

Cover Page

Order ID : Q2090

Project ID : Transfer Station-SPDES

Client : Tully Environmental, Inc

Lab Sample Number

Q2090-01
Q2090-02

Client Sample Number

001-WILLETS-PT-BLVD(APR)
002-35TH-AVE(APR)

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 : _____

Date: 5/23/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

Tully Environmental, Inc

Project Name: Transfer Station-SPDES

Project # N/A

Order ID # Q2090

Test Name: Metals Group 10

A. Number of Samples and Date of Receipt:

2 Water samples were received on 05/20/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Metals Group 10 and Metals Group 9. This data package contains results for Metals Group 10.

C. Analytical Techniques:

The analysis and digestion of Metals Group 10 was based on method 200.7.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

The temperature of the samples at the time of receipt was 17.8°C.

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_____

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2090

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: 05/23/2025

LAB CHRONICLE

OrderID:	Q2090	OrderDate:	5/20/2025 12:19:00 PM
Client:	Tully Environmental, Inc	Project:	Transfer Station-SPDES
Contact:	Dean Devoe	Location:	L31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2090-01	001-WILLETS-PT-BLV D(APR)	Water			05/16/25			05/20/25
			Metals Group 10	200.7		05/21/25	05/21/25	
Q2090-02	002-35TH-AVE(APR)	Water			05/16/25			05/20/25
			Metals Group 10	200.7		05/21/25	05/21/25	



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Hit Summary Sheet
SW-846

SDG No.: Q2090

Order ID: Q2090

Client: Tully Environmental, Inc

Project ID: Transfer Station-SPDES

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : 001-WILLETS-PT-BLVD(APR)								
Q2090-01	001-WILLETS-PT-BLVD(APR)	Water	Chromium	3.76	J	0.53	5.00	ug/L
Q2090-01	001-WILLETS-PT-BLVD(APR)	Water	Copper	13.9		1.89	10.0	ug/L
Q2090-01	001-WILLETS-PT-BLVD(APR)	Water	Iron	5260		18.0	50.0	ug/L
Q2090-01	001-WILLETS-PT-BLVD(APR)	Water	Lead	9.57		1.21	6.00	ug/L
Client ID : 002-35TH-AVE(APR)								
Q2090-02	002-35TH-AVE(APR)	Water	Chromium	4.94	J	0.53	5.00	ug/L
Q2090-02	002-35TH-AVE(APR)	Water	Copper	17.8		1.89	10.0	ug/L
Q2090-02	002-35TH-AVE(APR)	Water	Iron	8070		18.0	50.0	ug/L
Q2090-02	002-35TH-AVE(APR)	Water	Lead	12.4		1.21	6.00	ug/L



SAMPLE DATA

Report of Analysis

Client:	Tully Environmental, Inc	Date Collected:	05/16/25
Project:	Transfer Station-SPDES	Date Received:	05/20/25
Client Sample ID:	001-WILLETS-PT-BLVD(APR)	SDG No.:	Q2090
Lab Sample ID:	Q2090-01	Matrix:	Water
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	1.85	U	1	1.85	10.0	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7440-43-9	Cadmium	0.31	U	1	0.31	3.00	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7440-47-3	Chromium	3.76	J	1	0.53	5.00	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7440-50-8	Copper	13.9		1	1.89	10.0	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7439-89-6	Iron	5260		1	18.0	50.0	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7439-92-1	Lead	9.57		1	1.21	6.00	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	
7782-49-2	Selenium	2.52	U	1	2.52	10.0	ug/L	05/21/25 10:15	05/21/25 14:35	EPA 200.7	

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:		Artifacts:
Comments:	Metals Group 10			

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

Report of Analysis

Client:	Tully Environmental, Inc	Date Collected:	05/16/25
Project:	Transfer Station-SPDES	Date Received:	05/20/25
Client Sample ID:	002-35TH-AVE(APR)	SDG No.:	Q2090
Lab Sample ID:	Q2090-02	Matrix:	Water
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	1.85	U	1	1.85	10.0	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7440-43-9	Cadmium	0.31	U	1	0.31	3.00	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7440-47-3	Chromium	4.94	J	1	0.53	5.00	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7440-50-8	Copper	17.8		1	1.89	10.0	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7439-89-6	Iron	8070		1	18.0	50.0	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7439-92-1	Lead	12.4		1	1.21	6.00	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	
7782-49-2	Selenium	2.52	U	1	2.52	10.0	ug/L	05/21/25 10:15	05/21/25 14:39	EPA 200.7	

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:		Artifacts:
Comments:	Metals Group 10			

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

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
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	1020	1000	102	95 - 105	P	05/21/2025	13:19	LB135868
	Cadmium	510	510	100	95 - 105	P	05/21/2025	13:19	LB135868
	Chromium	514	520	99	95 - 105	P	05/21/2025	13:19	LB135868
	Copper	514	510	101	95 - 105	P	05/21/2025	13:19	LB135868
	Iron	10400	10000	104	95 - 105	P	05/21/2025	13:19	LB135868
	Lead	989	1000	99	95 - 105	P	05/21/2025	13:19	LB135868
	Selenium	1050	1000	105	95 - 105	P	05/21/2025	13:19	LB135868



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Client:	<u>Tully Environmental, Inc</u>	SDG No.:	<u>Q2090</u>	
Contract:	<u>TULL01</u>	Lab Code:	<u>CHEM</u>	Case No.: <u>Q2090</u> SAS No.: <u>Q2090</u>
Initial Calibration Source:	<u>EPA</u>			
Continuing Calibration Source:	Inorganic Ventures			

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
LLICV01	Arsenic	17.0	20.0	85	80 - 120	P	05/21/2025	13:29	LB135868
	Cadmium	6.06	6.0	101	80 - 120	P	05/21/2025	13:29	LB135868
	Chromium	10.3	10.0	103	80 - 120	P	05/21/2025	13:29	LB135868
	Copper	21.8	20.0	109	80 - 120	P	05/21/2025	13:29	LB135868
	Iron	105	100	105	80 - 120	P	05/21/2025	13:29	LB135868
	Lead	11.0	12.0	92	80 - 120	P	05/21/2025	13:29	LB135868
	Selenium	19.5	20.0	98	80 - 120	P	05/21/2025	13:29	LB135868

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tully Environmental, Inc **SDG No.:** Q2090

Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090

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	4850	5000	97	90 - 110	P	05/21/2025	14:09	LB135868
	Cadmium	2430	2500	97	90 - 110	P	05/21/2025	14:09	LB135868
	Chromium	984	1000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Copper	1230	1250	98	90 - 110	P	05/21/2025	14:09	LB135868
	Iron	5060	5000	101	90 - 110	P	05/21/2025	14:09	LB135868
	Lead	4900	5000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	14:09	LB135868
CCV02	Arsenic	4860	5000	97	90 - 110	P	05/21/2025	15:00	LB135868
	Cadmium	2460	2500	98	90 - 110	P	05/21/2025	15:00	LB135868
	Chromium	995	1000	100	90 - 110	P	05/21/2025	15:00	LB135868
	Copper	1220	1250	98	90 - 110	P	05/21/2025	15:00	LB135868
	Iron	4930	5000	99	90 - 110	P	05/21/2025	15:00	LB135868
	Lead	4910	5000	98	90 - 110	P	05/21/2025	15:00	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	15:00	LB135868
CCV03	Arsenic	4780	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Cadmium	2390	2500	96	90 - 110	P	05/21/2025	16:02	LB135868
	Chromium	983	1000	98	90 - 110	P	05/21/2025	16:02	LB135868
	Copper	1210	1250	97	90 - 110	P	05/21/2025	16:02	LB135868
	Iron	4860	5000	97	90 - 110	P	05/21/2025	16:02	LB135868
	Lead	4810	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Selenium	4790	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
CCV04	Arsenic	4680	5000	94	90 - 110	P	05/21/2025	17:27	LB135868
	Cadmium	2370	2500	95	90 - 110	P	05/21/2025	17:27	LB135868
	Chromium	961	1000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Copper	1190	1250	96	90 - 110	P	05/21/2025	17:27	LB135868
	Iron	4790	5000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Lead	4790	5000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Selenium	4700	5000	94	90 - 110	P	05/21/2025	17:27	LB135868
CCV05	Arsenic	4730	5000	95	90 - 110	P	05/21/2025	18:16	LB135868
	Cadmium	2410	2500	96	90 - 110	P	05/21/2025	18:16	LB135868
	Chromium	984	1000	98	90 - 110	P	05/21/2025	18:16	LB135868
	Copper	1200	1250	96	90 - 110	P	05/21/2025	18:16	LB135868
	Iron	4870	5000	97	90 - 110	P	05/21/2025	18:16	LB135868
	Lead	4830	5000	97	90 - 110	P	05/21/2025	18:16	LB135868

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tully Environmental, Inc **SDG No.:** Q2090

Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090

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	Selenium	4720	5000	94	90 - 110	P	05/21/2025	18:16	LB135868
CCV06	Arsenic	4940	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Cadmium	2500	2500	100	90 - 110	P	05/21/2025	19:08	LB135868
	Chromium	1010	1000	101	90 - 110	P	05/21/2025	19:08	LB135868
	Copper	1240	1250	99	90 - 110	P	05/21/2025	19:08	LB135868
	Iron	4970	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Lead	4990	5000	100	90 - 110	P	05/21/2025	19:08	LB135868
	Selenium	4940	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
CCV07	Arsenic	4940	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
	Cadmium	2480	2500	99	90 - 110	P	05/21/2025	19:57	LB135868
	Chromium	1000	1000	100	90 - 110	P	05/21/2025	19:57	LB135868
	Copper	1240	1250	99	90 - 110	P	05/21/2025	19:57	LB135868
	Iron	4920	5000	98	90 - 110	P	05/21/2025	19:57	LB135868
	Lead	4950	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
	Selenium	4970	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
CCV08	Arsenic	4800	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Cadmium	2410	2500	96	90 - 110	P	05/21/2025	20:43	LB135868
	Chromium	974	1000	97	90 - 110	P	05/21/2025	20:43	LB135868
	Copper	1210	1250	97	90 - 110	P	05/21/2025	20:43	LB135868
	Iron	4720	5000	94	90 - 110	P	05/21/2025	20:43	LB135868
	Lead	4820	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Selenium	4820	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
CCV09	Arsenic	4790	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Cadmium	2440	2500	98	90 - 110	P	05/21/2025	21:29	LB135868
	Chromium	993	1000	99	90 - 110	P	05/21/2025	21:29	LB135868
	Copper	1200	1250	96	90 - 110	P	05/21/2025	21:29	LB135868
	Iron	4750	5000	95	90 - 110	P	05/21/2025	21:29	LB135868
	Lead	4890	5000	98	90 - 110	P	05/21/2025	21:29	LB135868
	Selenium	4790	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
CCV10	Arsenic	4860	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Cadmium	2430	2500	97	90 - 110	P	05/21/2025	21:50	LB135868
	Chromium	987	1000	99	90 - 110	P	05/21/2025	21:50	LB135868
	Copper	1230	1250	98	90 - 110	P	05/21/2025	21:50	LB135868
	Iron	4730	5000	95	90 - 110	P	05/21/2025	21:50	LB135868

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
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
CCV10	Lead	4870	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	21:50	LB135868



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Metals

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CRDL STANDARD FOR AA & ICP

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
Initial Calibration Source: _____
Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	17.9	20.0	89	65 - 135	P	05/21/2025	13:43	LB135868
	Cadmium	6.27	6.0	104	65 - 135	P	05/21/2025	13:43	LB135868
	Chromium	10.6	10.0	106	65 - 135	P	05/21/2025	13:43	LB135868
	Copper	22.4	20.0	112	65 - 135	P	05/21/2025	13:43	LB135868
	Iron	106	100	106	65 - 135	P	05/21/2025	13:43	LB135868
	Lead	11.1	12.0	92	65 - 135	P	05/21/2025	13:43	LB135868
	Selenium	18.3	20.0	92	65 - 135	P	05/21/2025	13:43	LB135868



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Fax : 908 789 8922

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	13:36	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	13:36	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	13:36	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	13:36	LB135868
	Iron	26.9	+/-50	J	100	P	05/21/2025	13:36	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	13:36	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	13:36	LB135868

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tully Environmental, Inc		SDG No.: Q2090							
Contract: TULL01	Lab Code: CHEM	Case No.: Q2090	SAS No.: Q2090						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	14:13	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	14:13	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	14:13	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	14:13	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	14:13	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	14:13	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	14:13	LB135868
CCB02	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	15:04	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	15:04	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	15:04	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	15:04	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	15:04	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	15:04	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	15:04	LB135868
CCB03	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	16:25	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	16:25	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	16:25	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	16:25	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	16:25	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	16:25	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	16:25	LB135868
CCB04	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	17:32	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	17:32	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	17:32	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	17:32	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	17:32	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	17:32	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	17:32	LB135868
CCB05	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	18:20	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	18:20	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	18:20	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	18:20	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	18:20	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	18:20	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	18:20	LB135868
CCB06	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	19:16	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	19:16	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	19:16	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	19:16	LB135868

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Tully Environmental, Inc		SDG No.: Q2090							
Contract: TULL01	Lab Code: CHEM	Case No.: Q2090	SAS No.: Q2090						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Iron	23.4	+/-50	U	100	P	05/21/2025	19:16	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	19:16	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	19:16	LB135868
CCB07	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	20:02	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	20:02	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	20:02	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	20:02	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	20:02	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	20:02	LB135868
CCB08	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	20:02	LB135868
	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	20:48	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	20:48	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	20:48	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	20:48	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	20:48	LB135868
CCB09	Lead	2.30	+/-6	U	12.0	P	05/21/2025	20:48	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	20:48	LB135868
	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	21:34	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	21:34	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	21:34	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	21:34	LB135868
CCB10	Iron	23.4	+/-50	U	100	P	05/21/2025	21:34	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	21:34	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	21:34	LB135868
	Arsenic	5.12	+/-10	U	20.0	P	05/21/2025	21:54	LB135868
	Cadmium	0.50	+/-3	U	6.00	P	05/21/2025	21:54	LB135868
	Chromium	2.12	+/-5	U	10.0	P	05/21/2025	21:54	LB135868
	Copper	4.60	+/-10	U	20.0	P	05/21/2025	21:54	LB135868
	Iron	23.4	+/-50	U	100	P	05/21/2025	21:54	LB135868
	Lead	2.30	+/-6	U	12.0	P	05/21/2025	21:54	LB135868
	Selenium	9.64	+/-10	U	20.0	P	05/21/2025	21:54	LB135868

Metals
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PREPARATION BLANK SUMMARY

Client: Tully Environmental, Inc

SDG No.: Q2090

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168107BL	WATER			Batch Number:	PB168107		Prep Date:	05/21/2025	
	Arsenic	1.85	<5	U	10.0	P	05/21/2025	17:41	LB135868
	Cadmium	0.31	<1.5	U	3.00	P	05/21/2025	17:41	LB135868
	Chromium	0.53	<2.5	U	5.00	P	05/21/2025	17:41	LB135868
	Copper	1.89	<5	U	10.0	P	05/21/2025	17:41	LB135868
	Iron	18.0	<25	U	50.0	P	05/21/2025	17:41	LB135868
	Lead	1.21	<3	U	6.00	P	05/21/2025	17:41	LB135868
	Selenium	2.52	<5	U	10.0	P	05/21/2025	17:41	LB135868

Metals
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INTERFERENCE CHECK SAMPLE

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
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	4.10			-20	20	05/21/2025	13:52	LB135868
	Cadmium	2.19	1.0	219	-5	7	05/21/2025	13:52	LB135868
	Chromium	55.3	52.0	106	42	62	05/21/2025	13:52	LB135868
	Copper	3.11	2.0	156	-18	22	05/21/2025	13:52	LB135868
	Iron	91300	101000	90	85600	116500	05/21/2025	13:52	LB135868
	Lead	4.38			-12	12	05/21/2025	13:52	LB135868
	Selenium	-13.8			-20	20	05/21/2025	13:52	LB135868
ICSAB01	Arsenic	108	104	104	88.4	120	05/21/2025	13:56	LB135868
	Cadmium	960	972	99	826	1120	05/21/2025	13:56	LB135868
	Chromium	526	542	97	460	624	05/21/2025	13:56	LB135868
	Copper	471	511	92	434	588	05/21/2025	13:56	LB135868
	Iron	91200	99300	92	84400	114500	05/21/2025	13:56	LB135868
	Lead	48.7	49.0	99	37	61	05/21/2025	13:56	LB135868
	Selenium	33.9	46.0	74	26	66	05/21/2025	13:56	LB135868
ICSA	Arsenic	26.9			-20	20	05/21/2025	14:00	LB135868
	Cadmium	-1.84	1.0	184	-5	7	05/21/2025	14:00	LB135868
	Chromium	58.8	52.0	113	42	62	05/21/2025	14:00	LB135868
	Copper	11.6	2.0	580	-18	22	05/21/2025	14:00	LB135868
	Iron	89000	101000	88	85600	116500	05/21/2025	14:00	LB135868
	Lead	-3.72			-12	12	05/21/2025	14:00	LB135868
	Selenium	62.3			-20	20	05/21/2025	14:00	LB135868
ICSAB	Arsenic	33.2	104	32	88.4	120	05/21/2025	14:05	LB135868
	Cadmium	968	972	100	826	1120	05/21/2025	14:05	LB135868
	Chromium	549	542	101	460	624	05/21/2025	14:05	LB135868
	Copper	494	511	97	434	588	05/21/2025	14:05	LB135868
	Iron	95000	99300	96	84400	114500	05/21/2025	14:05	LB135868
	Lead	23.0	49.0	47	37	61	05/21/2025	14:05	LB135868
	Selenium	12.8	46.0	28	26	66	05/21/2025	14:05	LB135868



METAL

QC

DATA

metals
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MATRIX SPIKE SUMMARY

client: Tully Environmental, Inc **level:** low **sdg no.:** Q2090
contract: TULL01 **lab code:** CHEM **case no.:** Q2090 **sas no.:** Q2090
matrix: Water **sample id:** Q2090-02 **client id:** 002-35TH-AVE(APR)MS
Percent Solids for Sample: NA **Spiked ID:** Q2090-02MS **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	465		10.0	U	400	116		P
Cadmium	ug/L	75 - 125	115		3.00	U	100	115		P
Chromium	ug/L	75 - 125	237		4.94	J	200	116		P
Copper	ug/L	75 - 125	187		17.8		150	113		P
Iron	ug/L	75 - 125	9800		8070		1500	115		P
Lead	ug/L	75 - 125	567		12.4		500	111		P
Selenium	ug/L	75 - 125	1030		10.0	U	1000	103		P

metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Tully Environmental, Inc **level:** low **sdg no.:** Q2090
contract: TULL01 **lab code:** CHEM **case no.:** Q2090 **sas no.:** Q2090
matrix: Water **sample id:** Q2090-02 **client id:** 002-35TH-AVE(APR)MSD
Percent Solids for Sample: NA **Spiked ID:** Q2090-02MSD **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	434		10.0	U	400	108		P
Cadmium	ug/L	75 - 125	106		3.00	U	100	106		P
Chromium	ug/L	75 - 125	219		4.94	J	200	107		P
Copper	ug/L	75 - 125	173		17.8		150	103		P
Iron	ug/L	75 - 125	8340		8070		1500	18		P
Lead	ug/L	75 - 125	523		12.4		500	102		P
Selenium	ug/L	75 - 125	958		10.0	U	1000	96		P

Metals

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Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090 **SAS No.:** Q2090

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: Tully Environmental, Inc **Level:** LOW **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
Matrix: Water **Sample ID:** Q2090-02 **Client ID:** 002-35TH-AVE(APR)DUP
Percent Solids for Sample: NA **Duplicate ID** Q2090-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	10.0	U	10.0	U			P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Chromium	ug/L	20	4.94	J	4.81	J	3		P
Copper	ug/L	20	17.8		17.2		3		P
Iron	ug/L	20	8070		7650		5		P
Lead	ug/L	20	12.4		11.9		4		P
Selenium	ug/L	20	10.0	U	10.0	U			P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: Tully Environmental, Inc **Level:** LOW **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090
Matrix: Water **Sample ID:** Q2090-02MS **Client ID:** 002-35TH-AVE(APR)MSD
Percent Solids for Sample: NA **Duplicate ID** Q2090-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	465		434		7		P
Cadmium	ug/L	20	115		106		8		P
Chromium	ug/L	20	237		219		8		P
Copper	ug/L	20	187		173		8		P
Iron	ug/L	20	9800		8340		16		P
Lead	ug/L	20	567		523		8		P
Selenium	ug/L	20	1030		958		7		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Case No.:** Q2090 **SAS No.:** Q2090

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168107BS							
Arsenic	ug/L	400	379		95	85 - 115	P
Cadmium	ug/L	100	96.0		96	85 - 115	P
Chromium	ug/L	200	190		95	85 - 115	P
Copper	ug/L	150	145		97	85 - 115	P
Iron	ug/L	1500	1380		92	85 - 115	P
Lead	ug/L	500	468		94	85 - 115	P
Selenium	ug/L	1000	962		96	85 - 115	P

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

002-35TH-AVE(APR)L

Lab Name: Chemtech Consulting Group

Contract: TULL01

Lab Code: CHEM **Lb No.:** lb135868 **Lab Sample ID :** Q2090-02L **SDG No.:** Q2090

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Arsenic	10.0	U	50.0	U			P
Cadmium	3.00	U	15.0	U			P
Chromium	4.94	J	5.26	J	6		P
Copper	17.8		22.8	J	28		P
Iron	8070		7680		5		P
Lead	12.4		10.8	J	13		P
Selenium	10.0	U	50.0	U			P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

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
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
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

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
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
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

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
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
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

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
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
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Tully Environmental, Inc

SDG No.: Q2090

Contract: TULL01

Lab Code: CHEM

Case No.: Q2090

SAS No.: Q2090

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
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
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client: Tully Environmental, Inc **SDG No.:** Q2090
Contract: TULL01 **Lab Code:** CHEM **Method:**
Case No.: Q2090 **SAS No.:** Q2090

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB168107							
PB168107BL	PB168107BL	MB	WATER	05/21/2025	50.0	25.0	
PB168107BS	PB168107BS	LCS	WATER	05/21/2025	50.0	25.0	
Q2090-01	001-WILLETS-PT-BLVD(APR)	SAM	WATER	05/21/2025	50.0	25.0	
Q2090-02	002-35TH-AVE(APR)	SAM	WATER	05/21/2025	50.0	25.0	
Q2090-02DUP	002-35TH-AVE(APR)DUP	DUP	WATER	05/21/2025	50.0	25.0	
Q2090-02MS	002-35TH-AVE(APR)MS	MS	WATER	05/21/2025	50.0	25.0	
Q2090-02MSD	002-35TH-AVE(APR)MSD	MSD	WATER	05/21/2025	50.0	25.0	

metals
- 14 -
ANALYSIS RUN LOG

Client: Tully Environmental, Inc **Contract:** TULL01

Lab code: CHEM **Case no.:** Q2090 **Sas no.:** Q2090 **Sdg no.:** Q2090

Instrument id number: **Method:** **Run number:** LB135868

Start date: 05/21/2025 **End date:** 05/21/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1205	As,Cd,Cr,Cu,Fe,Pb,Se
S1	S1	1	1209	As,Cd,Cr,Cu,Fe,Pb,Se
S2	S2	1	1213	As,Cd,Cr,Cu,Fe,Pb,Se
S3	S3	1	1217	As,Cd,Cr,Cu,Fe,Pb,Se
S4	S4	1	1222	As,Cd,Cr,Cu,Fe,Pb,Se
S5	S5	1	1226	As,Cd,Cr,Cu,Fe,Pb,Se
ICV01	ICV01	1	1319	As,Cd,Cr,Cu,Fe,Pb,Se
LLICV01	LLICV01	1	1329	As,Cd,Cr,Cu,Fe,Pb,Se
ICB01	ICB01	1	1336	As,Cd,Cr,Cu,Fe,Pb,Se
CRI01	CRI01	1	1343	As,Cd,Cr,Cu,Fe,Pb,Se
ICSA01	ICSA01	1	1352	As,Cd,Cr,Cu,Fe,Pb,Se
ICSAB01	ICSAB01	1	1356	As,Cd,Cr,Cu,Fe,Pb,Se
ICSA	ICSA	20	1400	As,Cd,Cr,Cu,Fe,Pb,Se
ICSAB	ICSAB	20	1405	As,Cd,Cr,Cu,Fe,Pb,Se
CCV01	CCV01	1	1409	As,Cd,Cr,Cu,Fe,Pb,Se
CCB01	CCB01	1	1413	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-01	001-WILLETS-PT-BLVD(APR)	1	1435	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-02	002-35TH-AVE(APR)	1	1439	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-02DUP	002-35TH-AVE(APR)DUP	1	1444	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-02L	002-35TH-AVE(APR)L	5	1448	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-02MS	002-35TH-AVE(APR)MS	1	1452	As,Cd,Cr,Cu,Fe,Pb,Se
Q2090-02MSD	002-35TH-AVE(APR)MSD	1	1456	As,Cd,Cr,Cu,Fe,Pb,Se
CCV02	CCV02	1	1500	As,Cd,Cr,Cu,Fe,Pb,Se
CCB02	CCB02	1	1504	As,Cd,Cr,Cu,Fe,Pb,Se
CCV03	CCV03	1	1602	As,Cd,Cr,Cu,Fe,Pb,Se
CCB03	CCB03	1	1625	As,Cd,Cr,Cu,Fe,Pb,Se
CCV04	CCV04	1	1727	As,Cd,Cr,Cu,Fe,Pb,Se
CCB04	CCB04	1	1732	As,Cd,Cr,Cu,Fe,Pb,Se
PB168107BL	PB168107BL	1	1741	As,Cd,Cr,Cu,Fe,Pb,Se
PB168107BS	PB168107BS	1	1745	As,Cd,Cr,Cu,Fe,Pb,Se
CCV05	CCV05	1	1816	As,Cd,Cr,Cu,Fe,Pb,Se
CCB05	CCB05	1	1820	As,Cd,Cr,Cu,Fe,Pb,Se
CCV06	CCV06	1	1908	As,Cd,Cr,Cu,Fe,Pb,Se
CCB06	CCB06	1	1916	As,Cd,Cr,Cu,Fe,Pb,Se
CCV07	CCV07	1	1957	As,Cd,Cr,Cu,Fe,Pb,Se
CCB07	CCB07	1	2002	As,Cd,Cr,Cu,Fe,Pb,Se
CCV08	CCV08	1	2043	As,Cd,Cr,Cu,Fe,Pb,Se
CCB08	CCB08	1	2048	As,Cd,Cr,Cu,Fe,Pb,Se
CCV09	CCV09	1	2129	As,Cd,Cr,Cu,Fe,Pb,Se
CCB09	CCB09	1	2134	As,Cd,Cr,Cu,Fe,Pb,Se
CCV10	CCV10	1	2150	As,Cd,Cr,Cu,Fe,Pb,Se

metals
- 14 -
ANALYSIS RUN LOG

Client: Tully Environmental, Inc

Contract: TULL01

Lab code: CHEM **Case no.:** Q2090 **Sas no.:** Q2090

Sdg no.: Q2090

Instrument id number: **Method:**

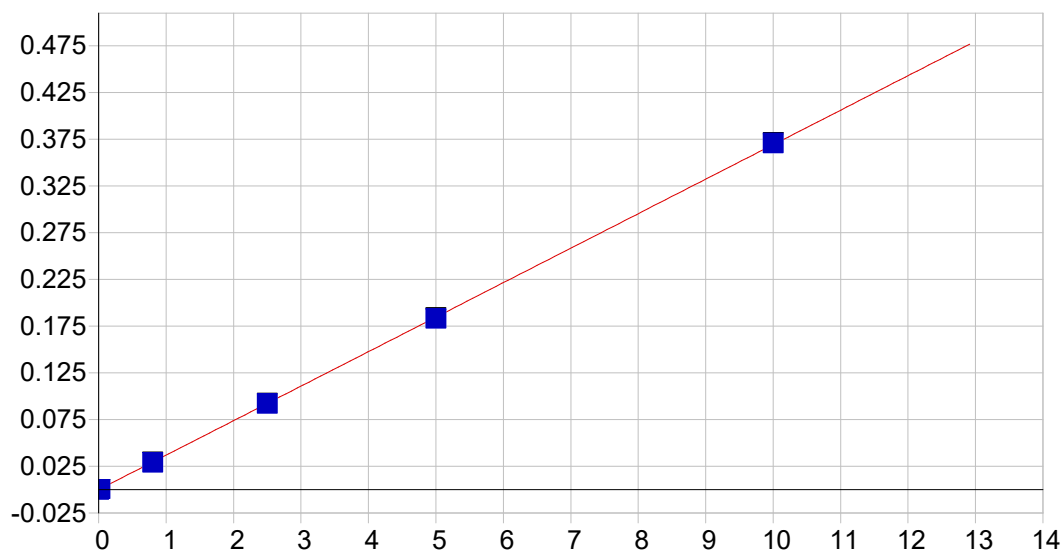
Run number: LB135868

Start date: 05/21/2025 **End date:** 05/21/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCB10	CCB10	1	2154	As,Cd,Cr,Cu,Fe,Pb,Se



METAL RAW DATA

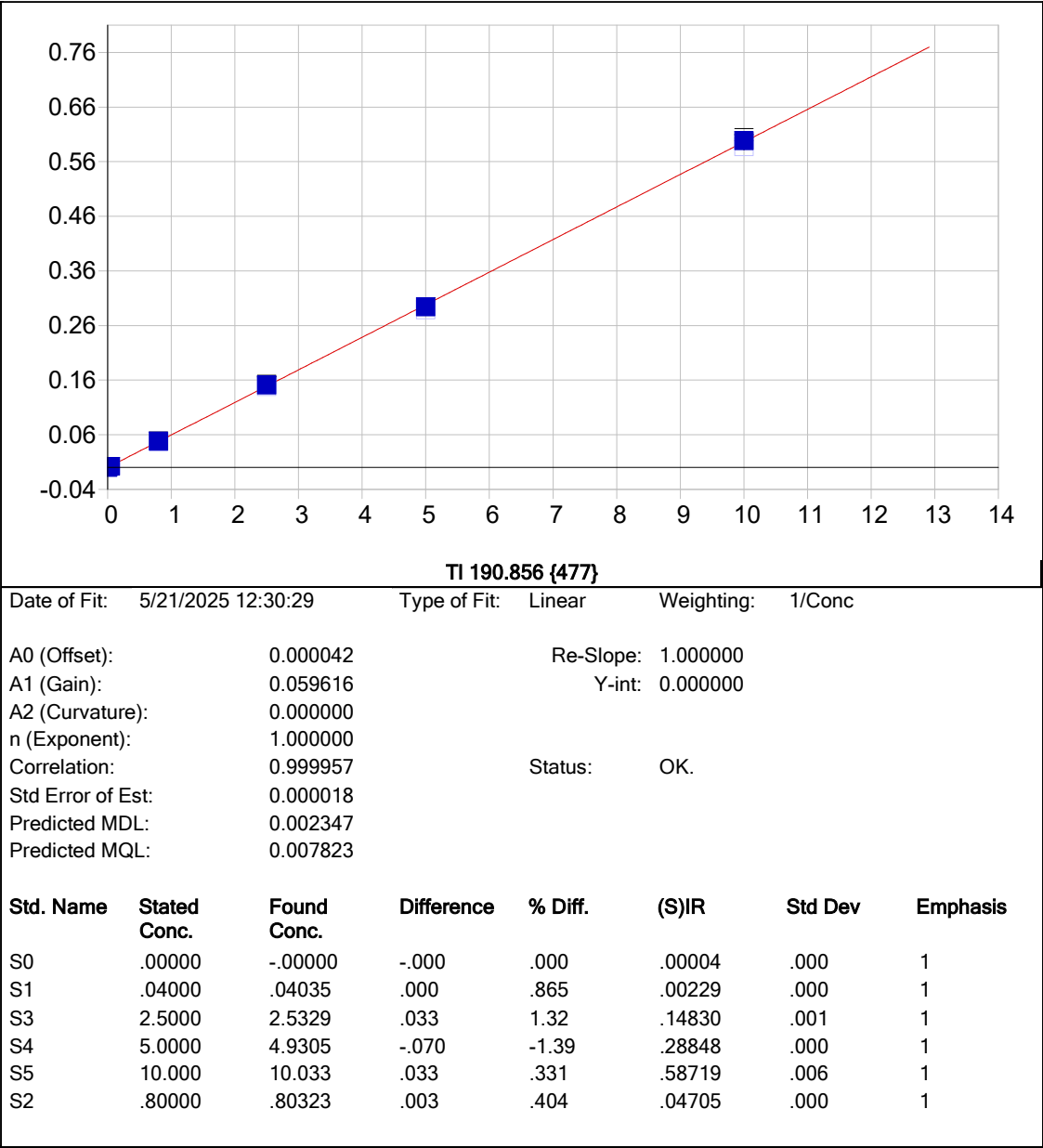


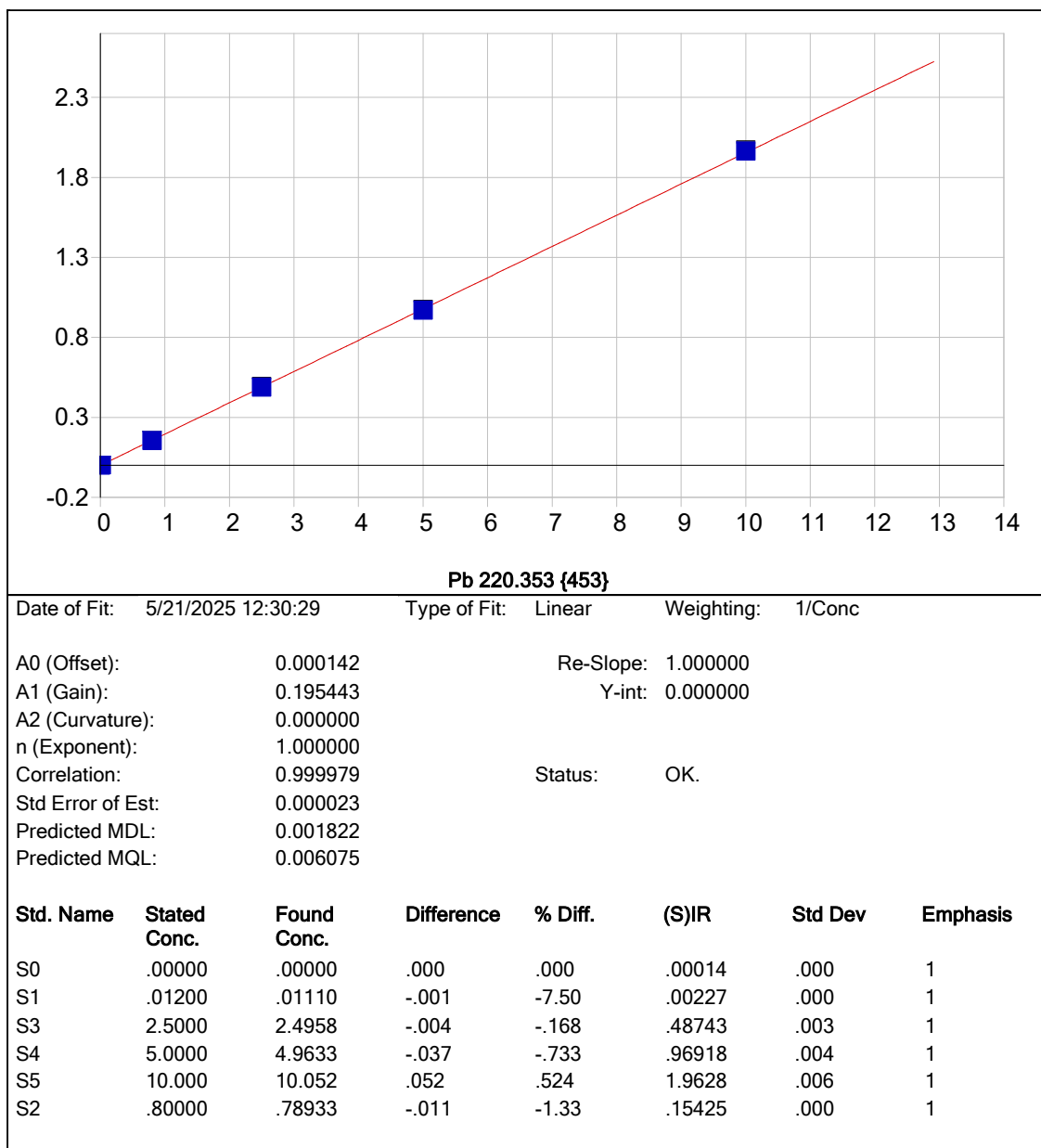
As 189.042 {479}

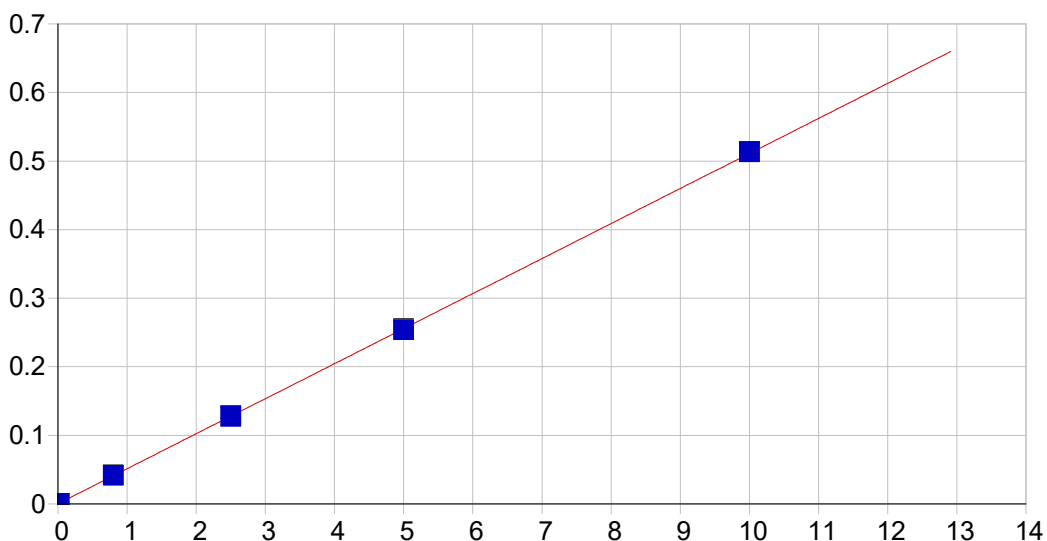
Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000029 Re-Slope: 1.000000
A1 (Gain): 0.036924 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999982 Status: OK.
Std Error of Est: 0.000005
Predicted MDL: 0.003990
Predicted MQL: 0.013299

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00003	.000	1
S1	.02000	.01887	-.001	-5.63	.00066	.000	1
S3	2.5000	2.4977	-.002	-.092	.09210	.000	1
S4	5.0000	4.9643	-.036	-.714	.18308	.001	1
S5	10.000	10.048	.048	.480	.37059	.001	1
S2	.80000	.79114	-.009	-1.11	.02915	.000	1





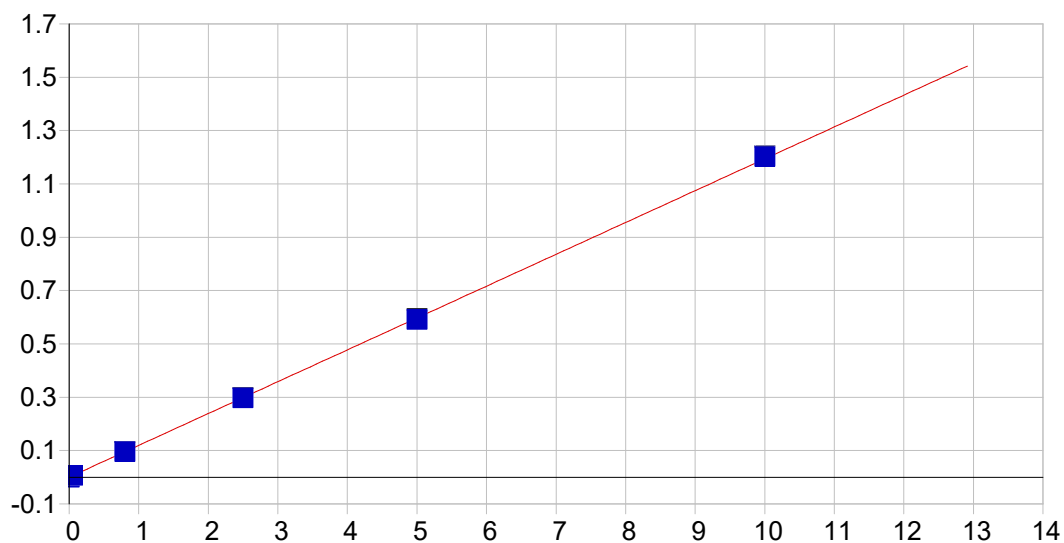


Se 196.090 {472}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000210 Re-Slope: 1.000000
A1 (Gain): 0.051083 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999979 Status: OK.
Std Error of Est: 0.000008
Predicted MDL: 0.004163
Predicted MQL: 0.013875

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.02000	.01768	-.002	-11.6	.00111	.000	1
S3	2.5000	2.4918	-.008	-.330	.12745	.001	1
S4	5.0000	4.9630	-.037	-.740	.25364	.001	1
S5	10.000	10.042	.042	.417	.51299	.001	1
S2	.80000	.80587	.006	.734	.04136	.000	1

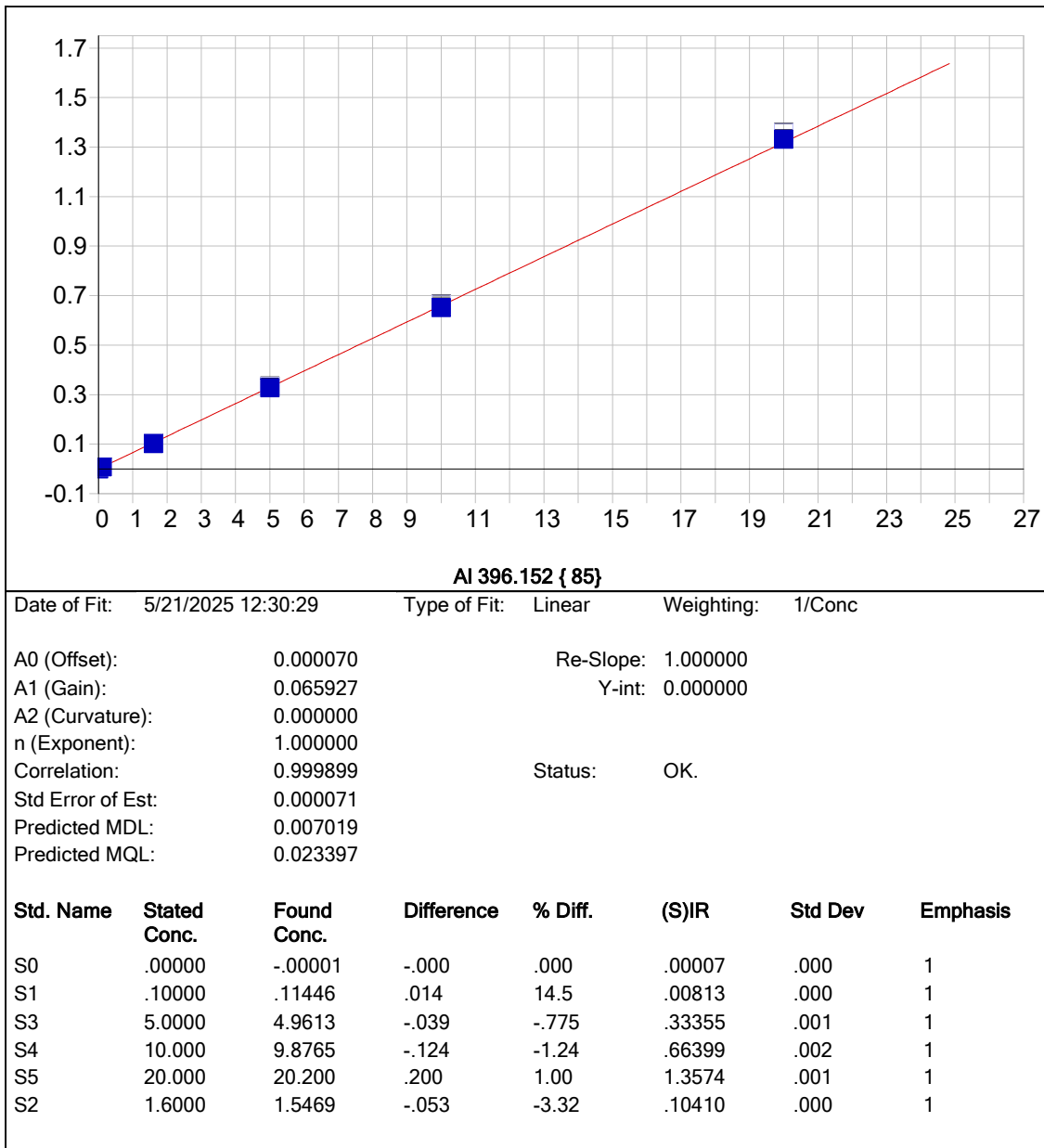


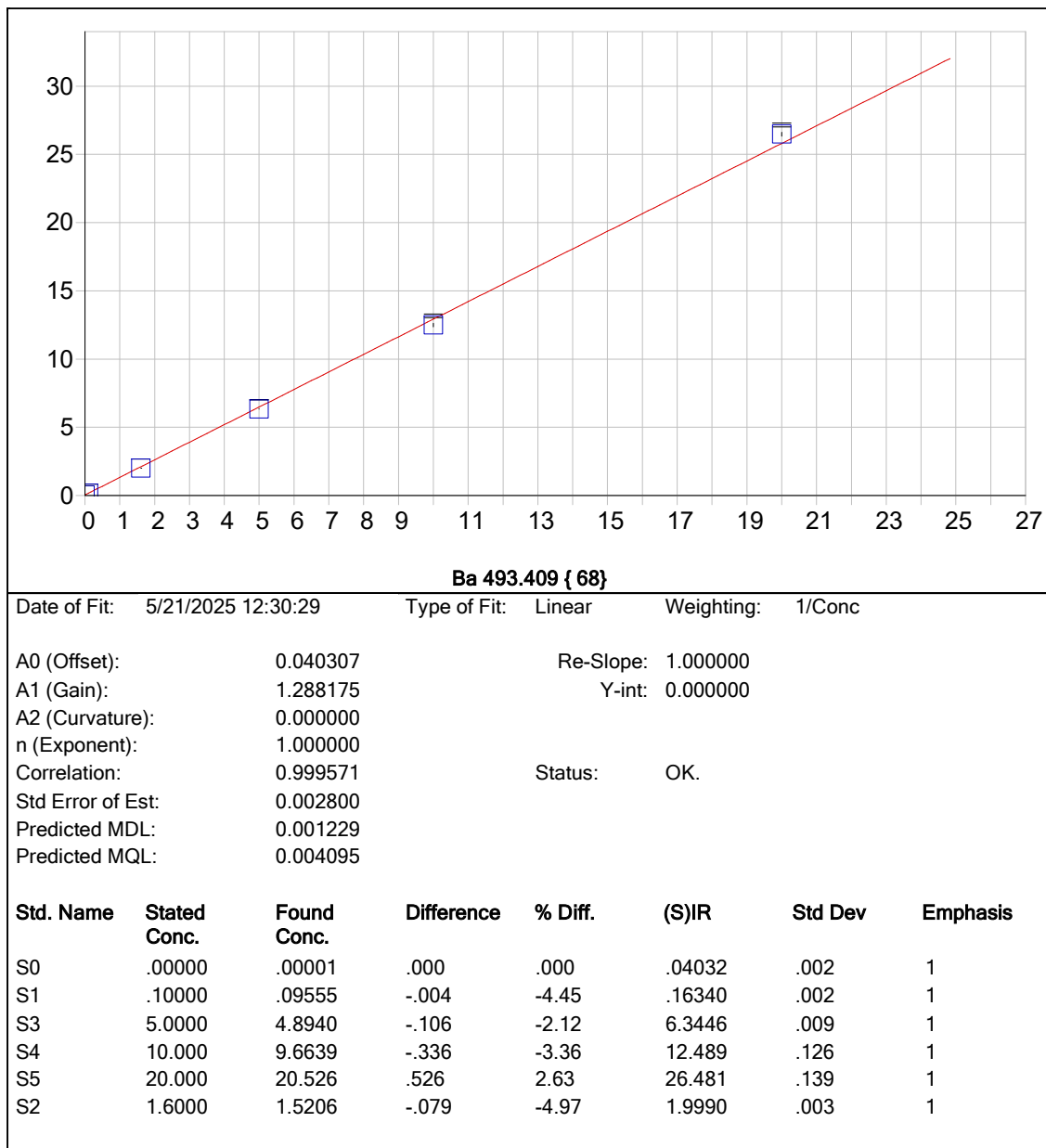
Sb 206.833 {463}

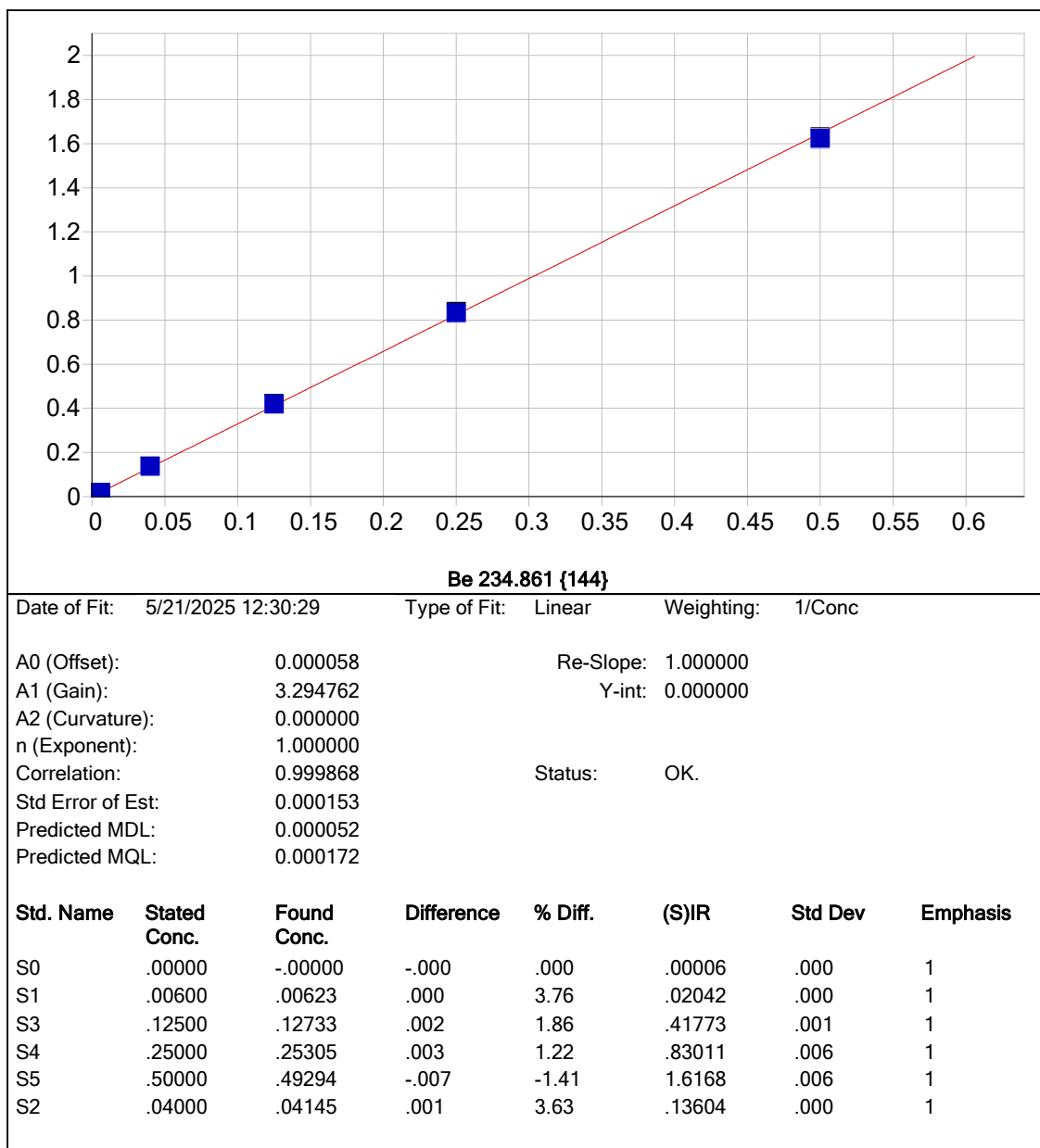
Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

