	6.598476	.0013184	.0036261
#3	-.000758	.0409793	.0023823	-.000338	6.572628	.0016247	.0033354

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.456314	.0039776	.1045912	-.004562	-.000243	.3750038	.0113553
Stddev	.037772	.0012951	.0000967	.000658	.000226	.0077221	.0038604
%RSD	.3994385	32.55973	.0924129	14.41636	93.00989	2.059207	33.99618
#1	9.436508	.0054556	.1044844	-.004399	-.000463	.3703790	.0069054
#2	9.432564	.0030414	.1046727	-.005286	-.000010	.3707140	.0138068
#3	9.499871	.0034357	.1046164	-.004002	-.000257	.3839184	.0133538

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08DUP Acquired: 5/1/2025 18:27:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	14.66331	-.002236	.1352533
Stddev	.04968	.001147	.0006877
%RSD	.3388169	51.29118	.5084331
#1	14.66626	-.001054	.1360396
#2	14.71145	-.002311	.1349558
#3	14.61222	-.003344	.1347644

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3215.759	76141.02	11445.43	2945.587	5054.598
Stddev	16.710	158.51	115.47	5.547	32.961
%RSD	.5196170	.2081852	1.008916	.1883170	.6520906
#1	3202.061	76004.55	11312.23	2945.224	5031.899
#2	3210.841	76103.63	11517.19	2951.306	5039.491
#3	3234.376	76314.89	11506.87	2940.230	5092.405

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08LX5 Acquired: 5/1/2025 18:31:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.000455	-.001436	.0075890	.0004879	-.002885	-.026989	.0162579
Stddev	.001885	.000992	.0011665	.0029392	.001312	.007189	.0010192
%RSD	414.5405	69.06220	15.37137	602.4006	45.45590	26.63801	6.268872
#1	-.001796	-.002262	.0071510	-.002729	-.002093	-.022274	.0155365
#2	.001701	-.001711	.0089112	.003034	-.004399	-.023429	.0158133
#3	-.001269	-.000336	.0067050	.001159	-.002163	-.035264	.0174238

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000042	-.000251	18.35781	.0002103	-.000530	.0003259	-.008812
Stddev	.000041	.000037	.03182	.0001924	.000088	.0001350	.003538
%RSD	96.94359	14.61217	.1733406	91.49624	16.61473	41.43977	40.15058
#1	-.000086	-.000293	18.39450	.0004288	-.000490	.0002272	-.010667
#2	-.000034	-.000226	18.33774	.0000661	-.000469	.0002706	-.004732
#3	-.000006	-.000234	18.34118	.0001361	-.000631	.0004798	-.011036

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0586694	.3046532	.0007104	-.000354	49.41446	-.000357	.0096869
Stddev	.0004576	.0033451	.0001969	.000106	.44187	.001935	.0001562
%RSD	.7800334	1.098007	27.71122	30.00354	.8942070	542.7455	1.612658
#1	.0582202	.3034275	.0005436	-.000246	48.93175	-.000081	.0096693
#2	.0591350	.3084383	.0006601	-.000357	49.79896	-.002415	.0095403
#3	.0586528	.3020939	.0009276	-.000458	49.51266	.001426	.0098512

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2883068	-.001180	-.000754	.0034312	-.000517	.1415809	.0089026
Stddev	.0238631	.000571	.000169	.0004828	.000834	.0055684	.0048243
%RSD	8.276993	48.38300	22.35636	14.06935	161.1637	3.932987	54.18981
#1	.3152028	-.001032	-.000919	.0029676	-.001370	.1449664	.0033766
#2	.2800454	-.001810	-.000762	.0039311	-.000478	.1446220	.0110560
#3	.2696722	-.000697	-.000582	.0033949	.000296	.1351542	.0122751

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08LX5 Acquired: 5/1/2025 18:31:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.1023400	-.005407	.0349761
Stddev	.0001879	.000658	.0001485
%RSD	.1835849	12.17167	.4244321
#1	.1022077	-.005152	.0348083
#2	.1022572	-.006155	.0350903
#3	.1025550	-.004915	.0350298

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3214.593	74072.35	10859.69	2931.783	4901.791
Stddev	18.088	440.13	66.16	14.194	30.146
%RSD	.5626868	.5941863	.6092617	.4841341	.6150025
#1	3221.522	74190.26	10786.45	2945.315	4923.873
#2	3228.193	73585.27	10877.47	2917.009	4914.054
#3	3194.065	74441.51	10915.15	2933.027	4867.446

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV05 Acquired: 5/1/2025 18:36:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.085321	5.200351	4.982784	5.148225	5.097753	9.822104	9.948313
Stddev	.017619	.044660	.011054	.023551	.023680	.011401	.089818
%RSD	.3464753	.8587886	.2218365	.4574604	.4645241	.1160728	.9028418
#1	5.088004	5.249497	4.989801	5.127413	5.080324	9.831334	10.01980
#2	5.066515	5.162249	4.988509	5.143471	5.088220	9.809360	9.97764
#3	5.101446	5.189308	4.970042	5.173790	5.124714	9.825618	9.84750

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2343662	2.498100	24.07482	.9842865	2.488847	1.274962	4.987869
Stddev	.0002212	.007552	.04259	.0021529	.004553	.003756	.037472
%RSD	.0943915	.3023194	.1769150	.2187283	.1829498	.2946033	.7512543
#1	.2341179	2.502472	24.12152	.9829698	2.490003	1.271274	4.994719
#2	.2344384	2.502449	24.03812	.9831188	2.492711	1.274830	4.947445
#3	.2345424	2.489380	24.06481	.9867710	2.483828	1.278783	5.021443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.412178	23.82499	2.497246	1.227039	24.95002	2.453756	2.496505
Stddev	.003277	.05977	.004559	.001242	.05452	.002535	.016043
%RSD	.1358601	.2508742	.1825791	.1012523	.2185029	.1033101	.6426354
#1	2.411038	23.86378	2.498015	1.227868	25.00039	2.450911	2.498846
#2	2.409623	23.75616	2.501372	1.225611	24.89214	2.455774	2.479419
#3	2.415872	23.85503	2.492351	1.227638	24.95753	2.454583	2.511249

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.02047	4.738224	5.046245	5.008004	4.905636	4.938421	5.027373
Stddev	.03943	.003224	.003740	.013713	.005562	.012416	.017381
%RSD	.1575734	.0680435	.0741131	.2738210	.1133721	.2514168	.3457266
#1	25.05789	4.736696	5.047596	5.021299	4.911983	4.945976	5.044381
#2	24.97930	4.741929	5.042018	5.008806	4.903308	4.924091	5.028096
#3	25.02424	4.736049	5.049122	4.993908	4.901617	4.945195	5.009642

Sample Name: CCV05 Acquired: 5/1/2025 18:36:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.098700	4.858189	4.992064
Stddev	.005655	.004183	.068427
%RSD	.1109092	.0860927	1.370706
#1	5.097600	4.861691	4.998790
#2	5.093675	4.859317	4.920523
#3	5.104824	4.853557	5.056880

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.098	74631.85	10996.11	2932.842	4699.266
Stddev	8.934	372.65	29.69	12.920	25.641
%RSD	.2834300	.4993225	.2699685	.4405425	.5456369
#1	3149.648	74626.63	11011.68	2934.295	4687.264
#2	3144.644	75007.09	11014.77	2944.974	4681.828
#3	3162.001	74261.84	10961.88	2919.256	4728.707

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB05 Acquired: 5/1/2025 18:40:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044586	.0036138	.0019174	.0005628	-.000479	.0048294	-.004567
Stddev	.0009616	.0019331	.0016692	.0036830	.001097	.0096690	.002004
%RSD	21.56729	53.49189	87.06006	654.3953	229.0704	200.2116	43.87414
#1	.0041773	.0058449	.0002513	-.003670	-.000132	.0146414	-.006863
#2	.0055295	.0025580	.0019110	.002323	.000403	.0045366	-.003668
#3	.0036690	.0024385	.0035898	.003036	-.001708	-.004690	-.003170

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000526	.0008948	.0155715	.0004819	.0004498	.0003957	.0009029
Stddev	.0000201	.0001625	.0049009	.0004232	.0004651	.0000695	.0004378
%RSD	38.17900	18.15698	31.47327	87.81536	103.3943	17.56254	48.48646
#1	.0000301	.0007247	.0187078	.0006614	-.000030	.0004754	.0011643
#2	.0000588	.0009114	.0099240	.0007858	.000481	.0003472	.0011468
#3	.0000688	.0010484	.0180827	-.000001	.000898	.0003647	.0003975

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000480	.0200130	.0009445	.0000817	-.028462	.0003008	-.000672
Stddev	.000300	.0041253	.0002802	.0001631	.013971	.0006838	.000527
%RSD	62.44974	20.61330	29.66188	199.5941	49.08595	227.3823	78.49352
#1	-.000676	.0208918	.0006211	.0002291	-.018767	.0008642	-.001279
#2	-.000630	.0155191	.0011142	.0001096	-.044476	-.000460	-.000405
#3	-.000135	.0236282	.0010982	-.000094	-.022143	.000498	-.000331

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0672841	.0056851	.0018435	.0072603	.0020393	.0067525	.0076880
Stddev	.0119960	.0005179	.0005953	.0012904	.0013511	.0026682	.0023974
%RSD	17.82886	9.110293	32.29292	17.77366	66.25287	39.51413	31.18406
#1	.0589901	.0061890	.0011600	.0058186	.0022823	.0091481	.0063282
#2	.0618232	.0057122	.0021213	.0083073	.0032525	.0038769	.0062796
#3	.0810389	.0051542	.0022490	.0076550	.0005832	.0072326	.0104561

Sample Name: CCB05 Acquired: 5/1/2025 18:40:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0002017	-.002550	.0005634
Stddev	.0019511	.001872	.0000341
%RSD	967.5527	73.43121	6.056916
#1	-.002027	-.003369	.0005446
#2	.001032	-.000407	.0006027
#3	.001601	-.003873	.0005428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3237.653	75493.08	10352.31	3018.775	4992.365
Stddev	7.424	192.38	24.70	5.291	9.126
%RSD	.2293091	.2548328	.2386068	.1752649	.1827894
#1	3229.193	75576.50	10364.32	3022.423	4986.245
#2	3243.079	75273.07	10323.90	3012.707	4987.996
#3	3240.689	75629.68	10368.72	3021.196	5002.854

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08MS Acquired: 5/1/2025 18:44:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.8108732	1.967180	.9502812	1.961606	.8252523	1.903110	.2104549
Stddev	.0065480	.010092	.0029986	.013116	.0042292	.004665	.0008379
%RSD	.8075280	.5130364	.3155451	.6686374	.5124690	.2451006	.3981576
#1	.8069236	1.978490	.9487287	1.952858	.8207436	1.902405	.2096026
#2	.8184317	1.959092	.9537376	1.955275	.8258819	1.908086	.2112777
#3	.8072644	1.963959	.9483771	1.976687	.8291313	1.898838	.2104843

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1776280	.1933717	44.05524	.4186381	.1916338	.3021677	3.010947
Stddev	.0005209	.0001605	.09591	.0015978	.0003105	.0002620	.003789
%RSD	.2932396	.0830056	.2176987	.3816566	.1620145	.0867084	.1258403
#1	.1776795	.1932544	44.09513	.4203385	.1912758	.3020757	3.007538
#2	.1770833	.1933062	44.12477	.4171679	.1918302	.3024633	3.010277
#3	.1781212	.1935546	43.94583	.4184079	.1917954	.3019641	3.015027

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1891758	1.826063	.4907628	.0724439	9.888152	.2908308	.2019199
Stddev	.0004014	.004903	.0007687	.0005921	.014444	.0016516	.0016952
%RSD	.2122020	.2685023	.1566292	.8173031	.1460718	.5678936	.8395387
#1	.1889247	1.824302	.4898857	.0717828	9.899783	.2915247	.2033873
#2	.1896387	1.831603	.4913192	.0726234	9.892688	.2920224	.2023080
#3	.1889638	1.822284	.4910835	.0729254	9.871985	.2889455	.2000643

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.79606	.2767529	.5333078	.6854632	.1940671	1.231897	5.714205
Stddev	.03137	.0013285	.0012186	.0031785	.0002892	.007046	.011340
%RSD	.1584726	.4800446	.2285054	.4637074	.1490246	.5719971	.1984469
#1	19.82577	.2782632	.5321108	.6818392	.1941501	1.232380	5.717096
#2	19.79916	.2757647	.5345470	.6867724	.1943058	1.224622	5.723819
#3	19.76325	.2762308	.5332655	.6877781	.1937455	1.238690	5.701699

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08MS Acquired: 5/1/2025 18:44:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	15.38995	.1974816	.3330152
Stddev	.03050	.0012454	.0003342
%RSD	.1981501	.6306485	.1003436
#1	15.35541	.1960607	.3328260
#2	15.40125	.1980005	.3334010
#3	15.41318	.1983838	.3328185

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.822	73784.27	11255.35	2907.859	4886.121
Stddev	5.259	265.27	35.91	7.196	10.139
%RSD	.1675369	.3595165	.3190356	.2474764	.2075028
#1	3133.752	73692.76	11253.14	2903.629	4877.771
#2	3138.462	74083.18	11292.32	2916.168	4883.189
#3	3144.251	73576.87	11220.60	2903.780	4897.402

Sample Name: Q1901-08MSD Acquired: 5/1/2025 18:48:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.8733591	2.096035	1.016888	2.116867	.8953572	2.011645	.2259900
Stddev	.0052799	.008110	.003988	.014595	.0048341	.005724	.0019165
%RSD	.6045544	.3869282	.3921969	.6894468	.5399097	.2845210	.8480379
#1	.8693714	2.099576	1.017214	2.114328	.9009123	2.010355	.2265618
#2	.8793469	2.101773	1.012747	2.132564	.8921057	2.017903	.2275556
#3	.8713590	2.086757	1.020703	2.103708	.8930538	2.006676	.2238527

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1832425	.2077390	45.89302	.4401247	.2049351	.3225687	3.277512
Stddev	.0008686	.0004697	.22217	.0008433	.0002208	.0009244	.015925
%RSD	.4740091	.2260860	.4841030	.1915986	.1077222	.2865732	.4858896
#1	.1837792	.2076749	46.03468	.4407149	.2047383	.3231144	3.259577
#2	.1837080	.2082374	46.00741	.4391589	.2051738	.3230903	3.282965
#3	.1822404	.2073047	45.63696	.4405002	.2048930	.3215014	3.289994

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2015778	1.931413	.5157667	.0765916	10.48183	.3111715	.2143195
Stddev	.0011860	.017660	.0020202	.0002346	.04927	.0005385	.0003491
%RSD	.5883472	.9143441	.3916823	.3062818	.4700828	.1730630	.1628892
#1	.2022463	1.927793	.5144150	.0768615	10.45343	.3117377	.2139180
#2	.2022787	1.950603	.5180890	.0764768	10.45332	.3106658	.2144900
#3	.2002085	1.915844	.5147960	.0764366	10.53872	.3111110	.2145507

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.24071	.2858734	.5690903	.7445891	.2109682	1.333880	6.121990
Stddev	.11881	.0021853	.0025105	.0026780	.0011565	.004495	.026172
%RSD	.5593356	.7644134	.4411421	.3596619	.5481858	.3370005	.4275012
#1	21.17387	.2865224	.5702530	.7443838	.2122391	1.328697	6.120214
#2	21.17038	.2876606	.5708087	.7473638	.2099778	1.336723	6.149004
#3	21.37788	.2834371	.5662093	.7420196	.2106877	1.336218	6.096752

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08MSD Acquired: 5/1/2025 18:48:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	16.19315	.2136027	.3560777
Stddev	.05168	.0020995	.0007687
%RSD	.3191181	.9829082	.2158757
#1	16.20274	.2160186	.3569598
#2	16.23936	.2125695	.3555509
#3	16.13735	.2122201	.3557224

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3101.332	74559.39	11581.07	2922.684	4800.877
Stddev	13.121	78.40	71.99	5.965	14.058
%RSD	.4230658	.1051526	.6216310	.2040846	.2928212
#1	3096.809	74639.90	11523.25	2924.070	4797.803
#2	3091.072	74554.99	11558.25	2927.833	4788.611
#3	3116.116	74483.28	11661.70	2916.148	4816.218

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08A Acquired: 5/1/2025 18:52:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7985585	1.910565	.9553147	1.963486	.8018525	1.800525	.2508643
Stddev	.0013742	.021389	.0032817	.002910	.0025772	.008501	.0014013
%RSD	.1720900	1.119492	.3435179	.1482011	.3214104	.4721194	.5585965
#1	.7975571	1.930645	.9577975	1.965304	.8015397	1.810084	.2496937
#2	.7979932	1.912979	.9565524	1.965024	.7994460	1.797680	.2524171
#3	.8001253	1.888072	.9515941	1.960130	.8045719	1.793812	.2504821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1782734	.1935747	72.64158	.3849691	.1890458	.2894365	2.808984
Stddev	.0007425	.0005153	.18766	.0008643	.0010516	.0003937	.024561
%RSD	.4165204	.2662207	.2583430	.2245178	.5562785	.1360165	.8743579
#1	.1786300	.1939932	72.63146	.3839789	.1897686	.2895146	2.792592
#2	.1774198	.1937318	72.83411	.3853558	.1895295	.2890096	2.837223
#3	.1787703	.1929991	72.45919	.3855726	.1878394	.2897852	2.797139

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3624384	2.559284	.4742664	.0700746	160.3541	.2774067	.2284928
Stddev	.0010255	.030034	.0009371	.0005789	2.3952	.0011680	.0016629
%RSD	.2829308	1.173530	.1975872	.8261124	1.493666	.4210356	.7277611
#1	.3631928	2.554912	.4747919	.0695885	157.6030	.2768003	.2303985
#2	.3628516	2.591264	.4748228	.0707150	161.4842	.2766666	.2277440
#3	.3612708	2.531675	.4731845	.0699203	161.9751	.2787531	.2273361

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.43053	.2734178	.4528599	.6802618	.1865789	1.382844	5.921913
Stddev	.06043	.0017382	.0007160	.0035169	.0010572	.008893	.027545
%RSD	.4187443	.6357330	.1580997	.5169885	.5666097	.6430860	.4651446
#1	14.38942	.2744264	.4534173	.6805151	.1859941	1.378136	5.946782
#2	14.49991	.2714107	.4531100	.6836452	.1877993	1.393101	5.926652
#3	14.40227	.2744164	.4520524	.6766252	.1859433	1.377295	5.892306

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-08A Acquired: 5/1/2025 18:52:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	6.724991	.1849233	.3463059
Stddev	.023308	.0008736	.0001633
%RSD	.3465864	.4724314	.0471613
#1	6.747773	.1859279	.3464624
#2	6.726008	.1843409	.3463189
#3	6.701191	.1845012	.3461365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3071.858	72911.08	10958.08	2854.781	4610.930
Stddev	10.299	487.33	5.72	10.239	21.515
%RSD	.3352729	.6683951	.0522428	.3586507	.4666073
#1	3063.969	73370.41	10963.57	2864.216	4597.275
#2	3068.096	72399.89	10958.51	2843.894	4599.783
#3	3083.509	72962.94	10952.15	2856.234	4635.731

Sample Name: Q1901-09 Acquired: 5/1/2025 18:56:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.007383	-.007458	.1079514	.0053170	-.002215	.0022672	.1426377
Stddev	.001707	.001370	.0012224	.0045980	.000907	.0129996	.0005013
%RSD	23.12112	18.37108	1.132314	86.47763	40.93586	573.3768	.3514710
#1	-.006225	-.008418	.1066598	.0006935	-.002934	-.012062	.1423092
#2	-.006582	-.008067	.1090901	.0098891	-.002514	.005559	.1423892
#3	-.009344	-.005889	.1081044	.0053685	-.001196	.013304	.1432147

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000155	.0002486	108.2886	.0013711	.0049710	.0094667	.2606043
Stddev	.000012	.0000060	.1878	.0002213	.0001140	.0000630	.0030213
%RSD	7.776239	2.427444	.1734649	16.14154	2.294183	.6656327	1.159354
#1	-.000145	.0002479	108.4494	.0014354	.0049539	.0095147	.2573083
#2	-.000168	.0002550	108.0821	.0015531	.0048664	.0093953	.2632426
#3	-.000153	.0002430	108.3343	.0011247	.0050926	.0094900	.2612620

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7672602	3.042543	.0072641	-.000539	435.5319	.0010028	.1087701
Stddev	.0030583	.020810	.0003492	.000211	4.0888	.0013078	.0007901
%RSD	.3985999	.6839729	4.806459	39.08360	.9388139	130.4070	.7263708
#1	.7662007	3.035214	.0070181	-.000556	430.8356	.0002143	.1096522
#2	.7648726	3.066026	.0071105	-.000741	438.3010	.0025124	.1081274
#3	.7707074	3.026388	.0076637	-.000320	437.4591	.0002818	.1085308

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.337563	.0132740	.0006760	-.004122	-.001808	1.106724	.0179950
Stddev	.066371	.0002111	.0002121	.002247	.001077	.017868	.0011312
%RSD	1.988612	1.590187	31.38407	54.52356	59.57988	1.614519	6.286229
#1	3.271714	.0134506	.0007679	-.005879	-.002389	1.099249	.0193012
#2	3.336531	.0133312	.0008266	-.004897	-.002471	1.093807	.0173309
#3	3.404444	.0130402	.0004333	-.001589	-.000565	1.127116	.0173530

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-09 Acquired: 5/1/2025 18:56:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.751249	-.018179	.3481343
Stddev	.003178	.000677	.0009111
%RSD	.1814499	3.725103	.2617098
#1	1.751177	-.017599	.3473929
#2	1.754463	-.018013	.3478585
#3	1.748108	-.018923	.3491514

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3027.461	71220.81	10896.80	2759.851	4451.125
Stddev	6.038	501.97	43.78	21.548	12.437
%RSD	.1994438	.7048035	.4018055	.7807838	.2794062
#1	3020.513	71780.62	10846.25	2770.819	4437.981
#2	3030.431	70810.79	10921.30	2735.025	4452.685
#3	3031.438	71071.01	10922.85	2773.709	4462.707

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-10 Acquired: 5/1/2025 19:01:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.000453	-.003983	.0035452	.0043333	-.002231	.0855751	.4323975
Stddev	.001024	.002119	.0011209	.0043574	.001185	.0112244	.0030721
%RSD	226.1673	53.19887	31.61757	100.5574	53.11379	13.11640	.7104787
#1	-.001502	-.004509	.0022704	.0020039	-.003174	.0877061	.4326916
#2	-.000400	-.001651	.0039888	.0016357	-.000901	.0734380	.4291889
#3	.000544	-.005790	.0043766	.0093603	-.002618	.0955812	.4353119

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000542	-.001078	2.701582	.0006025	-.000318	.0128632	14.75282
Stddev	.0000906	.000117	.014883	.0002601	.000227	.0003282	.06970
%RSD	167.1622	10.89644	.5509176	43.17826	71.37430	2.551651	.4724484
#1	.0001564	-.001213	2.710184	.0003088	-.000056	.0132066	14.75329
#2	.0000226	-.001010	2.684396	.0006947	-.000459	.0125526	14.82228
#3	-.000016	-.001010	2.710166	.0008039	-.000439	.0128306	14.68289

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1134391	2.797333	.0008417	-.000226	354.4893	.0051529	.1806265
Stddev	.0005854	.040302	.0003389	.000331	5.1833	.0005701	.0006859
%RSD	.5160296	1.440723	40.25570	146.8546	1.462192	11.06313	.3797377
#1	.1135306	2.823873	.0006927	-.000222	352.3025	.0045947	.1813637
#2	.1128134	2.750957	.0012296	.000104	350.7578	.0057342	.1805086
#3	.1139733	2.817168	.0006030	-.000559	360.4077	.0051297	.1800072

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.725092	.1607087	-.000415	-.001508	.0027198	.6703333	.0351376
Stddev	.050743	.0014827	.000068	.001060	.0007216	.0120698	.0013841
%RSD	1.362206	.9226272	16.46703	70.32724	26.53208	1.800562	3.938987
#1	3.667791	.1623892	-.000350	-.000921	.0034998	.6567090	.0347933
#2	3.743144	.1595848	-.000410	-.002732	.0025836	.6746032	.0366612
#3	3.764342	.1601522	-.000486	-.000870	.0020760	.6796877	.0339581

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-10 Acquired: 5/1/2025 19:01:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.8390276	-.000213	.0212322
Stddev	.0049296	.001385	.0002074
%RSD	.5875354	651.1868	.9766633
#1	.8422825	-.001732	.0210617
#2	.8333561	.000117	.0211720
#3	.8414443	.000978	.0214631

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3127.592	72923.17	10841.51	2848.408	4683.570
Stddev	9.663	381.86	80.25	12.436	26.335
%RSD	.3089731	.5236412	.7401716	.4365954	.5622742
#1	3119.508	72567.27	10766.69	2839.481	4655.410
#2	3124.974	72875.70	10926.26	2843.131	4687.713
#3	3138.295	73326.54	10831.60	2862.612	4707.588

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-11 Acquired: 5/1/2025 19:05:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006059	-.004455	.0051515	.0023875	-.000523	.3047432	.3569143
Stddev	.001807	.001040	.0006867	.0019902	.001275	.0112793	.0030155
%RSD	29.81688	23.35160	13.33054	83.36002	243.8673	3.701259	.8448735
#1	-.006679	-.005222	.0059292	.0017184	-.000203	.3151831	.3597353
#2	-.007474	-.004873	.0048965	.0008181	.000562	.3062670	.3572714
#3	-.004024	-.003271	.0046288	.0046261	-.001928	.2927794	.3537362

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000143	-.000357	7.078922	.0006626	-.000846	.0122078	.0350159
Stddev	.000052	.000033	.053787	.0002205	.000101	.0002678	.0018240
%RSD	36.51742	9.276885	.7598156	33.27861	11.95541	2.193786	5.208985
#1	-.000165	-.000336	7.133473	.0004662	-.000798	.0123390	.0370765
#2	-.000084	-.000395	7.077359	.0006205	-.000777	.0118996	.0336085
#3	-.000182	-.000340	7.025933	.0009012	-.000962	.0123846	.0343626

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0759588	7.173294	-.000012	-.000421	386.7307	.0030110	.1746598
Stddev	.0005194	.037743	.000320	.000278	2.3986	.0014928	.0010523
%RSD	.6838549	.5261571	2691.550	65.94534	.6202207	49.57800	.6025098
#1	.0762371	7.208661	.000178	-.000323	388.4719	.0039864	.1755865
#2	.0762797	7.177664	.000168	-.000735	383.9948	.0012925	.1735158
#3	.0753595	7.133556	-.000381	-.000206	387.7254	.0037540	.1748772

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.736112	.1495468	-.000367	-.001269	.0053639	.5231619	.0542863
Stddev	.019039	.0022660	.000113	.000307	.0007829	.0069014	.0019096
%RSD	.5095876	1.515269	30.70026	24.18519	14.59569	1.319181	3.517577
#1	3.716407	.1521363	-.000373	-.001216	.0059291	.5154099	.0530617
#2	3.737522	.1485770	-.000252	-.001599	.0056923	.5286377	.0564866
#3	3.754407	.1479270	-.000478	-.000992	.0044703	.5254381	.0533105

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1901-11 Acquired: 5/1/2025 19:05:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.028813	-.005591	.1083703
Stddev	.002371	.000874	.0005306
%RSD	.2304286	15.62743	.4896131
#1	1.030943	-.006597	.1089131
#2	1.026259	-.005141	.1083450
#3	1.029237	-.005033	.1078529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3114.115	73529.18	11506.93	2833.287	4686.515
Stddev	1.591	303.42	144.81	2.483	7.731
%RSD	.0510755	.4126488	1.258498	.0876318	.1649578
#1	3114.095	73740.68	11345.99	2834.995	4678.251
#2	3115.715	73181.54	11548.07	2830.439	4693.571
#3	3112.534	73665.33	11626.72	2834.427	4687.724

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1905-04 Acquired: 5/1/2025 19:10:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004042	-.004506	.0055580	-.001040	-.002199	.0981599	.1227012
Stddev	.001971	.000884	.0003215	.001717	.002006	.0068394	.0006010
%RSD	48.75795	19.61080	5.783747	165.0878	91.19653	6.967608	.4898393
#1	-.002226	-.004094	.0053855	-.002734	-.002899	.1058825	.1220101
#2	-.003763	-.005520	.0059289	-.001086	-.003762	.0957298	.1231016
#3	-.006138	-.003903	.0053596	.000699	.000062	.0928674	.1229920

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000072	-.000076	4.273567	.0002279	.0027423	.0111394	.0121566
Stddev	.000028	.000044	.018624	.0002217	.0001991	.0004488	.0010302
%RSD	39.28234	58.24823	.4357942	97.30843	7.259809	4.029254	8.474397
#1	-.000041	-.000086	4.254403	-.000018	.0029193	.0108049	.0110795
#2	-.000096	-.000115	4.274699	.000412	.0027807	.0109639	.0122580
#3	-.000078	-.000028	4.291599	.000290	.0025268	.0116495	.0131324

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.603877	1.941402	.0046716	-.000277	377.0875	.0005738	.0397887
Stddev	.002521	.007909	.0000041	.000257	9.3754	.0018200	.0006085
%RSD	.1571619	.4074071	.0872478	92.59644	2.486272	317.1755	1.529255
#1	1.601640	1.948558	.0046671	-.000266	387.9111	-.000510	.0403606
#2	1.603384	1.942737	.0046724	-.000540	371.8652	-.000443	.0398563
#3	1.606608	1.932910	.0046752	-.000026	371.4862	.002675	.0391493

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7724891	.0147490	-.000935	-.001478	.0005878	.3034597	.0204996
Stddev	.0130438	.0012028	.000299	.000279	.0009525	.0034399	.0019837
%RSD	1.688537	8.155148	31.98222	18.87221	162.0537	1.133564	9.676610
#1	.7720324	.0156572	-.000675	-.001768	-.000508	.3011180	.0216169
#2	.7596796	.0152049	-.001261	-.001212	.001221	.3018520	.0182093
#3	.7857551	.0133849	-.000868	-.001453	.001051	.3074090	.0216726

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1905-04 Acquired: 5/1/2025 19:10:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.7773807	-.005970	.0338011
Stddev	.0096132	.000419	.0001378
%RSD	1.236618	7.024580	.4077816
#1	.7683535	-.006342	.0338138
#2	.7874886	-.005516	.0336573
#3	.7762999	-.006054	.0339321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3107.638	73508.09	11058.56	2845.083	4671.435
Stddev	1.468	179.38	24.77	7.039	32.340
%RSD	.0472371	.2440266	.2239942	.2474161	.6922845
#1	3106.173	73300.97	11076.70	2837.323	4648.426
#2	3107.631	73613.56	11030.34	2851.057	4657.469
#3	3109.109	73609.74	11068.65	2846.869	4708.411

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1905-08 Acquired: 5/1/2025 19:14:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006438	-.004900	.0030038	.0027435	-.002969	.0418024	.1554594
Stddev	.003258	.000621	.0016031	.0010707	.001561	.0066657	.0025218
%RSD	50.60953	12.68177	53.36883	39.02859	52.58983	15.94565	1.622144
#1	-.007652	-.004343	.0013939	.0019882	-.004770	.0457945	.1560398
#2	-.002747	-.005570	.0046000	.0022734	-.002139	.0341074	.1576404
#3	-.008914	-.004787	.0030173	.0039688	-.001997	.0455052	.1526980

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000162	-.000299	6.788639	-.000121	.0013412	.0119039	.1852154
Stddev	.000036	.000011	.051953	.000461	.0001794	.0003638	.0052338
%RSD	22.42803	3.613922	.7652982	381.9965	13.37384	3.056150	2.825776
#1	-.000125	-.000308	6.800010	-.000088	.0011353	.0121827	.1863515
#2	-.000163	-.000287	6.833964	-.000597	.0014249	.0114923	.1795069
#3	-.000198	-.000302	6.731941	.000323	.0014634	.0120366	.1897879

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.145966	1.239545	.0010632	-.000362	370.5930	-.000206	.0348413
Stddev	.010428	.017563	.0001782	.000110	2.9561	.003096	.0002710
%RSD	.9099988	1.416882	16.76091	30.46086	.7976750	1504.627	.7778444
#1	1.151182	1.242620	.0012636	-.000236	367.9921	.000826	.0347990
#2	1.152758	1.255368	.0009227	-.000439	373.8079	.002242	.0345939
#3	1.133959	1.220648	.0010033	-.000411	369.9790	-.003686	.0351310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8881952	.0132585	-.000935	-.001666	.0007532	.3328844	.0214830
Stddev	.0262436	.0008683	.000276	.001620	.0003886	.0043496	.0028195
%RSD	2.954710	6.549153	29.52018	97.25635	51.59590	1.306642	13.12455
#1	.9014475	.0124791	-.001057	-.000046	.0010630	.3378302	.0182323
#2	.8579680	.0141945	-.000619	-.001665	.0003172	.3296543	.0229514
#3	.9051701	.0131019	-.001130	-.003286	.0008794	.3311686	.0232652

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1905-08 Acquired: 5/1/2025 19:14:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.5116267	-.006916	.0579377
Stddev	.0058404	.001001	.0002728
%RSD	1.141525	14.46785	.4709433
#1	.5116311	-.005801	.0582007
#2	.5057841	-.007735	.0579564
#3	.5174648	-.007211	.0576560

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3038.245	74121.80	11492.89	2829.394	4628.699
Stddev	21.269	588.54	164.71	4.500	14.359
%RSD	.7000365	.7940133	1.433170	.1590485	.3102168
#1	3046.938	73442.91	11421.21	2826.823	4643.812
#2	3053.791	74487.98	11376.17	2834.590	4627.047
#3	3014.007	74434.50	11681.30	2826.768	4615.237

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-04 Acquired: 5/1/2025 19:19:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006366	-.005981	.0137758	.0057815	-.002615	.0387031	.2554186
Stddev	.002150	.002870	.0009396	.0034952	.001230	.0080387	.0014295
%RSD	33.78105	47.98387	6.820336	60.45507	47.02662	20.77025	.5596602
#1	-.003922	-.007482	.0126917	.0040120	-.002796	.0294270	.2569007
#2	-.007968	-.007788	.0142828	.0098076	-.003745	.0430459	.2553068
#3	-.007207	-.002672	.0143530	.0035249	-.001305	.0436364	.2540483

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002121	.0009379	13.30013	.0004042	.0017655	.0369595	.0057378
Stddev	.0000623	.0000218	.06487	.0002216	.0001210	.0004162	.0051046
%RSD	29.37185	2.327148	.4877720	54.82342	6.853569	1.126073	88.96372
#1	.0001717	.0009537	13.37498	.0003833	.0016759	.0366096	.0039921
#2	.0001807	.0009130	13.26541	.0006355	.0019032	.0368492	.0114862
#3	.0002838	.0009470	13.26001	.0001938	.0017175	.0374198	.0017351

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5417115	1.320996	.0063665	-.000657	342.6711	.0002391	.2010283
Stddev	.0014895	.010905	.0000158	.000153	1.4741	.0014426	.0005544
%RSD	.2749649	.8255299	.2481080	23.26940	.4301757	603.3366	.2757626
#1	.5434253	1.315661	.0063483	-.000739	341.6289	-.001359	.2010994
#2	.5407288	1.333542	.0063740	-.000752	342.0267	.001444	.2004418
#3	.5409803	1.313786	.0063771	-.000481	344.3576	.000632	.2015436

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.212298	.0226058	-.000836	-.002527	-.000859	1.099210	.0184870
Stddev	.037547	.0004979	.000370	.001688	.000458	.009115	.0017374
%RSD	.8913707	2.202540	44.22291	66.82219	53.33863	.8292192	9.397804
#1	4.176984	.0221924	-.001127	-.004457	-.000464	1.090205	.0169036
#2	4.208174	.0224664	-.000961	-.001328	-.000752	1.098992	.0203455
#3	4.251737	.0231585	-.000420	-.001795	-.001361	1.108431	.0182120

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-04 Acquired: 5/1/2025 19:19:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.2929168	-.003881	.0924594
Stddev	.0072673	.000305	.0004659
%RSD	2.481017	7.868496	.5039121
#1	.2857832	-.004021	.0929150
#2	.2926562	-.003530	.0919839
#3	.3003108	-.004091	.0924792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.754	73222.09	12160.38	2844.342	4689.882
Stddev	8.568	36.82	121.52	8.512	16.880
%RSD	.2758678	.0502887	.9993008	.2992782	.3599229
#1	3109.906	73239.44	12020.21	2846.174	4670.945
#2	3111.455	73247.03	12236.16	2851.790	4695.350
#3	3095.902	73179.79	12224.75	2835.063	4703.350

Sample Name: CCV06 Acquired: 5/1/2025 19:23:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	4.991595	5.201720	4.919025	5.032240	5.033669	9.918517	9.831361
Stddev	.030057	.055374	.018068	.035243	.048636	.010920	.122490
%RSD	.6021448	1.064529	.3672994	.7003405	.9662052	.1101005	1.245914
#1	4.970698	5.141748	4.918618	5.027593	5.002905	9.921643	9.788252
#2	4.978047	5.212499	4.901164	4.999551	5.008363	9.927534	9.736254
#3	5.026042	5.250911	4.937293	5.069576	5.089740	9.906375	9.969578

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2473181	2.462478	23.94146	.9798948	2.457421	1.257295	4.802451
Stddev	.0009493	.004333	.09625	.0027117	.005237	.006382	.040111
%RSD	.3838582	.1759785	.4020212	.2767304	.2131014	.5076368	.8352124
#1	.2475499	2.463576	23.94186	.9828182	2.457292	1.253619	4.823567
#2	.2462743	2.457702	24.03751	.9774618	2.452250	1.253601	4.827593
#3	.2481300	2.466158	23.84501	.9794044	2.462721	1.264665	4.756194

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.409737	23.83520	2.462424	1.239017	24.66462	2.451481	2.523350
Stddev	.003926	.06198	.003474	.001170	.16162	.007032	.002134
%RSD	.1629257	.2600539	.1410611	.0944365	.6552559	.2868618	.0845690
#1	2.411854	23.81230	2.462969	1.240368	24.71297	2.455988	2.524261
#2	2.412149	23.90538	2.458710	1.238338	24.79655	2.455077	2.524878
#3	2.405206	23.78793	2.465593	1.238345	24.48435	2.443378	2.520912

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.47836	5.012215	5.047355	4.928847	4.904095	4.756590	4.874023
Stddev	.14354	.023088	.024283	.008827	.013973	.017035	.028265
%RSD	.5864002	.4606370	.4810978	.1790873	.2849294	.3581365	.5799033
#1	24.52166	5.013932	5.033810	4.928924	4.907962	4.749582	4.854422
#2	24.59527	4.988316	5.032867	4.919981	4.915727	4.776012	4.861224
#3	24.31816	5.034396	5.075389	4.937634	4.888595	4.744178	4.906423

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV06 Acquired: 5/1/2025 19:23:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	4.948252	4.941781	4.906520
Stddev	.019120	.011135	.068174
%RSD	.3863922	.2253198	1.389455
#1	4.934589	4.942638	4.955054
#2	4.940066	4.952463	4.828578
#3	4.970102	4.930243	4.935929

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3232.722	74794.42	10606.02	2948.687	4844.415
Stddev	11.309	432.21	57.33	12.082	9.901
%RSD	.3498426	.5778580	.5405824	.4097341	.2043868
#1	3236.645	74312.01	10543.89	2934.830	4841.925
#2	3241.548	74924.88	10656.88	2954.217	4855.323
#3	3219.974	75146.37	10617.30	2957.014	4835.996

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB06 Acquired: 5/1/2025 19:27:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000999	-.000355	.0009661	.0012185	-.001810	-.001795	-.006607
Stddev	.001478	.000905	.0019228	.0026819	.000826	.003889	.000764
%RSD	148.0230	255.2668	199.0276	220.1016	45.60487	216.6130	11.55845
#1	-.000700	-.000781	.0030948	.0032903	-.001509	.002684	-.007337
#2	-.002603	-.000967	.0004479	.0021759	-.001178	-.004309	-.006671
#3	.000307	.000685	-.000645	-.001811	-.002744	-.003761	-.005814

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000005	-.000149	-.005692	.0001729	-.000319	-.000363	-.011311
Stddev	.000041	.000187	.002823	.0004932	.000184	.000424	.004810
%RSD	858.1235	125.6151	49.59323	285.2133	57.79553	116.7802	42.52599
#1	-.000021	.000020	-.003811	.0007336	-.000124	.000126	-.005783
#2	-.000035	-.000116	-.004326	-.000194	-.000342	-.000587	-.013605
#3	.000042	-.000349	-.008937	-.000021	-.000491	-.000629	-.014544

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001641	.0125749	.0001464	-.000440	.1381781	.0003196	-.001165
Stddev	.000203	.0158110	.0001717	.000082	.0081967	.0013399	.000321
%RSD	12.39623	125.7345	117.2675	18.73981	5.931978	419.1854	27.56789
#1	-.001806	.0240098	-.000034	-.000348	.1427766	.0018283	-.000815
#2	-.001702	-.005468	.000308	-.000507	.1287146	-.000137	-.001446
#3	-.001414	.019183	.000166	-.000464	.1430429	-.000732	-.001232

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1971727	.0051320	-.000355	.0069047	.0013865	.0017615	.0064115
Stddev	.0311736	.0002618	.000605	.0007432	.0004855	.0070520	.0034706
%RSD	15.81028	5.101394	170.4117	10.76306	35.01940	400.3420	54.13039
#1	.1750097	.0048399	.000280	.0072133	.0019325	.0094564	.0026180
#2	.2328183	.0053456	-.000925	.0074438	.0010033	-.004393	.0071892
#3	.1836903	.0052105	-.000420	.0060569	.0012236	.000221	.0094271

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB06 Acquired: 5/1/2025 19:27:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004854	.0035276	.0003351
Stddev	.000925	.0008421	.0000373
%RSD	19.05010	23.87331	11.12511
#1	-.003949	.0032531	.0003400
#2	-.004815	.0044727	.0002957
#3	-.005797	.0028569	.0003697

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.745	75130.06	11035.66	2984.392	5085.264
Stddev	12.403	378.00	22.08	29.337	18.444
%RSD	.3773604	.5031216	.2000341	.9830198	.3626913
#1	3297.628	74745.92	11059.82	2953.057	5098.470
#2	3289.366	75142.66	11030.63	3011.206	5093.131
#3	3273.241	75501.60	11016.53	2988.913	5064.191

Sample Name: Q1906-08 Acquired: 5/1/2025 19:32:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.003381	-.003147	.0361655	.0036885	-.001266	.0313653	.1790525
Stddev	.001705	.002839	.0004179	.0039403	.001427	.0104413	.0005457
%RSD	50.42119	90.20890	1.155591	106.8278	112.6808	33.28937	.3047939
#1	-.004253	-.000380	.0364959	-.000701	.000365	.0431442	.1791773
#2	-.004473	-.006052	.0363050	.004845	-.001879	.0232480	.1784551
#3	-.001416	-.003008	.0356957	.006921	-.002285	.0277036	.1795250

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000423	.0015614	2.980584	.0005633	.0093456	.0183341	3.828338
Stddev	.0000332	.0001402	.001228	.0003794	.0001279	.0004028	.021858
%RSD	78.42370	8.978403	.0411861	67.34239	1.368816	2.196723	.5709605
#1	.0000141	.0015456	2.979218	.0003997	.0094455	.0180884	3.803241
#2	.0000340	.0014298	2.980938	.0009971	.0092014	.0187989	3.838569
#3	.0000788	.0017089	2.981595	.0002932	.0093899	.0181150	3.843205

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.682154	.3692140	.0063980	-.000364	188.8480	.0002069	.2345882
Stddev	.006417	.0085047	.0005524	.000270	2.6497	.0001680	.0008556
%RSD	.3815043	2.303462	8.633650	74.15955	1.403060	81.18141	.3647392
#1	1.687909	.3629191	.0068315	-.000133	186.7770	.0003776	.2341435
#2	1.683318	.3788891	.0065863	-.000661	187.9332	.0000417	.2340464
#3	1.675234	.3658337	.0057760	-.000299	191.8339	.0002016	.2355746

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4488520	.0249420	-.001047	-.001738	-.000298	.2686354	.0109428
Stddev	.0470197	.0008758	.000259	.001200	.001076	.0085527	.0021816
%RSD	10.47555	3.511375	24.73434	69.03889	361.4996	3.183776	19.93652
#1	.4901859	.0246408	-.000768	-.002709	-.000179	.2625741	.0126378
#2	.4586725	.0259286	-.001280	-.000397	-.001429	.2649137	.0117092
#3	.3976976	.0242564	-.001092	-.002108	.000715	.2784185	.0084814

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-08 Acquired: 5/1/2025 19:32:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.1072841	-.003462	.0330761
Stddev	.0049706	.001922	.0001303
%RSD	4.633137	55.51104	.3939223
#1	.1092414	-.001325	.0332181
#2	.1109780	-.005048	.0330482
#3	.1016327	-.004012	.0329621

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3120.766	73968.84	11286.68	2908.404	4696.735
Stddev	17.442	280.06	115.68	14.859	14.698
%RSD	.5588984	.3786195	1.024907	.5109122	.3129305
#1	3124.988	74273.35	11203.53	2921.124	4697.946
#2	3135.709	73910.85	11237.72	2912.018	4710.791
#3	3101.601	73722.31	11418.78	2892.072	4681.470

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-12 Acquired: 5/1/2025 19:36:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004284	-.006038	.0286390	.0015009	-.002048	.0349123	.1870613
Stddev	.001850	.002801	.0008616	.0040116	.001451	.0093656	.0012049
%RSD	43.18783	46.37894	3.008509	267.2860	70.85128	26.82607	.6441096
#1	-.003021	-.009260	.0295379	.0015079	-.001023	.0447379	.1881515
#2	-.003423	-.004674	.0278203	-.002514	-.003708	.0260869	.1857677
#3	-.006407	-.004181	.0285589	.005509	-.001413	.0339122	.1872648

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000142	.0046378	11.01975	.0003299	-.000582	.0197642	.0126347
Stddev	.000065	.0000515	.02935	.0004219	.000090	.0001978	.0073940
%RSD	45.51341	1.110719	.2663120	127.9017	15.43182	1.000729	58.52135
#1	-.000216	.0046473	11.02877	.0003206	-.000570	.0196013	.0204925
#2	-.000100	.0046838	10.98695	-.000087	-.000498	.0199843	.0115973
#3	-.000109	.0045821	11.04353	.000756	-.000677	.0197070	.0058141

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1912124	2.248767	.0074714	-.000270	321.5014	.0002286	.4224899
Stddev	.0010647	.015303	.0001208	.000160	1.0468	.0010339	.0006538
%RSD	.5568251	.6805175	1.616880	59.25443	.3255861	452.3746	.1547372
#1	.1923892	2.256753	.0076090	-.000405	322.6062	-.000798	.4218555
#2	.1909321	2.231122	.0074225	-.000313	321.3736	.000214	.4231614
#3	.1903158	2.258425	.0073827	-.000093	320.5244	.001269	.4224527

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9953185	.0198580	-.000601	-.003051	.0002891	.8623663	.0564641
Stddev	.0173486	.0004440	.000055	.000617	.0004626	.0084186	.0009124
%RSD	1.743023	2.235962	9.217243	20.23868	159.9956	.9762147	1.615974
#1	.9753253	.0195967	-.000637	-.002935	.0005657	.8719645	.0565075
#2	1.006401	.0203706	-.000629	-.002500	-.000245	.8589005	.0573542
#3	1.004229	.0196066	-.000538	-.003718	.000547	.8562339	.0555308

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-12 Acquired: 5/1/2025 19:36:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.2922561	-.006178	.0893575
Stddev	.0038370	.000575	.0002216
%RSD	1.312889	9.305119	.2479565
#1	.2909847	-.005681	.0895817
#2	.2892162	-.006808	.0891386
#3	.2965674	-.006046	.0893521

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3087.895	73913.12	11349.65	2866.442	4635.310
Stddev	9.527	363.64	27.96	9.403	19.015
%RSD	.3085238	.4919833	.2463138	.3280356	.4102300
#1	3092.631	73548.84	11329.65	2855.796	4640.532
#2	3094.126	73914.39	11381.59	2869.918	4651.168
#3	3076.928	74276.12	11337.70	2873.612	4614.229

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-16 Acquired: 5/1/2025 19:40:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.001572	-.004895	.0090589	.0003008	-.001801	.0160267	.2939418
Stddev	.004217	.002289	.0011805	.0026711	.000775	.0111313	.0011054
%RSD	268.2012	46.75052	13.03186	888.0759	43.01232	69.45458	.3760462
#1	.002506	-.002549	.0098682	.0033643	-.001027	.0286876	.2947699
#2	-.005915	-.005016	.0096042	-.000922	-.002577	.0116151	.2926866
#3	-.001308	-.007121	.0077043	-.001540	-.001799	.0077775	.2943689

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000110	-.000198	10.95720	.0012429	-.000858	.0181487	.0102881
Stddev	.000042	.000116	.01038	.0001522	.000264	.0001815	.0025566
%RSD	37.95296	58.52010	.0947180	12.24563	30.79744	1.000342	24.85034
#1	-.000062	-.000324	10.94682	.0013019	-.001156	.0182706	.0091590
#2	-.000128	-.000097	10.96758	.0013568	-.000651	.0182355	.0132149
#3	-.000139	-.000172	10.95720	.0010701	-.000768	.0179401	.0084904

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0236907	.8755489	.0024664	-.000474	383.2588	.0016163	.0894931
Stddev	.0001520	.0125046	.0002140	.000101	2.7628	.0007439	.0003260
%RSD	.6413747	1.428206	8.676036	21.35711	.7208743	46.02602	.3643004
#1	.0235729	.8638544	.0023703	-.000366	381.4758	.0009528	.0898039
#2	.0238622	.8740617	.0027116	-.000490	381.8593	.0014756	.0891538
#3	.0236370	.8887307	.0023173	-.000566	386.4413	.0024205	.0895217

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6005131	.0454879	-.000817	.0012030	.0004482	.6091314	.0212044
Stddev	.0367151	.0005932	.000464	.0008583	.0007098	.0079073	.0011016
%RSD	6.113958	1.304136	56.82838	71.34845	158.3521	1.298122	5.195060
#1	.6353794	.0450862	-.000322	.0019332	.0006498	.6040152	.0206210
#2	.6039666	.0452083	-.000887	.0014183	-.000341	.6051402	.0205172
#3	.5621932	.0461693	-.001242	.0002575	.001035	.6182388	.0224750