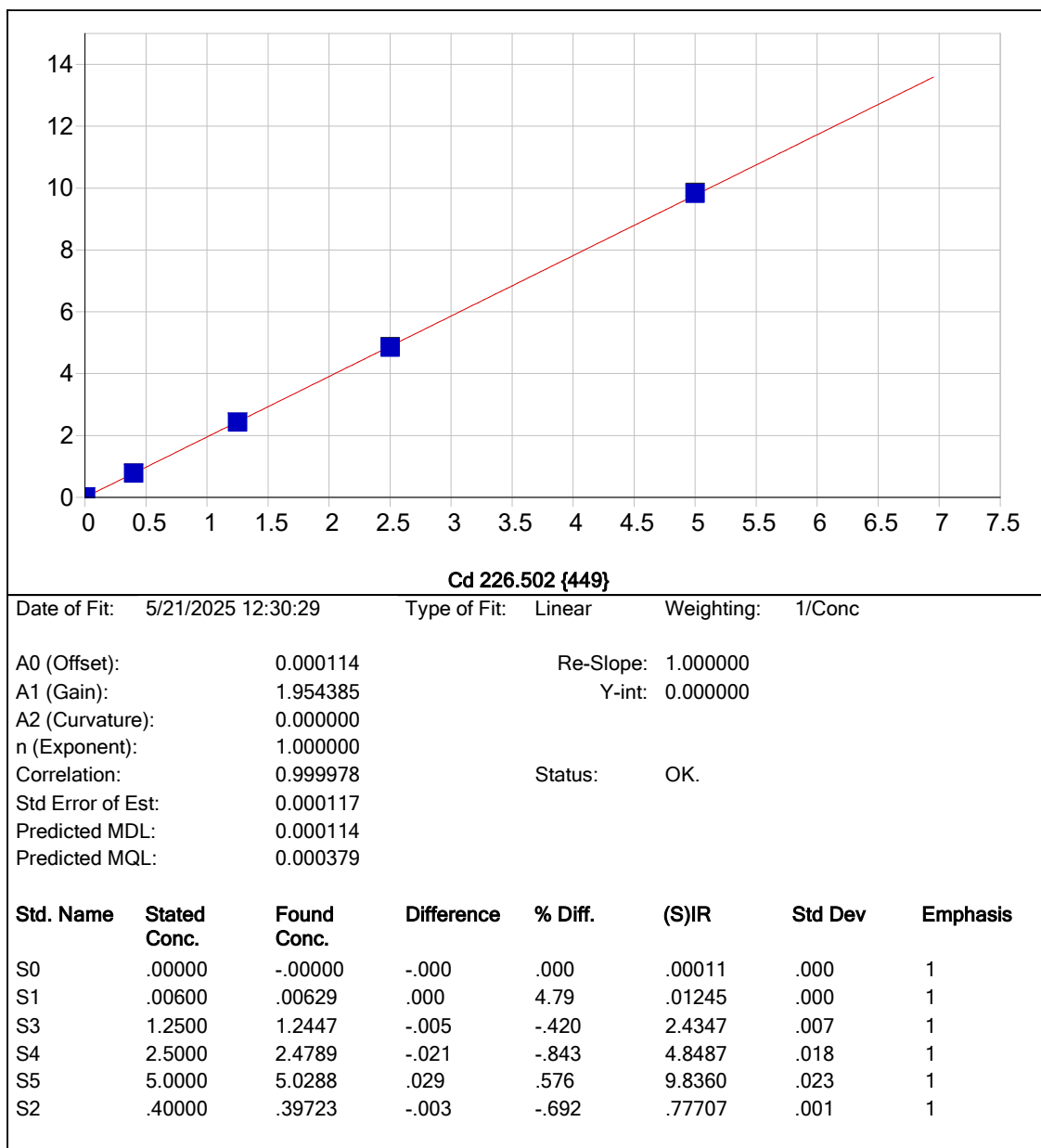
A0 (Offset): 0.000167 Re-Slope: 1.000000
A1 (Gain): 0.119391 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999964 Status: OK.
Std Error of Est: 0.000037
Predicted MDL: 0.002432
Predicted MQL: 0.008108

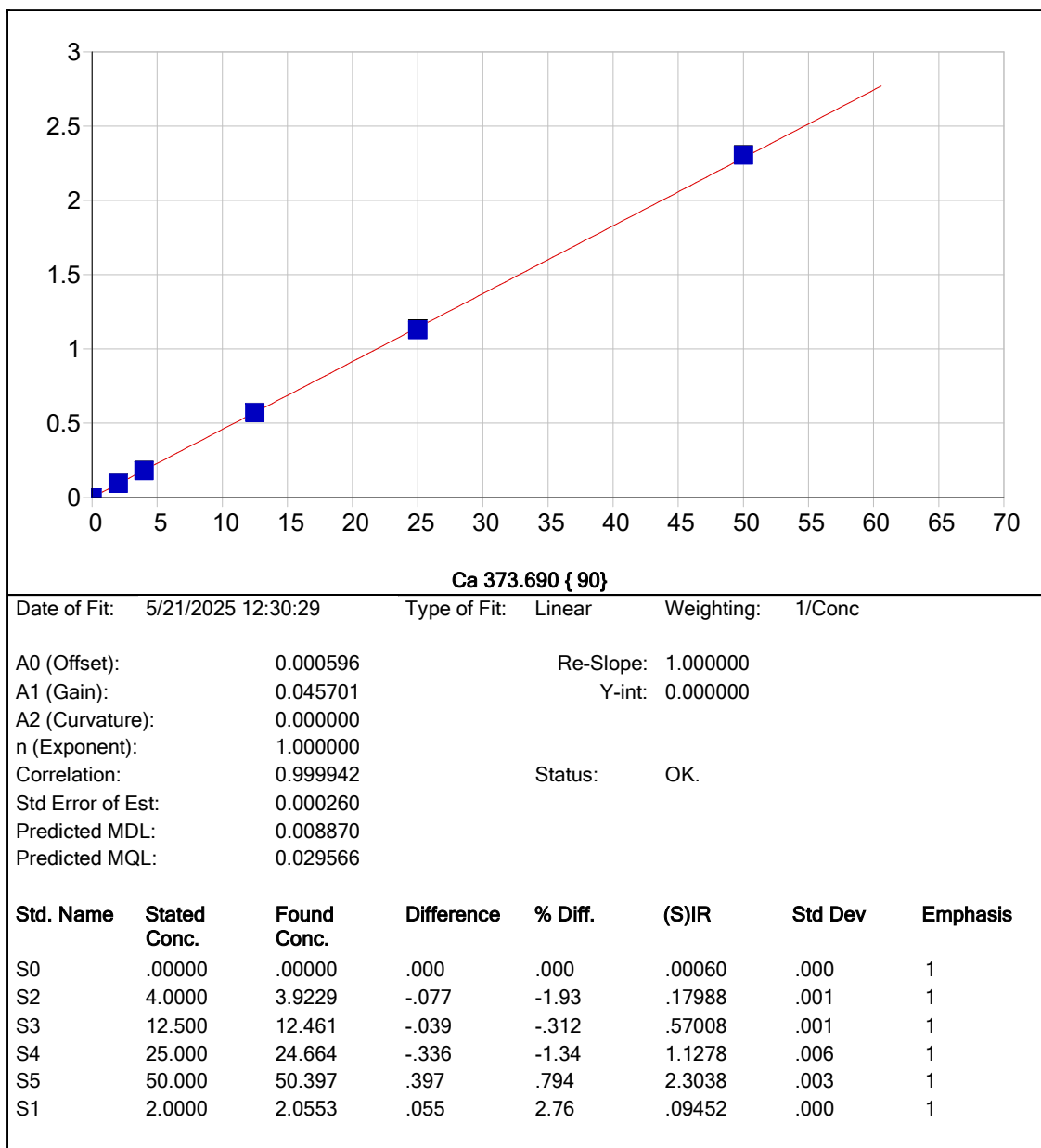
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00017	.000	1
S1	.05000	.05293	.003	5.85	.00650	.000	1
S3	2.5000	2.4852	-.015	-.591	.29769	.001	1
S4	5.0000	4.9481	-.052	-1.04	.59254	.003	1
S5	10.000	10.069	.069	.693	1.2056	.001	1
S2	.80000	.79448	-.006	-.690	.09528	.001	1

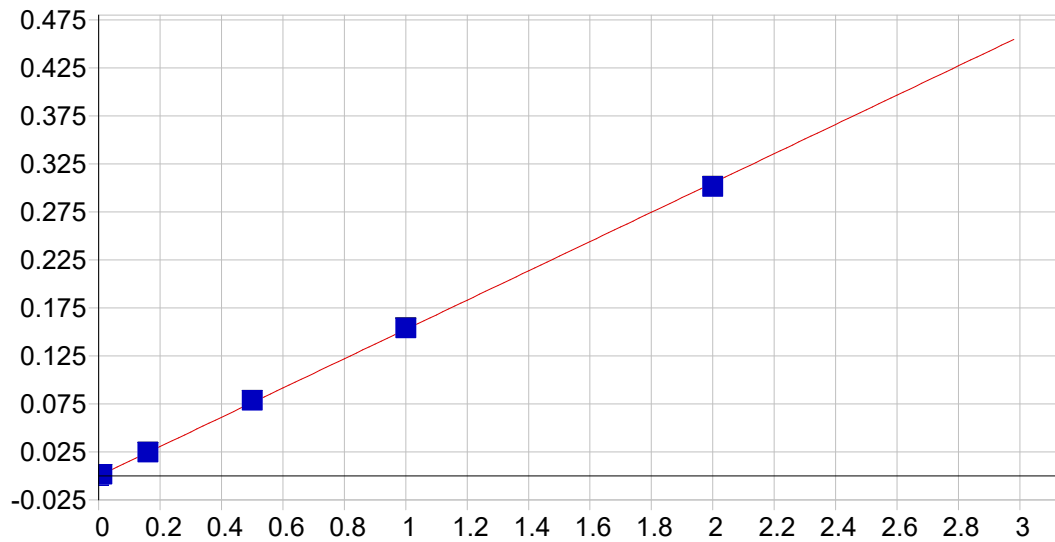










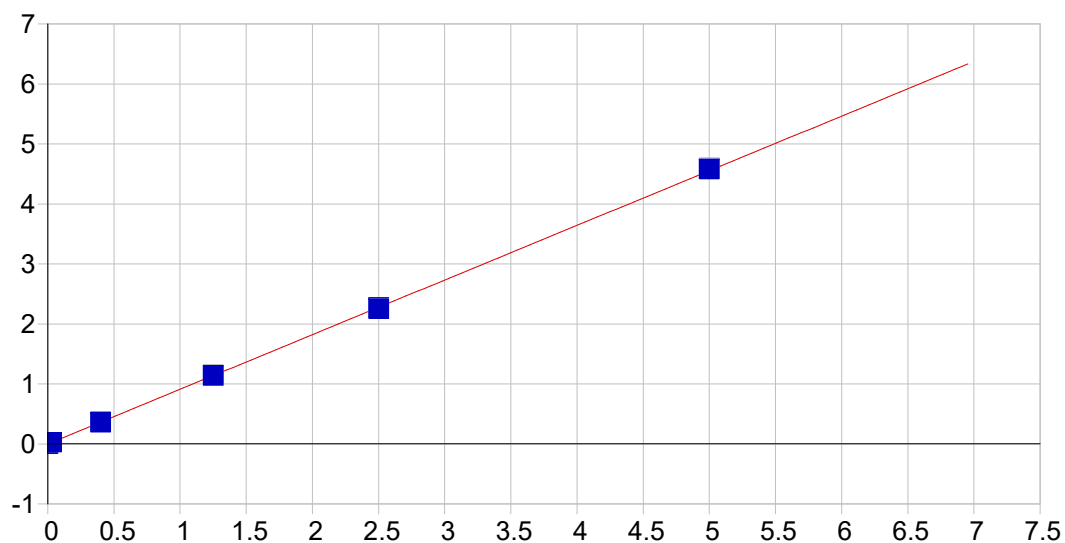


Cr 267.716 {126}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000015 Re-Slope: 1.000000
A1 (Gain): 0.152562 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999878 Status: OK.
Std Error of Est: 0.000018
Predicted MDL: 0.000491
Predicted MQL: 0.001638

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.01000	.00998	-.000	-.205	.00154	.000	1
S3	.50000	.51551	.016	3.10	.07868	.000	1
S4	1.0000	1.0092	.009	.919	.15402	.000	1
S5	2.0000	1.9744	-.026	-1.28	.30132	.000	1
S2	.16000	.16092	.001	.574	.02457	.000	1

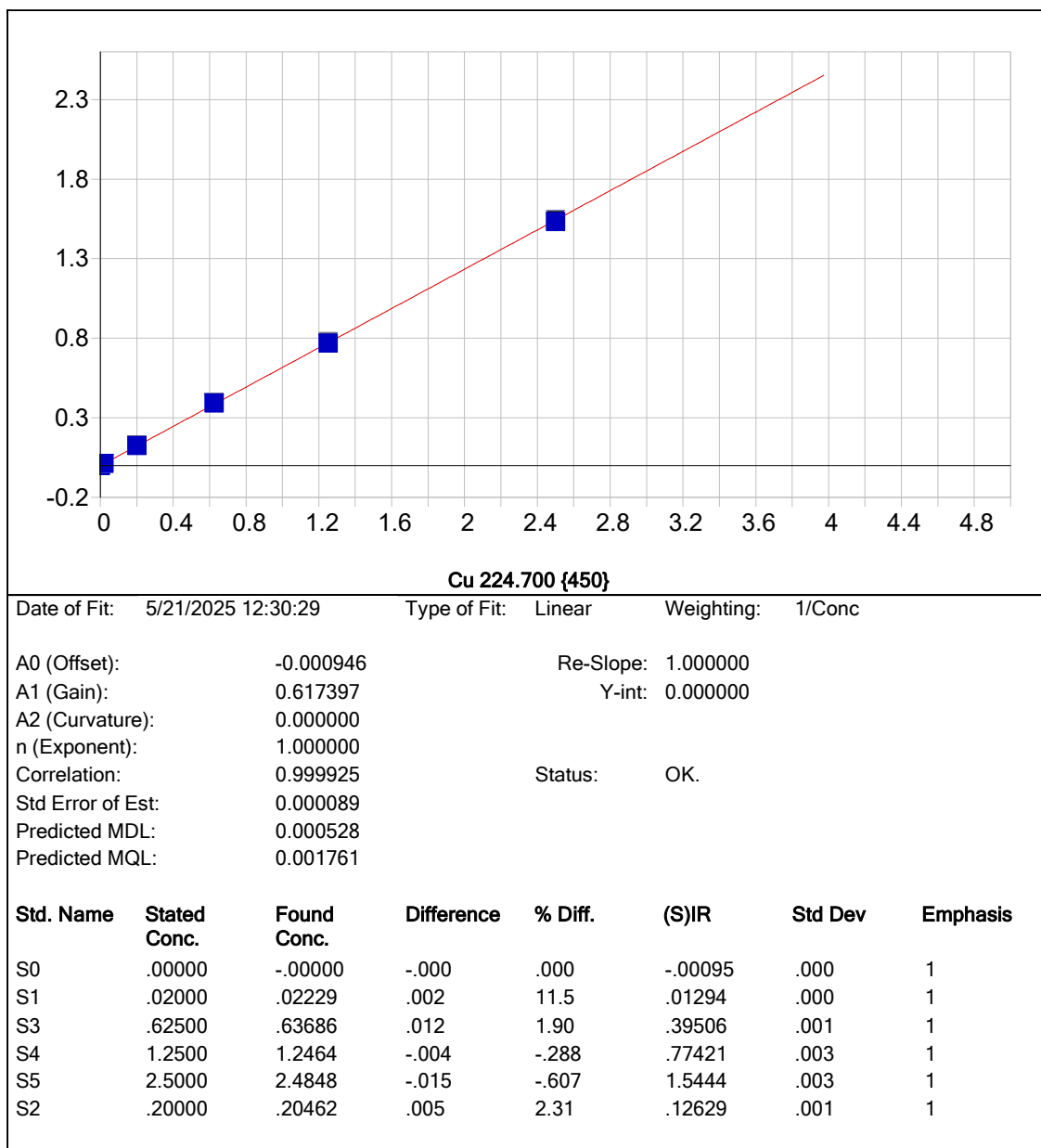


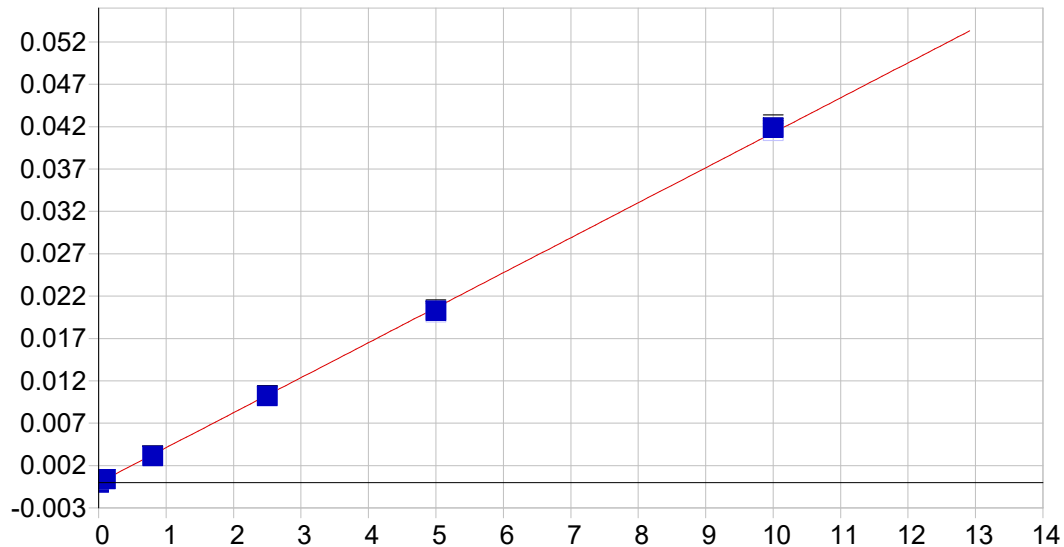
Co 228.616 {448}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000164 Re-Slope: 1.000000
A1 (Gain): 0.910586 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999975 Status: OK.
Std Error of Est: 0.000131
Predicted MDL: 0.000281
Predicted MQL: 0.000938

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00016	.000	1
S1	.03000	.03030	.000	.989	.02731	.000	1
S3	1.2500	1.2497	-.000	-.023	1.1397	.005	1
S4	2.5000	2.4763	-.024	-.949	2.2586	.010	1
S5	5.0000	5.0289	.029	.579	4.5868	.010	1
S2	.40000	.39478	-.005	-1.31	.35993	.001	1



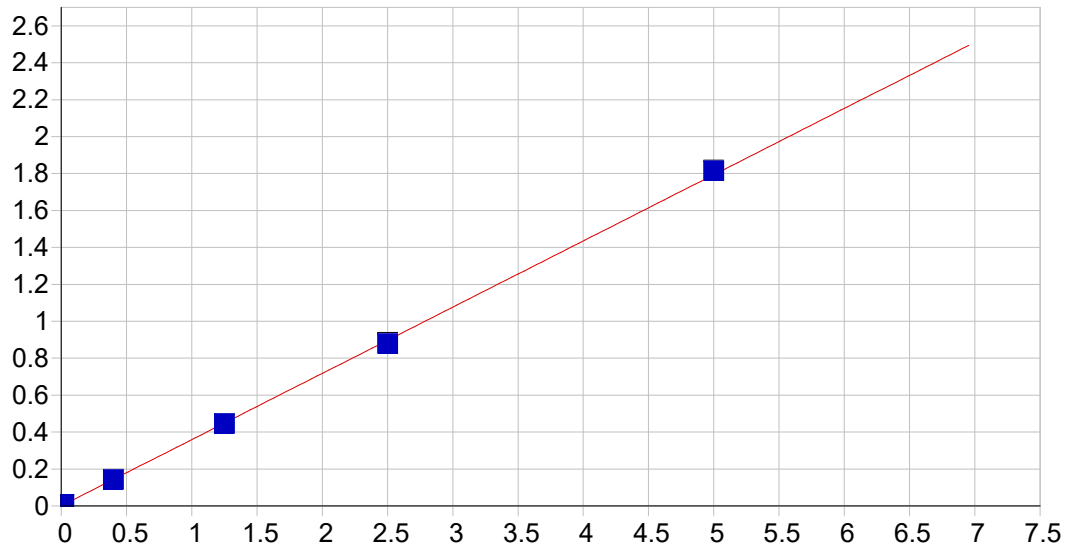


Fe 240.488 {140}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000021 Re-Slope: 1.000000
A1 (Gain): 0.004130 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999848 Status: OK.
Std Error of Est: 0.000004
Predicted MDL: 0.006028
Predicted MQL: 0.020094

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.10000	.10233	.002	2.33	.00040	.000	1
S3	2.5000	2.4814	-.019	-.744	.01014	.000	1
S4	5.0000	4.9104	-.090	-1.79	.02008	.000	1
S5	10.000	10.142	.142	1.42	.04151	.000	1
S2	.80000	.76338	-.037	-4.58	.00310	.000	1

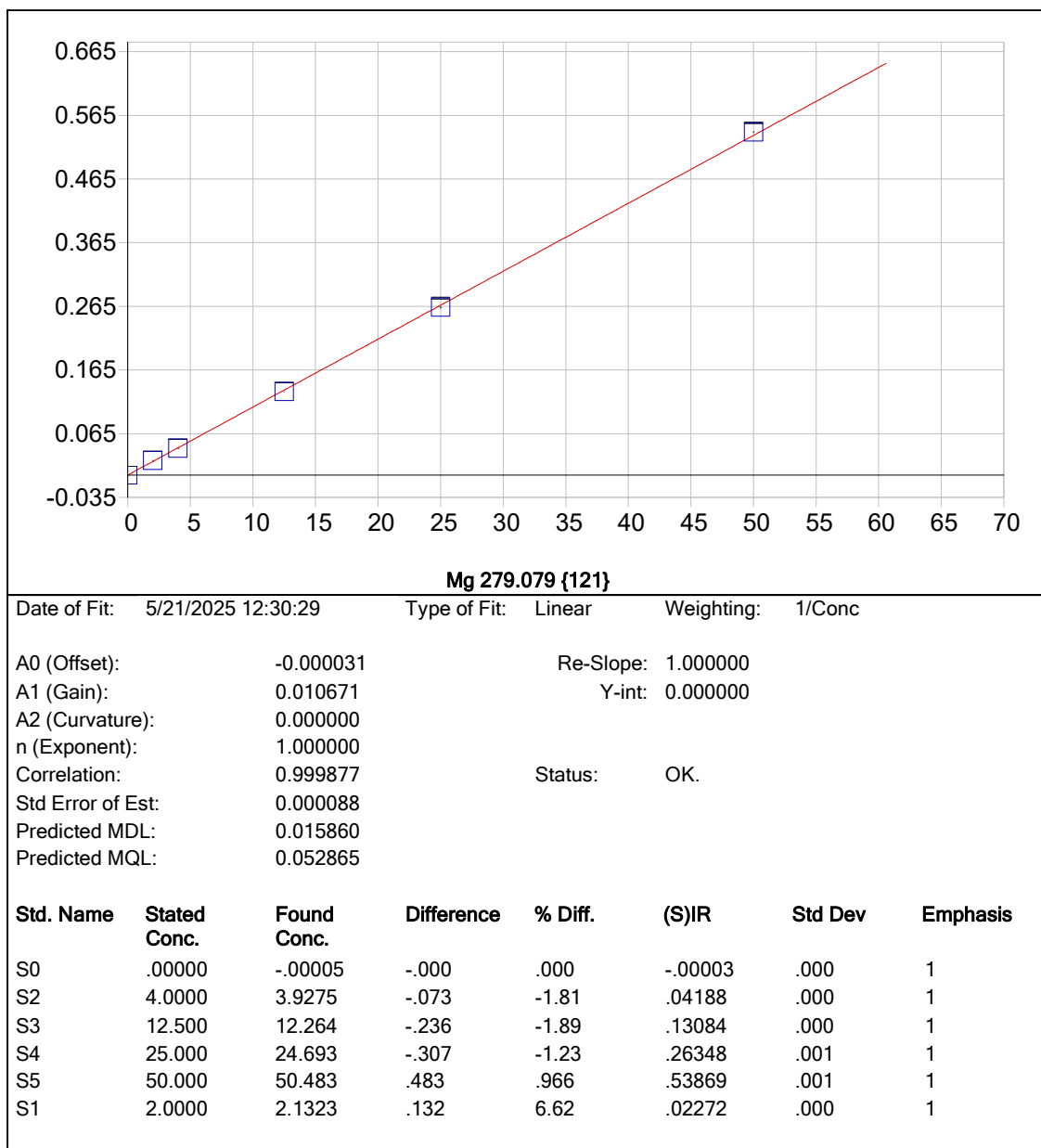


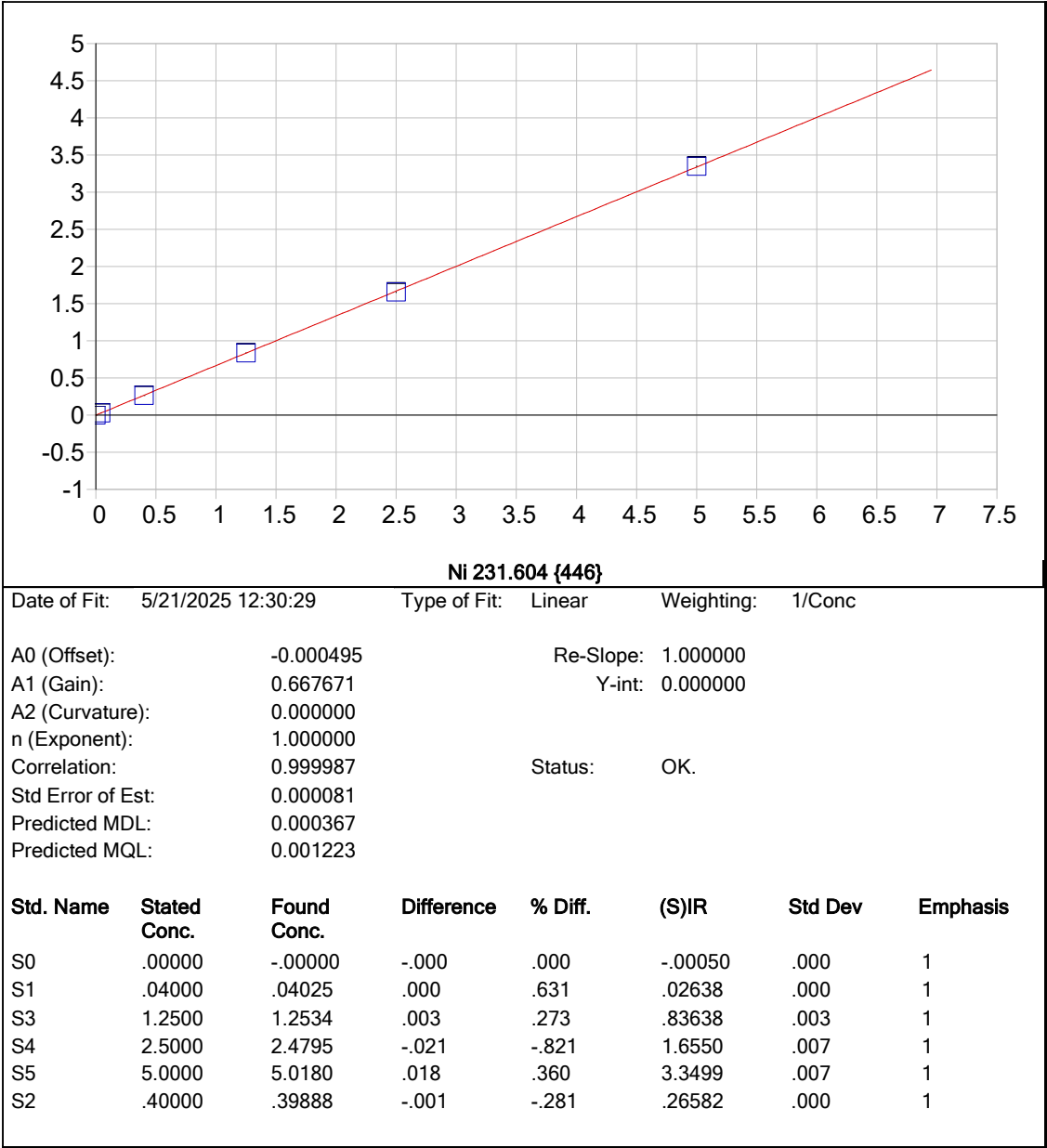
Mn 257.610 {131}

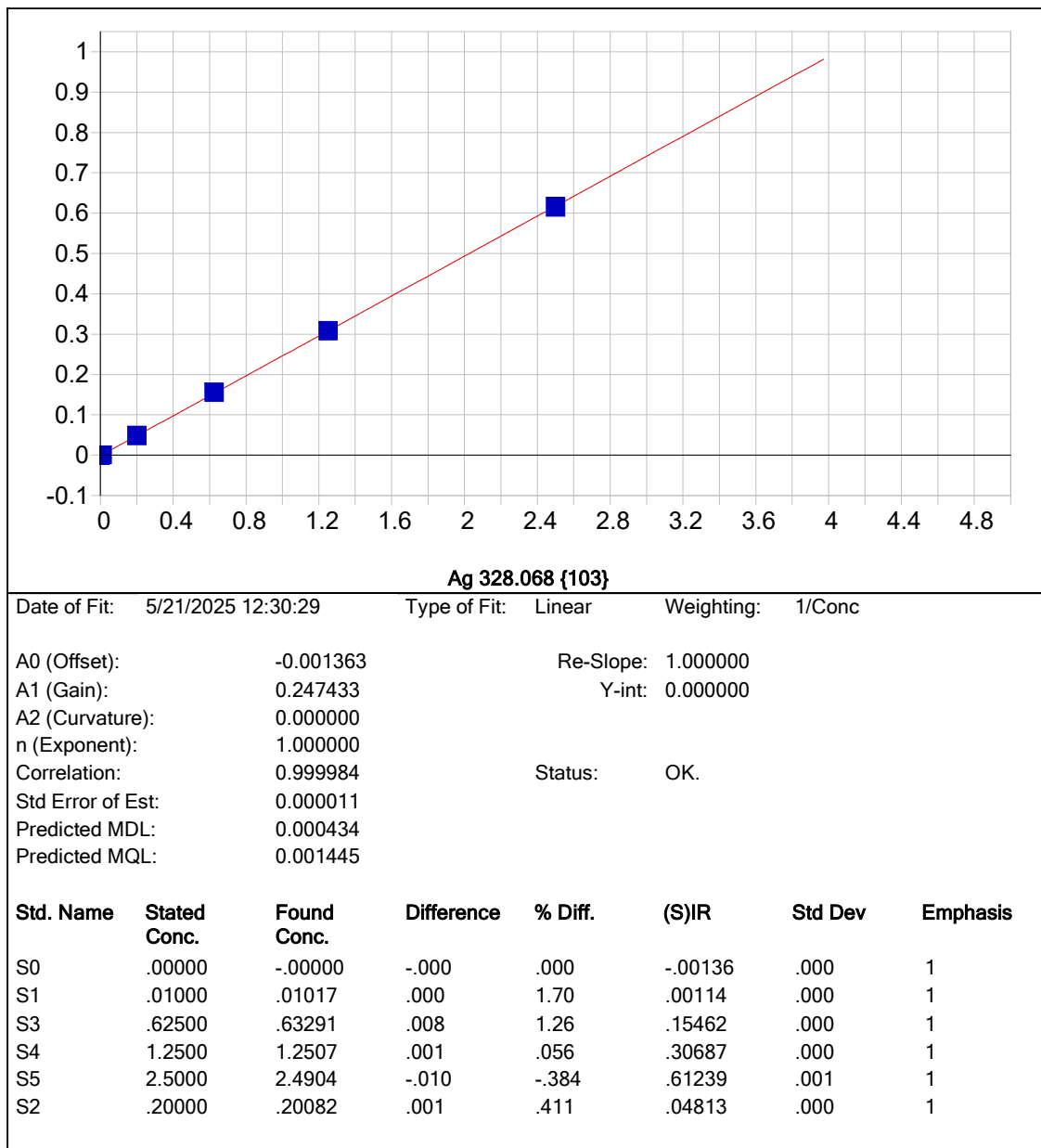
Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

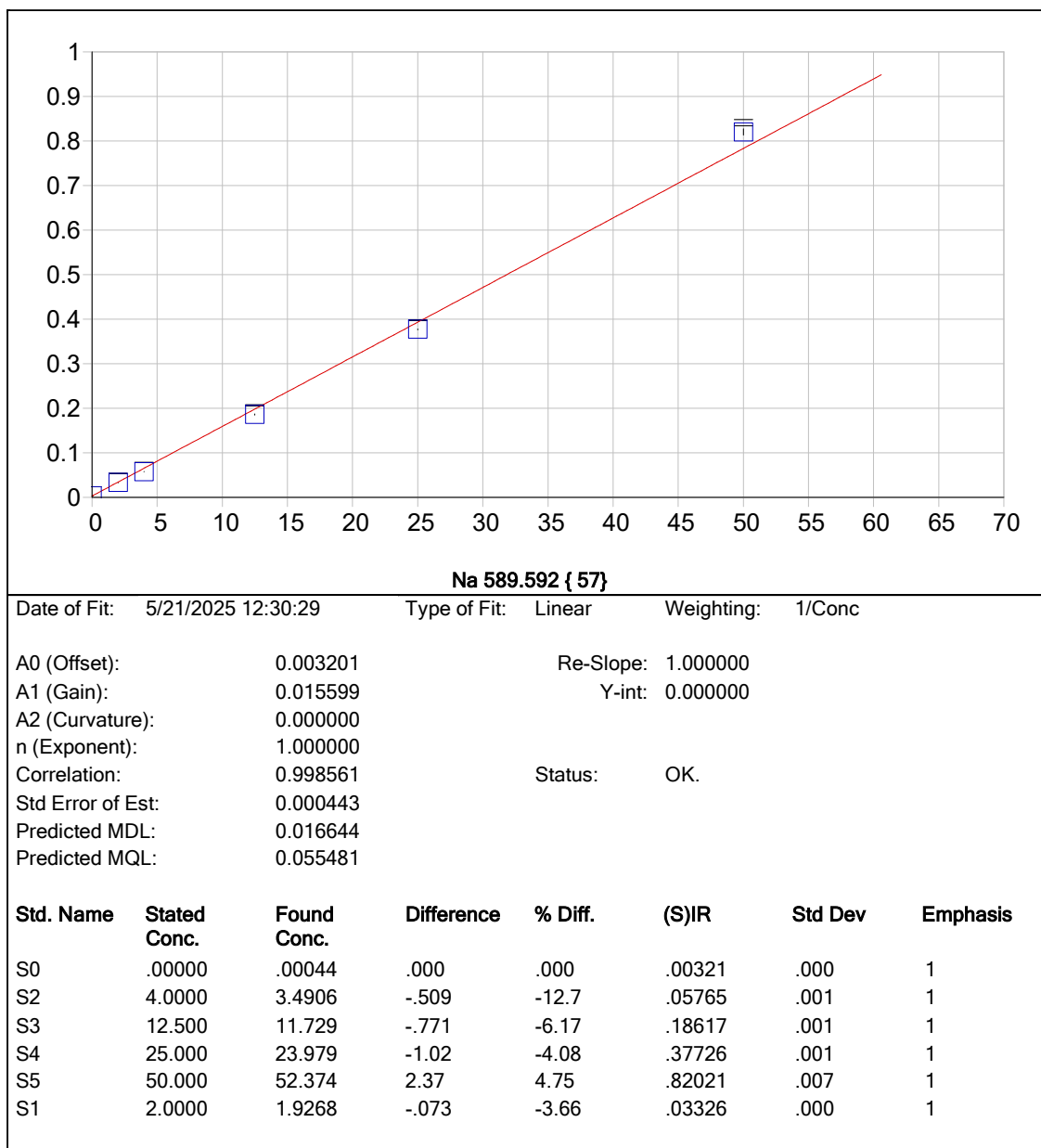
A0 (Offset): 0.000163 Re-Slope: 1.000000
A1 (Gain): 0.358724 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999888 Status: OK.
Std Error of Est: 0.000089
Predicted MDL: 0.000394
Predicted MQL: 0.001312

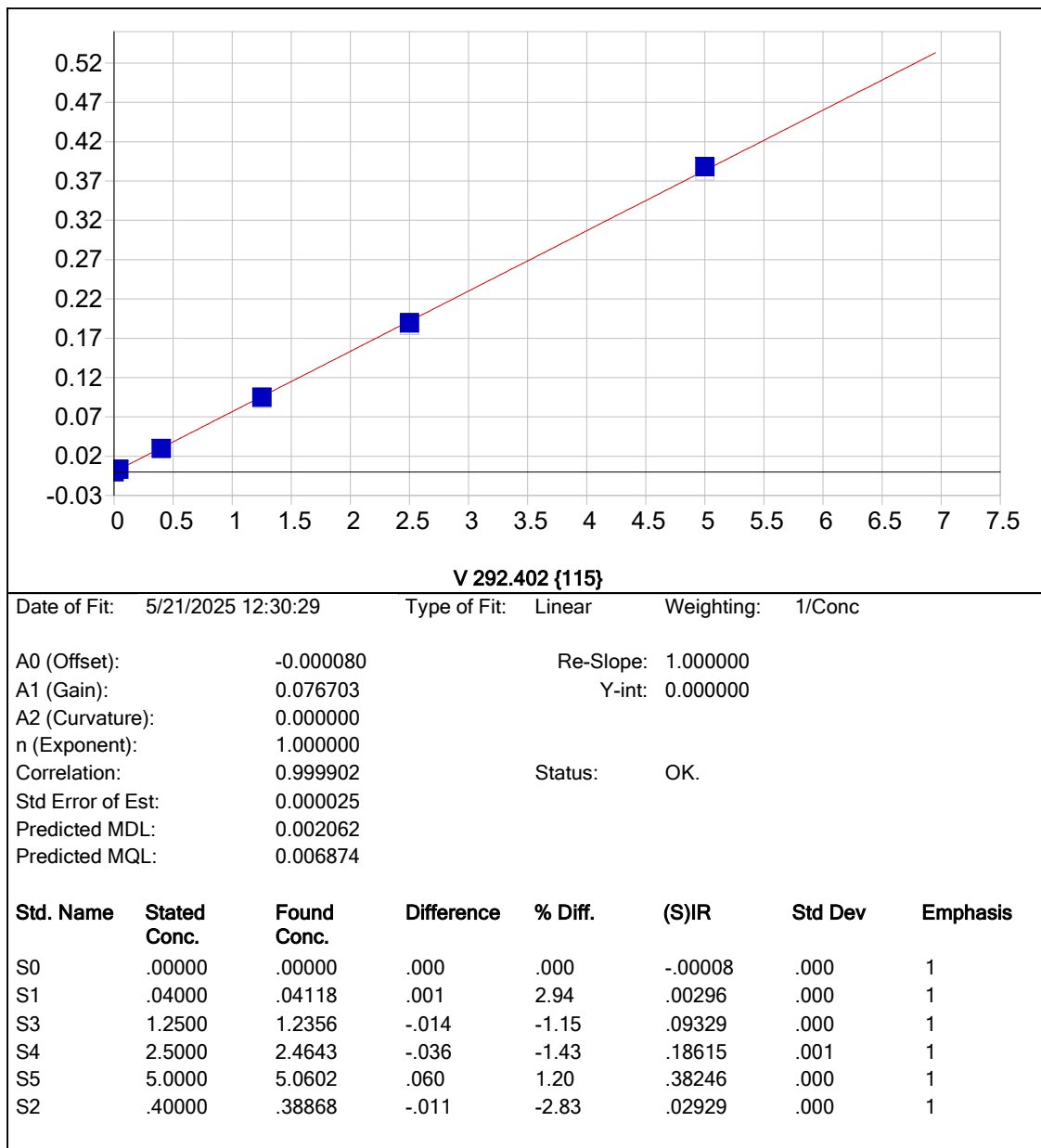
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.02000	.02254	.003	12.7	.00825	.000	1
S3	1.2500	1.2408	-.009	-.734	.44537	.001	1
S4	2.5000	2.4510	-.049	-1.96	.87959	.006	1
S5	5.0000	5.0586	.059	1.17	1.8152	.003	1
S2	.40000	.39695	-.003	-.762	.14259	.000	1





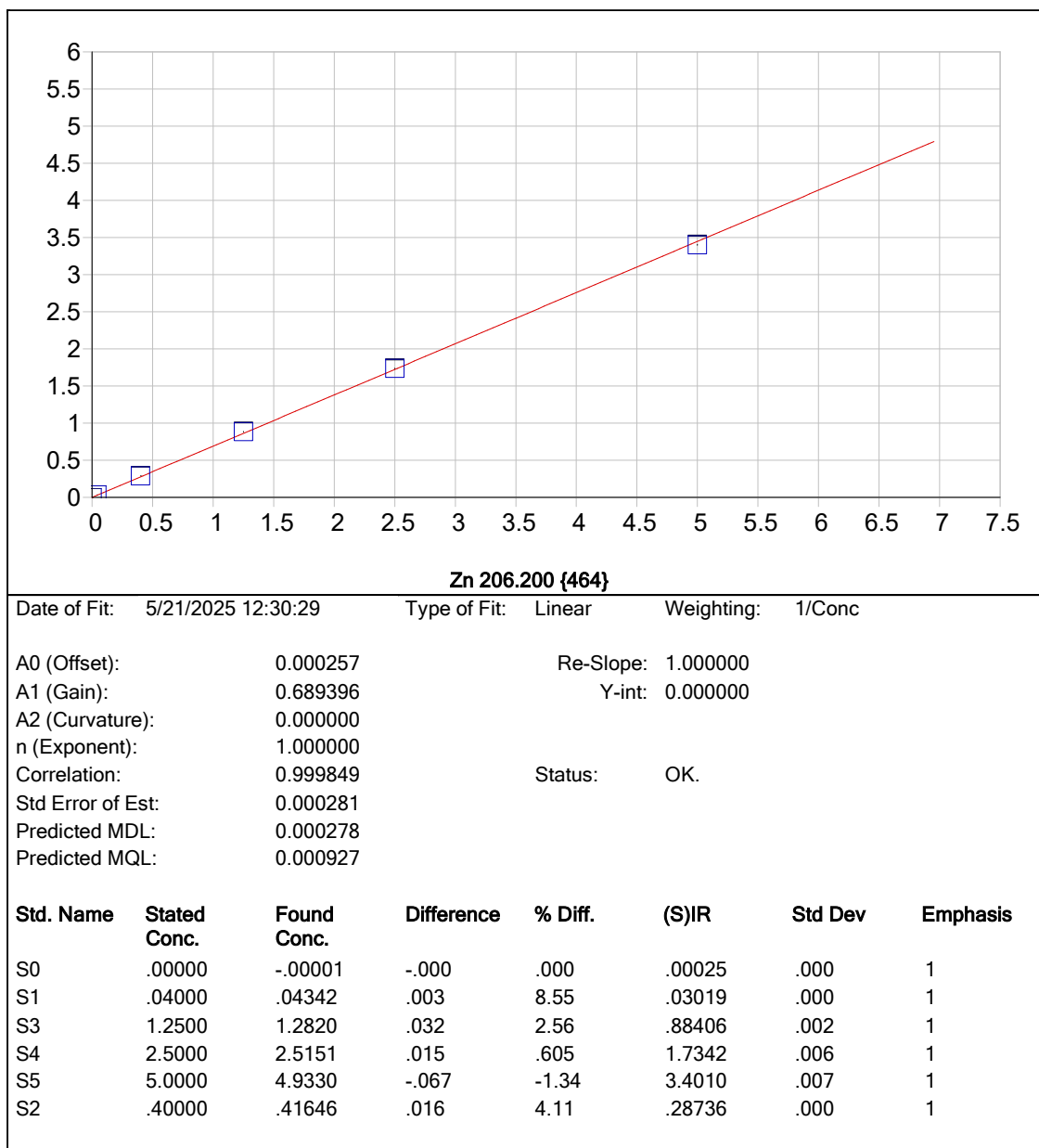


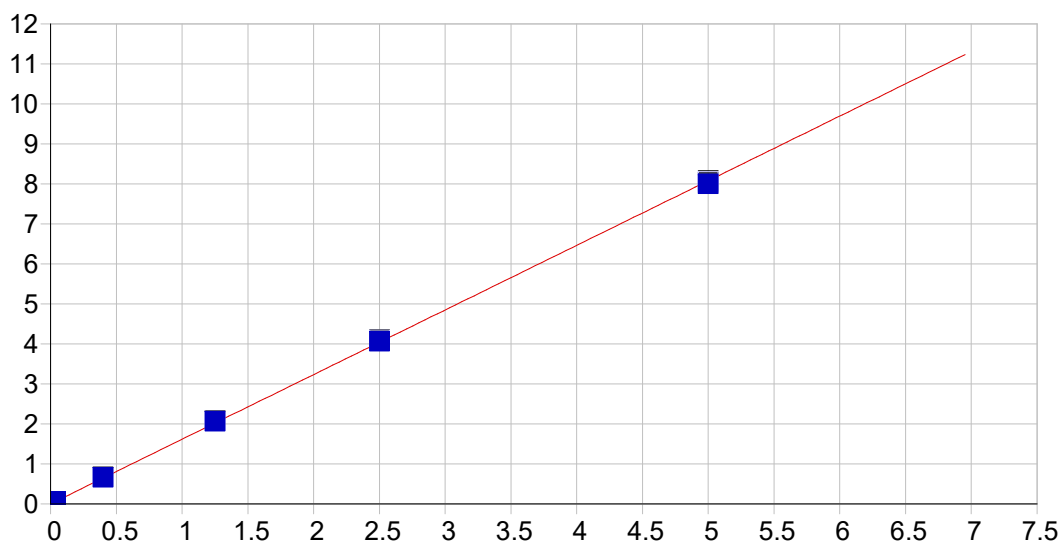




Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000080 Re-Slope: 1.000000
A1 (Gain): 0.076703 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999902 Status: OK.
Std Error of Est: 0.000025
Predicted MDL: 0.002062
Predicted MQL: 0.006874



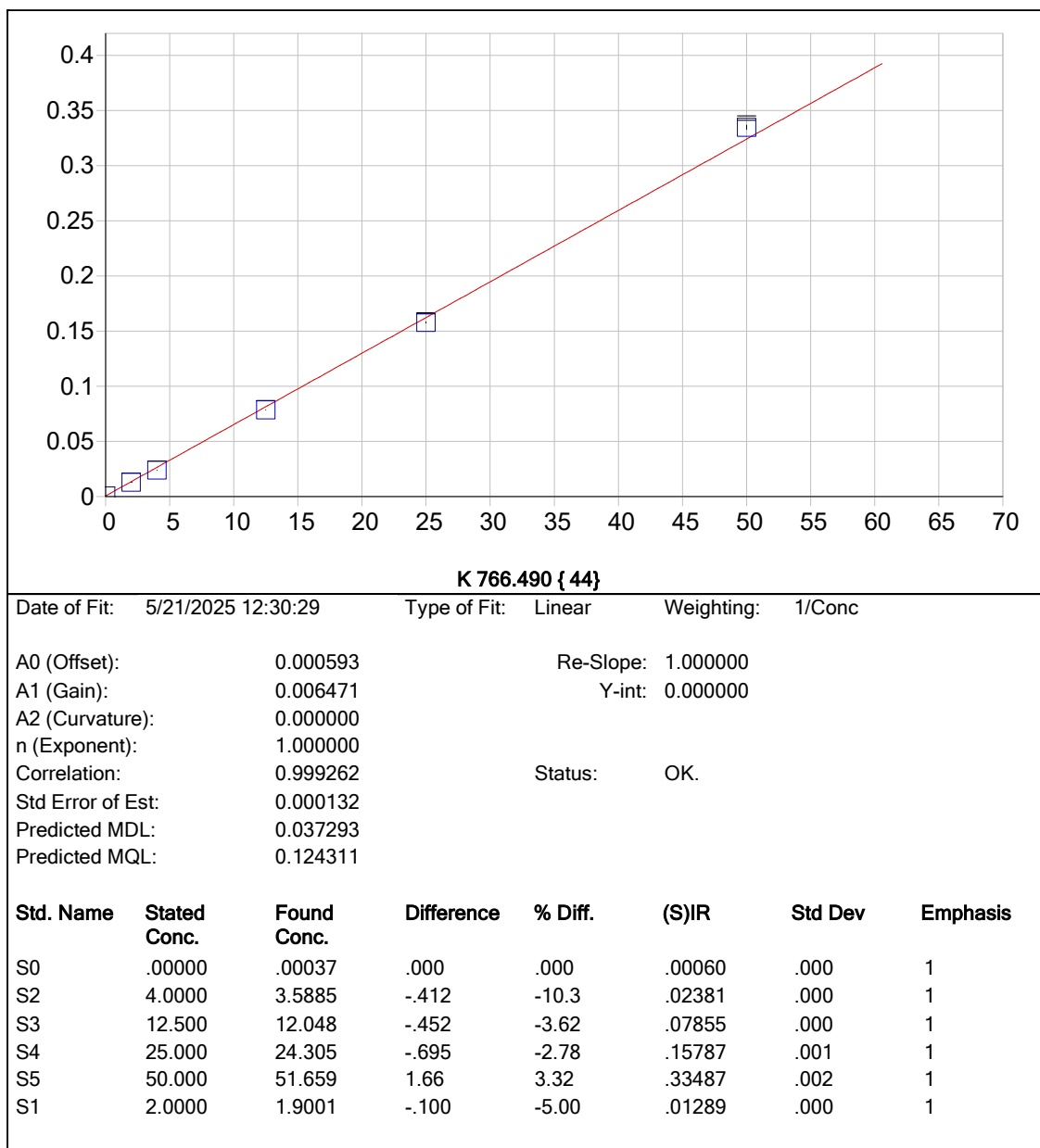


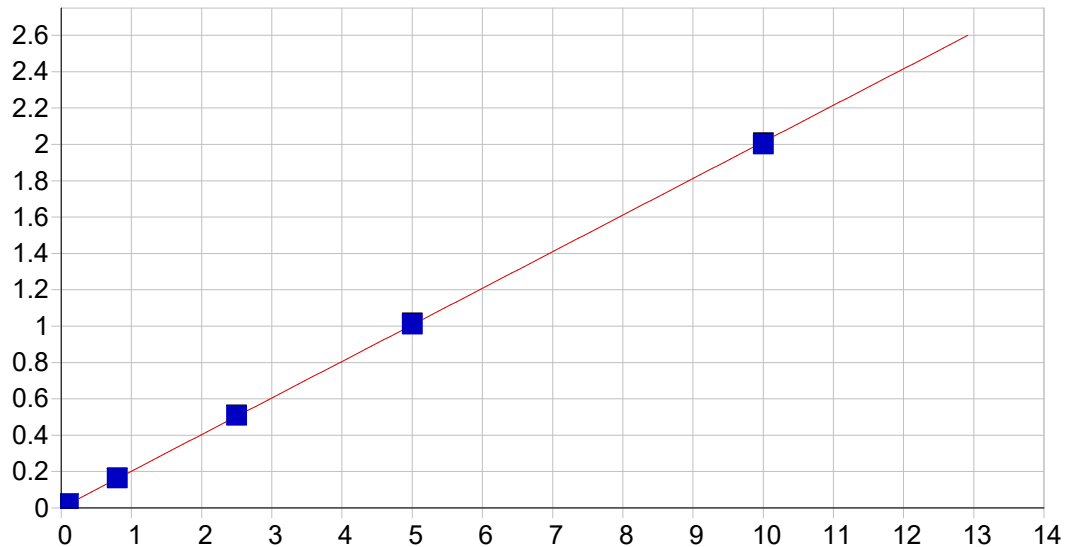
Zn 213.856 {158}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.001792 Re-Slope: 1.000000
A1 (Gain): 1.615565 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999927 Status: OK.
Std Error of Est: 0.000463
Predicted MDL: 0.000417
Predicted MQL: 0.001390

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00179	.001	1
S1	.04000	.04204	.002	5.10	.07016	.000	1
S3	1.2500	1.2751	.025	2.01	2.0758	.002	1
S4	2.5000	2.5160	.016	.641	4.0947	.012	1
S5	5.0000	4.9493	-.051	-1.01	8.0539	.024	1
S2	.40000	.40758	.008	1.89	.66476	.003	1



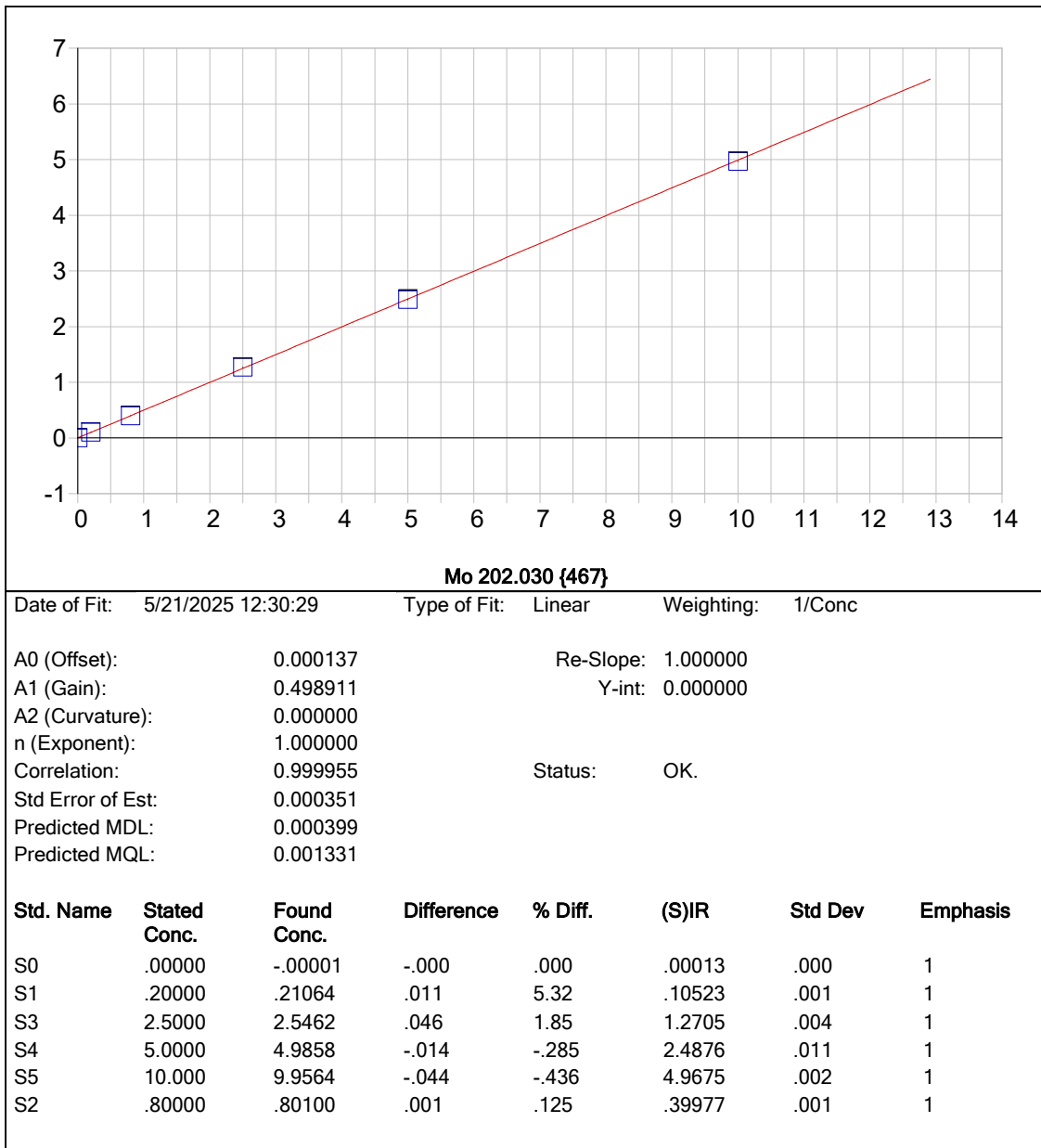


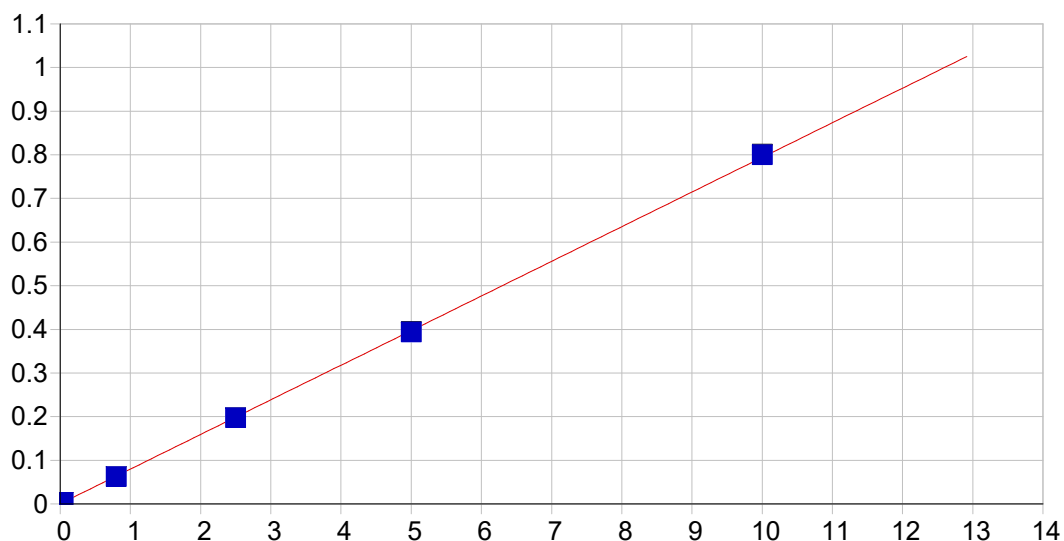
B 249.678 {135}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000806 Re-Slope: 1.000000
A1 (Gain): 0.201256 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999942 Status: OK.
Std Error of Est: 0.000113
Predicted MDL: 0.000940
Predicted MQL: 0.003133

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00080	.000	1
S1	.10000	.11136	.011	11.4	.02314	.000	1
S3	2.5000	2.5239	.024	.956	.50789	.002	1
S4	5.0000	5.0145	.014	.290	1.0083	.007	1
S5	10.000	9.9384	-.062	-.616	1.9975	.007	1
S2	.80000	.81192	.012	1.49	.16393	.000	1



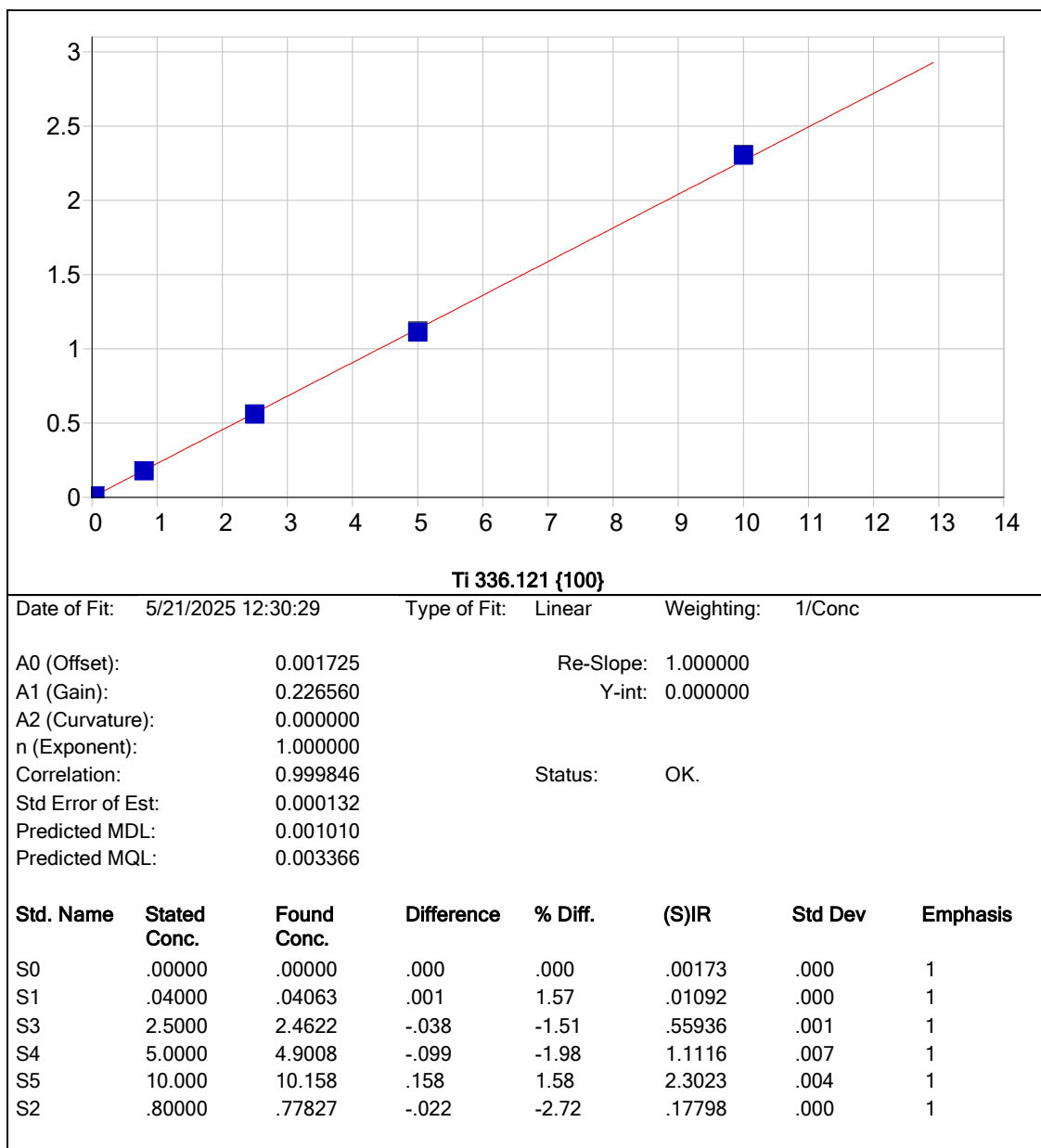


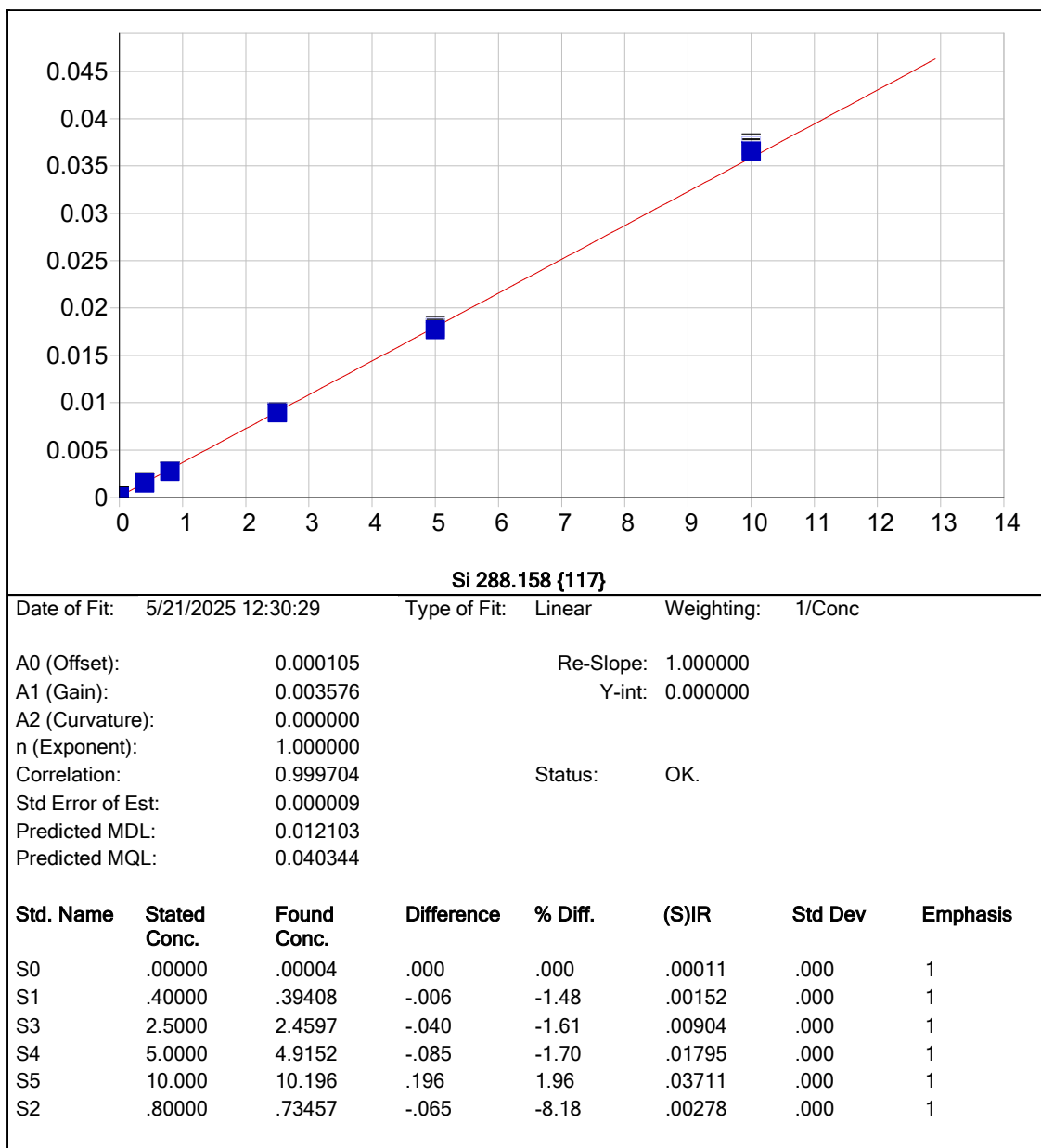
Sn 189.989 {478}

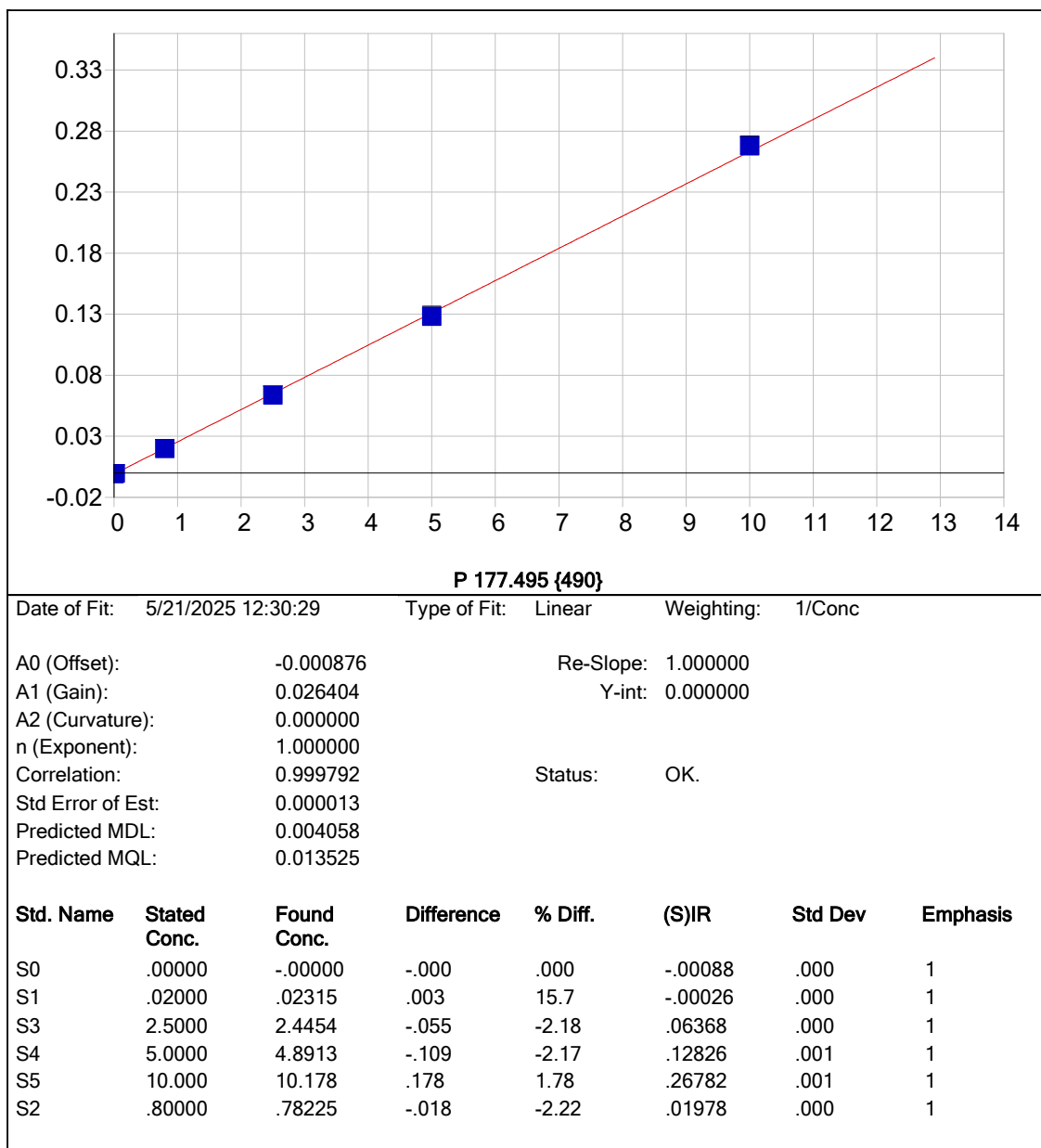
Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

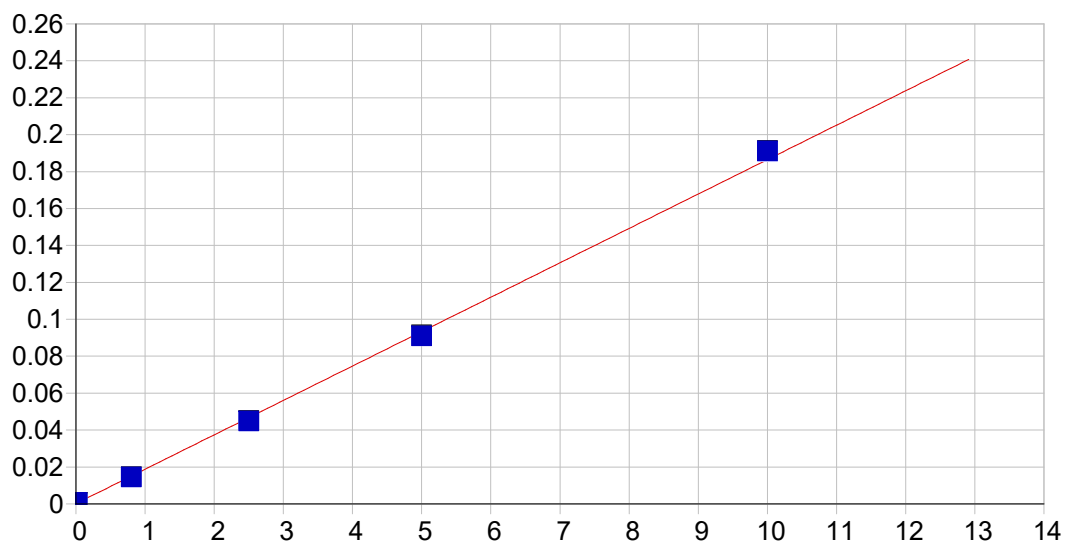
A0 (Offset): 0.000339 Re-Slope: 1.000000
A1 (Gain): 0.079370 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999960 Status: OK.
Std Error of Est: 0.000024
Predicted MDL: 0.001258
Predicted MQL: 0.004195

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00034	.000	1
S1	.04000	.04033	.000	.834	.00354	.000	1
S3	2.5000	2.4854	-.015	-.585	.19740	.001	1
S4	5.0000	4.9559	-.044	-.882	.39329	.001	1
S5	10.000	10.077	.077	.766	.79931	.001	1
S2	.80000	.78173	-.018	-2.28	.06232	.000	1







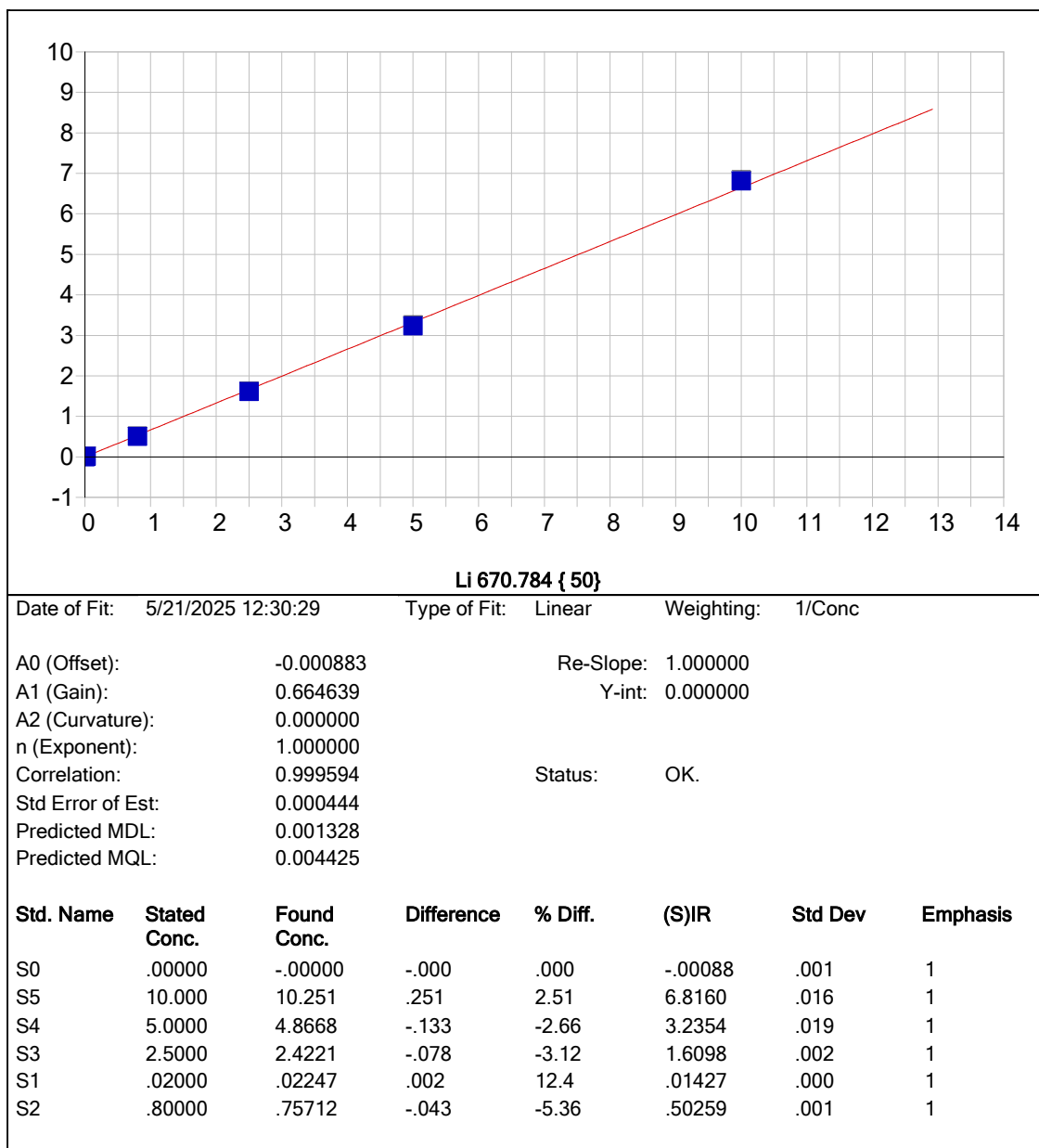


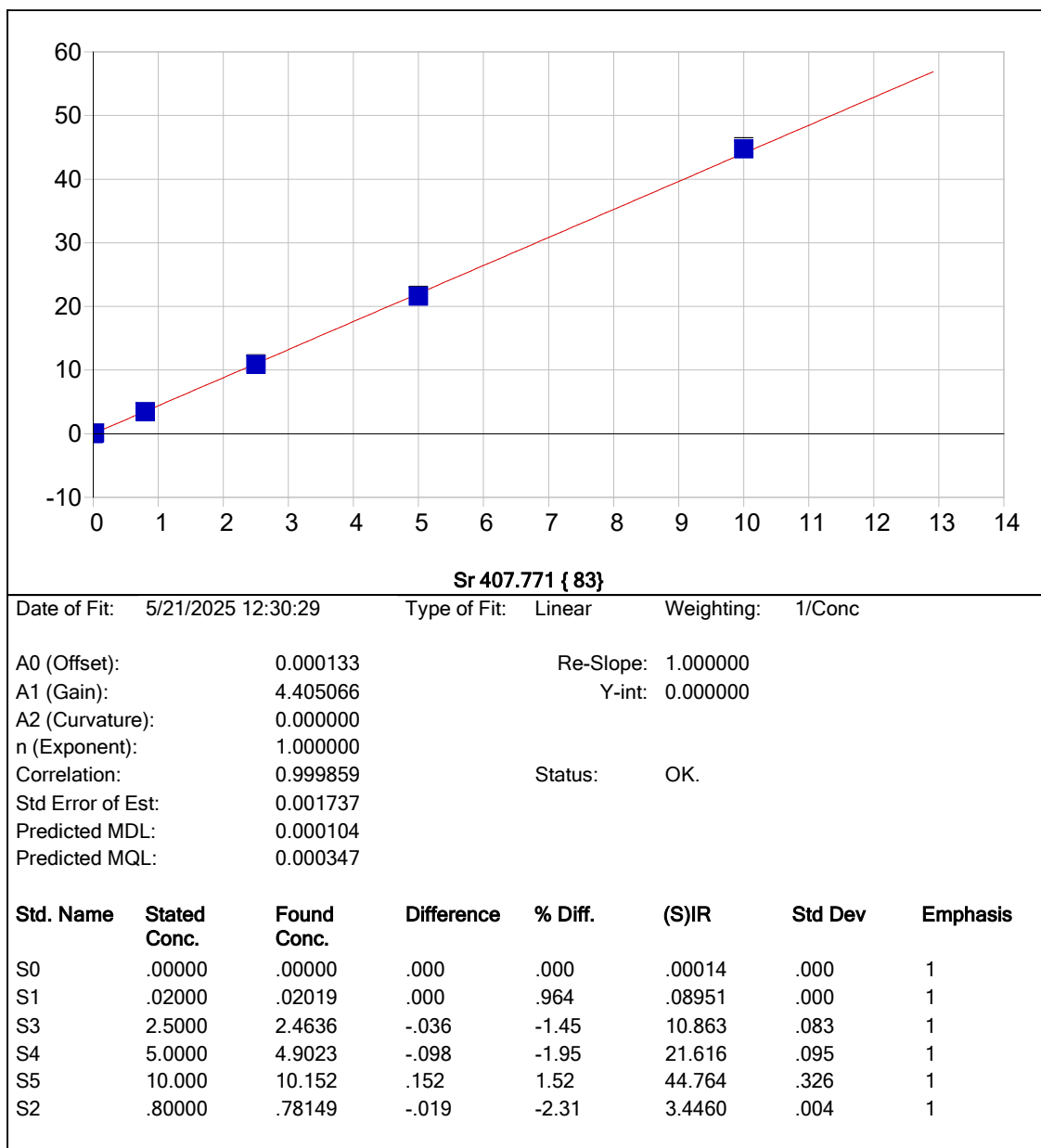
S 182.034 {485}

Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000151 Re-Slope: 1.000000
A1 (Gain): 0.018634 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999562 Status: OK.
Std Error of Est: 0.000013
Predicted MDL: 0.005087
Predicted MQL: 0.016957

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00015	.000	1
S1	.02000	.02483	.005	24.1	.00060	.000	1
S3	2.5000	2.3986	-.101	-4.05	.04473	.000	1
S4	5.0000	4.8757	-.124	-2.49	.09076	.000	1
S5	10.000	10.252	.252	2.52	.19071	.000	1
S2	.80000	.76865	-.031	-3.92	.01444	.000	1





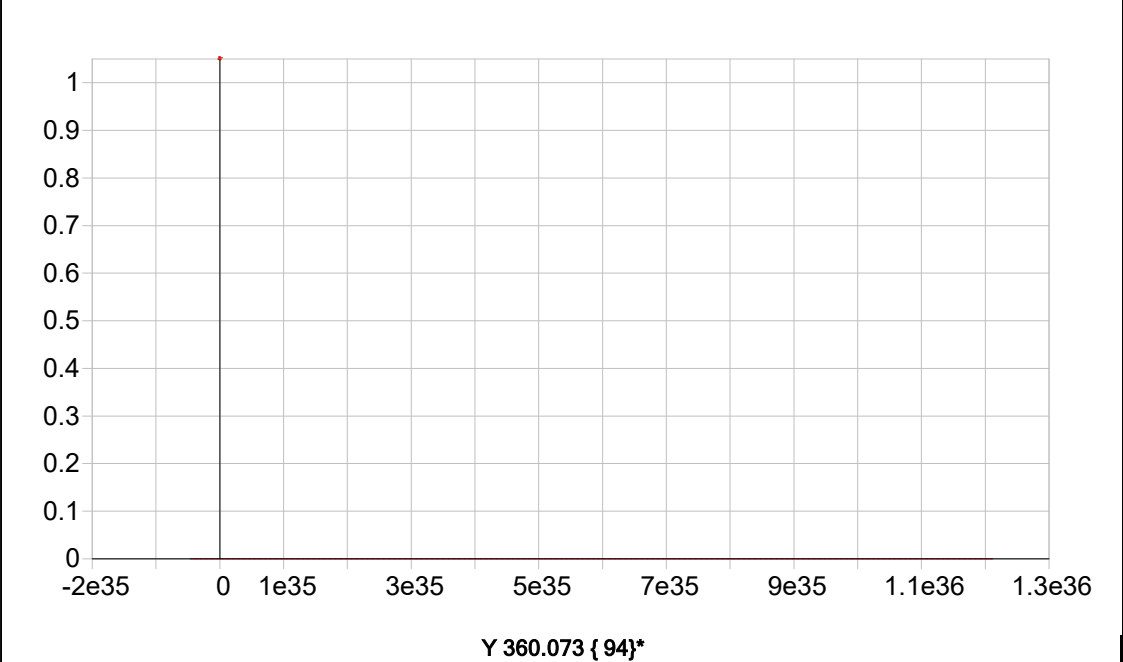
Date of Fit: 5/21/2025 12:30:29 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000133 Re-Slope: 1.000000
A1 (Gain): 4.405066 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999859 Status: OK.
Std Error of Est: 0.001737
Predicted MDL: 0.000104
Predicted MQL: 0.000347

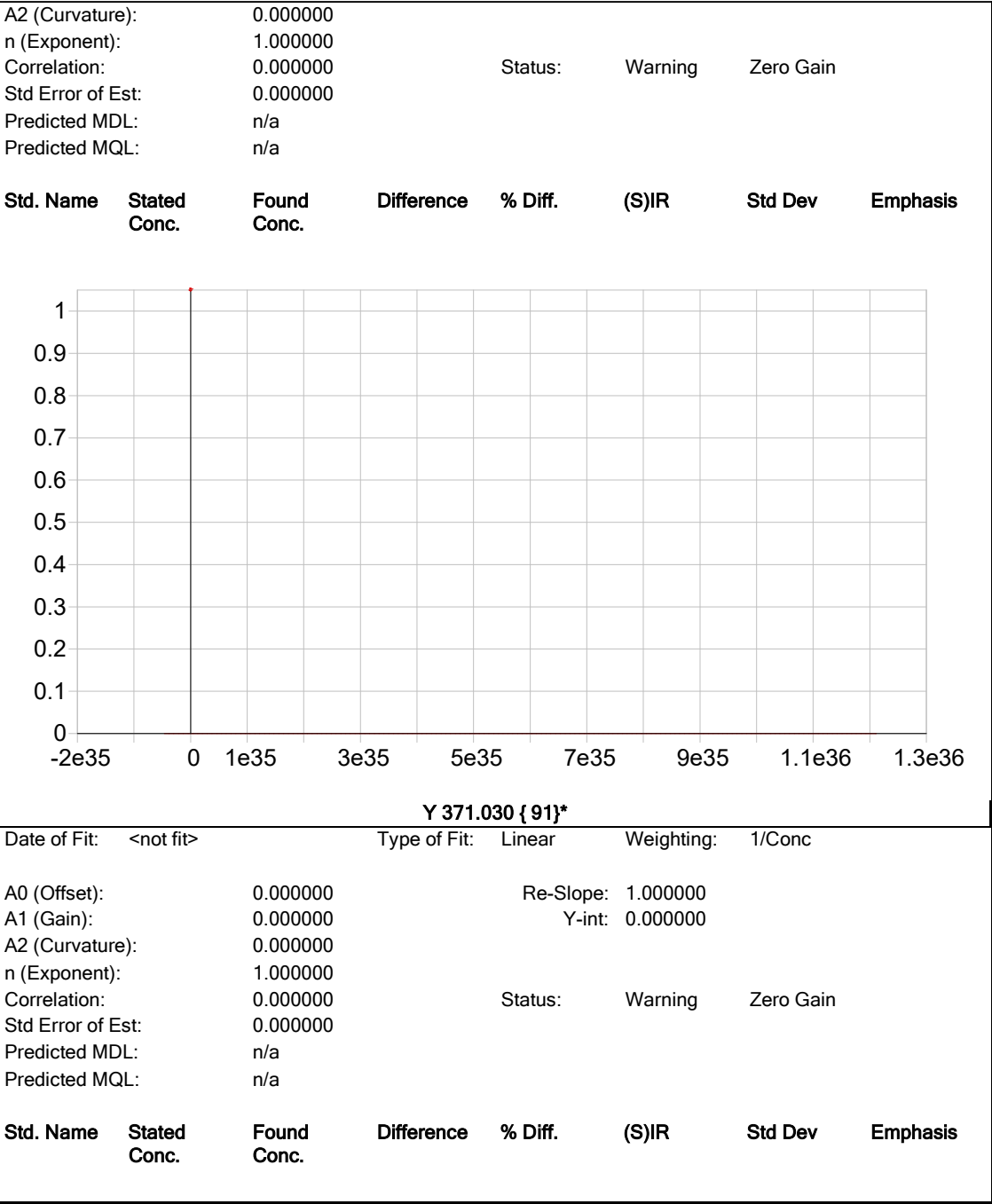


Date of Fit:	5/21/2025 11:55:59	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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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		Status:	Warning	Zero Gain	
n (Exponent):		1.000000					
Correlation:		0.000000					
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: 5/21/2025 12:05:04 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.00003	.00004	.00014	.00021	.00017	.00007	.04032	.00006
Stddev	.00009	.00005	.00016	.00008	.00019	.00046	.00224	.00002
%RSD	313.23	128.82	111.60	40.457	113.64	664.52	5.5545	33.156

#1	-.00012	.00010	-.00003	.00022	.00007	-.00030	.04240	.00004
#2	-.00002	-.00001	.00016	.00029	.00004	.00058	.04061	.00005
#3	.00006	.00003	.00029	.00012	.00039	-.00007	.03795	.00008

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00011	.00060	.00001	-.00016	-.00095	-.00002	.00016	-.00003
Stddev	.00006	.00020	.00003	.00025	.00020	.00001	.00014	.00013
%RSD	52.167	32.936	223.02	151.95	21.315	64.101	84.330	426.67

#1	.00014	.00061	.00002	-.00032	-.00113	-.00001	.00007	.00001
#2	.00015	.00039	-.00002	.00012	-.00073	-.00003	.00010	.00007
#3	.00005	.00078	.00005	-.00030	-.00098	-.00002	.00032	-.00018

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00050	-.00136	.00321	-.00008	.00179	.00060	.00080	.00013
Stddev	.00009	.00003	.00011	.00010	.00117	.00011	.00017	.00014
%RSD	18.280	2.3078	3.5475	126.93	65.574	18.113	21.261	108.52

#1	-.00058	-.00139	.00326	-.00001	.00232	.00049	.00094	.00029
#2	-.00040	-.00137	.00308	-.00004	.00044	.00071	.00085	.00005
#3	-.00051	-.00133	.00329	-.00020	.00260	.00059	.00061	.00005

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.00034	.00173	.00011	-.00088	.00015	-.00088	.00014	
Stddev	.00006	.00017	.00002	.00009	.00003	.00097	.00046	
%RSD	16.430	10.053	19.051	10.015	17.050	110.14	339.94	

#1	.00030	.00191	.00010	-.00087	.00013	-.00063	.00050	
#2	.00040	.00157	.00009	-.00079	.00015	-.00196	-.00038	
#3	.00032	.00170	.00013	-.00097	.00018	-.00006	.00029	

Sample Name: S0 Acquired: 5/21/2025 12:05:04 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2743.7	64280.	17455.	2508.4	4156.1
Stddev	9.8	191.	87.	13.7	18.2
%RSD	.35542	.29675	.49656	.54527	.43839
#1	2733.6	64369.	17437.	2507.2	4139.6
#2	2744.5	64410.	17550.	2522.7	4153.1
#3	2753.0	64061.	17379.	2495.4	4175.7

Sample Name: S1 Acquired: 5/21/2025 12:09:28 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.00066	.00229	.00227	.00111	.00650	.00813	.16340	.02042
Stddev	.00007	.00009	.00029	.00007	.00012	.00027	.00207	.00005
%RSD	11.040	4.0730	12.635	5.9039	1.8543	3.3508	1.2689	.24024
#1	.00072	.00240	.00252	.00111	.00636	.00789	.16117	.02048
#2	.00058	.00222	.00232	.00105	.00659	.00807	.16527	.02040
#3	.00069	.00226	.00195	.00118	.00654	.00842	.16375	.02039
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	.01245	.09452	.00154	.02731	.01294	.00040	.00825	.02272
Stddev	.00020	.00049	.00004	.00020	.00021	.00001	.00013	.00008
%RSD	1.5727	.51318	2.7965	.73586	1.5958	2.2113	1.6336	.35853
#1	.01239	.09440	.00150	.02708	.01288	.00039	.00825	.02266
#2	.01230	.09412	.00152	.02738	.01317	.00039	.00839	.02269
#3	.01267	.09506	.00159	.02746	.01277	.00041	.00812	.02282
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	.02638	.00114	.03326	.00296	.07016	.01289	.02314	.10523
Stddev	.00018	.00002	.00028	.00004	.00027	.00011	.00049	.00063
%RSD	.68457	2.1958	.82862	1.3894	.39009	.81798	2.1211	.59946
#1	.02659	.00111	.03347	.00295	.07047	.01279	.02285	.10585
#2	.02628	.00116	.03336	.00293	.07004	.01300	.02285	.10525
#3	.02627	.00114	.03295	.00301	.06997	.01288	.02370	.10459
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	.00354	.01092	.00152	-.00026	.00060	.01427	.08951	
Stddev	.00010	.00005	.00002	.00003	.00003	.00018	.00039	
%RSD	2.8228	.48436	1.3808	11.176	5.1822	1.2290	.43168	
#1	.00348	.01086	.00150	-.00023	.00063	.01419	.08963	
#2	.00365	.01097	.00151	-.00029	.00058	.01415	.08982	
#3	.00348	.01094	.00154	-.00027	.00058	.01447	.08908	

Sample Name: S1 Acquired: 5/21/2025 12:09:28 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2731.3	65269.	17332.	2524.6	4112.8
Stddev	3.7	152.	13.	3.3	6.9
%RSD	.13729	.23296	.07761	.13117	.16699
#1	2729.6	65159.	17347.	2522.1	4114.6
#2	2728.7	65206.	17327.	2523.5	4105.2
#3	2735.6	65443.	17321.	2528.4	4118.6

Sample Name: S2 Acquired: 5/21/2025 12:13:51 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.02915	.04705	.15425	.04136	.09528	.10410	1.9990	.13604
Stddev	.00016	.00020	.00047	.00047	.00063	.00011	.0031	.00009
%RSD	.55090	.42339	.30247	1.1289	.65858	.10869	.15694	.06868

#1	.02897	.04727	.15422	.04112	.09456	.10397	1.9960	.13614
#2	.02928	.04698	.15473	.04106	.09565	.10419	1.9989	.13595
#3	.02920	.04690	.15380	.04190	.09563	.10414	2.0023	.13603

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	.77707	.17988	.02457	.35993	.12629	.00310	.14259	.04188
Stddev	.00123	.00083	.00015	.00055	.00051	.00005	.00042	.00012
%RSD	.15865	.45928	.60267	.15177	.40217	1.4536	.29433	.27994

#1	.77786	.17915	.02444	.36056	.12590	.00310	.14306	.04190
#2	.77565	.17970	.02454	.35959	.12610	.00306	.14247	.04199
#3	.77769	.18078	.02473	.35965	.12686	.00315	.14224	.04176

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	.26582	.04813	.05765	.02929	.66476	.02381	.16393	.39977
Stddev	.00015	.00040	.00052	.00004	.00341	.00009	.00024	.00053
%RSD	.05623	.84128	.90463	.12142	.51289	.38582	.14889	.13234

#1	.26598	.04785	.05761	.02926	.66162	.02381	.16403	.39952
#2	.26581	.04795	.05715	.02933	.66427	.02391	.16366	.39940
#3	.26568	.04859	.05819	.02927	.66838	.02372	.16411	.40037

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	.06232	.17798	.00278	.01978	.01444	.50259	3.4460	
Stddev	.00030	.00049	.00003	.00011	.00005	.00089	.0039	
%RSD	.47534	.27490	1.1113	.56470	.32456	.17743	.11314	

#1	.06253	.17768	.00276	.01986	.01438	.50199	3.4449	
#2	.06245	.17772	.00281	.01965	.01446	.50217	3.4429	
#3	.06198	.17855	.00275	.01981	.01447	.50362	3.4504	

Sample Name: S2 Acquired: 5/21/2025 12:13:51 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2690.2	64562.	17303.	2506.8	4044.4
Stddev	3.9	244.	11.	14.8	.6
%RSD	.14319	.37852	.06303	.58862	.01573
#1	2693.4	64700.	17291.	2521.1	4043.9
#2	2691.3	64706.	17312.	2507.8	4045.1
#3	2685.9	64280.	17306.	2491.6	4044.2

Sample Name: S3 Acquired: 5/21/2025 12:17:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.09210	.14830	.48743	.12745	.29769	.33355	6.3446	.41773
Stddev	.00040	.00109	.00304	.00095	.00127	.00077	.0091	.00122
%RSD	.43559	.73538	.62307	.74401	.42555	.23115	.14280	.29280

#1	.09196	.14712	.48621	.12710	.29756	.33368	6.3497	.41725
#2	.09178	.14927	.48519	.12673	.29650	.33272	6.3500	.41681
#3	.09255	.14850	.49088	.12852	.29902	.33425	6.3342	.41912

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	2.4347	.57008	.07868	1.1397	.39506	.01014	.44537	.13084
Stddev	.0070	.00108	.00011	.0054	.00142	.00002	.00086	.00025
%RSD	.28577	.18957	.14198	.47278	.35832	.24512	.19222	.19387

#1	2.4295	.57070	.07856	1.1365	.39462	.01017	.44623	.13072
#2	2.4320	.56883	.07875	1.1367	.39393	.01012	.44452	.13113
#3	2.4426	.57071	.07874	1.1460	.39665	.01012	.44534	.13067

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	.83638	.15462	.18617	.09329	2.0758	.07855	.50789	1.2705
Stddev	.00295	.00028	.00125	.00023	.0022	.00011	.00200	.0036
%RSD	.35325	.17861	.67310	.24573	.10734	.14286	.39341	.28524

#1	.83520	.15478	.18711	.09348	2.0781	.07855	.50731	1.2695
#2	.83419	.15431	.18666	.09304	2.0757	.07867	.50625	1.2675
#3	.83974	.15478	.18475	.09337	2.0737	.07844	.51012	1.2745

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	.19740	.55936	.00904	.06368	.04473	1.6098	10.863
Stddev	.00055	.00093	.00004	.00031	.00020	.0023	.083
%RSD	.28073	.16571	.43286	.49121	.45378	.14284	.76045

#1	.19720	.56043	.00904	.06338	.04460	1.6084	10.897
#2	.19697	.55877	.00907	.06367	.04462	1.6124	10.769
#3	.19803	.55888	.00899	.06400	.04496	1.6084	10.923