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1906-16 Acquired: 5/1/2025 19:40:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.4008765	-.008318	.1206894
Stddev	.0048604	.001478	.0001511
%RSD	1.212450	17.76336	.1252323
#1	.4052912	-.006628	.1208639
#2	.4016701	-.009363	.1206014
#3	.3956680	-.008964	.1206029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3086.199	71772.55	10957.18	2830.671	4592.667
Stddev	4.852	156.97	52.32	12.149	12.631
%RSD	.1572207	.2186990	.4774765	.4291763	.2750216
#1	3080.722	71742.54	10985.51	2826.321	4584.528
#2	3087.912	71942.35	10989.23	2844.396	4586.256
#3	3089.962	71632.76	10896.81	2821.296	4607.218

Sample Name: Q1907-02 Acquired: 5/1/2025 19:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004000	-.005987	.0979934	-.002826	-.001164	-.096263	.1164335
Stddev	.002934	.000678	.0022000	.002077	.002151	.011077	.0011605
%RSD	73.35912	11.32765	2.244999	73.48332	184.8040	11.50714	.9966790
#1	-.002475	-.005324	.0961208	-.002513	-.000524	-.090362	.1158404
#2	-.007383	-.006679	.1004162	-.000924	.000594	-.109041	.1156894
#3	-.002142	-.005959	.0974432	-.005042	-.003563	-.089385	.1177706

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000165	.0017282	152.3429	-.000387	.0034838	.0178161	.0042265
Stddev	.000037	.0000377	.3789	.000072	.0004417	.0004592	.0054337
%RSD	22.17511	2.178768	.2487154	18.51691	12.67793	2.577450	128.5617
#1	-.000203	.0017602	152.6098	-.000324	.0038559	.0173068	.0104557
#2	-.000131	.0017377	151.9092	-.000373	.0029957	.0181985	.0004617
#3	-.000160	.0016867	152.5096	-.000465	.0035998	.0179431	.0017622

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5920825	2.475828	.0081525	-.000504	314.2739	.0010341	.2960523
Stddev	.0031969	.022437	.0005248	.000062	2.4416	.0019054	.0018385
%RSD	.5399427	.9062361	6.437736	12.32808	.7768936	184.2589	.6210093
#1	.5954601	2.488523	.0077292	-.000561	316.7775	.0032211	.2958903
#2	.5891038	2.449921	.0087397	-.000438	311.8995	-.000268	.2979664
#3	.5916835	2.489039	.0079886	-.000515	314.1447	.000149	.2943001

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.201328	.0155406	.0005743	-.006073	-.002740	1.290550	.0261473
Stddev	.023458	.0001620	.0001711	.001008	.000519	.013701	.0011165
%RSD	1.065613	1.042465	29.79177	16.59307	18.95265	1.061641	4.269922
#1	2.185130	.0156408	.0005067	-.006456	-.002344	1.275691	.0263196
#2	2.228228	.0153537	.0007690	-.004930	-.003328	1.302683	.0249547
#3	2.190626	.0156272	.0004474	-.006832	-.002548	1.293275	.0271676

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1907-02 Acquired: 5/1/2025 19:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	6.198062	-.026712	.5499933
Stddev	.022117	.000541	.0004922
%RSD	.3568370	2.026502	.0895016
#1	6.223428	-.026132	.5494251
#2	6.187947	-.027204	.5502909
#3	6.182811	-.026799	.5502639

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.973	74213.68	10727.88	2825.836	4432.775
Stddev	3.344	106.48	25.24	16.198	3.742
%RSD	.1108758	.1434824	.2352772	.5732002	.0844175
#1	3018.893	74170.93	10698.81	2837.106	4435.126
#2	3016.702	74135.22	10740.53	2807.274	4434.740
#3	3012.325	74334.90	10744.29	2833.127	4428.460

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-04 Acquired: 5/1/2025 19:49:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006697	-.005976	.0003897	.0013913	-.001421	.0264587	.4007596
Stddev	.001907	.001653	.0018525	.0021179	.001675	.0043633	.0004023
%RSD	28.48213	27.66773	475.4280	152.2247	117.8004	16.49083	.1003793
#1	-.006427	-.006397	-.000557	.0008180	-.003144	.0251646	.4002953
#2	-.004939	-.004153	.002524	-.000381	-.001321	.0313226	.4010064
#3	-.008725	-.007378	-.000799	.003737	.000200	.0228889	.4009769

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000911	-.000273	6.443650	-.000192	-.000726	.0082318	-.002400
Stddev	.0000241	.000087	.012248	.000158	.000102	.0000474	.006648
%RSD	26.50836	31.74080	.1900853	81.88557	14.08571	.5755029	276.9719
#1	.0000635	-.000204	6.446618	-.000372	-.000828	.0082564	-.004883
#2	.0001083	-.000245	6.454142	-.000130	-.000624	.0081772	.005132
#3	.0001014	-.000370	6.430191	-.000075	-.000725	.0082617	-.007450

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2030646	2.271141	.0003354	-.000690	327.7881	.0003206	.1122648
Stddev	.0001168	.003544	.0003944	.000207	4.0952	.0030802	.0001501
%RSD	.0575289	.1560283	117.5879	30.00266	1.249350	960.7258	.1337076
#1	.2029806	2.268185	-.000088	-.000927	328.1283	-.002669	.1123775
#2	.2030152	2.275070	.000692	-.000601	331.7026	.000147	.1120944
#3	.2031980	2.270170	.000402	-.000542	323.5334	.003484	.1123224

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.154298	.0644949	-.001027	-.001431	.0005279	.6587696	.0423034
Stddev	.016354	.0003495	.000455	.000314	.0002305	.0025189	.0034757
%RSD	1.416819	.5419660	44.27005	21.90715	43.66974	.3823597	8.216076
#1	1.160801	.0642513	-.001552	-.001108	.0002777	.6566029	.0397898
#2	1.166401	.0648954	-.000764	-.001734	.0007318	.6581727	.0408505
#3	1.135693	.0643380	-.000765	-.001452	.0005743	.6615334	.0462697

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-04 Acquired: 5/1/2025 19:49:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.4638565	-.004458	.0417007
Stddev	.0045696	.000555	.0001994
%RSD	.9851405	12.45919	.4781781
#1	.4684397	-.003999	.0414721
#2	.4593005	-.004299	.0417912
#3	.4638292	-.005075	.0418388

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3098.251	72454.03	10979.86	2841.767	4605.922
Stddev	10.386	205.46	23.34	9.047	28.103
%RSD	.3352335	.2835796	.2125819	.3183439	.6101590
#1	3088.750	72679.88	11002.67	2837.039	4575.519
#2	3109.340	72278.18	10980.89	2836.064	4630.948
#3	3096.662	72404.03	10956.02	2852.198	4611.299

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-08 Acquired: 5/1/2025 19:54:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.004273	-.005688	.0005297	.0057878	-.004801	.0398498	.5287798
Stddev	.000982	.001670	.0027719	.0026581	.000816	.0063818	.0014669
%RSD	22.97446	29.37074	523.3071	45.92573	16.99428	16.01450	.2774062
#1	-.003793	-.007587	.0009461	.0043979	-.004150	.0434701	.5299924
#2	-.003624	-.004448	-.002427	.0088527	-.005716	.0435982	.5291977
#3	-.005403	-.005028	.003070	.0041129	-.004537	.0324812	.5271493

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000197	.0003558	12.11627	.0019747	.0037329	.0568130	.0107840
Stddev	.000014	.0001066	.04740	.0003529	.0002463	.0004899	.0022095
%RSD	7.122746	29.96941	.3912273	17.87035	6.596761	.8622196	20.48903
#1	-.000183	.0004057	12.16500	.0015679	.0034818	.0563917	.0129740
#2	-.000211	.0004283	12.11351	.0021576	.0037429	.0566969	.0108227
#3	-.000195	.0002334	12.07032	.0021987	.0039739	.0573505	.0085554

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.417385	3.137546	.0040056	-.000782	421.3420	-.000008	.0774393
Stddev	.023552	.013656	.0001610	.000551	5.9947	.000885	.0003716
%RSD	.4347400	.4352527	4.019624	70.50349	1.422762	11339.33	.4798459
#1	5.437412	3.152583	.0038431	-.000920	428.0094	-.000022	.0771091
#2	5.423304	3.125916	.0040085	-.001251	419.6196	-.000886	.0773671
#3	5.391438	3.134139	.0041651	-.000175	416.3971	.000884	.0778417

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.822539	.0375873	-.001160	-.002088	-.000393	.8204160	.0208020
Stddev	.032433	.0010528	.000332	.000569	.000211	.0091396	.0029990
%RSD	1.779559	2.800954	28.61678	27.25153	53.68982	1.114023	14.41692
#1	1.803862	.0387964	-.001477	-.001452	-.000296	.8253605	.0190826
#2	1.803765	.0368733	-.000814	-.002549	-.000635	.8098693	.0242650
#3	1.859989	.0370923	-.001190	-.002264	-.000248	.8260181	.0190585

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1912-08 Acquired: 5/1/2025 19:54:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.3612594	-.003714	.0544581
Stddev	.0011555	.000616	.0001243
%RSD	.3198560	16.59233	.2282131
#1	.3620737	-.003085	.0545737
#2	.3617676	-.004316	.0544741
#3	.3599369	-.003741	.0543267

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3073.954	72866.60	11159.41	2836.959	4527.060
Stddev	4.342	264.83	77.70	7.800	8.406
%RSD	.1412617	.3634480	.6963067	.2749440	.1856877
#1	3072.745	72615.11	11073.31	2828.052	4520.668
#2	3078.772	73143.01	11224.32	2840.259	4536.582
#3	3070.343	72841.67	11180.59	2842.567	4523.930

Sample Name: Q1913-02 Acquired: 5/1/2025 19:58:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.006906	-.003456	.0002859	.0003436	-.003526	-.015927	.0212170
Stddev	.002571	.000524	.0001111	.0024905	.000878	.006465	.0010539
%RSD	37.22209	15.15387	38.86727	724.7180	24.88686	40.58806	4.967036
#1	-.006869	-.003924	.0002265	.0032124	-.003183	-.015210	.0200325
#2	-.009495	-.002890	.0002170	-.001264	-.004524	-.022720	.0215675
#3	-.004354	-.003553	.0004141	-.000917	-.002872	-.009851	.0220509

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000234	-.000359	44.33700	.0245891	-.000641	.0024974	.0139464
Stddev	.000080	.000081	.05227	.0000650	.000139	.0000717	.0060371
%RSD	34.24036	22.65048	.1178833	.2642580	21.72443	2.870807	43.28762
#1	-.000278	-.000389	44.27978	.0245619	-.000689	.0025010	.0070337
#2	-.000282	-.000422	44.34900	.0245421	-.000750	.0025672	.0181821
#3	-.000141	-.000267	44.38222	.0246633	-.000484	.0024240	.0166234

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001201	.0336895	.0026215	-.000269	6.672130	.0025753	.0036230
Stddev	.000419	.0011280	.0000922	.000221	.040903	.0014961	.0003373
%RSD	34.85384	3.348144	3.516360	82.32574	.6130384	58.09532	9.309208
#1	-.000719	.0327329	.0027186	-.000523	6.685565	.0023465	.0038854
#2	-.001415	.0349333	.0026107	-.000128	6.704626	.0041727	.0037410
#3	-.001469	.0334024	.0025352	-.000154	6.626200	.0012068	.0032426

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.555628	.0033790	.1090263	-.004239	-.001169	.3677135	.0152380
Stddev	.091709	.0005580	.0003204	.001011	.000528	.0147661	.0001220
%RSD	.9597426	16.51463	.2939126	23.84858	45.19155	4.015653	.8007872
#1	9.527831	.0035001	.1087713	-.004091	-.001772	.3824231	.0153561
#2	9.658020	.0038666	.1093860	-.003310	-.000792	.3678260	.0152455
#3	9.481032	.0027704	.1089217	-.005315	-.000942	.3528915	.0151124

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1913-02 Acquired: 5/1/2025 19:58:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	15.58697	-.001997	.1402801
Stddev	.02819	.001122	.0002180
%RSD	.1808356	56.17510	.1553687
#1	15.55670	-.000892	.1404645
#2	15.61245	-.003135	.1403363
#3	15.59177	-.001963	.1400396

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3163.732	75671.82	11005.44	2952.623	4950.223
Stddev	5.909	11.96	29.66	9.131	8.276
%RSD	.1867769	.0158115	.2695408	.3092671	.1671768
#1	3161.195	75674.29	10991.93	2947.463	4943.922
#2	3159.516	75658.81	11039.45	2947.240	4947.153
#3	3170.486	75682.36	10984.93	2963.166	4959.596

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1913-04 Acquired: 5/1/2025 20:02:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.005442	-.004468	.0015726	.0046693	-.003768	-.060036	.1271546
Stddev	.003315	.001666	.0015025	.0019567	.000143	.007321	.0014400
%RSD	60.90446	37.28005	95.54356	41.90578	3.799336	12.19523	1.132459
#1	-.008284	-.003349	.0000757	.0049003	-.003926	-.068483	.1283582
#2	-.006242	-.003673	.0030808	.0026074	-.003732	-.055510	.1255593
#3	-.001801	-.006383	.0015614	.0065003	-.003647	-.056115	.1275465

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000178	-.000437	126.5270	.0024021	-.001188	.0036539	.0890906
Stddev	.000020	.000109	.1249	.0003382	.000266	.0001064	.0048577
%RSD	11.09443	24.99845	.0986833	14.07935	22.41982	2.912933	5.452589
#1	-.000191	-.000377	126.6673	.0026241	-.001107	.0037565	.0840552
#2	-.000155	-.000563	126.4281	.0025692	-.001485	.0035440	.0894679
#3	-.000187	-.000371	126.4854	.0020128	-.000971	.0036612	.0937487

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003505	.0271106	.0001920	-.000644	52.10359	.0005408	.0091264
Stddev	.000142	.0116358	.0001581	.000437	.33933	.0015895	.0004876
%RSD	4.037964	42.91957	82.36079	67.88396	.6512543	293.9356	5.343017
#1	-.003566	.0166637	.0003040	-.000836	52.24730	-.001270	.0095837
#2	-.003606	.0250172	.0002607	-.000953	52.34742	.001189	.0091824
#3	-.003343	.0396509	.0000111	-.000144	51.71606	.001704	.0086132

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.71290	.0042936	.1842700	-.006337	-.002977	.3175677	.0125655
Stddev	.32719	.0003600	.0007309	.001103	.001295	.0070609	.0017206
%RSD	.6327033	8.384080	.3966438	17.41250	43.49556	2.223419	13.69294
#1	51.97711	.0046570	.1847017	-.005917	-.003386	.3257051	.0141893
#2	51.81468	.0039371	.1846822	-.005504	-.004018	.3139384	.0107622
#3	51.34692	.0042868	.1834261	-.007588	-.001527	.3130597	.0127449

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1913-04 Acquired: 5/1/2025 20:02:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	10.25274	.0001965	.8376549
Stddev	.02564	.0012614	.0028028
%RSD	.2501222	641.9843	.3345976
#1	10.26509	-.000946	.8396311
#2	10.26987	-.000015	.8388864
#3	10.22326	.001550	.8344472

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3036.452	70327.36	11094.29	2806.344	4579.897
Stddev	5.332	74.67	41.94	12.801	5.946
%RSD	.1756113	.1061785	.3780761	.4561299	.1298175
#1	3036.713	70317.35	11122.58	2801.399	4578.974
#2	3030.994	70258.20	11114.18	2796.753	4574.467
#3	3041.650	70406.53	11046.10	2820.879	4586.250

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1915-01 Acquired: 5/1/2025 20:07:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.003475	-.005331	.1791401	.0023899	-.000973	-.056112	.9196732
Stddev	.001248	.003688	.0011490	.0068526	.004590	.006411	.0023343
%RSD	35.91731	69.19317	.6413732	286.7331	471.8313	11.42599	.2538206
#1	-.004829	-.001097	.1797172	.0074908	-.004357	-.062975	.9187823
#2	-.002371	-.007853	.1778170	-.005399	.004252	-.055082	.9223217
#3	-.003225	-.007042	.1798861	.005078	-.002814	-.050277	.9179155

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000154	.0014434	140.0666	.0011045	.0117965	.0159202	.1101311
Stddev	.000071	.0001216	.6134	.0001527	.0000516	.0004102	.0062996
%RSD	46.51823	8.425790	.4379142	13.82350	.4375867	2.576767	5.720122
#1	-.000172	.0013652	140.7695	.0011493	.0117463	.0158102	.1094724
#2	-.000214	.0015835	139.7908	.0009345	.0117938	.0155762	.1041867
#3	-.000075	.0013814	139.6396	.0012299	.0118495	.0163742	.1167342

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.478582	4.406631	.0054878	-.000627	697.1959	.0002911	.3047399
Stddev	.005795	.028705	.0001455	.000151	2.6130	.0003739	.0006275
%RSD	.3918984	.6513992	2.650554	24.06674	.3747809	128.4354	.2059017
#1	1.484855	4.439734	.0055798	-.000795	694.5096	.0006146	.3051949
#2	1.477461	4.391527	.0053202	-.000504	697.3491	.0003770	.3040241
#3	1.473430	4.388631	.0055636	-.000581	699.7288	-.000118	.3050007

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.609950	.0846686	-.000264	-.005476	-.003132	1.246476	.0482253
Stddev	.037143	.0006833	.000346	.000811	.000275	.003319	.0032250
%RSD	1.028901	.8070683	130.9935	14.80896	8.779188	.2662537	6.687399
#1	3.567505	.0852668	-.000199	-.005163	-.003414	1.245977	.0514812
#2	3.625842	.0839239	-.000639	-.006396	-.002865	1.243435	.0481626
#3	3.636502	.0848153	.000045	-.004867	-.003119	1.250016	.0450321

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: Q1915-01 Acquired: 5/1/2025 20:07:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	1.457512	-.026021	.5262079
Stddev	.002912	.000394	.0011845
%RSD	.1998104	1.514755	.2251056
#1	1.457927	-.026471	.5264369
#2	1.454415	-.025739	.5272612
#3	1.460195	-.025852	.5249256

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2977.487	69064.76	11597.38	2720.182	4317.210
Stddev	14.883	211.83	120.52	13.351	34.844
%RSD	.4998473	.3067171	1.039223	.4908087	.8070847
#1	2964.873	69215.81	11458.28	2722.624	4282.949
#2	2993.902	69155.85	11663.08	2705.779	4352.608
#3	2973.687	68822.62	11670.78	2732.144	4316.074

Sample Name: CCV07 Acquired: 5/1/2025 20:11:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.085316	5.194143	4.977323	5.120992	5.067441	9.854250	9.785721
Stddev	.015165	.007261	.009867	.022571	.023008	.053625	.102493
%RSD	.2982106	.1397868	.1982374	.4407489	.4540429	.5441782	1.047372
#1	5.078231	5.198157	4.982493	5.104190	5.055052	9.869328	9.668353
#2	5.074989	5.198511	4.965946	5.112138	5.053282	9.794701	9.831237
#3	5.102726	5.185762	4.983531	5.146647	5.093990	9.898722	9.857573

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2511094	2.501416	24.22199	.9949852	2.487239	1.271136	4.840156
Stddev	.0007012	.004354	.10640	.0024201	.004401	.004459	.033452
%RSD	.2792332	.1740701	.4392513	.2432307	.1769604	.3508009	.6911349
#1	.2517085	2.505801	24.29963	.9973620	2.488314	1.267869	4.838634
#2	.2503382	2.497094	24.10071	.9925240	2.482399	1.269322	4.807491
#3	.2512816	2.501353	24.26562	.9950696	2.491002	1.276216	4.874343

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.417670	24.25893	2.497551	1.246940	24.53026	2.448513	2.530466
Stddev	.007695	.10037	.003562	.002379	.13516	.006821	.007165
%RSD	.3183016	.4137461	.1426154	.1907621	.5510005	.2785585	.2831469
#1	2.416448	24.34772	2.499781	1.247506	24.51937	2.448157	2.528703
#2	2.410659	24.15003	2.493443	1.244329	24.40087	2.441878	2.538348
#3	2.425904	24.27906	2.499428	1.248984	24.67053	2.455505	2.524347

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.20268	5.032849	5.049505	5.003956	4.882281	4.755722	5.027420
Stddev	.10171	.011176	.012096	.001521	.013995	.025145	.001346
%RSD	.4202267	.2220548	.2395429	.0303994	.2866531	.5287289	.0267783
#1	24.20370	5.042822	5.048832	5.003461	4.882252	4.741630	5.028093
#2	24.10047	5.020771	5.037760	5.002744	4.868300	4.740784	5.028297
#3	24.30387	5.034956	5.061923	5.005663	4.896290	4.784753	5.025870

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCV07 Acquired: 5/1/2025 20:11:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.067252	4.820609	4.892307
Stddev	.018613	.015907	.029181
%RSD	.3673269	.3299745	.5964680
#1	5.052597	4.819678	4.878177
#2	5.060965	4.805189	4.925864
#3	5.088195	4.836961	4.872881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3162.975	72445.91	10260.28	2892.339	4711.173
Stddev	7.455	254.87	45.89	9.581	14.434
%RSD	.2357107	.3518114	.4472226	.3312585	.3063703
#1	3157.086	72257.13	10211.58	2882.094	4699.433
#2	3160.482	72735.83	10302.70	2901.077	4706.797
#3	3171.358	72344.76	10266.57	2893.847	4727.288

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB07 Acquired: 5/1/2025 20:15:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000223	.0007361	.0008115	.0010115	-.001824	-.003827	-.006945
Stddev	.002803	.0006623	.0012817	.0016836	.001908	.004351	.000525
%RSD	1258.442	89.96928	157.9358	166.4434	104.6536	113.6710	7.564739
#1	-.000992	.0013342	.0011822	-.000820	.000292	.001129	-.006833
#2	.002885	.0008499	-.000615	.001362	-.003417	-.005593	-.007517
#3	-.002561	.0000243	.001867	.002492	-.002346	-.007017	-.006484

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000000	-.000158	.0057190	.0005743	-.000230	-.000357	-.011603
Stddev	.000035	.000125	.0101856	.0004139	.000151	.000052	.004133
%RSD	9416.126	79.50227	178.1013	72.07077	65.72119	14.55411	35.61954
#1	-.000040	-.000136	.0130636	.0003234	-.000383	-.000332	-.012484
#2	.000019	-.000292	-.005909	.0003475	-.000081	-.000417	-.007101
#3	.000020	-.000044	.010002	.0010520	-.000225	-.000322	-.015225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001478	.0306312	.0004682	-.000257	.2030050	.0015709	-.000995
Stddev	.000138	.0100496	.0002862	.000019	.0095078	.0006449	.000315
%RSD	9.328818	32.80842	61.12328	7.362745	4.683522	41.05290	31.68998
#1	-.001607	.0383517	.0006512	-.000246	.2135980	.0017207	-.001198
#2	-.001495	.0342737	.0006149	-.000246	.1952105	.0008643	-.000632
#3	-.001333	.0192683	.0001384	-.000278	.2002066	.0021277	-.001156

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1611280	.0037921	-.000144	.0055036	.0008136	.0137669	.0068059
Stddev	.0178102	.0004272	.000078	.0003785	.0005477	.0104595	.0019654
%RSD	11.05345	11.26413	54.32580	6.877390	67.31968	75.97562	28.87765
#1	.1450704	.0042674	-.000112	.0059403	.0013740	.0116397	.0047371
#2	.1802842	.0034402	-.000088	.0052684	.0002795	.0045345	.0086482
#3	.1580296	.0036687	-.000234	.0053023	.0007872	.0251264	.0070323

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB07 Acquired: 5/1/2025 20:15:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.005932	.0038711	.0002682
Stddev	.002720	.0003181	.0000290
%RSD	45.85154	8.217071	10.80022
#1	-.008486	.0037037	.0002438
#2	-.003072	.0036716	.0002606
#3	-.006238	.0042379	.0003002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3278.363	74844.01	11679.71	3002.516	5062.927
Stddev	9.159	299.20	66.88	9.829	12.381
%RSD	.2793799	.3997667	.5726211	.3273608	.2445445
#1	3278.610	74670.81	11602.56	2993.267	5063.753
#2	3287.396	75189.50	11715.31	3012.837	5074.874
#3	3269.083	74671.72	11721.25	3001.446	5050.153

Sample Name: PB167805TB Acquired: 5/1/2025 20:20:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.002294	-.003522	.0009537	.0035709	-.003921	-.005902	-.012329
Stddev	.002269	.001480	.0017537	.0069912	.000100	.013823	.001350
%RSD	98.94129	42.02881	183.8840	195.7807	2.541336	234.1882	10.94636
#1	-.001213	-.004802	.0024844	.0085781	-.003831	.008631	-.013270
#2	-.000767	-.003865	.0013365	.0065513	-.004028	-.018884	-.012933
#3	-.004901	-.001901	-.000960	-.004417	-.003904	-.007454	-.010782

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000120	-.000353	.0058074	.0031809	-.000746	.0003052	.0078398
Stddev	.000089	.000073	.0066076	.0003639	.000123	.0000940	.0033091
%RSD	74.58409	20.63926	113.7802	11.44107	16.41918	30.80900	42.20835
#1	-.000020	-.000375	.0118049	.0034465	-.000695	.0002552	.0115807
#2	-.000149	-.000272	.0068931	.0033301	-.000886	.0004137	.0052956
#3	-.000191	-.000413	-.001276	.0027660	-.000658	.0002468	.0066430

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0289135	.0053097	.0027188	-.000473	435.9084	.0008748	.0013483
Stddev	.0006087	.0038919	.0003522	.000205	3.1863	.0003447	.0002636
%RSD	2.105149	73.29837	12.95563	43.27867	.7309598	39.40525	19.55157
#1	.0296152	.0029018	.0029212	-.000400	435.0794	.0004839	.0015758
#2	.0285983	.0097997	.0029232	-.000314	439.4272	.0010054	.0014096
#3	.0285271	.0032275	.0023121	-.000704	433.2185	.0011351	.0010594

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0875146	-.000328	-.000485	-.000251	-.000101	.0016224	.0166493
Stddev	.0285153	.000258	.000093	.001408	.000593	.0072218	.0035893
%RSD	32.58349	78.48207	19.25636	561.0273	589.2665	445.1368	21.55831
#1	.0545885	-.000557	-.000558	.000911	-.000768	-.006591	.0201547
#2	.1038159	-.000378	-.000516	-.001817	.000367	.004477	.0168116
#3	.1041393	-.000049	-.000380	.000153	.000099	.006980	.0129816

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: PB167805TB Acquired: 5/1/2025 20:20:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0128385	-.005303	-.000149
Stddev	.0060076	.000942	.000030
%RSD	46.79383	17.76721	20.08044
#1	.0197160	-.005054	-.000184
#2	.0086141	-.006345	-.000132
#3	.0101855	-.004511	-.000132

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3121.651	73313.53	11811.11	2858.537	4656.497
Stddev	10.419	646.09	7.86	30.332	18.680
%RSD	.3337804	.8812716	.0665671	1.061095	.4011512
#1	3128.416	72848.69	11808.66	2836.580	4661.730
#2	3109.652	74051.30	11819.90	2893.147	4635.759
#3	3126.885	73040.59	11804.75	2845.884	4672.002

Sample Name: CCV08 Acquired: 5/1/2025 20:24:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.180730	5.148864	4.990549	5.267511	5.230887	9.907468	9.883431
Stddev	.021654	.036759	.028352	.013510	.024561	.024846	.033181
%RSD	.4179685	.7139286	.5681129	.2564757	.4695342	.2507839	.3357270
#1	5.184749	5.139598	5.003052	5.258357	5.231180	9.932522	9.900098
#2	5.157348	5.117624	4.958095	5.261150	5.206181	9.882834	9.845220
#3	5.200093	5.189369	5.010500	5.283028	5.255300	9.907046	9.904975

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2418440	2.490314	24.07312	.9803993	2.499132	1.294624	4.920082
Stddev	.0029921	.015373	.12589	.0010019	.013180	.003577	.028298
%RSD	1.237213	.6172971	.5229286	.1021942	.5273986	.2762947	.5751567
#1	.2446057	2.492503	24.15723	.9807707	2.501665	1.295545	4.887654
#2	.2422610	2.473965	24.13372	.9811624	2.484869	1.290677	4.932824
#3	.2386652	2.504475	23.92839	.9792647	2.510862	1.297651	4.939770

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.417815	23.81373	2.503099	1.239819	24.95886	2.453468	2.502437
Stddev	.005486	.15426	.012821	.001137	.25958	.010288	.005623
%RSD	.2268941	.6477978	.5122039	.0917451	1.040021	.4193144	.2246891
#1	2.421329	23.98365	2.507585	1.238899	24.70973	2.459753	2.508367
#2	2.420623	23.77505	2.488638	1.241091	24.93907	2.459055	2.501760
#3	2.411494	23.68249	2.513075	1.239469	25.22776	2.441595	2.497183

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.70061	4.925912	5.128452	4.979612	4.920426	4.859784	4.903458
Stddev	.23260	.055228	.020539	.035185	.004128	.056250	.023235
%RSD	.9416774	1.121171	.4004962	.7065765	.0839035	1.157468	.4738522
#1	24.46710	4.974723	5.128128	4.979632	4.922166	4.816876	4.925468
#2	24.70244	4.937047	5.108077	4.944417	4.923400	4.839010	4.879166
#3	24.93229	4.865965	5.149152	5.014787	4.915713	4.923467	4.905741

Sample Name: CCV08 Acquired: 5/1/2025 20:24:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	5.101110	4.923022	4.934728
Stddev	.033267	.010209	.015029
%RSD	.6521483	.2073683	.3045466
#1	5.113995	4.914416	4.919287
#2	5.063328	4.920348	4.949307
#3	5.126008	4.934302	4.935589

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3174.092	75357.95	10890.49	2964.926	4790.307
Stddev	9.560	146.11	143.13	7.308	16.858
%RSD	.3011874	.1938940	1.314251	.2464692	.3519254
#1	3179.007	75198.71	10755.17	2958.561	4791.921
#2	3180.194	75389.29	10875.97	2972.906	4806.300
#3	3163.074	75485.85	11040.32	2963.309	4772.700

Sample Name: CCB08 Acquired: 5/1/2025 20:28:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	.0007367	.0005274	.0004538	.0013697	-.002254	.0051998	-.009825
Stddev	.0009113	.0009658	.0010478	.0020562	.001645	.0069327	.000292
%RSD	123.7014	183.1205	230.9135	150.1217	72.98506	133.3255	2.971181
#1	.0004821	-.000499	-.000671	.0035519	-.003697	-.000512	-.010162
#2	.0017482	.000662	.000629	-.000532	-.002601	.012913	-.009665
#3	-.000020	.001419	.001403	.001089	-.000463	.003198	-.009649

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000077	-.000246	.0007671	.0004286	-.000361	-.000497	-.009823
Stddev	.0000235	.000057	.0096717	.0002008	.000059	.000071	.003003
%RSD	304.1730	23.05470	1260.766	46.84725	16.24019	14.28002	30.57190
#1	.0000043	-.000308	-.009495	.0002324	-.000336	-.000441	-.011356
#2	.0000327	-.000197	.002083	.0004197	-.000319	-.000474	-.006363
#3	-.000014	-.000231	.009714	.0006337	-.000428	-.000577	-.011750

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001720	.0268548	-.000271	.0000198	.1107290	-.000576	-.001285
Stddev	.000231	.0019487	.000372	.0002020	.0068020	.000687	.000305
%RSD	13.45656	7.256452	137.5238	1018.018	6.142902	119.3383	23.76270
#1	-.001968	.0258979	-.000680	.0002051	.1157683	.000210	-.001126
#2	-.001510	.0290969	-.000181	.0000498	.1029920	-.000872	-.001637
#3	-.001681	.0255695	.000048	-.000195	.1134268	-.001065	-.001093

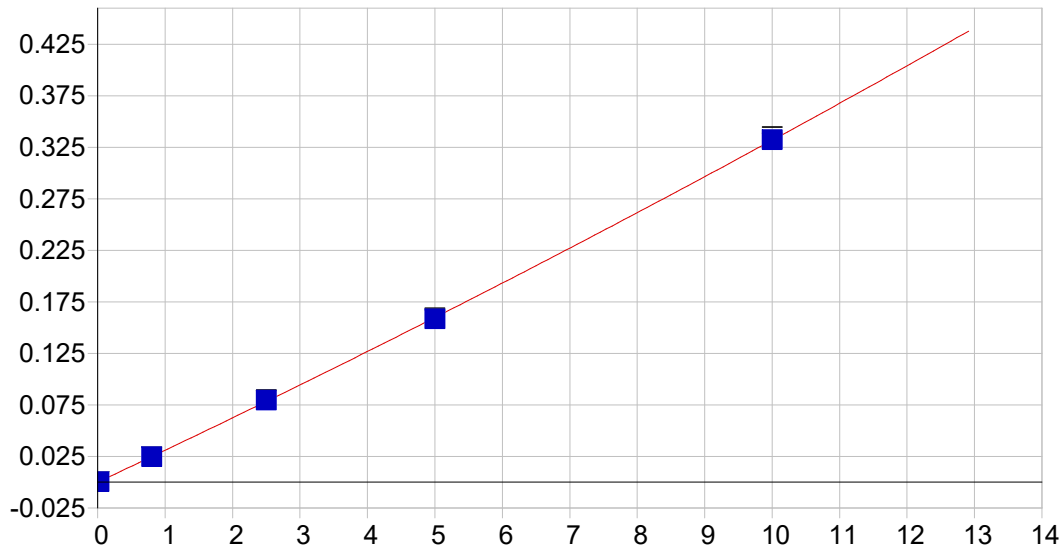
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1193519	.0063184	-.000323	.0057976	.0006133	.0124502	.0049133
Stddev	.0114502	.0010159	.000288	.0009471	.0005655	.0087617	.0020461
%RSD	9.593636	16.07785	89.07814	16.33547	92.20156	70.37437	41.64402
#1	.1061967	.0068751	-.000071	.0067593	.0002342	.0158110	.0043904
#2	.1247834	.0051459	-.000262	.0048659	.0012633	.0025056	.0071701
#3	.1270755	.0069343	-.000637	.0057677	.0003425	.0190339	.0031794

Reviewed By:jaswal
On:5/5/2025 4:33:07 PM
Inst Id :P4
LB :LB135636

Sample Name: CCB08 Acquired: 5/1/2025 20:28:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v26) 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	-.002808	.0005904	.0001934
Stddev	.003372	.0017573	.0000432
%RSD	120.0810	297.6470	22.34932
#1	.000497	.0005420	.0002413
#2	-.002677	-.001142	.0001572
#3	-.006244	.002371	.0001819

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3283.144	75895.96	11281.25	3037.322	5097.719
Stddev	10.660	94.05	11.26	14.468	21.103
%RSD	.3246855	.1239217	.0998382	.4763483	.4139787
#1	3271.545	75787.36	11290.01	3027.438	5074.451
#2	3285.376	75950.07	11268.54	3030.599	5103.082
#3	3292.511	75950.45	11285.19	3053.928	5115.623

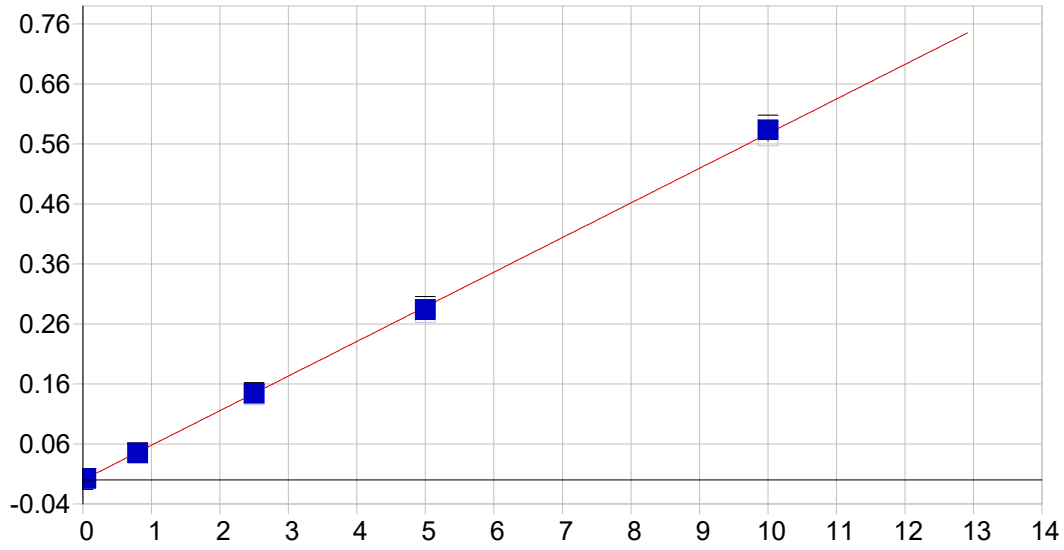


As 189.042 {479}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000	
A1 (Gain):	0.030738	Y-int:	0.000000	
A2 (Curvature):	0.000244			
n (Exponent):	1.000000			
Correlation:	0.999974	Status:	Warning	Positive Curvature
Std Error of Est:	0.000008			
Predicted MDL:	0.004008			
Predicted MQL:	0.013360			

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00001	.000	1
S1	.02000	.01923	-.001	-3.84	.00059	.000	1
S3	2.5000	2.5356	.036	1.42	.07943	.000	1
S4	5.0000	4.9573	-.043	-.854	.15822	.001	1
S5	10.000	10.012	.012	.122	.33193	.003	1
S2	.80000	.79580	-.004	-.525	.02459	.000	1

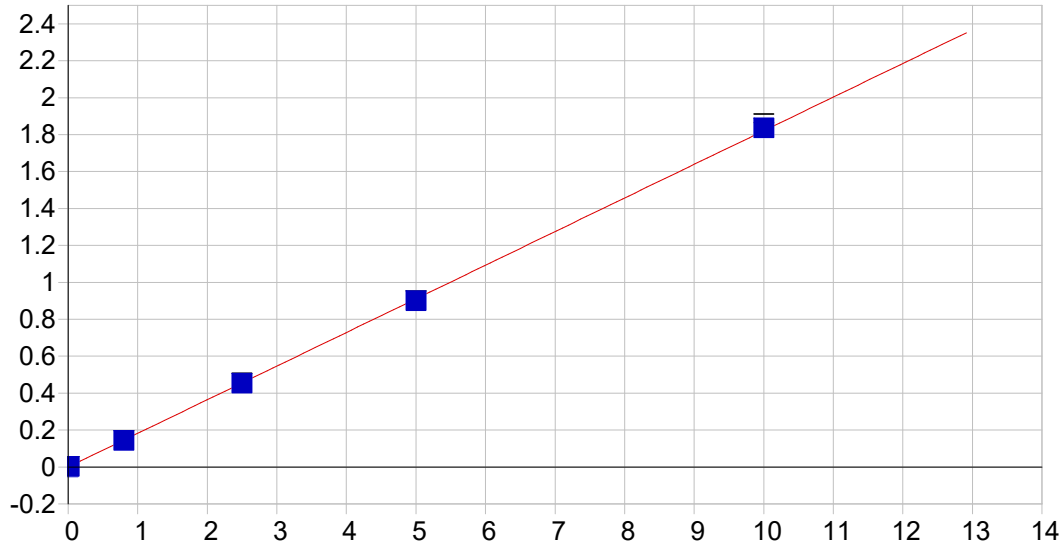


Tl 190.856 {477}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.057716	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.002198		
Predicted MQL:	0.007327		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00000	.000	1
S1	.04000	.04170	.002	4.25	.00225	.000	1
S3	2.5000	2.4927	-.007	-.291	.14121	.002	1
S4	5.0000	4.9190	-.081	-1.62	.27859	.005	1
S5	10.000	10.111	.111	1.11	.57292	.008	1
S2	.80000	.77580	-.024	-3.03	.04392	.000	1

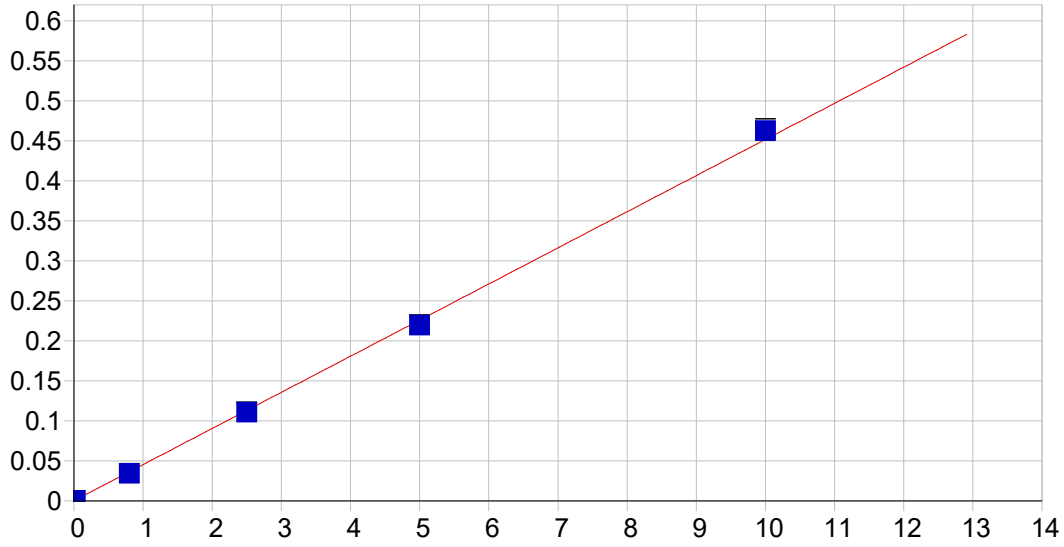


Pb 220.353 {453}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000040	Re-Slope:	1.000000
A1 (Gain):	0.182100	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.001766		
Predicted MQL:	0.005886		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.01200	.01152	-.000	-4.04	.00209	.000	1
S3	2.5000	2.4906	-.009	-.375	.45311	.001	1
S4	5.0000	4.9419	-.058	-1.16	.89903	.001	1
S5	10.000	10.083	.083	.829	1.8342	.024	1
S2	.80000	.78507	-.015	-1.87	.14285	.000	1

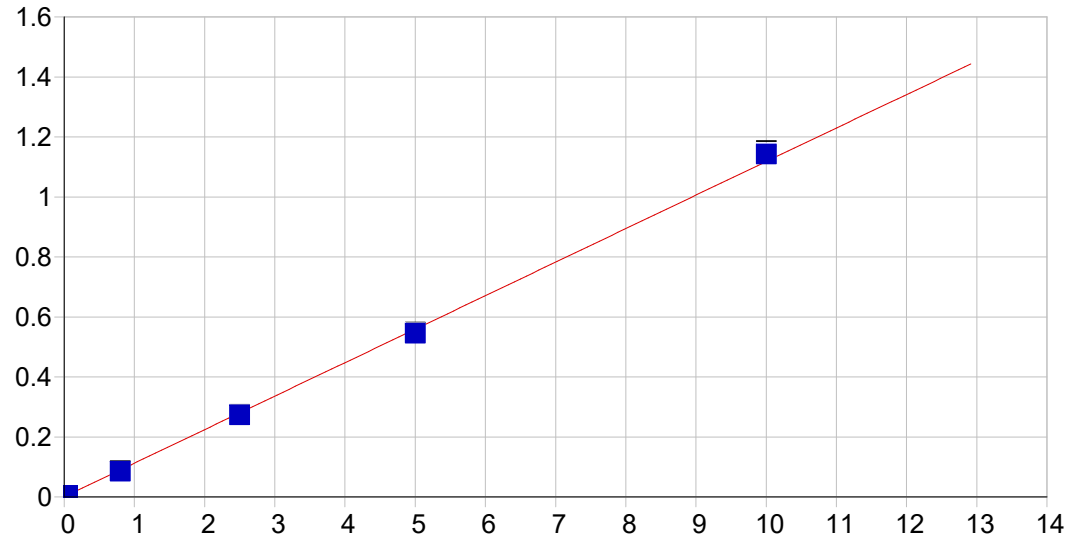


Se 196.090 {472}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000278	Re-Slope:	1.000000
A1 (Gain):	0.045148	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999631	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.003956		
Predicted MQL:	0.013188		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00028	.000	1
S1	.02000	.01823	-.002	-8.86	.00110	.000	1
S3	2.5000	2.4488	-.051	-2.05	.11079	.000	1
S4	5.0000	4.8575	-.142	-2.85	.21951	.001	1
S5	10.000	10.240	.240	2.40	.46244	.003	1
S2	.80000	.75529	-.045	-5.59	.03437	.000	1

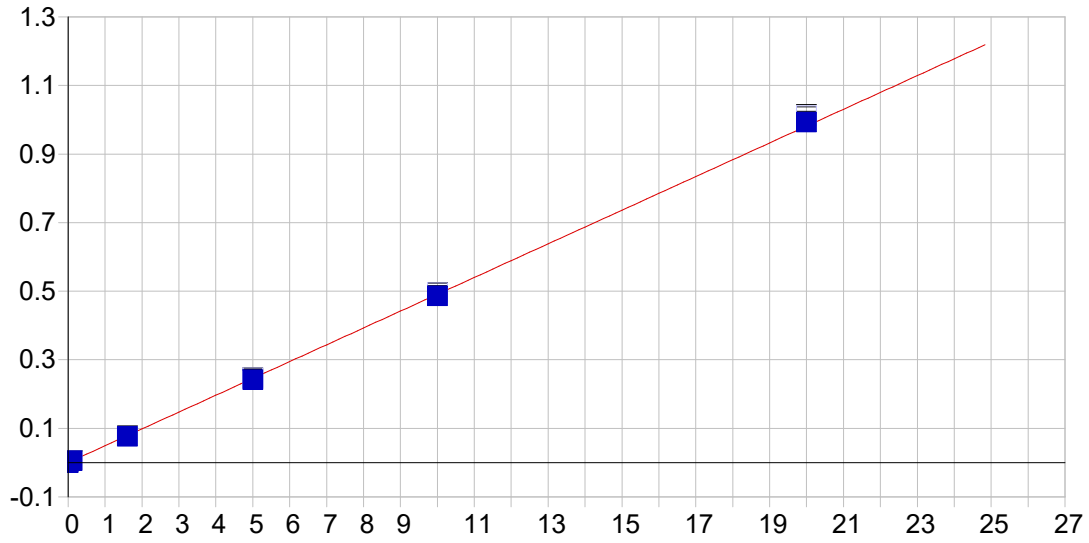


Sb 206.833 {463}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000675	Re-Slope:	1.000000
A1 (Gain):	0.111704	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999687	Status:	OK.
Std Error of Est:	0.000104		
Predicted MDL:	0.002244		
Predicted MQL:	0.007480		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00067	.000	1
S1	.05000	.05097	.001	1.93	.00638	.000	1
S3	2.5000	2.4396	-.060	-2.42	.27394	.001	1
S4	5.0000	4.8753	-.125	-2.49	.54678	.002	1
S5	10.000	10.224	.224	2.24	1.1457	.009	1
S2	.80000	.76038	-.040	-4.95	.08585	.001	1

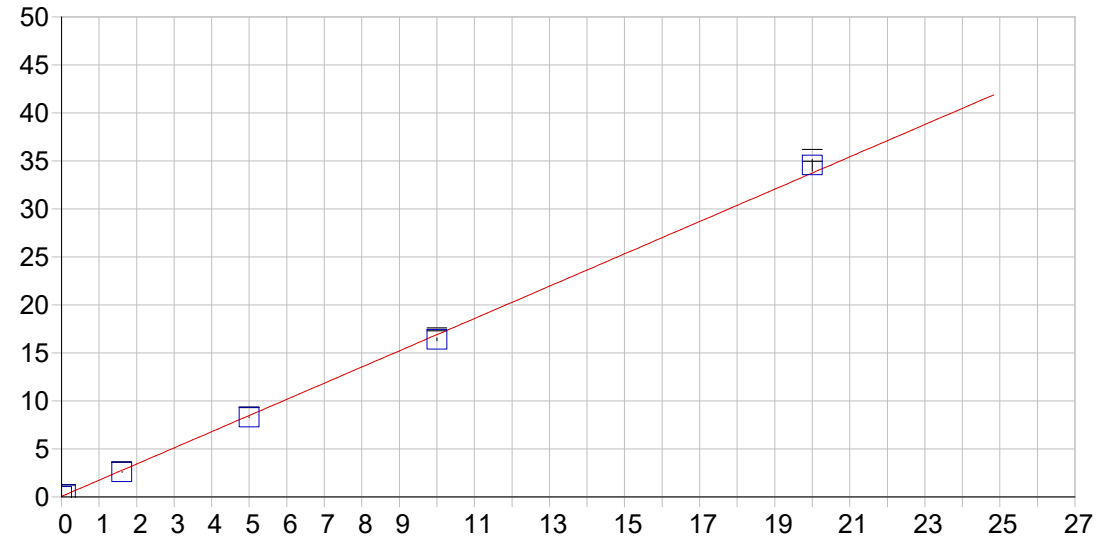


Al 396.152 { 85}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000266	Re-Slope:	1.000000
A1 (Gain):	0.049065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999917	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.009851		
Predicted MQL:	0.032836		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00027	.000	1
S1	.10000	.09911	-.001	-.893	.00551	.000	1
S3	5.0000	4.9268	-.073	-1.46	.24676	.000	1
S4	10.000	9.9026	-.097	-.974	.49566	.001	1
S5	20.000	20.225	.225	1.13	1.0117	.003	1
S2	1.6000	1.5464	-.054	-3.35	.07766	.000	1

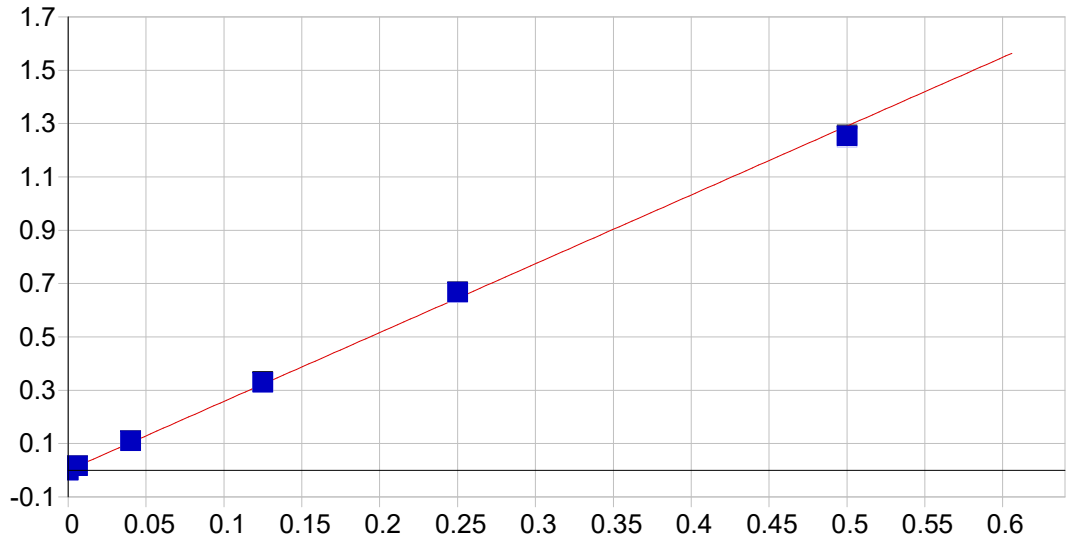


Ba 493.409 { 68}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.058811	Re-Slope:	1.000000
A1 (Gain):	1.684013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999620	Status:	OK.
Std Error of Est:	0.003444		
Predicted MDL:	0.001156		
Predicted MQL:	0.003853		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.05883	.001	1
S1	.10000	.09677	-.003	-3.23	.22178	.001	1
S3	5.0000	4.9023	-.098	-1.95	8.3143	.032	1
S4	10.000	9.7119	-.288	-2.88	16.414	.164	1
S5	20.000	20.485	.485	2.43	34.557	.610	1
S2	1.6000	1.5035	-.096	-6.03	2.5908	.006	1