Sample Name: S3 Acquired: 5/21/2025 12:17:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2662.2	62172.	17415.	2399.4	3978.3
Stddev	13.6	167.	43.	5.2	16.0
%RSD	.51071	.26829	.24466	.21471	.40204
#1	2657.2	61983.	17410.	2396.1	3975.2
#2	2677.6	62299.	17460.	2396.7	3995.6
#3	2651.9	62234.	17376.	2405.3	3964.1

Sample Name: S4 Acquired: 5/21/2025 12:22:06 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.18308	.28848	.96918	.25364	.59254	.66399	12.489	.83011
Stddev	.00076	.00039	.00384	.00132	.00284	.00186	.126	.00569
%RSD	.41705	.13576	.39650	.51895	.47894	.27952	1.0078	.68568

#1	.18301	.28848	.96821	.25413	.59281	.66527	12.411	.83651
#2	.18235	.28888	.96592	.25215	.58958	.66186	12.422	.82561
#3	.18387	.28810	.97342	.25464	.59524	.66483	12.634	.82822

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	4.8487	1.1278	.15402	2.2586	.77421	.02008	.87959	.26348
Stddev	.0178	.0060	.00036	.0098	.00348	.00013	.00599	.00128
%RSD	.36784	.53282	.23442	.43256	.44926	.64256	.68102	.48669

#1	4.8424	1.1315	.15437	2.2557	.77498	.02002	.88389	.26427
#2	4.8349	1.1208	.15365	2.2505	.77041	.02000	.87275	.26200
#3	4.8688	1.1310	.15406	2.2694	.77723	.02023	.88213	.26417

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	1.6550	.30687	.37726	.18615	4.0947	.15787	1.0083	2.4876
Stddev	.0066	.00043	.00101	.00098	.0119	.00053	.0073	.0107
%RSD	.39760	.14121	.26830	.52439	.28956	.33320	.71989	.43203

#1	1.6533	.30651	.37721	.18627	4.1018	.15741	1.0164	2.4903
#2	1.6494	.30676	.37628	.18511	4.1013	.15776	1.0025	2.4757
#3	1.6622	.30735	.37830	.18706	4.0810	.15844	1.0058	2.4967

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	.39329	1.1116	.01795	.12826	.09076	3.2354	21.616	
Stddev	.00079	.0066	.00018	.00054	.00050	.0193	.095	
%RSD	.20166	.59305	1.0273	.42440	.54817	.59503	.43812	

#1	.39315	1.1170	.01774	.12834	.09067	3.2465	21.509	
#2	.39257	1.1043	.01804	.12767	.09032	3.2132	21.686	
#3	.39414	1.1137	.01808	.12875	.09130	3.2467	21.654	

Sample Name: S4 Acquired: 5/21/2025 12:22:06 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2643.0	62008.	17299.	2385.7	3890.2
Stddev	14.9	146.	83.	2.4	18.9
%RSD	.56425	.23508	.47807	.10033	.48473
#1	2630.8	62173.	17215.	2384.7	3878.2
#2	2659.6	61954.	17381.	2384.1	3912.0
#3	2638.7	61897.	17300.	2388.5	3880.5

Sample Name: S5 Acquired: 5/21/2025 12:26:18 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.37059	.58719	1.9628	.51299	1.2056	1.3574	26.481	1.6168
Stddev	.00059	.00566	.0059	.00070	.0015	.0012	.139	.0060
%RSD	.15856	.96402	.30096	.13743	.12192	.08941	.52480	.37416

#1	.36992	.59295	1.9598	.51308	1.2039	1.3585	26.614	1.6237
#2	.37080	.58698	1.9590	.51224	1.2067	1.3576	26.337	1.6145
#3	.37103	.58163	1.9696	.51364	1.2062	1.3561	26.493	1.6122

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	9.8360	2.3038	.30132	4.5868	1.5444	.04151	1.8152	.53869
Stddev	.0227	.0032	.00046	.0102	.0033	.00033	.0034	.00093
%RSD	.23042	.13823	.15292	.22251	.21340	.79769	.18942	.17297

#1	9.8198	2.3051	.30092	4.5797	1.5406	.04128	1.8145	.53766
#2	9.8262	2.3002	.30122	4.5822	1.5460	.04137	1.8121	.53948
#3	9.8619	2.3062	.30183	4.5985	1.5466	.04189	1.8189	.53893

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3499	.61239	.82021	.38246	8.0539	.33487	1.9975	4.9675
Stddev	.0075	.00148	.00697	.00014	.0239	.00208	.0073	.0022
%RSD	.22384	.24103	.85019	.03586	.29701	.62212	.36816	.04343

#1	3.3465	.61148	.81606	.38231	8.0268	.33320	2.0060	4.9651
#2	3.3446	.61160	.81632	.38252	8.0722	.33421	1.9940	4.9682
#3	3.3585	.61409	.82826	.38256	8.0625	.33721	1.9926	4.9692

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	.79931	2.3023	.03711	.26782	.19071	6.8160	44.764	
Stddev	.00124	.0036	.00031	.00053	.00020	.0162	.326	
%RSD	.15571	.15648	.84546	.19883	.10689	.23773	.72717	

#1	.79875	2.3028	.03681	.26758	.19068	6.8211	44.405	
#2	.79845	2.2985	.03708	.26746	.19053	6.7978	45.040	
#3	.80074	2.3057	.03743	.26844	.19093	6.8290	44.847	

Sample Name: S5 Acquired: 5/21/2025 12:26:18 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2602.8	62298.	17508.	2372.5	3741.5
Stddev	1.6	335.	5.	14.1	2.0
%RSD	.06310	.53830	.02773	.59359	.05214
#1	2603.8	62651.	17506.	2387.9	3742.6
#2	2600.9	62257.	17504.	2369.4	3742.7
#3	2603.7	61984.	17513.	2360.3	3739.3

Sample Name: ICV01 Acquired: 5/21/2025 13:19:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.020528	1.034365	.9887716	1.051270	1.009246	2.410668
Stddev	.004967	.002316	.0020373	.003965	.001538	.008233
%RSD	.4867377	.2239017	.2060391	.3771501	.1523996	.3415431

#1	1.015087	1.031711	.9901829	1.055442	1.010172	2.417526
#2	1.021678	1.035408	.9864360	1.050819	1.010096	2.412942
#3	1.024820	1.035975	.9896958	1.047551	1.007471	2.401536

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5346198	.4778579	.5099694	9.471368	.5135826	.4976459
Stddev	.0022909	.0026307	.0003375	.024339	.0015019	.0006190
%RSD	.4285158	.5505119	.0661719	.2569762	.2924347	.1243879

#1	.5369175	.4807336	.5100632	9.483452	.5119396	.4982954
#2	.5346061	.4772674	.5095950	9.487300	.5148847	.4970626
#3	.5323357	.4755726	.5102500	9.443352	.5139237	.4975798

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5140703	10.35772	.4856029	5.595090	.5010501	.2636684
Stddev	.0005080	.10547	.0012377	.009545	.0005923	.0010088
%RSD	.0988199	1.018269	.2548812	.1705983	.1182154	.3826136

#1	.5146497	10.25058	.4851573	5.584671	.5017109	.2634622
#2	.5137013	10.46144	.4870017	5.603413	.5005669	.2647644
#3	.5138599	10.36113	.4846497	5.597186	.5008726	.2627787

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.07256	.4733073	1.007691	10.72283	2.316870	2.494952
Stddev	.05673	.0029030	.004850	.07833	.014867	.001833
%RSD	.5632114	.6133389	.4813131	.7305069	.6417035	.0734666

#1	10.00774	.4716022	1.002896	10.63818	2.333595	2.494160
#2	10.11316	.4766592	1.007584	10.79275	2.311863	2.493649
#3	10.09677	.4716605	1.012594	10.73755	2.305153	2.497048

Sample Name: ICV01 Acquired: 5/21/2025 13:19:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.422587	2.381489	F 2.161111	F .0029505	F -.004278	F .0019522
Stddev	.002808	.009579	.015471	.0027864	.001464	.0010769
%RSD	.1159184	.4022255	.7158753	94.43912	34.22160	55.16297

#1	2.420495	2.390864	2.148326	.0039784	-.005413	.0007347
#2	2.425779	2.381886	2.178309	.0050769	-.002626	.0027799
#3	2.421486	2.371718	2.156699	-.000204	-.004796	.0023420

Elem	Sr4077
Units	ppm
Avg	F -.008716
Stddev	.000158
%RSD	1.810007

#1	-.008541
#2	-.008762
#3	-.008846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.136	63233.75	18407.75	2410.579	4023.407
Stddev	1.653	246.21	91.86	11.966	2.184
%RSD	.0621268	.3893576	.4990518	.4963987	.0542923

#1	2662.010	63401.40	18313.02	2423.865	4022.479
#2	2658.885	62951.09	18413.77	2400.649	4021.839
#3	2659.513	63348.77	18496.46	2407.224	4025.902

Sample Name: LLICV01 Acquired: 5/21/2025 13:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0169797	.0407112	.0110457	.0195240	.0501232	.1112791	.0906126
Stddev	.0019217	.0007238	.0008768	.0042119	.0011541	.0026385	.0006519
%RSD	11.31746	1.777803	7.937947	21.57296	2.302589	2.371088	.7194451

#1	.0157931	.0411286	.0103031	.0243340	.0507176	.1140731	.0910223
#2	.0191968	.0411296	.0120130	.0177422	.0508590	.1088299	.0909547
#3	.0159491	.0398755	.0108211	.0164958	.0487930	.1109343	.0898609

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060138	.0060645	2.019725	.0103337	.0296931	.0218246	.1047850
Stddev	.0000602	.0000172	.007015	.0004617	.0007202	.0013717	.0082033
%RSD	1.000292	.2834782	.3473258	4.468359	2.425593	6.285097	7.828696

#1	.0060769	.0060817	2.011948	.0104020	.0300555	.0224353	.1133997
#2	.0059571	.0060473	2.021651	.0098417	.0301601	.0227849	.1038887
#3	.0060075	.0060646	2.025576	.0107576	.0288636	.0202536	.0970667

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0221981	2.064525	.0396239	.0110020	1.896916	.0401432	.0432477
Stddev	.0004096	.012957	.0002661	.0004222	.008474	.0038820	.0003957
%RSD	1.845070	.6275943	.6716183	3.837906	.4467500	9.670398	.9150449

#1	.0217256	2.060742	.0398987	.0107846	1.887705	.0357504	.0433512
#2	.0224521	2.078952	.0396056	.0114887	1.904382	.0431125	.0428105
#3	.0224165	2.053880	.0393675	.0107328	1.898662	.0415665	.0435813

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.921296	.1123447	.2039622	.0405778	.0403451	.4081851	.0203438
Stddev	.055366	.0010896	.0080643	.0003570	.0007203	.0059584	.0018178
%RSD	2.881717	.9698992	3.953830	.8797034	1.785260	1.459719	8.935180

#1	1.862355	.1132033	.2088786	.0403309	.0409253	.4145594	.0221361
#2	1.929322	.1127119	.2083527	.0409871	.0395389	.4027556	.0203938
#3	1.972212	.1111189	.1946553	.0404154	.0405710	.4072403	.0185016

Sample Name: LLICV01 Acquired: 5/21/2025 13:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0225787	.0213128	.0198383
Stddev	.0027785	.0004780	.0000774
%RSD	12.30576	2.242662	.3899327

#1	.0229840	.0210418	.0197588
#2	.0196198	.0218647	.0199133
#3	.0251322	.0210320	.0198428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.685	64419.35	18027.46	2473.295	4362.546
Stddev	222.042	111.35	94.45	9.326	253.956
%RSD	7.665382	.1728564	.5238979	.3770698	5.821279

#1	2768.762	64328.93	17943.22	2462.672	4218.664
#2	2768.216	64543.73	18009.60	2480.138	4213.201
#3	3153.077	64385.40	18129.56	2477.075	4655.772

Sample Name: ICB01 Acquired: 5/21/2025 13:36:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002067	-.001227	.0000025	-.002231	.0024203	-.000659	-.002626
Stddev	.001715	.001264	.0001169	.003480	.0016033	.005880	.001543
%RSD	82.95757	103.0138	4653.380	155.9455	66.24177	891.9676	58.75553

#1	-.003576	-.002681	.0001374	.000789	.0034376	.002398	-.004038
#2	-.000202	-.000616	-.000069	-.006037	.0032511	-.007438	-.000979
#3	-.002422	-.000385	-.000061	-.001446	.0005722	.003062	-.002861

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000253	-.000076	-.001256	-.000037	.0004239	.0000619	.0269117
Stddev	.0000179	.000102	.001977	.000242	.0000807	.0004820	.0014922
%RSD	70.78235	134.7139	157.3490	660.4609	19.04071	778.9370	5.544637

#1	.0000383	-.000170	.000891	-.000281	.0004146	.0002313	.0264292
#2	.0000049	.000033	-.003001	.000203	.0005089	.0004363	.0257205
#3	.0000327	-.000091	-.001660	-.000032	.0003483	-.000482	.0285854

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000089	.0006694	.0002148	.0005805	-.043658	-.000857	.0004416
Stddev	.0003102	.0099645	.0002043	.0002210	.012661	.000287	.0002875
%RSD	3501.596	1488.594	95.07416	38.07918	29.00061	33.51663	65.10739

#1	-.000124	-.007680	.0003583	.0003289	-.049951	-.001174	.0003822
#2	-.000213	-.002012	-.000019	.0007436	-.051940	-.000613	.0001885
#3	.000363	.011700	.000305	.0006690	-.029083	-.000785	.0007543

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.040491	.0024075	-.000107	.0000100	-.000061	.0043700	.0012443
Stddev	.026180	.0005429	.000322	.0014772	.001001	.0116075	.0048794
%RSD	64.65724	22.55184	300.8761	14812.70	1631.488	265.6168	392.1307

#1	-.052077	.0030342	.000262	-.000811	-.000980	.0128632	.0064548
#2	-.010517	.0020795	-.000330	.001715	-.000209	-.008856	.0004955
#3	-.058879	.0021088	-.000253	-.000874	.001005	.009103	-.003217

Sample Name: ICB01 Acquired: 5/21/2025 13:36:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.000859	-.000398	-.000093
Stddev	.006981	.000752	.000019
%RSD	812.8418	189.1005	20.17707

#1	.003661	.000070	-.000114
#2	.002661	.000002	-.000078
#3	-.008899	-.001265	-.000086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.575	64782.06	18089.14	2471.653	4343.813
Stddev	1.794	36.92	51.99	5.454	3.784
%RSD	.0643181	.0569890	.2874145	.2206668	.0871034

#1	2791.293	64742.07	18139.05	2474.107	4348.044
#2	2787.713	64814.85	18093.07	2465.403	4340.755
#3	2789.718	64789.25	18035.29	2475.449	4342.640

Sample Name: CRI01 Acquired: 5/21/2025 13:43:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178810	.0395085	.0110710	.0183233	.0512692	.1124467	.0903405
Stddev	.0033808	.0012674	.0033534	.0026248	.0001410	.0033649	.0015010
%RSD	18.90687	3.207863	30.28956	14.32472	.2749456	2.992464	1.661525

#1	.0147423	.0395232	.0090983	.0183980	.0514312	.1085712	.0913372
#2	.0174403	.0407685	.0091718	.0209100	.0512016	.1146251	.0910703
#3	.0214605	.0382338	.0149429	.0156620	.0511747	.1141439	.0886142

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057835	.0062663	2.003596	.0105729	.0301448	.0223569	.1061081
Stddev	.0000567	.0000293	.008211	.0000785	.0003072	.0002091	.0034681
%RSD	.9799367	.4682286	.4098173	.7424272	1.018922	.9350623	3.268422

#1	.0057336	.0062463	2.010245	.0106393	.0304371	.0224758	.1089455
#2	.0057719	.0063000	2.006124	.0104863	.0301727	.0224792	.1071368
#3	.0058451	.0062525	1.994418	.0105931	.0298247	.0221155	.1022421

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216655	2.061703	.0401273	.0101586	1.941864	.0413287	.0434287
Stddev	.0002230	.011420	.0001434	.0005586	.013814	.0008436	.0009960
%RSD	1.029365	.5538904	.3572950	5.498839	.7113964	2.041175	2.293333

#1	.0214913	2.074850	.0401962	.0096174	1.926689	.0415613	.0445409
#2	.0219169	2.054254	.0402233	.0101253	1.945193	.0420316	.0431259
#3	.0215883	2.056005	.0399625	.0107331	1.953709	.0403932	.0426193

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.974775	.1036851	.2097150	.0415022	.0402755	.4171179	.0213047
Stddev	.030104	.0004469	.0013687	.0007819	.0008268	.0118215	.0014943
%RSD	1.524418	.4310537	.6526277	1.883924	2.052785	2.834081	7.014050

#1	1.942149	.1036954	.2112908	.0406333	.0395230	.4059493	.0223419
#2	2.001475	.1041267	.2090311	.0421490	.0401429	.4294988	.0195919
#3	1.980700	.1032330	.2088231	.0417243	.0411605	.4159057	.0219803

Sample Name: CRI01 Acquired: 5/21/2025 13:43:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0228471	.0200379	.0198595
Stddev	.0019644	.0014541	.0000097
%RSD	8.598004	7.256682	.0489935

#1	.0240545	.0195454	.0198597
#2	.0205805	.0188940	.0198691
#3	.0239064	.0216742	.0198497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2757.466	64579.61	18760.07	2471.581	4158.792
Stddev	26.607	375.92	60.90	10.394	25.060
%RSD	.9648904	.5821029	.3246418	.4205270	.6025685

#1	2729.529	64207.21	18689.76	2462.129	4135.793
#2	2760.364	64958.95	18793.90	2469.902	4155.086
#3	2782.505	64572.66	18796.55	2482.711	4185.499

Sample Name: ICSA01 Acquired: 5/21/2025 13:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0040950	.0059251	.0043752	-.013771	.0000195	244.8921	.0018293
Stddev	.0052572	.0033987	.0030493	.005470	.0010323	.4930	.0002387
%RSD	128.3822	57.36120	69.69550	39.72174	5285.926	.2013042	13.04675

#1	.0073600	.0037276	.0071924	-.010766	-.001140	245.4607	.0017848
#2	-.001970	.0042080	.0047959	-.010462	.000361	244.6317	.0016161
#3	.006895	.0098398	.0011374	-.020085	.000837	244.5840	.0020871

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006473	.0021901	228.2396	.0552571	.0015989	.0031080	91.30752
Stddev	.0000321	.0001489	.6348	.0000737	.0002750	.0005310	.50672
%RSD	4.958238	6.797700	.2781130	.1332836	17.19640	17.08533	.5549629

#1	.0006823	.0021945	228.8833	.0553400	.0017598	.0036231	91.47402
#2	.0006191	.0023368	228.2213	.0551994	.0012815	.0031388	90.73850
#3	.0006406	.0020391	227.6141	.0552317	.0017556	.0025624	91.71005

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063417	246.9980	.0020715	-.000791	.0041285	.0025194	.0041268
Stddev	.0004554	1.2681	.0003783	.000149	.0027101	.0007711	.0004506
%RSD	7.181005	.5134219	18.25942	18.77955	65.64352	30.60575	10.91922

#1	.0068310	248.4609	.0021537	-.000723	.0072515	.0025737	.0042083
#2	.0062637	246.3224	.0024019	-.000688	.0023941	.0017226	.0036409
#3	.0059303	246.2107	.0016589	-.000961	.0027400	.0032619	.0045310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.053352	.0160284	-.000234	-.008266	-.001360	.0118949	.0070590
Stddev	.017589	.0010730	.000683	.000928	.001116	.0167146	.0056647
%RSD	32.96741	6.694115	291.8403	11.23128	82.00114	140.5198	80.24817

#1	-.054848	.0167965	.000296	-.007214	-.000126	.0303715	.0052245
#2	-.035063	.0148024	-.001004	-.008971	-.001659	.0074873	.0025389
#3	-.070144	.0164862	.000006	-.008614	-.002297	-.002174	.0134135

Sample Name: ICSA01 Acquired: 5/21/2025 13:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.013927	.0028050	.0069347
Stddev	.004661	.0005641	.0007122
%RSD	33.46725	20.10956	10.26956

#1	-.016974	.0021671	.0067760
#2	-.016245	.0030102	.0077128
#3	-.008561	.0032378	.0063152

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2442.338	57987.21	16575.95	2228.426	3529.944
Stddev	2.147	389.03	74.13	14.090	1.967
%RSD	.0879196	.6708979	.4472173	.6322648	.0557192

#1	2440.887	57728.49	16502.40	2214.044	3528.008
#2	2441.322	58434.60	16574.82	2242.203	3529.885
#3	2444.805	57798.54	16650.64	2229.030	3531.940

Sample Name: ICSAB01 Acquired: 5/21/2025 13:56:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1084544	.1031826	.0486680	.0339320	.5929506	239.4027
Stddev	.0053266	.0009656	.0015161	.0091104	.0026655	1.1920
%RSD	4.911345	.9358484	3.115119	26.84885	.4495241	.4978919

#1	.1071907	.1021832	.0470911	.0240145	.5900183	240.3022
#2	.1038733	.1032543	.0501148	.0358526	.5936071	239.8552
#3	.1142992	.1041104	.0487981	.0419290	.5952265	238.0508

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4474138	.4686996	.9598999	224.4673	.5258928	.4726922
Stddev	.0032613	.0027672	.0057033	.8331	.0004834	.0022690
%RSD	.7289239	.5903900	.5941547	.3711384	.0919244	.4800128

#1	.4497410	.4667257	.9543219	224.9824	.5264509	.4704062
#2	.4488141	.4718625	.9596569	224.9133	.5256033	.4727265
#3	.4436862	.4675105	.9657207	223.5062	.5256241	.4749438

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4706975	91.15341	.4557792	239.4114	.9310822	.2146771
Stddev	.0024028	.59701	.0014745	.7093	.0064135	.0003687
%RSD	.5104824	.6549502	.3235171	.2962499	.6888211	.1717367

#1	.4679654	91.83000	.4566859	239.7672	.9249279	.2143020
#2	.4716450	90.70071	.4565739	239.8723	.9305921	.2146905
#3	.4724821	90.92953	.4540778	238.5947	.9377268	.2150390

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.038729	.4466694	.9666491	-.057488	.9235435	.9720378
Stddev	.009151	.0018973	.0010246	.032763	.0056292	.0035576
%RSD	23.62863	.4247601	.1059973	56.99080	.6095185	.3659985

#1	-.037860	.4448304	.9663573	-.079275	.9183865	.9682065
#2	-.048283	.4486200	.9658021	-.073377	.9295486	.9726698
#3	-.030043	.4465578	.9677880	-.019810	.9226954	.9752371

Sample Name: ICSAB01 Acquired: 5/21/2025 13:56:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9463469	.9145023	.8602225	F .0010208	F -.017828	F .0023783
Stddev	.0027222	.0047477	.0020968	.0022166	.007713	.0001602
%RSD	.2876505	.5191579	.2437463	217.1491	43.26399	6.736627

#1	.9438328	.9187043	.8598347	-.001417	-.026260	.0022343
#2	.9459699	.9154507	.8624861	.002914	-.016094	.0025509
#3	.9492379	.9093520	.8583467	.001565	-.011130	.0023496

Elem	Sr4077
Units	ppm
Avg	F .0060990
Stddev	.0004419
%RSD	7.245895

#1	.0059466
#2	.0065969
#3	.0057534

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.747	59632.78	17415.91	2258.269	3577.973
Stddev	7.102	160.67	108.82	6.691	11.801
%RSD	.2876931	.2694390	.6248591	.2962916	.3298162

#1	2476.739	59513.00	17466.28	2252.213	3590.552
#2	2466.343	59569.98	17291.02	2257.141	3576.220
#3	2463.158	59815.37	17490.41	2265.452	3567.147

Sample Name: ICSADLX20 Acquired: 5/21/2025 14:00:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013434	-.001549	-.000186	.0031170	.0010953	12.06528	-.003295
Stddev	.0022341	.001278	.001931	.0013516	.0002226	.05904	.000719
%RSD	166.3028	82.55279	1038.845	43.36248	20.31890	.4893788	21.81438

#1	-.000454	-.002990	.000764	.0037384	.0012341	12.13253	-.002536
#2	.000639	-.000554	.001086	.0040462	.0012132	12.02195	-.003965
#3	.003845	-.001101	-.002408	.0015665	.0008386	12.04134	-.003383

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000866	-.000092	11.70280	.0029380	.0003643	.0005819	4.450085
Stddev	.0000409	.000056	.06377	.0002661	.0001005	.0001219	.027680
%RSD	47.22880	60.83603	.5449406	9.056363	27.57808	20.94391	.6220113

#1	.0000431	-.000149	11.76325	.0028250	.0003339	.0004691	4.455026
#2	.0000923	-.000089	11.63616	.0027471	.0002825	.0007112	4.420267
#3	.0001243	-.000037	11.70898	.0032420	.0004764	.0005654	4.474961

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000315	12.01530	.0004336	-.000060	-.106731	.0005036	-.000030
Stddev	.000160	.02887	.0001541	.000290	.005656	.0008933	.000255
%RSD	50.74566	.2402622	35.52594	479.0332	5.298972	177.3816	858.7142

#1	-.000339	12.04090	.0003630	-.000094	-.106682	.0013587	-.000244
#2	-.000460	11.98401	.0003276	.000245	-.112411	.0005758	-.000099
#3	-.000144	12.02099	.0006103	-.000332	-.101100	-.000424	.000253

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.077245	.0016274	.0003193	-.001631	-.000403	-.002307	.0005174
Stddev	.026114	.0007725	.0005494	.000405	.000711	.002654	.0002836
%RSD	33.80708	47.46862	172.0642	24.81517	176.4396	115.0686	54.81859

#1	-.054184	.0022958	.0000982	-.001467	-.001214	-.001853	.0004969
#2	-.071948	.0018047	.0009448	-.001335	.000115	-.005158	.0008106
#3	-.105601	.0007816	-.000085	-.002093	-.000110	.000092	.0002445

Sample Name: ICSADLX20 Acquired: 5/21/2025 14:00:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000884	.0005196	.0004471
Stddev	.001694	.0008106	.0000579
%RSD	191.5770	155.9916	12.95090

#1	-.000703	.0004403	.0004772
#2	-.002662	-.000248	.0004837
#3	.000712	.001367	.0003803

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2711.212	65690.76	17346.32	2488.407	4108.357
Stddev	2.766	274.53	99.88	9.646	4.042
%RSD	.1020286	.4179196	.5757807	.3876246	.0983935

#1	2714.190	65411.18	17232.45	2483.350	4112.778
#2	2710.726	65959.95	17419.10	2499.530	4107.443
#3	2708.722	65701.16	17387.40	2482.342	4104.850

Sample Name: ICSABDLX20 Acquired: 5/21/2025 14:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0016598	.0041953	.0011507	.0006398	.0288638	11.82811	.0198886
Stddev	.0012386	.0006952	.0016795	.0033311	.0005326	.02672	.0014713
%RSD	74.62416	16.57135	145.9632	520.6544	1.845039	.2259191	7.397670

#1	.0005358	.0042841	.0021260	-.001855	.0294652	11.83287	.0214546
#2	.0014558	.0034600	.0021147	-.000648	.0284520	11.85213	.0196759
#3	.0029877	.0048419	-.000789	.004423	.0286742	11.79932	.0185352

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0239333	.0483831	11.70520	.0274614	.0231989	.0247214	4.749302
Stddev	.0001312	.0004986	.02229	.0005606	.0003922	.0000982	.018418
%RSD	.5480757	1.030581	.1903936	2.041543	1.690396	.3972719	.3878050

#1	.0239664	.0488276	11.72257	.0281077	.0235036	.0248250	4.741314
#2	.0240448	.0484777	11.71296	.0271712	.0233366	.0247096	4.736227
#3	.0237888	.0478439	11.68007	.0271054	.0227565	.0246296	4.770366

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0240922	11.94594	.0474667	.0104993	-.088260	.0248785	.0535015
Stddev	.0004604	.05622	.0005580	.0002473	.019928	.0010262	.0000291
%RSD	1.910781	.4706464	1.175525	2.355594	22.57913	4.124743	.0543247

#1	.0235618	11.95970	.0477330	.0105990	-.101992	.0250645	.0534770
#2	.0243877	11.99401	.0478417	.0106813	-.097386	.0257990	.0534939
#3	.0243272	11.88411	.0468255	.0102177	-.065403	.0237721	.0535336

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.047922	.0475319	.0484077	.0449686	.0461720	.0412995	-.001330
Stddev	.019341	.0003524	.0008775	.0006177	.0008109	.0026156	.000973
%RSD	40.35939	.7413339	1.812672	1.373596	1.756289	6.333305	73.17112

#1	-.058154	.0471907	.0492413	.0455165	.0466480	.0382795	-.002442
#2	-.059998	.0478945	.0484897	.0442992	.0466324	.0427764	-.000635
#3	-.025614	.0475105	.0474921	.0450903	.0452357	.0428427	-.000913

Sample Name: ICSABDLX20 Acquired: 5/21/2025 14:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0015901	-.000738	.0002121
Stddev	.0018508	.000357	.0000734
%RSD	116.3921	48.38163	34.59631

#1	.0021449	-.000650	.0002361
#2	.0031001	-.000433	.0002704
#3	-.000475	-.001131	.0001297

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.284	66118.94	18615.07	2522.598	4137.253
Stddev	1.200	208.11	119.59	8.769	4.233
%RSD	.0438834	.3147579	.6424517	.3476343	.1023198

#1	2735.220	66341.98	18660.64	2532.705	4141.825
#2	2732.931	65929.96	18479.39	2518.087	4133.470
#3	2734.701	66084.87	18705.18	2517.003	4136.465

Sample Name: CCV01 Acquired: 5/21/2025 14:09:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.853551	4.971058	4.900043	4.862249	4.891339	9.683936	9.917947
Stddev	.022679	.023882	.007509	.031595	.025188	.012527	.013582
%RSD	.4672760	.4804254	.1532531	.6497967	.5149538	.1293553	.1369479

#1	4.838822	4.962452	4.901314	4.868791	4.878229	9.669528	9.902463
#2	4.842163	4.952672	4.891979	4.827896	4.875409	9.690030	9.927848
#3	4.879668	4.998051	4.906835	4.890061	4.920378	9.692249	9.923531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2342557	2.431395	24.38254	.9835168	2.433461	1.231873	5.063327
Stddev	.0004253	.005020	.09983	.0034091	.003810	.006061	.006219
%RSD	.1815633	.2064547	.4094315	.3466234	.1565795	.4920391	.1228279

#1	.2347417	2.431523	24.27647	.9867018	2.432505	1.229993	5.058094
#2	.2339516	2.426312	24.39650	.9839277	2.430219	1.226975	5.070203
#3	.2340737	2.436348	24.47466	.9799209	2.437658	1.238652	5.061685

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451505	24.16920	2.440956	1.220850	25.33351	2.449297	2.465590
Stddev	.005322	.03657	.006044	.002566	.06255	.003664	.007603
%RSD	.2171070	.1512942	.2476082	.2101734	.2468883	.1496117	.3083540

#1	2.447238	24.15558	2.440816	1.222273	25.34534	2.446225	2.464010
#2	2.449807	24.14141	2.434983	1.222389	25.38929	2.448314	2.473859
#3	2.457469	24.21063	2.447069	1.217888	25.26589	2.453353	2.458902

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.07337	4.655885	4.959916	4.876729	4.894882	4.957078	4.859807
Stddev	.01378	.002915	.019621	.016644	.014532	.022280	.013287
%RSD	.0549716	.0626065	.3955908	.3412910	.2968752	.4494550	.2734118

#1	25.08818	4.657303	4.951620	4.875351	4.880332	4.976918	4.864692
#2	25.07101	4.657820	4.945806	4.860817	4.894917	4.961342	4.844769
#3	25.06091	4.652533	4.982323	4.894019	4.909395	4.932975	4.869961

Sample Name: CCV01 Acquired: 5/21/2025 14:09:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.758192	4.837157	4.914299
Stddev	.011779	.011414	.054029
%RSD	.2475432	.2359650	1.099424

#1	4.752611	4.826151	4.852460
#2	4.750241	4.836379	4.952371
#3	4.771724	4.848940	4.938065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2719.834	64805.98	18777.45	2457.650	4016.696
Stddev	3.150	230.94	14.51	10.578	10.531
%RSD	.1158247	.3563578	.0772535	.4303982	.2621773

#1	2716.591	64605.85	18761.80	2455.965	4006.926
#2	2722.882	64753.43	18790.45	2448.016	4015.311
#3	2720.028	65058.67	18780.10	2468.969	4027.851

Sample Name: CCB01 Acquired: 5/21/2025 14:13:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0013299	-.001236	-.000276	-.000053	.0007177	.0155205	-.003992
Stddev	.0016637	.002039	.000228	.001502	.0010949	.0018047	.001031
%RSD	125.1044	164.9519	82.48228	2828.082	152.5662	11.62788	25.82136

#1	.0022987	-.000770	-.000212	.001339	-.000547	.0139680	-.003298
#2	-.000591	.000530	-.000087	-.001645	.001335	.0150929	-.003502
#3	.002282	-.003468	-.000530	.000147	.001365	.0175006	-.005176

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000339	.0000689	.0082258	.0004169	.0003369	.0004910	.0131580
Stddev	.0000193	.0001332	.0053487	.0005543	.0001095	.0002626	.0027570
%RSD	56.92054	193.3200	65.02316	132.9788	32.51228	53.47805	20.95298

#1	.0000134	-.000012	.0032658	.0002302	.0004632	.0007379	.0100766
#2	.0000517	-.000004	.0075187	-.000020	.0002782	.0002151	.0140060
#3	.0000366	.000223	.0138928	.001040	.0002692	.0005200	.0153913

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008959	.0013403	.0002123	.0004376	-.066679	.0009831	.0053210
Stddev	.0001690	.0039766	.0001462	.0001018	.011111	.0008591	.0001959
%RSD	18.86955	296.6988	68.87500	23.25214	16.66369	87.39412	3.681477

#1	.0010813	.0043058	.0000488	.0003493	-.058717	.0000326	.0051265
#2	.0008559	.0028936	.0003306	.0004146	-.079372	.0017045	.0055183
#3	.0007504	-.003179	.0002574	.0005489	-.061947	.0012120	.0053182

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.026777	.0085878	.0006294	.0001301	.0002707	-.000030	.0002820
Stddev	.006963	.0006174	.0003695	.0004460	.0004318	.003729	.0025026
%RSD	26.00371	7.189593	58.70221	342.8984	159.5237	12447.08	887.4933

#1	-.023685	.0084312	.0010551	-.000239	.0006301	.004162	.0015370
#2	-.034750	.0080637	.0004408	.000626	.0003903	-.002978	.0019088
#3	-.021895	.0092684	.0003923	.000003	-.000208	-.001274	-.002600

Sample Name: CCB01 Acquired: 5/21/2025 14:13:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0005814	-.000414	.0001177
Stddev	.0031272	.000879	.0000939
%RSD	537.8224	212.6554	79.84207

#1	-.001519	-.001288	.0000264
#2	.004175	-.000424	.0002141
#3	-.000912	.000471	.0001124

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.343	67537.91	18362.93	2522.675	4327.162
Stddev	12.422	203.06	162.73	12.803	11.832
%RSD	.4442074	.3006534	.8861722	.5075248	.2734244

#1	2810.654	67303.70	18183.31	2508.289	4340.690
#2	2788.356	67645.50	18404.96	2526.919	4322.052
#3	2790.020	67664.54	18500.52	2532.817	4318.744

Sample Name: Q2068-01 Acquired: 5/21/2025 14:17:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1898603	.0103875	16.84435	-.023810	.0061489	56.35475	.3967370
Stddev	.0024266	.0021003	.15537	.001342	.0006331	.12661	.0021091
%RSD	1.278091	20.21933	.9223965	5.634825	10.29599	.2246675	.5316130

#1	.1871398	.0079718	16.99984	-.025258	.0063778	56.41082	.3990081
#2	.1906394	.0114101	16.68910	-.023565	.0054332	56.20979	.3963630
#3	.1918016	.0117807	16.84410	-.022608	.0066356	56.44364	.3948400

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056946	.0013063	21.38981	.1129570	.0289228	6.461111	185.3712
Stddev	.0000492	.0001925	.06445	.0004672	.0003127	.017152	.7148
%RSD	.8636485	14.73693	.3013054	.4135763	1.081293	.2654713	.3856187

#1	.0057071	.0010922	21.45055	.1127714	.0285686	6.446784	186.1081
#2	.0057363	.0013614	21.32220	.1126112	.0290393	6.480118	185.3247
#3	.0056404	.0014652	21.39669	.1134885	.0291606	6.456431	184.6808

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7445198	9.319119	.1868584	.0031136	22.13259	.1447520	1.287671
Stddev	.0011253	.026227	.0008088	.0000588	.13127	.0008388	.005454
%RSD	.1511448	.2814314	.4328630	1.887153	.5931046	.5794435	.4235177

#1	.7446099	9.315060	.1875504	.0031218	22.28071	.1443031	1.281663
#2	.7433521	9.295158	.1859692	.0030512	22.08642	.1442333	1.292308
#3	.7455973	9.347138	.1870555	.0031679	22.03065	.1457197	1.289041

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.81946	.1233699	.0156879	.1454045	1.084281	3.803801	2.437823
Stddev	.07716	.0012144	.0004130	.0011270	.002987	.004403	.018031
%RSD	.6527927	.9843717	2.632434	.7750899	.2754611	.1157529	.7396362

#1	11.89703	.1247545	.0153560	.1459831	1.086418	3.808421	2.456903
#2	11.81862	.1224853	.0155573	.1441057	1.080868	3.803328	2.421066
#3	11.74272	.1228699	.0161504	.1461247	1.085557	3.799653	2.435499

Sample Name: Q2068-01 Acquired: 5/21/2025 14:17:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.563828	.0937702	.2149811
Stddev	.008950	.0006632	.0009851
%RSD	.3490987	.7072329	.4582083

#1	2.572250	.0935578	.2159071
#2	2.554429	.0945136	.2139461
#3	2.564804	.0932393	.2150902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2959.730	66487.45	19628.73	2505.553	4135.268
Stddev	43.698	276.33	35.43	16.484	38.689
%RSD	1.476413	.4156158	.1804887	.6578825	.9355914

#1	2999.145	66257.45	19590.67	2508.325	4170.403
#2	2912.740	66410.91	19634.78	2487.859	4093.805
#3	2967.305	66793.98	19660.74	2520.475	4141.596

Sample Name: Q2067-01 Acquired: 5/21/2025 14:22:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0020812	-.006436	.0058541	.0003621	.0021748	.4266961	.0683214
Stddev	.0013568	.003793	.0010945	.0035162	.0015893	.0030640	.0010207
%RSD	65.19015	58.93203	18.69599	970.9096	73.07764	.7180838	1.493997

#1	.0030402	-.007196	.0046091	.0029398	.0003425	.4250240	.0682034
#2	.0005289	-.002321	.0062886	-.003643	.0031789	.4248319	.0693960
#3	.0026746	-.009791	.0066646	.001790	.0030030	.4302324	.0673648

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000117	-.000134	47.59531	.0031711	.0014944	.0049962	5.714720
Stddev	.000008	.000112	.17566	.0002457	.0003268	.0009026	.012945
%RSD	6.528401	83.76816	.3690708	7.747621	21.86495	18.06604	.2265123

#1	-.000111	-.000261	47.54025	.0030683	.0016763	.0057813	5.706030
#2	-.000114	-.000049	47.79190	.0034515	.0016897	.0040100	5.729597
#3	-.000125	-.000092	47.45377	.0029935	.0011172	.0051972	5.708533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.340442	7.746981	.0076258	-.000154	335.6455	.0027015	.0398385
Stddev	.004735	.058267	.0002522	.000268	2.6634	.0020406	.0005795
%RSD	.3532239	.7521220	3.307753	173.8799	.7935182	75.53704	1.454657

#1	1.337947	7.707257	.0079057	.000114	335.3022	.0012140	.0404796
#2	1.345903	7.813870	.0075555	-.000422	333.1704	.0018627	.0396839
#3	1.337477	7.719817	.0074162	-.000154	338.4639	.0050279	.0393519

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.778797	.2406773	.0134233	-.005200	.0205038	7.841936	.9897870
Stddev	.053638	.0004734	.0001307	.001232	.0005941	.038326	.0026509
%RSD	.6895451	.1966997	.9739607	23.68465	2.897706	.4887317	.2678199

#1	7.735065	.2401330	.0133890	-.005174	.0198806	7.839626	.9891612
#2	7.762680	.2409937	.0133131	-.003981	.0210638	7.804818	.9926948
#3	7.838646	.2409052	.0135677	-.006444	.0205671	7.881365	.9875051

Sample Name: Q2067-01 Acquired: 5/21/2025 14:22:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	6.137900	.0024507	.2540506
Stddev	.014992	.0006017	.0002554
%RSD	.2442578	24.55223	.1005197

#1	6.120867	.0030105	.2537632
#2	6.143732	.0018144	.2541373
#3	6.149099	.0025273	.2542513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.408	62144.07	17991.92	2392.873	3838.947
Stddev	15.027	94.70	46.69	9.900	18.910
%RSD	.5667511	.1523933	.2595181	.4137251	.4925848

#1	2638.614	62245.21	17981.86	2399.420	3830.496
#2	2647.653	62129.49	17951.08	2381.484	3825.735
#3	2667.956	62057.49	18042.83	2397.715	3860.608

Sample Name: Q2068-03DLX5 Acquired: 5/21/2025 14:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0015637	.0058127	2.635970	-.009816	.0156066	6.628069	.6699248
Stddev	.0026815	.0020012	.003466	.002282	.0014580	.001567	.0030759
%RSD	171.4848	34.42790	.1314917	23.24923	9.342224	.0236395	.4591396

#1	-.001017	.0064026	2.636239	-.012179	.0154238	6.627631	.6724902
#2	.004336	.0074526	2.639294	-.007624	.0171473	6.629808	.6707694
#3	.001373	.0035829	2.632378	-.009647	.0142485	6.626768	.6665149

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007217	.0963111	12.54122	.0426807	.0076454	5.212541	80.04601
Stddev	.0000482	.0002202	.03322	.0001740	.0001502	.002401	.55016
%RSD	6.681594	.2286289	.2649137	.4075971	1.964020	.0460660	.6873059

#1	.0006913	.0965507	12.51687	.0428639	.0077106	5.210759	80.37627
#2	.0006965	.0962649	12.52772	.0426606	.0077519	5.215272	80.35084
#3	.0007773	.0961176	12.57907	.0425177	.0074737	5.211592	79.41091

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6864128	3.525714	.0343322	.1898454	16.70250	.0106011	2.234062
Stddev	.0010847	.030045	.0002129	.0024549	.19353	.0008758	.028859
%RSD	.1580213	.8521623	.6200795	1.293086	1.158677	8.261334	1.291773

#1	.6865988	3.494823	.0340916	.1918867	16.85978	.0113172	2.247348
#2	.6873926	3.527483	.0344088	.1905281	16.76134	.0108613	2.253886
#3	.6852472	3.554834	.0344962	.1871215	16.48639	.0096247	2.200953

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.631895	.0788527	.0237933	.0522377	.0957094	7.956842	5.973821
Stddev	.086491	.0008827	.0001609	.0004936	.0009515	.049575	.001767
%RSD	1.001993	1.119487	.6761714	.9448992	.9941553	.6230488	.0295836

#1	8.709606	.0778614	.0236714	.0516845	.0955224	7.991808	5.975860
#2	8.647368	.0795540	.0239756	.0523956	.0948653	7.978610	5.972875
#3	8.538713	.0791426	.0237329	.0526330	.0967405	7.900107	5.972728

Sample Name: Q2068-03DLX5 Acquired: 5/21/2025 14:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.662063	.0355777	-.016761
Stddev	.026336	.0007742	.000448
%RSD	.5649080	2.176017	2.675230

#1	4.691914	.0351160	-.016977
#2	4.642110	.0364715	-.017060
#3	4.652165	.0351456	-.016245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.805	66772.73	18056.81	2574.773	4211.370
Stddev	2.514	458.32	16.92	31.347	1.460
%RSD	.0891601	.6863851	.0936929	1.217469	.0346594

#1	2822.632	66377.99	18055.33	2559.230	4210.980
#2	2818.961	66664.82	18074.42	2554.236	4210.145
#3	2817.821	67275.37	18040.68	2610.855	4212.985

Sample Name: Q2065-01 Acquired: 5/21/2025 14:30:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2197852	.0039339	4.899120	-.171721	.0173394	350.4605
Stddev	.0008748	.0042398	.007919	.003728	.0040790	2.5701
%RSD	.3980377	107.7752	.1616331	2.171156	23.52454	.7333356

#1	.2206460	.0035385	4.892367	-.175508	.0185971	353.4244
#2	.2188970	.0083575	4.907835	-.171602	.0206414	348.8496
#3	.2198128	-.000094	4.897158	-.168054	.0127796	349.1076

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.902968	.0232480	.1984487	F 3533.825	1.027288	.6027920
Stddev	.004359	.0001127	.0003981	23.963	.004186	.0006840
%RSD	.0889114	.4847868	.2005984	.6781033	.4075113	.1134776

#1	4.897940	.0231757	.1985831	3541.827	1.028608	.6032046
#2	4.905684	.0231905	.1987621	3552.763	1.030655	.6031689
#3	4.905281	.0233779	.1980008	3506.885	1.022600	.6020024

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.625944	815.4057	15.76485	530.1480	1.229883	-.015705
Stddev	.000556	2.2839	.08333	.9693	.002270	.000443
%RSD	.0211703	.2800881	.5285766	.1828353	.1845312	2.819429

#1	2.626396	816.4578	15.78517	529.5672	1.227705	-.016188
#2	2.626114	816.9739	15.83614	531.2669	1.232234	-.015609
#3	2.625324	812.7854	15.67324	529.6097	1.229708	-.015319

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	502.1782	.9222965	14.29530	76.47945	1.773356	.1390552
Stddev	5.9812	.0025037	.08472	.29592	.004242	.0004323
%RSD	1.191060	.2714644	.5926141	.3869280	.2392343	.3108459

#1	508.6719	.9237342	14.23868	76.73660	1.777316	.1395213
#2	500.9683	.9237497	14.25453	76.54575	1.773874	.1389769
#3	496.8944	.9194054	14.39269	76.15601	1.768878	.1386675

Sample Name: Q2065-01 Acquired: 5/21/2025 14:30:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0657198	8.443987	F 184.5858	F 41.89180	F 337.3160	.4766345
Stddev	.0049478	.032261	.5375	.07556	.8889	.0032715
%RSD	7.528690	.3820563	.2911659	.1803739	.2635336	.6863645

#1	.0660329	8.456979	185.0453	41.94578	337.7228	.4751350
#2	.0705037	8.467725	184.7173	41.92417	337.9287	.4743815
#3	.0606229	8.407255	183.9948	41.80544	336.2964	.4803869

Elem	Sr4077
Units	ppm
Avg	9.311068
Stddev	.047007
%RSD	.5048465

#1	9.340303
#2	9.336056
#3	9.256845

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.375	71251.83	23625.99	2564.813	2398.206
Stddev	4.802	196.64	32.46	5.155	5.314
%RSD	.1685997	.2759813	.1373759	.2010021	.2215728

#1	2843.282	71069.80	23607.41	2565.590	2395.875
#2	2849.023	71225.31	23607.08	2569.536	2394.456
#3	2852.821	71460.39	23663.46	2559.313	2404.287

Sample Name: Q2090-01 Acquired: 5/21/2025 14:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001153	-.005210	.0191488	.0008887	.0029571	1.637970	.0439819
Stddev	.000616	.001393	.0002121	.0019016	.0014660	.006686	.0011739
%RSD	53.37834	26.73617	1.107617	213.9739	49.57591	.4081798	2.669072

#1	-.000908	-.004116	.0193742	.0009356	.0046136	1.645604	.0435306
#2	-.000698	-.006778	.0189531	-.001036	.0024309	1.633159	.0453145
#3	-.001854	-.004736	.0191191	.002766	.0018268	1.635146	.0431006

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000135	.0000052	75.72212	.0075118	.0023653	.0278388	10.52232
Stddev	.0000131	.0000129	.15990	.0003461	.0001943	.0001756	.02343
%RSD	97.24902	248.7873	.2111688	4.606991	8.213009	.6306464	.2227108

#1	.0000153	.0000128	75.89709	.0074758	.0025365	.0277437	10.49855
#2	-.000000	.0000123	75.68570	.0071851	.0021542	.0280414	10.52299
#3	.000026	-.000010	75.58357	.0078744	.0024053	.0277314	10.54541

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2932348	9.357813	.0109043	.0006765	46.00736	.0057982	.2489052
Stddev	.0020271	.032501	.0001898	.0002480	.18730	.0007798	.0018126
%RSD	.6913026	.3473118	1.740754	36.65380	.4071089	13.44908	.7282208

#1	.2955732	9.388688	.0108940	.0003906	46.14744	.0064309	.2499595
#2	.2921561	9.360851	.0107199	.0008062	45.79462	.0049270	.2468123
#3	.2919751	9.323900	.0110991	.0008326	46.08003	.0060367	.2499439

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.894178	.0526698	.0044065	-.005399	.0831223	13.02405	1.779191
Stddev	.024948	.0001977	.0002877	.001023	.0005855	.04054	.004583
%RSD	.2804988	.3752711	6.528056	18.94936	.7044073	.3112458	.2575754

#1	8.920354	.0525064	.0047249	-.006496	.0827576	12.98673	1.776192
#2	8.891509	.0528895	.0043295	-.005231	.0837977	13.01823	1.776915
#3	8.870673	.0526135	.0041652	-.004471	.0828117	13.06718	1.784467

Sample Name: Q2090-01 Acquired: 5/21/2025 14:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.521283	-.002157	.2323042
Stddev	.025824	.001212	.0012462
%RSD	.5711601	56.18648	.5364429

#1	4.502101	-.000876	.2337092
#2	4.511103	-.002310	.2313327
#3	4.550645	-.003285	.2318706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2686.815	63271.41	18580.05	2411.898	4062.661
Stddev	14.892	145.03	55.68	10.924	12.505
%RSD	.5542750	.2292198	.2996775	.4529384	.3078153