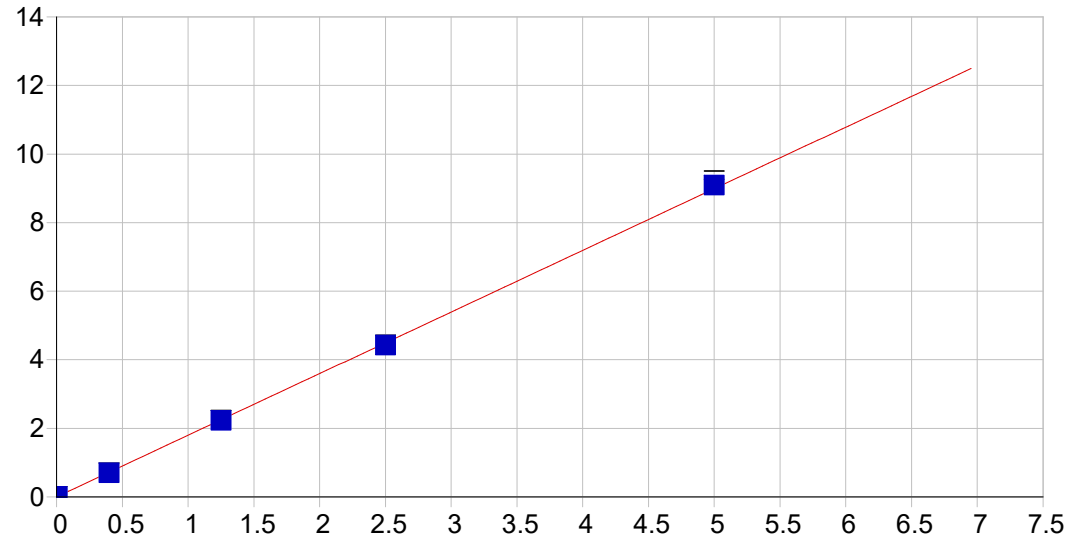


Be 234.861 {144}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000104	Re-Slope:	1.000000
A1 (Gain):	2.580546	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999465	Status:	OK.
Std Error of Est:	0.000242		
Predicted MDL:	0.000073		
Predicted MQL:	0.000242		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00010	.000	1
S1	.00600	.00616	.000	2.71	.01589	.000	1
S3	.12500	.12779	.003	2.23	.32844	.002	1
S4	.25000	.25886	.009	3.55	.66522	.000	1
S5	.50000	.48553	-.014	-2.89	1.2472	.004	1
S2	.04000	.04266	.003	6.64	.10972	.001	1

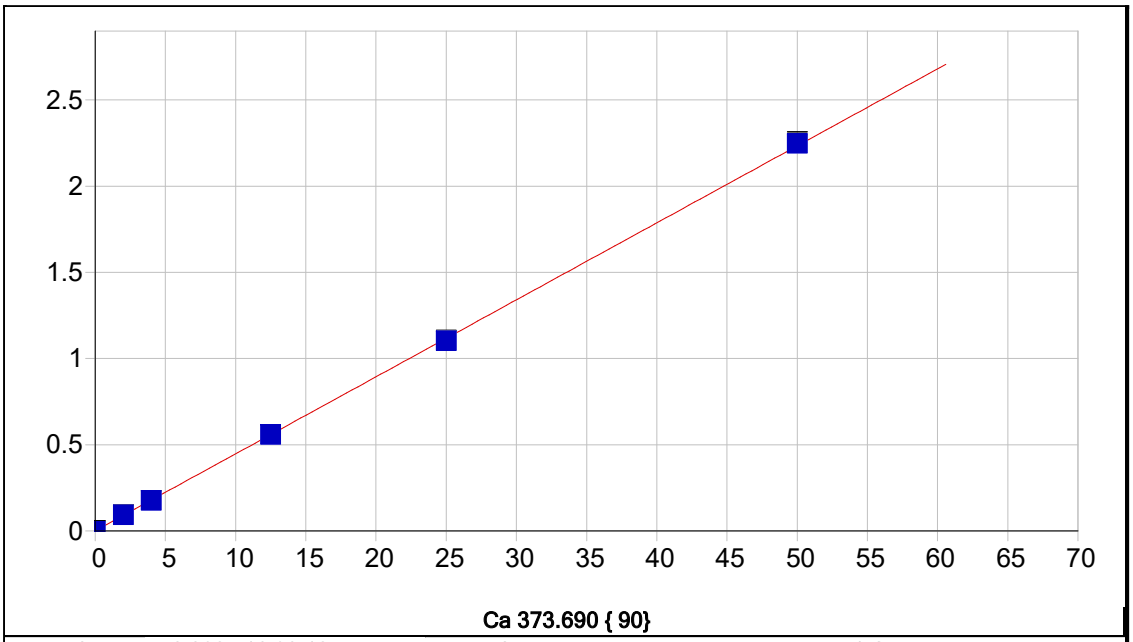


Cd 226.502 {449}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000978	Re-Slope:	1.000000
A1 (Gain):	1.797421	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000212		
Predicted MDL:	0.000112		
Predicted MQL:	0.000372		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00098	.000	1
S1	.00600	.00573	-.000	-4.46	.01134	.000	1
S3	1.2500	1.2407	-.009	-.746	2.2330	.003	1
S4	2.5000	2.4628	-.037	-1.49	4.4316	.002	1
S5	5.0000	5.0571	.057	1.14	9.0986	.123	1
S2	.40000	.38976	-.010	-2.56	.70218	.001	1

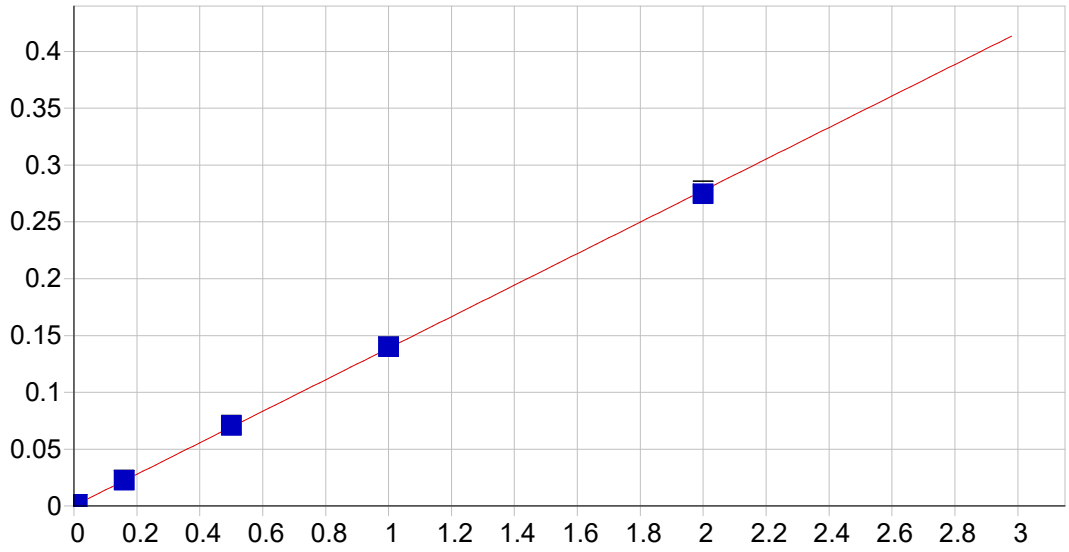


Ca 373.690 { 90}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000603	Re-Slope:	1.000000
A1 (Gain):	0.044667	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999950	Status:	OK.
Std Error of Est:	0.000237		
Predicted MDL:	0.010713		
Predicted MQL:	0.035711		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00060	.001	1
S2	4.0000	3.9315	-.069	-1.71	.17621	.001	1
S3	12.500	12.492	-.008	-.067	.55856	.001	1
S4	25.000	24.677	-.323	-1.29	1.1028	.004	1
S5	50.000	50.342	.342	.685	2.2492	.009	1
S1	2.0000	2.0579	.058	2.90	.09252	.001	1

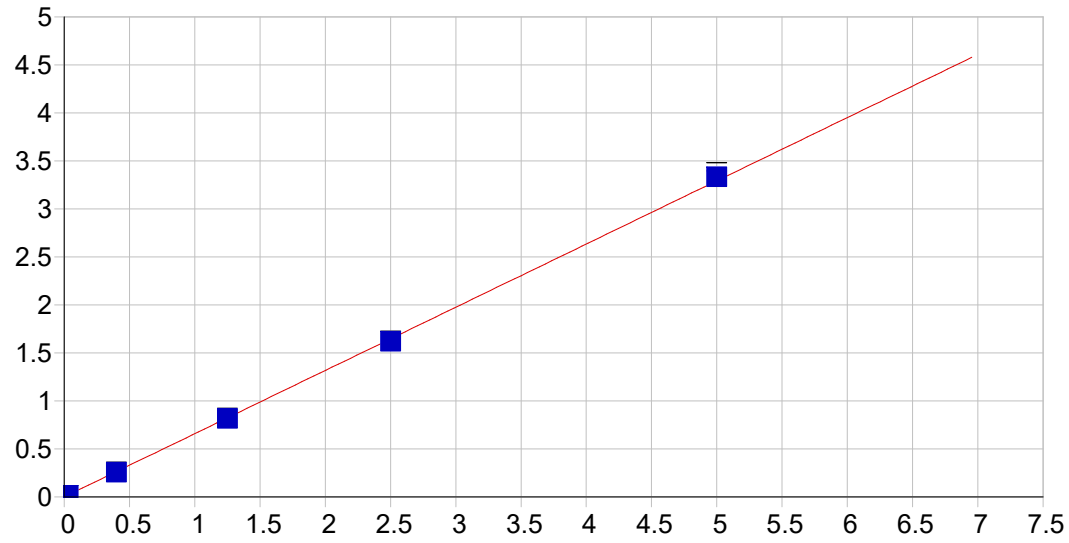


Cr 267.716 {126}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000073	Re-Slope:	1.000000
A1 (Gain):	0.138750	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.000478		
Predicted MQL:	0.001593		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00007	.000	1
S1	.01000	.01046	.000	4.62	.00152	.000	1
S3	.50000	.50912	.009	1.82	.07073	.000	1
S4	1.0000	1.0092	.009	.919	.14014	.000	1
S5	2.0000	1.9794	-.021	-1.03	.27480	.002	1
S2	.16000	.16182	.002	1.14	.02253	.000	1

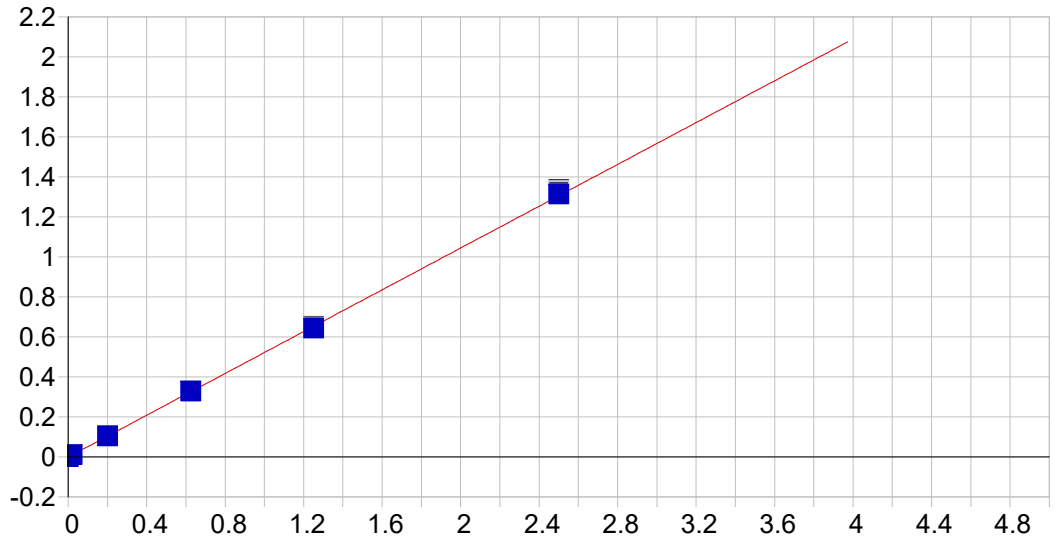


Co 228.616 {448}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000395	Re-Slope:	1.000000
A1 (Gain):	0.658417	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000183		
Predicted MDL:	0.000321		
Predicted MQL:	0.001069		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00040	.000	1
S1	.03000	.02945	-.001	-1.82	.01971	.000	1
S3	1.2500	1.2402	-.010	-.783	.81836	.001	1
S4	2.5000	2.4602	-.040	-1.59	1.6230	.001	1
S5	5.0000	5.0604	.060	1.21	3.3378	.043	1
S2	.40000	.38974	-.010	-2.57	.25745	.001	1

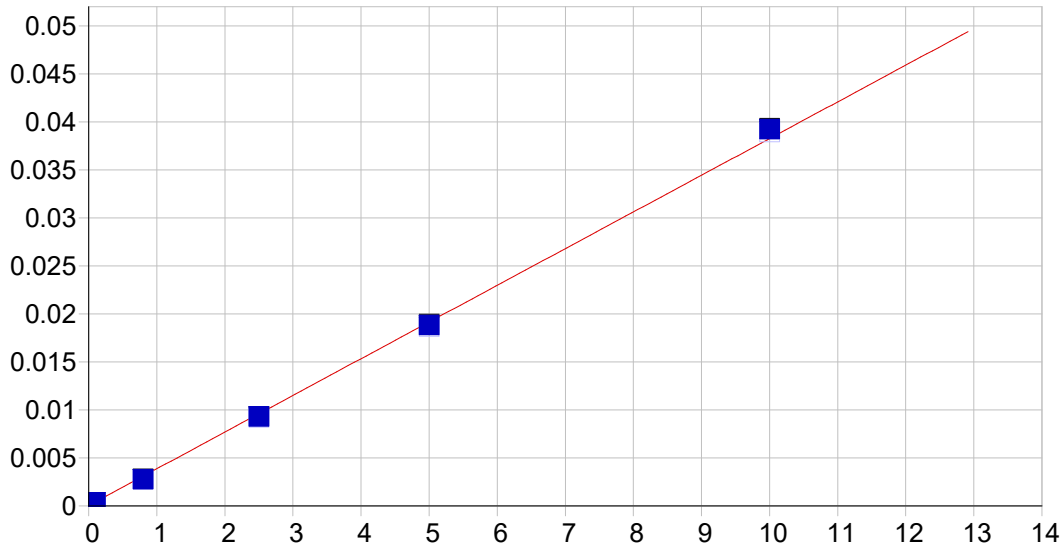


Cu 224.700 {450}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000568	Re-Slope:	1.000000
A1 (Gain):	0.522534	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	0.000071		
Predicted MDL:	0.000518		
Predicted MQL:	0.001727		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00057	.000	1
S1	.02000	.02231	.002	11.6	.01123	.000	1
S3	.62500	.62742	.002	.387	.33054	.001	1
S4	1.2500	1.2322	-.018	-1.42	.64983	.003	1
S5	2.5000	2.5141	.014	.565	1.3262	.010	1
S2	.20000	.19891	-.001	-.546	.10441	.000	1

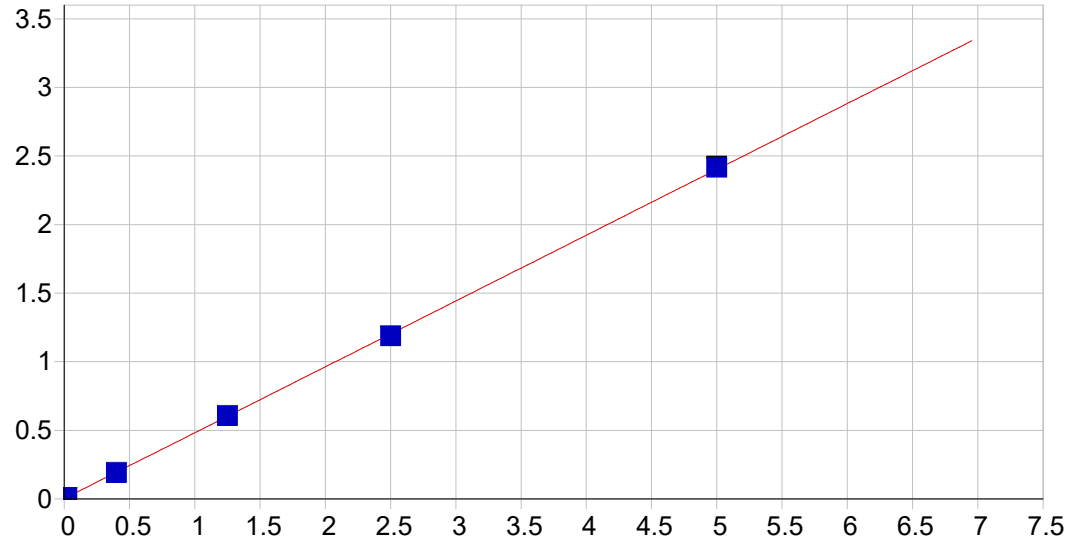


Fe 240.488 {140}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000044	Re-Slope:	1.000000
A1 (Gain):	0.003822	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999445	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.005976		
Predicted MQL:	0.019921		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00004	.000	1
S1	.10000	.09219	-.008	-7.81	.00039	.000	1
S3	2.5000	2.4173	-.083	-3.31	.00920	.000	1
S4	5.0000	4.9190	-.081	-1.62	.01868	.000	1
S5	10.000	10.256	.256	2.56	.03892	.000	1
S2	.80000	.71560	-.084	-10.5	.00275	.000	1

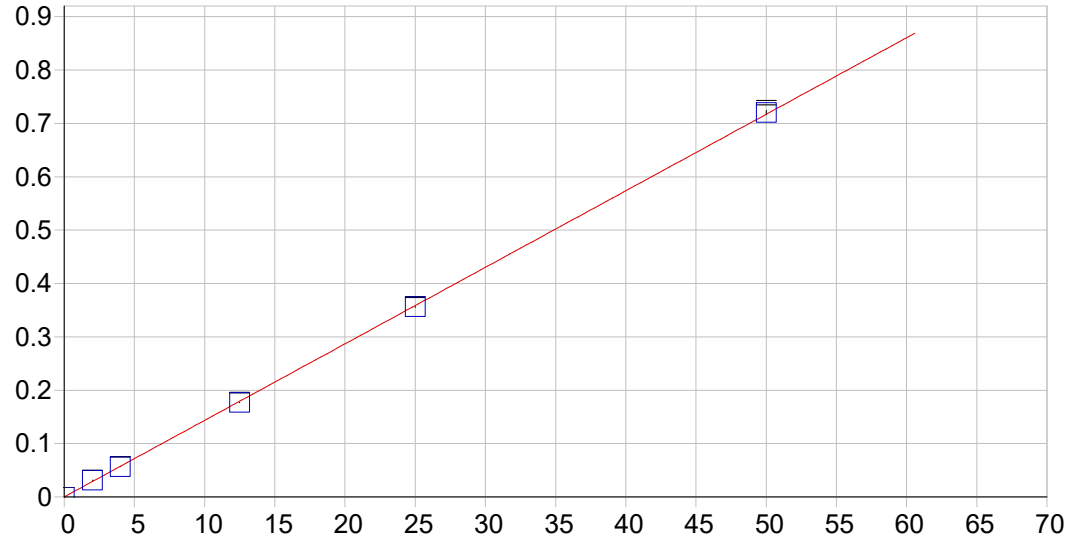


Mn 257.610 {131}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002475	Re-Slope:	1.000000
A1 (Gain):	0.480036	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000084		
Predicted MDL:	0.000385		
Predicted MQL:	0.001282		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00248	.000	1
S1	.02000	.01718	-.003	-14.1	.01073	.000	1
S3	1.2500	1.2567	.007	.538	.60587	.003	1
S4	2.5000	2.4708	-.029	-1.17	1.1888	.002	1
S5	5.0000	5.0302	.030	.604	2.4176	.008	1
S2	.40000	.39508	-.005	-1.23	.19217	.000	1

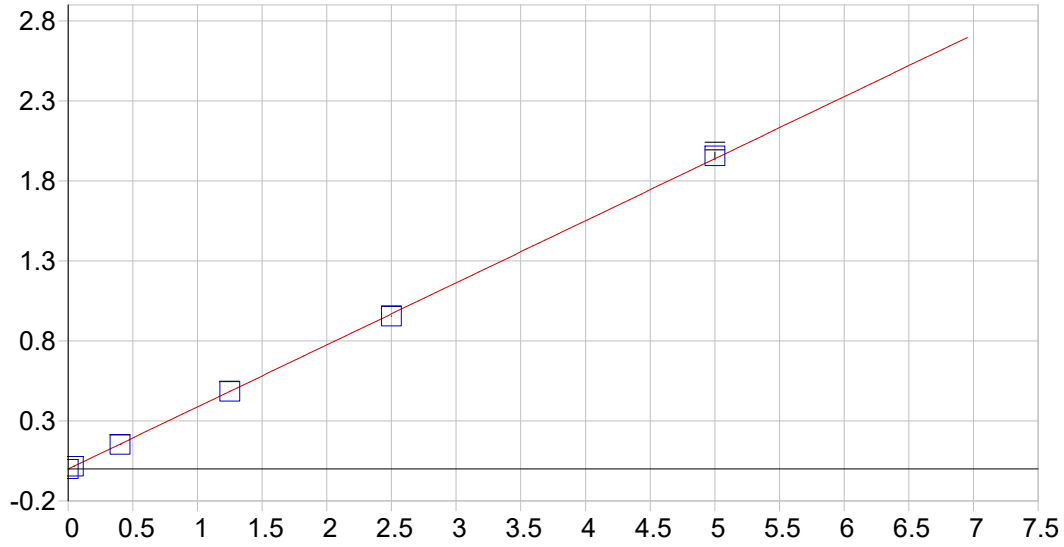


Mg 279.079 {121}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000058	Re-Slope:	1.000000
A1 (Gain):	0.014341	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	0.015254		
Predicted MQL:	0.050846		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00010	-.000	.000	.00006	.000	1
S2	4.0000	3.9475	-.052	-1.31	.05667	.000	1
S3	12.500	12.348	-.152	-1.22	.17714	.001	1
S4	25.000	24.824	-.176	-.702	.35607	.001	1
S5	50.000	50.226	.226	.451	.72035	.004	1
S1	2.0000	2.1545	.154	7.72	.03096	.000	1

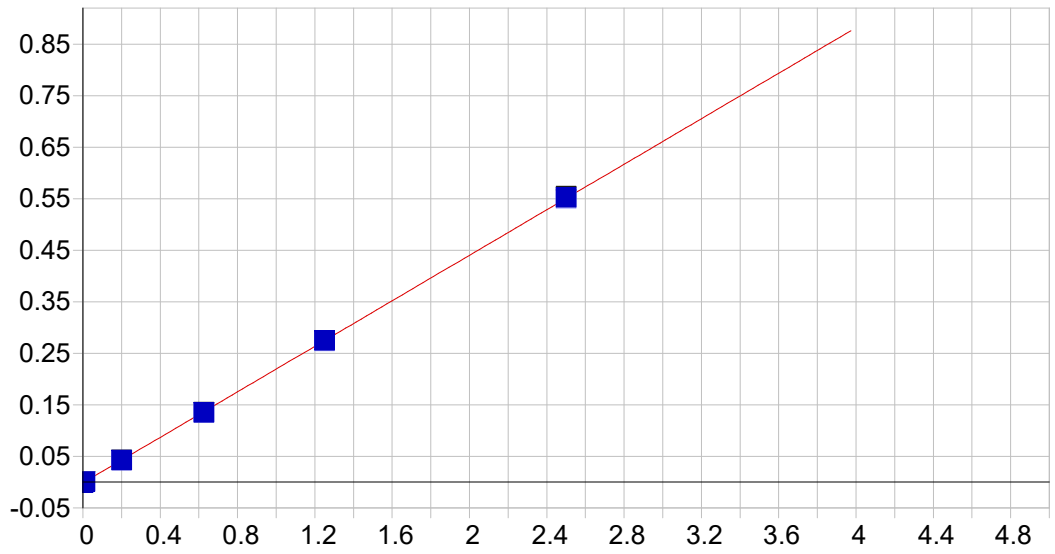


Ni 231.604 {446}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000136	Re-Slope:	1.000000
A1 (Gain):	0.387774	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999936	Status:	OK.
Std Error of Est:	0.000103		
Predicted MDL:	0.000470		
Predicted MQL:	0.001568		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.04000	.04016	.000	.390	.01544	.000	1
S3	1.2500	1.2500	.000	.001	.48459	.001	1
S4	2.5000	2.4627	-.037	-1.49	.95485	.000	1
S5	5.0000	5.0459	.046	.918	1.9565	.024	1
S2	.40000	.39120	-.009	-2.20	.15156	.000	1

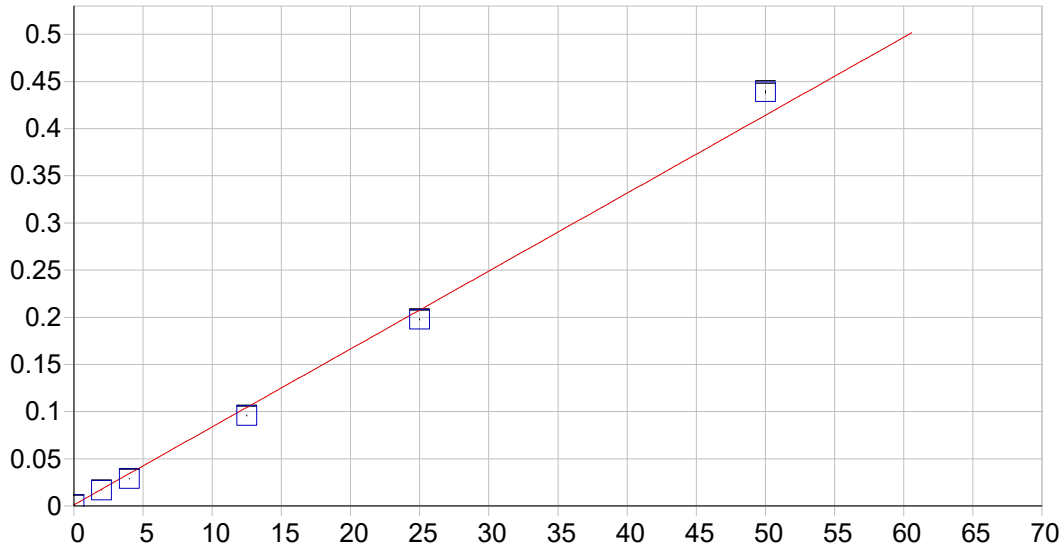


Ag 328.068 {103}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001435	Re-Slope:	1.000000
A1 (Gain):	0.220839	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.000433		
Predicted MQL:	0.001443		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00143	.000	1
S1	.01000	.01014	.000	1.37	.00079	.000	1
S3	.62500	.61916	-.006	-.935	.13475	.000	1
S4	1.2500	1.2497	-.000	-.021	.27346	.000	1
S5	2.5000	2.5072	.007	.287	.55006	.003	1
S2	.20000	.19879	-.001	-.604	.04229	.000	1

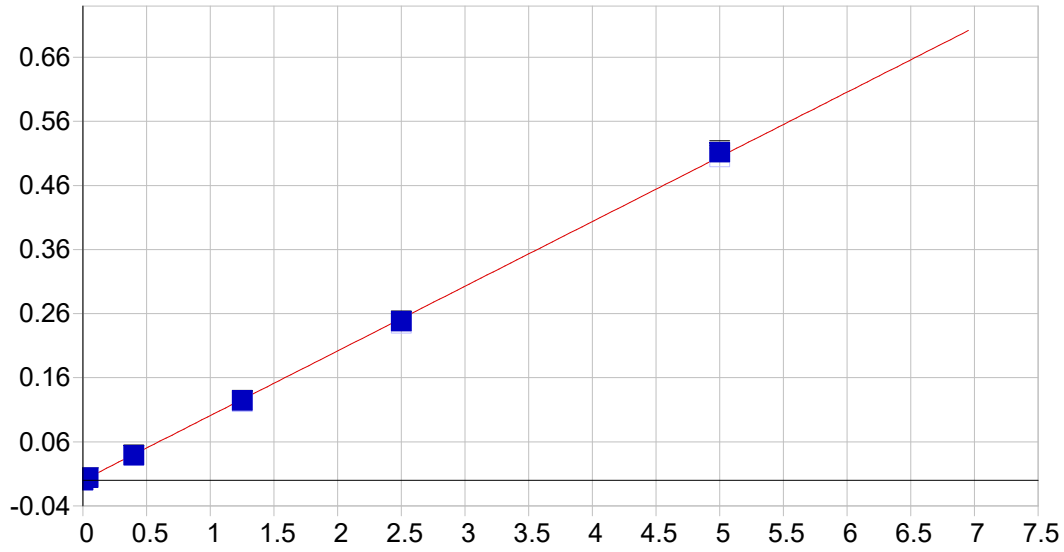


Na 589.592 { 57}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001194	Re-Slope:	1.000000
A1 (Gain):	0.008260	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997648	Status:	OK.
Std Error of Est:	0.000300		
Predicted MDL:	0.024412		
Predicted MQL:	0.081372		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00059	.001	.000	.00120	.000	1
S2	4.0000	3.3433	-.657	-16.4	.02881	.000	1
S3	12.500	11.451	-1.05	-8.39	.09578	.001	1
S4	25.000	23.817	-1.18	-4.73	.19793	.001	1
S5	50.000	53.012	3.01	6.02	.43909	.001	1
S1	2.0000	1.8762	-.124	-6.19	.01669	.000	1

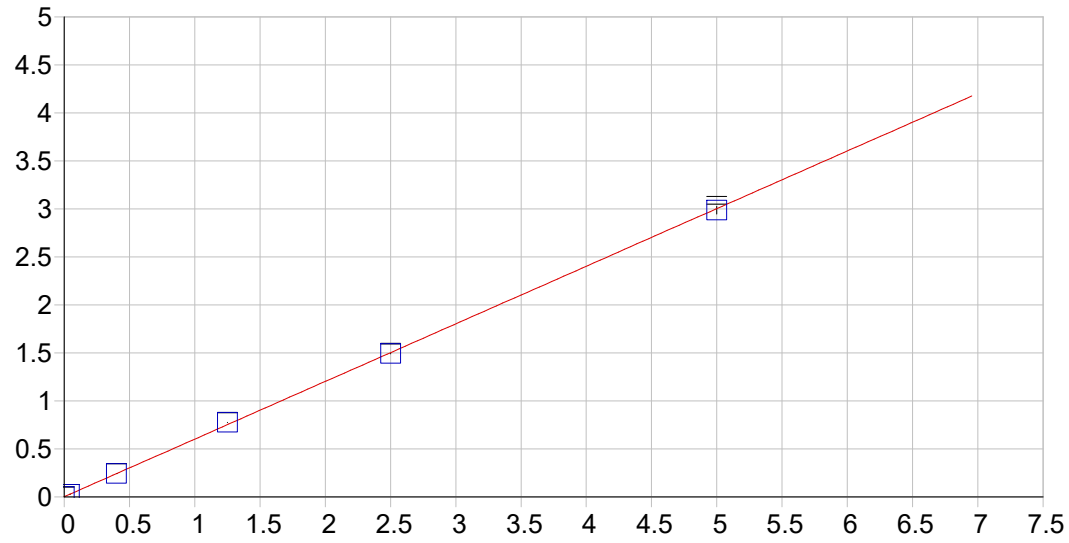


V 292.402 {115}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000073	Re-Slope:	1.000000
A1 (Gain):	0.100955	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.002029		
Predicted MQL:	0.006762		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00007	.000	1
S1	.04000	.04090	.001	2.24	.00390	.000	1
S3	1.2500	1.2325	-.018	-1.40	.12251	.000	1
S4	2.5000	2.4580	-.042	-1.68	.24439	.001	1
S5	5.0000	5.0709	.071	1.42	.50450	.002	1
S2	.40000	.38773	-.012	-3.07	.03848	.000	1

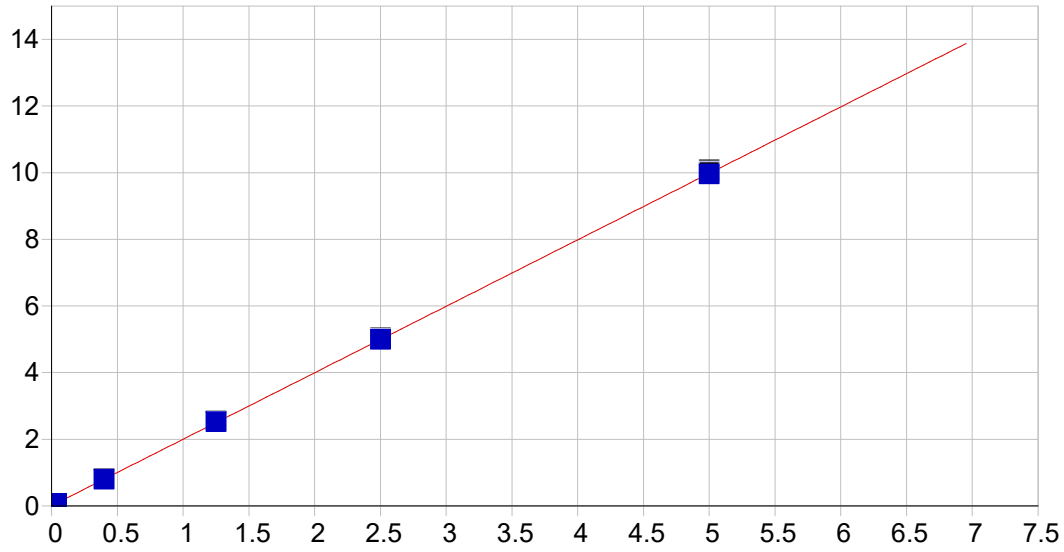


Zn 206.200 {464}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002096	Re-Slope:	1.000000
A1 (Gain):	0.600206	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999921	Status:	OK.
Std Error of Est:	0.000177		
Predicted MDL:	0.000269		
Predicted MQL:	0.000897		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00209	.001	1
S1	.04000	.04155	.002	3.86	.02703	.000	1
S3	1.2500	1.2879	.038	3.03	.77507	.001	1
S4	2.5000	2.4863	-.014	-.549	1.4944	.003	1
S5	5.0000	4.9717	-.028	-.566	2.9862	.040	1
S2	.40000	.40261	.003	.652	.24374	.000	1

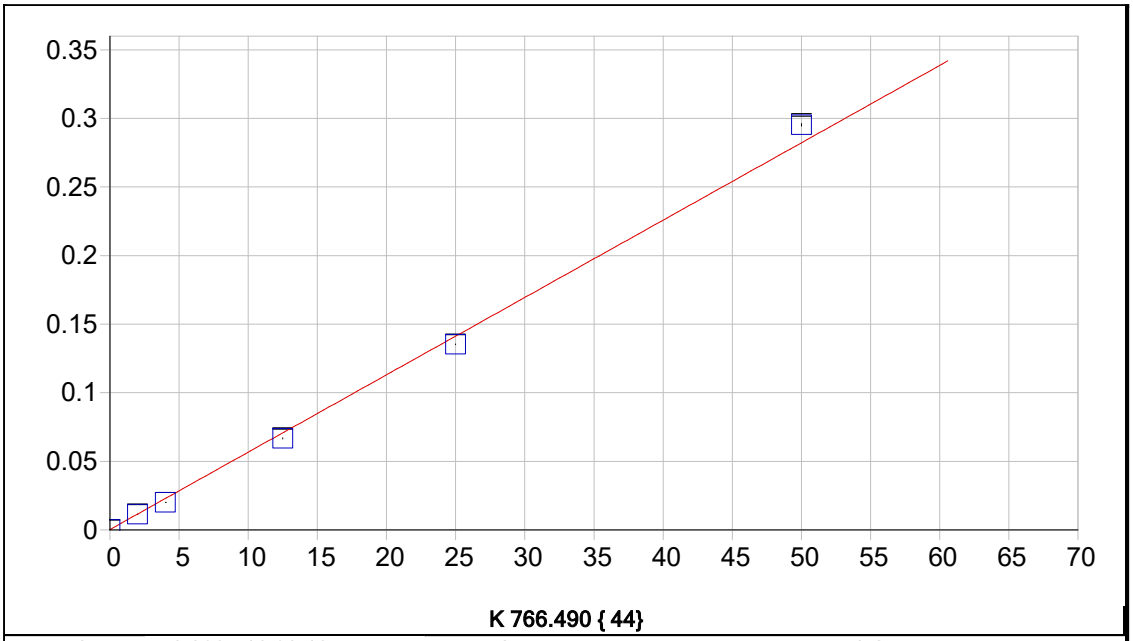


Zn 213.856 {158}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005333	Re-Slope:	1.000000
A1 (Gain):	1.994989	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000202		
Predicted MDL:	0.000399		
Predicted MQL:	0.001329		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00533	.000	1
S1	.04000	.04132	.001	3.30	.08833	.001	1
S3	1.2500	1.2610	.011	.884	2.5384	.009	1
S4	2.5000	2.4990	-.001	-.041	5.0254	.021	1
S5	5.0000	4.9910	-.009	-.181	10.032	.053	1
S2	.40000	.39770	-.002	-.576	.80428	.005	1

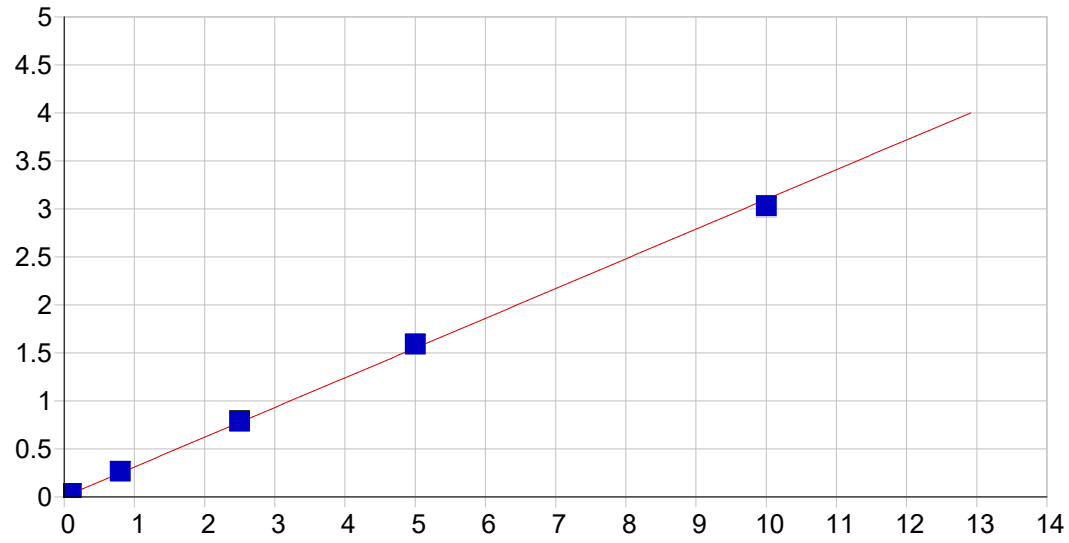


K 766.490 { 44}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000312	Re-Slope:	1.000000
A1 (Gain):	0.005638	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998621	Status:	OK.
Std Error of Est:	0.000157		
Predicted MDL:	0.038375		
Predicted MQL:	0.127916		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00039	.000	.000	.00031	.000	1
S2	4.0000	3.4985	-.502	-12.5	.02004	.000	1
S3	12.500	11.780	-.720	-5.76	.06673	.000	1
S4	25.000	23.936	-1.06	-4.25	.13527	.000	1
S5	50.000	52.322	2.32	4.64	.29532	.001	1
S1	2.0000	1.9633	-.037	-1.84	.01138	.000	1

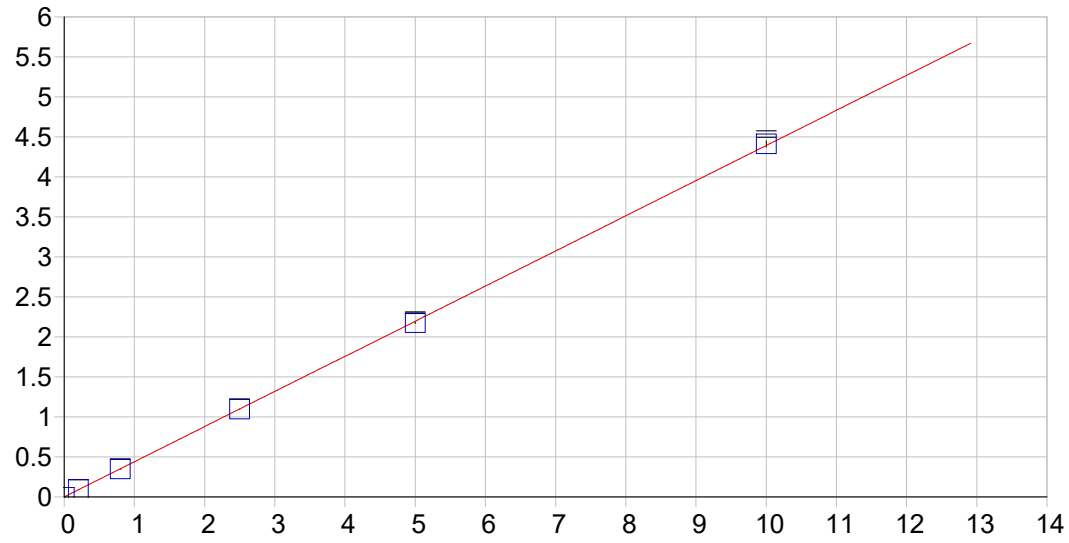


B 249.678 {135}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002341	Re-Slope:	1.000000
A1 (Gain):	0.309667	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999647	Status:	OK.
Std Error of Est:	0.000430		
Predicted MDL:	0.000864		
Predicted MQL:	0.002879		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00234	.000	1
S1	.10000	.10886	.009	8.86	.03584	.000	1
S3	2.5000	2.5360	.036	1.44	.78407	.006	1
S4	5.0000	5.1316	.132	2.63	1.5843	.003	1
S5	10.000	9.7745	-.226	-2.26	3.0148	.004	1
S2	.80000	.84906	.049	6.13	.26412	.001	1

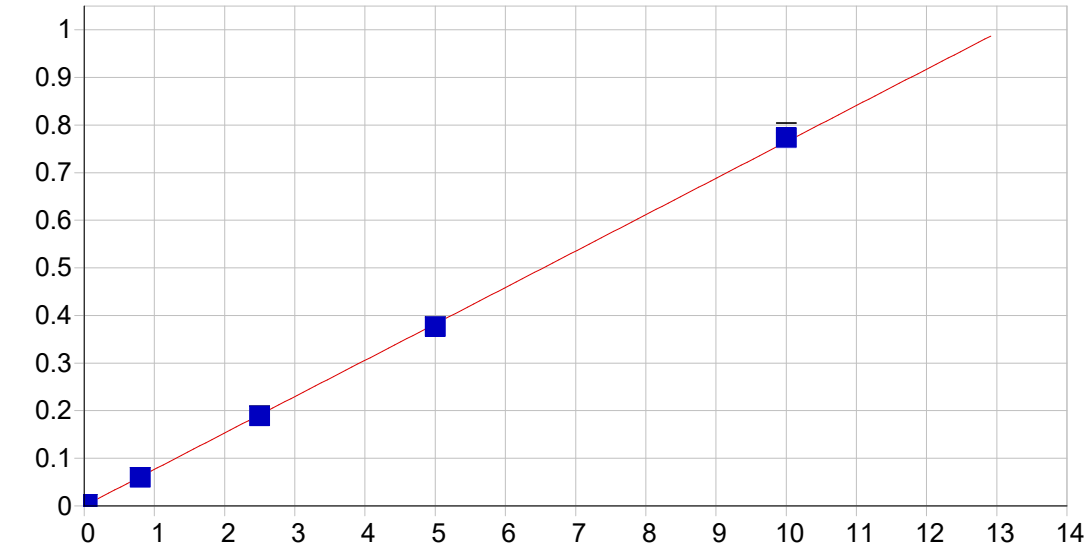


Mo 202.030 {467}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000593	Re-Slope:	1.000000
A1 (Gain):	0.439142	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000260		
Predicted MDL:	0.000383		
Predicted MQL:	0.001275		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00059	.000	1
S1	.20000	.20983	.010	4.91	.09274	.000	1
S3	2.5000	2.4969	-.003	-.125	1.0971	.002	1
S4	5.0000	4.9566	-.043	-.868	2.1773	.010	1
S5	10.000	10.045	.045	.455	4.4120	.041	1
S2	.80000	.79120	-.009	-1.10	.34804	.000	1

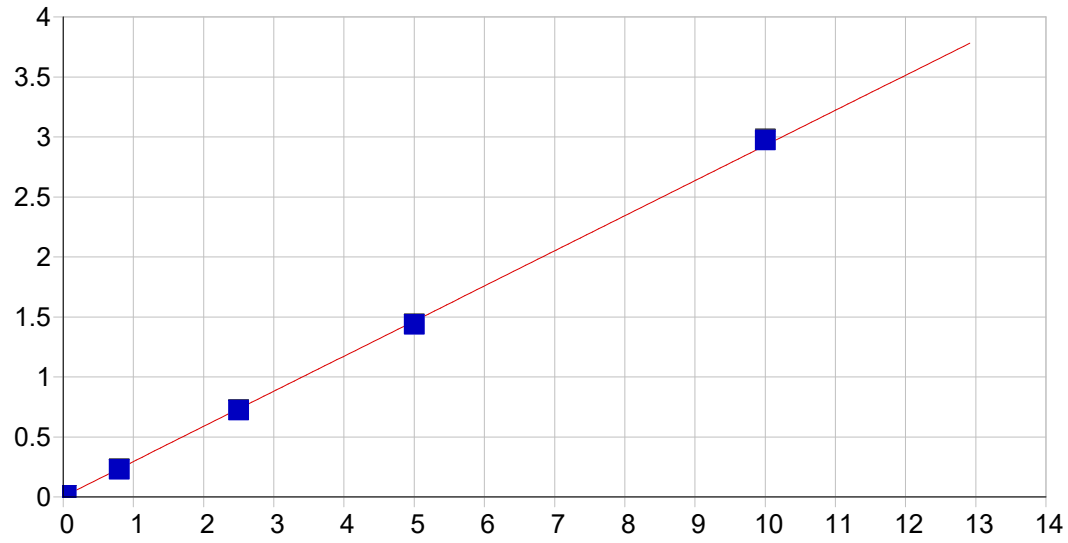


Sn 189.989 {478}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000246	Re-Slope:	1.000000
A1 (Gain):	0.076424	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000035		
Predicted MDL:	0.001181		
Predicted MQL:	0.003935		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00025	.000	1
S1	.04000	.04314	.003	7.85	.00354	.000	1
S3	2.5000	2.4715	-.029	-1.14	.18893	.000	1
S4	5.0000	4.9254	-.075	-1.49	.37628	.001	1
S5	10.000	10.117	.117	1.17	.77269	.011	1
S2	.80000	.78246	-.018	-2.19	.05998	.000	1

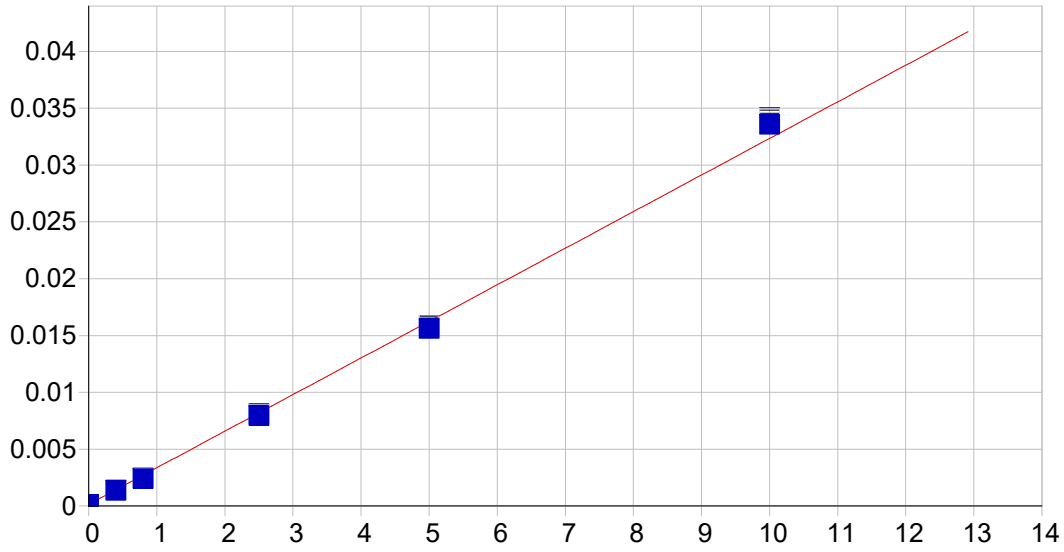


Ti 336.121 {100}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002327	Re-Slope:	1.000000
A1 (Gain):	0.292604	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000167		
Predicted MDL:	0.001013		
Predicted MQL:	0.003378		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00233	.000	1
S1	.04000	.04048	.000	1.19	.01416	.000	1
S3	2.5000	2.4624	-.038	-1.50	.72257	.001	1
S4	5.0000	4.9061	-.094	-1.88	1.4374	.002	1
S5	10.000	10.155	.155	1.55	2.9726	.009	1
S2	.80000	.77612	-.024	-2.98	.22934	.001	1