#1	2679.594	63345.35	18540.20	2408.116	4060.914
#2	2676.909	63364.56	18643.67	2424.211	4051.121
#3	2703.941	63104.31	18556.28	2403.368	4075.948

Sample Name: Q2090-02 Acquired: 5/21/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003062	-.008304	.0247791	.0010837	.0029442	2.120802
Stddev	.003892	.002440	.0013659	.0030796	.0011190	.012572
%RSD	127.1147	29.38319	5.512428	284.1809	38.00728	.5928028

#1	-.007527	-.009697	.0254101	.0028054	.0039723	2.124436
#2	-.000384	-.005487	.0232117	.0029174	.0017523	2.106813
#3	-.001276	-.009729	.0257154	-.002472	.0031079	2.131157

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0649944	.0001070	-.000038	102.9084	.0098834	.0035879
Stddev	.0010580	.0000236	.000102	.2494	.0002545	.0002253
%RSD	1.627843	22.06536	270.3584	.2423869	2.575070	6.278963

#1	.0637773	.0001240	-.000106	102.6608	.0098736	.0037663
#2	.0655116	.0000800	.000079	103.1596	.0101426	.0033347
#3	.0656944	.0001170	-.000086	102.9048	.0096339	.0036626

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0355873	16.13615	.4661731	10.22366	.0119788	.0007753
Stddev	.0004894	.03537	.0001724	.05119	.0001087	.0001177
%RSD	1.375293	.2192134	.0369888	.5007497	.9076579	15.17684

#1	.0357169	16.09533	.4659753	10.16584	.0119293	.0006887
#2	.0359989	16.15773	.4662521	10.26322	.0121034	.0009093
#3	.0350461	16.15540	.4662919	10.24192	.0119036	.0007279

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.31647	.0071201	.3161113	13.40373	.0671083	.0066574
Stddev	.16211	.0024230	.0028920	.07427	.0001566	.0004674
%RSD	.3355083	34.03097	.9148540	.5541325	.2333627	7.020735

#1	48.36415	.0074077	.3139319	13.33130	.0669692	.0071816
#2	48.13588	.0045661	.3150099	13.40017	.0672779	.0065066
#3	48.44940	.0093865	.3193922	13.47972	.0670778	.0062841

Sample Name: Q2090-02 Acquired: 5/21/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.005908	.1011636	F 14.26149	2.484846	3.798792	.0007600
Stddev	.000364	.0020929	.04389	.012943	.007302	.0007045
%RSD	6.165502	2.068822	.3077408	.5208781	.1922073	92.70432

#1	-.006209	.1017751	14.24418	2.477578	3.792152	.0009413
#2	-.006013	.1028826	14.22890	2.499789	3.806611	.0013560
#3	-.005503	.0988330	14.31139	2.477170	3.797611	-.000017

Elem	Sr4077
Units	ppm
Avg	.3144382
Stddev	.0002848
%RSD	.0905684

#1	.3141256
#2	.3146829
#3	.3145063

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.736	63943.29	19099.13	2403.363	4071.848
Stddev	9.313	196.46	55.89	13.054	15.627
%RSD	.3448181	.3072463	.2926268	.5431642	.3837802

#1	2701.915	64130.97	19153.95	2417.948	4079.986
#2	2709.403	63959.81	19042.23	2399.371	4081.727
#3	2690.890	63739.08	19101.20	2392.772	4053.832

Sample Name: Q2090-02DUP Acquired: 5/21/2025 14:44:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001652	-.004671	.0237331	-.001471	.0030892	2.050992	.0657511
Stddev	.001474	.001954	.0012895	.004361	.0012800	.003332	.0005609
%RSD	89.22426	41.83550	5.433471	296.3630	41.43607	.1624593	.8530257

#1	-.002119	-.003450	.0233264	-.004113	.0044414	2.052682	.0663517
#2	-.000001	-.006925	.0226959	.003562	.0018963	2.053141	.0652410
#3	-.002836	-.003639	.0251769	-.003863	.0029298	2.047154	.0656605

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001118	.0000803	103.5593	.0096139	.0037469	.0343149	15.30809
Stddev	.0000303	.0000539	.1949	.0001877	.0003360	.0003796	.10889
%RSD	27.12688	67.12083	.1881747	1.951831	8.966706	1.106263	.7113082

#1	.0001236	.0001269	103.3909	.0094232	.0034076	.0340338	15.25660
#2	.0000774	.0000926	103.5141	.0097983	.0037535	.0347467	15.23450
#3	.0001345	.0000213	103.7728	.0096202	.0040795	.0341641	15.43317

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4735603	10.33492	.0122430	.0003221	45.83441	.0075112	.3132364
Stddev	.0028917	.07712	.0002108	.0002797	.25109	.0014400	.0016308
%RSD	.6106379	.7462555	1.721824	86.84755	.5478172	19.17191	.5206128

#1	.4710170	10.25049	.0122289	.0003664	45.77484	.0091083	.3116508
#2	.4729582	10.35263	.0120395	.0000228	45.61846	.0063118	.3149088
#3	.4767057	10.40166	.0124604	.0005770	46.10993	.0071134	.3131495

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.69314	.0696837	.0064127	-.006247	.0962948	13.33389	2.581283
Stddev	.12246	.0007432	.0000793	.001030	.0007437	.08825	.028777
%RSD	.9647388	1.066515	1.237203	16.48422	.7723237	.6618452	1.114825

#1	12.70820	.0701262	.0065042	-.006094	.0960347	13.38045	2.551822
#2	12.56384	.0700991	.0063722	-.005302	.0971336	13.23211	2.582702
#3	12.80736	.0688257	.0063619	-.007344	.0957160	13.38911	2.609323

Sample Name: Q2090-02DUP Acquired: 5/21/2025 14:44:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.855587	.0049078	.3146100
Stddev	.038105	.0079215	.0010815
%RSD	.9883152	161.4058	.3437433

#1	3.824450	.0140224	.3140246
#2	3.844233	-.000316	.3139475
#3	3.898080	.001017	.3158580

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.252	64574.10	18003.63	2462.315	4071.840
Stddev	9.609	194.23	12.57	8.777	11.743
%RSD	.3515446	.3007853	.0698209	.3564436	.2884008

#1	2723.403	64561.84	18003.32	2455.345	4058.283
#2	2733.754	64774.17	17991.22	2472.171	4078.835
#3	2742.600	64386.30	18016.36	2459.428	4078.403

Sample Name: Q2090-02LX5 Acquired: 5/21/2025 14:48:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001718	-.003627	.0043225	-.000265	.0001391	.5646906	.0124558
Stddev	.005224	.002138	.0019282	.003333	.0016017	.0142997	.0001749
%RSD	304.0235	58.93073	44.60799	1256.636	1151.872	2.532314	1.404173

#1	-.003577	-.006095	.0039593	.002733	.0019666	.5623040	.0124046
#2	.004181	-.002418	.0064065	.000325	-.001021	.5800335	.0126506
#3	-.005758	-.002369	.0026018	-.003853	-.000529	.5517343	.0123123

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000781	-.000003	20.33433	.0021022	.0007743	.0091299	3.072960
Stddev	.0000145	.000062	.00237	.0003799	.0002558	.0004870	.030098
%RSD	18.49765	2043.118	.0116337	18.07198	33.02987	5.334497	.9794377

#1	.0000731	.000013	20.33586	.0025201	.0008665	.0094233	3.095683
#2	.0000669	.000049	20.33553	.0017778	.0004853	.0085677	3.084371
#3	.0000945	-.000072	20.33161	.0020086	.0009712	.0093987	3.038825

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0940329	2.088910	.0026271	.0000749	8.189688	.0018759	.0608772
Stddev	.0002046	.011234	.0001825	.0001632	.053417	.0013599	.0006874
%RSD	.2176033	.5377728	6.945429	217.8538	.6522513	72.49274	1.129151

#1	.0937967	2.081132	.0028313	.0002542	8.209923	.0034075	.0615007
#2	.0941555	2.101789	.0025699	-.000065	8.230032	.0014101	.0601400
#3	.0941466	2.083808	.0024801	.000036	8.129110	.0008101	.0609908

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.364559	.0145583	.0011649	-.003222	.0379644	3.119837	.5164012
Stddev	.039813	.0005270	.0000990	.000531	.0045666	.062401	.0010268
%RSD	1.683728	3.619859	8.499819	16.48380	12.02871	2.000148	.1988377

#1	2.350289	.0151318	.0012275	-.002839	.0395812	3.097311	.5152623
#2	2.409540	.0144478	.0010508	-.002998	.0415027	3.190374	.5166850
#3	2.333848	.0140953	.0012165	-.003828	.0328093	3.071826	.5172562

Sample Name: Q2090-02LX5 Acquired: 5/21/2025 14:48:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7900493	.0005690	.0607117
Stddev	.0128984	.0010280	.0002299
%RSD	1.632602	180.6788	.3786745

#1	.8037587	.0013877	.0605231
#2	.7882354	.0009040	.0606442
#3	.7781540	-.000585	.0609678

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2895.467	66867.82	18347.29	2575.697	4376.399
Stddev	22.927	350.90	64.49	18.253	24.723
%RSD	.7918409	.5247694	.3515092	.7086672	.5649197

#1	2897.340	66807.10	18407.26	2579.872	4370.169
#2	2917.400	66551.24	18355.54	2555.718	4403.641
#3	2871.660	67245.12	18279.06	2591.500	4355.387

Sample Name: Q2090-02MS Acquired: 5/21/2025 14:52:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9302251	2.197338	1.133865	2.067306	.9119504	4.411373
Stddev	.0077830	.010133	.006428	.013117	.0063671	.011032
%RSD	.8366838	.4611374	.5668693	.6344755	.6981795	.2500860

#1	.9331235	2.194906	1.138177	2.066554	.9046096	4.398778
#2	.9214088	2.188643	1.126477	2.054582	.9152687	4.416012
#3	.9361432	2.208465	1.136939	2.080783	.9159729	4.419327

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2834594	.2212235	.2309283	108.7239	.4734157	.2308566
Stddev	.0016828	.0013771	.0019550	.6651	.0011761	.0012915
%RSD	.5936629	.6225085	.8465883	.6117221	.2484388	.5594255

#1	.2815649	.2212882	.2315446	108.4797	.4722627	.2317509
#2	.2847808	.2198152	.2287394	109.4766	.4733706	.2293760
#3	.2840325	.2225672	.2325009	108.2155	.4746137	.2314430

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3737003	19.59315	.7074743	13.00158	.5782229	.0791124
Stddev	.0008109	.27781	.0025261	.15023	.0027354	.0004918
%RSD	.2169976	1.417898	.3570589	1.155450	.4730727	.6216944

#1	.3728818	19.43109	.7048105	12.94152	.5789708	.0791909
#2	.3737154	19.91393	.7098354	13.17254	.5751913	.0795603
#3	.3745035	19.43442	.7077771	12.89067	.5805065	.0785861

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.34372	.3476463	.7396569	24.71964	.3805889	.4899974
Stddev	.24102	.0025567	.0025825	.07083	.0028009	.0018439
%RSD	.4694152	.7354249	.3491552	.2865158	.7359478	.3762976

#1	51.08878	.3454793	.7380827	24.64502	.3823513	.4883212
#2	51.56785	.3469934	.7426374	24.78594	.3773591	.4896985
#3	51.37453	.3504661	.7382507	24.72794	.3820562	.4919724

Sample Name: Q2090-02MS Acquired: 5/21/2025 14:52:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6936208	.3217668	F 15.15346	9.615915	3.990320	.2324377
Stddev	.0063610	.0039732	.13217	.062790	.022601	.0007943
%RSD	.9170661	1.234806	.8722011	.6529851	.5663855	.3417355

#1	.6978534	.3172644	15.03386	9.628778	4.001099	.2315647
#2	.6863059	.3247812	15.29536	9.547689	3.964348	.2326303
#3	.6967032	.3232547	15.13115	9.671278	4.005513	.2331179

Elem	Sr4077
Units	ppm
Avg	.5485665
Stddev	.0014390
%RSD	.2623218

#1	.5482856
#2	.5472886
#3	.5501252

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.959	64000.17	18369.74	2409.544	4048.675
Stddev	33.193	415.70	67.04	27.762	35.378
%RSD	1.215451	.6495252	.3649663	1.152165	.8738090

#1	2751.418	64024.19	18314.95	2407.030	4065.064
#2	2692.660	63572.98	18349.76	2383.124	4008.074
#3	2748.799	64403.33	18444.50	2438.477	4072.885

Sample Name: Q2090-02MSD Acquired: 5/21/2025 14:56:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.8672605	2.037985	1.046464	1.915044	.8580469	4.030755	.2552655
Stddev	.0066498	.034270	.010579	.005310	.0016486	.010434	.0003427
%RSD	.7667584	1.681584	1.010962	.2772590	.1921380	.2588533	.1342531
#1	.8598628	2.001084	1.038430	1.910421	.8585274	4.036523	.2549007
#2	.8691773	2.044058	1.042512	1.913869	.8562114	4.037032	.2553153
#3	.8727413	2.068813	1.058451	1.920843	.8594019	4.018711	.2555806
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2124535	.2117331	99.54416	.4370679	.2126212	.3459040	16.67004
Stddev	.0017683	.0024064	.27687	.0038075	.0016466	.0010416	.09206
%RSD	.8323403	1.136521	.2781350	.8711570	.7744292	.3011298	.5522565
#1	.2132611	.2094882	99.29163	.4391093	.2112553	.3452005	16.57908
#2	.2136738	.2114375	99.84021	.4394195	.2121586	.3454110	16.66787
#3	.2104255	.2142737	99.50064	.4326750	.2144495	.3471006	16.76316
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6473607	11.99216	.5317130	.0733845	43.05716	.3197789	.5021415
Stddev	.0015687	.02538	.0039768	.0002419	.20996	.0017473	.0018182
%RSD	.2423227	.2116720	.7479260	.3296152	.4876314	.5463931	.3620931
#1	.6457429	11.96285	.5281730	.0735266	42.81586	.3180249	.5009948
#2	.6488752	12.00705	.5309500	.0731052	43.15744	.3215193	.5011918
#3	.6474640	12.00658	.5360161	.0735217	43.19818	.3197924	.5042379
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.06855	.3682960	.4661508	.6342917	.2898496	12.89315	8.643957
Stddev	.11269	.0036894	.0021071	.0065413	.0020880	.05498	.109472
%RSD	.5348607	1.001737	.4520309	1.031279	.7203583	.4264587	1.266453
#1	20.94296	.3694075	.4637178	.6280962	.2877137	12.84669	8.528725
#2	21.16083	.3713019	.4673441	.6336476	.2918861	12.87891	8.656571
#3	21.10184	.3641787	.4673904	.6411312	.2899490	12.95386	8.746576

Sample Name: Q2090-02MSD Acquired: 5/21/2025 14:56:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.615816	.2163711	.4999721
Stddev	.036709	.0004260	.0013647
%RSD	1.015242	.1969028	.2729641

#1	3.575179	.2158798	.4992751
#2	3.625690	.2165955	.5015445
#3	3.646578	.2166381	.4990965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.197	67196.94	17934.91	2500.124	4062.144
Stddev	28.469	294.00	12.94	28.346	29.847
%RSD	1.050846	.4375136	.0721638	1.133770	.7347499

#1	2688.608	67365.92	17932.54	2518.025	4044.978
#2	2697.296	67367.43	17948.87	2514.904	4044.846
#3	2741.685	66857.46	17923.32	2467.443	4096.607

Sample Name: CCV02 Acquired: 5/21/2025 15:00:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.857961	4.819077	4.912665	4.857416	4.825374	9.674699	9.491572
Stddev	.011031	.048821	.012496	.019243	.023124	.025106	.067042
%RSD	.2270610	1.013086	.2543626	.3961538	.4792266	.2595043	.7063310
#1	4.865440	4.875162	4.925021	4.874138	4.847156	9.673061	9.489921
#2	4.845293	4.795979	4.900033	4.836384	4.801108	9.650451	9.559424
#3	4.863151	4.786092	4.912942	4.861728	4.827859	9.700584	9.425371
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2415287	2.458754	24.39316	.9954756	2.444318	1.219681	4.929888
Stddev	.0009526	.006836	.06511	.0017599	.007164	.004754	.022446
%RSD	.3943971	.2780214	.2669172	.1767933	.2930760	.3897531	.4552978
#1	.2422024	2.466608	24.45449	.9935146	2.452484	1.223611	4.911046
#2	.2419448	2.455508	24.32483	.9959942	2.441375	1.214397	4.923898
#3	.2404388	2.454146	24.40015	.9969180	2.439095	1.221035	4.954722
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.409149	24.47905	2.448617	1.218126	23.98485	2.426339	2.440437
Stddev	.006069	.09654	.008151	.001457	.22489	.005000	.003542
%RSD	.2519273	.3943884	.3328808	.1195901	.9376210	.2060584	.1451193
#1	2.414467	24.53543	2.457814	1.216454	23.75260	2.430451	2.441100
#2	2.402537	24.36757	2.442287	1.219127	24.00037	2.427792	2.443600
#3	2.410444	24.53413	2.445749	1.218796	24.20157	2.420774	2.436611
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.15801	4.767599	4.898346	4.917171	4.814084	5.022438	4.786506
Stddev	.18261	.015314	.022429	.016862	.009737	.018729	.006830
%RSD	.7559000	.3212161	.4578938	.3429282	.2022603	.3729075	.1426964
#1	24.01168	4.781237	4.922194	4.936511	4.814528	5.011367	4.793249
#2	24.09969	4.770528	4.877675	4.909453	4.804133	5.011884	4.786676
#3	24.36266	4.751032	4.895168	4.905549	4.823592	5.044062	4.779592

Sample Name: CCV02 Acquired: 5/21/2025 15:00:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.771516	4.702035	4.804138
Stddev	.015050	.024862	.028686
%RSD	.3154211	.5287603	.5971166

#1	4.776740	4.683560	4.809501
#2	4.754550	4.692243	4.773148
#3	4.783258	4.730303	4.829764

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.492	64688.53	18422.19	2485.479	4064.162
Stddev	19.434	92.26	77.60	2.469	22.947
%RSD	.7004598	.1426170	.4212156	.0993398	.5646204

#1	2766.372	64782.69	18343.86	2485.877	4052.193
#2	2796.670	64684.60	18423.69	2487.725	4090.619
#3	2760.435	64598.31	18499.03	2482.835	4049.673

Sample Name: CCB02 Acquired: 5/21/2025 15:04:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001174	.0004412	-.000601	.0003955	.0005404	.0090427	.0007081
Stddev	.001233	.0003028	.001058	.0034950	.0019390	.0022921	.0007215
%RSD	105.0464	68.62953	176.0539	883.7488	358.8105	25.34746	101.8964

#1	-.000286	.0007893	.000465	.0031239	-.000586	.0094072	.0008769
#2	-.002582	.0002958	-.001651	-.003544	.002779	.0065902	-.000083
#3	-.000654	.0002385	-.000618	.001607	-.000572	.0111308	.001330

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000305	.0000708	.0138838	.0004786	.0002098	.0003932	.0138615
Stddev	.0000245	.0000390	.0028711	.0002196	.0004159	.0002229	.0028491
%RSD	80.40846	55.07706	20.67954	45.88437	198.2862	56.67615	20.55381

#1	.0000587	.0000416	.0108569	.0002335	-.000055	.0001637	.0163692
#2	.0000143	.0000557	.0142260	.0006575	-.000005	.0004072	.0107636
#3	.0000185	.0001151	.0165684	.0005449	.000689	.0006088	.0144518

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009535	-.016814	.0003148	.0001368	-.035854	.0017478	.0079667
Stddev	.0003817	.001622	.0004097	.0003082	.007344	.0011605	.0002454
%RSD	40.03871	9.649494	130.1407	225.2993	20.48248	66.39865	3.080774

#1	.0013206	-.017225	.0007672	.0004892	-.031581	.0022573	.0082478
#2	.0009812	-.018192	-.000031	-.000082	-.044333	.0004197	.0078574
#3	.0005586	-.015026	.000208	.000004	-.031647	.0025665	.0077949

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010406	.0080579	.0006519	.0006715	.0001324	.0048883	.0017559
Stddev	.010417	.0005590	.0003074	.0008131	.0005179	.0088034	.0032795
%RSD	100.1117	6.936800	47.15333	121.0958	391.1427	180.0912	186.7686

#1	-.003287	.0084946	.0010037	.0013524	.0005845	.0008642	.0045029
#2	-.005568	.0082512	.0004351	.0008909	-.000433	.0149846	-.001875
#3	-.022362	.0074280	.0005169	-.000229	.000245	-.001184	.002640

Sample Name: CCB02 Acquired: 5/21/2025 15:04:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0039469	.0017656	.0001122
Stddev	.0041354	.0007821	.0000696
%RSD	104.7780	44.29790	62.08898

#1	.0075138	.0008795	.0001541
#2	-.000586	.0020571	.0001506
#3	.004913	.0023600	.0000318

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2847.436	66514.73	17911.39	2584.381	4307.363
Stddev	3.434	166.04	335.75	4.242	10.183
%RSD	.1205952	.2496274	1.874478	.1641290	.2364151

#1	2843.675	66475.31	17523.99	2580.822	4295.886
#2	2850.405	66696.93	18092.16	2589.074	4310.885
#3	2848.229	66371.95	18118.02	2583.247	4315.317

Sample Name: Q2065-01DLX2 Acquired: 5/21/2025 15:09:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1147156	.0140124	2.334872	-.075419	.0095687	207.1374
Stddev	.0121406	.0082064	.370220	.034748	.0008635	.5094
%RSD	10.58320	58.56491	15.85610	46.07379	9.024584	.2459124

#1	.1248793	.0085803	2.555993	-.096928	.0105425	207.6314
#2	.1179955	.0100044	2.541159	-.093999	.0092675	206.6139
#3	.1012720	.0234526	1.907465	-.035331	.0088961	207.1668

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.950260	.0142275	.0538738	F 2322.398	.6587638	.2773570
Stddev	.009088	.0001669	.0269896	14.244	.0027523	.0475382
%RSD	.3080566	1.173140	50.09773	.6133319	.4177911	17.13972

#1	2.960581	.0143818	.0706179	2338.825	.6611965	.3059511
#2	2.946745	.0140504	.0682649	2314.889	.6557765	.3036391
#3	2.943453	.0142504	.0227386	2313.480	.6593185	.2224808

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.552250	513.1520	9.890973	329.8385	.5875318	-.003629
Stddev	.250621	3.4344	.053806	1.6822	.0934571	.000852
%RSD	16.14567	.6692828	.5439874	.5100176	15.90673	23.47639

#1	1.708397	509.3131	9.948074	331.7581	.6438430	-.004205
#2	1.685185	515.9332	9.883627	329.1357	.6391009	-.002650
#3	1.263168	514.2096	9.841218	328.6215	.4796516	-.004031

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	284.2966	.5674468	9.549348	41.40733	1.162712	.0790046
Stddev	1.3354	.0041393	.014532	.31048	.006762	.0115901
%RSD	.4697134	.7294539	.1521756	.7498296	.5816065	14.67020

#1	284.7638	.5721304	9.533378	41.05209	1.170435	.0868524
#2	282.7904	.5642794	9.561792	41.54305	1.159848	.0844689
#3	285.3356	.5659306	9.552876	41.62684	1.157853	.0656924

Sample Name: Q2065-01DLX2 Acquired: 5/21/2025 15:09:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0264808	5.183502	F 104.9746	F 18.76008	F 153.8282	.2147238
Stddev	.0041481	.017449	.8668	3.33613	28.6999	.0032350
%RSD	15.66444	.3366275	.8257316	17.78314	18.65712	1.506597

#1	.0294644	5.203385	103.9838	20.79364	171.1734	.2112157
#2	.0282342	5.176381	105.3471	20.57671	169.6105	.2153664
#3	.0217440	5.170739	105.5928	14.90988	120.7007	.2175893

Elem	Sr4077
Units	ppm
Avg	5.779046
Stddev	.049920
%RSD	.8638088

#1	5.835765
#2	5.759586
#3	5.741786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2846.415	65774.05	20836.69	2442.560	3027.839
Stddev	292.153	231.07	134.76	23.694	402.642
%RSD	10.26389	.3513160	.6467648	.9700390	13.29798

#1	2669.931	66011.18	20682.30	2469.800	2787.990
#2	2685.671	65761.42	20930.75	2431.150	2802.837
#3	3183.641	65549.55	20897.02	2426.730	3492.691

Sample Name: Q2090-02A Acquired: 5/21/2025 15:13:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0001725	-.001093	.0056679	-.003036	-.000977	1.530564	-.002173
Stddev	.0004639	.000199	.0012870	.000487	.000194	.394445	.005432
%RSD	269.0099	18.17309	22.70671	16.05274	19.88464	25.77125	249.9844

#1	.0003005	-.001067	.0070962	-.002715	-.000788	1.942698	.003240
#2	-.000342	-.001304	.0053093	-.002796	-.000966	1.492414	-.002135
#3	.000559	-.000909	.0045983	-.003597	-.001177	1.156579	-.007623

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000872	-.000334	20.69469	.0036387	.0008556	.0061478	3.728583
Stddev	.0000299	.000117	5.27512	.0018423	.0001324	.0007341	.916392
%RSD	34.23985	34.93521	25.49020	50.63140	15.47363	11.94053	24.57748

#1	.0001213	-.000461	25.99965	.0057654	.0009997	.0069502	4.714063
#2	.0000663	-.000311	20.63448	.0025318	.0008275	.0059832	3.569602
#3	.0000739	-.000231	15.44993	.0026189	.0007395	.0055099	2.902083

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0847023	2.893356	.0022209	.0001989	1.270897	.0058802	.0503981
Stddev	.0217835	.737003	.0002757	.0000324	.369633	.0013820	.0249179
%RSD	25.71776	25.47227	12.41387	16.31184	29.08445	23.50236	49.44206

#1	.1068195	3.645792	.0025298	.0002335	1.634644	.0073382	.0790775
#2	.0840189	2.861453	.0021331	.0001691	1.282400	.0057130	.0380630
#3	.0632685	2.172822	.0019998	.0001940	.895646	.0045894	.0340538

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1289235	.0061310	.0000067	-.004584	.0401228	.6296714	.0379357
Stddev	.0560129	.0028877	.0000289	.000260	.0104793	.1566433	.0089568
%RSD	43.44663	47.09958	428.9554	5.675240	26.11806	24.87700	23.61043

#1	.1800302	.0093762	-.000008	-.004360	.0510342	.7957180	.0480347
#2	.1377000	.0051720	.000040	-.004523	.0391972	.6087650	.0348185
#3	.0690405	.0038448	-.000012	-.004869	.0301370	.4845311	.0309541

Sample Name: Q2090-02A Acquired: 5/21/2025 15:13:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3156520	.0008993	.0435900
Stddev	.0661598	.0000404	.0113625
%RSD	20.95971	4.495979	26.06673

#1	.3875899	.0009071	.0550692
#2	.3019502	.0009352	.0433527
#3	.2574161	.0008555	.0323480

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14832.80	308719.8	77413.91	12655.36	22548.39
Stddev	76.78	4589.0	2052.47	386.89	179.76
%RSD	.5176172	1.486471	2.651288	3.057094	.7972366

#1	14750.65	303702.4	75765.59	12282.03	22342.40
#2	14902.74	312704.4	76763.32	12629.54	22673.52
#3	14845.00	309752.8	79712.82	13054.51	22629.26

Sample Name: Q2065-01DL2X5 Acquired: 5/21/2025 15:18:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0010018	-.000870	.0177966	-.004591	-.000992	1.328996	-.004891
Stddev	.0004625	.000041	.0072694	.000658	.000275	.400415	.004950
%RSD	46.17192	4.665301	40.84731	14.34074	27.69375	30.12913	101.1944

#1	.0008590	-.000832	.0209881	-.004946	-.000992	1.584295	-.001528
#2	.0006275	-.000913	.0094774	-.003831	-.001267	.867507	-.010575
#3	.0015189	-.000865	.0229243	-.004994	-.000718	1.535186	-.002571

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001544	.0001949	^ *****	.0067003	.0023691	.0175686	3.470492
Stddev	.0000210	.0001526	-----	.0009907	.0007804	.0060334	1.057948
%RSD	13.61121	78.32730	-----	14.78540	32.94152	34.34178	30.48410

#1	.0001302	.0001947	21.37652	.0057156	.0026325	.0201696	4.092119
#2	.0001676	.0000423	12.36949	.0066885	.0014911	.0106710	2.248943
#3	.0001656	.0003476	^ -----	.0076968	.0029837	.0218651	4.070415

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0734744	2.484895	.0053098	-.000173	1.176206	.0052470	.0926289
Stddev	.0205966	.687976	.0017839	.000309	.330461	.0007590	.0129674
%RSD	28.03238	27.68630	33.59706	179.3521	28.09550	14.46527	13.99930

#1	.0873745	2.952844	.0060271	.000152	1.420816	.0057006	.0802086
#2	.0498117	1.694973	.0032789	-.000464	.800270	.0043707	.0915965
#3	.0832369	2.806869	.0066234	-.000206	1.307533	.0056695	.1060817

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1130889	.0078444	.0005822	-.005152	.0351806	.5753828	.1203407
Stddev	.0399223	.0011845	.0003065	.000129	.0103423	.1738982	.0490730
%RSD	35.30167	15.10061	52.64593	2.503493	29.39764	30.22304	40.77837

#1	.1447158	.0074018	.0007752	-.005237	.0418889	.6793786	.1417443
#2	.0682308	.0069449	.0002288	-.005004	.0232701	.3746259	.0642014
#3	.1263203	.0091865	.0007426	-.005216	.0403828	.6721439	.1550765

Sample Name: Q2065-01DL2X5 Acquired: 5/21/2025 15:18:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9485820	k .0021300	.0379254
Stddev	.3677913	.0022252	.0105132
%RSD	38.77275	104.4698	27.72080

#1	1.097069	.0008925	.0453221
#2	.529760	.0007986	.0258907
#3	1.218917	k .0046988	.0425634

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	13444.11	307897.8	82441.57	12368.55	19837.47
Stddev	113.02	4148.4	895.09	111.40	365.94
%RSD	.8406657	1.347337	1.085727	.9006784	1.844711

#1	13396.44	311980.7	83117.02	12457.79	19666.85
#2	13573.15	308026.0	81426.34	12404.15	20257.57
#3	13362.73	303686.8	82781.34	12243.69	19588.00

Sample Name: Q1984-05 Acquired: 5/21/2025 15:24:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0319817	-.008944	.0118087	-.052426	-.005017	191.3232	.1330888
Stddev	.0044503	.001327	.0007328	.006253	.004505	.2986	.0004110
%RSD	13.91499	14.84114	6.205232	11.92815	89.79130	.1560499	.3087890

#1	.0323100	-.007605	.0109820	-.053682	.000012	191.3663	.1326370
#2	.0362588	-.008967	.0120662	-.045640	-.008683	191.5978	.1331891
#3	.0273765	-.010260	.0123780	-.057956	-.006381	191.0054	.1334403

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035317	.0166011	186.2963	.0555094	.2957159	.7059952	429.8488
Stddev	.0000986	.0010094	.1833	.0004925	.0006398	.0033919	4.7529
%RSD	2.792327	6.079972	.0984079	.8871893	.2163744	.4804369	1.105721

#1	.0034871	.0167185	186.1308	.0558735	.2951650	.7040921	428.4354
#2	.0034632	.0155383	186.4933	.0557057	.2955649	.7039822	435.1481
#3	.0036447	.0175467	186.2647	.0549491	.2964177	.7099113	425.9629

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.868968	131.1272	.2345904	.0002661	36.84212	1.497505	.4637931
Stddev	.008123	.3790	.0014312	.0006168	.58037	.001792	.0004843
%RSD	.2831197	.2890377	.6100782	231.7916	1.575292	.1196537	.1044119

#1	2.859606	130.9020	.2333989	.0000463	36.75733	1.499544	.4635178
#2	2.874144	130.9147	.2341944	.0009627	37.46022	1.496786	.4635092
#3	2.873153	131.5647	.2361779	-.000211	36.30880	1.496184	.4643522

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.806325	1.267875	.0042110	-.001238	9.081395	8.483515	8.918665
Stddev	.024238	.002805	.0005536	.001474	.023784	.095961	.023379
%RSD	.8636837	.2212398	13.14653	119.1166	.2618970	1.131148	.2621399

#1	2.806965	1.265899	.0045011	-.002826	9.079686	8.472072	8.906322
#2	2.830236	1.266641	.0045592	.000086	9.105987	8.584685	8.904044
#3	2.781773	1.271086	.0035726	-.000973	9.058511	8.393789	8.945629

Sample Name: Q1984-05 Acquired: 5/21/2025 15:24:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	13.20560	.2702488	.0377247
Stddev	.04572	.0025746	.0026674
%RSD	.3462257	.9526588	7.070808

#1	13.18168	.2692939	.0383908
#2	13.17679	.2731644	.0347873
#3	13.25831	.2682881	.0399960

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2998.382	70596.19	20508.68	2687.757	3684.298
Stddev	4.967	277.63	128.22	9.325	5.636
%RSD	.1656451	.3932630	.6251913	.3469348	.1529734

#1	2992.727	70593.89	20482.29	2685.602	3679.347
#2	3002.038	70319.72	20648.04	2679.699	3690.432
#3	3000.380	70874.97	20395.70	2697.971	3683.115

Sample Name: Q1984-07 Acquired: 5/21/2025 15:28:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.4411121	-.017266	.4909455	-.042602	-.004822	257.0888
Stddev	.0028186	.005119	.0034560	.002515	.001150	1.8321
%RSD	.6389745	29.64547	.7039395	5.902758	23.85122	.7126262

#1	.4386900	-.022215	.4927819	-.041987	-.005776	254.9735
#2	.4442059	-.017591	.4869590	-.045367	-.003545	258.1691
#3	.4404404	-.011993	.4930955	-.040452	-.005144	258.1239

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.612684	.0144421	.0239316	51.41245	.4001076	.2223453
Stddev	.005518	.0000842	.0009296	.11070	.0039410	.0014108
%RSD	.3421783	.5831363	3.884546	.2153148	.9849732	.6345219

#1	1.614114	.0145104	.0248444	51.45386	.3978234	.2238568
#2	1.606592	.0144679	.0229860	51.28701	.4046582	.2210632
#3	1.617347	.0143480	.0239645	51.49647	.3978412	.2221159

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6965580	403.4501	6.090459	92.30309	.4511996	.0028641
Stddev	.0035899	1.6514	.010146	.15352	.0033253	.0006378
%RSD	.5153783	.4093314	.1665915	.1663202	.7369856	22.27021

#1	.7001654	402.2344	6.092204	92.28898	.4543291	.0029844
#2	.6929858	405.3303	6.079553	92.15711	.4477081	.0021747
#3	.6965229	402.7856	6.099619	92.46317	.4515617	.0034333

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.247093	.5657238	1.215363	82.18465	.1536644	.0195149
Stddev	.006688	.0010377	.011645	.22553	.0006446	.0005734
%RSD	.2059663	.1834286	.9581440	.2744188	.4194532	2.938195

#1	3.243514	.5667777	1.209281	81.97454	.1543702	.0188933
#2	3.254808	.5647031	1.228790	82.42295	.1531069	.0200232
#3	3.242955	.5656905	1.208019	82.15645	.1535162	.0196282

Sample Name: Q1984-07 Acquired: 5/21/2025 15:28:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-0.004178	17.61715	F 20.96038	16.76303	12.93622	.6451106
Stddev	.001612	.04288	.09424	.13406	.08893	.0022604
%RSD	38.57478	.2433911	.4496039	.7997319	.6874181	.3503838

#1	-0.002557	17.63136	20.85652	16.90102	13.01821	.6472436
#2	-0.005781	17.56897	21.04043	16.63329	12.84169	.6427414
#3	-0.004197	17.65112	20.98419	16.75478	12.94876	.6453469

Elem	Sr4077
Units	ppm
Avg	-0.115735
Stddev	.002413
%RSD	2.084627

#1	-0.114164
#2	-0.118513
#3	-0.114528

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3311.415	78824.89	22901.27	3032.654	3732.073
Stddev	13.344	282.83	59.75	14.343	26.175
%RSD	.4029658	.3588131	.2609066	.4729538	.7013480

#1	3296.467	79102.58	22890.72	3048.160	3704.273
#2	3322.125	78537.18	22965.60	3019.863	3756.243
#3	3315.652	78834.93	22847.50	3029.938	3735.705

Sample Name: Q1984-09 Acquired: 5/21/2025 15:37:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3759342	-.014788	.4481839	-.046143	-.006459	257.4820
Stddev	.0046403	.004187	.0017188	.002398	.003473	.5713
%RSD	1.234337	28.31736	.3835000	5.197098	53.76888	.2218902

#1	.3740527	-.011268	.4499025	-.044350	-.008543	257.6866
#2	.3725302	-.013676	.4464649	-.048867	-.008385	257.9227
#3	.3812198	-.019419	.4481842	-.045212	-.002450	256.8365

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.574503	.0138346	.0262067	48.90548	.3869703	.2537350
Stddev	.002797	.0001730	.0002952	.23733	.0008190	.0004759
%RSD	.1776737	1.250211	1.126599	.4852756	.2116376	.1875720

#1	1.577635	.0136408	.0263724	48.63209	.3868862	.2532163
#2	1.573620	.0139734	.0263819	49.05850	.3861965	.2541515
#3	1.572253	.0138896	.0258659	49.02586	.3878280	.2538373

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6798668	406.7998	7.555073	90.71231	.4281788	.0040820
Stddev	.0001179	2.1183	.023421	.72297	.0005680	.0001844
%RSD	.0173352	.5207312	.3100092	.7969928	.1326556	4.516766

#1	.6799890	409.2027	7.532144	89.87832	.4275239	.0042751
#2	.6798576	405.9944	7.578958	91.16144	.4285365	.0040631
#3	.6797539	405.2023	7.554118	91.09718	.4284761	.0039078

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.115879	.6079897	1.184278	82.60714	.1472175	.0194066
Stddev	.038802	.0032122	.000992	.73682	.0032398	.0006365
%RSD	1.245295	.5283306	.0837482	.8919516	2.200697	3.279819

#1	3.153573	.6042816	1.185376	83.45607	.1509416	.0196983
#2	3.118008	.6097702	1.184012	82.13392	.1456638	.0198449
#3	3.076057	.6099174	1.183447	82.23142	.1450472	.0186765

Sample Name: Q1984-09 Acquired: 5/21/2025 15:37:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0562976	17.78192	F 20.61258	16.14847	11.75210	.6406669
Stddev	.0004220	.02281	.11279	.05741	.01699	.0032775
%RSD	.7495477	.1282570	.5471672	.3555341	.1445724	.5115695

#1	.0567831	17.75700	20.73238	16.10964	11.74429	.6440909
#2	.0560901	17.78699	20.50845	16.21442	11.77159	.6403509
#3	.0560195	17.80177	20.59691	16.12135	11.74041	.6375589

Elem	Sr4077
Units	ppm
Avg	-.133874
Stddev	.001655
%RSD	1.236419

#1	-.135748
#2	-.133263
#3	-.132611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3440.849	79976.46	23537.18	3022.238	3855.895
Stddev	24.512	283.95	119.88	20.789	23.900
%RSD	.7123934	.3550441	.5093016	.6878828	.6198312

#1	3413.895	79651.12	23672.34	3002.203	3829.224
#2	3446.847	80103.82	23443.74	3020.803	3863.091
#3	3461.807	80174.43	23495.46	3043.708	3875.371

Sample Name: Q1984-11 Acquired: 5/21/2025 15:41:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3139060	-.013680	.3647010	-.041630	-.007545	209.9142
Stddev	.0040386	.001049	.0014703	.006583	.004968	1.5211
%RSD	1.286578	7.668355	.4031608	15.81430	65.84410	.7246160

#1	.3161421	-.012654	.3652369	-.038857	-.001811	210.6948
#2	.3092438	-.013634	.3658283	-.036886	-.010278	208.1613
#3	.3163320	-.014751	.3630379	-.049146	-.010547	210.8864

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.338962	.0105612	.0183129	65.96474	.3096313	.1941684
Stddev	.005792	.0000153	.0004513	.28684	.0047358	.0012933
%RSD	.4326033	.1446710	2.464556	.4348394	1.529502	.6660623

#1	1.333633	.0105551	.0183525	65.83332	.3050810	.1948220
#2	1.345127	.0105499	.0187432	66.29375	.3092800	.1950045
#3	1.338127	.0105786	.0178431	65.76716	.3145330	.1926788

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5584383	355.9255	6.721934	83.87850	.3370811	.0048175
Stddev	.0024626	3.4764	.018815	.48616	.0017723	.0002660
%RSD	.4409819	.9767315	.2799012	.5795983	.5257693	5.521876

#1	.5588369	352.7457	6.708331	83.64904	.3386116	.0050968
#2	.5606772	355.3935	6.743406	84.43692	.3374923	.0047888
#3	.5558006	359.6373	6.714066	83.54953	.3351394	.0045671

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.032127	.5021921	1.100589	85.31367	.1609971	.0154969
Stddev	.043240	.0027718	.016691	.84329	.0033998	.0001893
%RSD	1.426075	.5519413	1.516566	.9884546	2.111716	1.221291

#1	2.989595	.4997576	1.086190	84.55074	.1594109	.0156818
#2	3.030743	.5052087	1.096694	85.17113	.1586803	.0153036
#3	3.076043	.5016101	1.118883	86.21915	.1649001	.0155052

Sample Name: Q1984-11 Acquired: 5/21/2025 15:41:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0650599	15.87184	F 15.29389	15.38409	11.13720	.5264391
Stddev	.0027023	.06673	.11550	.00156	.02032	.0017143
%RSD	4.153587	.4204350	.7552196	.0101139	.1824887	.3256397

#1	.0664386	15.84475	15.16807	15.38427	11.14643	.5244626
#2	.0619463	15.94785	15.31851	15.38245	11.15127	.5275220
#3	.0667948	15.82291	15.39510	15.38555	11.11390	.5273326

Elem	Sr4077
Units	ppm
Avg	-.071790
Stddev	.003657
%RSD	5.093893

#1	-.069549
#2	-.069811
#3	-.076010

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3246.841	77227.54	23202.14	2889.797	3803.689
Stddev	23.523	709.18	118.60	25.585	15.731
%RSD	.7244786	.9182932	.5111392	.8853679	.4135788

#1	3272.463	77948.57	23263.80	2913.520	3821.806
#2	3241.834	77203.20	23065.42	2893.183	3795.772
#3	3226.224	76530.84	23277.20	2862.687	3793.490

Sample Name: Q1984-13 Acquired: 5/21/2025 15:45:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3154424	-.016872	.4151427	-.041992	-.005039	233.5026
Stddev	.0067612	.001403	.0005817	.004618	.003971	1.8492
%RSD	2.143413	8.317253	.1401168	10.99699	78.82053	.7919334

#1	.3226636	-.016469	.4155676	-.045821	-.004134	235.3769
#2	.3144017	-.018432	.4144798	-.036864	-.009384	233.4513
#3	.3092618	-.015714	.4153808	-.043291	-.001597	231.6796

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.504211	.0131721	.0243100	74.39201	.3653654	.2076222
Stddev	.003736	.0001053	.0003271	.12031	.0012898	.0006934
%RSD	.2483840	.7992920	1.345487	.1617238	.3530213	.3339605

#1	1.507712	.0132459	.0244699	74.48636	.3656479	.2079796
#2	1.500277	.0130515	.0239337	74.25653	.3639578	.2080639
#3	1.504643	.0132188	.0245263	74.43314	.3664906	.2068230

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6638769	348.0559	7.058034	93.54883	.3928709	-.000855
Stddev	.0004901	1.0623	.015790	.36505	.0020616	.000793
%RSD	.0738237	.3052173	.2237174	.3902208	.5247456	92.67573

#1	.6644178	349.2763	7.062326	93.14136	.3929108	-.000053
#2	.6634623	347.3382	7.040542	93.65912	.3949122	-.000876
#3	.6637506	347.5532	7.071235	93.84602	.3907897	-.001637

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.430537	.5663236	1.237119	78.73802	.1544584	.0178650
Stddev	.036339	.0015899	.005451	.22506	.0013471	.0002266
%RSD	1.059272	.2807400	.4406521	.2858380	.8721243	1.268615

#1	3.472466	.5657581	1.232149	78.99785	.1559647	.0181262
#2	3.410994	.5650938	1.236258	78.60371	.1533693	.0177491
#3	3.408153	.5681189	1.242949	78.61250	.1540410	.0177198

Sample Name: Q1984-13 Acquired: 5/21/2025 15:45:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0016938	15.93449	F 14.47102	16.34880	16.47853	.6411290
Stddev	.0012895	.03592	.02844	.07005	.08587	.0028175
%RSD	76.13136	.2254049	.1965110	.4284859	.5211305	.4394511

#1	.0010659	15.96978	14.48815	16.37190	16.44356	.6432475
#2	.0008385	15.89798	14.48672	16.40438	16.57637	.6379315
#3	.0031770	15.93570	14.43820	16.27011	16.41566	.6422080

Elem	Sr4077
Units	ppm
Avg	.0008472
Stddev	.0005717
%RSD	67.47287

#1	.0007290
#2	.0003440
#3	.0014688

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3264.843	76900.16	21200.55	2916.334	3769.759
Stddev	25.449	88.60	63.93	8.802	18.707
%RSD	.7794860	.1152134	.3015391	.3018040	.4962501

#1	3250.582	76960.75	21267.57	2921.016	3756.469
#2	3294.225	76798.48	21193.83	2906.181	3791.152
#3	3249.723	76941.26	21140.25	2921.806	3761.657

Sample Name: Q2065-01DL3X20 Acquired: 5/21/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0101379	-.000174	.3175246	-.012524	.0014435	30.63548
Stddev	.0022348	.001325	.0093001	.006708	.0009834	.36633
%RSD	22.04351	762.6319	2.928936	53.55932	68.12433	1.195777

#1	.0126934	-.000296	.3271575	-.016810	.0013715	31.00515
#2	.0091700	-.001434	.3168190	-.015968	.0004981	30.62870
#3	.0085503	.001208	.3085975	-.004794	.0024609	30.27258

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4362266	.0021996	.0025337	405.5391	.1054171	.0365057
Stddev	.0054413	.0000244	.0003179	3.6741	.0006427	.0010068
%RSD	1.247365	1.108574	12.54732	.9059912	.6096753	2.757803

#1	.4417355	.0021865	.0027266	409.7815	.1061363	.0375326
#2	.4360889	.0021845	.0027077	403.3914	.1052158	.0364640
#3	.4308554	.0022277	.0021667	403.4443	.1048990	.0355204

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2700199	79.42482	1.644672	53.08271	.0794242	.0002425
Stddev	.0072723	.95973	.020084	.65100	.0022505	.0003065
%RSD	2.693245	1.208356	1.221185	1.226394	2.833487	126.3824

#1	.2775590	80.29938	1.666576	53.75077	.0814243	.0000494
#2	.2694530	79.57700	1.640318	53.04715	.0798610	.0005960
#3	.2630476	78.39809	1.627121	52.45022	.0769874	.0000822

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.29015	.0930802	1.540878	5.130599	.1756561	.0123486
Stddev	.47732	.0018367	.011795	.075354	.0018001	.0003668
%RSD	1.280018	1.973243	.7654848	1.468719	1.024778	2.969952

#1	37.65181	.0911273	1.554003	5.205538	.1775490	.0127579
#2	37.46950	.0947730	1.537467	5.131422	.1754533	.0120499
#3	36.74913	.0933401	1.531165	5.054837	.1739660	.0122379

Sample Name: Q2065-01DL3X20 Acquired: 5/21/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003610	.8535246	F 13.50714	2.241381	18.44416	.0187661
Stddev	.000571	.0123559	.13951	.065245	.50724	.0011272
%RSD	15.81256	1.447632	1.032828	2.910949	2.750129	6.006731

#1	-.004162	.8619519	13.64728	2.309612	18.94512	.0179482
#2	-.003647	.8592811	13.50586	2.234931	18.45650	.0200520
#3	-.003022	.8393408	13.36828	2.179600	17.93087	.0182982

Elem	Sr4077
Units	ppm
Avg	.9289197
Stddev	.0110977
%RSD	1.194684

#1	.9396199
#2	.9296759
#3	.9174633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.109	65217.37	18567.40	2453.780	3725.884
Stddev	1.714	17.57	50.34	6.520	3.850
%RSD	.0638506	.0269347	.2711219	.2657047	.1033304

#1	2687.066	65225.29	18592.40	2460.897	3722.072
#2	2684.387	65229.58	18600.34	2452.347	3729.771
#3	2683.874	65197.24	18509.45	2448.096	3725.809

Sample Name: Q1984-15 Acquired: 5/21/2025 15:58:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.4469705	-.017643	.5276932	-.050877	-.007776	302.3241
Stddev	.0040172	.006118	.0021765	.006528	.003458	1.7235
%RSD	.8987558	34.67438	.4124606	12.83136	44.46880	.5700835

#1	.4470876	-.012400	.5278893	-.043339	-.011042	304.3073
#2	.4509278	-.024365	.5297650	-.054664	-.008130	301.1885
#3	.4428960	-.016164	.5254252	-.054629	-.004154	301.4765

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.813268	.0161238	.0353591	49.20117	.4276713	.2807380
Stddev	.000635	.0000206	.0000537	.01751	.0014003	.0001553
%RSD	.0350460	.1276046	.1519671	.0355789	.3274346	.0553082

#1	1.814002	.0161375	.0353172	49.20142	.4273836	.2806054
#2	1.812876	.0161338	.0354196	49.18354	.4264372	.2809088
#3	1.812927	.0161002	.0353403	49.21855	.4291932	.2806999

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7949707	481.9848	7.115196	100.8595	.5135801	.0042845
Stddev	.0020892	.5660	.007974	.1487	.0020077	.0004597
%RSD	.2627991	.1174358	.1120745	.1474161	.3909140	10.72871

#1	.7925614	482.4029	7.106177	100.8371	.5127657	.0048149
#2	.7962799	481.3407	7.121312	101.0181	.5158670	.0040013
#3	.7960709	482.2107	7.118100	100.7233	.5121076	.0040373

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.518209	.6441400	1.342449	97.92523	.1698393	.0246050
Stddev	.010634	.0011424	.004308	.28064	.0019907	.0003959
%RSD	.3022694	.1773568	.3209280	.2865877	1.172101	1.609199

#1	3.508943	.6452150	1.341359	97.60797	.1675709	.0244632
#2	3.515862	.6442648	1.347198	98.02670	.1712953	.0250523
#3	3.529820	.6429404	1.338791	98.14102	.1706518	.0242994

Sample Name: Q1984-15 Acquired: 5/21/2025 15:58:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0205649	19.85747	F 15.52328	F 18.83806	17.51400	.7448727
Stddev	.0015846	.02693	.03523	.02769	.03316	.0007938
%RSD	7.705374	.1356008	.2269672	.1470080	.1893427	.1065662

#1	.0197387	19.87869	15.49833	18.86459	17.50604	.7457416
#2	.0223919	19.86654	15.56358	18.84026	17.55042	.7441857
#3	.0195641	19.82718	15.50792	18.80934	17.48555	.7446907

Elem	Sr4077
Units	ppm
Avg	-.189279
Stddev	.000684
%RSD	.3614612

#1	-.189811
#2	-.188507
#3	-.189520

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3361.625	79753.97	24693.02	3017.550	3638.901
Stddev	9.646	250.49	35.52	5.340	10.882
%RSD	.2869463	.3140723	.1438341	.1769632	.2990507

#1	3369.024	79974.12	24672.84	3022.633	3651.114
#2	3365.136	79806.36	24734.04	3011.986	3635.352
#3	3350.715	79481.44	24672.20	3018.032	3630.236

Sample Name: CCV03 Acquired: 5/21/2025 16:02:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.777602	4.671026	4.807279	4.794893	4.814832	9.717491	9.431282
Stddev	.049329	.109293	.056372	.048869	.060460	.025685	.083658
%RSD	1.032516	2.339807	1.172648	1.019185	1.255701	.2643145	.8870277
#1	4.812184	4.595212	4.819805	4.816084	4.846207	9.697329	9.335479
#2	4.721113	4.621560	4.745698	4.739005	4.745134	9.746409	9.468453
#3	4.799508	4.796307	4.856336	4.829589	4.853155	9.708736	9.489912
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2438632	2.392510	24.05297	.9826573	2.392780	1.212513	4.855265
Stddev	.0008314	.028879	.03934	.0030090	.028195	.015428	.021759
%RSD	.3409224	1.207067	.1635409	.3062138	1.178351	1.272423	.4481613
#1	.2440144	2.400212	24.00784	.9794299	2.403907	1.218949	4.831413
#2	.2446086	2.360561	24.07108	.9853855	2.360719	1.194908	4.860353
#3	.2429666	2.416758	24.07999	.9831565	2.413714	1.223680	4.874031
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.394265	24.03935	2.400047	1.218765	23.57233	2.416985	2.456823
Stddev	.003536	.02991	.030036	.000926	.17378	.008924	.006395
%RSD	.1476843	.1244273	1.251467	.0760109	.7372146	.3692393	.2602968
#1	2.393008	24.00501	2.409747	1.217800	23.46411	2.406917	2.451304
#2	2.391531	24.05331	2.366360	1.218848	23.48011	2.420119	2.463831
#3	2.398258	24.05973	2.424035	1.219647	23.77278	2.423921	2.455335
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.93325	4.831518	4.859072	4.776737	4.802890	4.970061	4.736095
Stddev	.08175	.016309	.058753	.055851	.007458	.019943	.046592
%RSD	.3415747	.3375576	1.209150	1.169223	.1552869	.4012537	.9837576
#1	23.85276	4.833526	4.883132	4.790103	4.794283	4.956142	4.770252
#2	23.93079	4.846731	4.792108	4.715416	4.806932	4.961132	4.683020
#3	24.01620	4.814298	4.901977	4.824693	4.807455	4.992908	4.755012

Sample Name: CCV03 Acquired: 5/21/2025 16:02:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.663200	4.762905	4.803775
Stddev	.047618	.014187	.016605
%RSD	1.021153	.2978676	.3456600

#1	4.668195	4.747966	4.818372
#2	4.613281	4.764553	4.785710
#3	4.708124	4.776197	4.807243

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.456	64539.16	18149.12	2441.345	4081.586
Stddev	27.105	344.21	60.67	9.928	41.305
%RSD	.9822661	.5333421	.3342764	.4066455	1.011979

#1	2746.650	64913.60	18202.76	2452.803	4067.077
#2	2790.591	64467.42	18083.27	2435.930	4128.187
#3	2741.127	64236.48	18161.33	2435.302	4049.493

Sample Name: CCB03 Acquired: 5/21/2025 16:25:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001701	-.002504	-.000961	-.000809	-.000511	.0046097	-.003237
Stddev	.000877	.001657	.001135	.001515	.002348	.0026982	.000727
%RSD	51.56470	66.16748	118.0244	187.3491	459.5653	58.53315	22.45846

#1	-.000995	-.002455	.000236	-.001921	.000148	.0020308	-.002398
#2	-.001425	-.000872	-.001100	.000917	.001437	.0043852	-.003639
#3	-.002683	-.004185	-.002021	-.001422	-.003117	.0074132	-.003674

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000013	-.000035	-.005856	.0002625	.0001988	.0001708	.0022852
Stddev	.000046	.000082	.008702	.0001457	.0002286	.0004576	.0061919
%RSD	360.9124	231.8362	148.5837	55.51794	114.9744	267.9358	270.9511

#1	.000036	-.000123	-.015904	.0003465	.0002784	-.000045	.0059993
#2	-.000055	.000038	-.000896	.0000942	-.000059	-.000139	-.004863
#3	-.000019	-.000021	-.000769	.0003467	.000377	.000696	.005719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000510	-.003189	-.000083	.0002101	-.110779	.0002337	-.000248
Stddev	.000127	.010817	.000447	.0002941	.005618	.0004077	.000228
%RSD	24.90386	339.1633	536.1069	139.9800	5.071081	174.4160	91.79308

#1	-.000578	.004173	-.000567	.0003526	-.106059	-.000179	-.000170
#2	-.000589	.001868	.000002	.0004059	-.109286	.000636	-.000505
#3	-.000364	-.015609	.000315	-.000128	-.116993	.000245	-.000070

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010431	-.000187	-.000295	-.001143	.0001776	.0035214	-.001153
Stddev	.027473	.000153	.000303	.000525	.0005233	.0029482	.003058
%RSD	263.3697	81.74225	102.7343	45.96596	294.7038	83.72194	265.1770

#1	-.024544	-.000271	-.000039	-.001432	.0006948	.0050943	-.004579
#2	-.027980	-.000279	-.000629	-.000537	.0001896	.0053496	.001301
#3	.021230	-.000011	-.000216	-.001461	-.000352	.0001203	-.000182

Sample Name: CCB03 Acquired: 5/21/2025 16:25:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.000546	-.001086	-.000071
Stddev	.003823	.000959	.000025
%RSD	699.6864	88.27828	34.87829

#1	.002427	-.002140	-.000084
#2	-.004858	-.000267	-.000042
#3	.000793	-.000850	-.000086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2834.485	66103.02	18194.78	2551.218	4343.932
Stddev	5.625	366.69	98.35	17.025	13.625
%RSD	.1984338	.5547208	.5405440	.6673197	.3136630

#1	2832.493	65693.43	18281.25	2540.386	4340.396
#2	2830.128	66400.76	18215.30	2570.842	4332.423
#3	2840.835	66214.88	18087.79	2542.428	4358.976

Sample Name: Q1984-15DUP Acquired: 5/21/2025 16:29:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3877610	-.014143	.4829468	-.047954	-.007567	268.9307
Stddev	.0042157	.001771	.0050961	.004136	.000729	2.0833
%RSD	1.087183	12.51982	1.055214	8.625706	9.630211	.7746737

#1	.3830656	-.014053	.4770681	-.045173	-.006889	268.6803
#2	.3889964	-.012419	.4856608	-.052707	-.007475	271.1279
#3	.3912209	-.015957	.4861116	-.045981	-.008337	266.9839

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.677067	.0146209	.0303607	65.13342	.4036328	.2601636
Stddev	.012295	.0000381	.0003705	.45062	.0005927	.0003173
%RSD	.7331273	.2609490	1.220206	.6918415	.1468388	.1219705

#1	1.686641	.0146553	.0301296	65.41586	.4033893	.2601335
#2	1.681358	.0145799	.0307880	65.37065	.4032007	.2604949
#3	1.663201	.0146276	.0301645	64.61374	.4043085	.2598624

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7468924	402.1408	7.752588	93.42541	.4622572	.0015016
Stddev	.0010572	.9719	.063996	.70389	.0002581	.0001155
%RSD	.1415436	.2416883	.8254775	.7534267	.0558390	7.690387

#1	.7471926	403.2594	7.804063	93.65588	.4621343	.0016252
#2	.7477671	401.6599	7.772767	93.98517	.4625538	.0013964
#3	.7457176	401.5030	7.680936	92.63517	.4620834	.0014832

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.655117	.5854849	1.304609	83.45805	.1530422	.0199495
Stddev	.025616	.0044454	.004820	.12710	.0006714	.0001423
%RSD	.7008339	.7592619	.3694910	.1522926	.4386809	.7133264

#1	3.682060	.5866626	1.299051	83.59066	.1524727	.0197870
#2	3.652214	.5892227	1.307656	83.44620	.1528714	.0200521
#3	3.631075	.5805692	1.307120	83.33728	.1537825	.0200093

Sample Name: Q1984-15DUP Acquired: 5/21/2025 16:29:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0434164	17.88179	F 19.59802	F 18.17182	15.46961	.6458465
Stddev	.0014526	.13216	.03565	.06254	.06740	.0050972
%RSD	3.345669	.7390998	.1819090	.3441701	.4357131	.7892331

#1	.0433861	17.96544	19.58417	18.10655	15.40151	.6496008
#2	.0419792	17.95050	19.63851	18.23122	15.53630	.6478950
#3	.0448838	17.72942	19.57137	18.17770	15.47101	.6400437

Elem	Sr4077
Units	ppm
Avg	-.065164
Stddev	.002231
%RSD	3.423470

#1	-.064415
#2	-.063404
#3	-.067673

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3224.094	78373.64	22482.90	2931.769	3614.289
Stddev	1.483	139.23	85.60	11.948	5.698
%RSD	.0459946	.1776509	.3807183	.4075434	.1576627

#1	3225.530	78483.31	22445.56	2940.271	3620.416
#2	3222.568	78420.62	22422.32	2936.929	3609.147
#3	3224.184	78217.00	22580.82	2918.108	3613.305

Sample Name: Q1984-15LX5 Acquired: 5/21/2025 16:34:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1087316	-.002095	.1068943	-.009435	-.002773	72.20250	.4224191
Stddev	.0059644	.000669	.0023017	.003964	.003513	.62730	.0042819
%RSD	5.485437	31.91339	2.153250	42.01740	126.7022	.8688117	1.013666

#1	.1044895	-.002725	.1087026	-.004894	-.002671	72.92587	.4273615
#2	.1061540	-.001393	.1076771	-.012208	.000688	71.87330	.4200668
#3	.1155513	-.002168	.1043033	-.011202	-.006336	71.80832	.4198290

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041379	.0010886	12.50318	.1081506	.0540621	.2055836	118.3534
Stddev	.0000238	.0002553	.07092	.0002853	.0001301	.0014846	.6215
%RSD	.5738963	23.45400	.5672270	.2638351	.2407373	.7221265	.5251269

#1	.0041149	.0009061	12.57295	.1082390	.0539944	.2041830	119.0289
#2	.0041623	.0013804	12.43116	.1078315	.0542121	.2071399	117.8058
#3	.0041363	.0009795	12.50542	.1083812	.0539797	.2054278	118.2256

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.790722	25.18468	.1035448	.0012128	.6689811	.1596720	.3307450
Stddev	.017630	.16269	.0004446	.0002203	.0136565	.0004325	.0008259
%RSD	.9845137	.6459856	.4293737	18.16453	2.041389	.2708637	.2497176

#1	1.811079	25.37210	.1030530	.0010944	.6805062	.1601464	.3306568
#2	1.780375	25.10210	.1036631	.0010769	.6538976	.1595698	.3316116
#3	1.780713	25.07984	.1039182	.0014669	.6725394	.1592997	.3299668

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.01977	.0399422	.0054984	.0019423	4.825482	3.399109	3.791339
Stddev	.16418	.0003871	.0004770	.0017778	.042649	.017450	.013673
%RSD	.7810844	.9690167	8.675109	91.53115	.8838244	.5133787	.3606432

#1	21.20726	.0396963	.0056790	.0010478	4.874564	3.419255	3.776552
#2	20.90172	.0397419	.0049575	.0007894	4.804426	3.388671	3.803524
#3	20.95032	.0403884	.0058587	.0039896	4.797456	3.389402	3.793942

Sample Name: Q1984-15LX5 Acquired: 5/21/2025 16:34:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.356274	.1725857	-.048346
Stddev	.002576	.0014901	.000365
%RSD	.0767470	.8634228	.7552598

#1	3.353300	.1742427	-.048044
#2	3.357816	.1713554	-.048242
#3	3.357706	.1721591	-.048752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.537	67619.71	19548.33	2621.849	4075.088
Stddev	5.423	168.33	96.69	3.181	3.901
%RSD	.1843625	.2489415	.4945953	.1213241	.0957296

#1	2940.441	67450.28	19436.71	2618.226	4078.793
#2	2936.746	67786.92	19606.22	2624.185	4071.017
#3	2947.425	67621.94	19602.06	2623.135	4075.453

Sample Name: Q1984-15MS Acquired: 5/21/2025 16:38:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9838846	1.795408	1.348048	1.474350	.1740171	240.7601
Stddev	.0008901	.016091	.007506	.006755	.0040732	2.0198
%RSD	.0904672	.8962447	.5567837	.4581839	2.340718	.8389072

#1	.9828658	1.777031	1.347839	1.472439	.1763748	238.4409
#2	.9842766	1.806969	1.355656	1.468757	.1693137	242.1328
#3	.9845114	1.802225	1.340649	1.481855	.1763628	241.7067

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.587720	.1585415	.2159367	55.50450	.6523261	.4219038
Stddev	.004149	.0002087	.0014963	.16231	.0021813	.0020612
%RSD	.2613209	.1316110	.6929122	.2924202	.3343908	.4885554

#1	1.590604	.1584720	.2164764	55.45830	.6529144	.4222497
#2	1.582965	.1587760	.2170882	55.68490	.6541529	.4237702
#3	1.589591	.1583764	.2142455	55.37030	.6499109	.4196915

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8458018	375.3326	7.065526	86.06596	.8828887	.0619261
Stddev	.0005796	.6080	.008782	.29531	.0057681	.0002406
%RSD	.0685261	.1619904	.1242902	.3431165	.6533236	.3885744

#1	.8457273	375.1428	7.069482	85.95209	.8838198	.0620467
#2	.8464151	376.0129	7.071634	86.40125	.8881346	.0616490
#3	.8452631	374.8421	7.055462	85.84454	.8767116	.0620826

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.576437	.7428615	1.278904	83.13084	.3450159	.3241191
Stddev	.025011	.0030626	.002880	.09802	.0009727	.0009937
%RSD	.4485094	.4122694	.2252009	.1179083	.2819143	.3065962

#1	5.588940	.7445105	1.275588	83.22517	.3459713	.3251077
#2	5.547641	.7447462	1.280342	83.02951	.3440269	.3231203
#3	5.592732	.7393277	1.280782	83.13783	.3450496	.3241292

Sample Name: Q1984-15MS Acquired: 5/21/2025 16:38:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6621280	16.68125	F 21.96956	F 21.51419	12.46070	.7318950
Stddev	.0028650	.01453	.04174	.11944	.06124	.0023283
%RSD	.4327016	.0870946	.1899699	.5551869	.4914906	.3181208

#1	.6597323	16.68939	21.92624	21.53172	12.45194	.7337963
#2	.6653017	16.68987	22.00950	21.62390	12.52585	.7292982
#3	.6613501	16.66447	21.97293	21.38695	12.40431	.7325904

Elem	Sr4077
Units	ppm
Avg	.0562209
Stddev	.0014291
%RSD	2.541882

#1	.0574322
#2	.0546448
#3	.0565856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3294.296	77214.82	22788.72	2919.930	3717.371
Stddev	30.633	283.38	113.57	18.387	21.387
%RSD	.9298909	.3670008	.4983520	.6296946	.5753185

#1	3290.483	77424.80	22859.20	2938.548	3709.757
#2	3326.657	76892.49	22657.71	2901.783	3741.523
#3	3265.747	77327.16	22849.25	2919.460	3700.834

Sample Name: Q1984-15MSD Acquired: 5/21/2025 16:42:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9435280	1.680694	1.296919	1.422559	.1726080	235.8137
Stddev	.0043857	.008521	.000743	.005461	.0008682	1.0946
%RSD	.4648146	.5070030	.0573157	.3838834	.5029794	.4641603

#1	.9404364	1.689344	1.296153	1.428230	.1731882	236.9770
#2	.9416003	1.680429	1.296967	1.417335	.1730258	235.6600
#3	.9485473	1.672308	1.297637	1.422112	.1716099	234.8041

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.596875	.1548495	.2084540	56.98004	.6194748	.4074827
Stddev	.012109	.0010222	.0006836	.38011	.0026274	.0003307
%RSD	.7582746	.6601470	.3279257	.6670916	.4241392	.0811606

#1	1.610413	.1559166	.2089737	57.36362	.6204390	.4076584
#2	1.593136	.1547531	.2076797	56.97300	.6214839	.4071012
#3	1.587078	.1538790	.2087088	56.60350	.6165015	.4076885

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8408081	340.8374	7.619630	86.03930	.8398658	.0559717
Stddev	.0012547	1.0285	.054797	.46731	.0009633	.0001881
%RSD	.1492302	.3017655	.7191492	.5431342	.1146904	.3360056

#1	.8415107	341.4951	7.671840	86.44070	.8409141	.0557605
#2	.8393595	341.3650	7.624481	86.15090	.8390198	.0560334
#3	.8415542	339.6521	7.562570	85.52629	.8396634	.0561212

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.319611	.7367465	1.211749	76.60355	.2995763	.3180349
Stddev	.031233	.0069487	.002491	.18356	.0003342	.0009088
%RSD	.5871253	.9431586	.2055502	.2396217	.1115458	.2857417

#1	5.353949	.7447698	1.208941	76.81414	.2992328	.3190502
#2	5.311988	.7328044	1.212613	76.47749	.2995960	.3177569
#3	5.292895	.7326653	1.213692	76.51902	.2999003	.3172976

Sample Name: Q1984-15MSD Acquired: 5/21/2025 16:42:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6445942	16.37078	F 18.30690	F 20.63387	13.32458	.7246295
Stddev	.0037323	.10019	.02733	.06804	.01841	.0047180
%RSD	.5790103	.6120200	.1492909	.3297369	.1381510	.6510969

#1	.6485291	16.47955	18.32712	20.70634	13.34395	.7300745
#2	.6441489	16.35051	18.31778	20.57136	13.30732	.7217545
#3	.6411045	16.28226	18.27581	20.62391	13.32247	.7220594

Elem	Sr4077
Units	ppm
Avg	.1025562
Stddev	.0023497
%RSD	2.291146

#1	.1052261
#2	.1008033
#3	.1016392

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.503	82399.33	22271.03	2984.146	3709.641
Stddev	5.066	232.69	60.06	19.243	5.254
%RSD	.1572577	.2823891	.2696979	.6448319	.1416193

#1	3226.643	82662.07	22228.86	3004.010	3714.228
#2	3221.352	82316.63	22244.42	2965.592	3710.787
#3	3216.514	82219.29	22339.80	2982.835	3703.910

Sample Name: Q1984-15A Acquired: 5/21/2025 16:46:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.9774677	1.714774	1.343142	1.476172	.6131405	250.1169
Stddev	.0040131	.021763	.006968	.003793	.0022118	3.7715
%RSD	.4105566	1.269136	.5187641	.2569470	.3607334	1.507905
#1	.9742596	1.703161	1.346144	1.480387	.6110131	254.4650
#2	.9819675	1.701280	1.335176	1.473035	.6129805	248.1559
#3	.9761758	1.739880	1.348104	1.475093	.6154280	247.7299
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.818204	.1492498	.2060113	71.89497	.6727326	.4300969
Stddev	.010263	.0021639	.0001331	.74580	.0026912	.0013516
%RSD	.5644765	1.449850	.0646239	1.037349	.4000408	.3142616
#1	1.829748	.1514589	.2059197	72.73665	.6747133	.4292567
#2	1.810113	.1491564	.2059502	71.31634	.6696686	.4293778
#3	1.814750	.1471342	.2061640	71.63193	.6738160	.4316560
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9255714	402.1326	8.188566	91.90457	.8853920	.0613527
Stddev	.0010026	3.1559	.075980	1.02662	.0019181	.0005814
%RSD	.1083243	.7847921	.9278760	1.117054	.2166339	.9475815
#1	.9245841	401.4344	8.273283	93.08411	.8865883	.0609457
#2	.9255416	399.3843	8.126454	91.21251	.8831796	.0610939
#3	.9265887	405.5792	8.165961	91.41707	.8864081	.0620185
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.196555	.7825232	1.398483	91.71726	.3924157	.3284461
Stddev	.060566	.0069295	.001640	.75441	.0047247	.0017445
%RSD	.9774136	.8855269	.1172873	.8225345	1.203999	.5311325
#1	6.157896	.7905235	1.397681	91.37566	.3901713	.3271306
#2	6.165412	.7784046	1.397399	91.19407	.3892315	.3277827
#3	6.266355	.7786416	1.400370	92.58204	.3978442	.3304250

Sample Name: Q1984-15A Acquired: 5/21/2025 16:46:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7126099	17.44446	F 23.13861	F 23.36983	14.69275	.7668833
Stddev	.0016651	.13798	.18577	.07058	.03171	.0039451
%RSD	.2336573	.7909419	.8028697	.3020183	.2158240	.5144351

#1	.7115011	17.59989	23.09379	23.35225	14.68352	.7711452
#2	.7145246	17.33645	22.97935	23.30970	14.66668	.7633592
#3	.7118041	17.39703	23.34269	23.44753	14.72805	.7661455

Elem	Sr4077
Units	ppm
Avg	.1064018
Stddev	.0038801
%RSD	3.646619

#1	.1103697
#2	.1062198
#3	.1026160

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.893	77447.76	23168.25	2925.764	3574.190
Stddev	6.893	248.47	310.67	12.484	8.238
%RSD	.2197459	.3208166	1.340948	.4266957	.2304932

#1	3142.747	77298.08	22821.50	2930.287	3580.433
#2	3138.637	77734.57	23262.00	2935.356	3577.285
#3	3129.295	77310.63	23421.26	2911.649	3564.853

Sample Name: PB168085BL Acquired: 5/21/2025 16:51:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002704	-.000754	-.000127	-.002245	.0000403	.0166026	-.003784
Stddev	.001100	.000311	.001460	.001134	.0018724	.0057001	.000049
%RSD	40.68240	41.20280	1146.065	50.49200	4649.147	34.33278	1.286001

#1	-.001769	-.001046	-.001451	-.003444	.0000807	.0115696	-.003823
#2	-.002427	-.000788	.001438	-.002102	-.001852	.0154458	-.003800
#3	-.003917	-.000427	-.000369	-.001190	.001892	.0227924	-.003730

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000471	-.000051	-.003607	-.000085	.0002583	.0002091	.0226872
Stddev	.0000041	.000096	.002669	.000310	.0000936	.0001269	.0023503
%RSD	8.679348	189.1256	73.98986	365.1949	36.24046	60.66610	10.35971

#1	.0000424	.000056	-.004146	-.000345	.0001966	.0003335	.0209570
#2	.0000490	-.000080	-.000710	-.000169	.0003659	.0000799	.0217415
#3	.0000499	-.000128	-.005966	.000259	.0002122	.0002139	.0253631

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000128	-.004394	.0000651	.0000849	-.124063	.0008127	.0000312
Stddev	.000151	.017874	.0000780	.0002958	.007618	.0003528	.0003608
%RSD	117.6782	406.8136	119.8208	348.4053	6.140708	43.41262	1155.146

#1	.000034	-.017302	-.000023	.0003343	-.116133	.0011265	-.000280
#2	-.000154	-.011886	.000125	.0001622	-.131325	.0008808	-.000052
#3	-.000264	.016007	.000093	-.000242	-.124732	.0004308	.000426

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.042491	-.000780	-.000210	.0002811	.0002796	-.004838	-.001130
Stddev	.032529	.000477	.000133	.0007424	.0009428	.002891	.004263
%RSD	76.55616	61.20174	63.13217	264.1338	337.1251	59.76890	377.2752

#1	-.006130	-.000317	-.000363	.0001367	.0002497	-.004674	.003039
#2	-.052513	-.000754	-.000138	.0010850	-.000648	-.007807	-.000947
#3	-.068829	-.001270	-.000130	-.000379	.001237	-.002032	-.005481

Sample Name: PB168085BL Acquired: 5/21/2025 16:51:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0006099	-.001492	-.000118
Stddev	.0039716	.001263	.000037
%RSD	651.1780	84.59992	31.29434

#1	-.003838	-.001832	-.000134
#2	.003802	-.000095	-.000075
#3	.001865	-.002550	-.000143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2804.480	67027.76	18169.31	2560.335	4267.413
Stddev	9.196	211.39	235.94	10.135	10.047
%RSD	.3279165	.3153814	1.298545	.3958467	.2354301

#1	2800.568	67111.35	17915.65	2570.927	4261.574
#2	2814.986	66787.36	18210.06	2550.730	4279.014
#3	2797.887	67184.59	18382.22	2559.348	4261.651

Sample Name: PB168085BS Acquired: 5/21/2025 17:05:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7526875	1.904242	.9327562	1.911450	.7611490	1.794192
Stddev	.0016348	.014284	.0031303	.004649	.0046301	.003145
%RSD	.2171953	.7501129	.3355945	.2432319	.6083067	.1752712

#1	.7544835	1.894453	.9323669	1.907226	.7588456	1.796262
#2	.7512862	1.920633	.9360629	1.916432	.7581222	1.790573
#3	.7522928	1.897640	.9298388	1.910693	.7664790	1.795740

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1751626	.1832897	.1917185	.9169110	.3764625	.1849237
Stddev	.0014014	.0006904	.0006051	.0037081	.0006867	.0005755
%RSD	.8000447	.3766586	.3156091	.4044162	.1823953	.3112372

#1	.1767017	.1833790	.1916887	.9148610	.3756700	.1854170
#2	.1748259	.1825590	.1923380	.9146805	.3768383	.1850629
#3	.1739603	.1839311	.1911289	.9211915	.3768793	.1842914

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2884067	2.778547	.1875425	1.810890	.4682069	.0692559
Stddev	.0002901	.016919	.0003344	.007504	.0013555	.0003580
%RSD	.1005941	.6089165	.1783239	.4143571	.2895095	.5168666

#1	.2887412	2.759738	.1878796	1.813662	.4678957	.0695166
#2	.2882228	2.792526	.1872108	1.802394	.4696909	.0688478
#3	.2882562	2.783376	.1875371	1.816613	.4670340	.0694034

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.705487	.2752532	.1880508	8.586742	.2724049	.3873250
Stddev	.032604	.0019581	.0014685	.062962	.0020958	.0003222
%RSD	1.205090	.7113890	.7809208	.7332462	.7693829	.0831820

#1	2.719457	.2769275	.1869453	8.591402	.2706608	.3876861
#2	2.728777	.2757318	.1874900	8.647245	.2718239	.3872220
#3	2.668226	.2731001	.1897171	8.521580	.2747299	.3870669

Sample Name: PB168085BS Acquired: 5/21/2025 17:05:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6655467	.1860206	.7823912	5.732275	F -.008714	.1843693
Stddev	.0040616	.0002533	.0118838	.033849	.002187	.0007931
%RSD	.6102667	.1361596	1.518906	.5905061	25.09373	.4301602

#1	.6642637	.1860677	.7775225	5.701114	-.008917	.1851424
#2	.6700949	.1857471	.7959362	5.768289	-.006433	.1835577
#3	.6622816	.1862471	.7737149	5.727423	-.010792	.1844080

Elem	Sr4077
Units	ppm
Avg	.1822840
Stddev	.0006390
%RSD	.3505543

#1	.1830202
#2	.1818733
#3	.1819584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2843.422	68749.00	19161.61	2625.462	4296.180
Stddev	7.499	119.78	57.96	9.284	3.838
%RSD	.2637394	.1742304	.3024958	.3536091	.0893280

#1	2838.488	68864.33	19167.59	2635.977	4292.100
#2	2852.052	68625.22	19216.35	2618.396	4299.718
#3	2839.726	68757.46	19100.89	2622.012	4296.721

Sample Name: PB168087BL Acquired: 5/21/2025 17:10:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001481	-.001376	-.001306	.0004368	.0024527	.0188344	-.003434
Stddev	.001919	.001386	.000266	.0016744	.0005851	.0060466	.000472
%RSD	129.5989	100.6670	20.35352	383.3656	23.85349	32.10380	13.73955

#1	-.000666	-.002694	-.001359	-.000510	.0018161	.0144799	-.003934
#2	-.003673	-.001504	-.001018	.002370	.0029668	.0162852	-.002996
#3	-.000103	.000068	-.001542	-.000549	.0025753	.0257381	-.003371

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000560	-.000104	-.000468	.0002925	.0001651	-.000076	.0177553
Stddev	.0000299	.000066	.003691	.0005766	.0001468	.000256	.0019733
%RSD	53.41121	62.84009	788.9681	197.0893	88.89555	338.7192	11.11386

#1	.0000224	-.000035	-.000807	.0004489	.0001732	.000220	.0164075
#2	.0000661	-.000111	.003381	-.000346	.0003077	-.000222	.0200203
#3	.0000796	-.000166	-.003978	.000775	.0000145	-.000225	.0168382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000301	-.001447	.0001527	.0002006	-.121991	.0004709	.0015930
Stddev	.000101	.011622	.0003209	.0001699	.001975	.0012124	.0001333
%RSD	33.66772	803.2959	210.1231	84.70452	1.618573	257.4579	8.367260

#1	-.000188	-.014867	.0004579	.0000194	-.124241	.0017396	.0015148
#2	-.000383	.005321	.0001823	.0003564	-.120547	.0003492	.0015173
#3	-.000333	.005206	-.000182	.0002259	-.121185	-.000676	.0017469

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.056427	-.001204	-.000020	.0002348	-.000479	-.006119	.0004557
Stddev	.018809	.000235	.000281	.0010638	.000470	.003825	.0044507
%RSD	33.33308	19.47709	1382.166	453.1314	98.23283	62.52182	976.7606

#1	-.035900	-.000935	.000119	.0009130	-.000740	-.002113	-.002232
#2	-.072835	-.001365	-.000344	.0007826	.000064	-.006509	.005593
#3	-.060547	-.001313	.000164	-.000991	-.000761	-.009734	-.001994

Sample Name: PB168087BL Acquired: 5/21/2025 17:10:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0000508	-.000729	-.000099
Stddev	.0021347	.001181	.000066
%RSD	4201.235	162.1070	66.75630

#1	-.002316	-.000940	-.000110
#2	.000638	-.001790	-.000160
#3	.001831	.000544	-.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2827.975	66288.31	18225.68	2550.285	4288.308
Stddev	4.127	261.37	55.19	7.237	3.170
%RSD	.1459520	.3942986	.3027947	.2837899	.0739170

#1	2826.701	66345.18	18173.67	2554.349	4287.922
#2	2832.589	66516.57	18283.57	2554.578	4291.653
#3	2824.635	66003.19	18219.81	2541.929	4285.349

Sample Name: PB168087BS Acquired: 5/21/2025 17:15:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7717902	1.883161	.9327739	1.957148	.7700683	1.803793
Stddev	.0014558	.034190	.0002215	.004844	.0016634	.006929
%RSD	.1886254	1.815584	.0237445	.2475205	.2160004	.3841181

#1	.7734530	1.922540	.9327865	1.962034	.7705003	1.811637
#2	.7707453	1.861028	.9329888	1.952347	.7714730	1.801235
#3	.7711722	1.865916	.9325464	1.957062	.7682316	1.798507

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1703803	.1856679	.1930311	.9013768	.3807707	.1860126
Stddev	.0013178	.0006335	.0003683	.0052211	.0010443	.0001355
%RSD	.7734687	.3411795	.1908241	.5792347	.2742626	.0728200

#1	.1710057	.1863293	.1928577	.9033417	.3810588	.1861659
#2	.1712690	.1850667	.1927814	.9053303	.3796125	.1859627
#3	.1688662	.1856077	.1934542	.8954583	.3816407	.1859092

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2916712	2.805571	.1828688	1.800040	.4704854	.0708106
Stddev	.0004256	.008412	.0011494	.018005	.0002397	.0004074
%RSD	.1459326	.2998436	.6285234	1.000279	.0509477	.5753611

#1	.2913354	2.796239	.1841564	1.805703	.4704618	.0708397
#2	.2915283	2.807902	.1825036	1.779884	.4702584	.0712027
#3	.2921499	2.812572	.1819463	1.814534	.4707361	.0703894

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.749882	.2740101	.1889090	8.778622	.2753616	.3868975
Stddev	.007978	.0013023	.0012762	.053210	.0012142	.0017150
%RSD	.2901286	.4752856	.6755521	.6061318	.4409489	.4432699

#1	2.753243	.2743041	.1874504	8.718424	.2766243	.3885886
#2	2.755629	.2725859	.1894568	8.798071	.2742025	.3851596
#3	2.740773	.2751403	.1898199	8.819372	.2752581	.3869444

Sample Name: PB168087BS Acquired: 5/21/2025 17:15:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6704645	.1839381	.8016569	5.853866	F -.007794	.1830239
Stddev	.0019467	.0004441	.0104182	.029656	.004381	.0012035
%RSD	.2903580	.2414339	1.299584	.5066034	56.20755	.6575363

#1	.6687445	.1839270	.7935020	5.887972	-.012179	.1839087
#2	.6700711	.1834996	.8133935	5.839476	-.007787	.1816535
#3	.6725779	.1843876	.7980752	5.834151	-.003417	.1835093

Elem	Sr4077
Units	ppm
Avg	.1794137
Stddev	.0005949
%RSD	.3315895

#1	.1800203
#2	.1788311
#3	.1793898

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.543	65382.41	18702.56	2531.795	4138.872
Stddev	4.894	179.03	35.64	13.642	6.490
%RSD	.1783038	.2738156	.1905768	.5388182	.1568112

#1	2747.631	65587.39	18671.19	2546.876	4143.707
#2	2747.098	65256.70	18741.32	2528.196	4141.412
#3	2738.901	65303.15	18695.16	2520.314	4131.496

Sample Name: PB168086BL Acquired: 5/21/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001982	-.001232	-.000960	.0000629	.0001858	.0020913	-.003866
Stddev	.006905	.000374	.000467	.0025235	.0027547	.0029105	.000535
%RSD	348.3624	30.31352	48.68714	4014.127	1482.468	139.1689	13.83885

#1	.005776	-.001457	-.001270	-.002851	-.000955	.0025289	-.003950
#2	-.004268	-.001439	-.000422	.001503	-.001815	-.001013	-.004355
#3	-.007454	-.000801	-.001187	.001536	.003328	.004758	-.003294

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000018	-.000084	-.003897	.0006286	.0001321	.0001532	.0013047
Stddev	.000002	.000072	.004953	.0001674	.0000035	.0001353	.0075407
%RSD	11.15246	86.18712	127.1185	26.62914	2.619711	88.31353	577.9403

#1	-.000016	-.000098	.000657	.0005703	.0001359	.0000525	.0095789
#2	-.000020	-.000148	-.009171	.0004982	.0001312	.0003070	-.000484
#3	-.000019	-.000006	-.003176	.0008174	.0001292	.0001002	-.005181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000289	-.002326	.0000770	.0002112	-.123488	-.000311	.0006462
Stddev	.000270	.003248	.0001986	.0001794	.006595	.000360	.0002846
%RSD	93.48538	139.6481	257.8386	84.90758	5.340579	115.5995	44.04498

#1	-.000562	-.005894	.0001512	.0004184	-.130003	.000001	.0008811
#2	-.000022	-.001541	.0002278	.0001073	-.116816	-.000231	.0007277
#3	-.000283	.000458	-.000148	.0001081	-.123644	-.000705	.0003297

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.079164	-.001586	-.000191	-.000494	-.000516	-.005847	-.000596
Stddev	.020264	.000157	.000274	.000696	.000336	.009886	.003318
%RSD	25.59742	9.899440	143.2245	141.0969	65.20685	169.0829	557.1812

#1	-.087543	-.001429	.000017	.000303	-.000902	.003713	-.004084
#2	-.056055	-.001743	-.000089	-.000797	-.000284	-.005224	-.000223
#3	-.093895	-.001586	-.000502	-.000987	-.000362	-.016030	.002521

Sample Name: PB168086BL Acquired: 5/21/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002359	-.001712	-.000039
Stddev	.003968	.000843	.000092
%RSD	168.2269	49.24413	237.1111

#1	.001449	-.000766	-.000100
#2	-.002056	-.002385	.000067
#3	-.006469	-.001985	-.000083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2826.069	66357.95	19025.53	2560.500	4287.909
Stddev	2.539	115.34	142.80	14.769	5.409
%RSD	.0898596	.1738175	.7505903	.5767824	.1261369

#1	2823.582	66272.75	18898.61	2546.302	4293.964
#2	2825.966	66311.89	18997.83	2559.417	4283.557
#3	2828.658	66489.20	19180.16	2575.780	4286.207

Sample Name: CCV04 Acquired: 5/21/2025 17:27:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.681575	4.785340	4.787596	4.702377	4.746178	9.545513	9.487857
Stddev	.014771	.023212	.011452	.008478	.004675	.022772	.039408
%RSD	.3155121	.4850601	.2391991	.1802982	.0984935	.2385590	.4153497
#1	4.698594	4.809243	4.787783	4.706673	4.750765	9.524774	9.468826
#2	4.672102	4.762888	4.798954	4.707848	4.741420	9.569882	9.461576
#3	4.674028	4.783889	4.776052	4.692611	4.746349	9.541884	9.533168
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2436491	2.372006	23.96050	.9609411	2.365451	1.194010	4.793217
Stddev	.0010972	.001430	.02005	.0025264	.003928	.001597	.039273
%RSD	.4503269	.0602866	.0836836	.2629119	.1660480	.1337199	.8193348
#1	.2427160	2.372638	23.97475	.9631809	2.369942	1.192196	4.798387
#2	.2448579	2.370369	23.93757	.9614399	2.362656	1.194633	4.751616
#3	.2433733	2.373012	23.96918	.9582025	2.363756	1.195202	4.829649
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.416544	23.90523	2.376604	1.199684	23.49504	2.407366	2.435487
Stddev	.010377	.03306	.001949	.003509	.16400	.006493	.004173
%RSD	.4294291	.1383075	.0819964	.2924565	.6980267	.2696974	.1713478
#1	2.404999	23.87885	2.378667	1.203730	23.57876	2.399869	2.440256
#2	2.419537	23.94232	2.374795	1.197845	23.30607	2.411092	2.432504
#3	2.425096	23.89452	2.376348	1.197478	23.60028	2.411137	2.433701
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.39069	4.832750	4.806120	4.737560	4.792809	4.741166	4.780605
Stddev	.16083	.027678	.004960	.005131	.013855	.025518	.005540
%RSD	.6875839	.5727260	.1032053	.1082954	.2890724	.5382224	.1158905
#1	23.50458	4.819301	4.803631	4.743310	4.777129	4.740427	4.775899
#2	23.20671	4.864583	4.802897	4.733450	4.797899	4.716025	4.779205
#3	23.46078	4.814365	4.811832	4.735920	4.803399	4.767046	4.786711

Sample Name: CCV04 Acquired: 5/21/2025 17:27:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.636529	4.719958	4.771072
Stddev	.024964	.013564	.094327
%RSD	.5384196	.2873823	1.977051

#1	4.662997	4.704320	4.687274
#2	4.613407	4.728536	4.873228
#3	4.633183	4.727019	4.752714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.595	66010.64	18282.59	2527.367	4157.000
Stddev	6.497	291.18	83.60	10.499	6.862
%RSD	.2299314	.4411102	.4572612	.4154212	.1650714

#1	2832.341	65674.46	18305.29	2515.899	4163.581
#2	2825.064	66174.08	18189.98	2536.506	4157.532
#3	2819.380	66183.38	18352.49	2529.695	4149.888

Sample Name: CCB04 Acquired: 5/21/2025 17:32:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.004252	-.000778	-.000281	-.001112	.0007203	.0137961	-.002377
Stddev	.001301	.000094	.000515	.002491	.0006104	.0061085	.001139
%RSD	30.60261	12.10739	183.1695	223.9813	84.74585	44.27685	47.91203

#1	-.003377	-.000887	.000309	-.000202	.0009492	.0163403	-.001802
#2	-.003632	-.000727	-.000637	.000796	.0000285	.0182212	-.001641
#3	-.005748	-.000720	-.000515	-.003930	.0011832	.0068267	-.003689

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000010	.0000975	-.004854	-.000022	.0003624	.0000833	.0137676
Stddev	.000009	.0000740	.007398	.000277	.0002402	.0004728	.0026113
%RSD	89.79893	75.91925	152.3993	1259.339	66.26702	567.3775	18.96687

#1	-.000004	.0000528	-.011163	-.000250	.0002733	.0003586	.0128799
#2	-.000021	.0000568	.003288	-.000102	.0001796	-.000463	.0167070
#3	-.000006	.0001830	-.006687	.000286	.0006344	.000354	.0117159

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000173	-.007542	.0002999	.0001571	-.113951	.0005728	.0027208
Stddev	.0002145	.004601	.0002610	.0001533	.014045	.0010122	.0001875
%RSD	1237.671	61.01371	87.05673	97.56653	12.32545	176.7149	6.892175

#1	-.000229	-.012854	.0001231	.0001395	-.105065	-.000570	.0028666
#2	.000165	-.004938	.0001768	.0000134	-.130143	.000932	.0027865
#3	.000116	-.004832	.0005997	.0003184	-.106645	.001357	.0025092

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.064408	.0045320	.0005518	.0002111	.0000466	-.002844	-.001427
Stddev	.033961	.0004722	.0000608	.0005533	.0004186	.013537	.003199
%RSD	52.72756	10.41997	11.01090	262.0824	898.8850	475.9220	224.1601

#1	-.103481	.0040651	.0005612	-.000428	.0005199	.012606	-.000143
#2	-.041993	.0045215	.0004869	.000528	-.000275	-.012623	.000931
#3	-.047749	.0050094	.0006073	.000533	-.000105	-.008516	-.005069

Sample Name: CCB04 Acquired: 5/21/2025 17:32:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003267	-.000904	.0002126
Stddev	.002062	.001400	.0000543
%RSD	63.11101	154.8728	25.55532

#1	-.001225	-.000346	.0002231
#2	-.003229	.000131	.0002608
#3	-.005348	-.002497	.0001537

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2856.667	66923.79	18750.49	2576.016	4375.013
Stddev	10.300	133.34	60.62	6.159	16.914
%RSD	.3605560	.1992478	.3233144	.2390937	.3866005

#1	2867.214	67069.14	18680.64	2580.720	4389.115
#2	2856.154	66807.12	18789.38	2569.044	4379.663
#3	2846.634	66895.09	18781.44	2578.282	4356.261

Sample Name: PB168086BS Acquired: 5/21/2025 17:37:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7557963	1.868712	.9246779	1.902224	.7540927	1.858378
Stddev	.0043582	.026134	.0031034	.007543	.0046692	.033468
%RSD	.5766381	1.398491	.3356230	.3965539	.6191816	1.800946

#1	.7510602	1.894442	.9281080	1.908163	.7570849	1.843103
#2	.7596378	1.869502	.9220645	1.904773	.7487124	1.835272
#3	.7566907	1.842192	.9238612	1.893736	.7564807	1.896758

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1709118	.1944102	.1891057	.9259021	.3820874	.1837704
Stddev	.0030934	.0032749	.0005697	.0199525	.0008942	.0002388
%RSD	1.809942	1.684541	.3012728	2.154924	.2340381	.1299312

#1	.1689440	.1925656	.1884494	.9113426	.3825223	.1840113
#2	.1693141	.1924735	.1894734	.9177185	.3810589	.1835338
#3	.1744774	.1981913	.1893942	.9486453	.3826810	.1837662

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2887827	2.715670	.1859157	1.828364	.4633658	.0699216
Stddev	.0013209	.018760	.0031982	.030338	.0001537	.0000960
%RSD	.4574082	.6908105	1.720264	1.659324	.0331712	.1372620

#1	.2889512	2.703085	.1839965	1.830346	.4633724	.0700245
#2	.2873856	2.706694	.1841429	1.797083	.4635161	.0698346
#3	.2900112	2.737232	.1896078	1.857662	.4632089	.0699057

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.608487	.2770271	.1894960	8.538043	.2928000	.3852102
Stddev	.021278	.0044606	.0005010	.012589	.0064367	.0011432
%RSD	.8157397	1.610155	.2643973	.1474426	2.198343	.2967752

#1	2.588620	.2779809	.1889660	8.523651	.2901644	.3864649
#2	2.605900	.2721668	.1899618	8.547006	.2880994	.3842277
#3	2.630940	.2809337	.1895601	8.543473	.3001363	.3849379

Sample Name: PB168086BS Acquired: 5/21/2025 17:37:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6515807	.1852141	.7820291	5.575919	F -.009050	.1886470
Stddev	.0013003	.0043476	.0039908	.012359	.002315	.0045013
%RSD	.1995548	2.347314	.5103117	.2216496	25.58445	2.386091

#1	.6508522	.1816474	.7858793	5.587854	-.011428	.1869778
#2	.6530819	.1839381	.7779112	5.576727	-.006803	.1852187
#3	.6508081	.1900569	.7822970	5.563176	-.008918	.1937445

Elem	Sr4077
Units	ppm
Avg	.1809988
Stddev	.0035950
%RSD	1.986194

#1	.1790670
#2	.1787827
#3	.1851467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.514	66123.43	18020.98	2543.709	4344.413
Stddev	11.273	135.12	295.43	5.117	8.299
%RSD	.3971559	.2043480	1.639355	.2011739	.1910355

#1	2827.254	66043.72	18158.35	2543.555	4335.233
#2	2849.801	66279.44	18222.70	2548.901	4351.383
#3	2838.487	66047.13	17681.88	2538.670	4346.625

Sample Name: PB168107BL Acquired: 5/21/2025 17:41:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001916	-.001611	-.000590	.0004614	.0007661	-.000124	-.004207
Stddev	.003874	.001116	.000452	.0022527	.0012595	.005029	.000853
%RSD	202.1826	69.29322	76.61372	488.2580	164.4035	4059.823	20.28930

#1	-.000133	-.002824	-.001110	.0010685	.0016596	-.004972	-.003632
#2	.000745	-.000626	-.000357	.0023483	-.000674	.005070	-.005187
#3	-.006360	-.001383	-.000301	-.002033	.001313	-.000470	-.003801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000122	.0000009	-.006254	-.000069	.0002129	-.000089	.0044490
Stddev	.0000229	.0000494	.007024	.000379	.0001854	.000355	.0024416
%RSD	187.4878	5244.853	112.3074	553.5439	87.07852	397.8669	54.88067

#1	.0000387	-.000018	-.014055	-.000275	.0003909	-.000361	.0020354
#2	.0000005	-.000036	-.004274	.000369	.0002268	-.000219	.0043937
#3	-.000002	.000057	-.000433	-.000299	.0000209	.000312	.0069178

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000274	-.011200	.0001245	.0004045	-.118825	.0011339	-.000303
Stddev	.000246	.008641	.0001272	.0002265	.011680	.0012228	.000504
%RSD	89.83389	77.14798	102.2069	55.99220	9.829433	107.8335	166.3396

#1	-.000095	-.011559	.0001291	.0001617	-.131337	.0024782	-.000884
#2	-.000173	-.019656	.0002494	.0004418	-.108210	.0000878	-.000031
#3	-.000554	-.002386	-.000005	.0006100	-.116928	.0008358	.000007

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.044319	.0015345	-.000149	-.000652	-.000022	.0021453	.0007356
Stddev	.020352	.0002637	.000348	.000552	.000427	.0056729	.0021386
%RSD	45.92235	17.18525	234.1877	84.62371	1975.058	264.4400	290.7179

#1	-.066909	.0012589	-.000267	-.001028	.000008	.0086286	.0030555
#2	-.038636	.0017845	-.000422	-.000911	-.000463	-.001907	-.001157
#3	-.027412	.0015601	.000243	-.000018	.000390	-.000286	.000309

Sample Name: PB168107BL Acquired: 5/21/2025 17:41:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001025	-.001043	-.000114
Stddev	.005387	.000184	.000031
%RSD	525.6973	17.63746	26.75466

#1	.003687	-.001209	-.000083
#2	-.006897	-.000845	-.000144
#3	.000136	-.001076	-.000115

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2822.831	67658.37	19060.36	2593.487	4280.836
Stddev	6.355	279.10	36.22	18.748	10.483
%RSD	.2251225	.4125156	.1900153	.7228863	.2448870

#1	2816.280	67360.17	19058.69	2582.874	4268.915
#2	2823.244	67701.62	19097.38	2582.452	4288.618
#3	2828.969	67913.33	19025.00	2615.134	4284.975

Sample Name: PB168107BS Acquired: 5/21/2025 17:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7589602	1.863368	.9350926	1.924853	.7688834	1.821078
Stddev	.0027940	.021931	.0027167	.011934	.0006957	.006188
%RSD	.3681406	1.176951	.2905224	.6199853	.0904748	.3397794