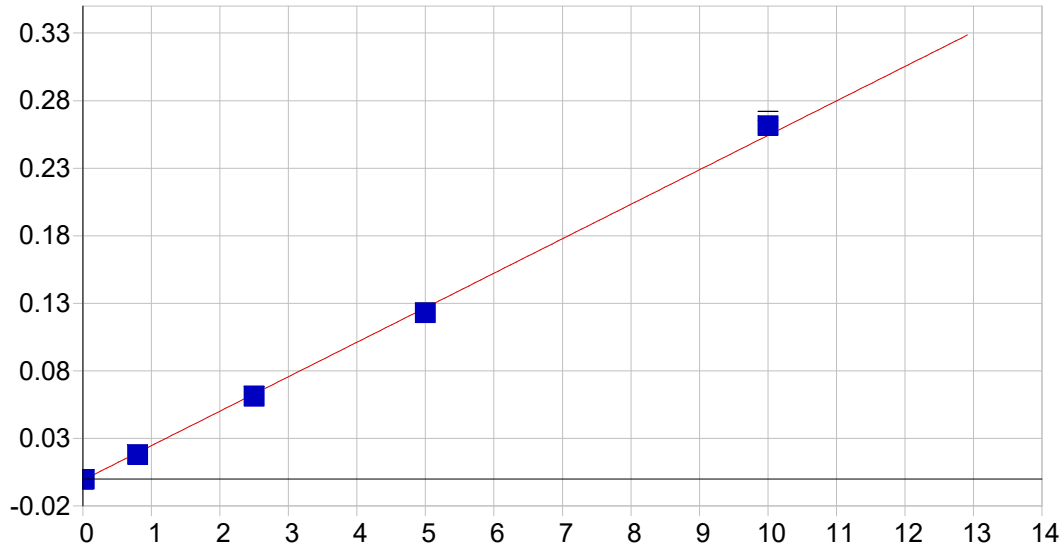


Si 288.158 {117}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000134	Re-Slope:	1.000000
A1 (Gain):	0.003221	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999025	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.012270		
Predicted MQL:	0.040899		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00013	.000	1
S1	.40000	.38195	-.018	-4.51	.00137	.000	1
S3	2.5000	2.4268	-.073	-2.93	.00807	.000	1
S4	5.0000	4.8032	-.197	-3.94	.01585	.000	1
S5	10.000	10.386	.386	3.86	.03408	.000	1
S2	.80000	.70206	-.098	-12.2	.00243	.000	1

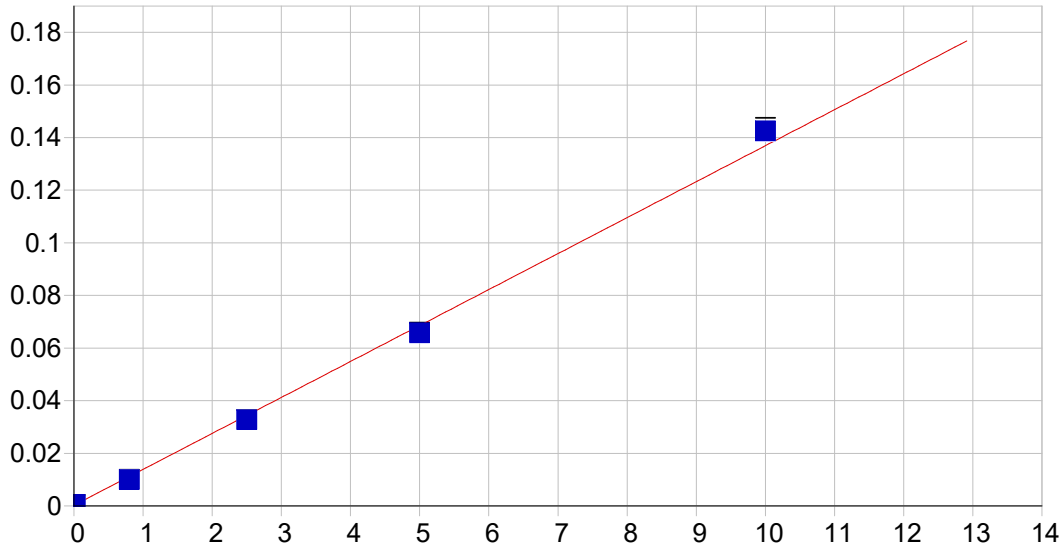


P 177.495 {490}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000904	Re-Slope:	1.000000
A1 (Gain):	0.025519	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999411	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.003826		
Predicted MQL:	0.012753		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00090	.000	1
S1	.02000	.02595	.006	29.7	-.00024	.000	1
S3	2.5000	2.4290	-.071	-2.84	.06107	.000	1
S4	5.0000	4.8507	-.149	-2.99	.12286	.000	1
S5	10.000	10.281	.281	2.81	.26140	.003	1
S2	.80000	.73376	-.066	-8.28	.01782	.000	1

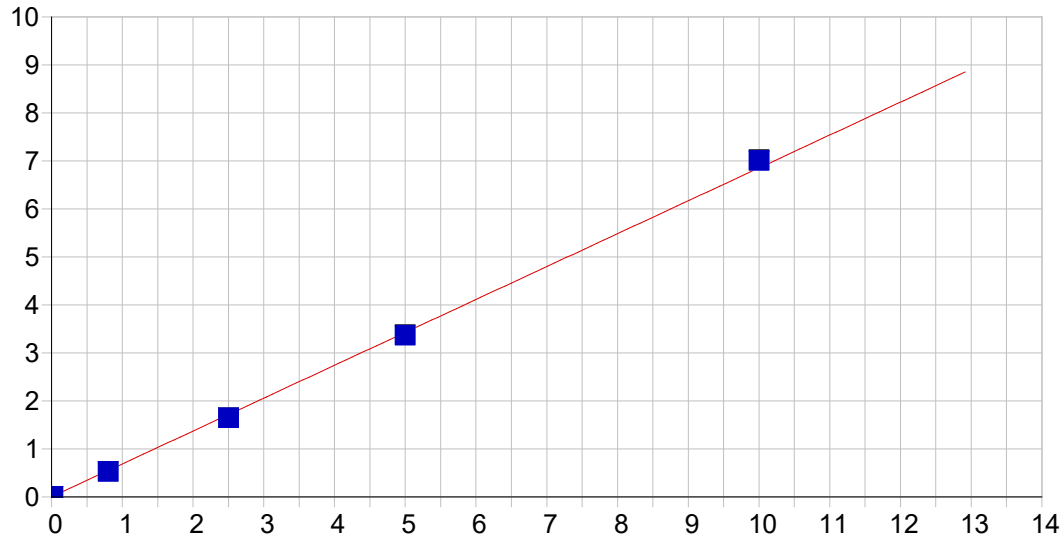


S 182.034 {485}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000223	Re-Slope:	1.000000
A1 (Gain):	0.013670	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998909	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.005783		
Predicted MQL:	0.019277		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00022	.000	1
S1	.02000	.01692	-.003	-15.4	.00044	.000	1
S3	2.5000	2.3808	-.119	-4.77	.03268	.000	1
S4	5.0000	4.7967	-.203	-4.07	.06562	.000	1
S5	10.000	10.409	.409	4.09	.14215	.001	1
S2	.80000	.71669	-.083	-10.4	.00999	.000	1

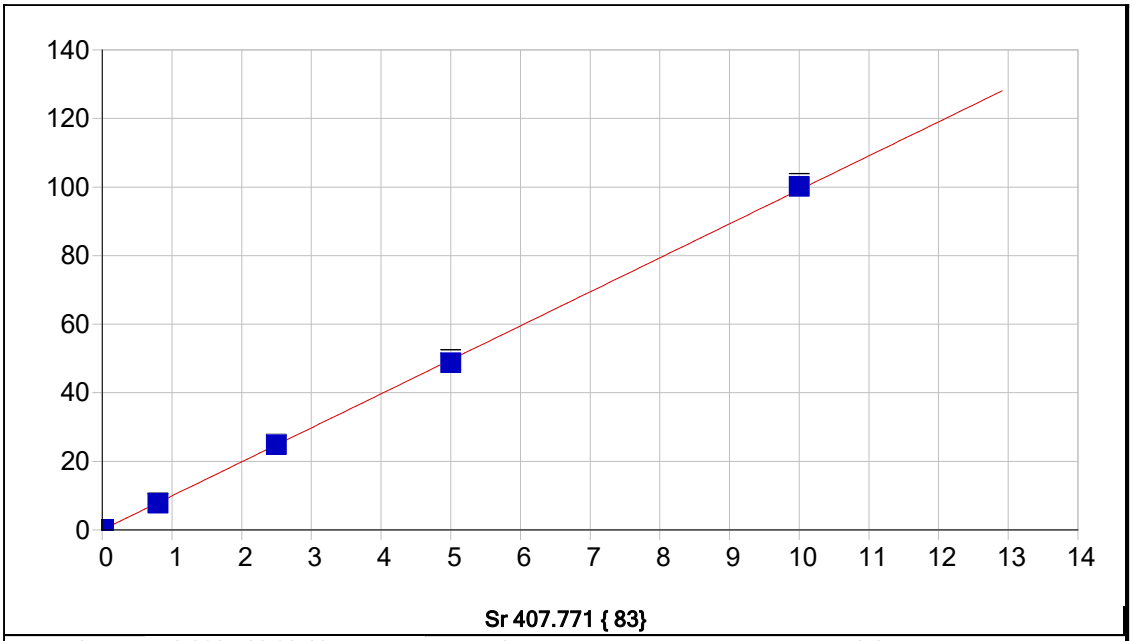


Li 670.784 { 50}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001882	Re-Slope:	1.000000
A1 (Gain):	0.685213	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999679	Status:	OK.
Std Error of Est:	0.000407		
Predicted MDL:	0.001436		
Predicted MQL:	0.004788		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00188	.001	1
S5	10.000	10.221	.221	2.21	7.0088	.014	1
S4	5.0000	4.9122	-.088	-1.76	3.3695	.002	1
S3	2.5000	2.4035	-.096	-3.86	1.6497	.003	1
S1	.02000	.01881	-.001	-5.97	.01499	.000	1
S2	.80000	.76459	-.035	-4.43	.52606	.002	1

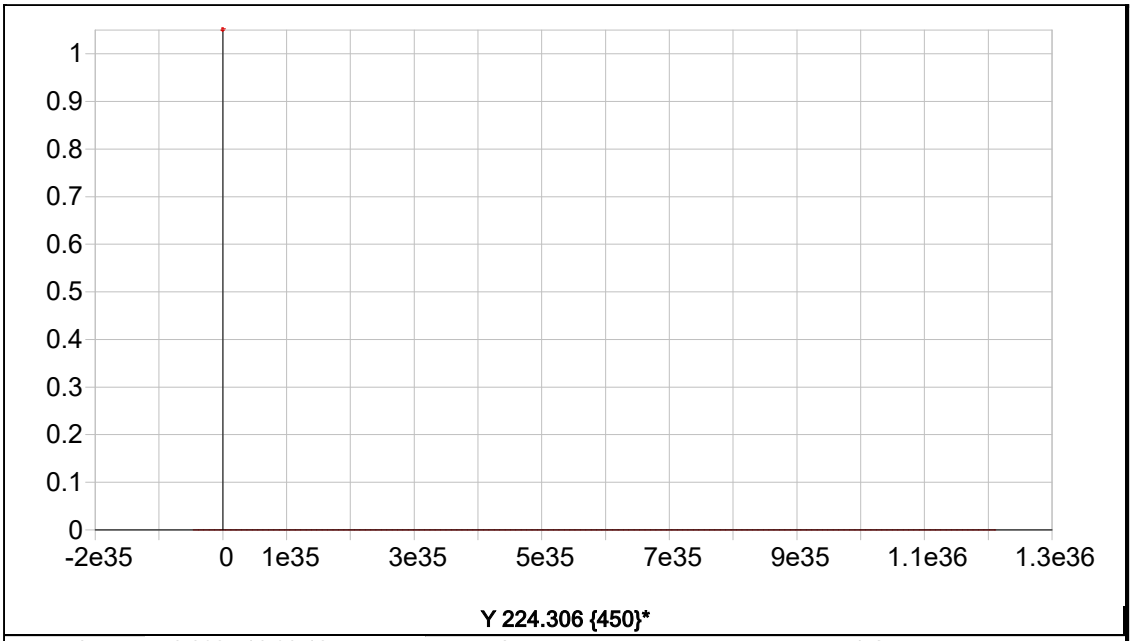


Sr 407.771 { 83}

Date of Fit:	5/2/2025 16:03:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008721	Re-Slope:	1.000000
A1 (Gain):	9.916847	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.002785		
Predicted MDL:	0.000069		
Predicted MQL:	0.000229		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00873	.000	1
S1	.02000	.01982	-.000	-.916	.20619	.001	1
S3	2.5000	2.5057	.006	.228	24.881	.101	1
S4	5.0000	4.9152	-.085	-1.70	48.799	.876	1
S5	10.000	10.094	.094	.944	100.21	.865	1
S2	.80000	.78487	-.015	-1.89	7.7997	.013	1

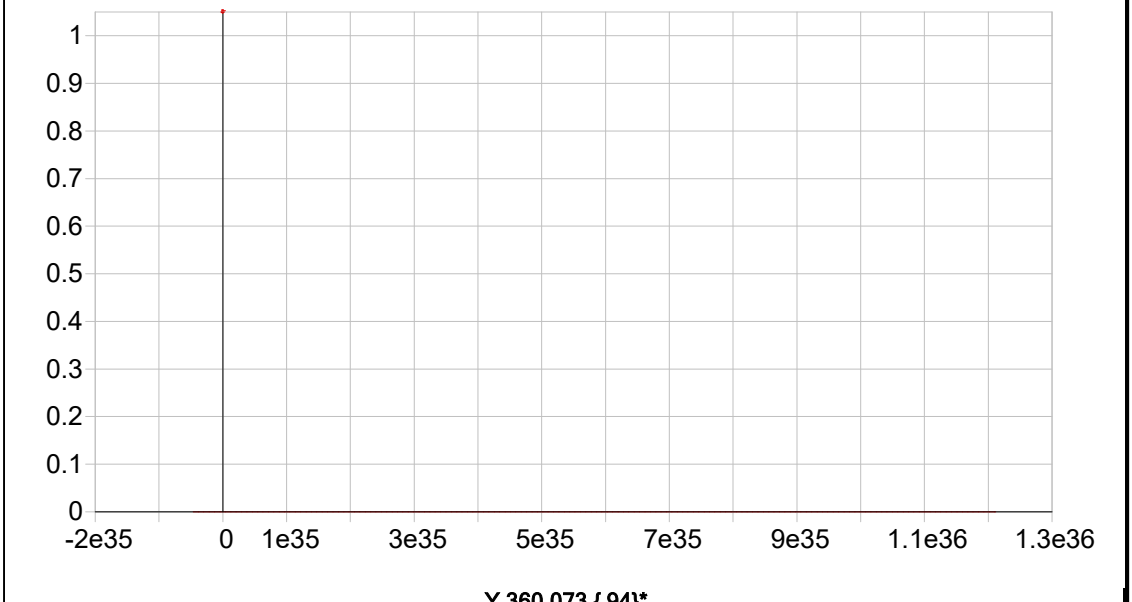


Y 224.306 {450}*

Date of Fit:	5/2/2025 16:03:12	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



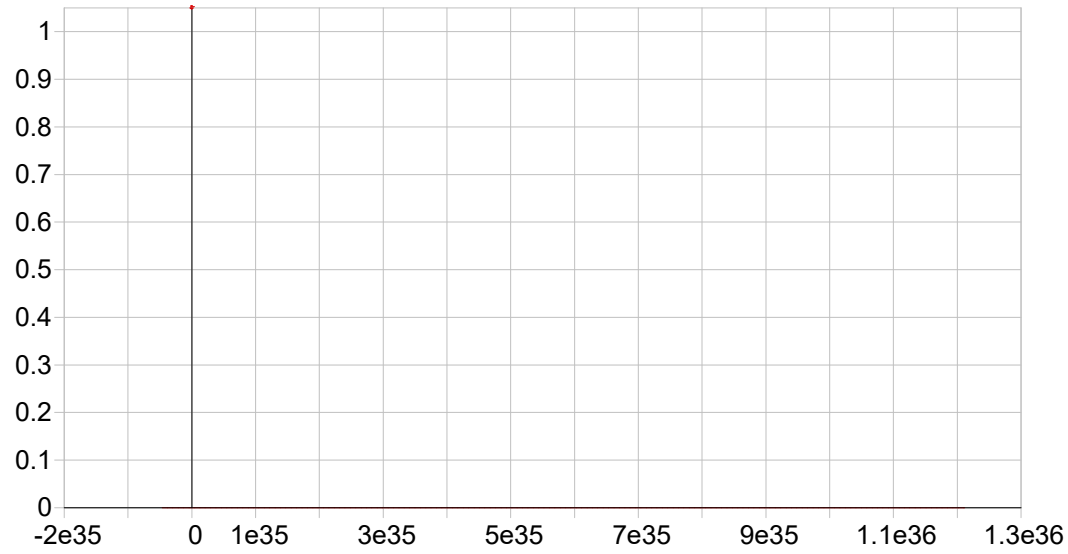
Y 360.073 { 94}*

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					

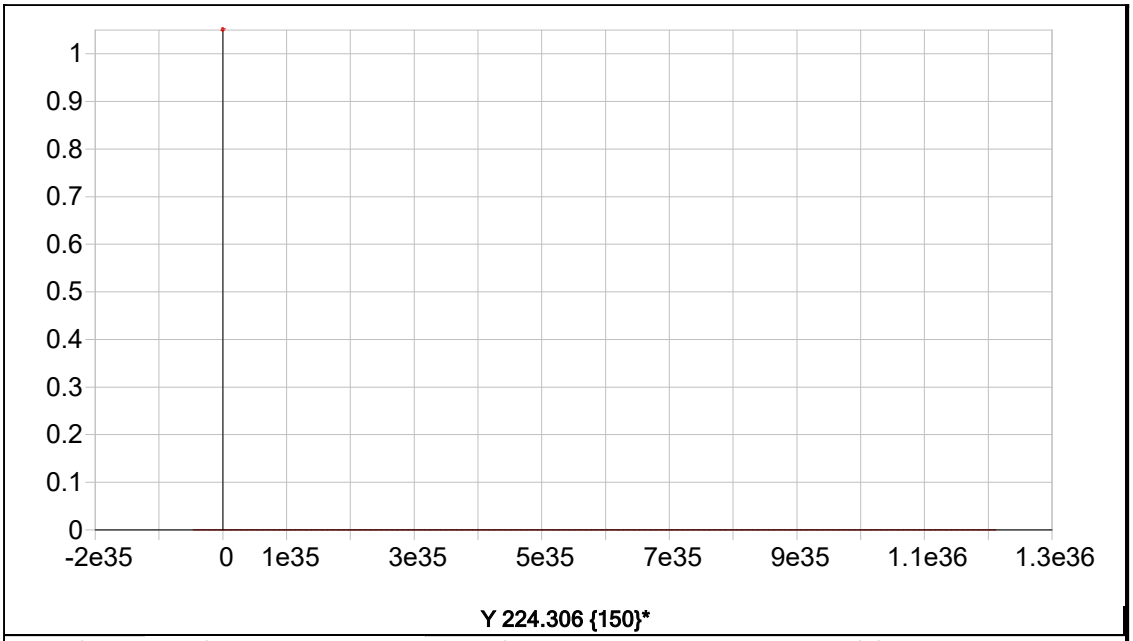
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

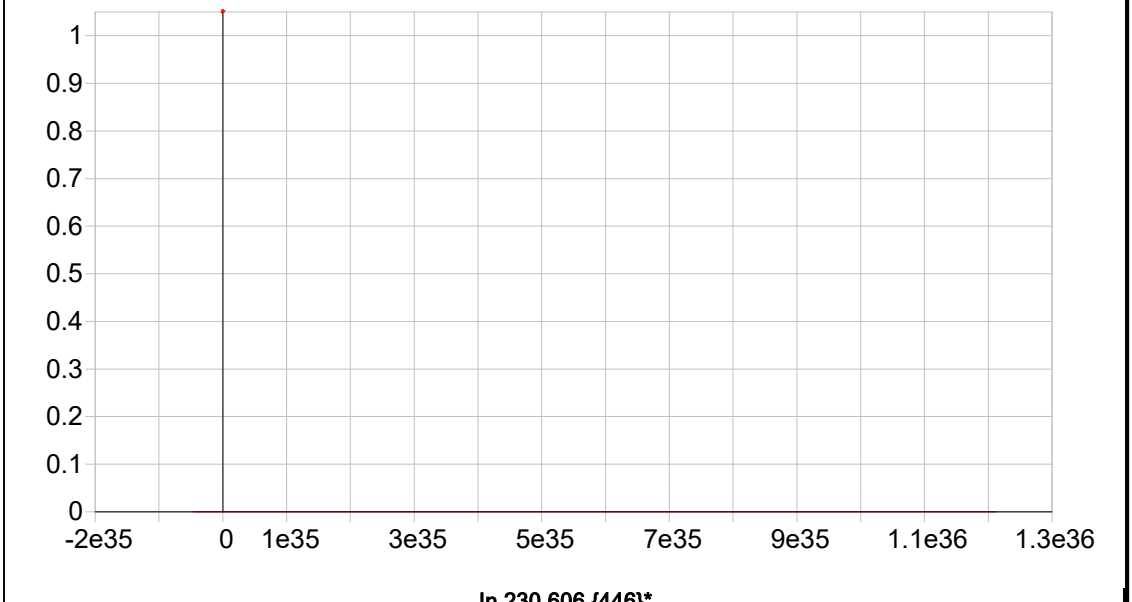


Y 224.306 {150}*

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:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S0 Acquired: 5/2/2025 12:34:01 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00000	.00000	.00000	.00000	.00001	.00001	-.00000
Stddev	.00230	.00056	.00082	.00439	.00088	.00745	.00064	.00005
%RSD	327270.	260350.	103990.	129320.	30784.	128130.	5454.5	6531.8
#1	.00084	-.00038	.00090	.00396	.00101	.00727	-.00035	.00004
#2	-.00260	.00064	-.00068	-.00472	-.00060	.00035	-.00036	.00002
#3	.00177	-.00026	-.00022	.00077	-.00041	-.00761	.00075	-.00006

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00001	-.00000	.00000	-.00000	.00002	.00000	-.00010
Stddev	.00014	.01242	.00030	.00028	.00037	.00522	.00013	.00387
%RSD	29272.	122420.	39739.	16674.	17315.	25217.	4335.5	3910.3
#1	-.00009	-.00046	.00016	-.00030	-.00042	.00603	.00009	.00076
#2	-.00008	-.01220	-.00034	.00006	.00013	-.00331	.00007	.00327
#3	.00016	.01263	.00018	.00025	.00028	-.00266	-.00015	-.00432

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00000	.00059	.00000	-.00000	.00039	-.00002	-.00001
Stddev	.00031	.00019	.01403	.00102	.00012	.03677	.00071	.00025
%RSD	33034.	3834900.	2361.7	107860.	8915.2	9309.2	4221.8	3861.1
#1	-.00017	-.00022	.01491	-.00109	.00013	-.02631	.00061	-.00012
#2	.00036	.00011	-.01313	.00016	-.00003	.04233	-.00078	-.00018
#3	-.00019	.00010	.00000	.00093	-.00011	-.01484	.00012	.00028

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00000	.00008	-.00000	.00001	.00000	.00000
Stddev	.00046	.00115	.01220	.00283	.00697	.00111	.00003
%RSD	27259.	79296.	15447.	76939.	114880.	40111.	4738.1
#1	-.00051	.00070	-.00619	.00108	-.00719	-.00119	.00003
#2	.00036	-.00133	-.00772	.00213	.00048	.00102	-.00003
#3	.00015	.00063	.01414	-.00322	.00672	.00018	.00001

Sample Name: S0 Acquired: 5/2/2025 12:34:01 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3368.0	73313.	13775.	2162.3	4718.5
Stddev	8.7	421.	61.	7.6	10.5
%RSD	.25819	.57446	.44222	.35095	.22179
#1	3376.4	73730.	13716.	2171.0	4728.1
#2	3368.6	73321.	13771.	2156.9	4720.1
#3	3359.1	72888.	13837.	2159.1	4707.4

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S1 Acquired: 5/2/2025 12:38:26 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01924	.04182	.01153	.01822	.05096	.09873	.09677	.00617	.00573
Stddev	.00347	.00137	.00084	.00310	.00149	.00616	.00070	.00014	.00002
%RSD	18.040	3.2749	7.2755	16.996	2.9171	6.2351	.72035	2.2479	.41031
#1	.02293	.04201	.01102	.01467	.04986	.10430	.09610	.00603	.00573
#2	.01873	.04036	.01250	.01968	.05037	.09976	.09750	.00630	.00571
#3	.01605	.04308	.01106	.02033	.05265	.09212	.09672	.00616	.00576

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0579	.01046	.02946	.02230	.09224	.01718	2.1545	.04016	.01014
Stddev	.0135	.00046	.00017	.00033	.00361	.00019	.0005	.00011	.00006
%RSD	.65686	4.4038	.57074	1.4695	3.9091	1.1148	.02430	.26537	.57547
#1	2.0426	.01074	.02928	.02268	.08946	.01740	2.1550	.04023	.01011
#2	2.0681	.01071	.02960	.02208	.09632	.01703	2.1539	.04020	.01020
#3	2.0631	.00993	.02951	.02215	.09095	.01712	2.1546	.04003	.01010

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8762	.04097	.04132	1.9633	.10885	.20983	.04314	.04048	.38194
Stddev	.0247	.00260	.00046	.0309	.00069	.00099	.00060	.00092	.00800
%RSD	1.3189	6.3572	1.1056	1.5764	.63117	.47061	1.3930	2.2845	2.0937
#1	1.8759	.03804	.04082	1.9972	.10807	.20913	.04258	.04067	.39111
#2	1.8516	.04304	.04172	1.9561	.10936	.20940	.04307	.04129	.37648
#3	1.9010	.04183	.04142	1.9365	.10912	.21096	.04377	.03947	.37821

Elem	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	.02594	.01698	.01879	.01982
Stddev	.00129	.00425	.00017	.00007
%RSD	4.9797	25.050	.92552	.36666
#1	.02624	.01260	.01899	.01983
#2	.02453	.02109	.01872	.01989
#3	.02706	.01725	.01867	.01975

Sample Name: S1 Acquired: 5/2/2025 12:38:26 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3368.6	72006.	13668.	2127.9	4732.6
Stddev	14.4	184.	126.	1.7	25.5
%RSD	.42753	.25581	.91822	.07761	.53860
#1	3368.0	71909.	13666.	2128.2	4736.3
#2	3383.3	72218.	13543.	2129.3	4756.1
#3	3354.5	71890.	13794.	2126.1	4705.5

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S2 Acquired: 5/2/2025 12:42:47 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.79580	.77546	.78506	.75526	.76032	1.5467	1.5035	.04265	.38978
Stddev	.00587	.00277	.00183	.00375	.00459	.0053	.0036	.00035	.00079
%RSD	.73733	.35734	.23281	.49705	.60366	.34395	.23726	.82226	.20298
#1	.79241	.77814	.78693	.75633	.76496	1.5507	1.5014	.04235	.39049
#2	.79241	.77261	.78495	.75109	.75578	1.5407	1.5016	.04304	.38993
#3	.80257	.77564	.78328	.75837	.76021	1.5488	1.5077	.04257	.38893

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9315	.16182	.38977	.19900	.71550	.39508	3.9475	.39120	.19876
Stddev	.0174	.00043	.00080	.00053	.00564	.00089	.0259	.00028	.00048
%RSD	.44131	.26705	.20629	.26447	.78847	.22479	.65624	.07060	.24128
#1	3.9236	.16208	.39055	.19961	.72170	.39406	3.9580	.39117	.19825
#2	3.9195	.16132	.38982	.19870	.71410	.39555	3.9180	.39148	.19920
#3	3.9514	.16206	.38895	.19870	.71068	.39564	3.9666	.39093	.19882

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3433	.38768	.39776	3.4985	.84873	.79120	.78244	.77611	.70262
Stddev	.0516	.00216	.00237	.0103	.00248	.00058	.00087	.00482	.00578
%RSD	1.5445	.55810	.59632	.29475	.29216	.07330	.11074	.62093	.82206
#1	3.3598	.38697	.39512	3.5103	.84600	.79157	.78312	.77337	.70406
#2	3.2854	.39011	.39972	3.4914	.85085	.79053	.78273	.77329	.69626
#3	3.3846	.38596	.39843	3.4937	.84934	.79150	.78146	.78168	.70754

Elem	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	.73376	.71669	.76457	.78495
Stddev	.00510	.00513	.00344	.00136
%RSD	.69565	.71603	.44985	.17316
#1	.73959	.71162	.76278	.78455
#2	.73010	.71657	.76238	.78383
#3	.73159	.72188	.76853	.78646

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S2 Acquired: 5/2/2025 12:42:47 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3391.7	72720.	12905.	2138.1	4742.6
Stddev	3.6	179.	50.	3.4	4.9
%RSD	.10518	.24653	.38530	.16096	.10363
#1	3391.1	72667.	12963.	2142.0	4737.0
#2	3395.6	72919.	12881.	2136.8	4744.4
#3	3388.5	72573.	12872.	2135.5	4746.3

Sample Name: S3 Acquired: 5/2/2025 12:46:52 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5356	2.4923	2.4906	2.4487	2.4394	4.9269	4.9023	.12779	1.2407
Stddev	.0106	.0345	.0053	.0088	.0091	.0080	.0192	.00071	.0015
%RSD	.41935	1.3829	.21322	.35785	.37293	.16246	.39129	.55192	.12465
#1	2.5269	2.4543	2.4956	2.4414	2.4353	4.9299	4.8813	.12698	1.2416
#2	2.5324	2.5009	2.4850	2.4464	2.4331	4.9178	4.9188	.12813	1.2389
#3	2.5474	2.5216	2.4911	2.4584	2.4498	4.9329	4.9068	.12827	1.2415

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.492	.50912	1.2403	.62754	2.4173	1.2567	12.348	1.2500	.61911
Stddev	.017	.00134	.0022	.00216	.0084	.0070	.047	.0023	.00186
%RSD	.13698	.26300	.17752	.34426	.34688	.55391	.37831	.18239	.29987
#1	12.473	.51056	1.2419	.62653	2.4268	1.2487	12.313	1.2508	.62124
#2	12.506	.50890	1.2378	.62606	2.4139	1.2611	12.330	1.2474	.61786
#3	12.497	.50791	1.2411	.63002	2.4111	1.2603	12.401	1.2518	.61823

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.451	1.2325	1.2610	11.780	2.5357	2.4969	2.4714	2.4624	2.4277
Stddev	.068	.0023	.0046	.069	.0208	.0051	.0038	.0042	.0184
%RSD	.59119	.18574	.36731	.58178	.82115	.20496	.15238	.17131	.75926
#1	11.526	1.2331	1.2664	11.843	2.5131	2.4939	2.4715	2.4584	2.4483
#2	11.433	1.2345	1.2584	11.789	2.5399	2.4939	2.4677	2.4668	2.4219
#3	11.394	1.2300	1.2583	11.707	2.5541	2.5028	2.4752	2.4619	2.4128

Elem	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	2.4290	2.3808	2.4035	2.5058
Stddev	.0042	.0047	.0037	.0102
%RSD	.17356	.19827	.15448	.40538
#1	2.4320	2.3780	2.4000	2.5113
#2	2.4242	2.3780	2.4074	2.4941
#3	2.4308	2.3862	2.4031	2.5120

Sample Name: S3 Acquired: 5/2/2025 12:46:52 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3318.1	72181.	13528.	2092.5	4568.3
Stddev	7.2	424.	33.	8.4	10.8
%RSD	.21742	.58749	.24534	.40223	.23633
#1	3310.9	71760.	13566.	2084.6	4558.7
#2	3325.3	72175.	13513.	2091.5	4580.0
#3	3318.1	72608.	13504.	2101.4	4566.2

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S4 Acquired: 5/2/2025 12:51:01 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9573	4.9178	4.9419	4.8575	4.8750	9.9043	9.7119	.25885	2.4628
Stddev	.0293	.0934	.0047	.0180	.0186	.0225	.0973	.00018	.0010
%RSD	.59025	1.8985	.09486	.37139	.38102	.22666	1.0013	.06901	.03968
#1	4.9533	4.8100	4.9407	4.8395	4.8705	9.8785	9.6207	.25882	2.4632
#2	4.9302	4.9694	4.9471	4.8573	4.8591	9.9151	9.8142	.25905	2.4635
#3	4.9883	4.9739	4.9379	4.8756	4.8955	9.9193	9.7009	.25870	2.4617

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.677	1.0092	2.4603	1.2323	4.9186	2.4708	24.824	2.4627	1.2497
Stddev	.082	.0017	.0009	.0061	.0186	.0046	.061	.0007	.0010
%RSD	.33340	.16410	.03601	.49663	.37883	.18652	.24540	.02997	.07728
#1	24.583	1.0076	2.4595	1.2331	4.9399	2.4684	24.754	2.4622	1.2508
#2	24.737	1.0091	2.4602	1.2259	4.9099	2.4761	24.865	2.4624	1.2490
#3	24.710	1.0109	2.4612	1.2380	4.9058	2.4679	24.854	2.4636	1.2491

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.817	2.4577	2.4992	23.936	5.1313	4.9566	4.9253	4.9061	4.8051
Stddev	.088	.0052	.0103	.037	.0098	.0227	.0082	.0061	.0140
%RSD	.36858	.21055	.41311	.15588	.19092	.45862	.16568	.12451	.29181
#1	23.857	2.4518	2.5038	23.973	5.1406	4.9464	4.9165	4.9016	4.8088
#2	23.878	2.4601	2.4874	23.938	5.1321	4.9408	4.9326	4.9131	4.8168
#3	23.717	2.4613	2.5065	23.898	5.1211	4.9827	4.9269	4.9036	4.7896

Elem	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	4.8507	4.7967	4.9123	4.9152
Stddev	.0122	.0198	.0032	.0883
%RSD	.25130	.41210	.06609	1.7973
#1	4.8431	4.7739	4.9086	4.8140
#2	4.8648	4.8089	4.9137	4.9555
#3	4.8443	4.8073	4.9146	4.9763

Sample Name: S4 Acquired: 5/2/2025 12:51:01 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3287.7	70037.	13228.	2037.2	4484.6
Stddev	15.6	145.	53.	.9	7.0
%RSD	.47349	.20656	.39995	.04495	.15642
#1	3282.9	70163.	13285.	2037.5	4479.3
#2	3305.0	69879.	13180.	2038.0	4492.5
#3	3275.0	70068.	13219.	2036.2	4481.8

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S5 Acquired: 5/2/2025 12:55:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.012	10.113	10.083	10.240	10.224	20.223	20.485	.48554	5.0570
Stddev	.084	.136	.129	.060	.079	.063	.362	.00143	.0684
%RSD	.83792	1.3455	1.2817	.58820	.77248	.31122	1.7691	.29522	1.3527
#1	10.096	10.264	10.232	10.308	10.299	20.287	20.819	.48576	5.1360
#2	9.9281	10.073	10.013	10.194	10.141	20.222	20.538	.48685	5.0186
#3	10.012	10.001	10.004	10.218	10.233	20.161	20.100	.48401	5.0164

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.342	1.9794	5.0602	2.5138	10.256	5.0302	50.226	5.0459	2.5073
Stddev	.202	.0179	.0651	.0194	.022	.0161	.289	.0628	.0128
%RSD	.40093	.90445	1.2859	.77076	.21765	.31972	.57595	1.2436	.50893
#1	50.575	1.9879	5.1353	2.5354	10.273	5.0486	50.554	5.1183	2.5054
#2	50.216	1.9914	5.0219	2.4979	10.265	5.0188	50.113	5.0067	2.5210
#3	50.236	1.9588	5.0233	2.5081	10.231	5.0231	50.009	5.0127	2.4957

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.012	5.0711	4.9907	52.322	9.7754	10.045	10.118	10.155	10.382
Stddev	.149	.0227	.0264	.171	.0145	.093	.139	.030	.033
%RSD	.28099	.44727	.52855	.32586	.14876	.92728	1.3776	.29912	.31977
#1	53.097	5.0967	4.9996	52.427	9.7720	10.150	10.279	10.189	10.354
#2	53.100	5.0535	5.0114	52.415	9.7914	9.9724	10.040	10.131	10.419
#3	52.840	5.0631	4.9610	52.126	9.7629	10.014	10.035	10.145	10.374

Elem	P_1774	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	10.281	10.409	10.221	10.094
Stddev	.132	.106	.020	.087
%RSD	1.2847	1.0221	.19662	.86396
#1	10.433	10.529	10.244	10.042
#2	10.199	10.328	10.207	10.045
#3	10.210	10.369	10.211	10.195

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: S5 Acquired: 5/2/2025 12:55:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC 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	3147.6	69850.	13818.	1977.1	4218.9
Stddev	31.5	511.	84.	17.9	57.3
%RSD	1.0017	.73108	.60819	.90390	1.3572
#1	3111.4	69519.	13739.	1962.8	4154.0
#2	3162.5	69594.	13809.	1971.4	4240.3
#3	3169.0	70439.	13906.	1997.1	4262.4

Sample Name: ICV01 Acquired: 5/2/2025 13:47:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	1.055615	1.054515	.9659438	1.041479	1.013471	2.414196
Stddev	.009325	.012406	.0035065	.002632	.004744	.013412
%RSD	.8834173	1.176463	.3630152	.2527621	.4681394	.5555492
#1	1.057080	1.067027	.9699703	1.041059	1.018673	2.400366
#2	1.064121	1.054300	.9642989	1.044297	1.012360	2.415076
#3	1.045643	1.042218	.9635620	1.039082	1.009381	2.427147

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5180427	.4702160	.4930510	9.256395	.5027385	.4840563
Stddev	.0009330	.0007938	.0009905	.038003	.0017049	.0007597
%RSD	.1801034	.1688102	.2008971	.4105565	.3391259	.1569437
#1	.5172196	.4706711	.4938895	9.235772	.5044063	.4842825
#2	.5178522	.4706775	.4933055	9.233163	.5009988	.4846771
#3	.5190562	.4692995	.4919581	9.300251	.5028104	.4832091

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5093362	9.356458	.4747929	5.444303	.5048233	.2304138
Stddev	.0008747	.050248	.0017380	.021573	.0007799	.0001850
%RSD	.1717296	.5370357	.3660602	.3962437	.1544903	.0802937
#1	.5090148	9.328796	.4728391	5.421427	.5055243	.2306263
#2	.5103261	9.326121	.4761671	5.464278	.5039832	.2303264
#3	.5086677	9.414459	.4753724	5.447205	.5049624	.2302886

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.19130	.4696622	.9938714	10.41550	2.351704	2.569903
Stddev	.04782	.0009940	.0038735	.05596	.001524	.009375
%RSD	.4692054	.2116372	.3897336	.5373124	.0647899	.3648081
#1	10.18033	.4705550	.9952494	10.35673	2.353266	2.580050
#2	10.14992	.4685912	.9968674	10.46815	2.350221	2.568097
#3	10.24365	.4698405	.9894973	10.42161	2.351624	2.561562

Sample Name: ICV01 Acquired: 5/2/2025 13:47:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	2.394345	2.406573	F 2.138109	F .0091856	F -.010521	F -.001976
Stddev	.002597	.007033	.010554	.0019823	.004893	.001275
%RSD	.1084707	.2922413	.4936334	21.58029	46.50401	64.51417
#1	2.396092	2.402231	2.146244	.0114736	-.005977	-.002199
#2	2.395582	2.414687	2.126183	.0080991	-.009886	-.003124
#3	2.391360	2.402800	2.141900	.0079842	-.015700	-.000604

Elem	Sr4077
Units	ppm
Avg	F -.008625
Stddev	.000069
%RSD	.7950670
#1	-.008577
#2	-.008594
#3	-.008703

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3222.559	71783.54	14153.12	2005.270	4638.240
Stddev	9.419	86.26	10.39	7.240	10.423
%RSD	.2922924	.1201634	.0734354	.3610662	.2247296
#1	3214.890	71756.33	14157.63	2007.001	4633.361
#2	3219.713	71880.12	14141.23	1997.322	4631.152
#3	3233.072	71714.17	14160.50	2011.488	4650.209

Sample Name: LLICV01 Acquired: 5/2/2025 15:03:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.0189553	.0392479	.0111104	.0168263	.0524187	.0992626	.0814827
Stddev	.0038654	.0014856	.0001499	.0014286	.0023317	.0034970	.0001698
%RSD	20.39210	3.785086	1.349482	8.490282	4.448236	3.523015	.2083366
#1	.0214603	.0387312	.0112180	.0181508	.0499904	.0972131	.0813192
#2	.0145036	.0409229	.0109391	.0170157	.0546399	.1033005	.0816581
#3	.0209019	.0380898	.0111739	.0153125	.0526259	.0972742	.0814707

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059323	.0055120	1.908130	.0101145	.0281255	.0233130	.0871357
Stddev	.0000231	.0000633	.002489	.0000934	.0001651	.0002567	.0052056
%RSD	.3891064	1.147730	.1304371	.9231475	.5871621	1.100987	5.974155
#1	.0059076	.0054934	1.907644	.0101978	.0279459	.0233317	.0931459
#2	.0059533	.0054601	1.905920	.0100135	.0282709	.0230476	.0840496
#3	.0059360	.0055825	1.910826	.0101321	.0281597	.0235599	.0842115

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0162160	2.008562	.0388642	.0107787	1.722214	.0405400	.0411865
Stddev	.0002236	.008141	.0005829	.0002755	.008136	.0011804	.0002507
%RSD	1.378648	.4053009	1.499738	2.555493	.4724350	2.911743	.6086427
#1	.0160968	2.002312	.0385313	.0110591	1.718169	.0395814	.0409045
#2	.0164739	2.017768	.0385239	.0105085	1.716892	.0418585	.0413841
#3	.0160773	2.005606	.0395372	.0107685	1.731580	.0401802	.0412709

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.908589	.0991178	.2192972	.0417298	.0404508	.3806062	.0194534
Stddev	.023623	.0007393	.0006456	.0006929	.0002340	.0032589	.0022592
%RSD	1.237714	.7458847	.2944060	1.660386	.5783943	.8562371	11.61319
#1	1.933234	.0988446	.2187272	.0425243	.0403367	.3793177	.0186825
#2	1.886141	.0985539	.2191660	.0412509	.0402957	.3781886	.0176805
#3	1.906392	.0999548	.2199983	.0414144	.0407199	.3843124	.0219970

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: LLICV01 Acquired: 5/2/2025 15:03:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.0176694	.0164067	.0187332
Stddev	.0029558	.0012179	.0000682
%RSD	16.72817	7.423177	.3642333
#1	.0207921	.0154586	.0186783
#2	.0149151	.0177803	.0188096
#3	.0173010	.0159813	.0187117

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3106.610	71827.50	13874.45	2004.482	4684.571
Stddev	11.537	224.67	46.89	2.986	12.815
%RSD	.3713619	.3127874	.3379381	.1489712	.2735515
#1	3119.206	71741.79	13916.63	2001.348	4697.202
#2	3104.065	72082.41	13823.96	2004.805	4684.932
#3	3096.558	71658.30	13882.74	2007.294	4671.580

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICB01 Acquired: 5/2/2025 15:08:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.004974	-.000710	-.001019	-.003429	-.002749	.0001478	-.010554
Stddev	.003023	.002349	.001042	.001361	.002822	.0030760	.001238
%RSD	60.77240	330.8111	102.1855	39.67793	102.6543	2080.855	11.73372
#1	-.007766	.000683	-.000123	-.004633	-.005854	.0030641	-.010446
#2	-.001764	-.003423	-.002162	-.001953	-.000340	-.003066	-.011843
#3	-.005392	.000609	-.000772	-.003700	-.002054	.000446	-.009373

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000083	-.000566	-.001739	.0002144	-.000507	-.000390	-.008019
Stddev	.000019	.000067	.004019	.0002198	.000055	.000392	.003357
%RSD	23.28255	11.77390	231.1599	102.5021	10.88707	100.2925	41.86617
#1	-.000100	-.000531	.002432	.0000125	-.000557	-.000221	-.011645
#2	-.000062	-.000523	-.002061	.0004485	-.000517	-.000838	-.005019
#3	-.000086	-.000643	-.005587	.0001823	-.000448	-.000112	-.007394

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001610	-.016075	-.000322	.0005135	-.061102	-.000020	-.001064
Stddev	.000060	.013386	.000214	.0002672	.005160	.001086	.000147
%RSD	3.727411	83.27351	66.42020	52.02815	8.445348	5381.793	13.79582
#1	-.001604	-.002864	-.000437	.0004275	-.063545	.001070	-.001233
#2	-.001673	-.015730	-.000454	.0008130	-.064586	-.001102	-.000998
#3	-.001554	-.029630	-.000075	.0002999	-.055173	-.000028	-.000963

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046308	-.004295	-.000811	.0039490	.0008112	-.012092	-.002844
Stddev	.0370628	.000803	.000126	.0002972	.0007264	.006799	.001935
%RSD	800.3473	18.69667	15.49906	7.524957	89.54608	56.22758	68.04489
#1	-.031276	-.005190	-.000853	.0037420	.0004362	-.017998	-.002182
#2	.002417	-.003637	-.000910	.0042895	.0016484	-.004660	-.001326
#3	.042751	-.004057	-.000670	.0038156	.0003489	-.013619	-.005023

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICB01 Acquired: 5/2/2025 15:08:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.007435	-.003394	-.000818
Stddev	.004749	.000864	.000021
%RSD	63.87630	25.45667	2.556370
#1	-.004189	-.004271	-.000838
#2	-.005230	-.003368	-.000796
#3	-.012886	-.002543	-.000820

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3144.066	71689.07	13086.66	1999.735	4779.233
Stddev	7.328	176.38	71.39	5.862	10.342
%RSD	.2330795	.2460411	.5454996	.2931534	.2163907
#1	3138.798	71883.32	13004.32	1994.499	4771.169
#2	3140.965	71538.91	13124.49	1998.636	4775.637
#3	3152.435	71644.99	13131.16	2006.068	4790.893

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CRI01 Acquired: 5/2/2025 15:12:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214947	.0392870	.0121385	.0234514	.0522703	.0982921
Stddev	.0025869	.0007815	.0011211	.0025926	.0012914	.0031355
%RSD	12.03519	1.989220	9.235587	11.05520	2.470631	3.189930
#1	.0196040	.0388692	.0134050	.0240697	.0532192	.0990645
#2	.0204373	.0401886	.0117369	.0256789	.0527920	.1009692
#3	.0244428	.0388032	.0112735	.0206055	.0507996	.0948427

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0801756	.0060473	.0056613	1.905647	.0106088	.0283247
Stddev	.0009129	.0000359	.0000746	.018386	.0001087	.0002753
%RSD	1.138592	.5942546	1.317408	.9648211	1.024952	.9718707
#1	.0801895	.0060143	.0057054	1.899867	.0104855	.0286404
#2	.0792559	.0060420	.0055752	1.890846	.0106505	.0281345
#3	.0810814	.0060856	.0057034	1.926229	.0106906	.0281994

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0232501	.0916270	.0160294	1.984702	.0390865	.0107060
Stddev	.0004276	.0016130	.0004386	.026621	.0003686	.0000949
%RSD	1.839023	1.760374	2.736067	1.341291	.9431571	.8862454
#1	.0237333	.0909951	.0158516	1.983298	.0393032	.0108113
#2	.0230959	.0904255	.0157076	1.958811	.0386608	.0106272
#3	.0229210	.0934602	.0165290	2.011996	.0392954	.0106795

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.699530	.0401508	.0413729	1.953712	.0991140	.2195184
Stddev	.014277	.0012076	.0000884	.021544	.0004133	.0005800
%RSD	.8400714	3.007689	.2135427	1.102703	.4169928	.2642110
#1	1.711513	.0403227	.0412744	1.948346	.0986600	.2199149
#2	1.683733	.0412632	.0413991	1.935359	.0992139	.2197875
#3	1.703346	.0388664	.0414452	1.977432	.0994683	.2188527

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CRI01 Acquired: 5/2/2025 15:12:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0416792	.0402359	.3839107	.0216413	F .0121300	.0146113
Stddev	.0003540	.0004156	.0125039	.0008257	.0023080	.0011733
%RSD	.8492180	1.032911	3.256992	3.815362	19.02725	8.030296
#1	.0415518	.0406578	.3977235	.0225326	.0103743	.0159543
#2	.0414065	.0398269	.3733638	.0214891	.0147442	.0137851
#3	.0420792	.0402231	.3806449	.0209024	.0112715	.0140945

Elem	Sr4077
Units	ppm
Avg	.0185903
Stddev	.0000620
%RSD	.3334813
#1	.0185991
#2	.0185243
#3	.0186474

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.427	70689.24	13755.39	1983.557	4707.260
Stddev	24.869	153.62	18.71	9.665	23.668
%RSD	.7923970	.2173170	.1360355	.4872626	.5028082
#1	3125.674	70511.97	13736.02	1972.462	4688.746
#2	3122.522	70772.55	13773.37	1990.151	4699.105
#3	3167.085	70783.22	13756.78	1988.058	4733.927

Sample Name: ICSA01 Acquired: 5/2/2025 15:30:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000983	.0061494	.0041407	-.001896	-.004430	240.4441	-.005665
Stddev	.0059783	.0012468	.0018654	.004778	.001394	.3828	.000549
%RSD	6079.739	20.27553	45.04937	251.9488	31.46843	.1592043	9.686970
#1	-.005880	.0071470	.0046608	.003608	-.004837	240.3623	-.006194
#2	.000098	.0047516	.0020705	-.004317	-.005575	240.8612	-.005703
#3	.006077	.0065495	.0056908	-.004980	-.002878	240.1088	-.005098

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012582	-.002889	215.9380	.0538334	.0008296	-.052868	86.70598
Stddev	.0000605	.000165	.5898	.0006614	.0002095	.000967	.63960
%RSD	4.809560	5.718994	.2731177	1.228639	25.24676	1.829063	.7376613
#1	.0012028	-.003060	216.4226	.0533310	.0008674	-.053973	87.43237
#2	.0013228	-.002878	216.1100	.0535864	.0010176	-.052453	86.22725
#3	.0012490	-.002730	215.2813	.0545827	.0006038	-.052178	86.45831

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030177	229.9274	.0019240	-.000658	-.075219	.0017934	.0027122
Stddev	.0003236	.4819	.0003824	.000340	.016998	.0011177	.0002926
%RSD	10.72383	.2095875	19.87545	51.66273	22.59785	62.32614	10.78950
#1	.0027721	230.1002	.0023312	-.000311	-.078892	.0025674	.0024746
#2	.0028965	230.2991	.0015724	-.000672	-.056685	.0005119	.0026229
#3	.0033844	229.3829	.0018685	-.000991	-.090080	.0023008	.0030391

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216331	.0613853	-.000577	-.006061	-.002182	.0048784	-.001033
Stddev	.0172130	.0043555	.000410	.000686	.000839	.0031532	.007852
%RSD	79.56789	7.095294	71.01998	11.31756	38.47197	64.63439	760.2329
#1	.0078621	.0658489	-.000805	-.005299	-.002628	.0029186	.001627
#2	.0161066	.0571467	-.000824	-.006255	-.001213	.0032010	.005144
#3	.0409306	.0611603	-.000104	-.006628	-.002703	.0085157	-.009870