#1	.7560100	1.840339	.9324138	1.912146	.7681464	1.824792
#2	.7593041	1.865762	.9350184	1.926592	.7689752	1.824508
#3	.7615663	1.884005	.9378456	1.935823	.7695285	1.813935

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1725300	.1906927	.1920367	.9158928	.3792788	.1853725
Stddev	.0002819	.0007402	.0005187	.0029691	.0013882	.0006963
%RSD	.1634084	.3881635	.2700886	.3241729	.3660056	.3756428

#1	.1723866	.1909490	.1917441	.9126710	.3806226	.1850816
#2	.1723487	.1912706	.1917304	.9185188	.3793636	.1848688
#3	.1728549	.1898584	.1926355	.9164887	.3778501	.1861671

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2894818	2.754089	.1867151	1.809012	.4691655	.0700141
Stddev	.0007848	.005678	.0011641	.010301	.0012407	.0000997
%RSD	.2711207	.2061674	.6234547	.5694284	.2644401	.1423444

#1	.2894901	2.748101	.1877935	1.813048	.4684463	.0700756
#2	.2886928	2.754771	.1854810	1.816683	.4684521	.0698991
#3	.2902624	2.759396	.1868708	1.797304	.4705981	.0700676

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.577574	.2747063	.1902483	8.596378	.2867482	.3870396
Stddev	.018790	.0028723	.0007245	.043940	.0014978	.0015750
%RSD	.7289773	1.045583	.3808132	.5111448	.5223498	.4069286

#1	2.599210	.2776051	.1910661	8.604885	.2875242	.3860228
#2	2.568162	.2718613	.1896866	8.635442	.2876989	.3862421
#3	2.565350	.2746527	.1899924	8.548806	.2850216	.3888538

Sample Name: PB168107BS Acquired: 5/21/2025 17:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6656573	.1860102	F .7749976	5.686333	F -.008741	.1871297
Stddev	.0030254	.0008775	.0097419	.023295	.002331	.0005979
%RSD	.4544982	.4717484	1.257021	.4096684	26.66882	.3195178

#1	.6627705	.1868142	.7756058	5.681025	-.009049	.1864912
#2	.6653969	.1850742	.7649658	5.666150	-.006271	.1872216
#3	.6688045	.1861421	.7844211	5.711824	-.010902	.1876764

Elem	Sr4077
Units	ppm
Avg	.1810022
Stddev	.0007610
%RSD	.4204409

#1	.1815957
#2	.1812666
#3	.1801442

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2828.884	67212.68	18542.55	2598.590	4272.439
Stddev	4.244	150.87	50.19	19.766	8.648
%RSD	.1500383	.2244594	.2706960	.7606494	.2024236

#1	2828.457	67151.54	18525.42	2583.795	4267.015
#2	2833.325	67101.97	18503.16	2590.937	4282.413
#3	2824.869	67384.51	18599.07	2621.039	4267.890

Sample Name: PB168067TB Acquired: 5/21/2025 17:49:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.004222	-.005502	-.000114	.0014669	.0010921	.0109904	-.002890
Stddev	.001665	.000517	.001754	.0016191	.0014040	.0022385	.001220
%RSD	39.44006	9.397761	1534.620	110.3762	128.5591	20.36785	42.21346

#1	-.005938	-.005084	.001726	.0025304	.0022357	.0084282	-.003964
#2	-.004114	-.006080	-.001767	-.000396	-.000475	.0125671	-.003144
#3	-.002613	-.005341	-.000302	.002267	.001515	.0119758	-.001563

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000071	-.000150	.0299194	.0006209	-.000057	.0005546	.0127435
Stddev	.000039	.000054	.0048043	.0001166	.000089	.0001374	.0008101
%RSD	55.22513	36.06094	16.05748	18.77680	154.9728	24.77415	6.357023

#1	-.000067	-.000195	.0284913	.0004903	-.000016	.0007015	.0121599
#2	-.000034	-.000165	.0259911	.0006579	.000003	.0004292	.0136684
#3	-.000113	-.000090	.0352759	.0007145	-.000159	.0005331	.0124022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019863	-.013762	.0011670	-.000041	362.2583	.0011842	.0026955
Stddev	.0003432	.004977	.0001929	.000100	.8675	.0013138	.0003453
%RSD	17.27928	36.16279	16.52551	246.0709	.2394787	110.9480	12.81099

#1	.0022756	-.015444	.0013576	-.000107	363.0726	.0023114	.0027595
#2	.0020763	-.008162	.0011715	.000074	361.3459	.0014998	.0023227
#3	.0016071	-.017679	.0009719	-.000090	362.3565	-.000259	.0030044

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014641	.0006756	.0003697	-.001973	.0001256	.0118326	.0025829
Stddev	.050284	.0004616	.0001786	.000369	.0000188	.0071152	.0007280
%RSD	343.4509	68.32264	48.29984	18.71768	14.95362	60.13243	28.18590

#1	-.030248	.0006273	.0003534	-.002393	.0001050	.0149353	.0032357
#2	-.055270	.0011594	.0001998	-.001698	.0001299	.0168695	.0017978
#3	.041596	.0002401	.0005558	-.001829	.0001419	.0036929	.0027151

Sample Name: PB168067TB Acquired: 5/21/2025 17:49:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0334904	-.001763	.0000093
Stddev	.0016513	.000918	.0001262
%RSD	4.930726	52.09366	1360.979

#1	.0323776	-.002770	-.000133
#2	.0353878	-.000972	.000106
#3	.0327059	-.001547	.000055

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.828	64919.68	17105.85	2473.053	3893.759
Stddev	18.084	124.76	82.56	15.821	26.957
%RSD	.6673309	.1921832	.4826235	.6397158	.6923014

#1	2707.722	65062.29	17188.36	2488.151	3879.325
#2	2728.873	64866.10	17105.94	2474.411	3924.859
#3	2692.890	64830.66	17023.25	2456.597	3877.093

Sample Name: Q2071-04 Acquired: 5/21/2025 17:53:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.004684	-.006967	.0036196	-.000191	.0007430	.0469611	.7442307
Stddev	.001667	.002018	.0001857	.001613	.0008759	.0030509	.0005241
%RSD	35.58323	28.97203	5.131850	844.0363	117.8892	6.496596	.0704252

#1	-.003840	-.004861	.0034138	.000464	-.000045	.0471064	.7437574
#2	-.003608	-.008885	.0037748	-.002028	.000588	.0438401	.7447940
#3	-.006604	-.007154	.0036704	.000991	.001686	.0499367	.7441408

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000662	.0001775	15.06313	.0022811	.0052749	.0273303	.0254490
Stddev	.0000323	.0000617	.03354	.0001462	.0002945	.0002753	.0051247
%RSD	48.77939	34.76243	.2226742	6.409583	5.583186	1.007183	20.13711

#1	.0001026	.0002481	15.07663	.0021228	.0050320	.0275360	.0196295
#2	.0000547	.0001504	15.02495	.0024111	.0051902	.0270176	.0292876
#3	.0000412	.0001340	15.08782	.0023092	.0056024	.0274373	.0274299

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.308239	1.744436	.0061483	-.000388	388.8132	.0003199	.3094430
Stddev	.006484	.010152	.0003065	.000542	2.5667	.0025080	.0020350
%RSD	.2808936	.5819619	4.985847	139.6717	.6601406	783.8978	.6576389

#1	2.314531	1.752640	.0058161	-.000534	386.2695	.0003838	.3117811
#2	2.301579	1.733082	.0062085	-.000843	391.4023	-.002219	.3080707
#3	2.308607	1.747586	.0064203	.000212	388.7678	.002795	.3084771

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.307100	.1667824	-.000056	-.003301	-.000979	1.412500	.0131630
Stddev	.017343	.0013260	.000232	.000684	.000980	.009445	.0005515
%RSD	1.326863	.7950573	417.5442	20.71926	100.1267	.6686971	4.189871

#1	1.295404	.1681518	-.000259	-.003789	-.002107	1.415825	.0131504
#2	1.327026	.1666909	-.000104	-.002519	-.000489	1.419833	.0126179
#3	1.298870	.1655045	.000197	-.003594	-.000340	1.401841	.0137207

Sample Name: Q2071-04 Acquired: 5/21/2025 17:53:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.070280	-.002902	.0919137
Stddev	.004071	.000777	.0000696
%RSD	.3804063	26.75663	.0757109

#1	1.069844	-.002015	.0919615
#2	1.066444	-.003459	.0919457
#3	1.074552	-.003233	.0918338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2626.993	62481.71	18162.83	2404.441	3784.225
Stddev	11.663	174.68	168.93	18.991	18.936
%RSD	.4439844	.2795664	.9301130	.7898383	.5003870

#1	2632.561	62301.72	17984.88	2382.971	3800.033
#2	2634.829	62492.88	18182.58	2411.309	3789.403
#3	2613.589	62650.54	18321.01	2419.042	3763.239

Sample Name: Q2071-08 Acquired: 5/21/2025 17:58:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006482	.0016828	-.003934	-.000752	.0393768	.2917850
Stddev	.000526	.000662	.0008804	.002283	.001719	.0046409	.0009772
%RSD	12.25411	10.21335	52.31885	58.04004	228.7321	11.78578	.3349072

#1	-.004155	-.006636	.0012065	-.002706	-.002186	.0444948	.2924957
#2	-.003845	-.005756	.0011431	-.002528	-.001223	.0354422	.2906707
#3	-.004870	-.007053	.0026988	-.006569	.001154	.0381936	.2921888

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000196	.0005473	9.908057	.0001225	.0000794	.0109109	.0167698
Stddev	.0000118	.0000878	.067195	.0000708	.0001399	.0004436	.0055245
%RSD	60.14154	16.04734	.6781822	57.82936	176.2723	4.065200	32.94308

#1	.0000331	.0005810	9.976966	.0000513	.0001571	.0110898	.0119370
#2	.0000110	.0006132	9.904488	.0001231	-.000082	.0112370	.0155801
#3	.0000147	.0004476	9.842719	.0001930	.000163	.0104058	.0227921

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1180465	1.365356	.0028941	-.000132	310.5890	.0001688	.1229786
Stddev	.0006115	.004428	.0001266	.000084	.4668	.0002014	.0002417
%RSD	.5180408	.3242995	4.372811	63.67688	.1503038	119.3427	.1965059

#1	.1186865	1.360257	.0029312	-.000169	310.6180	-.000003	.1227113
#2	.1179849	1.368224	.0029981	-.000190	310.1084	.000119	.1230429
#3	.1174681	1.367588	.0027532	-.000036	311.0407	.000391	.1231816

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.445583	.0411104	.0001412	-.003782	-.000612	.9870014	.0113715
Stddev	.052271	.0012104	.0001995	.000998	.000448	.0148571	.0009877
%RSD	3.615922	2.944212	141.3167	26.39614	73.22724	1.505273	8.685953

#1	1.500979	.0410129	.0003692	-.003390	-.000154	.9978411	.0122987
#2	1.397131	.0423666	-.000001	-.004917	-.001049	.9700660	.0103327
#3	1.438639	.0399518	.000056	-.003039	-.000632	.9930970	.0114830

Sample Name: Q2071-08 Acquired: 5/21/2025 17:58:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2804071	-.002914	.0666967
Stddev	.0037746	.000895	.0002827
%RSD	1.346129	30.72416	.4238194

#1	.2847459	-.003629	.0668260
#2	.2778786	-.003205	.0663726
#3	.2785968	-.001910	.0668917

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.121	64900.89	18586.66	2446.112	3997.891
Stddev	6.781	45.57	140.82	2.025	13.859
%RSD	.2466719	.0702202	.7576501	.0828000	.3466701

#1	2744.529	64879.23	18536.19	2444.195	3984.431
#2	2756.910	64870.18	18478.03	2445.910	4012.118
#3	2745.923	64953.25	18745.76	2448.231	3997.125

Sample Name: Q2071-12 Acquired: 5/21/2025 18:02:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002205	-.006897	.0015261	.0037396	.0012085	.0109019	.6633591
Stddev	.001042	.000528	.0018204	.0037478	.0005485	.0008694	.0032716
%RSD	47.24536	7.655554	119.2834	100.2186	45.38522	7.975111	.4931853

#1	-.002327	-.006798	.0020339	.0003642	.0011312	.0113623	.6641001
#2	-.003181	-.006426	.0030387	.0077727	.0007028	.0114444	.6597806
#3	-.001108	-.007468	-.000494	.0030820	.0017916	.0098991	.6661966

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000025	.0000509	65.61995	.0010578	-.000167	.0121012	.0163664
Stddev	.0000197	.0000969	.15728	.0002594	.000224	.0002458	.0045732
%RSD	801.4821	190.4156	.2396784	24.52711	134.2159	2.030870	27.94286

#1	.0000095	.0001201	65.43836	.0011166	-.000420	.0118472	.0213429
#2	-.000020	.0000924	65.71296	.0007740	-.000088	.0121186	.0154077
#3	.000018	-.000060	65.70853	.0012828	.000007	.0123377	.0123485

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2508998	2.052703	.0036835	.0001675	322.5545	.0004967	.0935036
Stddev	.0008649	.005518	.0003528	.0001164	8.1579	.0004801	.0001964
%RSD	.3447350	.2688191	9.577183	69.48419	2.529164	96.66848	.2099949

#1	.2499069	2.058594	.0038283	.0002280	331.9244	.0000755	.0933738
#2	.2514894	2.051859	.0032814	.0002412	318.7097	.0010195	.0937295
#3	.2513031	2.047655	.0039409	.0000333	317.0294	.0003950	.0934076

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8648711	.0469443	.0005705	-.000173	-.001435	.9823694	.0116342
Stddev	.0139917	.0004215	.0005580	.001202	.000805	.0125108	.0004691
%RSD	1.617783	.8977852	97.80262	696.3854	56.10808	1.273536	4.032245

#1	.8717750	.0468268	-.000074	-.000740	-.001933	.9947118	.0112617
#2	.8487692	.0474120	.000881	-.000986	-.000506	.9696966	.0114798
#3	.8740690	.0465940	.000904	.001208	-.001867	.9826997	.0121610

Sample Name: Q2071-12 Acquired: 5/21/2025 18:02:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.5526701	-.011450	.1930284
Stddev	.0049891	.000072	.0002646
%RSD	.9027181	.6258429	.1370761

#1	.5546045	-.011439	.1931982
#2	.5564024	-.011527	.1927235
#3	.5470036	-.011384	.1931635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2653.674	65728.06	18953.92	2472.072	3809.741
Stddev	7.616	222.72	40.02	6.516	10.537
%RSD	.2870014	.3388526	.2111649	.2635956	.2765856

#1	2661.786	65473.22	18924.62	2466.338	3816.579
#2	2652.559	65885.47	18937.63	2479.158	3815.038
#3	2646.677	65825.49	18999.53	2470.722	3797.606

Sample Name: Q2071-16 Acquired: 5/21/2025 18:07:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.004319	-.005550	.0006416	.0019089	.0023350	.0608870	.2349869
Stddev	.002959	.001928	.0009637	.0007638	.0011219	.0012785	.0098994
%RSD	68.52036	34.73727	150.2136	40.01154	48.04638	2.099739	4.212762

#1	-.006139	-.006680	-.000056	.0025305	.0016354	.0603178	.2427183
#2	-.000904	-.006646	.000240	.0021399	.0036290	.0623512	.2238296
#3	-.005913	-.003324	.001741	.0010563	.0017406	.0599920	.2384128

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000079	.0000544	6.975913	.0007534	.0002654	.0155612	.0252683
Stddev	.0000289	.0000241	.240614	.0000481	.0002011	.0004125	.0023935
%RSD	364.1529	44.25865	3.449214	6.385703	75.75351	2.651015	9.472484

#1	.0000117	.0000810	7.153813	.0007376	.0001955	.0152328	.0241376
#2	.0000348	.0000479	6.702142	.0007151	.0001087	.0160243	.0280177
#3	-.000023	.0000342	7.071784	.0008074	.0004921	.0154266	.0236496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0985339	.5377724	.0019079	-.000363	366.8020	.0015768	.0742979
Stddev	.0035607	.0176317	.0001553	.000419	19.5254	.0015548	.0043809
%RSD	3.613713	3.278650	8.137037	115.3940	5.323139	98.60495	5.896437

#1	.1013178	.5479299	.0018741	-.000760	389.3412	.0000533	.0793227
#2	.0945216	.5174132	.0017724	-.000402	356.0106	.0031611	.0712800
#3	.0997624	.5479743	.0020773	.000074	355.0541	.0015159	.0722909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5320635	.0382927	-.000040	-.003571	-.000086	.8407773	.0114299
Stddev	.0519556	.0021898	.000137	.000666	.000334	.0449306	.0015077
%RSD	9.764917	5.718593	339.4608	18.65511	386.2253	5.343930	13.19098

#1	.5756408	.0402932	-.000122	-.002816	-.000261	.8879598	.0096897
#2	.5459840	.0359532	.000118	-.004078	.000298	.7985015	.0122562
#3	.4745657	.0386318	-.000117	-.003819	-.000296	.8358706	.0123438

Sample Name: Q2071-16 Acquired: 5/21/2025 18:07:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3549797	-.003210	.0610729
Stddev	.0077748	.000047	.0020157
%RSD	2.190200	1.459223	3.300458

#1	.3568710	-.003156	.0625508
#2	.3464337	-.003234	.0587768
#3	.3616343	-.003240	.0618913

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2704.588	61614.16	18496.99	2375.137	3914.909
Stddev	10.790	2909.57	531.90	112.628	21.892
%RSD	.3989541	4.722241	2.875577	4.741947	.5591907

#1	2716.882	58263.54	18105.96	2245.193	3939.881
#2	2696.690	63502.96	19102.67	2444.682	3905.822
#3	2700.191	63075.99	18282.34	2435.536	3899.023

Sample Name: Q2071-20 Acquired: 5/21/2025 18:11:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002216	-.005813	.0014450	-.000280	.0034168	.0286838	.7111539
Stddev	.001145	.000806	.0012994	.001012	.0030969	.0049083	.0011152
%RSD	51.69363	13.86933	89.92700	360.8951	90.63564	17.11191	.1568120

#1	-.002400	-.006429	.0027668	.000756	.0069552	.0231038	.7122253
#2	-.003258	-.006108	.0001692	-.001266	.0012001	.0306137	.7112368
#3	-.000989	-.004900	.0013989	-.000330	.0020951	.0323339	.7099996

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001629	.0003842	36.78932	.0036548	.0072175	.0174706	.0310404
Stddev	.0000316	.0000504	.08656	.0003096	.0001294	.0007145	.0040517
%RSD	19.40465	13.12464	.2352856	8.469821	1.792624	4.089964	13.05292

#1	.0001941	.0004243	36.88826	.0036230	.0070789	.0167214	.0263654
#2	.0001309	.0003276	36.75215	.0039791	.0072384	.0181445	.0335339
#3	.0001636	.0004008	36.72756	.0033625	.0073351	.0175460	.0332219

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.295109	1.807907	.0207326	-.000497	351.7034	-.000764	.1423616
Stddev	.019546	.003078	.0004376	.000562	3.4171	.000465	.0007727
%RSD	.4550754	.1702381	2.110805	113.2320	.9715996	60.89023	.5427567

#1	4.317251	1.807531	.0202449	-.000478	354.9736	-.000264	.1428499
#2	4.287828	1.811155	.0210908	-.001068	348.1562	-.000845	.1414708
#3	4.280249	1.805034	.0208623	.000056	351.9803	-.001183	.1427642

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7037279	.0763758	-.000041	-.004022	-.000733	1.028707	.0110202
Stddev	.0125357	.0009292	.000188	.000734	.000180	.025912	.0034804
%RSD	1.781322	1.216676	452.9553	18.25316	24.53735	2.518905	31.58213

#1	.6940389	.0770682	-.000087	-.004850	-.000537	1.048712	.0079446
#2	.6992593	.0767395	.000165	-.003451	-.000772	.999436	.0147983
#3	.7178856	.0753197	-.000203	-.003765	-.000891	1.037972	.0103177

Sample Name: Q2071-20 Acquired: 5/21/2025 18:11:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7020182	-.007108	.1240194
Stddev	.0061522	.001097	.0005288
%RSD	.8763613	15.43000	.4264029

#1	.6959403	-.007224	.1246297
#2	.7082422	-.005958	.1236968
#3	.7018720	-.008143	.1237317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2672.691	62819.64	17780.41	2423.702	3814.311
Stddev	10.416	383.99	87.40	17.168	15.638
%RSD	.3897334	.6112568	.4915324	.7083276	.4099707

#1	2680.527	62433.65	17694.29	2407.875	3826.177
#2	2676.674	63201.60	17777.91	2441.953	3820.164
#3	2660.870	62823.66	17869.03	2421.279	3796.591

Sample Name: CCV05 Acquired: 5/21/2025 18:16:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.731233	4.709413	4.834294	4.723392	4.725763	9.490459	9.440486
Stddev	.028523	.086640	.020376	.043396	.033722	.018578	.124316
%RSD	.6028688	1.839717	.4214982	.9187556	.7135789	.1957532	1.316841

#1	4.715099	4.685718	4.816749	4.707597	4.700074	9.511893	9.583442
#2	4.714433	4.637086	4.829490	4.690106	4.713264	9.478978	9.380287
#3	4.764166	4.805435	4.856644	4.772474	4.763949	9.480507	9.357730

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2443242	2.411559	24.08363	.9842306	2.399639	1.201143	4.872174
Stddev	.0028345	.013656	.11321	.0013408	.011665	.007374	.016137
%RSD	1.160141	.5662747	.4700512	.1362245	.4861293	.6139038	.3312113

#1	.2475894	2.399280	24.20965	.9835946	2.389739	1.195024	4.858033
#2	.2428871	2.409130	24.05068	.9833263	2.396679	1.199075	4.889753
#3	.2424961	2.426266	23.99055	.9857710	2.412500	1.209330	4.868738

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.402264	24.31170	2.407058	1.205910	23.44667	2.400779	2.428211
Stddev	.012567	.11291	.010976	.001227	.18503	.010709	.008218
%RSD	.5231381	.4644352	.4560108	.1017534	.7891407	.4460792	.3384177

#1	2.414080	24.43080	2.395595	1.207084	23.24285	2.410926	2.437642
#2	2.403650	24.29808	2.408108	1.204636	23.60406	2.401826	2.424399
#3	2.389061	24.20622	2.417472	1.206010	23.49311	2.389584	2.422592

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.47838	4.775663	4.832669	4.824105	4.762026	4.801194	4.899443
Stddev	.16070	.050818	.031791	.023940	.014419	.038102	.033051
%RSD	.6844536	1.064099	.6578424	.4962631	.3027942	.7935958	.6745818

#1	23.29519	4.834314	4.811101	4.803680	4.777204	4.759954	4.878344
#2	23.54438	4.744758	4.817727	4.818185	4.760364	4.808539	4.882452
#3	23.59557	4.747918	4.869179	4.850450	4.748510	4.835089	4.937533

Sample Name: CCV05 Acquired: 5/21/2025 18:16:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.661150	4.594978	4.753833
Stddev	.035960	.008454	.038084
%RSD	.7714902	.1839757	.8011236

#1	4.631125	4.598190	4.796480
#2	4.651323	4.601354	4.741805
#3	4.701003	4.585388	4.723216

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2751.556	63433.72	17799.12	2446.575	4037.638
Stddev	11.970	161.73	149.55	3.928	17.478
%RSD	.4350161	.2549640	.8401869	.1605396	.4328683

#1	2762.936	63602.77	17626.50	2442.111	4055.431
#2	2752.659	63417.95	17881.35	2448.112	4036.990
#3	2739.073	63280.46	17889.50	2449.501	4020.493

Sample Name: CCB05 Acquired: 5/21/2025 18:20:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001636	-.001888	-.000455	-.002836	.0015886	.0045179	-.002093
Stddev	.003041	.001688	.001202	.002866	.0015044	.0044553	.001014
%RSD	185.9013	89.38981	264.3316	101.0672	94.70226	98.61636	48.45011

#1	.001752	-.002209	-.000245	-.001278	.0033168	.0061695	-.000984
#2	-.004128	-.003392	.000629	-.006144	.0008769	.0079115	-.002322
#3	-.002531	-.000063	-.001748	-.001086	.0005721	-.000527	-.002974

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000468	-.000060	-.002793	.0001342	.0003903	-.000071	.0003017
Stddev	.0000101	.000102	.002479	.0000573	.0002622	.000432	.0007808
%RSD	21.59523	170.8137	88.75182	42.67688	67.18482	608.9572	258.8296

#1	.0000355	-.000164	-.002759	.0000688	.0000910	.000427	-.000600
#2	.0000549	.000040	-.000331	.0001585	.0005795	-.000285	.000745
#3	.0000500	-.000056	-.005289	.0001753	.0005003	-.000354	.000760

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	.0025226	.0002147	.0003435	-.031594	.0019748	-.000629
Stddev	.000313	.0066054	.0002375	.0000084	.016813	.0005363	.000446
%RSD	314.8030	261.8557	110.6605	2.441821	53.21612	27.15569	70.79297

#1	.000237	-.004198	-.000048	.0003404	-.042096	.0013767	-.001087
#2	-.000382	.009006	.000277	.0003371	-.012202	.0021350	-.000605
#3	-.000154	.002760	.000415	.0003530	-.040483	.0024127	-.000197

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030996	.0057367	.0003663	-.000134	.0009020	.0046824	-.003264
Stddev	.006472	.0002709	.0003786	.000883	.0005299	.0040495	.001442
%RSD	20.87995	4.722675	103.3338	658.5787	58.74851	86.48294	44.16813

#1	-.024482	.0059301	.0007745	-.001154	.0014954	.0089200	-.004394
#2	-.031082	.0054270	.0000268	.000354	.0004760	.0042753	-.001640
#3	-.037425	.0058530	.0002977	.000398	.0007346	.0008518	-.003758

Sample Name: CCB05 Acquired: 5/21/2025 18:20:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003664	.0022067	.0000496
Stddev	.005369	.0010439	.0000347
%RSD	146.5200	47.30684	69.93069

#1	.001330	.0010408	.0000458
#2	-.002980	.0030548	.0000861
#3	-.009342	.0025243	.0000170

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2783.623	68528.90	17497.97	2592.063	4202.699
Stddev	11.088	349.34	65.28	18.338	12.949
%RSD	.3983323	.5097764	.3730463	.7074750	.3081138

#1	2770.871	68618.39	17444.70	2600.080	4188.856
#2	2789.006	68143.51	17570.78	2571.082	4204.725
#3	2790.992	68824.79	17478.42	2605.028	4214.515

Sample Name: Q2080-06 Acquired: 5/21/2025 18:24:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001475	-.003760	-.000746	.0020374	.0020068	.0649149	.3591365
Stddev	.002377	.002438	.000563	.0029936	.0022790	.0056488	.0017237
%RSD	161.2082	64.84321	75.39396	146.9285	113.5673	8.701870	.4799670

#1	-.004050	-.006436	-.000884	.0043326	.0045633	.0639579	.3610238
#2	.000635	-.003183	-.001227	.0031282	.0001880	.0709810	.3587403
#3	-.001008	-.001663	-.000128	-.001349	.0012690	.0598057	.3576453

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000047	.0000961	7.920653	.0034220	.0001239	.0097380	.0356147
Stddev	.0000604	.0000646	.009963	.0001356	.0001470	.0003149	.0031984
%RSD	1286.337	67.17428	.1257906	3.963222	118.7015	3.233810	8.980619

#1	.0000742	.0001665	7.921963	.0034251	.0000600	.0095077	.0369529
#2	-.000036	.0000396	7.910099	.0035560	.0002920	.0100969	.0379266
#3	-.000024	.0000823	7.929897	.0032849	.0000195	.0096095	.0319645

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0569878	2.082673	.0019622	.0001722	331.9856	.0012457	.1209114
Stddev	.0004275	.030088	.0002639	.0003844	1.3362	.0010834	.0007803
%RSD	.7502280	1.444700	13.45178	223.2865	.4024885	86.96971	.6453192

#1	.0567725	2.096476	.0019198	.0003373	333.1413	.0001632	.1216084
#2	.0574802	2.048159	.0017220	-.000267	330.5224	.0023299	.1210573
#3	.0567107	2.103383	.0022447	.000446	332.2930	.0012439	.1200685

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.031538	.0580748	.0002442	-.003369	.0000645	.2393569	.0146516
Stddev	.017653	.0005405	.0002934	.001067	.0003861	.0127684	.0043342
%RSD	1.711353	.9307016	120.1326	31.66993	598.5388	5.334448	29.58152

#1	1.035226	.0586978	.0001763	-.004600	.0002576	.2474284	.0190626
#2	1.012333	.0577312	-.000009	-.002721	.0003161	.2246362	.0144936
#3	1.047057	.0577954	.000566	-.002785	-.000380	.2460062	.0103986

Sample Name: Q2080-06 Acquired: 5/21/2025 18:24:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.5261421	-.003516	.0305498
Stddev	.0038763	.001038	.0000820
%RSD	.7367360	29.51027	.2683425

#1	.5217715	-.003209	.0306002
#2	.5291635	-.004672	.0305939
#3	.5274912	-.002667	.0304552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2696.593	62205.01	17607.44	2399.448	3899.529
Stddev	16.266	291.26	80.03	18.530	14.857
%RSD	.6031958	.4682260	.4545242	.7722741	.3809831

#1	2703.160	61870.73	17517.05	2382.530	3905.761
#2	2708.548	62340.20	17635.99	2396.561	3910.255
#3	2678.070	62404.12	17669.28	2419.252	3882.572

Sample Name: Q2080-12 Acquired: 5/21/2025 18:29:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006192	-.006920	-.000818	.0014079	.0032785	.0353913	.3293284
Stddev	.002195	.001875	.001968	.0023324	.0015577	.0048190	.0010436
%RSD	35.45150	27.09598	240.6491	165.6680	47.51247	13.61624	.3168747

#1	-.008256	-.004967	.001410	.0028231	.0050357	.0405802	.3292408
#2	-.006435	-.007087	-.002319	.0026846	.0027329	.0310564	.3304130
#3	-.003886	-.008706	-.001545	-.001284	.0020670	.0345373	.3283314

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000306	-.000022	12.94426	.0003535	-.000109	.0106480	.0089322
Stddev	.0000157	.000021	.08859	.0001397	.000149	.0002771	.0037888
%RSD	51.27420	95.63888	.6844300	39.52137	136.9568	2.602351	42.41705

#1	.0000243	-.000033	12.98188	.0003390	.000063	.0105672	.0051428
#2	.0000191	.000002	13.00783	.0002216	-.000204	.0109565	.0127204
#3	.0000485	-.000036	12.84306	.0004999	-.000186	.0104203	.0089335

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193936	2.703406	.0010752	-.000093	390.2644	.0003320	.0818804
Stddev	.0002154	.029921	.0001890	.000166	4.7775	.0019732	.0002701
%RSD	1.110390	1.106802	17.57692	179.0539	1.224174	594.3369	.3299121

#1	.0191500	2.708718	.0008601	-.000216	389.5099	.0001075	.0816078
#2	.0195585	2.730315	.0012145	-.000157	385.9091	.0024078	.0818854
#3	.0194725	2.671184	.0011509	.000096	395.3743	-.001519	.0821480

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6881290	.0437863	.0000791	-.003033	-.000598	.3492672	.0115636
Stddev	.0266886	.0004499	.0001183	.000280	.000398	.0127295	.0057742
%RSD	3.878424	1.027408	149.5667	9.217809	66.46859	3.644631	49.93469

#1	.7083690	.0432675	.0001187	-.002776	-.000182	.3452217	.0182310
#2	.6981346	.0440678	-.000054	-.002991	-.000638	.3390522	.0082623
#3	.6578835	.0440237	.000172	-.003331	-.000975	.3635279	.0081974

Sample Name: Q2080-12 Acquired: 5/21/2025 18:29:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3867160	-.004013	.0497517
Stddev	.0019292	.000802	.0001605
%RSD	.4988701	19.97849	.3225884

#1	.3846019	-.003668	.0496385
#2	.3883811	-.003441	.0499354
#3	.3871652	-.004929	.0496813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2644.621	63346.86	17798.76	2424.884	3782.540
Stddev	11.101	217.26	86.38	19.487	25.682
%RSD	.4197666	.3429615	.4853380	.8036408	.6789668

#1	2643.808	63590.82	17754.59	2446.602	3794.277
#2	2656.106	63174.24	17743.40	2408.926	3800.257
#3	2633.948	63275.52	17898.30	2419.122	3753.086

Sample Name: Q2080-12DUP Acquired: 5/21/2025 18:33:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006203	-.004274	-.000561	-.000790	.0003040	.0256023	.2142072
Stddev	.002311	.001189	.001128	.002299	.0018644	.0021109	.0009587
%RSD	37.25330	27.81910	201.0916	291.1764	613.3516	8.244795	.4475673

#1	-.004332	-.005508	.000739	-.000288	.0014889	.0248600	.2132811
#2	-.008786	-.004178	-.001283	-.003299	.0012681	.0239629	.2141451
#3	-.005490	-.003136	-.001139	.001217	-.001845	.0279841	.2151955

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000255	-.000086	8.365493	.0028946	.0001761	.0075075	.0249056
Stddev	.0000188	.000047	.027845	.0002334	.0003653	.0004550	.0056953
%RSD	73.83233	54.23449	.3328565	8.062986	207.3958	6.061051	22.86753

#1	.0000177	-.000062	8.371573	.0031165	.0002301	.0074773	.0306538
#2	.0000470	-.000057	8.335110	.0026512	-.000213	.0079769	.0192648
#3	.0000118	-.000140	8.389795	.0029162	.000511	.0070683	.0247982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0246938	1.747808	.0054110	.0000056	261.7404	.0013679	.0539762
Stddev	.0006285	.013704	.0004539	.0002955	1.9111	.0008331	.0006786
%RSD	2.545256	.7840584	8.388372	5290.901	.7301338	60.90727	1.257157

#1	.0245004	1.733151	.0059104	-.000080	259.7154	.0007212	.0532174
#2	.0241848	1.749970	.0050237	-.000238	261.9934	.0023080	.0541864
#3	.0253964	1.760301	.0052987	.000334	263.5123	.0010743	.0545248

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4457782	.0275671	.0000149	-.003054	-.000510	.2320252	.0073550
Stddev	.0168015	.0010690	.0001558	.000435	.000536	.0052180	.0025714
%RSD	3.769035	3.877872	1046.060	14.25353	104.9302	2.248904	34.96186

#1	.4282745	.0287969	-.000033	-.003310	-.000380	.2357975	.0044068
#2	.4472838	.0268605	-.000111	-.002551	-.001099	.2342079	.0091345
#3	.4617763	.0270438	.000189	-.003301	-.000052	.2260703	.0085236

Sample Name: Q2080-12DUP Acquired: 5/21/2025 18:33:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2381627	-.003249	.0322656
Stddev	.0031973	.000030	.0001514
%RSD	1.342469	.9348912	.4692532

#1	.2406574	-.003247	.0323049
#2	.2345585	-.003219	.0320984
#3	.2392723	-.003280	.0323935

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2677.098	62274.42	18040.12	2423.212	3870.078
Stddev	9.114	203.51	36.25	16.638	1.105
%RSD	.3404375	.3267953	.2009386	.6865926	.0285582

#1	2681.292	62405.91	18006.18	2434.670	3871.295
#2	2683.360	62377.34	18078.31	2430.838	3869.800
#3	2666.642	62040.00	18035.86	2404.128	3869.138

Sample Name: Q2080-12LX5 Acquired: 5/21/2025 18:37:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.000780	-.002464	-.001120	-.000949	-.000155	.0090207	.0629727
Stddev	.001518	.002302	.002205	.005093	.001789	.0017277	.0014810
%RSD	194.7593	93.43484	196.8051	536.6287	1155.203	19.15311	2.351823

#1	-.002233	-.005113	-.003623	-.006720	.001813	.0088094	.0625450
#2	.000796	-.000943	.000537	.000959	-.000596	.0074082	.0646204
#3	-.000901	-.001336	-.000275	.002914	-.001681	.0108443	.0617525

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000179	.0000015	2.537064	.0000496	-.000025	.0022234	.0036609
Stddev	.0000408	.0001311	.012962	.0000971	.000267	.0002771	.0074251
%RSD	228.7739	8635.953	.5109242	195.6776	1049.646	12.46191	202.8217

#1	-.000000	-.000103	2.523710	.0000796	.000256	.0019634	-.003073
#2	-.000011	-.000041	2.537884	-.000059	-.000275	.0021920	.002432
#3	.000065	.000149	2.549596	.000128	-.000057	.0025149	.011624

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032437	.5376345	.0002271	.0001666	74.37517	.0007073	.0218803
Stddev	.0004626	.0157597	.0001516	.0001058	.24522	.0012053	.0002561
%RSD	14.26072	2.931301	66.74747	63.47163	.3297002	170.4093	1.170565

#1	.0027882	.5230582	.0002061	.0001031	74.46980	-.000449	.0216604
#2	.0037130	.5354880	.0003881	.0002887	74.55898	.001956	.0218190
#3	.0032298	.5543575	.0000871	.0001081	74.09674	.000615	.0221615

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1418689	.0090630	-.000266	-.001653	-.000429	.0681870	.0016831
Stddev	.0095513	.0002682	.000328	.000106	.000232	.0067472	.0050260
%RSD	6.732449	2.958922	123.3534	6.426859	54.08398	9.895126	298.6229

#1	.1442002	.0093700	-.000594	-.001747	-.000441	.0724936	-.001792
#2	.1500387	.0088749	-.000266	-.001537	-.000654	.0604110	.007446
#3	.1313679	.0089440	.000062	-.001674	-.000191	.0716564	-.000604

Sample Name: Q2080-12LX5 Acquired: 5/21/2025 18:37:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0689010	.0008733	.0094914
Stddev	.0028997	.0009454	.0000514
%RSD	4.208538	108.2598	.5411934

#1	.0694525	.0002005	.0095341
#2	.0657651	.0004651	.0095057
#3	.0714854	.0019542	.0094344

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2707.647	63274.20	17444.70	2445.025	3993.685
Stddev	8.719	245.11	54.23	14.901	15.444
%RSD	.3220164	.3873710	.3108873	.6094558	.3867115

#1	2698.920	63139.10	17382.74	2440.276	3994.889
#2	2716.359	63126.37	17467.75	2433.077	4008.491
#3	2707.662	63557.13	17483.59	2461.722	3977.674

Sample Name: Q2080-12MS Acquired: 5/21/2025 18:42:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.8195563	1.924753	.9851237	1.985581	.8125572	1.994366	.4953034
Stddev	.0029786	.012928	.0046513	.009300	.0025054	.004811	.0011003
%RSD	.3634352	.6716951	.4721538	.4683941	.3083360	.2412428	.2221473

#1	.8211167	1.939402	.9878934	1.977068	.8106682	1.997657	.4959069
#2	.8161217	1.914940	.9877239	1.984167	.8116041	1.996597	.4959700
#3	.8214305	1.919916	.9797537	1.995507	.8153993	1.988844	.4940335

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1988857	.2071386	13.28250	.4082711	.2012170	.2997495	2.884296
Stddev	.0004448	.0007166	.04631	.0029886	.0005058	.0008306	.014309
%RSD	.2236198	.3459449	.3486550	.7320253	.2513852	.2770908	.4961112

#1	.1984084	.2070516	13.33098	.4048229	.2007885	.3000672	2.887461
#2	.1992884	.2078947	13.27780	.4098750	.2017750	.2988069	2.896758
#3	.1989603	.2064695	13.23872	.4101154	.2010875	.3003743	2.868669

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2138997	4.505447	.5032929	.0519828	360.0005	.2978691	.2738681
Stddev	.0005934	.030323	.0017547	.0003228	2.7244	.0011818	.0017208
%RSD	.2774050	.6730193	.3486509	.6208875	.7567654	.3967445	.6283205

#1	.2145848	4.530824	.5016113	.0523520	357.2288	.2965237	.2733052
#2	.2135529	4.513650	.5051126	.0517544	360.0977	.2983444	.2724993
#3	.2135613	4.471867	.5031548	.0518419	362.6749	.2987393	.2757998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.60562	.3250422	.4311512	.7358860	.2021465	1.177235	6.508935
Stddev	.02323	.0024178	.0009385	.0035043	.0006518	.012285	.013493
%RSD	.2189978	.7438313	.2176755	.4762073	.3224451	1.043511	.2072994

#1	10.58985	.3223538	.4301061	.7342778	.2027601	1.190416	6.507753
#2	10.63229	.3257345	.4319218	.7399058	.2022171	1.166105	6.522980
#3	10.59473	.3270383	.4314259	.7334744	.2014622	1.175185	6.496072

Sample Name: Q2080-12MS Acquired: 5/21/2025 18:42:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3503002	.2015614	.2374594
Stddev	.0016367	.0008477	.0003299
%RSD	.4672405	.4205602	.1389183

#1	.3504155	.2005828	.2377648
#2	.3486089	.2020660	.2375038
#3	.3518763	.2020356	.2371096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2620.468	62337.16	17107.59	2374.255	3773.009
Stddev	6.980	85.27	41.79	19.059	2.063
%RSD	.2663753	.1367827	.2442962	.8027448	.0546792

#1	2616.651	62292.57	17072.04	2370.542	3773.077
#2	2628.524	62435.48	17153.63	2394.897	3770.913
#3	2616.229	62283.44	17097.10	2357.325	3775.037

Sample Name: Q2080-12MSD Acquired: 5/21/2025 18:46:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.8215675	1.852981	.9843066	2.016117	.8151986	1.976916	.5158802
Stddev	.0035457	.025484	.0077982	.007267	.0047409	.002244	.0025630
%RSD	.4315746	1.375299	.7922545	.3604229	.5815600	.1134894	.4968129

#1	.8208961	1.824123	.9753442	2.012697	.8097358	1.976310	.5146279
#2	.8184056	1.862425	.9880342	2.011192	.8182369	1.979400	.5188285
#3	.8254009	1.872395	.9895415	2.024463	.8176232	1.975038	.5141841

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1839431	.2071686	13.50809	.4280837	.2010607	.2993293	3.168164
Stddev	.0011841	.0009478	.03009	.0007797	.0006545	.0014736	.012798
%RSD	.6437474	.4574923	.2227803	.1821490	.3255101	.4922934	.4039428

#1	.1850200	.2060763	13.53619	.4289833	.2004945	.2976893	3.156451
#2	.1841343	.2076554	13.51174	.4276023	.2009103	.2997566	3.181823
#3	.1826750	.2077740	13.47633	.4276654	.2017773	.3005421	3.166218

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2154017	4.495238	.5088402	.0671272	400.7548	.2988659	.2795060
Stddev	.0009803	.041043	.0027073	.0005562	4.6932	.0001521	.0006986
%RSD	.4550908	.9130395	.5320461	.8285803	1.171095	.0508885	.2499488

#1	.2158011	4.526397	.5057692	.0671609	396.9893	.2989454	.2791725
#2	.2161193	4.510583	.5098701	.0676658	399.2625	.2989618	.2790366
#3	.2142848	4.448733	.5108814	.0665549	406.0128	.2986906	.2803089

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.32074	.3026438	.4293921	.7307992	.2008716	1.245071	6.434748
Stddev	.03659	.0029242	.0009792	.0028992	.0012578	.008315	.028980
%RSD	.3232324	.9662286	.2280367	.3967124	.6261686	.6678363	.4503745

#1	11.28256	.3034214	.4287497	.7278593	.2006905	1.251969	6.401284
#2	11.32416	.3051007	.4289075	.7308825	.2022101	1.247406	6.451538
#3	11.35550	.2994094	.4305191	.7336559	.1997142	1.235838	6.451421

Sample Name: Q2080-12MSD Acquired: 5/21/2025 18:46:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.3693447	.2005541	.2421189
Stddev	.0026682	.0010434	.0004728
%RSD	.7224117	.5202489	.1952881

#1	.3662929	.1996729	.2417514
#2	.3705039	.2017062	.2426523
#3	.3712371	.2002833	.2419529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2609.320	62842.65	18560.44	2366.986	3763.584
Stddev	4.232	180.67	126.85	1.351	6.112
%RSD	.1621910	.2874987	.6834425	.0570681	.1624065

#1	2604.541	62634.05	18425.89	2365.679	3763.966
#2	2610.827	62944.16	18577.58	2368.377	3757.290
#3	2612.593	62949.73	18677.85	2366.902	3769.497

Sample Name: Q2080-12A Acquired: 5/21/2025 18:50:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7598046	1.816577	.9409102	1.863609	.7294889	1.845265	.4554978
Stddev	.0025374	.014257	.0069113	.012738	.0038370	.003190	.0034939
%RSD	.3339559	.7848276	.7345358	.6835370	.5259793	.1728649	.7670605

#1	.7584193	1.814976	.9349644	1.850082	.7250614	1.845406	.4590727
#2	.7582614	1.831566	.9484931	1.875376	.7315596	1.842007	.4520908
#3	.7627332	1.803187	.9392732	1.865369	.7318456	1.848382	.4553299

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1823445	.1968477	11.61319	.3878265	.1900098	.2806893	2.913289
Stddev	.0003553	.0003961	.04143	.0002106	.0004242	.0015577	.017155
%RSD	.1948463	.2012163	.3567460	.0543126	.2232669	.5549561	.5888668

#1	.1819529	.1967241	11.64899	.3879635	.1895530	.2788924	2.933094
#2	.1824343	.1972908	11.56781	.3879320	.1903914	.2816571	2.903027
#3	.1826463	.1965281	11.62277	.3875840	.1900851	.2815183	2.903745

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2115521	4.080065	.4789602	.0686604	324.0825	.2844558	.2518444
Stddev	.0004499	.013335	.0006265	.0005768	1.6879	.0038164	.0020496
%RSD	.2126629	.3268274	.1308061	.8399971	.5208247	1.341631	.8138485

#1	.2120567	4.091100	.4782807	.0692444	322.9255	.2856255	.2535151
#2	.2114066	4.065248	.4795149	.0686456	326.0193	.2801915	.2524608
#3	.2111929	4.083849	.4790851	.0680912	323.3026	.2875503	.2495573

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.24795	.2940020	.3869792	.6674238	.1860929	1.094491	6.143439
Stddev	.02512	.0002642	.0015708	.0017605	.0016009	.004685	.029507
%RSD	.2450969	.0898565	.4059038	.2637755	.8602905	.4280521	.4802969

#1	10.24185	.2939102	.3854097	.6654290	.1878401	1.092172	6.110085
#2	10.22644	.2937960	.3885512	.6687601	.1846963	1.099883	6.166142
#3	10.27555	.2942998	.3869768	.6680824	.1857422	1.091417	6.154089

Sample Name: Q2080-12A Acquired: 5/21/2025 18:50:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2966579	.1873987	.2241976
Stddev	.0054770	.0003023	.0010136
%RSD	1.846223	.1613257	.4520945

#1	.2945939	.1873964	.2251461
#2	.2925128	.1870975	.2231295
#3	.3028670	.1877021	.2243173

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.104	64143.67	18290.13	2500.668	3905.226
Stddev	5.481	215.18	86.47	21.419	5.141
%RSD	.2009733	.3354733	.4727825	.8565137	.1316322

#1	2733.418	63933.49	18193.62	2476.232	3909.629
#2	2723.569	64134.00	18360.55	2509.585	3899.577
#3	2724.326	64363.53	18316.23	2516.188	3906.472

Sample Name: Q2070-01 Acquired: 5/21/2025 18:54:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0413396	-.012832	.0920841	-.029759	.0102032	137.8107
Stddev	.0003711	.006399	.0048456	.004771	.0031531	.3329
%RSD	.8976808	49.86669	5.262195	16.03358	30.90267	.2415522

#1	.0410905	-.014931	.0976680	-.027833	.0072003	138.1470
#2	.0411623	-.017917	.0889834	-.035192	.0134875	137.8037
#3	.0417661	-.005647	.0896008	-.026251	.0099216	137.4813

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.217576	.0058155	.0033830	1680.708	.2392964	.0507879
Stddev	.007760	.0000468	.0001480	10.098	.0014226	.0001219
%RSD	.6373201	.8044339	4.375251	.6008405	.5945064	.2399576

#1	1.226249	.0058389	.0032703	1686.440	.2402807	.0509279
#2	1.215191	.0058460	.0033280	1686.636	.2376653	.0507052
#3	1.211289	.0057617	.0035506	1669.048	.2399432	.0507307

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1046566	141.2989	2.016457	81.77731	.1423030	.0006423
Stddev	.0006921	.9155	.010962	.00945	.0005107	.0003963
%RSD	.6613510	.6478822	.5436165	.0115570	.3588800	61.69570

#1	.1041984	142.1121	2.027857	81.78634	.1418912	.0007879
#2	.1043186	141.4771	2.015521	81.76749	.1421433	.0009452
#3	.1054528	140.3074	2.005994	81.77810	.1428744	.0001938

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.21715	.2553456	.3701423	56.24790	.2926371	.0135268
Stddev	.21861	.0037559	.0009022	.42456	.0004178	.0004754
%RSD	1.081317	1.470921	.2437426	.7547975	.1427725	3.514466

#1	20.42916	.2594726	.3697767	56.60189	.2921586	.0140242
#2	20.22980	.2521274	.3694802	56.36463	.2928235	.0130770
#3	19.99248	.2544369	.3711699	55.77719	.2929293	.0134790

Sample Name: Q2070-01 Acquired: 5/21/2025 18:54:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-0.003764	5.647310	8.612116	6.597773	F 82.17193	-0.083346
Stddev	.000994	.024945	.041810	.033612	.37124	.000339
%RSD	26.40468	.4417164	.4854770	.5094484	.4517848	.4063897

#1	-0.004776	5.674191	8.616391	6.559102	81.77664	-0.083111
#2	-0.003726	5.642829	8.651625	6.614245	82.22597	-0.083735
#3	-0.002789	5.624908	8.568333	6.619973	82.51320	-0.083193