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICSA01 Acquired: 5/2/2025 15:30:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.017439	-.002045	.0080065
Stddev	.004451	.001074	.0004846
%RSD	25.52673	52.50998	6.052159
#1	-.015273	-.000807	.0076691
#2	-.022559	-.002716	.0085617
#3	-.014484	-.002613	.0077886

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2849.118	65866.92	13051.61	1832.935	4013.196
Stddev	5.965	126.91	46.45	2.746	10.109
%RSD	.2093789	.1926834	.3558597	.1497913	.2518977
#1	2848.582	65729.02	13081.41	1830.974	4015.944
#2	2843.439	65978.82	12998.10	1831.759	4001.996
#3	2855.334	65892.93	13075.33	1836.073	4021.646

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICSAB01 Acquired: 5/2/2025 15:46:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.1152610	.1029304	.0517044	.0572798	.6705815	231.3521
Stddev	.0085439	.0043485	.0017421	.0044678	.0069258	.7694
%RSD	7.412665	4.224730	3.369330	7.799906	1.032806	.3325727
#1	.1057401	.1052615	.0536690	.0564593	.6672586	232.0194
#2	.1222604	.1056164	.0503479	.0532791	.6785425	230.5105
#3	.1177825	.0979133	.0510962	.0621010	.6659433	231.5265

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4642534	.4832424	.9962490	208.1365	.5598371	.4911249
Stddev	.0023123	.0017931	.0027365	.3896	.0020900	.0014069
%RSD	.4980679	.3710606	.2746796	.1871681	.3733239	.2864752
#1	.4663015	.4850984	.9957492	208.5655	.5593967	.4922263
#2	.4617459	.4815196	.9992009	207.8047	.5621122	.4916084
#3	.4647128	.4831091	.9937968	208.0393	.5580024	.4895399

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4658874	91.30152	.4637253	218.5867	.9856576	.1934152
Stddev	.0005956	.46233	.0012130	.2469	.0023278	.0019312
%RSD	.1278499	.5063808	.2615733	.1129745	.2361684	.9984866
#1	.4661064	91.23041	.4650584	218.8711	.9847247	.1932943
#2	.4652132	91.79528	.4626866	218.4619	.9883072	.1954040
#3	.4663425	90.87885	.4634309	218.4271	.9839409	.1915472

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.083009	.4728727	1.057141	.0403659	F .1035561	F -.001578
Stddev	.032586	.0034208	.005254	.0212064	.0023591	.000445
%RSD	39.25586	.7233993	.4969719	52.53533	2.278069	28.23406
#1	-.119608	.4738823	1.053886	.0352961	.1048806	-.002087
#2	-.057146	.4690607	1.063201	.0221540	.1049552	-.001260
#3	-.072272	.4756750	1.054334	.0636477	.1008324	-.001386

Sample Name: ICSAB01 Acquired: 5/2/2025 15:46:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	F -.006444	F -.002432	F .0133881	F .0036176	F -.014675	F .0005158
Stddev	.001299	.000656	.0060079	.0035855	.006040	.0007962
%RSD	20.16219	26.97474	44.87525	99.11163	41.15899	154.3669
#1	-.004947	-.003151	.0110776	.0063483	-.008521	-.000130
#2	-.007107	-.001866	.0088785	.0049472	-.014910	.000273
#3	-.007279	-.002278	.0202083	-.000443	-.020595	.001405

Elem	Sr4077
Units	ppm
Avg	F .0025806
Stddev	.0007095
%RSD	27.49202
#1	.0029912
#2	.0017614
#3	.0029892

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.750	64729.71	14027.47	1811.591	4015.296
Stddev	4.718	199.81	47.33	12.119	10.457
%RSD	.1666805	.3086881	.3374425	.6689913	.2604393
#1	2832.171	64717.90	13974.34	1810.952	4015.146
#2	2825.485	64536.06	14065.16	1799.803	4004.914
#3	2834.595	64935.17	14042.91	1824.017	4025.827

Sample Name: ICSADLX20 Acquired: 5/2/2025 15:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.002719	-.001881	-.000625	-.000406	-.002978	11.97952	-.012583
Stddev	.004307	.002072	.001084	.003429	.000687	.04382	.000735
%RSD	158.3838	110.1373	173.3361	844.2162	23.07076	.3657675	5.842773
#1	.001342	-.000418	-.001186	.003511	-.002978	11.93354	-.011882
#2	-.002265	-.000974	-.001314	-.002866	-.003665	12.02080	-.013348
#3	-.007236	-.004252	.000624	-.001863	-.002291	11.98421	-.012519

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002699	-.000334	11.22093	.0030095	-.000280	-.002937	4.597458
Stddev	.0000307	.000136	.00583	.0002944	.000250	.000487	.020053
%RSD	11.37512	40.70431	.0519776	9.781044	89.18124	16.57083	.4361768
#1	.0002569	-.000369	11.21538	.0033313	-.000124	-.003439	4.583904
#2	.0002479	-.000448	11.22701	.0027539	-.000148	-.002905	4.620494
#3	.0003050	-.000184	11.22041	.0029434	-.000568	-.002467	4.587977

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002092	11.37786	.0001940	.0002841	-.121713	.0005648	-.000609
Stddev	.000168	.02077	.0002087	.0003509	.013879	.0009865	.000425
%RSD	8.052293	.1825912	107.5869	123.5133	11.40262	174.6546	69.81162
#1	-.002270	11.37328	.0002244	.0006737	-.114326	-.000509	-.000126
#2	-.002071	11.35976	.0003858	-.000007	-.113091	.000772	-.000776
#3	-.001935	11.40054	-.000028	.000186	-.137723	.001431	-.000925

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006067	-.000555	-.001072	.0003680	.0001991	-.007386	-.003164
Stddev	.015512	.000407	.000137	.0005173	.0003243	.011525	.002713
%RSD	255.6932	73.38267	12.76554	140.5631	162.9281	156.0341	85.72685
#1	.001614	-.000531	-.000924	.0008709	-.000175	.000891	-.005169
#2	.004106	-.000160	-.001193	.0003960	.000363	-.020550	-.000077
#3	-.023921	-.000973	-.001100	-.000163	.000408	-.002500	-.004247

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICSADLX20 Acquired: 5/2/2025 15:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.001939	-.005309	-.000447
Stddev	.005622	.000636	.000036
%RSD	289.9407	11.97330	7.961023
#1	.004551	-.006004	-.000435
#2	-.005058	-.005169	-.000487
#3	-.005311	-.004756	-.000419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3021.131	71567.93	14121.08	1990.491	4522.553
Stddev	1.755	262.99	27.58	4.491	2.637
%RSD	.0580863	.3674724	.1953303	.2256061	.0582994
#1	3022.873	71527.35	14091.66	1985.525	4522.779
#2	3019.364	71327.58	14125.22	1991.681	4525.069
#3	3021.155	71848.85	14146.36	1994.267	4519.810

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICSABDLX20 Acquired: 5/2/2025 15:56:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044481	.0047819	.0014365	-.001309	.0315697	11.91532	.0120214
Stddev	.0007415	.0007302	.0015853	.004018	.0013577	.03081	.0004956
%RSD	16.67018	15.26967	110.3560	306.8998	4.300512	.2585767	4.122768
#1	.0050786	.0039601	.0015886	-.001666	.0325674	11.87992	.0123569
#2	.0036311	.0050296	.0029403	.002875	.0321180	11.93004	.0114522
#3	.0046344	.0053559	-.000219	-.005137	.0300236	11.93602	.0122553

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0271715	.0523928	11.05115	.0305836	.0250545	.0262207	4.483155
Stddev	.0001550	.0002538	.01144	.0005735	.0001869	.0003853	.036984
%RSD	.5704336	.4844937	.1035566	1.875043	.7461324	1.469462	.8249493
#1	.0269948	.0522892	11.03853	.0302700	.0248749	.0258216	4.483954
#2	.0272350	.0522070	11.05405	.0312455	.0250408	.0265906	4.519733
#3	.0272845	.0526820	11.06086	.0302354	.0252480	.0262501	4.445778

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0224582	11.22444	.0520571	.0105283	-.106477	.0250867	.0544174
Stddev	.0003504	.04880	.0005107	.0004508	.012101	.0009631	.0003212
%RSD	1.560311	.4347567	.9811185	4.281766	11.36509	3.839244	.5902781
#1	.0228620	11.26465	.0515756	.0101015	-.093152	.0250157	.0547882
#2	.0222785	11.17015	.0525928	.0104838	-.116783	.0260835	.0542383
#3	.0222341	11.23853	.0520029	.0109998	-.109497	.0241611	.0542255

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0363781	.0464697	.0527275	.0484531	.0470895	.0367689	.0001657
Stddev	.0113985	.0007602	.0002241	.0019963	.0004412	.0035657	.0013948
%RSD	31.33354	1.635910	.4249534	4.120044	.9368850	9.697646	841.5425
#1	.0338807	.0457924	.0529410	.0504178	.0466929	.0366091	-.001135
#2	.0488183	.0463248	.0527472	.0464266	.0470109	.0332858	-.000007
#3	.0264353	.0472920	.0524942	.0485149	.0475647	.0404119	.001639

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: ICSABDLX20 Acquired: 5/2/2025 15:56:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002322	-.004900	-.000469
Stddev	.001575	.001632	.000029
%RSD	67.81452	33.31105	6.124976
#1	-.002803	-.005921	-.000450
#2	-.003600	-.005760	-.000502
#3	-.000563	-.003017	-.000454

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3078.809	70768.94	13822.09	1971.067	4630.940
Stddev	13.060	338.57	44.34	13.059	19.287
%RSD	.4241854	.4784174	.3207927	.6625465	.4164792
#1	3087.859	70887.67	13841.53	1972.157	4640.567
#2	3084.730	70386.99	13853.38	1957.497	4643.519
#3	3063.837	71032.15	13771.35	1983.547	4608.735

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCV01 Acquired: 5/2/2025 16:01:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	5.452829	5.029937	4.817857	5.461169	5.426204	10.15750	9.544731
Stddev	.044970	.058203	.035837	.042819	.033751	.03295	.051882
%RSD	.8247014	1.157128	.7438322	.7840553	.6219971	.3243940	.5435711
#1	5.431088	5.036563	4.788916	5.461698	5.423752	10.19521	9.594760
#2	5.422862	4.968705	4.806713	5.418088	5.393746	10.14306	9.548258
#3	5.504538	5.084544	4.857942	5.503721	5.461114	10.13424	9.491175

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2528736	2.437697	23.80729	1.006870	2.435750	1.347993	4.854362
Stddev	.0025300	.021856	.10890	.005254	.020456	.010415	.033157
%RSD	1.000521	.8965743	.4574028	.5218004	.8398176	.7726591	.6830428
#1	.2557253	2.420214	23.91550	1.011428	2.420129	1.343918	4.831420
#2	.2519971	2.430678	23.80864	1.008059	2.428216	1.340230	4.892379
#3	.2508983	2.462201	23.69772	1.001124	2.458904	1.359829	4.839288

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.349905	23.58800	2.477160	1.269418	23.87816	2.444418	2.579344
Stddev	.009326	.03682	.020357	.002862	.11282	.010116	.006041
%RSD	.3968591	.1560970	.8218005	.2254564	.4724626	.4138469	.2342197
#1	2.354135	23.62730	2.462533	1.270361	23.76776	2.453787	2.579642
#2	2.356367	23.58240	2.468537	1.271690	23.99324	2.445774	2.585231
#3	2.339214	23.55430	2.500410	1.266204	23.87347	2.433692	2.573159

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.74189	4.851923	5.360849	4.903609	4.893226	4.965668	4.848504
Stddev	.11415	.044856	.039020	.048246	.021450	.030579	.042402
%RSD	.4613832	.9244962	.7278646	.9838880	.4383550	.6158183	.8745428
#1	24.62830	4.901551	5.350461	4.875775	4.916905	4.930850	4.837490
#2	24.85661	4.839947	5.328074	4.875733	4.887678	4.988162	4.812696
#3	24.74077	4.814270	5.404011	4.959318	4.875096	4.977994	4.895327

Sample Name: CCV01 Acquired: 5/2/2025 16:01:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	5.038851	4.934936	4.888460
Stddev	.031745	.012397	.077258
%RSD	.6300002	.2512091	1.580422
#1	5.020417	4.947765	4.966944
#2	5.020629	4.923022	4.812489
#3	5.075506	4.934022	4.885948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3013.148	69819.07	13647.46	1922.613	4422.295
Stddev	28.758	321.11	130.57	5.614	41.320
%RSD	.9544243	.4599167	.9567211	.2920205	.9343594
#1	3019.607	69658.85	13507.00	1921.373	4444.911
#2	3038.127	69609.60	13670.24	1917.722	4447.371
#3	2981.709	70188.76	13765.13	1928.744	4374.604

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCB01 Acquired: 5/2/2025 16:05:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.003374	-.000927	.0000870	.0000833	-.002032	.0000131	-.011469
Stddev	.003566	.000849	.0011830	.0040787	.000761	.0115608	.000931
%RSD	105.6857	91.62122	1360.428	4899.352	37.42430	88429.30	8.114434
#1	-.001435	-.000408	-.000739	.0045048	-.001959	-.005803	-.011973
#2	-.007490	-.000466	.001442	-.000723	-.002827	-.007485	-.010395
#3	-.001198	-.001907	-.000442	-.003532	-.001311	.013327	-.012039

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000023	-.000322	.0043763	.0005164	-.000360	-.000249	-.009278
Stddev	.000074	.000031	.0090182	.0004339	.000092	.000613	.004847
%RSD	314.3234	9.759922	206.0684	84.02779	25.58132	246.0111	52.23995
#1	.000021	-.000289	-.005082	.0000865	-.000398	.000428	-.013933
#2	.000017	-.000352	.005332	.0009542	-.000426	-.000767	-.004260
#3	-.000109	-.000325	.012879	.0005085	-.000255	-.000408	-.009640

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002053	-.015843	.0000858	.0007940	-.128065	.0002953	-.000446
Stddev	.000255	.006545	.0000638	.0002828	.019479	.0019721	.000224
%RSD	12.42715	41.31198	74.38667	35.61711	15.21010	667.8334	50.32937
#1	-.002189	-.008306	.0001228	.0004911	-.123324	-.001700	-.000358
#2	-.002210	-.019132	.0001226	.0010511	-.111395	.000342	-.000701
#3	-.001758	-.020091	.0000121	.0008398	-.149477	.002244	-.000279

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0173960	.0037880	-.000192	.0059452	.0008111	-.002937	-.000581
Stddev	.0369523	.0009605	.000466	.0004727	.0003909	.005722	.002343
%RSD	212.4190	25.35635	243.2043	7.950530	48.19266	194.8471	403.1308
#1	-.024484	.0040651	.000337	.0054033	.0010936	-.009006	.002078
#2	.031262	.0045794	-.000367	.0061596	.0003650	-.002164	-.001478
#3	.045410	.0027194	-.000545	.0062727	.0009746	.002360	-.002344

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCB01 Acquired: 5/2/2025 16:05:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.006746	-.003364	-.000230
Stddev	.006429	.000893	.000102
%RSD	95.29618	26.55844	44.42604
#1	-.004940	-.004206	-.000293
#2	-.001413	-.003460	-.000285
#3	-.013884	-.002427	-.000112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3122.275	70533.38	13958.06	1970.829	4764.382
Stddev	7.524	997.94	38.55	26.839	5.512
%RSD	.2409677	1.414842	.2762082	1.361838	.1156920
#1	3128.159	71091.51	13953.74	1985.501	4768.496
#2	3124.867	71127.38	13998.59	1987.134	4766.530
#3	3113.798	69381.25	13921.84	1939.852	4758.119

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02 Acquired: 5/2/2025 16:09:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.003658	-.004231	-.000707	-.001161	-.001360	-.003029	.0144256
Stddev	.000976	.000528	.000732	.004116	.000388	.005704	.0011139
%RSD	26.67959	12.48550	103.5126	354.6058	28.52957	188.3345	7.721759
#1	-.003121	-.004140	-.001545	-.003665	-.001236	.001515	.0155557
#2	-.003068	-.003753	-.000386	.003590	-.001049	-.009430	.0133286
#3	-.004784	-.004798	-.000191	-.003407	-.001794	-.001171	.0143926

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000191	-.000623	43.13710	.0243556	-.000684	.0018945	.0061619
Stddev	.000009	.000040	.13272	.0002676	.000178	.0001702	.0023474
%RSD	4.630971	6.419820	.3076745	1.098928	26.05852	8.986332	38.09587
#1	-.000181	-.000613	43.27680	.0240960	-.000564	.0020381	.0060832
#2	-.000195	-.000667	43.01268	.0243401	-.000599	.0017064	.0085476
#3	-.000197	-.000589	43.12183	.0246307	-.000889	.0019390	.0038548

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000116	.0011946	.0021443	.0006329	6.251252	.0009586	.0030385
Stddev	.000093	.0109666	.0002464	.0003525	.062160	.0006771	.0000228
%RSD	80.09989	918.0535	11.48882	55.70048	.9943542	70.62945	.7490297
#1	-.000027	.0024043	.0024276	.0007850	6.294540	.0005872	.0030552
#2	-.000212	.0115061	.0020241	.0002299	6.279191	.0005485	.0030477
#3	-.000108	-.010327	.0019811	.0008839	6.180026	.0017401	.0030126

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.750588	.0023248	.1124561	-.004550	-.000472	.3723364	.0075676
Stddev	.049709	.0002859	.0003549	.000818	.000542	.0095219	.0035912
%RSD	.5098085	12.29770	.3155689	17.97123	114.9561	2.557350	47.45529
#1	9.797353	.0025716	.1128433	-.004140	.000005	.3781703	.0044944
#2	9.756027	.0023913	.1123787	-.004018	-.000358	.3613484	.0115153
#3	9.698382	.0020116	.1121463	-.005491	-.001062	.3774905	.0066932

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02 Acquired: 5/2/2025 16:09:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	15.10918	-.004070	.1378535
Stddev	.03523	.001159	.0004427
%RSD	.2331619	28.47264	.3211211
#1	15.14717	-.003799	.1383560
#2	15.10281	-.005341	.1375209
#3	15.07758	-.003071	.1376837

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3029.891	70486.86	14239.02	1941.189	4643.857
Stddev	9.532	242.25	57.93	10.740	29.176
%RSD	.3146110	.3436868	.4068637	.5532609	.6282650
#1	3020.745	70327.61	14239.16	1940.197	4611.198
#2	3029.159	70367.32	14296.89	1930.980	4653.024
#3	3039.768	70765.65	14181.02	1952.391	4667.348

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02DUP Acquired: 5/2/2025 16:13:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.002989	-.003265	-.001278	.0016564	-.001504	.0016962	.0121372
Stddev	.001707	.001736	.000781	.0007167	.000484	.0103756	.0007290
%RSD	57.10611	53.18257	61.08039	43.26811	32.19868	611.7009	6.006427
#1	-.001273	-.005066	-.000379	.0016376	-.001758	-.001569	.0127699
#2	-.003007	-.003127	-.001672	.0023823	-.001808	-.006654	.0123016
#3	-.004687	-.001602	-.001784	.0009493	-.000946	.013312	.0113400

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000227	-.000541	40.81032	.0226309	-.000338	.0023540	.0069829
Stddev	.000028	.000067	.01920	.0000829	.000254	.0003910	.0026129
%RSD	12.48713	12.46659	.0470571	.3665492	75.11301	16.61203	37.41815
#1	-.000226	-.000492	40.78971	.0225399	-.000060	.0019881	.0094282
#2	-.000199	-.000513	40.82771	.0226506	-.000558	.0023078	.0042297
#3	-.000256	-.000618	40.81355	.0227022	-.000396	.0027661	.0072909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001393	.0026180	.0020446	.0010087	5.656975	.0009796	.0030438
Stddev	.000347	.0096535	.0002453	.0004386	.029873	.0007145	.0001589
%RSD	24.91035	368.7347	11.99900	43.47775	.5280785	72.93325	5.221295
#1	-.001328	-.004070	.0021153	.0005087	5.622949	.0011703	.0029482
#2	-.001083	.013685	.0017718	.0013283	5.678892	.0001892	.0032273
#3	-.001768	-.001761	.0022469	.0011892	5.669086	.0015794	.0029560

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.892578	.0019000	.1074239	-.004983	-.000954	.3579309	.0080752
Stddev	.077533	.0010078	.0001487	.000823	.000345	.0133979	.0015861
%RSD	.8718808	53.04344	.1384542	16.51895	36.11388	3.743160	19.64180
#1	8.813111	.0024507	.1073778	-.004108	-.000570	.3433417	.0090176
#2	8.896603	.0007368	.1073038	-.005742	-.001056	.3607677	.0089641
#3	8.968020	.0025124	.1075903	-.005099	-.001236	.3696832	.0062440

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02DUP Acquired: 5/2/2025 16:13:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	13.44714	-.003473	.1316210
Stddev	.02359	.001592	.0002885
%RSD	.1753982	45.83756	.2191619
#1	13.47404	-.002572	.1315914
#2	13.43735	-.002535	.1313485
#3	13.43002	-.005311	.1319231

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3167.719	73753.26	14249.02	1989.768	4933.587
Stddev	3.049	402.60	33.49	8.885	8.384
%RSD	.0962606	.5458675	.2350100	.4465187	.1699440
#1	3164.352	74127.37	14223.50	1990.990	4924.564
#2	3168.510	73805.18	14236.61	1997.978	4941.137
#3	3170.295	73327.22	14286.94	1980.335	4935.061

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02LX5 Acquired: 5/2/2025 16:18:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.003384	-.002683	-.001167	-.001904	-.002199	-.004295	-.009360
Stddev	.000412	.001278	.001251	.000718	.000309	.008157	.000789
%RSD	12.18597	47.62481	107.2816	37.71266	14.03486	189.9115	8.427523
#1	-.003848	-.002334	-.001334	-.002330	-.001870	.004491	-.008798
#2	-.003242	-.004098	-.002326	-.002307	-.002246	-.011627	-.010262
#3	-.003061	-.001615	.000160	-.001075	-.002482	-.005749	-.009020

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000069	-.000544	8.456726	.0048613	-.000487	.0007176	-.006634
Stddev	.000076	.000073	.026482	.0002288	.000190	.0000951	.004431
%RSD	110.5823	13.36022	.3131415	4.705580	39.08637	13.25377	66.79265
#1	-.000114	-.000607	8.428376	.0047148	-.000395	.0008274	-.005924
#2	.000019	-.000562	8.480825	.0051249	-.000360	.0006634	-.002601
#3	-.000112	-.000465	8.460977	.0047442	-.000706	.0006620	-.011378

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003113	-.005914	.0003088	.0008163	1.105319	-.000015	-.000442
Stddev	.000273	.016770	.0000415	.0000486	.017132	.000776	.000147
%RSD	8.769339	283.5638	13.42992	5.949202	1.549972	5013.353	33.22505
#1	-.003048	-.021492	.0003212	.0007828	1.087868	.000045	-.000275
#2	-.002879	-.008086	.0002625	.0007940	1.105975	-.000821	-.000499
#3	-.003413	.011836	.0003426	.0008720	1.122114	.000729	-.000552

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.818354	-.002542	.0204664	.0000894	-.000145	.0775977	.0030342
Stddev	.026318	.000419	.0002225	.0004898	.000148	.0044671	.0025934
%RSD	1.447364	16.48415	1.087031	547.8253	102.2350	5.756681	85.47037
#1	1.800129	-.002062	.0206727	-.000281	-.000097	.0749151	.0003911
#2	1.806407	-.002838	.0204959	.000645	-.000027	.0827544	.0031369
#3	1.848527	-.002725	.0202307	-.000096	-.000312	.0751235	.0055748

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02LX5 Acquired: 5/2/2025 16:18:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	2.959318	-.004123	.0264764
Stddev	.010459	.000314	.0000346
%RSD	.3534205	7.625481	.1305360
#1	2.971007	-.004079	.0264747
#2	2.956103	-.004456	.0265118
#3	2.950844	-.003832	.0264428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3144.274	71901.44	14286.17	1987.274	4833.692
Stddev	18.900	117.44	16.97	7.458	19.270
%RSD	.6010988	.1633323	.1187784	.3752697	.3986511
#1	3135.886	71921.82	14291.45	1981.329	4820.280
#2	3131.019	71775.15	14267.19	1984.852	4825.023
#3	3165.916	72007.36	14299.87	1995.642	4855.774

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02MS Acquired: 5/2/2025 16:22:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.8447885	1.935372	.9137084	2.025005	.8745057	2.053603	.2032805
Stddev	.0100372	.005495	.0017099	.014089	.0088304	.003721	.0004219
%RSD	1.188126	.2839259	.1871341	.6957589	1.009758	.1811974	.2075472
#1	.8549215	1.929094	.9148472	2.035340	.8780488	2.056293	.2033357
#2	.8445938	1.937712	.9145357	2.030719	.8810144	2.049356	.2036721
#3	.8348501	1.939310	.9117422	2.008957	.8644541	2.055160	.2028337

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1904766	.1885059	43.68316	.4358685	.1883290	.3161549	3.032165
Stddev	.0007202	.0008581	.16412	.0016013	.0009988	.0019837	.028920
%RSD	.3781287	.4551888	.3757089	.3673725	.5303712	.6274477	.9537608
#1	.1905614	.1893214	43.85060	.4363589	.1891760	.3168368	3.049602
#2	.1897178	.1885856	43.67632	.4371672	.1885833	.3177077	3.048110
#3	.1911508	.1876108	43.52257	.4340794	.1872275	.3139202	2.998782

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1891907	1.836010	.4767160	.0770041	9.319367	.3014884	.2123943
Stddev	.0013382	.019055	.0032371	.0002847	.090704	.0015854	.0005828
%RSD	.7073237	1.037849	.6790304	.3696607	.9732851	.5258712	.2743718
#1	.1907199	1.829338	.4791654	.0770208	9.405639	.3021240	.2128953
#2	.1882337	1.857504	.4779364	.0767114	9.327661	.3026574	.2125328
#3	.1886185	1.821188	.4730461	.0772800	9.224800	.2996838	.2117548

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.08977	.2718611	.5790570	.6805089	.2049871	1.284049	5.495792
Stddev	.20285	.0020178	.0046052	.0024467	.0010531	.009712	.034809
%RSD	1.009742	.7422128	.7952874	.3595408	.5137280	.7563635	.6333709
#1	20.14186	.2701949	.5805361	.6825066	.2062031	1.288337	5.515251
#2	20.26149	.2712837	.5827409	.6812403	.2043880	1.290880	5.516521
#3	19.86594	.2741047	.5738940	.6777800	.2043703	1.272931	5.455605

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02MS Acquired: 5/2/2025 16:22:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	14.43825	.2093890	.3417777
Stddev	.08270	.0016574	.0015027
%RSD	.5727895	.7915369	.4396652
#1	14.46545	.2091388	.3434888
#2	14.50392	.2111572	.3411714
#3	14.34537	.2078709	.3406729

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3125.761	70935.41	14378.59	1937.258	4806.852
Stddev	21.985	447.80	48.50	10.490	22.216
%RSD	.7033522	.6312827	.3373100	.5414691	.4621669
#1	3119.075	70692.46	14334.44	1925.680	4801.905
#2	3107.896	70661.58	14430.51	1939.965	4787.527
#3	3150.313	71452.18	14370.83	1946.128	4831.124

Sample Name: Q1913-02MSD Acquired: 5/2/2025 16:26:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.8113899	1.877783	.8802207	1.926573	.8233399	1.943565	.1929085
Stddev	.0036044	.004824	.0047194	.007625	.0050601	.011717	.0002241
%RSD	.4442279	.2568733	.5361572	.3957869	.6145800	.6028669	.1161786
#1	.8153067	1.883085	.8850327	1.929178	.8287509	1.944031	.1930007
#2	.8106503	1.873656	.8800296	1.932554	.8225438	1.955043	.1930718
#3	.8082126	1.876607	.8755998	1.917987	.8187251	1.931623	.1926530

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1858969	.1815440	42.71646	.4206179	.1809057	.3029534	2.830456
Stddev	.0008263	.0010202	.06986	.0015832	.0013315	.0012851	.015415
%RSD	.4444799	.5619283	.1635333	.3764030	.7359934	.4242030	.5446288
#1	.1849541	.1822519	42.69093	.4224148	.1820310	.3030549	2.846058
#2	.1864949	.1820055	42.79549	.4194278	.1812503	.3041849	2.815235
#3	.1862417	.1803747	42.66297	.4200112	.1794359	.3016206	2.830076

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1820680	1.747439	.4650468	.0731905	8.743646	.2896253	.1995072
Stddev	.0004405	.003619	.0024977	.0002253	.067757	.0004458	.0003998
%RSD	.2419336	.2070885	.5370917	.3077999	.7749320	.1539097	.2003883
#1	.1819512	1.746610	.4666435	.0730527	8.821884	.2895410	.1990901
#2	.1816977	1.744307	.4663286	.0730684	8.704095	.2892278	.1995442
#3	.1825552	1.751401	.4621684	.0734505	8.704958	.2901072	.1998872

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.91015	.2647635	.5508213	.6465043	.1937779	1.196478	5.284291
Stddev	.16634	.0016734	.0022798	.0019029	.0013410	.009478	.034361
%RSD	.8796245	.6320289	.4138993	.2943367	.6920270	.7921442	.6502488
#1	19.06341	.2629681	.5524915	.6484262	.1948768	1.203877	5.317543
#2	18.73326	.2650427	.5517485	.6464659	.1922837	1.185795	5.286411
#3	18.93378	.2662798	.5482239	.6446209	.1941732	1.199762	5.248919

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02MSD Acquired: 5/2/2025 16:26:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	14.11292	.1988341	.3265111
Stddev	.05590	.0004687	.0004729
%RSD	.3961207	.2357256	.1448494
#1	14.15252	.1993341	.3269547
#2	14.13728	.1987636	.3265651
#3	14.04897	.1984047	.3260134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3103.321	71064.71	14030.76	1953.522	4756.131
Stddev	10.925	169.24	56.22	5.146	17.531
%RSD	.3520363	.2381451	.4007049	.2634119	.3685941
#1	3103.202	70900.59	14082.61	1952.968	4750.392
#2	3092.457	71238.64	13971.01	1958.922	4742.189
#3	3114.306	71054.91	14038.65	1948.675	4775.812

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02A Acquired: 5/2/2025 16:30:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.8398346	1.875785	.8960312	2.006219	.8612755	2.005906	.1955786
Stddev	.0114646	.017005	.0066436	.007442	.0061450	.003638	.0010455
%RSD	1.365102	.9065400	.7414510	.3709246	.7134798	.1813804	.5345638
#1	.8504783	1.882603	.9026129	2.014092	.8658620	2.001835	.1958317
#2	.8413296	1.888323	.8961533	2.005263	.8636710	2.007044	.1964742
#3	.8276958	1.856429	.8893273	1.999301	.8542935	2.008840	.1944297

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1996042	.1848564	43.35721	.4288687	.1843051	.3109408	2.787973
Stddev	.0007638	.0015090	.03532	.0005279	.0017799	.0014275	.021628
%RSD	.3826556	.8163034	.0814574	.1230825	.9657160	.4590918	.7757652
#1	.2002829	.1859078	43.33383	.4282603	.1856925	.3120403	2.764794
#2	.1987771	.1855340	43.39784	.4292051	.1849245	.3114547	2.807615
#3	.1997526	.1831274	43.33997	.4291406	.1822983	.3093276	2.791509

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1852662	1.803575	.4706605	.0753780	8.517269	.2941359	.2069618
Stddev	.0006212	.022751	.0041840	.0003873	.086627	.0041144	.0010361
%RSD	.3352953	1.261438	.8889604	.5138100	1.017080	1.398804	.5006415
#1	.1847711	1.788917	.4732265	.0751982	8.465397	.2982472	.2057779
#2	.1859632	1.792024	.4729226	.0751132	8.617275	.2941421	.2074041
#3	.1850642	1.829784	.4658324	.0758225	8.469136	.2900184	.2077033

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.58384	.2838044	.5660019	.6624127	.1988411	1.195040	5.383876
Stddev	.10037	.0014277	.0031488	.0054870	.0004721	.011050	.067499
%RSD	.5400869	.5030571	.5563219	.8283337	.2374280	.9246713	1.253734
#1	18.50675	.2822238	.5670430	.6646780	.1984133	1.192561	5.427217
#2	18.69733	.2850004	.5684984	.6664043	.1993476	1.207119	5.418306
#3	18.54745	.2841890	.5624645	.6561558	.1987625	1.185439	5.306104

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: Q1913-02A Acquired: 5/2/2025 16:30:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	14.38929	.2050883	.3290246
Stddev	.12317	.0003856	.0013506
%RSD	.8559803	.1880062	.4104835
#1	14.42553	.2046932	.3281433
#2	14.49027	.2051082	.3305795
#3	14.25207	.2054636	.3283511

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3100.451	70470.18	13356.10	1934.808	4763.497
Stddev	28.677	49.60	30.24	6.531	54.994
%RSD	.9249414	.0703824	.2264238	.3375298	1.154482
#1	3077.111	70518.70	13328.18	1940.748	4720.059
#2	3091.778	70419.57	13388.23	1935.862	4745.100
#3	3132.464	70472.28	13351.90	1927.815	4825.330

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCV02 Acquired: 5/2/2025 16:34:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	5.242986	4.976443	4.738048	5.235639	5.278658	10.03246	9.722718
Stddev	.017806	.009794	.013043	.011376	.013391	.02855	.040712
%RSD	.3396224	.1967998	.2752802	.2172809	.2536877	.2845538	.4187265
#1	5.236045	4.975688	4.751515	5.231245	5.273130	10.03854	9.732297
#2	5.229695	4.967049	4.725475	5.227116	5.268916	10.00136	9.678071
#3	5.263217	4.986593	4.737155	5.248557	5.293929	10.05748	9.757786

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2385036	2.388474	23.67106	1.002069	2.401195	1.307579	5.107359
Stddev	.0025377	.005726	.12042	.004461	.006042	.002753	.043755
%RSD	1.064003	.2397471	.5087419	.4451407	.2516079	.2105690	.8567097
#1	.2409634	2.394173	23.79413	1.002668	2.404900	1.308401	5.057204
#2	.2358946	2.382720	23.55347	.997340	2.394223	1.304508	5.137713
#3	.2386528	2.388529	23.66556	1.006200	2.404461	1.309827	5.127160

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.335135	23.22606	2.426520	1.262736	25.23186	2.431874	2.547159
Stddev	.003588	.07982	.005838	.001950	.24003	.004983	.014467
%RSD	.1536477	.3436613	.2405904	.1544148	.9512922	.2049024	.5679667
#1	2.338696	23.29174	2.430530	1.264652	24.95822	2.436440	2.562460
#2	2.335190	23.13722	2.419822	1.260754	25.40683	2.426559	2.545311
#3	2.331521	23.24923	2.429208	1.262803	25.33053	2.432623	2.533704

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.81114	4.586920	5.266589	4.809524	4.894721	5.135490	4.700512
Stddev	.23105	.046408	.013914	.015382	.009721	.058831	.015030
%RSD	.8951655	1.011746	.2641954	.3198160	.1986093	1.145580	.3197551
#1	25.54443	4.636141	5.265227	4.824443	4.894517	5.068171	4.708762
#2	25.95036	4.543962	5.253405	4.793718	4.885104	5.177040	4.683163
#3	25.93863	4.580657	5.281133	4.810410	4.904543	5.161258	4.709610

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCV02 Acquired: 5/2/2025 16:34:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	4.856408	4.910633	4.970241
Stddev	.010210	.016825	.037133
%RSD	.2102322	.3426226	.7471007
#1	4.863665	4.894588	4.974462
#2	4.844734	4.909168	4.931178
#3	4.860826	4.928142	5.005083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3106.937	70131.48	14382.93	1932.079	4533.765
Stddev	7.073	72.57	134.27	10.851	16.143
%RSD	.2276509	.1034798	.9335168	.5616465	.3560671
#1	3101.152	70163.29	14243.40	1923.228	4517.266
#2	3114.823	70182.71	14511.23	1928.824	4549.528
#3	3104.837	70048.44	14394.16	1944.186	4534.499

Sample Name: CCB02 Acquired: 5/2/2025 16:38:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	.0003670	.0011393	.0005722	-.000054	.0002065	.0006861	-.009817
Stddev	.0016441	.0005340	.0006692	.003566	.0008171	.0055074	.001146
%RSD	447.9884	46.87295	116.9547	6593.484	395.7357	802.6708	11.67229
#1	.0022640	.0017224	.0001497	.000972	-.000266	.0026706	-.009969
#2	-.000518	.0006739	.0002231	.002886	.001150	-.005538	-.008603
#3	-.000645	.0010218	.0013438	-.004021	-.000264	.004926	-.010879

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000552	.0003321	.0131992	.0006815	.0003436	.0007128	-.005859
Stddev	.0000375	.0000145	.0076225	.0001696	.0001438	.0001289	.005984
%RSD	67.95264	4.351780	57.74990	24.87786	41.86371	18.08820	102.1341
#1	.0000235	.0003195	.0176547	.0008494	.0003926	.0008442	-.012726
#2	.0000966	.0003479	.0043977	.0006848	.0004564	.0005865	-.003092
#3	.0000454	.0003290	.0175454	.0005104	.0001816	.0007077	-.001759

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002576	-.008483	.0004749	.0011776	-.099038	.0006320	-.000606
Stddev	.000321	.004623	.0002617	.0002316	.005984	.0018919	.000701
%RSD	12.46975	54.50050	55.10188	19.66824	6.042183	299.3690	115.6399
#1	-.002494	-.009157	.0006564	.0014146	-.101338	.0019105	-.000664
#2	-.002931	-.003560	.0005935	.0011665	-.103531	-.001541	.000122
#3	-.002304	-.012732	.0001749	.0009518	-.092245	.001527	-.001275

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0519211	.0059923	.0013382	.0150607	.0020727	.0040015	.0010737
Stddev	.0195917	.0001659	.0006494	.0001947	.0006797	.0177766	.0007374
%RSD	37.73362	2.768912	48.52436	1.292826	32.79337	444.2447	68.68073
#1	.0307559	.0061789	.0020874	.0148360	.0013102	.0234359	.0003735
#2	.0555856	.0058614	.0009908	.0151777	.0026150	-.011437	.0018435
#3	.0694219	.0059365	.0009364	.0151685	.0022930	.000006	.0010042

Reviewed By:jaswal
On:5/6/2025 4:52:26 PM
Inst Id :P4
LB :LB135654

Sample Name: CCB02 Acquired: 5/2/2025 16:38:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v28) 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	-.006323	-.003384	.0010285
Stddev	.003766	.000909	.0000470
%RSD	59.56716	26.87253	4.566999
#1	-.005339	-.002375	.0010815
#2	-.003146	-.003635	.0009918
#3	-.010484	-.004141	.0010123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3194.970	71581.32	13679.23	1989.253	4901.677
Stddev	5.923	263.91	18.49	9.695	8.979
%RSD	.1853720	.3686864	.1351798	.4873779	.1831758
#1	3190.131	71276.71	13697.68	1978.227	4898.890
#2	3193.206	71726.18	13660.70	1993.082	4894.423
#3	3201.575	71741.08	13679.32	1996.448	4911.719

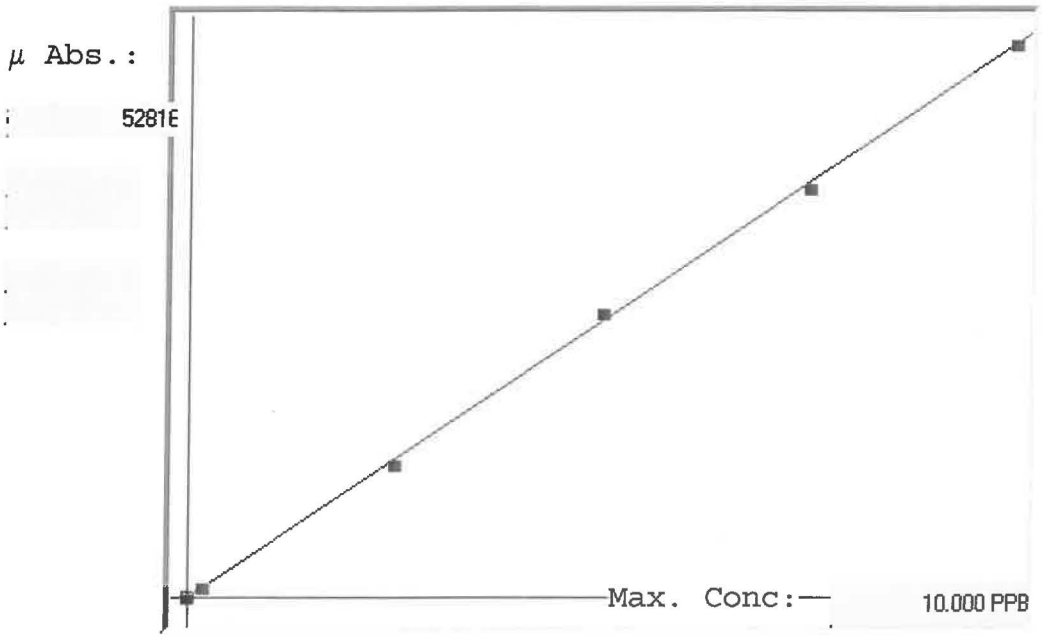
Reviewed By:JANVI
On:5/6/2025 2:58:06 PM
Inst Id :CV1
LB :LB135623

LB135623

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 1.8925e-004

C= 1.5429e-002

Rho= 0.9997379

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	D/cD
0.0	0.000	0.014	0.014	-7	0.000	-7	0				-1
0.2	0.200	0.198	-0.002	966	0.0 %	966					-1
2.5	2.500	2.415	-0.085	12681	0.0 %	12681					-3
5.0	5.000	5.160	0.160	27185	0.0 %	27185					3
7.5	7.500	7.402	-0.098	39029	0.0 %	39029					-1
10.0	10.000	10.011	0.011	52816	0.0 %	52816					0

Reviewed By:JANVI
On:5/6/2025 2:58:06 PM
Inst Id :CV1
LB :LB135623

Method: 7470A Operator: Admin Date of Analysis: 01 May 2025 11:10:46

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	50	-7	-	0.00000	7470A	PPB	01 May 2025 11:17:27	S	Std
0.2 - 1	50·2	966	-	0.20000	7470A	PPB	01 May 2025 11:19:44	S	Std
2.5 - 1	52.5	12681	-	2.50000	7470A	PPB	01 May 2025 11:22:01	S	Std
5.0 - 1	55	27185	-	5.00000	7470A	PPB	01 May 2025 11:26:58	S	Std
7.5 - 1	57.5	39029	-	7.50000	7470A	PPB	01 May 2025 11:31:57	S	Std
10.0 - 1	510	52816	-	10.00000	7470A	PPB	01 May 2025 11:36:52	S	Std
ICV112 - 1	ICV112	20054	3.8106		7470A	PPB	01 May 2025 11:47:40	U	SMPL
ICB112 - 1	ICB112	-356	-0.0519		7470A	PPB	01 May 2025 11:49:58	U	SMPL
CCV62 - 1	CCV62	25268	4.7973		7470A	PPB	01 May 2025 11:58:50	U	SMPL
CCB62 - 1	CCB62	-363	-0.0533		7470A	PPB	01 May 2025 12:01:04	U	SMPL
CRA - 1	CRA	824	0.1714		7470A	PPB	01 May 2025 12:05:54	U	SMPL
HighStd - 1	HighStd	49868	9.4528		7470A	PPB	01 May 2025 12:08:09	U	SMPL
ChkStd - 1	ChkStd	39767	7.5412		7470A	PPB	01 May 2025 12:18:24	U	SMPL
PB167806BL - 1	PBW	306	0.0733		7470A	PPB	01 May 2025 12:28:15	U	SMPL
PB167806BS - 1	LCSW	17569	3.3403		7470A	PPB	01 May 2025 12:30:30	U	SMPL
Q1901-08 - 1	B-167-SB01	-265	-0.0347		7470A	PPB	01 May 2025 12:32:47	U	SMPL
Q1901-08DUP - 1	B-167-SB01DUP	-24	0.0109		7470A	PPB	01 May 2025 12:35:05	U	SMPL
Q1901-08MS - 1	B-167-SB01MS	20586	3.9113		7470A	PPB	01 May 2025 12:39:26	U	SMPL
Q1901-08MSD - 1	B-167-SB01MSD	21549	4.0935		7470A	PPB	01 May 2025 12:41:43	U	SMPL
Q1901-09 - 1	B-170-SB01	-223	-0.0268		7470A	PPB	01 May 2025 12:44:01	U	SMPL
CCV63 - 1	CCV63	26403	5.0121		7470A	PPB	01 May 2025 12:49:05	U	SMPL
CCB63 - 1	CCB63	-486	-0.0765		7470A	PPB	01 May 2025 12:51:22	U	SMPL
Q1901-10 - 1	B-167-SB02	-25	0.0107		7470A	PPB	01 May 2025 12:53:39	U	SMPL
Q1901-11 - 1	B-170-SB02	-209	-0.0241		7470A	PPB	01 May 2025 12:55:54	U	SMPL
Q1904-02 - 1	VNJ-210	-109	-0.0052		7470A	PPB	01 May 2025 12:58:10	U	SMPL
Q1905-04 - 1	MH-G	-28	0.0101		7470A	PPB	01 May 2025 13:00:26	U	SMPL
Q1905-08 - 1	MH-H	-17	0.0122		7470A	PPB	01 May 2025 13:02:42	U	SMPL
Q1906-04 - 1	WC-4	17	0.0186		7470A	PPB	01 May 2025 13:04:58	U	SMPL
Q1906-08 - 1	WC-5	11	0.0175		7470A	PPB	01 May 2025 13:07:14	U	SMPL
Q1906-12 - 1	WC-6	19	0.0190		7470A	PPB	01 May 2025 13:09:31	U	SMPL
Q1906-16 - 1	WC-7	46	0.0241		7470A	PPB	01 May 2025 13:11:48	U	SMPL
Q1907-02 - 1	CO-8R-WC	60	0.0268		7470A	PPB	01 May 2025 13:14:04	U	SMPL
CCV64 - 1	CCV64	26832	5.0933		7470A	PPB	01 May 2025 13:19:10	U	SMPL
CCB64 - 1	CCB64	-101	-0.0037		7470A	PPB	01 May 2025 13:23:57	U	SMPL
Q1912-04 - 1	MH-E	-32	0.0094		7470A	PPB	01 May 2025 13:26:13	U	SMPL
Q1912-08 - 1	MH-F	-7	0.0141		7470A	PPB	01 May 2025 13:28:29	U	SMPL
PB167807BL - 1	PBW	-14	0.0128		7470A	PPB	01 May 2025 13:30:44	U	SMPL
PB167807BS - 1	LCSW	21802	4.1414		7470A	PPB	01 May 2025 13:42:10	U	SMPL
Q1913-02 - 1	WC-12-A-202504	-316	-0.0444		7470A	PPB	01 May 2025 13:44:25	U	SMPL
Q1913-02DUP - 1	WC-12-A-202504DUP	-57	0.0046		7470A	PPB	01 May 2025 13:46:47	U	SMPL
Q1913-02MS - 1	WC-12-A-202504MS	16431	3.1249		7470A	PPB	01 May 2025 13:49:03	U	SMPL
Q1913-02MSD - 1	WC-12-A-202504MSD	16445	3.1276		7470A	PPB	01 May 2025 13:51:20	U	SMPL
Q1913-04 - 1	WC-13-A-202504	-268	-0.0353		7470A	PPB	01 May 2025 13:53:38	U	SMPL
PB167812BL - 1	PBW	-25	0.0107		7470A	PPB	01 May 2025 13:55:57	U	SMPL
CCV65 - 1	CCV65	25106	4.7667		7470A	PPB	01 May 2025 13:58:13	U	SMPL
CCB65 - 1	CCB65	-150	-0.0130		7470A	PPB	01 May 2025 14:02:49	U	SMPL
PB167812BS - 1	LCSW	21628	4.1085		7470A	PPB	01 May 2025 14:05:08	U	SMPL
Q1890-01 - 1	TW-WTS-07	-103	-0.0041		7470A	PPB	01 May 2025 14:07:24	U	SMPL
Q1896-03 - 1	295-BERGEN-FRAC	5385	1.0345		7470A	PPB	01 May 2025 14:15:04	U	SMPL
Q1896-03DUP - 1	295-BERGEN-FRACDUP	4924	0.9473		7470A	PPB	01 May 2025 14:17:26	U	SMPL
Q1896-03MS - 1	295-BERGEN-FRACMS	20396	3.8753		7470A	PPB	01 May 2025 14:22:23	U	SMPL
Q1896-03MSD - 1	295-BERGEN-FRACMSD	20002	3.8008		7470A	PPB	01 May 2025 14:24:39	U	SMPL
Q1901-06 - 1	FB04262025	-263	-0.0343		7470A	PPB	01 May 2025 14:26:57	U	SMPL
CCV66 - 1	CCV66	24238	4.6024		7470A	PPB	01 May 2025 14:29:16	U	SMPL
CCB66 - 1	CCB66	114	0.0370		7470A	PPB	01 May 2025 14:40:49	U	SMPL
Q1915-01 - 1		11	0.0175		7470A	PPB	01 May 2025 14:43:05	U	SMPL
PB167774TB - 1	PB167774TB	5	0.0164		7470A	PPB	01 May 2025 14:45:21	U	SMPL
PB167805TB - 1	PB167805TB	25	0.0202		7470A	PPB	01 May 2025 14:47:36	U	SMPL
Q1901-08LX5 - 1		51	0.0251		7470A	PPB	01 May 2025 14:49:52	U	SMPL
Q1901-08A - 1		24645	4.6794		7470A	PPB	01 May 2025 15:00:14	U	SMPL
Q1913-02LX5 - 1		-368	-0.0542		7470A	PPB	01 May 2025 15:02:29	U	SMPL
Q1913-02A - 1		21948	4.1690		7470A	PPB	01 May 2025 15:04:47	U	SMPL
Q1896-03LX5 - 1		602	0.1294		7470A	PPB	01 May 2025 15:07:02	U	SMPL
Q1896-03A - 1		25697	4.8785		7470A	PPB	01 May 2025 15:12:39	U	SMPL
CCV67 - 1	CCV67	24276	4.6096		7470A	PPB	01 May 2025 15:23:09	U	SMPL
CCB67 - 1	CCB67	-188	-0.0201		7470A	PPB	01 May 2025 15:25:28	U	SMPL
~~CCB62 - 1~~	~~CCB62~~	~~0~~	~~0.0164~~		~~7470A~~	~~PPB~~	~~01 May 2025 11:54:28~~	~~U~~	~~SMPL~~

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167808

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 04/30/2025 **Time :** 13:35 **Temp :** 96 °C

End Digest Date: 04/30/2025 **Time :** 16:40 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SL29.

Supervisor Signature: MB

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6005
LFS-2	0.25	M6016
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1CELL#50 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/30/25 17:40	SL29. met.dig	MB- Metal Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167808

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167774TB	PB167774TB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	1
PB167805TB	PB167805TB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	2
PB167808BL	PBW808	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	3
PB167808BS	LCS808	<2	5	25	Colorless	Colorless	Clear	Clear	M6005,M6016	4
Q1894-01	PAINTED-GROUND-PIPE--1	<2	5	25	light Brown	Colorless	Clear	Clear	N/A	5
Q1894-02	PAINTED-GROUND-PIPE-2	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	6
Q1894-03	PAINTED-GROUND-PIPE-3	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	7
Q1901-08	B-167-SB01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	8
Q1901-09	B-170-SB01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	9
Q1901-10	B-167-SB02	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	10
Q1901-11	B-170-SB02	<2	5	25	light Brown	Colorless	Clear	Clear	N/A	11
Q1904-02	VNJ-210	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	12
Q1905-04	MH-G	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	13
Q1905-08	MH-H	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	14
Q1906-04	WC-4	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	15
Q1906-08	WC-5	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	16
Q1906-12	WC-6	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	17
Q1906-16	WC-7	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	18
Q1907-02	CO-8R-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	19
Q1912-04	MH-E	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	20
Q1912-08	MH-F	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	21
Q1913-02	WC-12-A-202504	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	22
Q1913-02MS	WC-12-A-202504MS	<2	5	25	Colorless	Colorless	Clear	Clear	M6005,M6016	24
Q1913-02MSD	WC-12-A-202504MSD	<2	5	25	Colorless	Colorless	Clear	Clear	M6005,M6016	25
Q1913-02DUP	WC-12-A-202504DUP	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	23
Q1913-04	WC-13-A-202504	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	26
Q1915-01	WC-04282025	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	27

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167774

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Pr Pos
PB167774TB	LEB774	21	N/A	2000	N/A	N/A	N/A	4.93	1.0	T-
Q1894-01	PAINTED-GROUND-PIPE--1	01	25.00	500	N/A	N/A	N/A	5.5	1.0	T-
Q1894-02	PAINTED-GROUND-PIPE-2	02	35.00	700	N/A	N/A	N/A	5.6	1.5	T-
Q1894-03	PAINTED-GROUND-PIPE-3	03	34.00	680	N/A	N/A	N/A	5.6	1.5	T-1
Q1901-08	B-167-SB01	04	100.02	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1901-09	B-170-SB01	05	100.03	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1901-10	B-167-SB02	06	100.04	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1901-11	B-170-SB02	07	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1904-02	VNJ-210	08	100.03	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1905-04	MH-G	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1905-08	MH-H	10	100.01	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1906-04	WC-4	11	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1906-08	WC-5	12	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2
Q1906-12	WC-6	13	100.02	2000	N/A	N/A	N/A	5.0	1.0	T-2
Q1906-16	WC-7	14	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-2
Q1907-02	CO-8R-WC	15	100.02	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q1912-04	MH-E	16	100.03	2000	N/A	N/A	N/A	4.5	1.0	T-2
Q1912-08	MH-F	17	100.02	2000	N/A	N/A	N/A	4.0	1.5	T-2
~~Q1913-01~~	~~WC-12-S-202504~~ SR. 04130/2025	18	100.02	2000 SR. 04130/2025	N/A	N/A	N/A	6.0	1.0	T-2
~~Q1913-03~~	~~WC-13-S-202504~~ SR. 04130/2025	19	100.03	SR. 04130/2025 2000	N/A	N/A	N/A	6.2	1.5	T-2
Q1915-01	WC-04282025	20	100.02	2000	N/A	N/A	N/A	6.0	1.0	T-2

SR 04130/2025

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167805

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Pr Pc
PB167805TB	LEB805	N/A	N/A	N/A	N/A	N/A	N/A	4.93	1.0	N/
Q1913-02	WC-12-A-202504	N/A	N/A	N/A	N/A	N/A	N/A	12.0	1.5	N/
Q1913-04	WC-13-A-202504	N/A	N/A	N/A	N/A	N/A	N/A	12.0	1.5	N/

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167806

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 04/30/2025 **Time :** 13:30 **Temp :** 94 °C

End Digest Date: 04/30/2025 **Time :** 15:30 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature:

Supervisor Signature:

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85503
CCV	30mL	MP855505
CRA	30mL	MP85507
Blank Spike	0.48mL	MP85494
Matrix Spike	0.48mL	MP85494

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP85240
KMnO4 (5%)	4.5mL	MP85241
K2S2O8 (5%)	2.5mL	MP85242
Hydroxylamine HCL (12%)	2.0mL	MP85243
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP85495
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85497
2.5 ppb	S2.5	30mL	MP85498
5.0 ppb	S5.0	30mL	MP85499
7.5 ppb	S7.5	30mL	MP85500
10.0 ppb	S10.0	30mL	MP85502
ICV	ICV	30mL	MP85503
ICB	ICB	30mL	MP85504
CCV	CCV	30mL	MP85505
CCB	CCB	30mL	MP85506
CRI	CRI	30mL	MP85507
CHK STD	CHK STD	30mL	MP85508

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
4/30/25 @ 16:00	HG - Dig. Lab	HG-metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167806

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB167774TB	PB167774TB	3	30	<2	N/A	3-1
PB167806BL	PBW806	30	30	<2	N/A	2
PB167806BS	LCS806	30	30	<2	MP85494	3
Q1901-08DUP	B-167-SB01DUP	3	30	<2	N/A	5
Q1901-08MS	B-167-SB01MS	3	30	<2	MP85494	6
Q1901-08MSD	B-167-SB01MSD	3	30	<2	MP85494	7
Q1901-08	B-167-SB01	3	30	<2	N/A	4
Q1901-09	B-170-SB01	3	30	<2	N/A	8
Q1901-10	B-167-SB02	3	30	<2	N/A	9
Q1901-11	B-170-SB02	3	30	<2	N/A	10
Q1904-02	VNJ-210	3	30	<2	N/A	11
Q1905-04	MH-G	3	30	<2	N/A	12
Q1905-08	MH-H	3	30	<2	N/A	13
Q1906-04	WC-4	3	30	<2	N/A	14
Q1906-08	WC-5	3	30	<2	N/A	15
Q1906-12	WC-6	3	30	<2	N/A	16
Q1906-16	WC-7	3	30	<2	N/A	17
Q1907-02	CO-8R-WC	3	30	<2	N/A	18
Q1912-04	MH-E	3	30	<2	N/A	19
Q1912-08	MH-F	3	30	<2	N/A	20
Q1915-01	WC-04282025	3	30	<2	N/A	21
Q1915-01	WC-04282025	3	30	<2	N/A	21

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167774

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1 / T-2

TCLP Filter ID : 115525

Start Prep Date : 04/29/2025 **Time :** 17:20

End Prep Date : 04/30/2025 **Time :** 11:30

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 10

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : 10

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
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

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP112795
HCL-TCLP,1N	N/A	WP112797
HNO3-TCLP,1N	N/A	WP112799
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1940,W1941,W1942	W3166,W1938,W1939,
1 Liter Amber	N/A	90924-08
120ml Plastic bottle	N/A	2738
1:1 HNO3	N/A	MPB4041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-1 /T-2 checked,30 rpm. Particle size reduction is not required. q1894-01,02 and 03 we receive limited volume so no fluid determation. Q1901-08 IS USED FOR MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/30/25 13:00	JP Lab Room	SLS, RJ/ GH
	Preparation Group	Analysis Group MTMS

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135623

Review By	mohan	Review On	5/6/2025 10:10:13 AM
Supervise By	JANVI	Supervise On	5/6/2025 2:58:06 PM

STD. NAME	STD REF.#
ICAL Standard	MP85495,MP85497,MP85498,MP85499,MP85500,MP85502
ICV Standard	MP85503
CCV Standard	MP85505
ICSA Standard	
CRI Standard	MP85507
LCS Standard	
Chk Standard	MP85504,MP85506,MP85508,MP85512

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/01/25 11:17		mohan	OK
2	S0.2	S0.2	CAL2	05/01/25 11:19		mohan	OK
3	S2.5	S2.5	CAL3	05/01/25 11:22		mohan	OK
4	S5	S5	CAL4	05/01/25 11:26		mohan	OK
5	S7.5	S7.5	CAL5	05/01/25 11:31		mohan	OK
6	S10	S10	CAL6	05/01/25 11:36		mohan	OK
7	ICV112	ICV112	ICV	05/01/25 11:47		mohan	OK
8	ICB112	ICB112	ICB	05/01/25 11:49		mohan	OK
9	CCV62	CCV62	CCV	05/01/25 11:58		mohan	OK
10	CCB62	CCB62	CCB	05/01/25 12:01		mohan	OK
11	CRA	CRA	CRDL	05/01/25 12:05		mohan	OK
12	HighStd	HighStd	HIGH STD	05/01/25 12:08		mohan	OK
13	ChkStd	ChkStd	SAM	05/01/25 12:18		mohan	OK
14	PB167806BL	PB167806BL	MB	05/01/25 12:28		mohan	OK
15	PB167806BS	PB167806BS	LCS	05/01/25 12:30		mohan	OK
16	Q1901-08	B-167-SB01	SAM	05/01/25 12:32		mohan	OK
17	Q1901-08DUP	B-167-SB01DUP	DUP	05/01/25 12:35		mohan	OK
18	Q1901-08MS	B-167-SB01MS	MS	05/01/25 12:39		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135623

Review By	mohan	Review On	5/6/2025 10:10:13 AM
Supervise By	JANVI	Supervise On	5/6/2025 2:58:06 PM

STD. NAME	STD REF.#
ICAL Standard	MP85495,MP85497,MP85498,MP85499,MP85500,MP85502
ICV Standard	MP85503
CCV Standard	MP85505
ICSA Standard	
CRI Standard	MP85507
LCS Standard	
Chk Standard	MP85504,MP85506,MP85508,MP85512

19	Q1901-08MSD	B-167-SB01MSD	MSD	05/01/25 12:41		mohan	OK
20	Q1901-09	B-170-SB01	SAM	05/01/25 12:44		mohan	OK
21	CCV63	CCV63	CCV	05/01/25 12:49		mohan	OK
22	CCB63	CCB63	CCB	05/01/25 12:51		mohan	OK
23	Q1901-10	B-167-SB02	SAM	05/01/25 12:53		mohan	OK
24	Q1901-11	B-170-SB02	SAM	05/01/25 12:55		mohan	OK
25	Q1904-02	VNJ-210	SAM	05/01/25 12:58		mohan	OK
26	Q1905-04	MH-G	SAM	05/01/25 13:00		mohan	OK
27	Q1905-08	MH-H	SAM	05/01/25 13:02		mohan	OK
28	Q1906-04	WC-4	SAM	05/01/25 13:04		mohan	OK
29	Q1906-08	WC-5	SAM	05/01/25 13:07		mohan	OK
30	Q1906-12	WC-6	SAM	05/01/25 13:09		mohan	OK
31	Q1906-16	WC-7	SAM	05/01/25 13:11		mohan	OK
32	Q1907-02	CO-8R-WC	SAM	05/01/25 13:14		mohan	OK
33	CCV64	CCV64	CCV	05/01/25 13:19		mohan	OK
34	CCB64	CCB64	CCB	05/01/25 13:23		mohan	OK
35	Q1912-04	MH-E	SAM	05/01/25 13:26		mohan	OK
36	Q1912-08	MH-F	SAM	05/01/25 13:28		mohan	OK
37	PB167807BL	PB167807BL	MB	05/01/25 13:30		mohan	OK
38	PB167807BS	PB167807BS	LCS	05/01/25 13:42		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135623

Review By	mohan	Review On	5/6/2025 10:10:13 AM
Supervise By	JANVI	Supervise On	5/6/2025 2:58:06 PM

STD. NAME	STD REF.#
ICAL Standard	MP85495,MP85497,MP85498,MP85499,MP85500,MP85502
ICV Standard	MP85503
CCV Standard	MP85505
ICSA Standard	
CRI Standard	MP85507
LCS Standard	
Chk Standard	MP85504,MP85506,MP85508,MP85512

39	Q1913-02	WC-12-A-202504	SAM	05/01/25 13:44		mohan	OK
40	Q1913-02DUP	WC-12-A-202504DUP	DUP	05/01/25 13:46		mohan	OK
41	Q1913-02MS	WC-12-A-202504MS	MS	05/01/25 13:49		mohan	OK
42	Q1913-02MSD	WC-12-A-202504MSD	MSD	05/01/25 13:51		mohan	OK
43	Q1913-04	WC-13-A-202504	SAM	05/01/25 13:53		mohan	OK
44	PB167812BL	PB167812BL	MB	05/01/25 13:55		mohan	OK
45	CCV65	CCV65	CCV	05/01/25 13:58		mohan	OK
46	CCB65	CCB65	CCB	05/01/25 14:02		mohan	OK
47	PB167812BS	PB167812BS	LCS	05/01/25 14:05		mohan	OK
48	Q1890-01	TW-WTS-07	SAM	05/01/25 14:07		mohan	OK
49	Q1896-03	295-BERGEN-FRAC	SAM	05/01/25 14:15		mohan	OK
50	Q1896-03DUP	295-BERGEN-FRACD	DUP	05/01/25 14:17		mohan	OK
51	Q1896-03MS	295-BERGEN-FRACM	MS	05/01/25 14:22		mohan	OK
52	Q1896-03MSD	295-BERGEN-FRACM	MSD	05/01/25 14:24		mohan	OK
53	Q1901-06	FB04262025	SAM	05/01/25 14:26		mohan	OK
54	CCV66	CCV66	CCV	05/01/25 14:29		mohan	OK
55	CCB66	CCB66	CCB	05/01/25 14:40		mohan	OK
56	Q1915-01	WC-04282025	SAM	05/01/25 14:43		mohan	OK
57	PB167774TB	PB167774TB	MB	05/01/25 14:45		mohan	OK
58	PB167805TB	PB167805TB	MB	05/01/25 14:47		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135623

Review By	mohan	Review On	5/6/2025 10:10:13 AM
Supervise By	JANVI	Supervise On	5/6/2025 2:58:06 PM

STD. NAME	STD REF.#
ICAL Standard	MP85495,MP85497,MP85498,MP85499,MP85500,MP85502
ICV Standard	MP85503
CCV Standard	MP85505
ICSA Standard	
CRI Standard	MP85507
LCS Standard	
Chk Standard	MP85504,MP85506,MP85508,MP85512

59	Q1901-08L	B-167-SB01L	SD	05/01/25 14:49		mohan	OK
60	Q1901-08A	B-167-SB01A	PS	05/01/25 15:00		mohan	OK
61	Q1913-02L	WC-12-A-202504L	SD	05/01/25 15:02		mohan	OK
62	Q1913-02A	WC-12-A-202504A	PS	05/01/25 15:04		mohan	OK
63	Q1896-03L	295-BERGEN-FRACL	SD	05/01/25 15:07		mohan	OK
64	Q1896-03A	295-BERGEN-FRACA	PS	05/01/25 15:12		mohan	OK
65	CCV67	CCV67	CCV	05/01/25 15:23		mohan	OK
66	CCB67	CCB67	CCB	05/01/25 15:25		mohan	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135636

Review By	Janvi	Review On	5/5/2025 2:23:02 PM
Supervise By	jaswal	Supervise On	5/5/2025 4:33:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/01/25 12:27		Kareem	OK
2	S1	S1	CAL2	05/01/25 12:31		Kareem	OK
3	S2	S2	CAL3	05/01/25 12:36		Kareem	OK
4	S3	S3	CAL4	05/01/25 12:40		Kareem	OK
5	S4	S4	CAL5	05/01/25 12:44		Kareem	OK
6	S5	S5	CAL6	05/01/25 12:48		Kareem	OK
7	ICV01	ICV01	ICV	05/01/25 13:44	ICV01 Fail B, Mo	Kareem	OK
8	LLICV01	LLICV01	LLICV	05/01/25 14:01		Kareem	OK
9	ICB01	ICB01	ICB	05/01/25 14:11		Kareem	OK
10	CRI01	CRI01	CRDL	05/01/25 14:16		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/01/25 14:35	ICSA Fail B	Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/01/25 14:39	ICSAB01 Fail B	Kareem	OK
13	ICSADL	ICSADL	ICSA	05/01/25 14:53		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/01/25 15:01		Kareem	OK
15	CCV01	CCV01	CCV	05/01/25 15:05		Kareem	OK
16	CCB01	CCB01	CCB	05/01/25 15:12		Kareem	OK
17	PB167781BL	PB167781BL	MB	05/01/25 15:17	ICV, ICSA,ICSAB Fail B	Kareem	Not Ok
18	PB167781BS	PB167781BS	LCS	05/01/25 15:21	ICV, ICSA,ICSAB Fail B	Kareem	Not Ok

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135636

Review By	Janvi	Review On	5/5/2025 2:23:02 PM
Supervise By	jaswal	Supervise On	5/5/2025 4:33:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

19	Q1911-01	EO-03-04292025	SAM	05/01/25 15:28		Kareem	OK
20	Q1920-01	291	SAM	05/01/25 15:33		Kareem	OK
21	Q1894-01	PAINTED-GROUND-F	SAM	05/01/25 15:38		Kareem	OK
22	Q1894-02	PAINTED-GROUND-F	SAM	05/01/25 15:42		Kareem	OK
23	Q1894-03	PAINTED-GROUND-F	SAM	05/01/25 15:47		Kareem	OK
24	Q1904-02	VNJ-210	SAM	05/01/25 15:51		Kareem	OK
25	PB167800BL	PB167800BL	MB	05/01/25 15:56		Kareem	OK
26	CCV02	CCV02	CCV	05/01/25 16:00		Kareem	OK
27	CCB02	CCB02	CCB	05/01/25 16:04		Kareem	OK
28	PB167800BS	PB167800BS	LCS	05/01/25 16:19		Kareem	OK
29	PB167808BL	PB167808BL	MB	05/01/25 16:23		Kareem	OK
30	PB167808BS	PB167808BS	LCS	05/01/25 16:33		Kareem	OK
31	PB167774TB	PB167774TB	MB	05/01/25 16:37		Kareem	OK
32	PB167757BL	PB167757BL	MB	05/01/25 16:42	ICV, ICSA,ICSAB Fail B	Kareem	Not Ok
33	PB167757BS	PB167757BS	LCS	05/01/25 16:46	ICV, ICSA,ICSAB Fail B	Kareem	Not Ok
34	PB167799BL	PB167799BL	MB	05/01/25 16:50		Kareem	OK
35	PB167799BS	PB167799BS	LCS	05/01/25 16:55		Kareem	OK
36	Q1910-01	MOO-25-0123-27	SAM	05/01/25 16:59		Kareem	OK
37	CCV03	CCV03	CCV	05/01/25 17:03		Kareem	OK
38	CCB03	CCB03	CCB	05/01/25 17:07		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135636

Review By	Janvi	Review On	5/5/2025 2:23:02 PM
Supervise By	jaswal	Supervise On	5/5/2025 4:33:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

39	Q1910-01DUP	MOO-25-0123-27DUP	DUP	05/01/25 17:11		Kareem	OK
40	Q1910-01L	MOO-25-0123-27L	SD	05/01/25 17:15		Kareem	OK
41	Q1910-01MS	MOO-25-0123-27MS	MS	05/01/25 17:20		Kareem	OK
42	Q1910-01MSD	MOO-25-0123-27MSD	MSD	05/01/25 17:24		Kareem	OK
43	Q1910-01A	MOO-25-0123-27A	PS	05/01/25 17:28	0.1ML EACH M6004,M6013-10MLSA PLE	Kareem	OK
44	Q1912-01	MH-E	SAM	05/01/25 17:32		Kareem	OK
45	Q1912-05	MH-F	SAM	05/01/25 17:36		Kareem	OK
46	Q1890-01	TW-WTS-07	SAM	05/01/25 17:40		Kareem	OK
47	Q1896-03	295-BERGEN-FRAC	SAM	05/01/25 17:45		Kareem	OK
48	CCV04	CCV04	CCV	05/01/25 17:49		Kareem	OK
49	CCB04	CCB04	CCB	05/01/25 17:53		Kareem	OK
50	Q1901-06	FB04262025	SAM	05/01/25 17:57		Kareem	OK
51	Q1901-06DUP	FB04262025DUP	DUP	05/01/25 18:02		Kareem	OK
52	Q1901-06L	FB04262025L	SD	05/01/25 18:06		Kareem	OK
53	Q1901-06MS	FB04262025MS	MS	05/01/25 18:10		Kareem	OK
54	Q1901-06MSD	FB04262025MSD	MSD	05/01/25 18:14		Kareem	OK
55	Q1901-06A	FB04262025A	PS	05/01/25 18:19	0.1ML EACH M6004,M6013-10MLSA PLE	Kareem	OK
56	Q1901-08	B-167-SB01	SAM	05/01/25 18:23		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135636

Review By	Janvi	Review On	5/5/2025 2:23:02 PM
Supervise By	jaswal	Supervise On	5/5/2025 4:33:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

57	Q1901-08DUP	B-167-SB01DUP	DUP	05/01/25 18:27	Wrong QC	Kareem	Not Ok
58	Q1901-08L	B-167-SB01L	SD	05/01/25 18:31	Wrong QC	Kareem	Not Ok
59	CCV05	CCV05	CCV	05/01/25 18:36		Kareem	OK
60	CCB05	CCB05	CCB	05/01/25 18:40		Kareem	OK
61	Q1901-08MS	B-167-SB01MS	MS	05/01/25 18:44	Wrong QC	Kareem	Not Ok
62	Q1901-08MSD	B-167-SB01MSD	MSD	05/01/25 18:48	Wrong QC	Kareem	Not Ok
63	Q1901-08A	B-167-SB01A	PS	05/01/25 18:52	Wrong QC	Kareem	Not Ok
64	Q1901-09	B-170-SB01	SAM	05/01/25 18:56		Kareem	OK
65	Q1901-10	B-167-SB02	SAM	05/01/25 19:01		Kareem	OK
66	Q1901-11	B-170-SB02	SAM	05/01/25 19:05		Kareem	OK
67	Q1905-04	MH-G	SAM	05/01/25 19:10		Kareem	OK
68	Q1905-08	MH-H	SAM	05/01/25 19:14		Kareem	OK
69	Q1906-04	WC-4	SAM	05/01/25 19:19	Confirm TCLP for Ba,Zn	Kareem	Not Ok
70	CCV06	CCV06	CCV	05/01/25 19:23		Kareem	OK
71	CCB06	CCB06	CCB	05/01/25 19:27		Kareem	OK
72	Q1906-08	WC-5	SAM	05/01/25 19:32		Kareem	OK
73	Q1906-12	WC-6	SAM	05/01/25 19:36		Kareem	OK
74	Q1906-16	WC-7	SAM	05/01/25 19:40		Kareem	OK
75	Q1907-02	CO-8R-WC	SAM	05/01/25 19:45		Kareem	OK
76	Q1912-04	MH-E	SAM	05/01/25 19:49		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135636

Review By	Janvi	Review On	5/5/2025 2:23:02 PM
Supervise By	jaswal	Supervise On	5/5/2025 4:33:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

77	Q1912-08	MH-F	SAM	05/01/25 19:54		Kareem	OK
78	Q1913-02	WC-12-A-202504	SAM	05/01/25 19:58	QC Set missing	Kareem	Not Ok
79	Q1913-04	WC-13-A-202504	SAM	05/01/25 20:02		Kareem	OK
80	Q1915-01	WC-04282025	SAM	05/01/25 20:07		Kareem	OK
81	CCV07	CCV07	CCV	05/01/25 20:11		Kareem	OK
82	CCB07	CCB07	CCB	05/01/25 20:15		Kareem	OK
83	PB167805TB	PB167805TB	MB	05/01/25 20:20		Kareem	OK
84	CCV08	CCV08	CCV	05/01/25 20:24		Kareem	OK
85	CCB08	CCB08	CCB	05/01/25 20:28		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135654

Review By	Janvi	Review On	5/5/2025 2:22:19 PM
Supervise By	jaswal	Supervise On	5/6/2025 4:52:26 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/02/25 12:34		Kareem	OK
2	S1	S1	CAL2	05/02/25 12:38		Kareem	OK
3	S2	S2	CAL3	05/02/25 12:42		Kareem	OK
4	S3	S3	CAL4	05/02/25 12:46		Kareem	OK
5	S4	S4	CAL5	05/02/25 12:51		Kareem	OK
6	S5	S5	CAL6	05/02/25 12:55		Kareem	OK
7	ICV01	ICV01	ICV	05/02/25 13:47		Kareem	OK
8	LLICV01	LLICV01	LLICV	05/02/25 15:03		Kareem	OK
9	ICB01	ICB01	ICB	05/02/25 15:08		Kareem	OK
10	CRI01	CRI01	CRDL	05/02/25 15:12		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/02/25 15:30		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/02/25 15:46		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/02/25 15:52		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/02/25 15:56		Kareem	OK
15	CCV01	CCV01	CCV	05/02/25 16:01		Kareem	OK
16	CCB01	CCB01	CCB	05/02/25 16:05		Kareem	OK
17	Q1913-02	WC-12-A-202504	SAM	05/02/25 16:09		Kareem	OK
18	Q1913-02DUP	WC-12-A-202504DUP	DUP	05/02/25 16:13		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135654

Review By	Janvi	Review On	5/5/2025 2:22:19 PM
Supervise By	jaswal	Supervise On	5/6/2025 4:52:26 PM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85022,MP85020,MP85019,MP85018,MP85017
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

19	Q1913-02L	WC-12-A-202504L	SD	05/02/25 16:18		Kareem	OK
20	Q1913-02MS	WC-12-A-202504MS	MS	05/02/25 16:22		Kareem	OK
21	Q1913-02MSD	WC-12-A-202504MSD	MSD	05/02/25 16:26		Kareem	OK
22	Q1913-02A	WC-12-A-202504A	PS	05/02/25 16:30	0.1ML EACH M6004,M6013-10ML SAMPLE	Kareem	OK
23	CCV02	CCV02	CCV	05/02/25 16:34		Kareem	OK
24	CCB02	CCB02	CCB	05/02/25 16:38		Kareem	OK

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167774

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1 / T-2

TCLP Filter ID : 115525

Start Prep Date : 04/29/2025 **Time :** 17:20

End Prep Date : 04/30/2025 **Time :** 11:30

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ 10

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : 10

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
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

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP112795
HCL-TCLP,1N	N/A	WP112797
HNO3-TCLP,1N	N/A	WP112799
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1940,W1941,W1942	W3166,W1938,W1939,
1 Liter Amber	N/A	90924-08
120ml Plastic bottle	N/A	2738
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-1 /T-2 checked,30 rpm. Particle size reduction is not required. q1894-01,02 and 03 we receive limited volume so no fluid determation. Q1901-08 IS USED FOR MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/30/25 13:00	JP Prep Room	SLG RJ/EH
	Preparation Group	Analysis Group MM/JG

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TCLP EXTRACTION LOGPAGE

PB167774

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167774TB	LEB774	21	N/A	2000	N/A	N/A	N/A	4.93	1.0	T-2
Q1894-01	PAINTED-GROUND-PIPE--1	01	25.00	500	N/A	N/A	N/A	5.5	1.0	T-1
Q1894-02	PAINTED-GROUND-PIPE-2	02	35.00	700	N/A	N/A	N/A	5.6	1.5	T-1
Q1894-03	PAINTED-GROUND-PIPE-3	03	34.00	680	N/A	N/A	N/A	5.6	1.5	T-1
Q1901-08	B-167-SB01	04	100.02	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1901-09	B-170-SB01	05	100.03	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1901-10	B-167-SB02	06	100.04	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1901-11	B-170-SB02	07	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1904-02	VNJ-210	08	100.03	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1905-04	MH-G	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1905-08	MH-H	10	100.01	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1906-04	WC-4	11	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1906-08	WC-5	12	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-2
Q1906-12	WC-6	13	100.02	2000	N/A	N/A	N/A	5.0	1.0	T-2
Q1906-16	WC-7	14	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-2
Q1907-02	CO-8R-WC	15	100.02	2000	N/A	N/A	N/A	5.8	1.5	T-2
Q1912-04	MH-E	16	100.03	2000	N/A	N/A	N/A	4.5	1.0	T-2
Q1912-08	MH-F	17	100.02	2000	N/A	N/A	N/A	4.0	1.5	T-2
Q1913-01	WC-12-S-202504	18	100.02	2000	N/A	N/A	N/A	6.0	1.0	T-2
Q1913-03	WC-13-S-202504	19	100.03	2000	N/A	N/A	N/A	6.2	1.5	T-2
Q1915-01	WC-04282025	20	100.02	2000	N/A	N/A	N/A	6.0	1.0	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB167774TB	LEB774	N/A	N/A	N/A	N/A	N/A	N/A
Q1894-01	PAINTED-GROUND-PIPE--1	N/A	N/A	N/A	N/A	100	N/A
Q1894-02	PAINTED-GROUND-PIPE-2	N/A	N/A	N/A	N/A	100	N/A
Q1894-03	PAINTED-GROUND-PIPE-3	N/A	N/A	N/A	N/A	100	N/A
Q1901-08	B-167-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1901-09	B-170-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1901-10	B-167-SB02	N/A	N/A	N/A	N/A	100	N/A
Q1901-11	B-170-SB02	N/A	N/A	N/A	N/A	100	N/A
Q1904-02	VNJ-210	N/A	N/A	N/A	N/A	100	N/A
Q1905-04	MH-G	N/A	N/A	N/A	N/A	100	N/A
Q1905-08	MH-H	N/A	N/A	N/A	N/A	100	N/A
Q1906-04	WC-4	N/A	N/A	N/A	N/A	100	N/A
Q1906-08	WC-5	N/A	N/A	N/A	N/A	100	N/A
Q1906-12	WC-6	N/A	N/A	N/A	N/A	100	N/A
Q1906-16	WC-7	N/A	N/A	N/A	N/A	100	N/A
Q1907-02	CO-8R-WC	N/A	N/A	N/A	N/A	100	N/A
Q1912-04	MH-E	N/A	N/A	N/A	N/A	100	N/A
Q1912-08	MH-F	N/A	N/A	N/A	N/A	100	N/A
Q1913-01	WC-12-S-202504	N/A	N/A	N/A	N/A	100	N/A
Q1913-03	WC-13-S-202504	N/A	N/A	N/A	N/A	100	N/A
Q1915-01	WC-04282025	N/A	N/A	N/A	N/A	100	N/A

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TCLP Fluid Determination

PB167774

Hot Block ID : WC S-1 / WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB167774TB	LEB774	N/A	N/A	N/A	N/A	N/A	N/A
Q1894-01	PAINTED-GROUND-PIPE--1	N/A	N/A	N/A	N/A	N/A	N/A
Q1894-02	PAINTED-GROUND-PIPE-2	N/A	N/A	N/A	N/A	N/A	N/A
Q1894-03	PAINTED-GROUND-PIPE-3	N/A	N/A	N/A	N/A	N/A	N/A
Q1901-08	B-167-SB01	5.02	96.5	8.4	3.0	#1	4.93
Q1901-09	B-170-SB01	5.01	96.5	9.0	4.0	#1	4.93
Q1901-10	B-167-SB02	5.02	96.5	7.0	3.5	#1	4.93
Q1901-11	B-170-SB02	5.03	96.5	8.2	3.5	#1	4.93
Q1904-02	VNJ-210	5.04	96.5	8.4	3.0	#1	4.93
Q1905-04	MH-G	5.03	96.5	5.6	1.5	#1	4.93
Q1905-08	MH-H	5.02	96.5	6.0	2.0	#1	4.93
Q1906-04	WC-4	5.03	96.5	7.6	2.5	#1	4.93
Q1906-08	WC-5	5.02	96.5	7.0	2.5	#1	4.93
Q1906-12	WC-6	5.01	96.5	6.6	2.0	#1	4.93
Q1906-16	WC-7	5.02	96.5	6.6	2.0	#1	4.93
Q1907-02	CO-8R-WC	5.02	96.5	8.4	3.0	#1	4.93
Q1912-04	MH-E	5.01	96.5	6.6	2.0	#1	4.93
Q1912-08	MH-F	5.02	96.5	6.4	2.0	#1	4.93
Q1913-01	WC-12-S-202504	5.02	96.5	8.2	3.5	#1	4.93
Q1913-03	WC-13-S-202504	5.01	96.5	8.0	3.0	#1	4.93
Q1915-01	WC-04282025	5.02	96.5	8.4	3.5	#1	4.93

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Prep Standard - Chemical Standard Summary

Order ID : Q1915

Test : TCLP ICP Metals,TCLP Mercury

Prepbatch ID : PB167806,PB167808,

Sequence ID/Qc Batch ID: LB135623,LB135636,LB135636,LB135636,LB135654,

Standard ID :
MP85016,MP85017,MP85018,MP85019,MP85020,MP85021,MP85022,MP85023,MP85024,MP85025,MP85026,MP85030,MP85031,MP85156,MP85240,MP85241,MP85242,MP85243,MP85494,MP85495,MP85497,MP85498,MP85499,MP85500,MP85502,MP85503,MP85504,MP85505,MP85506,MP85507,MP85508,MP85512,MP855505,

Chemical ID :
M4251,M4465,M4883,M4891,M4916,M5020,M5062,M5288,M5387,M5395,M5429,M5466,M5472,M5496,M5497,M5516,M5521,M5532,M5658,M5747,M5748,M5768,M5789,M5798,M5799,M5800,M5801,M5811,M5814,M5816,M5817,M5820,M5875,M5882,M5884,M5959,M5970,M5978,M5985,M6005,M6016,M6021,M6023,M6028,M6030,M6041,M6058,M6076,M6128,M6137,M6150,M6151,M6152,M6155,M6156,M6158,M6160,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85016	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M5789 = 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)	MP85017	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M5395 + 5.00000ml of M5466 + 5.00000ml of M5472 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M6076 + 5.00000ml of M6160 + 455.00000ml of MP85016 = 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	MP85018	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85019	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of MP85017 + 75.00000ml of MP85016 = 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	MP85020	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 16.00000ml of MP85017 + 184.00000ml of MP85016 = 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	MP85021	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5496 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.06000ml of M5747 + 0.10000ml of M4883 + 0.10000ml of M5472 + 0.10000ml of M5521 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M4891 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5466 + 0.25000ml of M6160 + 0.50000ml of M5387 + 0.50000ml of M5814 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5516 + 1.00000ml of M5768 + 1.00000ml of M5978 + 1.00000ml of M6156 + 2.00000ml of M5816 + 77.68000ml of MP85016 = 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	MP85022	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 2.00000ml of MP85021 + 98.00000ml of MP85016 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85023	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.02500ml of M5020 + 0.02500ml of M5429 + 0.02500ml of M5817 + 0.10000ml of M5466 + 0.25000ml of M5472 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.77500ml of MP85016 = 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	MP85024	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85016 = 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	MP85025	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.01000ml of M5020 + 0.01000ml of M5817 + 0.10000ml of M5472 + 0.10000ml of M5970 + 0.10000ml of M6076 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.50000ml of MP85016 = 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	MP85026	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85030	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M5789 = 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
513	RINSE SOLN	MP85031	03/26/2025	05/02/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 200.00000ml of M5789 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	08/18/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP85240	04/16/2025	10/16/2025	Mohan Bera	None	None	Sarabjit Jaswal 04/29/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6158 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85241	04/16/2025	10/16/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP85242	04/16/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85243	04/16/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4251 + 240.00000gram of M5884 = 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
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85494	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85495	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85497	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85494 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85498	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85494 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85499	04/30/2025	05/01/2025	Mohan Bera	None	None	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85494 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85500	04/30/2025	05/01/2025	Mohan Bera	None	None	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP85494 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85502	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85494 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85503	04/30/2025	04/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6158 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85504	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85505	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85494 = 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
1352	CCB (Hg 0.00 PPB SOLUTION)	MP85506	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6158 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85507	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85494 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85508	04/30/2025	05/01/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Janvi Patel 05/07/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP85494 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP85512	05/01/2025	05/02/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 05/07/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	12/19/2018 / mohan	12/05/2018 / mohan	M4251

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / mohan	07/25/2019 / manojkumar	M4465

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	070221	09/07/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4883

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	031921	05/19/2025	08/25/2021 / bin	08/05/2021 / jaswal	M4891

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	032921	05/17/2025	12/13/2021 / bin	12/09/2021 / bin	M5020

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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	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	11/01/2022 / jaswal	09/18/2022 / jaswal	M5387

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	01/30/2024 / bin	09/19/2022 / bin	M5395

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

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.	58111 / Na, 10000 PPM, 500 ml	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

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	102622	10/26/2025	11/21/2022 / bin	11/20/2022 / bin	M5521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	04/30/2025	01/02/2025 / jaswal	03/30/2023 / mohan	M5532

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

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 #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23G1262003	07/30/2025	02/08/2024 / Al-Terek	06/26/2023 / Al-Terek	M5789

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

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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.	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 #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

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.	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 #
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	04/15/2025 / JANVI	05/14/2024 / Jaswal	M6005

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	10/30/2025	04/30/2025 / mohan	05/14/2024 / Jaswal	M6016

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	06/20/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	032123	03/21/2026	11/06/2024 / JANVI	06/12/2024 / JANVI	M6156

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

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

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57048
Lot Number: 070124
Description: Cadmium (Cd)

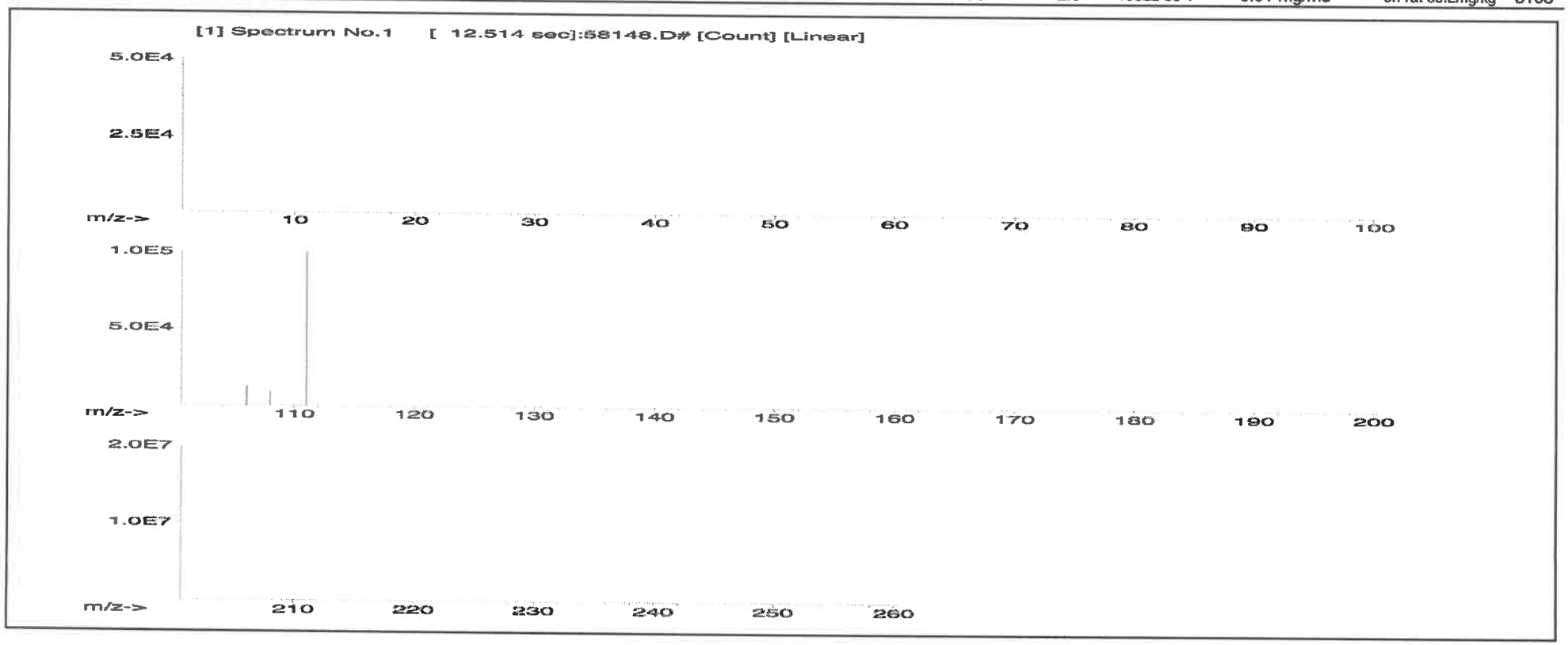
Expiration Date: 070127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 2000.07 0.100 Flask Uncertainty

Aleah O'Brady		
Formulated By:	Aleah O'Brady	070124
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Revised

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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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 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

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

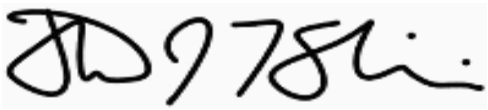
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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.

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**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 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

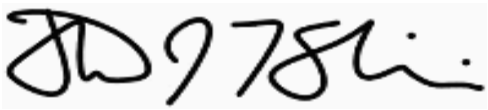
- Sealed TCT Bag Open Date: _____

- 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Revised

CERTIFIED WEIGHT REPORT:

Part Number:	**58126**			**Lot #**	
Lot Number:	**051523**		**Solvent:**	21110221	Nitric Acid
Description:	**Iron (Fe)**				
			5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

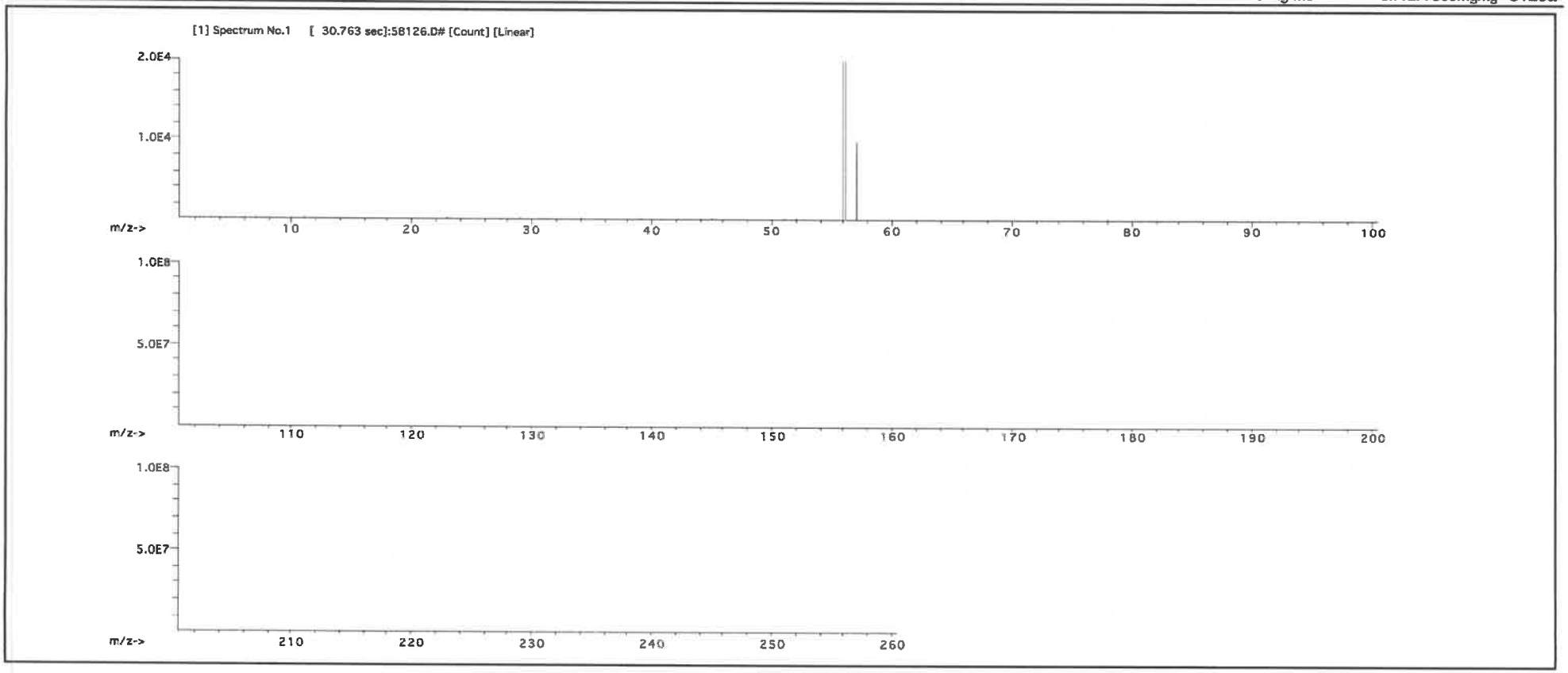
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES

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Certificate of Analysis

RD:05/14/2024

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inorganicventures.com

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 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

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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



Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

M4251
JB

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

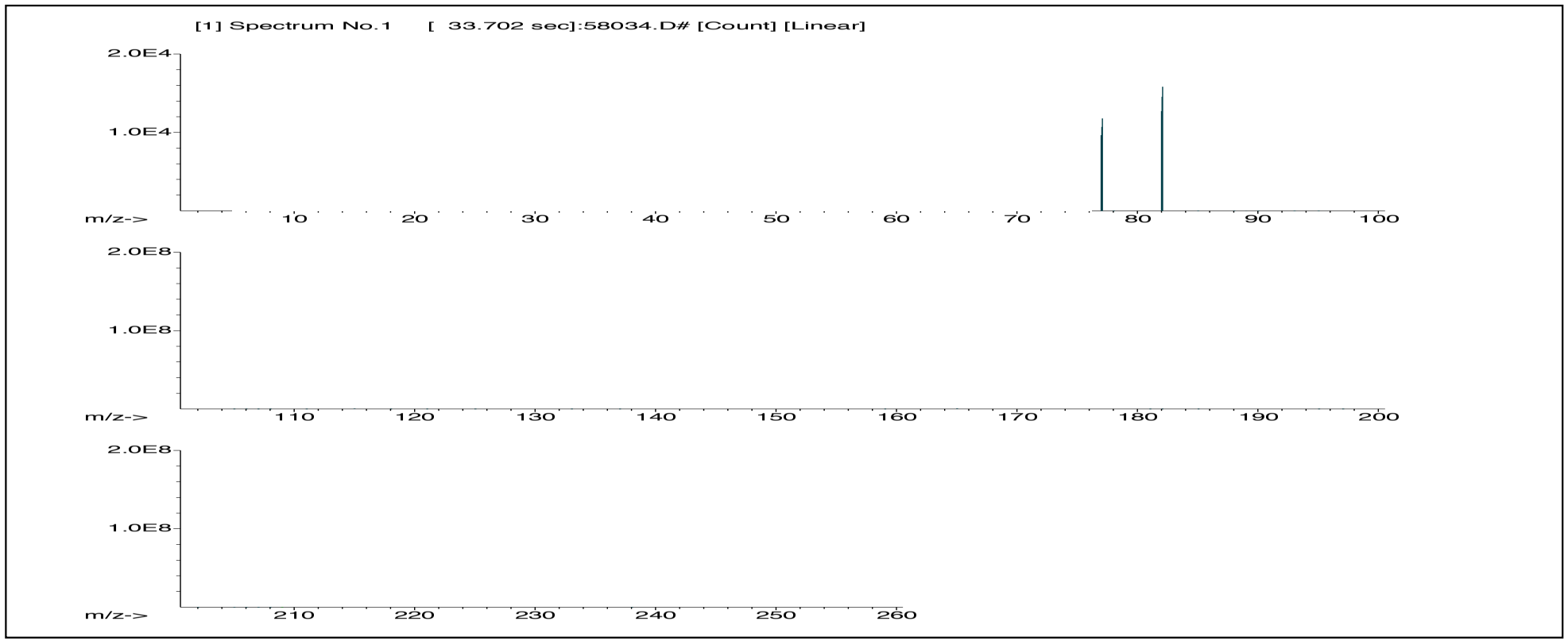
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	20370011	Nitric Acid	
Lot Number:	**070221**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	070224			
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:	Giovanni Esposito 070221
Reviewed By:	Pedro L. Rentas 070221

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(IV) oxide (Se)	58134	021621	0.1000	200.0	0.084	1000	10000.2	**1000.0**	**2.2**	7446-08-4	0.2 mg/m3	orl-rat 68 mg/kg	3149



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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	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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58030**	20370011	Nitric Acid	
Lot Number:	**031921**			
Description:	**Zinc (Zn)**			
		2.0%	40.0	Nitric Acid
Expiration Date:	031924		(mL)	
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	

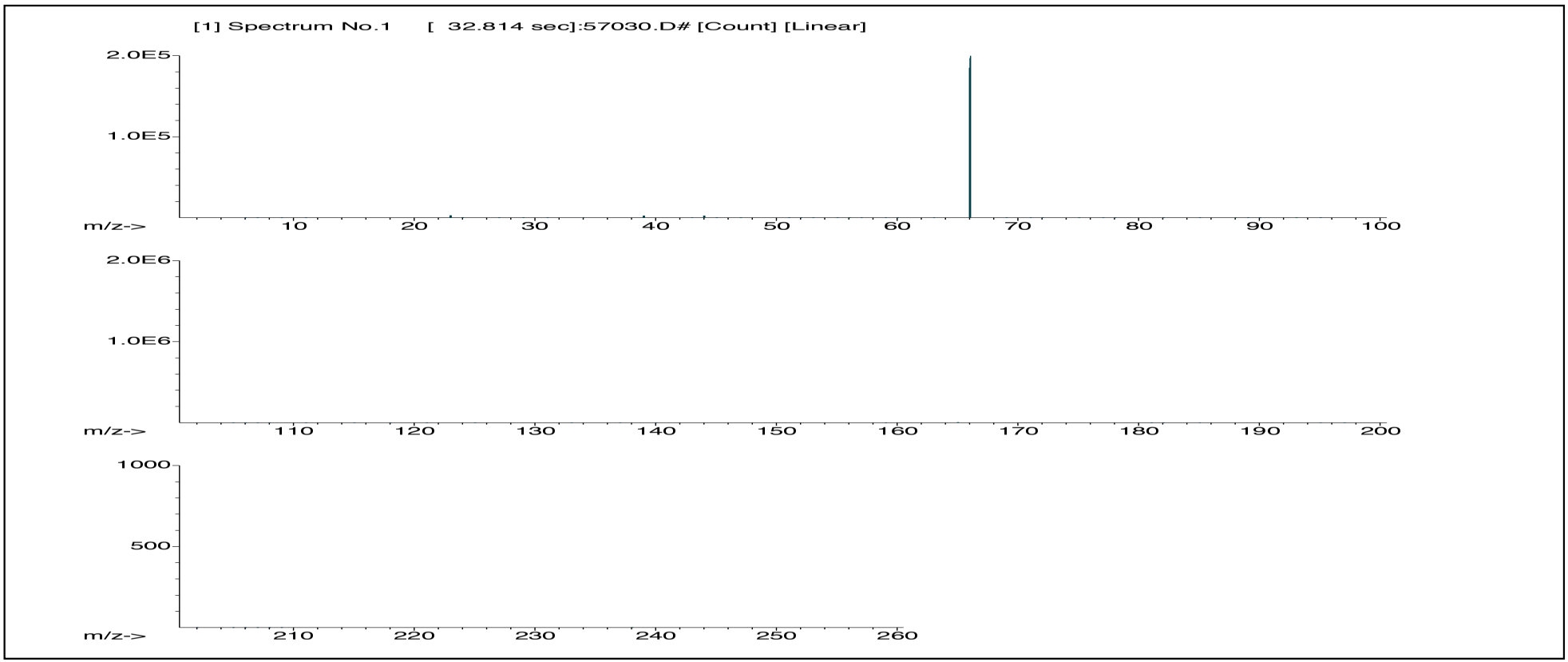
Giovanni Esposito

Formulated By:	Giovanni Esposito	031921

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031921

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. Zinc nitrate hexahydrate (Zn)	58130	082020	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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Certified Reference Material CRM



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AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	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).
* 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).

ThermoFisher SCIENTIFIC

M4913-16

NB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
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Certified Reference Material CRM

BA NM5020 R: 12/09/21

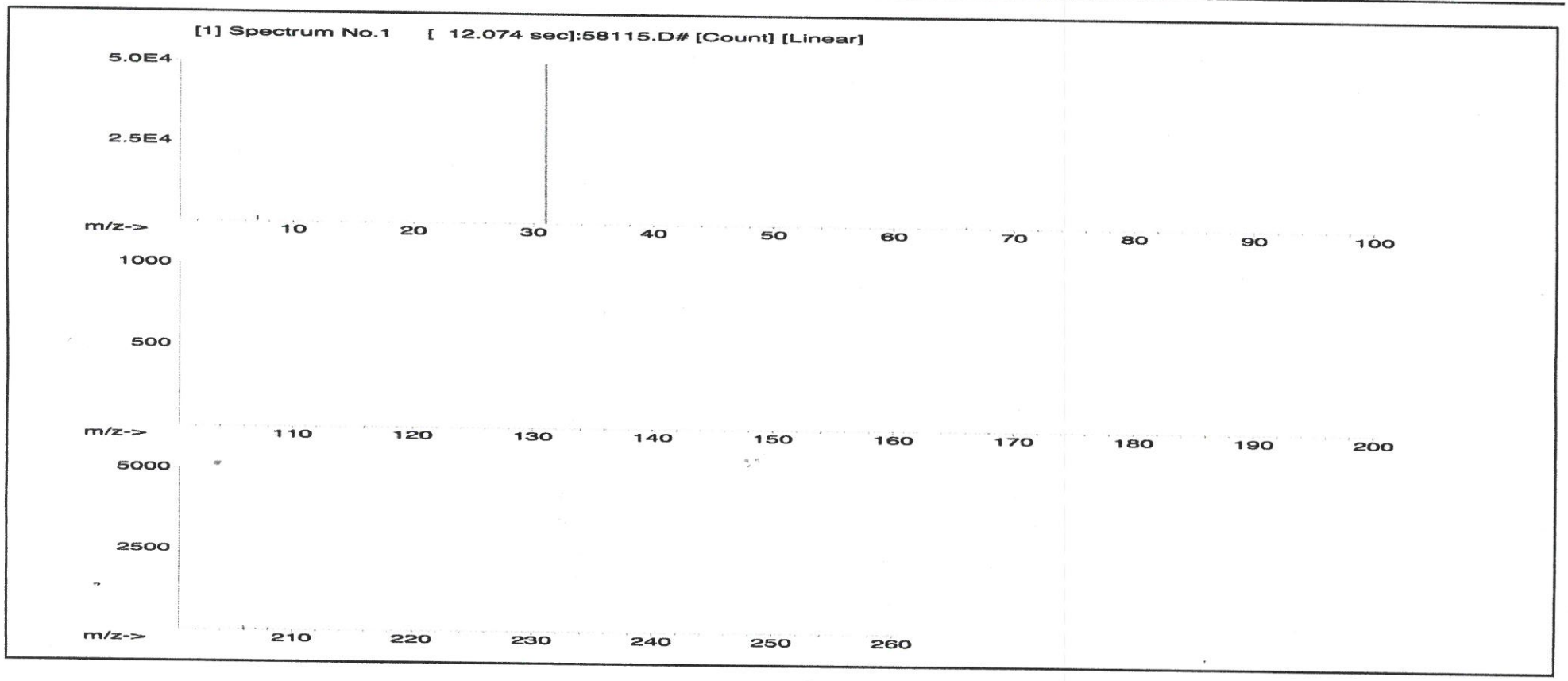
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57115**	**Solvent:**	20370011	Nitric Acid
Lot Number:	**032921**			
Description:	**Phosphorous (P)**	2%	60.0 (mL)	Nitric Acid
Expiration Date:	032924			
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):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	032921
Reviewed By:	Pedro L. Rentas	032921

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	PV052018A1	10000	99.999	0.10	27.3	109.9063	109.9093	**10000.3**	**20.0**	7722-76-1	5 mg/m3	NA	3186



Revised
430 of 538
Q1915-METALS

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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:

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.
* 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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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/4}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5288 R: 07/21/2022

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

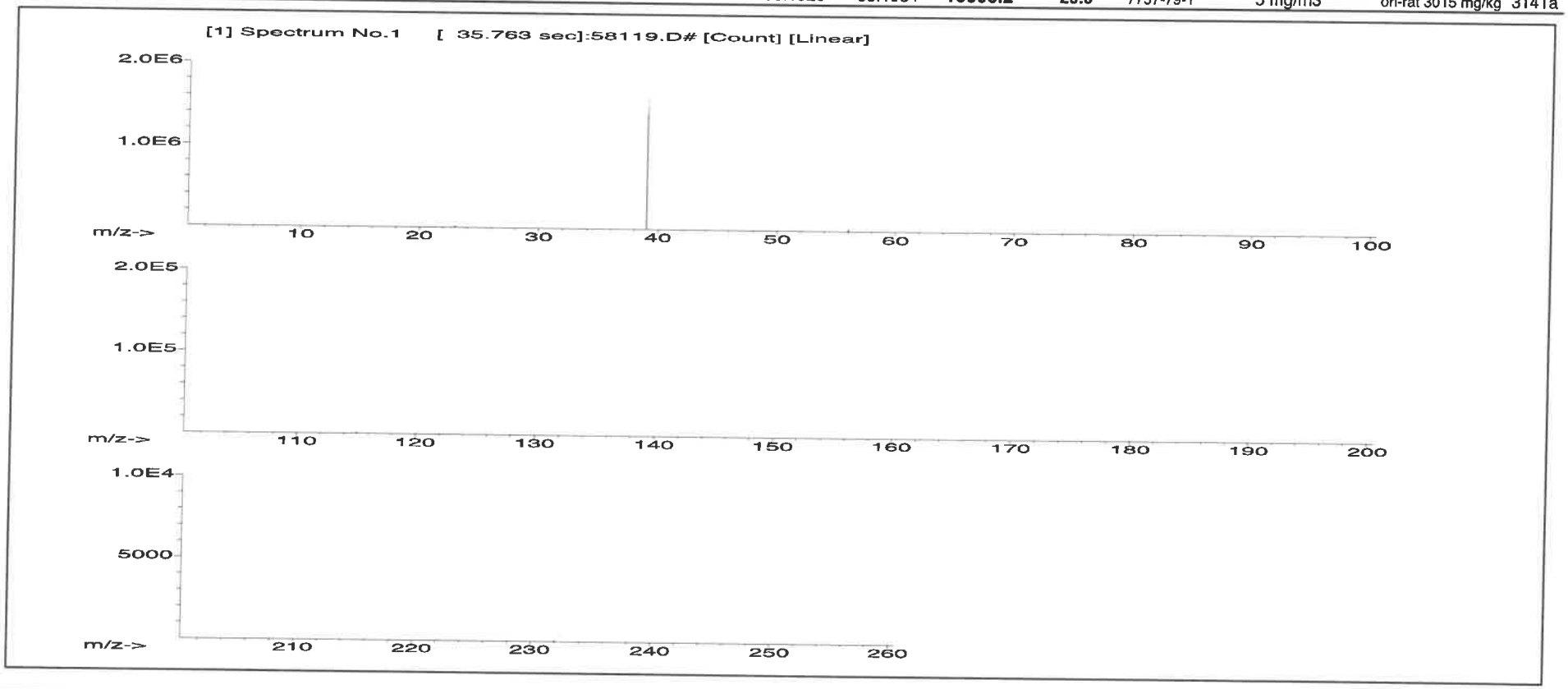
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

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



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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	<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).

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R: 09/08/22 (BA)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

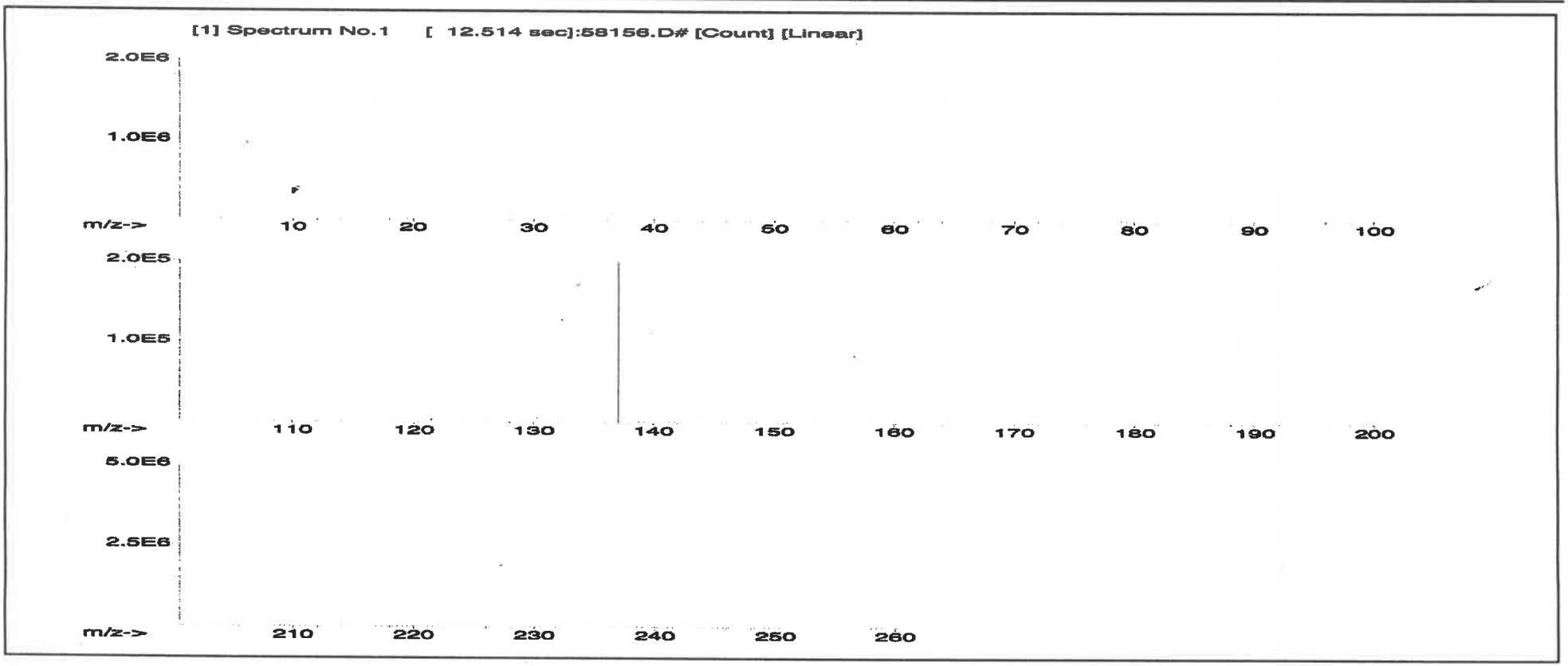
CERTIFIED WEIGHT REPORT:

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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Certified Reference Material CRM

M5429 R1 01/26/23 BH

ANAB ISO 17034 Accredited
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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

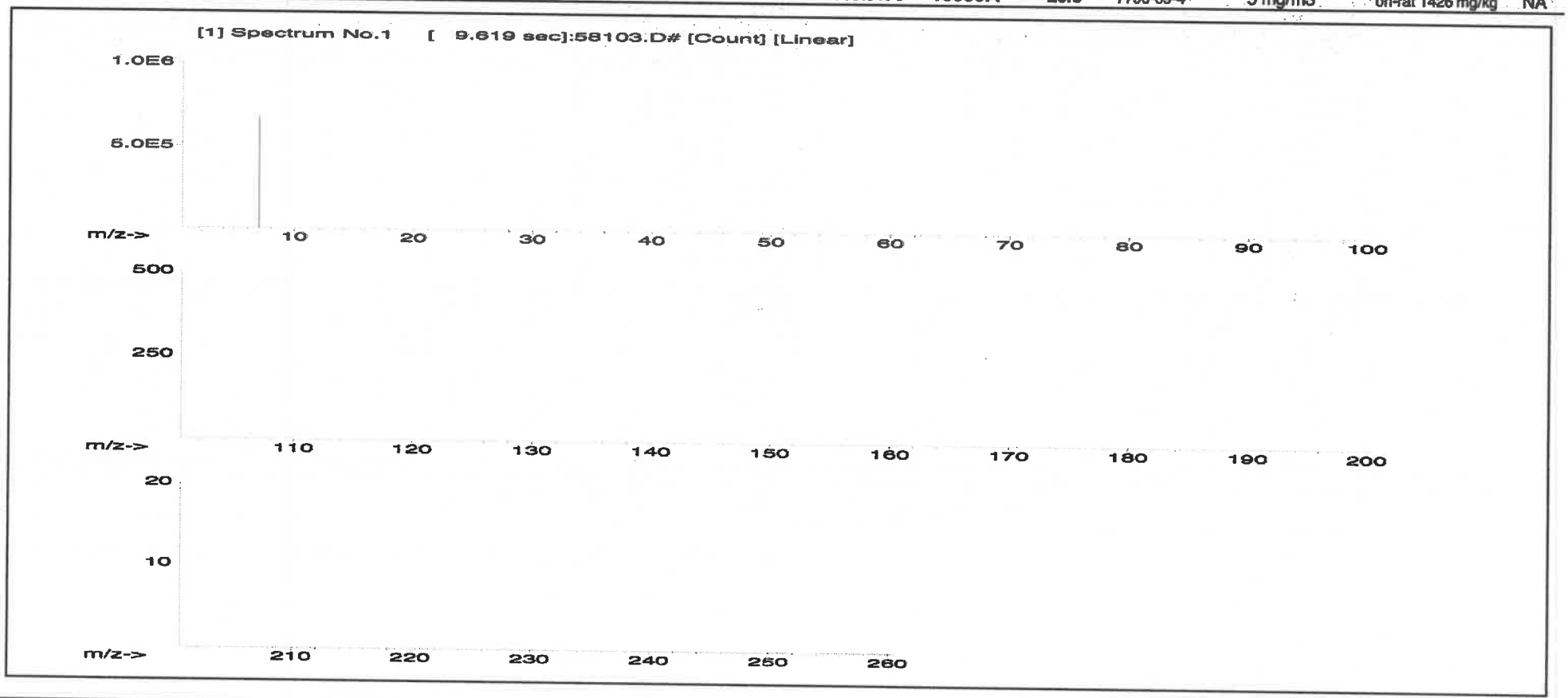
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	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



QUALS-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

Certified Reference Material CRM

R: 03/01/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

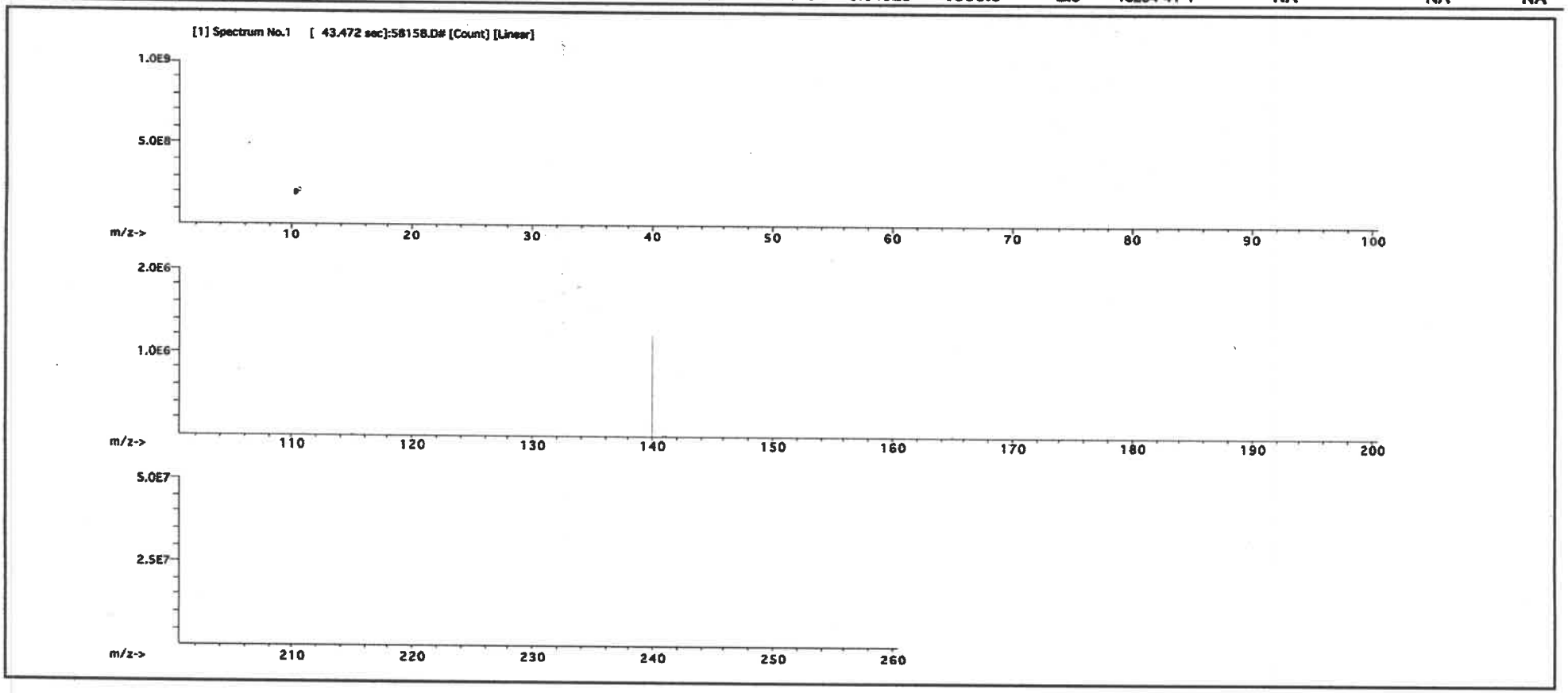
Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #			
Solvent:	20510011	Nitric Acid		
2%	20.0 (mL)	Nitric Acid		

5E-05 Balance Uncertainty
0.058 Flask 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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ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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

M5496 R 7/20/23

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CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Lot #**	
Lot Number:	**011623**	**Solvent:**	20510011	Nitric Acid
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626			
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	

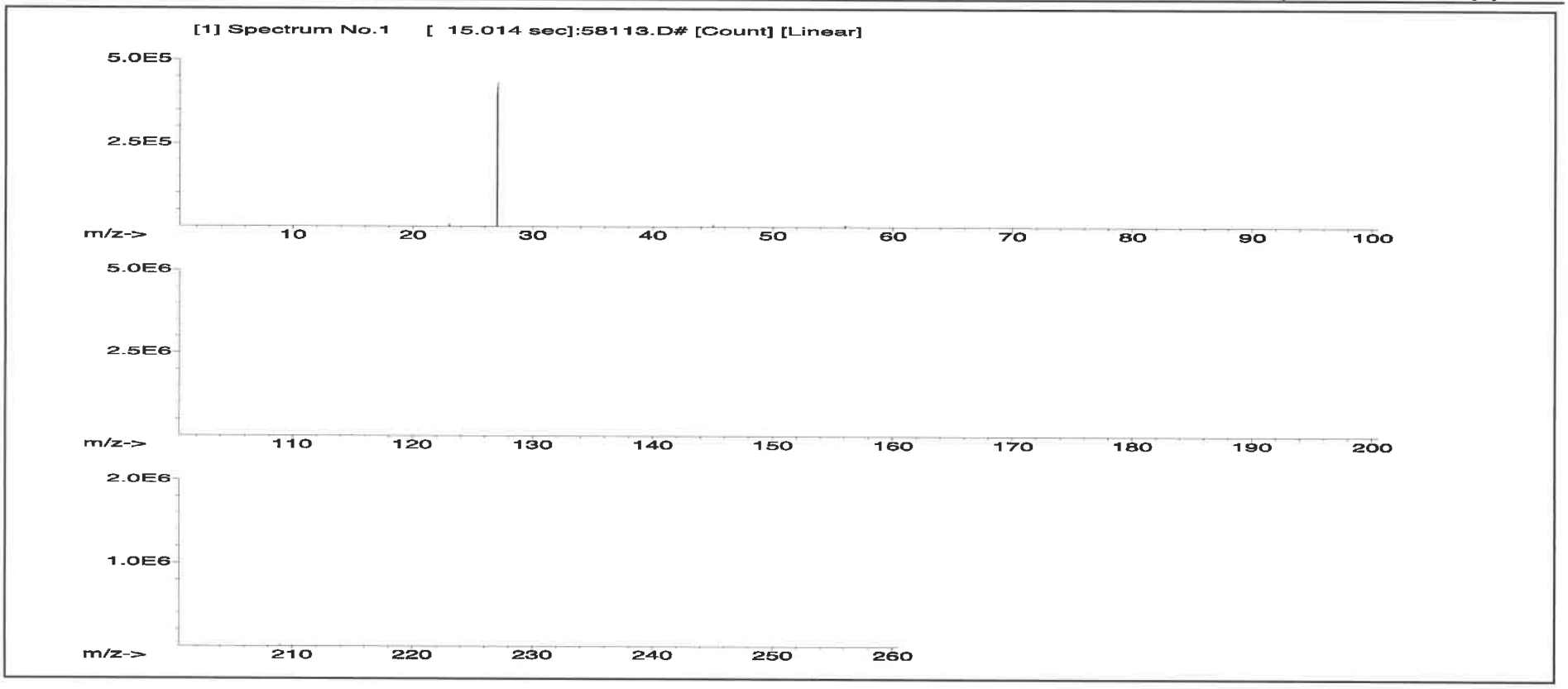
Giovanni Esposito

Formulated By:	Giovanni Esposito	011623

Pedro Rentas

Reviewed By:	Pedro L. Rentas	011623

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. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Revised
444 of 538
Q1915-METALS

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Certified Reference Material CRM

M5497 - M5498 R: 03/17/23 (BP)

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

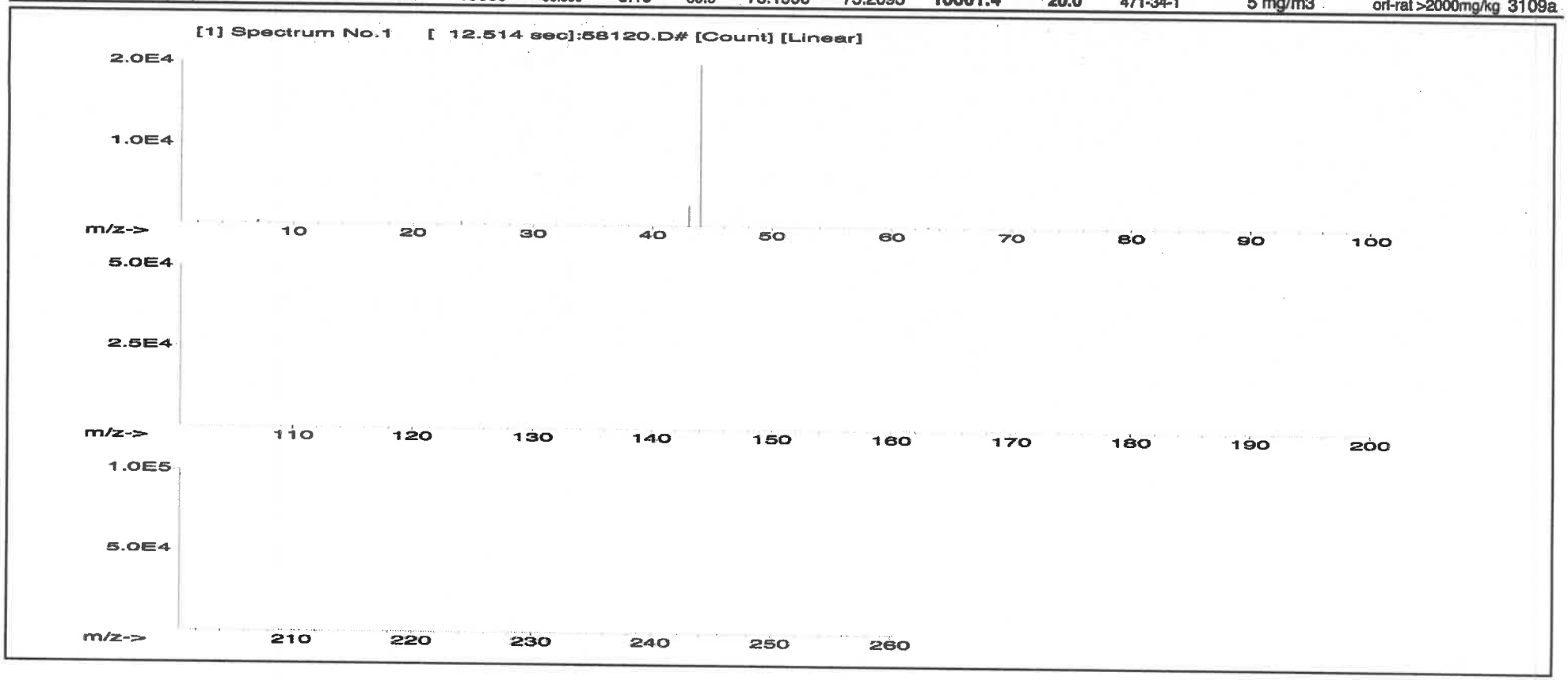
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	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.

* 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.
* 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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M546 M517 R: 03/17/22 BH

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Q1915-METALS

CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

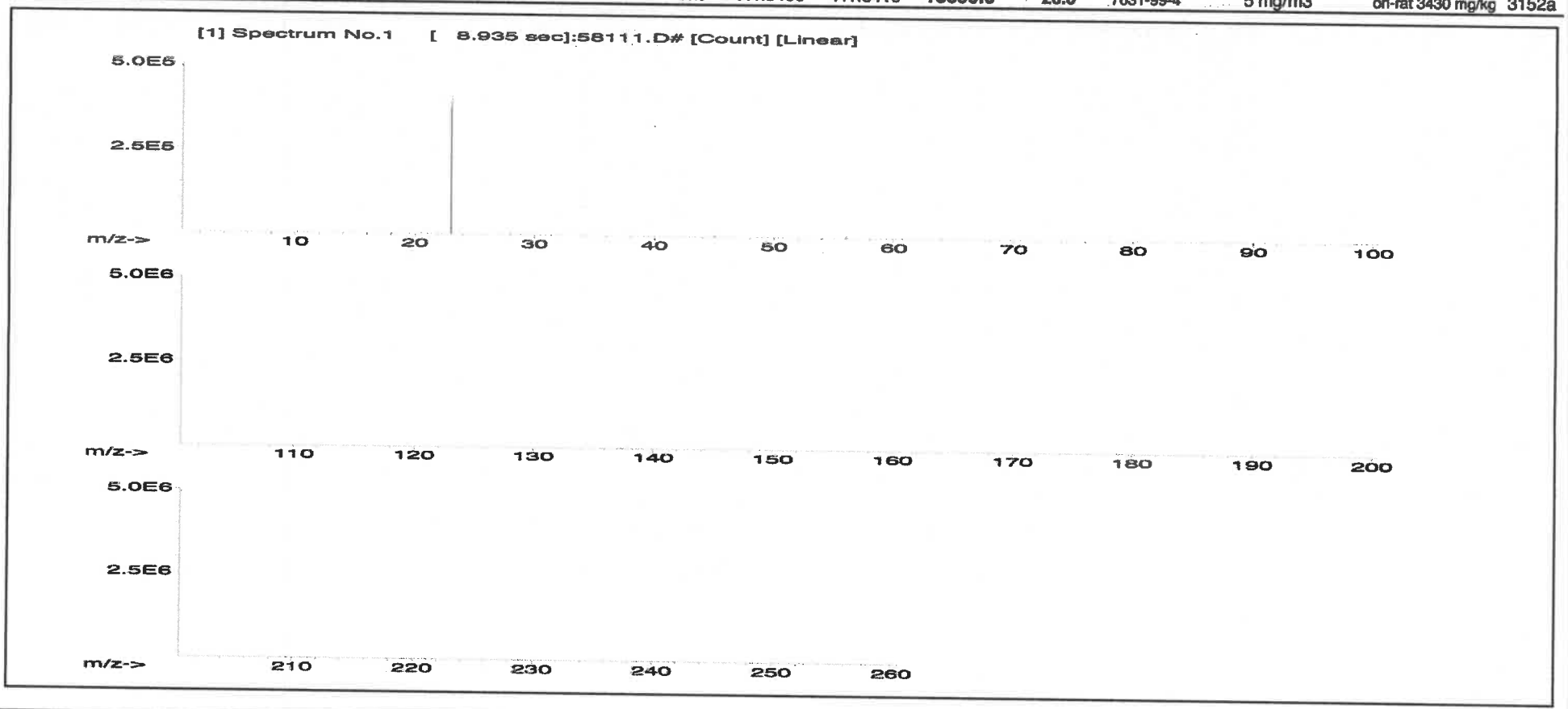
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.06	Flask Uncertainty	

Formulated By: Lawrence Barry 022123

Reviewed By: Pedro L. Rentas 022123

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	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	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:

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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* 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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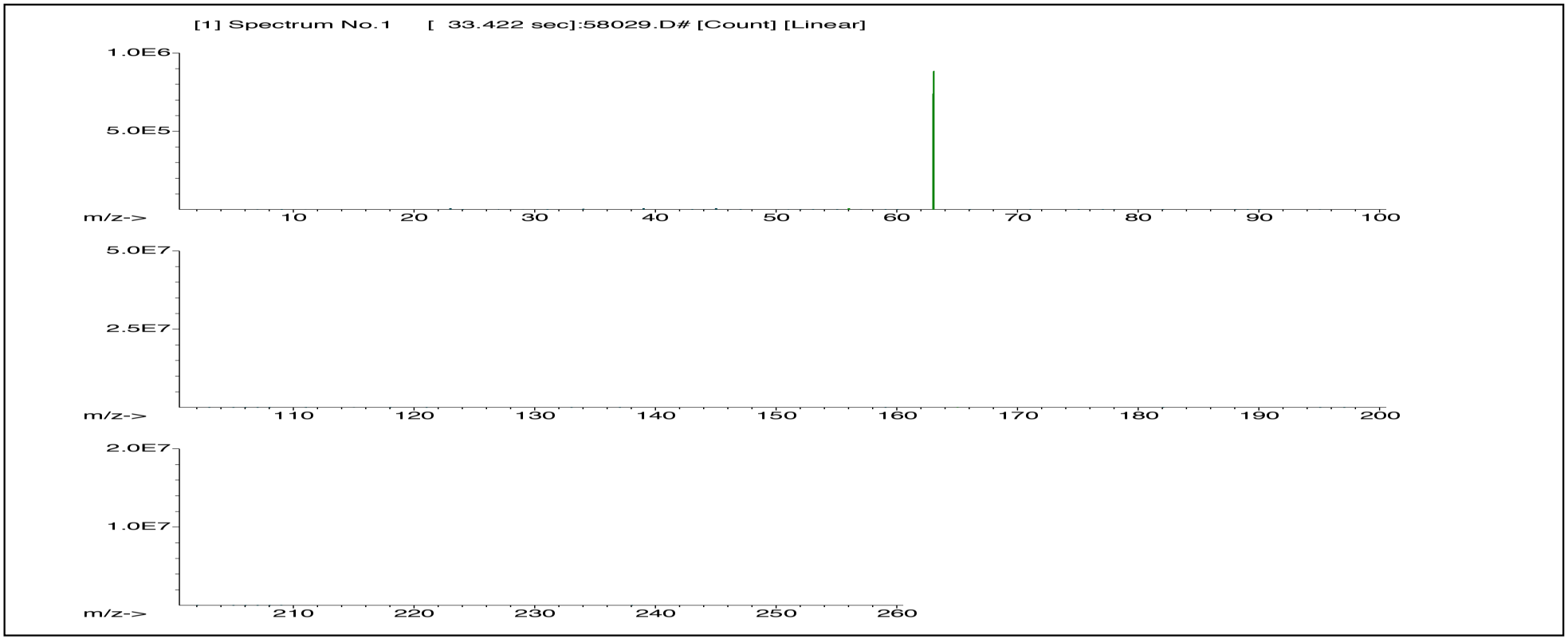
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	20510011	Nitric Acid	
Lot Number:	**102622**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102625			
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:	Eli Aliaga	102622
Reviewed By:	Pedro L. Rentas	102622

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	021422	0.1000	200.0	0.084	1000	10000.8	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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.

MSS28-37
MB

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(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.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

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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M5658 R ! 8/25/23

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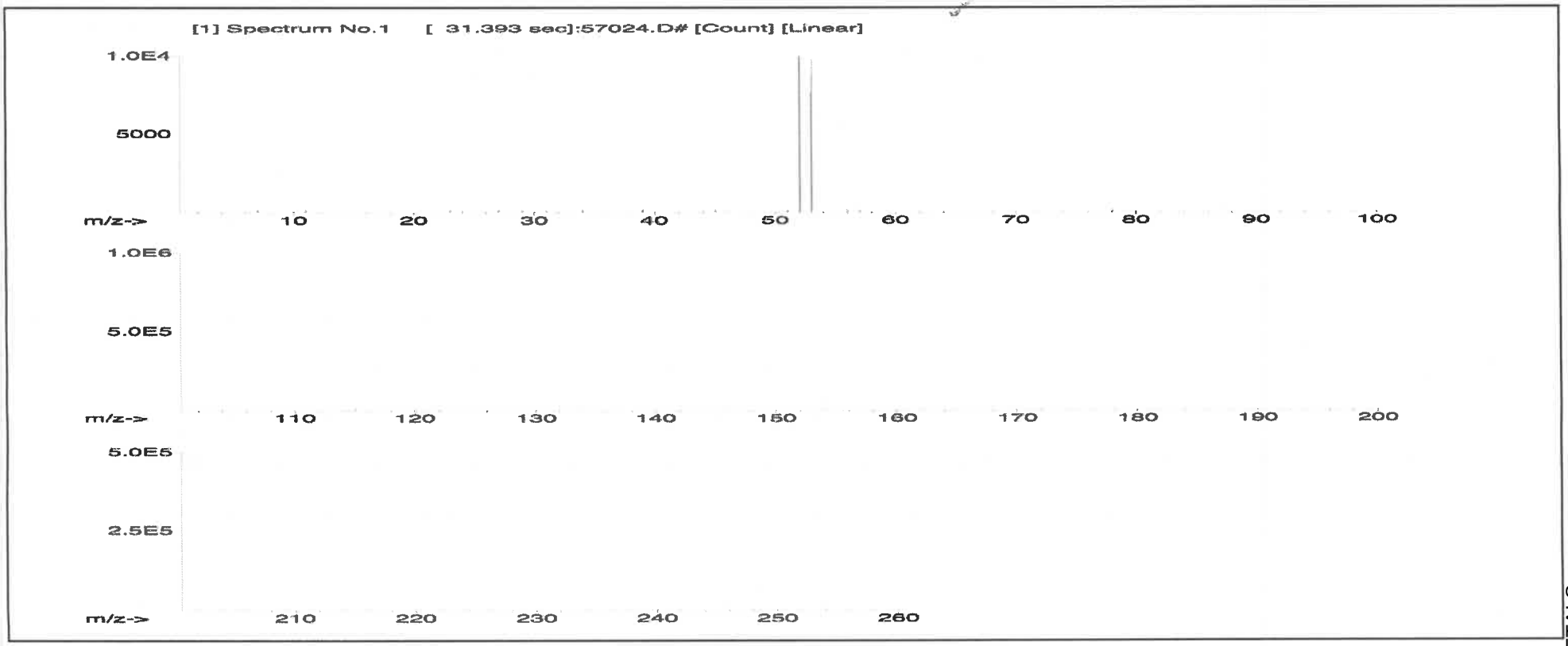
Revised

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



Q1915-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	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.

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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)

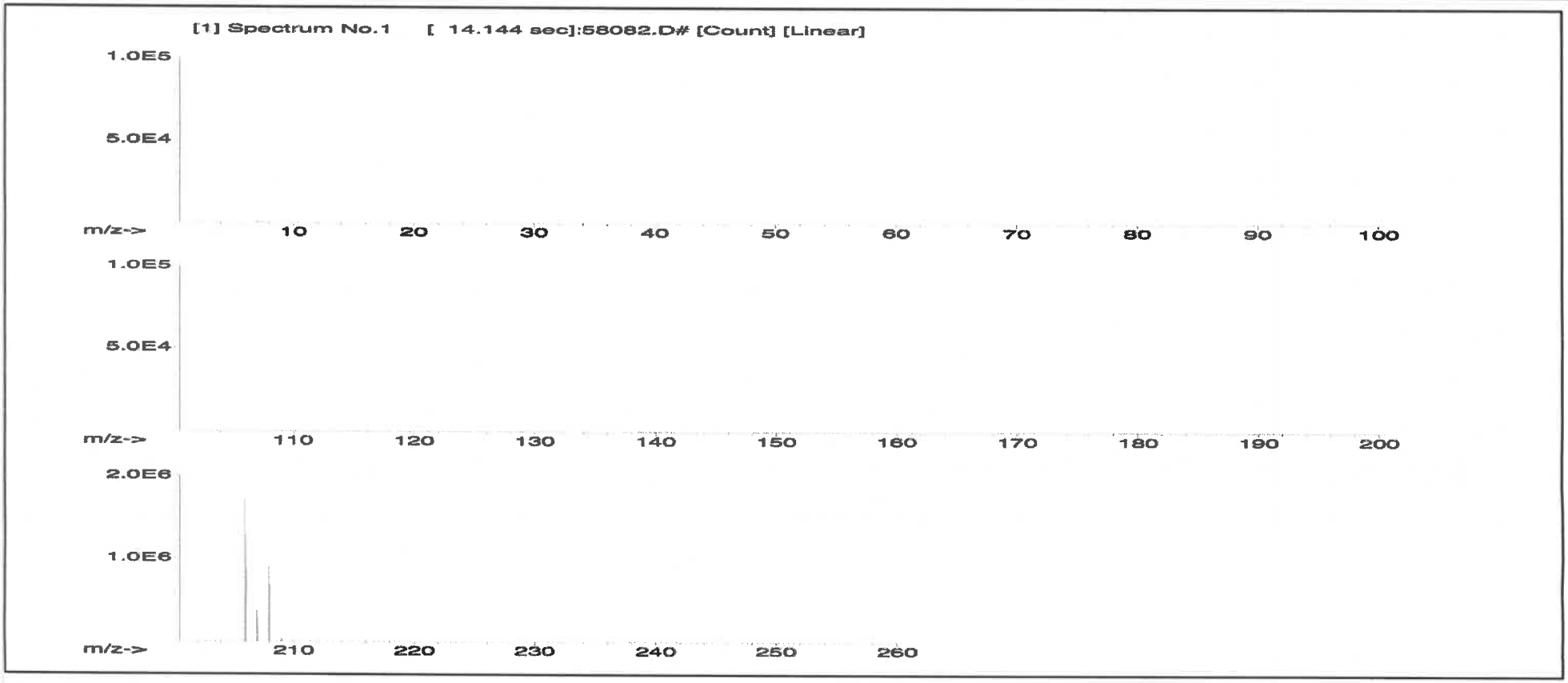
Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	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.

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R: 12/20/23 M5748

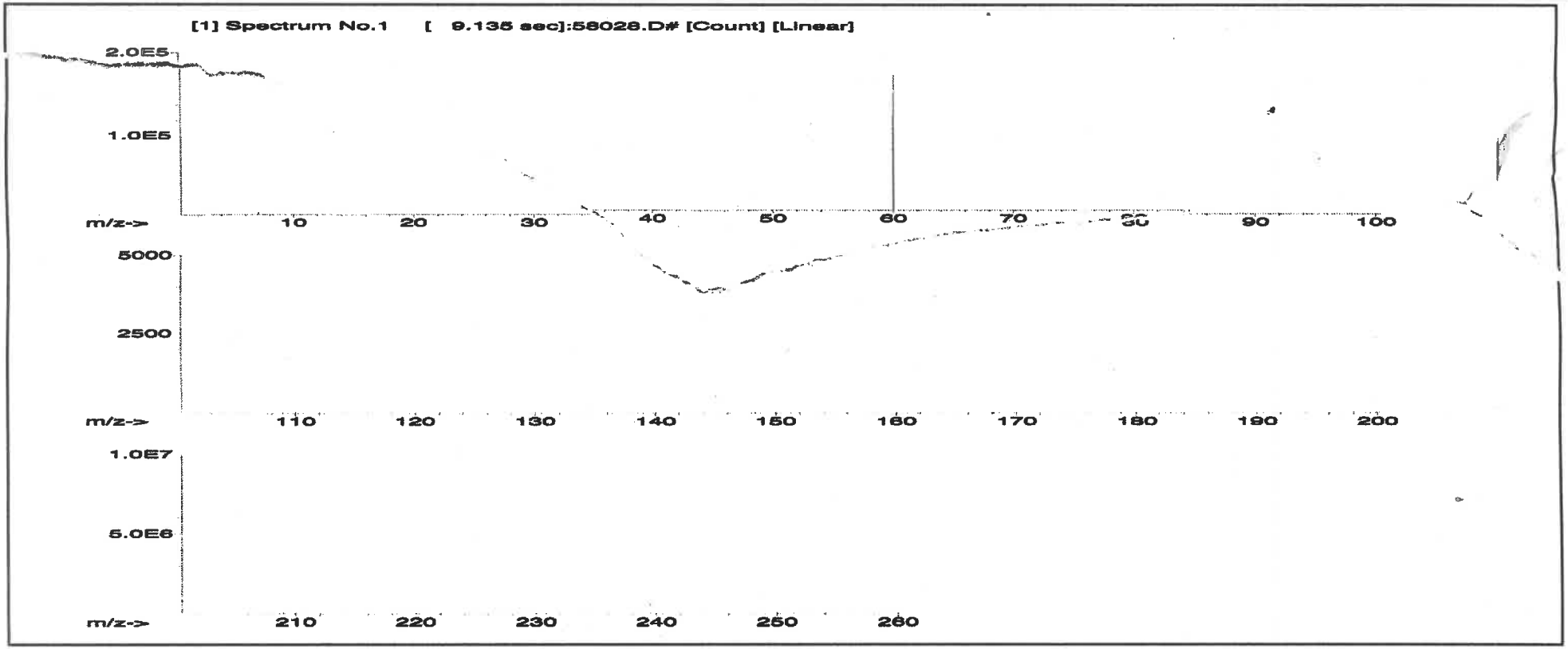
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CERTIFIED WEIGHT REPORT:

		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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* 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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M5768 M5769 BH 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

M5768, M5769 BH R: 1/3/24

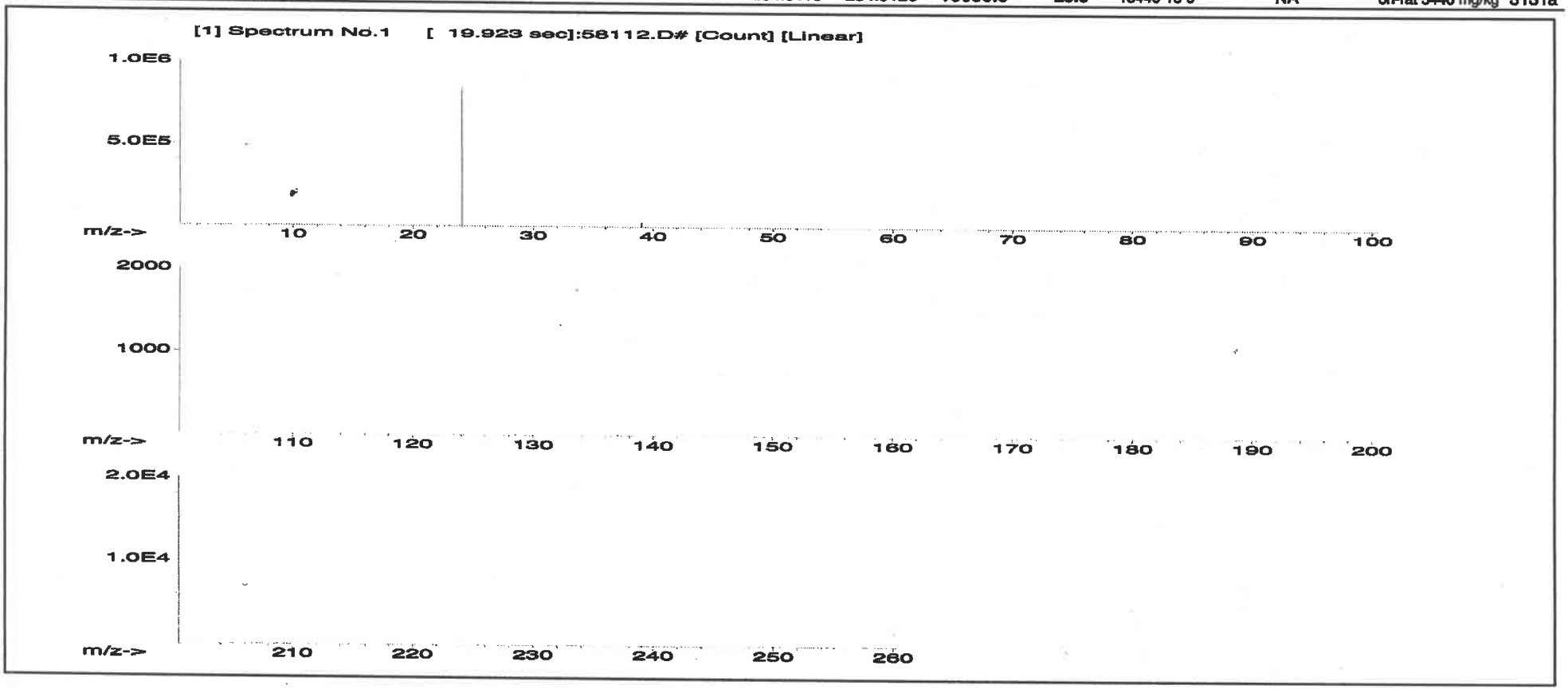
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty 5E-05 Balance Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

Formulated By: Lawrence Barry 091823

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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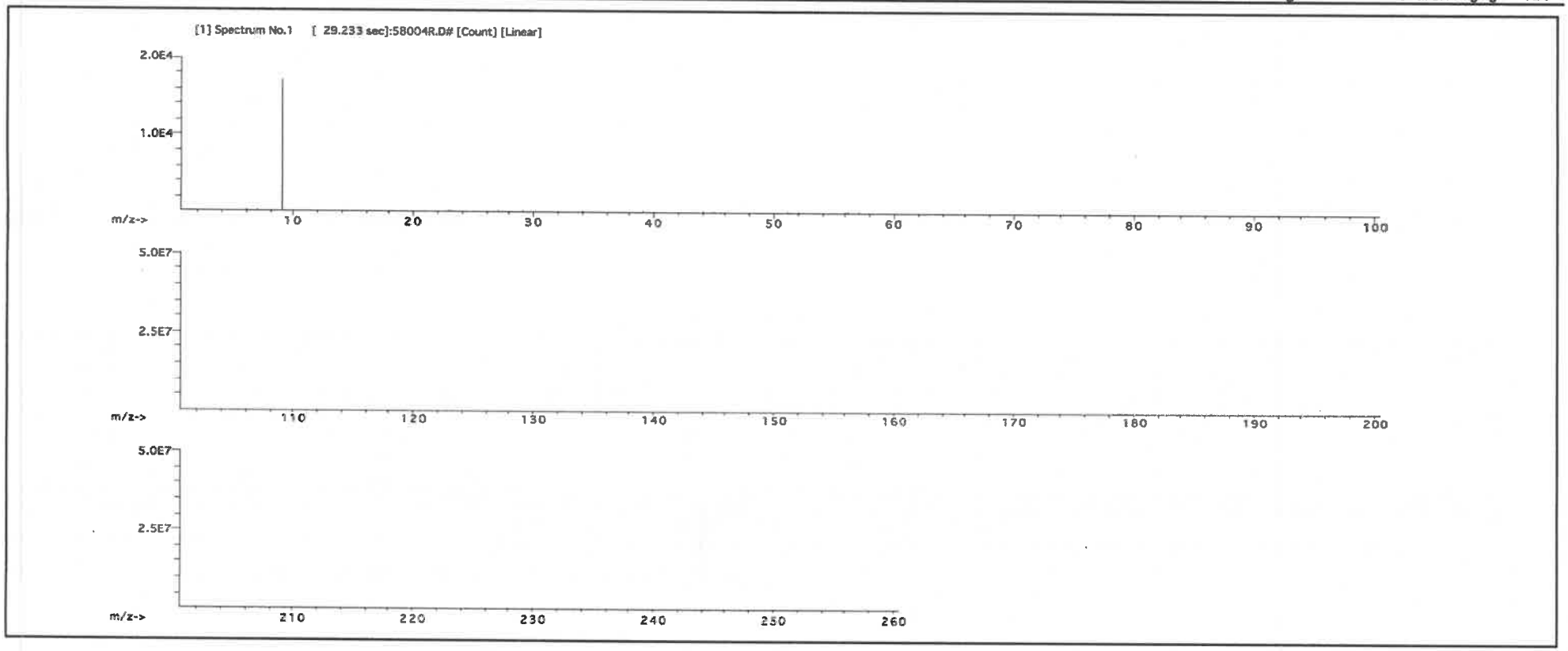
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CERTIFIED WEIGHT REPORT:

		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.

* 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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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

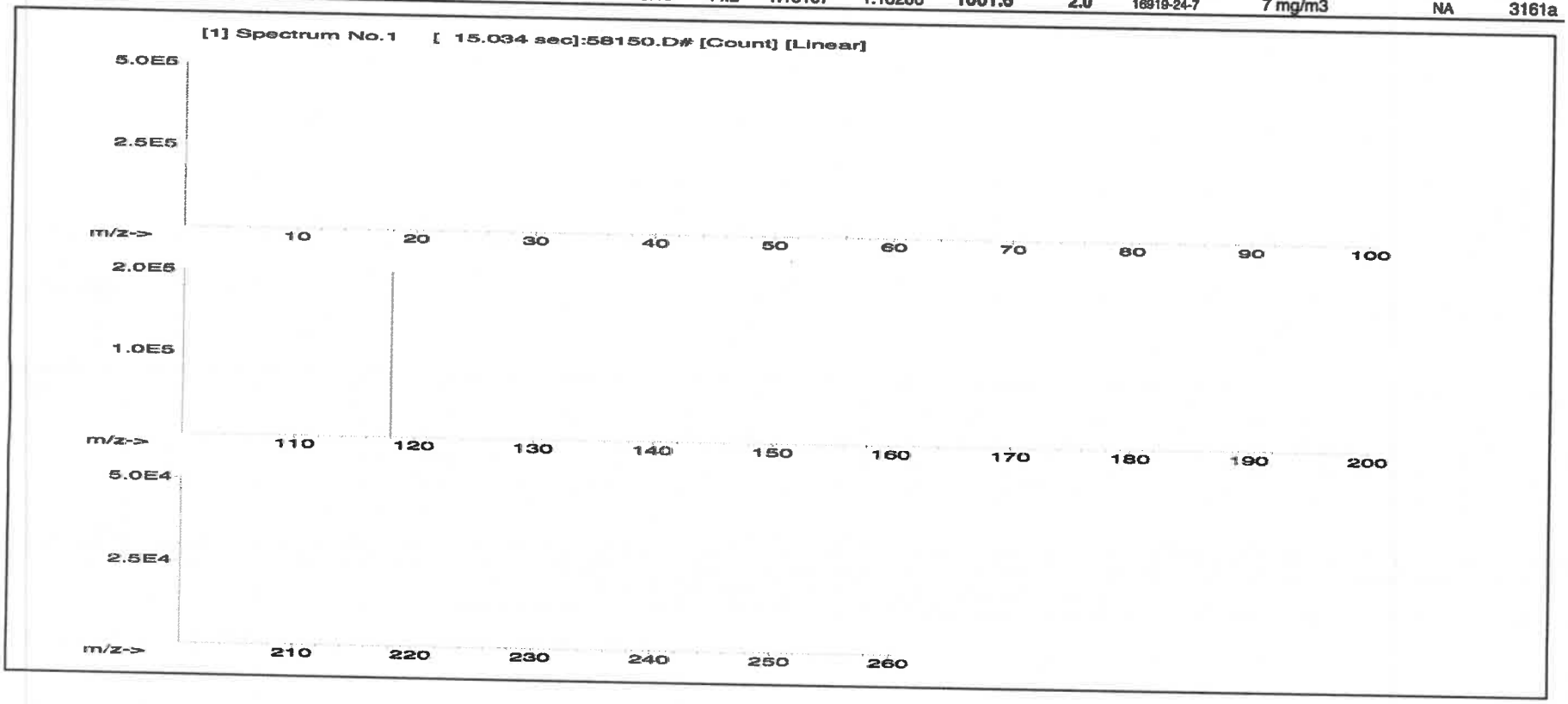
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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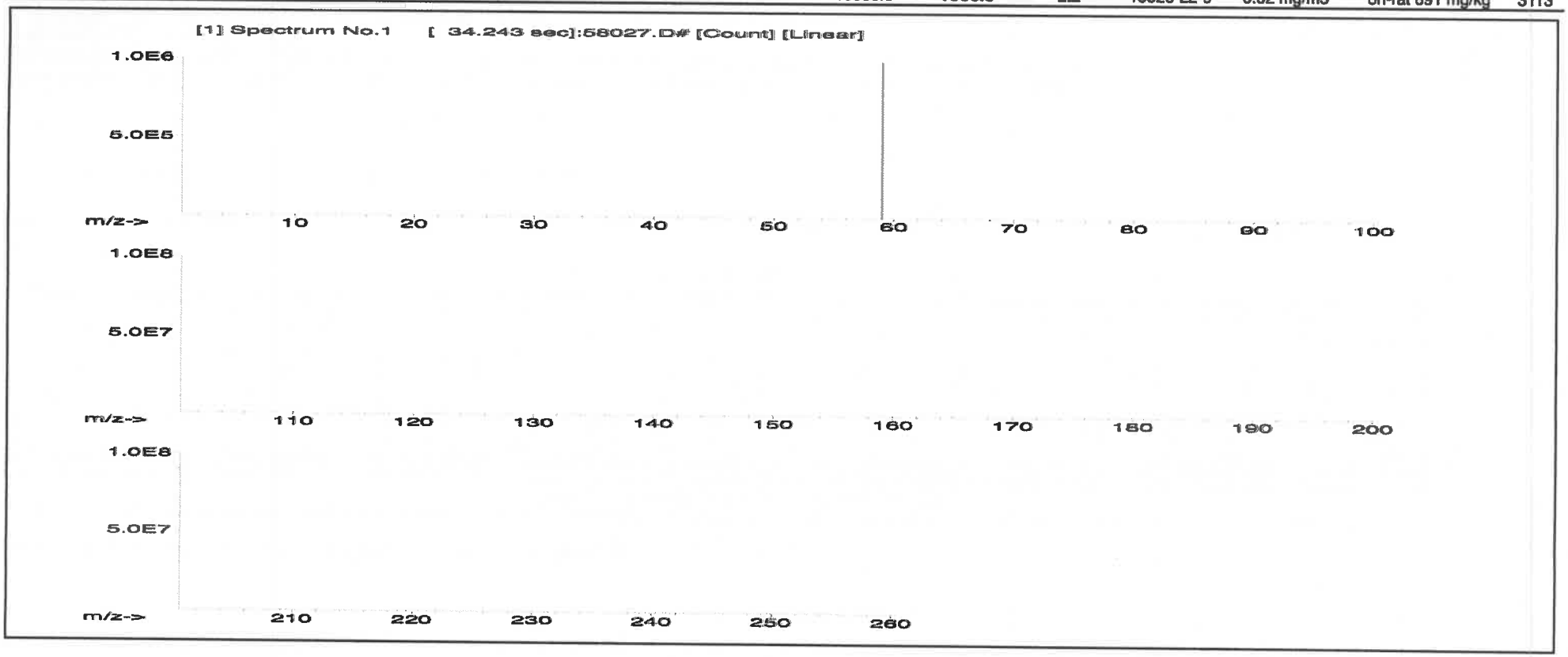
CERTIFIED WEIGHT REPORT:

		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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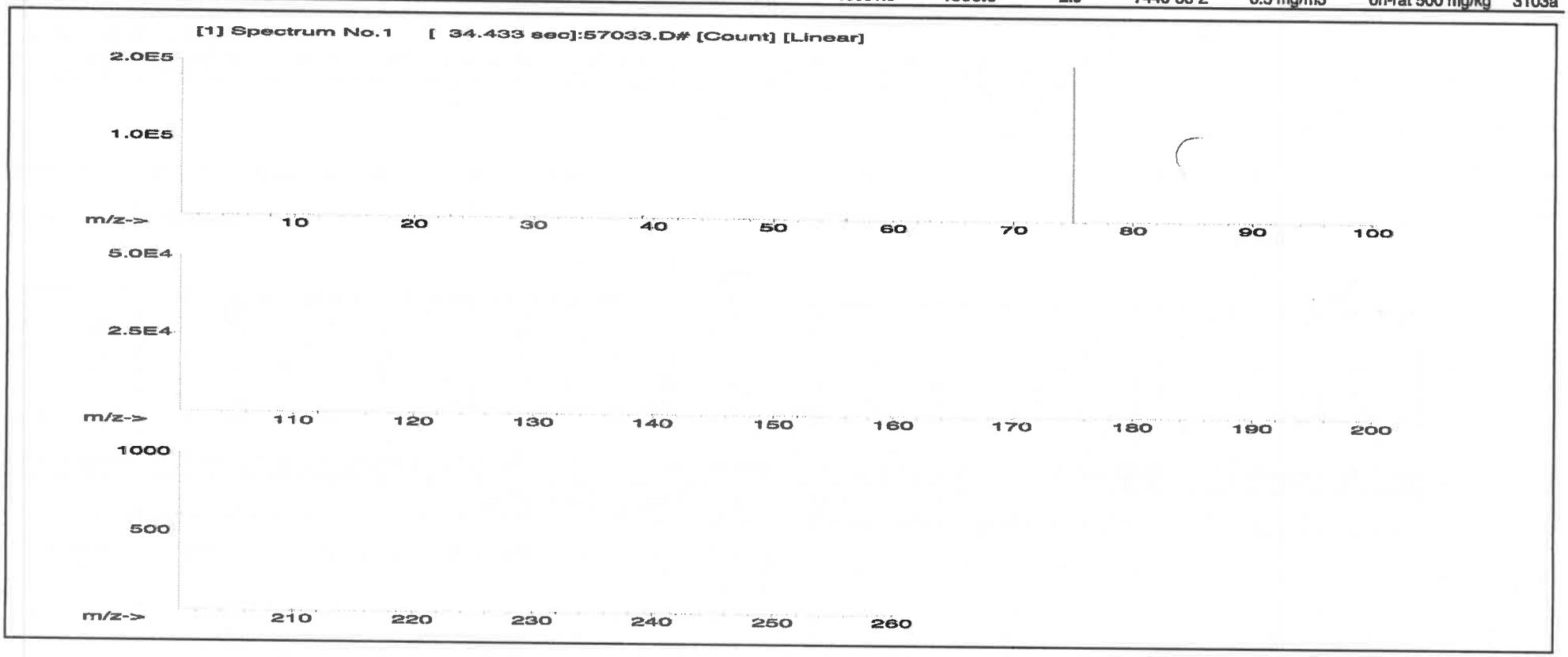
Revised

CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* 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

A: 02/09/24 M.5814

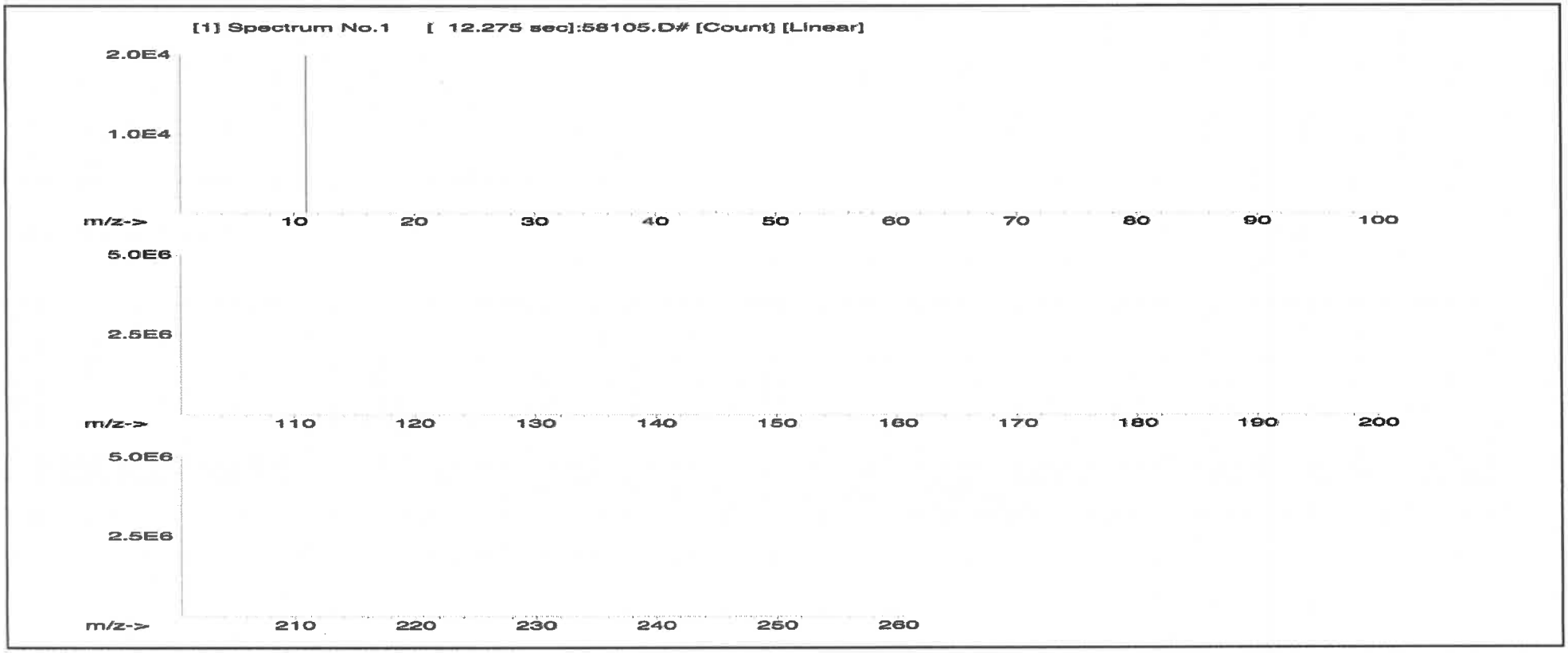
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Lot #**		
Lot Number:	**071123**	**Solvent:**	MKBQ8597V	Ammonium hydroxide	
Description:	**Boron (B)**				
		2.0%	40.0 (mL)	Ammonium hydroxide	
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan 071123
Reviewed By:	Pedro L. Rentas 071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



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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.
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Certified Reference Material CRM

R: 02/09/24 M5816

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CERTIFIED WEIGHT REPORT:

Part Number: 57016
Lot Number: 122923
Description: Sulfur (S)

Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

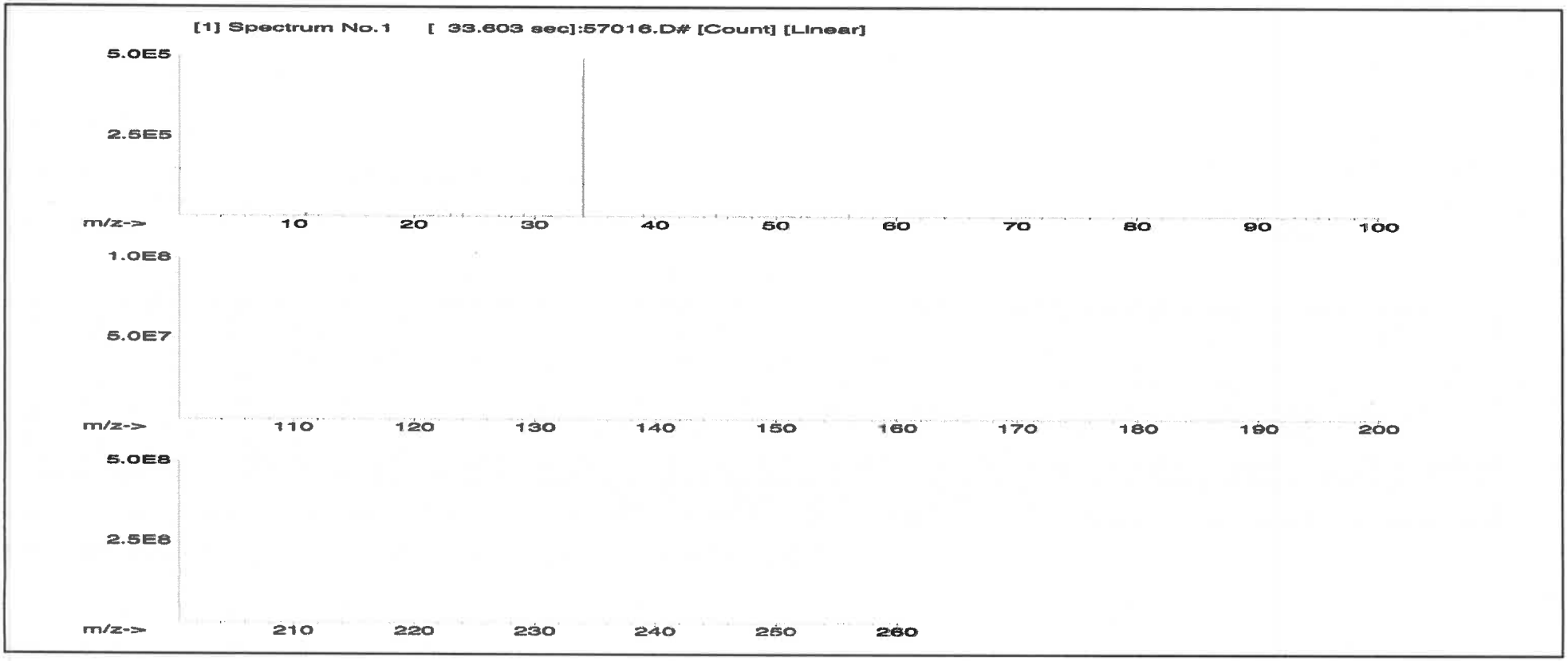
Weight shown below was diluted to (mL): 4000.0 ± 0.06 Flask Uncertainty

Solvent: Lot # 122923 ASTM Type 1 Water

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5817

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CERTIFIED WEIGHT REPORT:

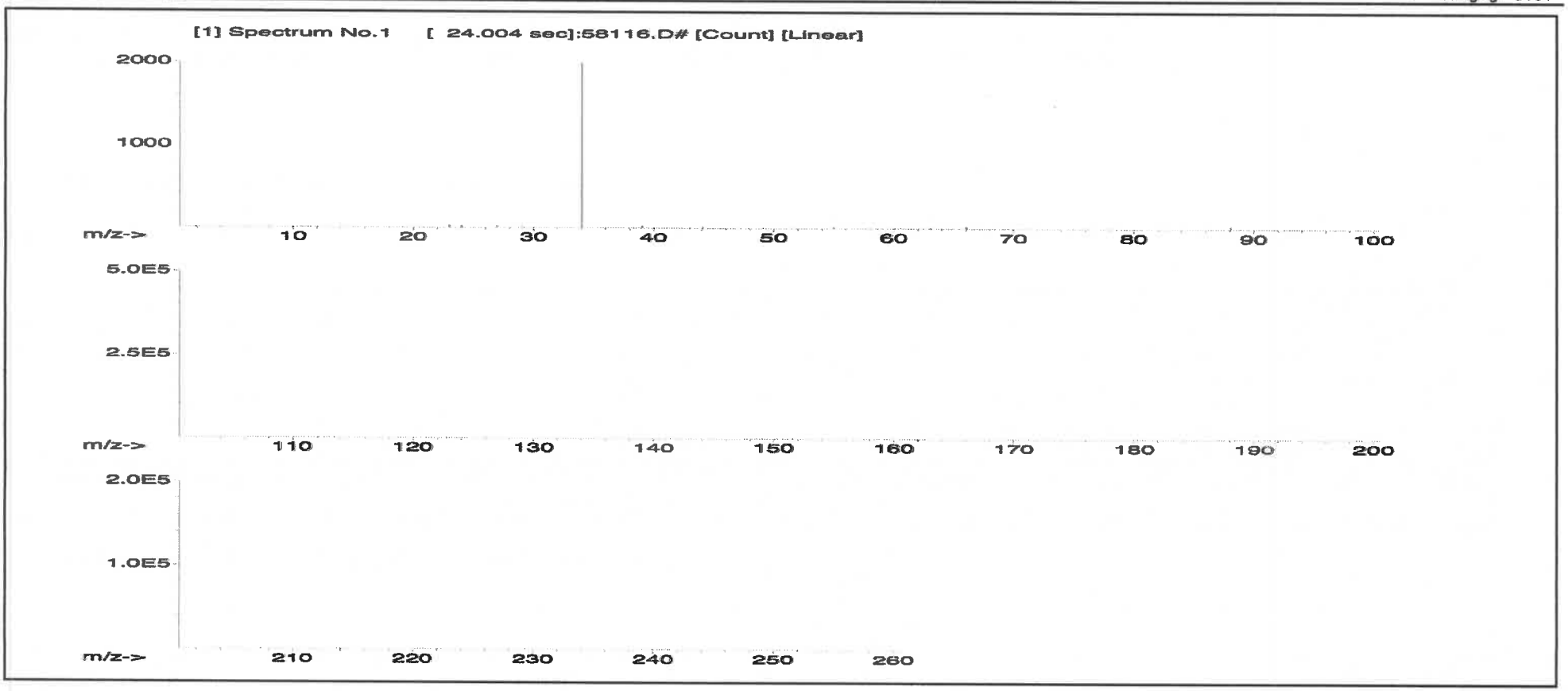
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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	ori-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:

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Certified by:

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Revised

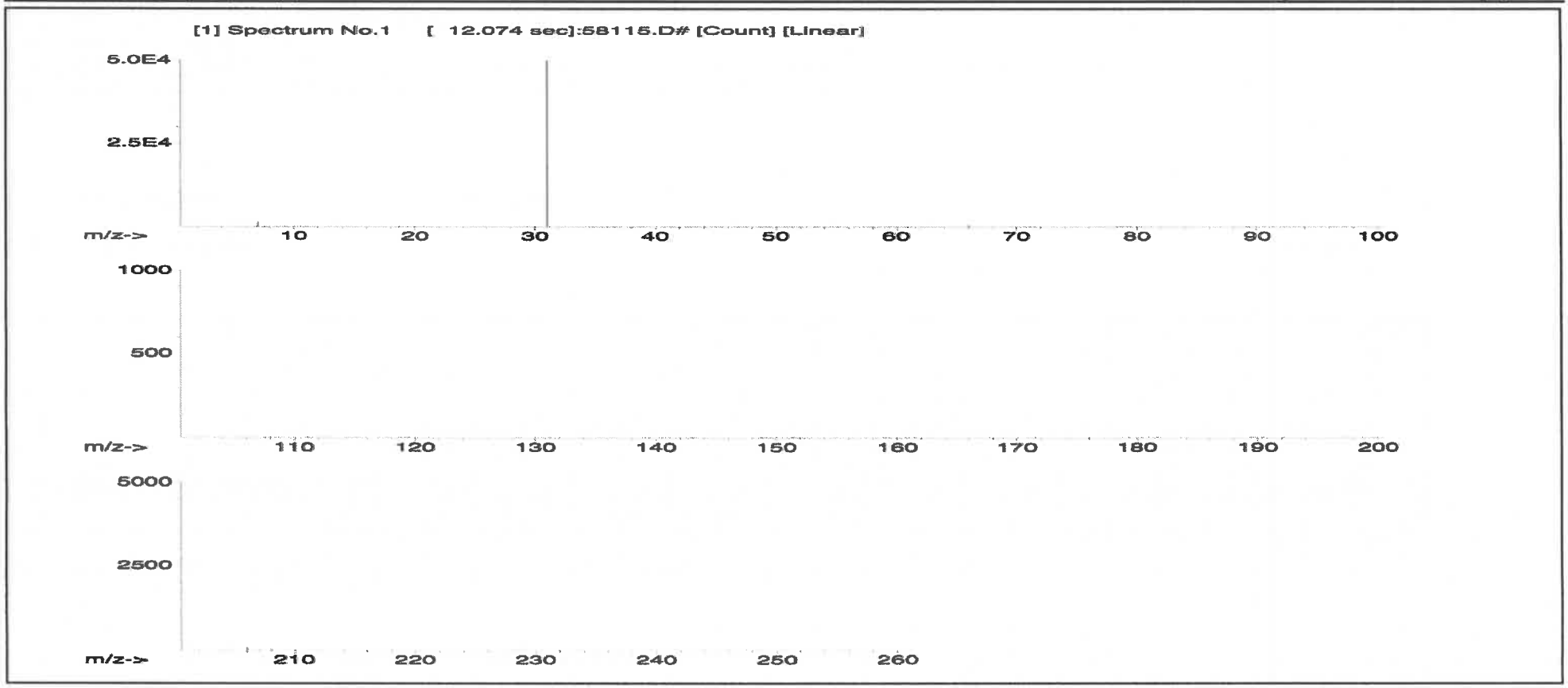
R: 02/09/24 M5820

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

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Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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M5959 R: 6/14/24.

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11 ± 0.016 Flask Uncertainty

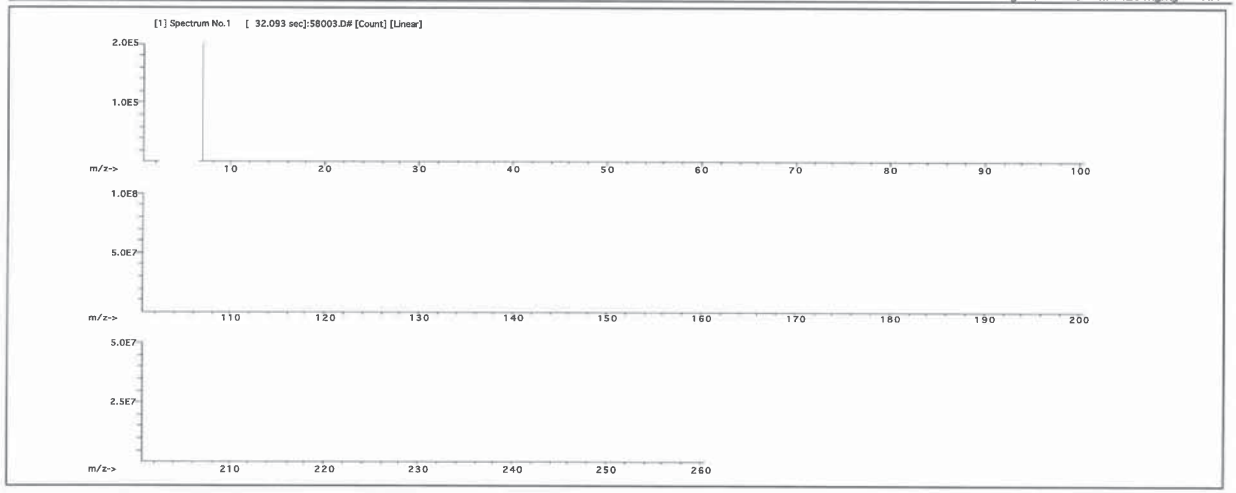
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

5E-05 Balance 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).

MS978, MS979

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R: 2/22/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 865.01

ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	TI Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**

ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/MM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)\,(x_i)$$

x_i = mean of Assay Method i with standard uncertainty $u_{Char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{Char\ i})^2 \,/\, (\Sigma(1/u_{Char\ i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{Char} = [\Sigma((w_i)^2\,(u_{Char\ i})^2)]^{½}$, where $u_{Char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)\,(u_{Char\ a})$$

X_a = mean of Assay Method A with $u_{Char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{Char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form In Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 for months in 1% 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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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

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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



Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

R! 08/22/24 M6058, M6059

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
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EXP.: 9/6/2029

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:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

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u_{bb} = bottle to bottle homogeneity standard uncertainty

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X_a = mean of Assay Method A with

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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.

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- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

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- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/25
M6128

Part Number: 58025
Lot Number: 101124
Description: Manganese (Mn)
Expiration Date: 101127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

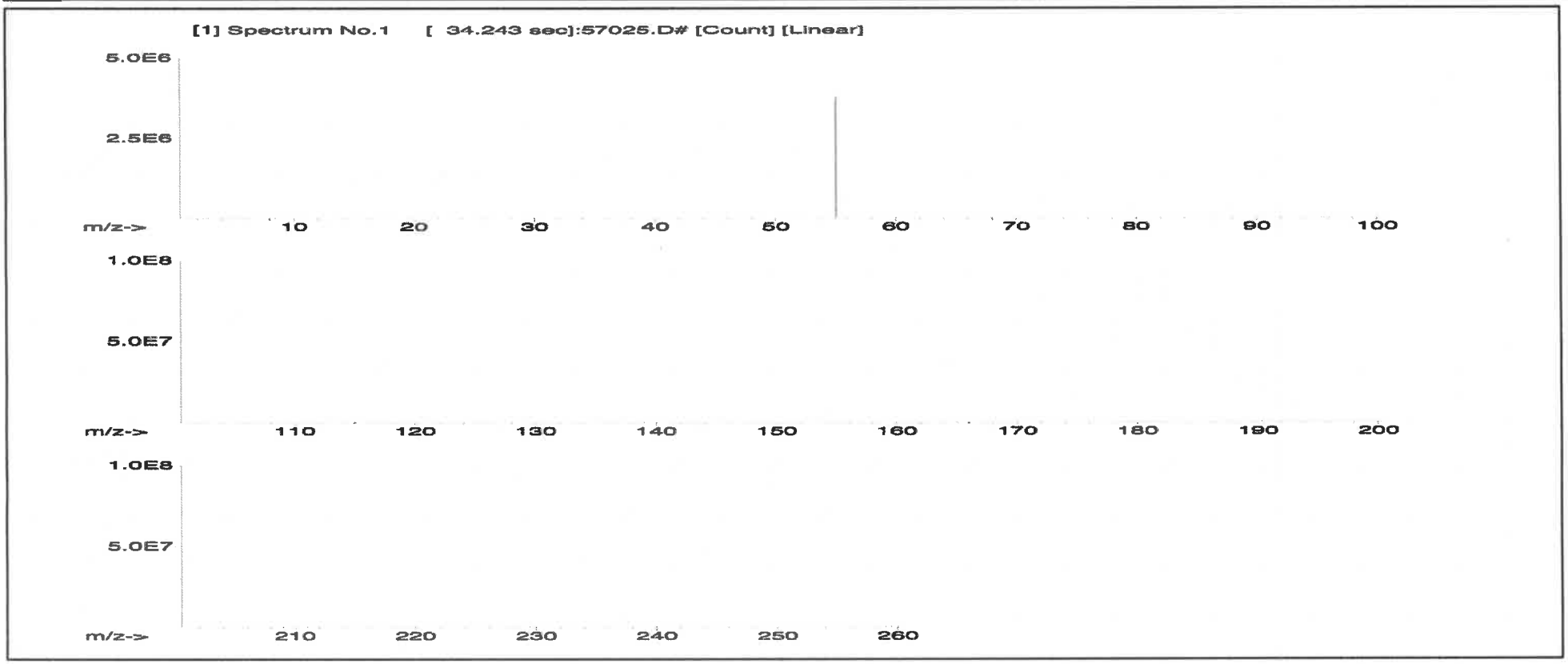
		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.2 0.10 Flask Uncertainty

Giovanni Esposito		
Formulated By:	Giovanni Esposito	101124
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



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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 Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **999 ± 5 µg/mL**
ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546

Assay Method #2 **1000 ± 7 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6180

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

(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.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

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

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M6156

Certified Reference Material CRM

R→ 6/12/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

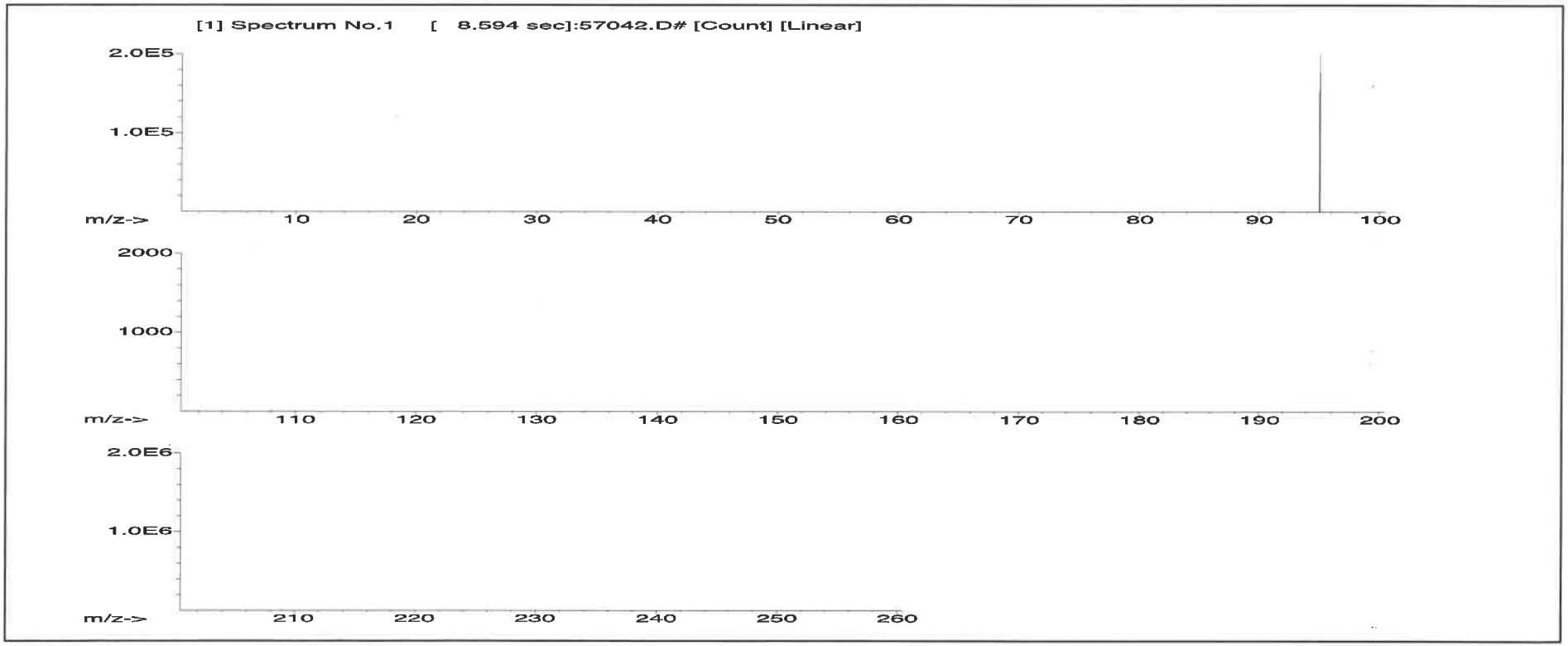
CERTIFIED WEIGHT REPORT:

Part Number:	**57042**
Lot Number:	**032123**
Description:	**Molybdenum (Mo)**
Expiration Date:	032126
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	**1000**
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	3000.41

Lot #	Solvent:		
MKBQ8597V	Ammonium hydroxide		
0.5%	15.0 (mL)	Ammonium hydroxide	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	032123
Reviewed By:	Pedro L. Rentas	032123

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1.	Ammonium molybdate (Mo)	58142	112322	0.1000	300.0	0.084	1000	10001.4	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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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	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).

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Biosciences Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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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

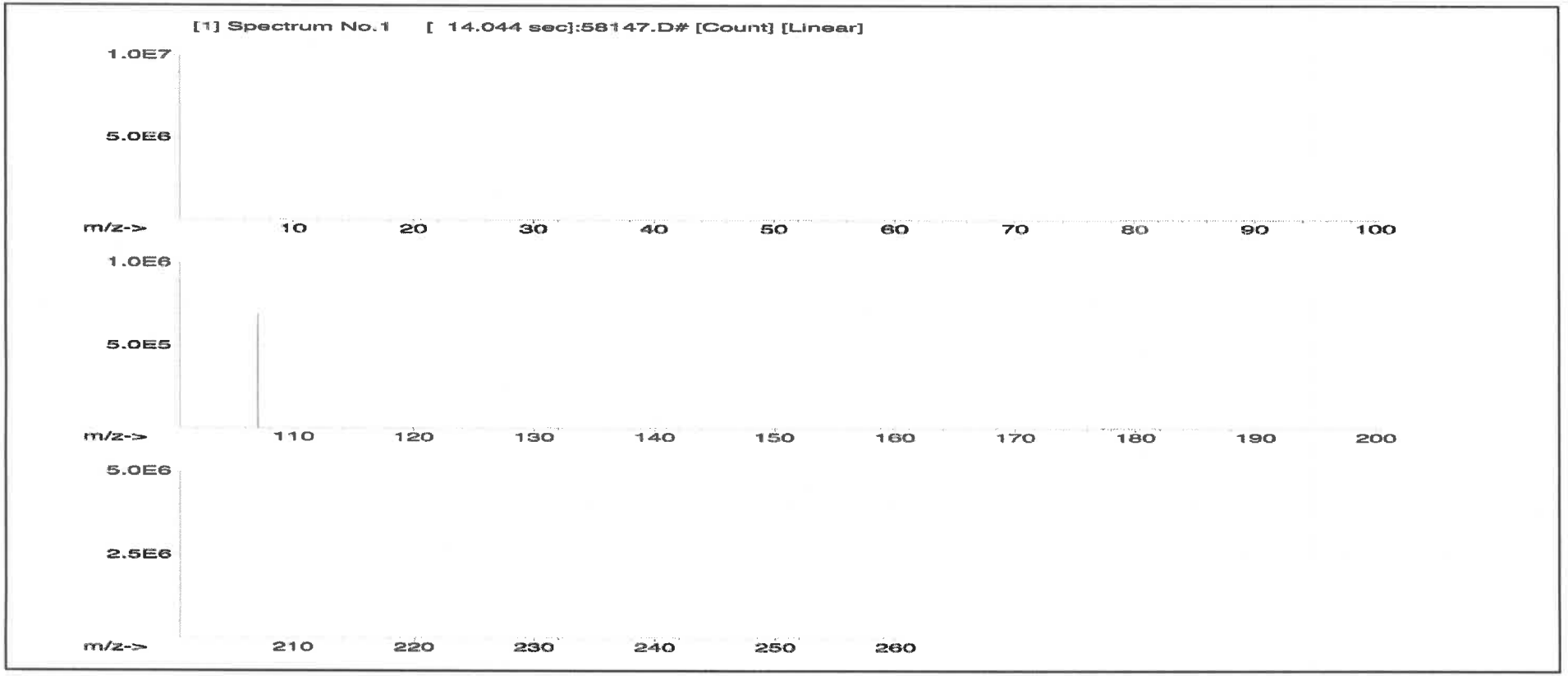
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

R : 04/20/21

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6152

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
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Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6155

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

opened : 3/24/25

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CERTIFIED WEIGHT REPORT:

M6160

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)

Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26 ± 0.058 Flask Uncertainty

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

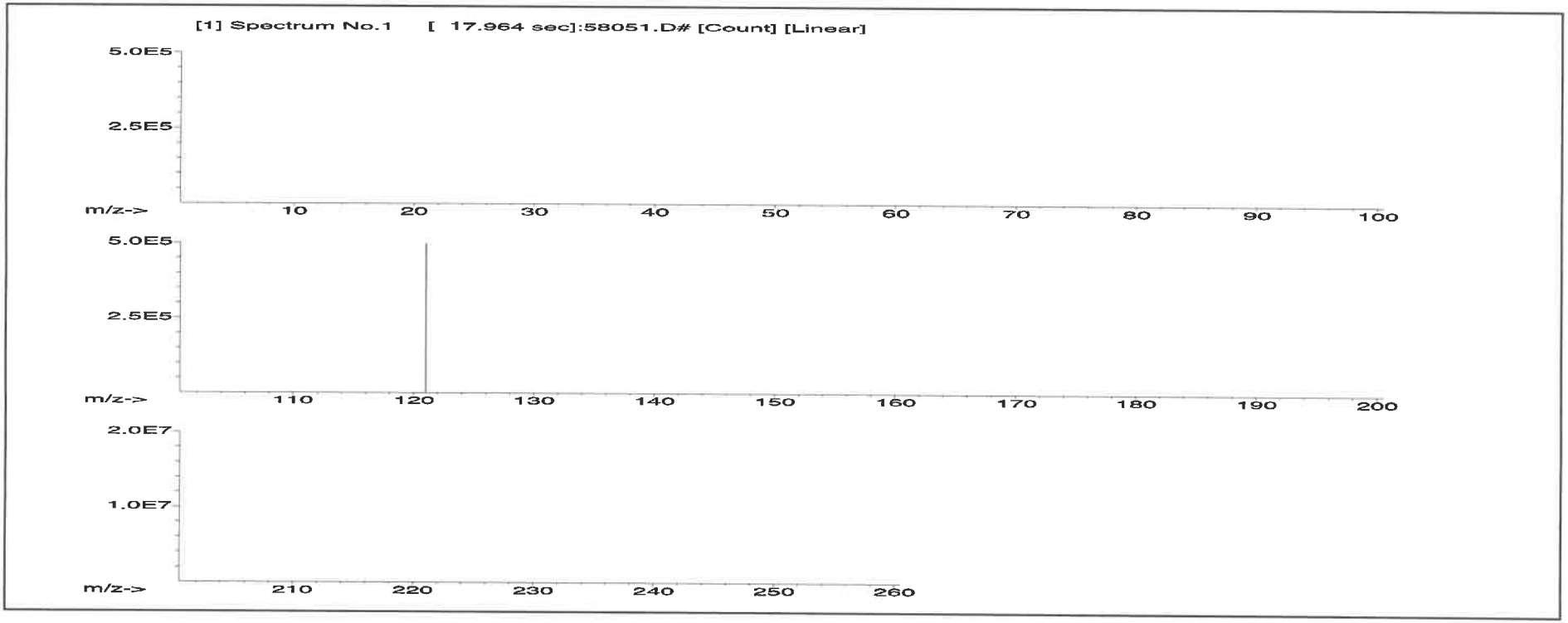
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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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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Certificate of Analysis

R: 8/5/24 M6019

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Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**998 ± 4 µg/mL** ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	**1001 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**1001 ± 2 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_{6}^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

M6023

R ! 8/5/24

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Revised

CERTIFIED WEIGHT REPORT:

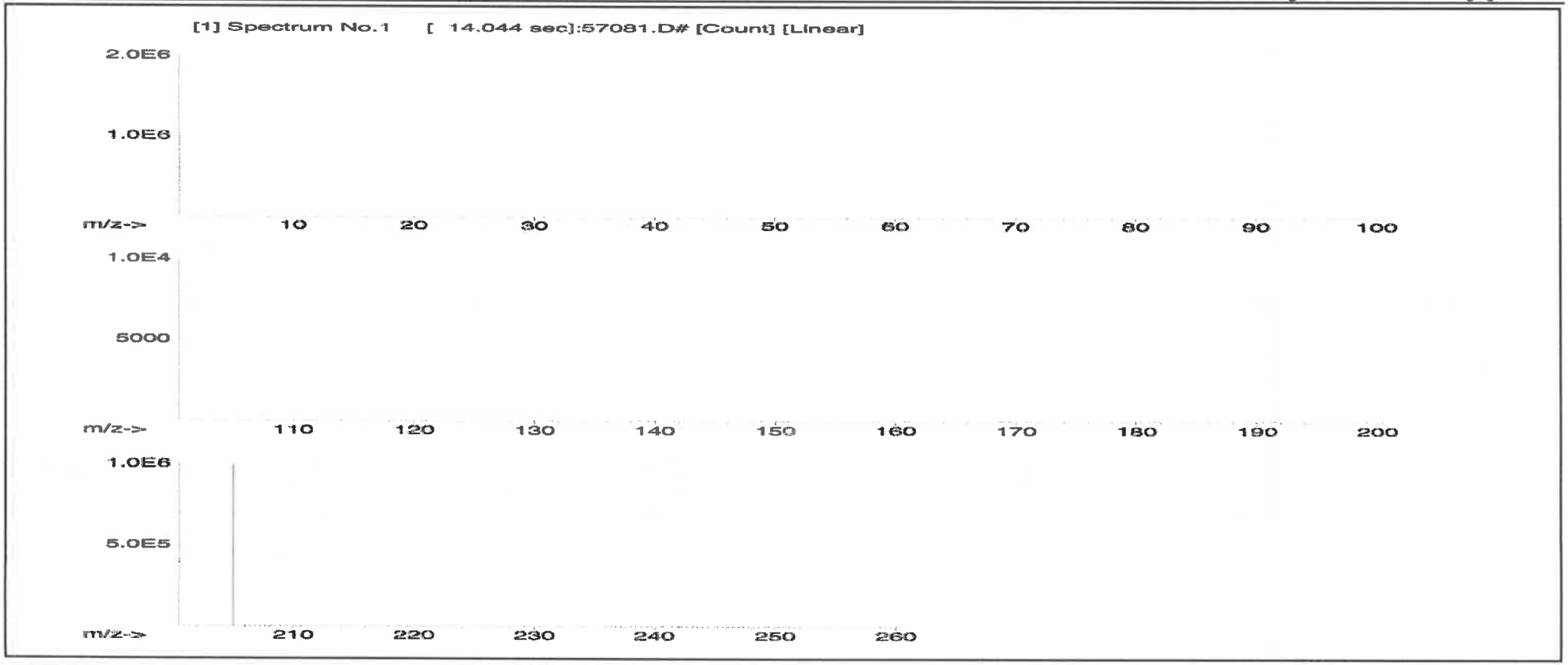
Part Number: 57081
Lot Number: 062724
Description: Thallium (Tl)

Expiration Date: 062727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.1

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.10	Flask Uncertainty	

Aleah O'Brady
Formulated By: Aleah O'Brady 062724
Pedro Rentas
Reviewed By: Pedro L. Rentas 062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M6021

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Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

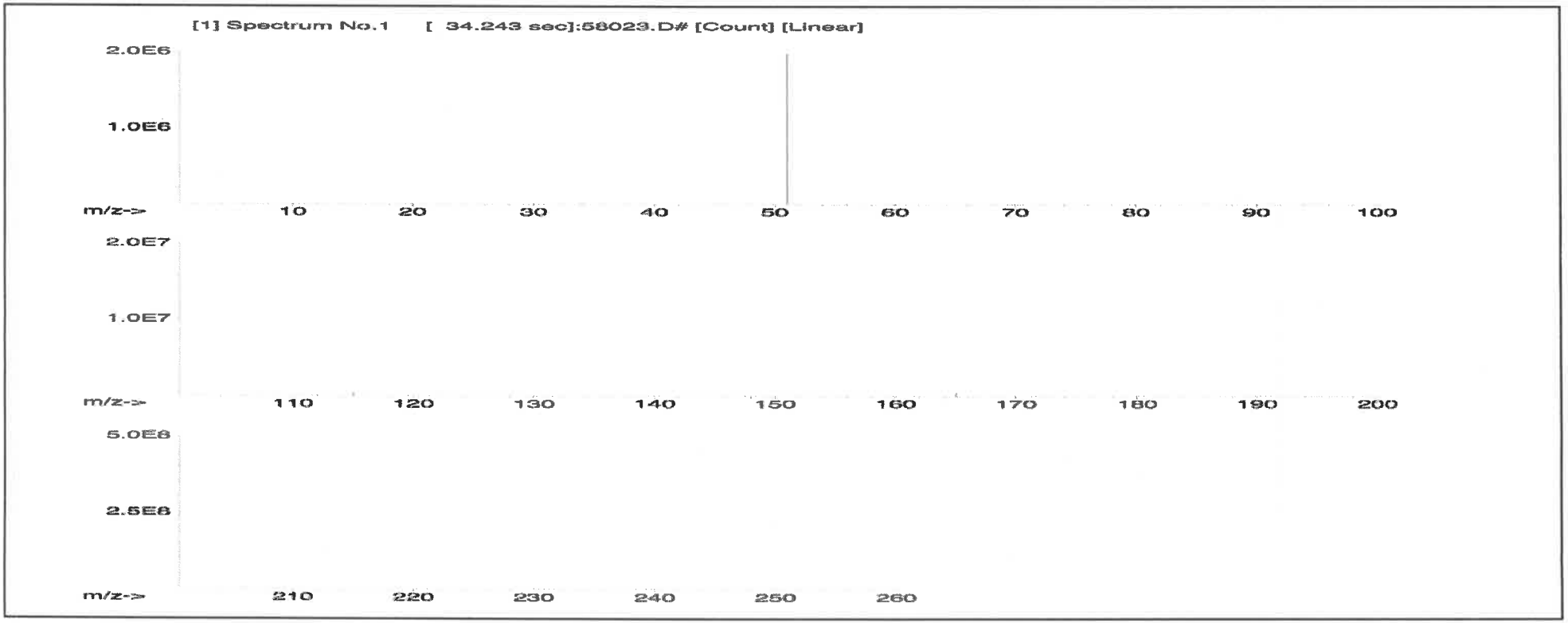
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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ANAB ISO 17034 Accredited
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 · Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q1915
COC Number 2046745

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: CDM Smith
ADDRESS: 110 Fieldcrest Ave #8 6th Flr
CITY Edison STATE: NJ ZIP: 08837
ATTENTION: M Encinas
PHONE: 732 590 4697 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: UTEN UST
PROJECT NO.: LOCATION: Mt Vernon NY
PROJECT MANAGER: M. Encinas
e-mail: EncinasMA@cdmsmith.com
PHONE: 732 590 4697 FAX:

CLIENT BILLING INFORMATION

BILL TO: CDM Smith PO#:
ADDRESS: 110 Fieldcrest Ave #8 6th Flr
CITY Edison STATE: NJ ZIP: 08837
ATTENTION: M. Encinas PHONE: 732 590 4697

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

❑ Level 1 (Results Only) ❑ Level 4 (QC + Full Raw Data)
❑ Level 2 (Results + QC) ❑ NJ Reduced ❑ US EPA CLP
❑ Level 3 (Results + QC + Raw Data) ❑ NYS ASP A ❑ NYS ASP B ❑ Other _____
❑ EDD FORMAT _____

ANALYSIS

1. TCLP VOC
2. TCLP SVOC
3. TCLP metals
4. Ignitability
5. Corrosivity
6. Reactivity
7.
8.
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	WC 04282025	Soil	✓	VOC only	4/28/25	1415	4	✓	✓	✓	✓	✓	✓				
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	4/29/25 1345	1. 1345 4/29/25
2.		2.
3.	4-29-25 1650	3.

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ❑ COOLER TEMP 2.5 °C
Comments: Temp 2.5° CAdjustment factor +1) IR Gun #1

Page _____ of

CLIENT: ❑ Hand Delivered ❑ Other

Shipment Complete ❑ YES ❑ NO

From: Chenenko, Ricky A. <chenenkora@cdmsmith.com>
Sent: Wednesday, May 14, 2025 1:16 PM
To: Yazmeen Gomez; yazmeen; Jordan Hedvat
Cc: Encinas, Marcie (Puskarik)
Subject: RE: Lab report Q1914

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Thanks very much.

From: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Sent: Wednesday, May 14, 2025 1:07 PM
To: Chenenko, Ricky A. <chenenkora@cdmsmith.com>; yazmeen <yazmeen@chemtech.net>; Jordan Hedvat <Jordan.Hedvat@AllianceTG.com>
Cc: Encinas, Marcie (Puskarik) <EncinasMA@cdmsmith.com>
Subject: RE: Lab report Q1914

You don't often get email from yazmeen.gomez@alliancetg.com. Learn why this is important

Ricky,

I have let QA/QC know to create NYS B reports.

They should be uploaded by EOB.

Best Regards,

Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Chenenko, Ricky A. <chenenkora@cdmsmith.com>
Sent: Wednesday, May 14, 2025 11:53 AM
To: yazmeen <yazmeen@chemtech.net>; Jordan Hedvat <jordan.hedvat@alliancetg.com>
Cc: Encinas, Marcie (Puskarik) <EncinasMA@cdmsmith.com>
Subject: Lab report Q1914

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Secured by Check Point

Yazmeen,

Can we get the ASP B report for Q1914? I think I checked off ASP A by mistake.

Thanks,

Ricky

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488