Elem	Sr4077
Units	ppm
Avg	6.777045
Stddev	.020123
%RSD	.2969271

#1	6.775286
#2	6.757859
#3	6.797990

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2579.605	59322.13	18644.64	2319.189	3224.665
Stddev	7.917	27.02	46.82	3.292	9.316
%RSD	.3069101	.0455507	.2511311	.1419299	.2888940

#1	2571.989	59329.46	18668.11	2315.795	3215.144
#2	2587.792	59292.19	18675.08	2319.405	3233.761
#3	2579.033	59344.72	18590.72	2322.367	3225.089

Sample Name: Q2071-01 Acquired: 5/21/2025 18:59:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0565371	.0126296	.1506669	-.024927	-.002304	126.5886	1.633637
Stddev	.0027624	.0014247	.0015730	.003952	.003581	.8227	.010563
%RSD	4.886043	11.28068	1.044012	15.85605	155.4332	.6499208	.6465826

#1	.0589616	.0114430	.1517237	-.027505	-.006431	127.0749	1.644686
#2	.0571198	.0122362	.1488592	-.020376	-.000476	125.6386	1.623638
#3	.0535298	.0142097	.1514178	-.026899	-.000006	127.0521	1.632588

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096585	.0055121	25.04975	.2709350	.1017530	.2477882	261.9383
Stddev	.0001205	.0003546	.14935	.0007452	.0006184	.0012015	1.2885
%RSD	1.247931	6.433010	.5962131	.2750351	.6076926	.4848762	.4918943

#1	.0097765	.0053258	25.18722	.2713842	.1018100	.2464091	263.4259
#2	.0096635	.0052895	24.89084	.2700748	.1011081	.2486087	261.1748
#3	.0095356	.0059211	25.07119	.2713460	.1023409	.2483467	261.2143

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.098542	45.93313	.2429921	-.000147	4.771676	.3252405	.5510121
Stddev	.020256	.29523	.0007679	.000129	.038043	.0024107	.0023287
%RSD	.6537179	.6427448	.3160352	87.38599	.7972603	.7412090	.4226256

#1	3.118296	46.14397	.2422049	-.000012	4.815222	.3263050	.5526076
#2	3.077820	45.59571	.2430322	-.000269	4.754908	.3224807	.5520889
#3	3.099509	46.05970	.2437392	-.000161	4.744897	.3269356	.5483399

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.95053	.0838678	.0067674	.0171684	2.081272	3.642817	4.622408
Stddev	.04037	.0015456	.0004680	.0004296	.007394	.017073	.021187
%RSD	.2893855	1.842896	6.914707	2.502049	.3552728	.4686859	.4583460

#1	13.99235	.0846896	.0063351	.0167327	2.089336	3.637742	4.605959
#2	13.91178	.0848290	.0072643	.0171809	2.074811	3.628856	4.614949
#3	13.94746	.0820850	.0067028	.0175916	2.079669	3.661852	4.646315

Sample Name: Q2071-01 Acquired: 5/21/2025 18:59:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.5778616	.3161674	-.098037
Stddev	.0125650	.0011557	.000335
%RSD	2.174394	.3655423	.3414521

#1	.5902730	.3172117	-.098208
#2	.5781632	.3149257	-.098252
#3	.5651485	.3163648	-.097651

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3116.762	71057.27	19928.05	2780.208	3912.742
Stddev	18.602	189.21	136.51	15.773	21.403
%RSD	.5968484	.2662753	.6850119	.5673454	.5470026

#1	3122.429	70873.99	19846.64	2765.375	3920.847
#2	3131.873	71251.89	20085.65	2778.472	3928.908
#3	3095.986	71045.93	19851.86	2796.778	3888.470

Sample Name: CCV06 Acquired: 5/21/2025 19:08:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.941219	4.911278	4.994297	4.941551	4.875383	9.728627	9.565967
Stddev	.010796	.046796	.004719	.017672	.008660	.050502	.046511
%RSD	.2184920	.9528248	.0944941	.3576303	.1776285	.5191063	.4862161

#1	4.941477	4.965274	4.998531	4.957489	4.870157	9.763258	9.616988
#2	4.951884	4.886065	4.995151	4.944619	4.885380	9.751943	9.554982
#3	4.930296	4.882495	4.989209	4.922546	4.870613	9.670679	9.525932

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2515156	2.500928	24.58004	1.012526	2.475654	1.237000	4.966298
Stddev	.0002912	.001663	.17237	.000665	.002792	.003230	.040667
%RSD	.1157663	.0664813	.7012533	.0657271	.1127860	.2610793	.8188608

#1	.2515021	2.502807	24.67440	1.012005	2.478819	1.233283	4.967887
#2	.2518133	2.500331	24.68462	1.013276	2.473541	1.239119	5.006148
#3	.2512314	2.499647	24.38109	1.012298	2.474601	1.238599	4.924860

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.432653	24.83850	2.486322	1.244091	23.64867	2.453593	2.488148
Stddev	.014190	.25017	.002365	.003996	.07791	.009675	.009216
%RSD	.5833006	1.007188	.0951381	.3212236	.3294446	.3943283	.3704053

#1	2.443861	25.03486	2.488954	1.242720	23.64228	2.454727	2.489985
#2	2.437400	24.92381	2.484374	1.240961	23.72958	2.462652	2.496308
#3	2.416698	24.55684	2.485638	1.248593	23.57415	2.443401	2.478152

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.96076	4.949441	4.935049	4.985579	4.838415	4.987803	5.061169
Stddev	.08453	.005635	.005250	.009000	.020051	.020919	.003226
%RSD	.3527736	.1138482	.1063743	.1805138	.4144181	.4194072	.0637404

#1	23.98908	4.949707	4.929499	4.995821	4.848346	5.002545	5.057696
#2	24.02749	4.943678	4.939935	4.981981	4.851563	4.997004	5.061738
#3	23.86571	4.954938	4.935712	4.978935	4.815337	4.963861	5.064073

Sample Name: CCV06 Acquired: 5/21/2025 19:08:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	4.899255	4.657346	4.814428
Stddev	.017044	.021847	.049328
%RSD	.3478965	.4690964	1.024582

#1	4.913096	4.645092	4.757469
#2	4.880217	4.682570	4.843033
#3	4.904451	4.644376	4.842782

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2762.300	63506.09	17955.55	2463.172	4032.780
Stddev	2.817	76.20	16.14	8.374	4.780
%RSD	.1019786	.1199885	.0899095	.3399831	.1185222

#1	2765.541	63593.25	17960.23	2462.573	4033.089
#2	2760.911	63472.96	17937.59	2455.114	4037.397
#3	2760.446	63452.07	17968.84	2471.830	4027.853

Sample Name: CCB06 Acquired: 5/21/2025 19:16:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001625	-.003496	-.000301	-.002075	.0000251	.0022958	-.001535
Stddev	.002565	.002325	.000148	.000214	.0012570	.0052448	.001642
%RSD	157.7869	66.48261	49.29146	10.28970	5005.591	228.4528	106.9474

#1	.001147	-.005180	-.000431	-.002270	-.000892	-.002922	.000330
#2	-.003913	-.004466	-.000139	-.002108	.001458	.002243	-.002761
#3	-.002111	-.000844	-.000333	-.001847	-.000491	.007567	-.002175

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000085	-.000061	-.010020	-.000130	.0003165	.0003214	.0009190
Stddev	.0000294	.000097	.008050	.000303	.0003618	.0000710	.0055866
%RSD	344.9197	158.5751	80.33199	233.6267	114.3127	22.08947	607.8757

#1	.0000106	-.000047	-.006164	-.000107	.0006662	.0003389	.0068044
#2	.0000368	.000028	-.019273	-.000443	.0003393	.0003820	-.004311
#3	-.000022	-.000165	-.004625	.000162	-.000056	.0002433	.000264

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000297	-.009314	.0000358	.0001061	-.062783	.0010935	-.000134
Stddev	.000130	.010979	.0001394	.0001492	.008057	.0012327	.000439
%RSD	43.60372	117.8763	389.5956	140.6898	12.83303	112.7282	327.5097

#1	-.000426	-.006157	.0000959	.0000744	-.066471	.0021581	.000358
#2	-.000167	-.021526	.0001351	.0002686	-.068336	-.000257	-.000483
#3	-.000299	-.000259	-.000124	-.000025	-.053542	.001380	-.000277

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.033803	.0058462	.0002046	-.000965	-.000185	.0007734	-.002100
Stddev	.014688	.0007639	.0003089	.000958	.000844	.0091619	.003652
%RSD	43.45206	13.06716	150.9934	99.25990	455.9895	1184.598	173.8861

#1	-.025250	.0055310	.0004786	-.000577	-.001129	-.002188	.002052
#2	-.050763	.0067174	-.000130	-.002056	.000498	.011050	-.003538
#3	-.025396	.0052904	.000265	-.000262	.000076	-.006541	-.004814

Sample Name: CCB06 Acquired: 5/21/2025 19:16:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002010	.0007437	-.000066
Stddev	.001633	.0008698	.000072
%RSD	81.23616	116.9511	108.7708

#1	-.002086	-.000224	-.000015
#2	-.000340	.000995	-.000035
#3	-.003603	.001460	-.000148

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2930.709	68929.54	17813.40	2655.574	4424.661
Stddev	5.620	213.91	13.18	15.419	6.203
%RSD	.1917645	.3103256	.0740080	.5806417	.1401856

#1	2924.871	69059.07	17799.90	2662.293	4420.862
#2	2931.173	68682.64	17826.25	2637.935	4431.819
#3	2936.083	69046.90	17814.04	2666.493	4421.303

Sample Name: Q2071-05 Acquired: 5/21/2025 19:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2101339	.0124190	.9876855	-.027676	-.004531	124.2691	1.262056
Stddev	.0037537	.0028962	.0019630	.001691	.001151	.0850	.003379
%RSD	1.786325	23.32085	.1987509	6.110548	25.40592	.0683959	.2677546

#1	.2090654	.0115890	.9867052	-.025748	-.003699	124.2527	1.265628
#2	.2143059	.0100285	.9864057	-.028909	-.004049	124.3611	1.261633
#3	.2070302	.0156397	.9899456	-.028372	-.005845	124.1935	1.258909

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109943	.0078937	19.88869	.2205456	.1135767	.4228484	267.0630
Stddev	.0001113	.0000330	.02711	.0006021	.0007106	.0007283	.5753
%RSD	1.012369	.4183741	.1363047	.2729883	.6256249	.1722435	.2153991

#1	.0111013	.0078576	19.89407	.2199123	.1135598	.4220128	266.4160
#2	.0110024	.0079011	19.91271	.2206137	.1128747	.4233489	267.5165
#3	.0108792	.0079224	19.85929	.2211106	.1142955	.4231834	267.2566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.639612	32.26764	.2006057	.0009850	3.105414	.3740947	1.658949
Stddev	.017003	.01925	.0003356	.0004387	.007096	.0003883	.004213
%RSD	.1967976	.0596518	.1673117	44.53384	.2285002	.1037899	.2539803

#1	8.657600	32.25530	.2002263	.0013208	3.112948	.3736994	1.655821
#2	8.637429	32.25779	.2007268	.0004887	3.104435	.3744755	1.657286
#3	8.623806	32.28982	.2008639	.0011455	3.098858	.3741092	1.663740

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.647342	.0832561	.0054229	.0380596	1.503872	5.420668	5.748813
Stddev	.018595	.0007877	.0003259	.0010148	.004490	.025308	.003589
%RSD	.2431592	.9461071	6.010485	2.666427	.2985574	.4668859	.0624385

#1	7.662895	.0825536	.0051164	.0381260	1.508276	5.391564	5.744686
#2	7.652386	.0831071	.0053870	.0390396	1.504038	5.432936	5.751210
#3	7.626745	.0841077	.0057654	.0370132	1.499301	5.437506	5.750542

Sample Name: Q2071-05 Acquired: 5/21/2025 19:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.182988	.2724604	-.123444
Stddev	.009065	.0017112	.001173
%RSD	.7662951	.6280627	.9503389

#1	1.174535	.2732635	-.122094
#2	1.181867	.2736224	-.124017
#3	1.192561	.2704954	-.124220

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2937.764	69726.01	19825.30	2689.753	3947.363
Stddev	5.823	505.19	48.87	14.175	5.093
%RSD	.1982222	.7245337	.2465006	.5270074	.1290313

#1	2942.815	70303.08	19869.70	2702.196	3948.645
#2	2931.395	69511.37	19833.27	2692.740	3941.751
#3	2939.083	69363.59	19772.94	2674.322	3951.693

Sample Name: Q2071-09 Acquired: 5/21/2025 19:24:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0602012	.0016744	.2431878	-.013256	-.001561	111.2649	1.555274
Stddev	.0011721	.0015237	.0027826	.006226	.002344	.1303	.002566
%RSD	1.946934	91.00109	1.144220	46.96535	150.1230	.1171089	.1650108

#1	.0591768	.0000036	.2412817	-.006068	-.000401	111.4067	1.557935
#2	.0599476	.0029874	.2419008	-.016959	-.000024	111.1504	1.552814
#3	.0614794	.0020322	.2463809	-.016741	-.004259	111.2376	1.555072

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0121743	.0050839	36.76004	.2944861	.1800245	.2600508	191.4595
Stddev	.0000504	.0001897	.06591	.0049729	.0001781	.0005541	2.2083
%RSD	.4141941	3.731073	.1793016	1.688663	.0989134	.2130625	1.153408

#1	.0121490	.0050090	36.82956	.2905058	.1801085	.2602347	190.2486
#2	.0121415	.0052996	36.69846	.2928920	.1801450	.2604896	190.1215
#3	.0122323	.0049431	36.75210	.3000606	.1798200	.2594282	194.0084

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.592618	58.25586	.3585904	.0016247	4.332528	.3859705	.8048236
Stddev	.011086	.12542	.0012391	.0003652	.063835	.0027723	.0162933
%RSD	.4275841	.2152874	.3455488	22.47691	1.473400	.7182648	2.024452

#1	2.605413	58.39911	.3573376	.0020061	4.294611	.3832343	.7938106
#2	2.586535	58.16581	.3598153	.0015896	4.296745	.3887775	.7971201
#3	2.585905	58.20266	.3586184	.0012783	4.406229	.3858996	.8235402

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.37136	.0859744	.0027643	.0027761	3.084547	3.350230	5.029502
Stddev	.26612	.0009946	.0000895	.0012742	.006009	.043751	.006538
%RSD	1.373782	1.156900	3.236006	45.90018	.1948132	1.305923	.1299916

#1	19.21894	.0855426	.0027398	.0013813	3.090411	3.312320	5.022146
#2	19.21650	.0852686	.0026896	.0038792	3.078403	3.340266	5.031709
#3	19.67865	.0871119	.0028634	.0030677	3.084825	3.398104	5.034651

Sample Name: Q2071-09 Acquired: 5/21/2025 19:24:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7525289	.3288216	-.004440
Stddev	.0045945	.0006403	.002266
%RSD	.6105452	.1947390	51.02086

#1	.7480707	.3290704	-.003155
#2	.7572486	.3280942	-.003110
#3	.7522674	.3293002	-.007056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3293.987	75826.26	22494.73	2964.466	3933.312
Stddev	2.803	943.58	73.17	39.616	5.652
%RSD	.0850974	1.244399	.3252800	1.336358	.1437068

#1	3294.549	76326.91	22415.60	2978.734	3939.550
#2	3290.945	76414.00	22559.94	2994.972	3928.529
#3	3296.466	74737.87	22508.66	2919.693	3931.857

Sample Name: Q2071-13 Acquired: 5/21/2025 19:28:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0458241	.0093355	.1697658	-.019382	-.003762	116.6371	.9372761
Stddev	.0058908	.0018395	.0015444	.003968	.004012	.1313	.0024789
%RSD	12.85533	19.70504	.9097216	20.47138	106.6426	.1125604	.2644822

#1	.0395446	.0114368	.1710463	-.018281	-.000324	116.7873	.9377752
#2	.0466993	.0085534	.1702005	-.023785	-.008170	116.5793	.9394674
#3	.0512283	.0080161	.1680507	-.016082	-.002791	116.5446	.9345855

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067332	.0028500	11.29324	.1987295	.0837891	.1746549	194.5464
Stddev	.0001170	.0001741	.04186	.0007400	.0001668	.0011385	.3877
%RSD	1.737914	6.110279	.3706856	.3723713	.1990489	.6518584	.1992716

#1	.0067113	.0026517	11.31680	.1994609	.0839732	.1758929	194.1676
#2	.0068596	.0029200	11.31802	.1979812	.0836480	.1736529	194.5294
#3	.0066287	.0029782	11.24491	.1987463	.0837462	.1744189	194.9423

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.075600	31.01942	.1610739	-.000845	4.992930	.2623743	.5687843
Stddev	.011292	.11680	.0008867	.000256	.035851	.0019368	.0019260
%RSD	.3671438	.3765242	.5504954	30.29817	.7180255	.7381823	.3386204

#1	3.077802	31.12956	.1613607	-.000977	4.953876	.2644131	.5684180
#2	3.085628	31.03174	.1600793	-.000550	5.024346	.2621509	.5708671
#3	3.063369	30.89695	.1617817	-.001008	5.000569	.2605589	.5670677

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.194387	.0469248	.0038688	.0148423	1.468384	3.442062	2.689134
Stddev	.006072	.0013015	.0003065	.0000778	.004266	.018188	.004623
%RSD	.0980310	2.773610	7.923523	.5245223	.2905448	.5283960	.1719273

#1	6.192418	.0461444	.0040611	.0147872	1.468862	3.445775	2.684620
#2	6.189544	.0462027	.0040299	.0148083	1.472391	3.422304	2.688923
#3	6.201200	.0484272	.0035153	.0149313	1.463899	3.458107	2.693859

Sample Name: Q2071-13 Acquired: 5/21/2025 19:28:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.8793644	.2514393	-.060222
Stddev	.0020950	.0016897	.000789
%RSD	.2382409	.6719911	1.310533

#1	.8798820	.2494910	-.059705
#2	.8770591	.2523230	-.059830
#3	.8811520	.2525038	-.061130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2927.262	68031.76	18277.83	2666.714	4049.437
Stddev	7.812	261.12	86.47	3.901	11.517
%RSD	.2668835	.3838172	.4731033	.1462890	.2844192

#1	2935.556	67926.39	18182.15	2666.030	4060.802
#2	2920.042	68329.10	18300.93	2663.200	4037.773
#3	2926.187	67839.80	18350.41	2670.912	4049.737

Sample Name: Q2071-17 Acquired: 5/21/2025 19:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0603599	.0128882	.1880294	-.024704	-.005641	124.3896	2.021243
Stddev	.0019429	.0009517	.0017431	.001250	.000923	.1523	.003921
%RSD	3.218823	7.384135	.9270479	5.058479	16.36277	.1224606	.1939767

#1	.0611500	.0120475	.1900363	-.023273	-.006677	124.4174	2.019108
#2	.0581464	.0126957	.1868925	-.025259	-.005337	124.2253	2.018854
#3	.0617832	.0139214	.1871594	-.025581	-.004908	124.5262	2.025768

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111655	.0062017	30.49662	.2639991	.1168028	.2332020	262.5992
Stddev	.0001243	.0001279	.10597	.0005071	.0002936	.0006033	1.3911
%RSD	1.113409	2.061984	.3474916	.1920748	.2513998	.2587037	.5297278

#1	.0112985	.0063392	30.46359	.2638231	.1171359	.2328695	261.0151
#2	.0110521	.0061798	30.41109	.2636035	.1166915	.2338984	263.1610
#3	.0111460	.0060863	30.61517	.2645708	.1165811	.2328380	263.6215

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.602706	48.03021	.2915990	.0013719	6.378968	.3387882	.6270173
Stddev	.013172	.10687	.0005034	.0003315	.031305	.0020612	.0015465
%RSD	.2861702	.2225159	.1726474	24.16168	.4907571	.6083921	.2466490

#1	4.597278	48.09024	.2910626	.0010270	6.343093	.3386210	.6282076
#2	4.593116	47.90682	.2916733	.0016881	6.393067	.3409278	.6275750
#3	4.617724	48.09358	.2920612	.0014007	6.400744	.3368157	.6252692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.92584	.1069280	.0029720	.0043419	2.649058	1.653715	4.632217
Stddev	.08107	.0023945	.0001146	.0008855	.008507	.019220	.006816
%RSD	.5821519	2.239324	3.855478	20.39535	.3211474	1.162217	.1471345

#1	13.83232	.1041969	.0030477	.0039036	2.651066	1.631541	4.637667
#2	13.96894	.1086664	.0028402	.0037609	2.639727	1.665595	4.624575
#3	13.97625	.1079208	.0030281	.0053611	2.656382	1.664009	4.634408

Sample Name: Q2071-17 Acquired: 5/21/2025 19:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.885313	.3447056	-.062806
Stddev	.012192	.0014375	.001173
%RSD	.6466772	.4170070	1.867118

#1	1.882706	.3445935	-.061458
#2	1.874635	.3433275	-.063594
#3	1.898597	.3461958	-.063365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3194.908	74885.96	21820.44	2912.520	3979.641
Stddev	3.642	121.77	117.14	13.337	.731
%RSD	.1139806	.1626011	.5368574	.4579149	.0183666

#1	3196.430	74966.77	21754.76	2926.907	3978.799
#2	3190.752	74945.19	21955.69	2900.569	3980.112
#3	3197.542	74745.91	21750.87	2910.086	3980.013

Sample Name: Q2074-01 Acquired: 5/21/2025 19:36:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0418038	.0080320	.1979377	-.019649	-.005272	84.88889	.6740043
Stddev	.0055466	.0014793	.0018469	.002739	.001296	.17334	.0016928
%RSD	13.26807	18.41737	.9330525	13.93943	24.57947	.2041923	.2511615

#1	.0377103	.0088446	.1973042	-.022502	-.003844	84.72714	.6720736
#2	.0395849	.0089268	.1964910	-.019406	-.005600	84.86766	.6747048
#3	.0481164	.0063245	.2000180	-.017040	-.006372	85.07186	.6752345

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091479	.0049950	1.532779	.1930792	.0577125	.1379021	185.3009
Stddev	.0001136	.0002224	.008321	.0002258	.0001739	.0008525	.5300
%RSD	1.241336	4.452993	.5428617	.1169399	.3012348	.6181759	.2860240

#1	.0090604	.0052500	1.523174	.1928210	.0578380	.1387182	184.7794
#2	.0091069	.0048407	1.537343	.1932394	.0575140	.1370174	185.8391
#3	.0092762	.0048943	1.537819	.1931774	.0577854	.1379707	185.2841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5233604	12.80461	.1045004	-.000647	2.121192	.3277571	.3450708
Stddev	.0014929	.03066	.0004134	.000323	.012811	.0024542	.0008124
%RSD	.2852467	.2394655	.3956220	49.95192	.6039306	.7488021	.2354176

#1	.5217130	12.80158	.1044652	-.000979	2.108988	.3263067	.3445782
#2	.5237444	12.77557	.1049303	-.000628	2.134533	.3263739	.3446258
#3	.5246237	12.83667	.1041057	-.000334	2.120053	.3305908	.3460085

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.694697	.0662754	.0028231	.0116532	1.464566	2.017419	1.469912
Stddev	.038923	.0007769	.0004675	.0008440	.001790	.012962	.002063
%RSD	1.053488	1.172183	16.55960	7.242331	.1221954	.6425011	.1403555

#1	3.689280	.0658693	.0027483	.0117252	1.466560	2.011607	1.467886
#2	3.736045	.0671712	.0033235	.0124588	1.464040	2.032269	1.472011
#3	3.658766	.0657858	.0023975	.0107755	1.463099	2.008379	1.469840

Sample Name: Q2074-01 Acquired: 5/21/2025 19:36:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.8736924	.1608618	-.119286
Stddev	.0022482	.0004884	.000499
%RSD	.2573166	.3036167	.4184348

#1	.8745573	.1603663	-.118790
#2	.8753796	.1613428	-.119789
#3	.8711402	.1608762	-.119280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3317.652	76763.04	20894.99	3046.339	4133.828
Stddev	2.109	218.92	27.64	16.196	4.977
%RSD	.0635623	.2851937	.1322652	.5316684	.1204082

#1	3315.379	76673.51	20865.75	3037.839	4128.448
#2	3319.545	76603.07	20920.68	3036.162	4134.766
#3	3318.033	77012.54	20898.54	3065.016	4138.270

Sample Name: Q2074-02 Acquired: 5/21/2025 19:41:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0433994	.0137613	.0686846	-.027684	-.004575	120.4712	.3257758
Stddev	.0018515	.0023965	.0014782	.005579	.000339	.2124	.0012924
%RSD	4.266216	17.41463	2.152112	20.15212	7.419270	.1762813	.3967041

#1	.0440876	.0161363	.0677873	-.027515	-.004887	120.3516	.3245168
#2	.0413023	.0138037	.0678758	-.022192	-.004625	120.7164	.3257114
#3	.0448083	.0113439	.0703907	-.033346	-.004214	120.3456	.3270991

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087906	.0068702	3.744384	.1715225	.0907357	.0761767	239.0651
Stddev	.0000334	.0011020	.025292	.0008078	.0023740	.0034564	.9906
%RSD	.3795743	16.03974	.6754714	.4709597	2.616408	4.537273	.4143795

#1	.0088273	.0065494	3.715700	.1708914	.0892478	.0744238	238.4787
#2	.0087621	.0059643	3.763484	.1724329	.0894857	.0739481	240.2089
#3	.0087823	.0080970	3.753967	.1712431	.0934735	.0801583	238.5078

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7627234	4.448171	.0787819	-.001352	5.401311	.2246713	.2049709
Stddev	.0028106	.025437	.0015123	.000631	.045059	.0019845	.0014008
%RSD	.3684988	.5718515	1.919632	46.63518	.8342166	.8832847	.6834090

#1	.7647297	4.454807	.0782991	-.001073	5.385788	.2224544	.2037103
#2	.7595110	4.420073	.0775699	-.000910	5.452079	.2262821	.2064789
#3	.7639295	4.469631	.0804767	-.002075	5.366066	.2252772	.2047234

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.844331	.0708912	.0001801	.0071477	2.065792	1.943556	2.340759
Stddev	.019509	.0016772	.0003693	.0002939	.000945	.014933	.062312
%RSD	.6858764	2.365916	205.0625	4.111599	.0457445	.7683120	2.662050

#1	2.832017	.0722162	-.000246	.0068283	2.066112	1.932281	2.309362
#2	2.866824	.0714518	.000406	.0072082	2.064729	1.960491	2.300392
#3	2.834153	.0690054	.000381	.0074067	2.066536	1.937897	2.412525

Sample Name: Q2074-02 Acquired: 5/21/2025 19:41:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.2278163	.1186793	-.182694
Stddev	.0120231	.0004765	.001062
%RSD	5.277548	.4014938	.5811107

#1	.2191919	.1183569	-.182100
#2	.2227066	.1192266	-.183920
#3	.2415503	.1184544	-.182062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.036	77564.23	21075.91	3031.748	4034.606
Stddev	57.665	293.32	67.24	16.120	80.807
%RSD	1.754850	.3781605	.3190309	.5317169	2.002858

#1	3313.303	77788.13	21041.78	3046.012	4074.450
#2	3325.011	77232.20	21153.37	3014.259	4087.753
#3	3219.794	77672.36	21032.58	3034.973	3941.614

Sample Name: Q2074-03 Acquired: 5/21/2025 19:45:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0414768	.0053088	.3425108	-.010695	.0031036	96.91741	.5031363
Stddev	.0016778	.0006069	.0012973	.004620	.0010861	.17884	.0018706
%RSD	4.045112	11.43239	.3787704	43.19588	34.99412	.1845251	.3717876

#1	.0401244	.0059766	.3418939	-.005836	.0031124	97.11332	.5037054
#2	.0409517	.0051587	.3440015	-.015031	.0020131	96.87601	.5046563
#3	.0433543	.0047909	.3416371	-.011218	.0041852	96.76291	.5010473

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056062	.0040294	5.980801	.1568682	.0363992	.1162830	130.0154
Stddev	.0000819	.0001051	.019859	.0000850	.0000705	.0006712	.3681
%RSD	1.461341	2.609156	.3320392	.0541712	.1936701	.5772526	.2830913

#1	.0055713	.0039366	5.993825	.1569395	.0363459	.1160029	130.0771
#2	.0056998	.0041436	5.990634	.1567741	.0364792	.1170489	129.6204
#3	.0055474	.0040080	5.957945	.1568909	.0363726	.1157972	130.3487

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5465101	6.207467	.0780305	.0005810	5.724976	.2562242	.6072270
Stddev	.0018873	.011211	.0003007	.0001822	.024541	.0022167	.0020098
%RSD	.3453394	.1806061	.3854066	31.36046	.4286588	.8651388	.3309839

#1	.5481301	6.198998	.0778289	.0006267	5.741008	.2582135	.6090726
#2	.5444377	6.203223	.0783762	.0003802	5.696725	.2538346	.6050857
#3	.5469625	6.220181	.0778865	.0007359	5.737197	.2566244	.6075228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.425769	.0335458	.0036550	.0540609	1.096302	1.806276	2.095153
Stddev	.018207	.0008547	.0002412	.0001985	.001970	.007209	.004219
%RSD	.7505775	2.547946	6.599969	.3672169	.1796883	.3990861	.2013826

#1	2.417715	.0338221	.0035846	.0541216	1.098486	1.805379	2.090620
#2	2.412977	.0325871	.0034569	.0538391	1.095763	1.813892	2.095874
#3	2.446614	.0342283	.0039236	.0542219	1.094658	1.799558	2.098965

Sample Name: Q2074-03 Acquired: 5/21/2025 19:45:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.450783	.0900451	-.079797
Stddev	.004476	.0002115	.000366
%RSD	.3084997	.2349198	.4581230

#1	1.445791	.0901669	-.079683
#2	1.454439	.0898009	-.079502
#3	1.452118	.0901676	-.080206

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3103.141	74745.01	20674.56	2873.599	4143.822
Stddev	7.042	78.45	91.04	12.114	6.879
%RSD	.2269298	.1049540	.4403546	.4215784	.1660082

#1	3110.863	74682.62	20646.21	2859.884	4151.322
#2	3097.073	74719.33	20601.07	2878.073	4142.339
#3	3101.489	74833.08	20776.41	2882.841	4137.806

Sample Name: Q2074-04 Acquired: 5/21/2025 19:49:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0474546	.0002452	.1177954	-.011022	-.003201	125.0569	.4018100
Stddev	.0046874	.0019199	.0016669	.001850	.003039	.1897	.0017714
%RSD	9.877708	783.1837	1.415116	16.78323	94.93305	.1516954	.4408503

#1	.0431571	.0014007	.1176441	-.013097	-.006006	124.9319	.4021108
#2	.0467537	-.001971	.1195329	-.010420	-.003624	124.9635	.3999075
#3	.0524531	.001306	.1162093	-.009548	.000027	125.2751	.4034117

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046900	.0018160	4.606048	.1835318	.0449733	.0722304	132.1529
Stddev	.0000281	.0000461	.023944	.0004353	.0000803	.0001246	.3141
%RSD	.5981894	2.539263	.5198373	.2371930	.1785203	.1725245	.2376906

#1	.0047115	.0017671	4.602068	.1834955	.0449904	.0722250	132.5141
#2	.0047003	.0018223	4.584343	.1839842	.0448859	.0721086	132.0006
#3	.0046583	.0018587	4.631732	.1831158	.0450437	.0723577	131.9440

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3992226	11.17031	.0795109	.0011553	10.05278	.3489299	.1853446
Stddev	.0010611	.03522	.0001634	.0003458	.03827	.0018102	.0008888
%RSD	.2658020	.3153282	.2054497	29.92880	.3806806	.5187726	.4795478

#1	.3996173	11.17385	.0796852	.0012660	10.07665	.3468408	.1863646
#2	.3980206	11.13346	.0793613	.0014321	10.07304	.3499182	.1847364
#3	.4000298	11.20364	.0794862	.0007677	10.00864	.3500309	.1849327

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.473109	.0386124	.0013410	.1166138	1.154157	1.481413	1.203272
Stddev	.023804	.0008262	.0002578	.0003995	.001923	.012098	.008272
%RSD	.6853780	2.139763	19.22630	.3425832	.1665919	.8166207	.6874251

#1	3.476700	.0382282	.0010515	.1161553	1.156367	1.490727	1.197864
#2	3.494914	.0380482	.0014256	.1167998	1.152868	1.485772	1.212794
#3	3.447714	.0395607	.0015459	.1168865	1.153235	1.467740	1.199158

Sample Name: Q2074-04 Acquired: 5/21/2025 19:49:27 Type: Unk
 Method: NON EPA-6010-200.7 NEW LR(v55) 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	.5851037	.1225920	-.086497
Stddev	.0063823	.0007022	.000295
%RSD	1.090794	.5728329	.3407144

#1	.5907282	.1224396	-.086836
#2	.5781675	.1219785	-.086297
#3	.5864153	.1233580	-.086359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3098.671	76018.69	21667.90	2910.139	4069.931
Stddev	4.652	146.49	25.82	4.333	4.633
%RSD	.1501213	.1927079	.1191854	.1489008	.1138262

#1	3101.115	76131.10	21691.45	2907.077	4074.250
#2	3093.306	75853.01	21671.96	2915.097	4065.038
#3	3101.591	76071.96	21640.28	2908.242	4070.505

Sample Name: Q2074-05 Acquired: 5/21/2025 19:53:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0316983	.0040895	.0258467	-.009436	.0005435	11.89140	.2947061
Stddev	.0023843	.0018368	.0009782	.001885	.0014151	.01336	.0007393
%RSD	7.521692	44.91485	3.784600	19.97749	260.3637	.1123473	.2508455

#1	.0289461	.0052469	.0248392	-.008200	.0009846	11.87772	.2939883
#2	.0330141	.0019716	.0259081	-.008502	.0016856	11.89207	.2954651
#3	.0331347	.0050499	.0267927	-.011605	-.001040	11.90441	.2946650

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022080	-.001373	.7586520	.0487779	.0085856	.0825292	90.22439
Stddev	.0000687	.000108	.0091383	.0001097	.0001034	.0004396	.14823
%RSD	3.110980	7.898432	1.204549	.2249649	1.204337	.5326368	.1642939

#1	.0022649	-.001258	.7599070	.0486553	.0085800	.0821358	90.13054
#2	.0022274	-.001474	.7489510	.0488669	.0086916	.0830037	90.14735
#3	.0021317	-.001386	.7670980	.0488114	.0084850	.0824481	90.39528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1118617	.5187948	.0077417	.0006979	.6404486	.1117782	.0491427
Stddev	.0006242	.0072038	.0000338	.0002459	.0049337	.0010072	.0004370
%RSD	.5580086	1.388562	.4370523	35.23470	.7703583	.9010764	.8891883

#1	.1116036	.5116793	.0077724	.0008901	.6461277	.1106157	.0494707
#2	.1114079	.5260837	.0077474	.0007827	.6372176	.1123882	.0493108
#3	.1125735	.5186213	.0077054	.0004208	.6380006	.1123308	.0486466

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6321516	.0266288	.0007840	.0455164	.3352184	2.798196	.6328833
Stddev	.0169071	.0002742	.0000716	.0012927	.0003591	.016172	.0036862
%RSD	2.674537	1.029606	9.126466	2.840079	.1071245	.5779318	.5824520

#1	.6189436	.0269047	.0007088	.0457387	.3356030	2.788910	.6312370
#2	.6263051	.0263564	.0007918	.0441270	.3348919	2.788808	.6303072
#3	.6512060	.0266252	.0008513	.0466836	.3351604	2.816869	.6371058

Sample Name: Q2074-05 Acquired: 5/21/2025 19:53:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7341788	.0381288	-.075403
Stddev	.0035499	.0005155	.000083
%RSD	.4835171	1.352029	.1102718

#1	.7313846	.0377490	-.075340
#2	.7329786	.0379217	-.075372
#3	.7381732	.0387157	-.075497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2902.941	68228.28	19899.59	2626.586	4308.163
Stddev	5.108	79.79	24.83	8.395	.644
%RSD	.1759577	.1169448	.1247836	.3196255	.0149492

#1	2901.735	68273.07	19928.18	2636.066	4308.115
#2	2898.544	68136.16	19887.27	2620.092	4308.829
#3	2908.544	68275.61	19883.33	2623.601	4307.544

Sample Name: CCV07 Acquired: 5/21/2025 19:57:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.941553	4.864764	4.946347	4.968311	4.915346	9.727341	9.577264
Stddev	.021337	.050154	.021197	.031932	.017722	.013491	.106893
%RSD	.4317959	1.030962	.4285407	.6427217	.3605486	.1386885	1.116111

#1	4.933834	4.847337	4.939241	4.947521	4.902391	9.725032	9.700061
#2	4.925150	4.825647	4.929615	4.952333	4.908104	9.741837	9.526665
#3	4.965676	4.921306	4.970184	5.005078	4.935542	9.715154	9.505065

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2530231	2.476158	24.42485	.9995059	2.456731	1.239828	4.918212
Stddev	.0008975	.010307	.09097	.0036919	.006062	.003763	.021107
%RSD	.3547230	.4162531	.3724432	.3693685	.2467625	.3035301	.4291582

#1	.2540545	2.469290	24.52959	1.002670	2.453761	1.238912	4.933272
#2	.2524189	2.471174	24.37935	1.000398	2.452727	1.236607	4.927277
#3	.2525960	2.488009	24.36561	.995450	2.463706	1.243964	4.894087

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.438062	24.57817	2.470493	1.241477	23.55152	2.441202	2.494459
Stddev	.007661	.05980	.008198	.003210	.09148	.005553	.012998
%RSD	.3142371	.2432941	.3318302	.2585339	.3884382	.2274876	.5210624

#1	2.444340	24.64167	2.465746	1.244690	23.65140	2.447599	2.505684
#2	2.440319	24.56990	2.465774	1.238270	23.53136	2.437619	2.497475
#3	2.429525	24.52293	2.479959	1.241470	23.47179	2.438387	2.480219

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.82405	4.988782	4.926630	4.930470	4.847685	4.883649	5.023601
Stddev	.10013	.004648	.014460	.021686	.010031	.018202	.018485
%RSD	.4202702	.0931716	.2935054	.4398306	.2069248	.3727047	.3679538

#1	23.88186	4.991574	4.917519	4.912390	4.857898	4.899436	5.015714
#2	23.88185	4.983417	4.919068	4.924506	4.847311	4.863740	5.010369
#3	23.70843	4.991357	4.943303	4.954513	4.837846	4.887771	5.044721

Sample Name: CCV07 Acquired: 5/21/2025 19:57:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.915791	4.723463	4.851879
Stddev	.027606	.015214	.025744
%RSD	.5615781	.3221021	.5305998

#1	4.901080	4.740042	4.866791
#2	4.898656	4.720207	4.822152
#3	4.947637	4.710140	4.866693

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.806	64529.99	18035.87	2485.601	4056.199
Stddev	2.974	153.30	36.95	10.644	4.544
%RSD	.1074821	.2375688	.2048902	.4282375	.1120272

#1	2763.403	64362.55	17993.89	2480.391	4050.988
#2	2768.906	64563.98	18050.27	2478.566	4059.337
#3	2768.108	64663.45	18063.46	2497.847	4058.272

Sample Name: CCB07 Acquired: 5/21/2025 20:02:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.004387	-.001802	.0004300	-.002395	.0014211	.0056182	-.001129
Stddev	.001382	.001055	.0008370	.003207	.0004643	.0028630	.000245
%RSD	31.50654	58.55327	194.6429	133.8996	32.67176	50.95941	21.66864

#1	-.005448	-.001485	.0009526	.000278	.0009007	.0060603	-.000991
#2	-.004888	-.002980	-.000535	-.005951	.0015696	.0025598	-.000985
#3	-.002824	-.000942	.000873	-.001512	.0017930	.0082344	-.001411

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000276	-.000050	-.005356	.0003208	.0002399	.0002122	.0070554
Stddev	.0000461	.000027	.002558	.0003867	.0000666	.0004449	.0037186
%RSD	167.0044	55.41565	47.75417	120.5522	27.76766	209.6829	52.70564

#1	.0000549	-.000047	-.002403	-.000035	.0002629	-.000286	.0048752
#2	.0000536	-.000078	-.006848	.000265	.0002920	.000569	.0049418
#3	-.000026	-.000024	-.006818	.000732	.0001648	.000354	.0113490

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000593	-.007665	.0001979	-.000300	-.107299	.0005672	-.000262
Stddev	.000184	.011259	.0002042	.000350	.004269	.0011007	.000215
%RSD	31.00882	146.8852	103.1414	116.6288	3.978861	194.0523	82.12852

#1	-.000802	-.007775	.0003687	-.000479	-.111898	-.000703	-.000176
#2	-.000514	.003648	.0002534	-.000523	-.106535	.001240	-.000507
#3	-.000461	-.018869	-.000028	.000103	-.103463	.001165	-.000103

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.049802	.0049070	.0006895	.0002839	.0002009	-.001316	-.005004
Stddev	.037795	.0005812	.0001256	.0009639	.0004682	.006529	.002039
%RSD	75.89162	11.84484	18.21623	339.5338	233.0335	496.2794	40.75609

#1	-.059042	.0047087	.0008103	-.000793	.0000557	.005383	-.003372
#2	-.082120	.0055614	.0006988	.000578	-.000178	-.001670	-.007290
#3	-.008243	.0044508	.0005596	.001067	.000725	-.007660	-.004350

Sample Name: CCB07 Acquired: 5/21/2025 20:02:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001014	-.000415	.0000028
Stddev	.001320	.000553	.0000245
%RSD	130.2007	133.0896	864.9035

#1	.000025	-.000900	-.000025
#2	-.002499	.000187	.000020
#3	-.000568	-.000533	.000013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2965.575	68951.11	18699.23	2670.912	4483.337
Stddev	8.719	1606.25	143.04	67.692	15.215
%RSD	.2940026	2.329542	.7649752	2.534420	.3393692

#1	2955.556	67100.35	18855.41	2592.754	4465.958
#2	2971.445	69771.38	18574.58	2709.126	4494.261
#3	2969.722	69981.59	18667.71	2710.856	4489.791

Sample Name: Q2074-06 Acquired: 5/21/2025 20:06:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0892231	.0400086	.2145072	-.063175	-.010159	46.49060	.1465986
Stddev	.0012532	.0030431	.0016289	.002512	.002592	.05121	.0011829
%RSD	1.404594	7.606109	.7593762	3.975986	25.51666	.1101512	.8068998

#1	.0903034	.0378819	.2129128	-.061192	-.009608	46.44590	.1452747
#2	.0895169	.0386494	.2161685	-.062334	-.007887	46.47943	.1469693
#3	.0878491	.0434944	.2144401	-.065999	-.012983	46.54648	.1475518

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108266	.0093759	3.273135	.2761033	.0397792	.2022628	512.4691
Stddev	.0001555	.0007001	.018047	.0010113	.0004897	.0026770	4.0766
%RSD	1.436304	7.466564	.5513773	.3662576	1.231132	1.323530	.7954819

#1	.0106514	.0087890	3.293277	.2772377	.0395181	.1991725	515.3025
#2	.0108798	.0101507	3.267697	.2757758	.0403442	.2038705	507.7970
#3	.0109484	.0091879	3.258433	.2752963	.0394754	.2037453	514.3079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8916341	2.082012	.0494064	-.008996	1.108058	.4166218	.7222915
Stddev	.0049933	.004013	.0004227	.000845	.004029	.0000957	.0015789
%RSD	.5600201	.1927495	.8554480	9.390230	.3635914	.0229706	.2185928

#1	.8862018	2.082846	.0489723	-.008437	1.110419	.4166868	.7240327
#2	.8926768	2.085542	.0498166	-.009968	1.103406	.4165119	.7218888
#3	.8960238	2.077647	.0494305	-.008583	1.110348	.4166667	.7209529

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.922628	.0607477	.0019227	.2008404	1.222686	1.891394	3.334884
Stddev	.032236	.0060643	.0002575	.0019929	.003335	.008399	.004952
%RSD	1.102967	9.982731	13.39012	.9922560	.2727528	.4440527	.1485040

#1	2.941989	.0627648	.0020715	.2011488	1.218847	1.900420	3.331357
#2	2.885416	.0539319	.0016254	.2026611	1.224336	1.889953	3.332749
#3	2.940479	.0655465	.0020711	.1987114	1.224873	1.883809	3.340546

Sample Name: Q2074-06 Acquired: 5/21/2025 20:06:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.264552	.2318222	-.424628
Stddev	.005881	.0002570	.003850
%RSD	.2596781	.1108517	.9067850

#1	2.262167	.2320412	-.427210
#2	2.271250	.2315393	-.420202
#3	2.260238	.2318861	-.426471

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.657	70344.47	18180.57	2736.340	4105.645
Stddev	10.339	237.40	80.21	4.266	12.630
%RSD	.3428477	.3374875	.4411907	.1559107	.3076191

#1	3027.583	70280.64	18242.76	2734.297	4120.191
#2	3009.220	70145.51	18090.03	2741.244	4099.273
#3	3010.168	70607.27	18208.91	2733.480	4097.471

Sample Name: Q2074-07 Acquired: 5/21/2025 20:10:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0433362	.0069312	.2552027	-.013981	.0002626	39.33185	.3053659
Stddev	.0012674	.0020573	.0016113	.001123	.0015057	.07646	.0008787
%RSD	2.924543	29.68252	.6313920	8.030561	573.5153	.1944030	.2877691

#1	.0423353	.0093060	.2553799	-.015270	.0008006	39.25153	.3060355
#2	.0447613	.0056911	.2567181	-.013456	.0014253	39.34026	.3056914
#3	.0429121	.0057963	.2535101	-.013216	-.001438	39.40376	.3043709

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034714	.0012520	12.19477	.1487463	.0124885	.1746005	135.6649
Stddev	.0000855	.0000249	.00968	.0003396	.0002403	.0001113	.5390
%RSD	2.461697	1.987169	.0794000	.2283050	1.924327	.0637643	.3973375

#1	.0033765	.0012252	12.19247	.1489835	.0124709	.1746108	136.1173
#2	.0035423	.0012743	12.18644	.1483573	.0122575	.1747064	135.0685
#3	.0034955	.0012564	12.20539	.1488982	.0127371	.1744844	135.8088

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2273757	2.615566	.0209417	.0001329	9.850775	.2651642	.4214751
Stddev	.0005977	.023104	.0003237	.0000743	.057525	.0018163	.0007490
%RSD	.2628887	.8833390	1.545887	55.89404	.5839691	.6849871	.1777030

#1	.2267148	2.597453	.0211450	.0002110	9.894526	.2631658	.4207505
#2	.2278786	2.641585	.0205684	.0000632	9.785615	.2667147	.4222463
#3	.2275335	2.607658	.0211116	.0001245	9.872185	.2656122	.4214287

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.453285	.0420668	.0032307	.0241263	.2015271	1.937770	1.008411
Stddev	.014090	.0004793	.0002435	.0013150	.0006202	.006699	.005576
%RSD	.4080253	1.139416	7.536376	5.450704	.3077648	.3456884	.5529041

#1	3.469355	.0423720	.0032895	.0231012	.2016433	1.932490	1.011601
#2	3.447452	.0415143	.0034394	.0236686	.2020811	1.945305	1.001973
#3	3.443047	.0423141	.0029632	.0256090	.2008570	1.935516	1.011658

Sample Name: Q2074-07 Acquired: 5/21/2025 20:10:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.022446	.1151535	-.019972
Stddev	.003099	.0001533	.000734
%RSD	.3030651	.1331656	3.676270

#1	1.025360	.1151981	-.020542
#2	1.019191	.1149828	-.019144
#3	1.022785	.1152796	-.020232

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3039.895	71930.40	19858.17	2761.560	4165.635
Stddev	5.224	254.97	50.87	12.436	9.857
%RSD	.1718625	.3544695	.2561698	.4503149	.2366359

#1	3038.296	71769.82	19914.01	2749.060	4162.416
#2	3035.656	72224.39	19814.47	2773.930	4157.789
#3	3045.732	71796.97	19846.03	2761.688	4176.699

Sample Name: Q2074-08 Acquired: 5/21/2025 20:14:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1066624	.0450557	.5178535	-.067865	-.010428	76.72904	.3011643
Stddev	.0011036	.0027735	.0014930	.004459	.001485	.44366	.0016177
%RSD	1.034637	6.155655	.2883073	6.570720	14.23925	.5782136	.5371499
#1	.1058465	.0482238	.5162745	-.062820	-.011925	76.82455	.3020383
#2	.1079181	.0430657	.5192423	-.069497	-.010404	76.24541	.2992976
#3	.1062226	.0438778	.5180439	-.071279	-.008955	77.11717	.3021571
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0114113	.0042663	7.294771	.2968720	.0446862	.2320396	588.6199
Stddev	.0000688	.0010520	.067416	.0005802	.0005784	.0013898	5.9667
%RSD	.6027793	24.65808	.9241641	.1954255	1.294435	.5989670	1.013680
#1	.0114166	.0031229	7.278617	.2974222	.0441937	.2304963	595.0960
#2	.0113399	.0051932	7.236900	.2969278	.0453231	.2331926	583.3455
#3	.0114772	.0044826	7.368796	.2962659	.0445417	.2324298	587.4181
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4032195	1.822303	.0528775	-.002338	2.302809	.5365471	.3958008
Stddev	.0025349	.033003	.0008050	.001166	.029881	.0046089	.0012832
%RSD	.6286530	1.811058	1.522303	49.85133	1.297593	.8589853	.3241912
#1	.4046966	1.816302	.0521992	-.001000	2.330855	.5397587	.3964806
#2	.4002926	1.792712	.0526662	-.003135	2.306191	.5312663	.3966011
#3	.4046694	1.857894	.0537670	-.002879	2.271380	.5386164	.3943208
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.545736	.1309000	.0001573	.0249022	.7726680	3.908787	2.854160
Stddev	.027419	.0076961	.0004637	.0016047	.0047924	.029458	.010098
%RSD	.7732866	5.879365	294.8211	6.444055	.6202443	.7536315	.3538019
#1	3.576484	.1395272	.0005768	.0255394	.7773623	3.941652	2.856384
#2	3.536897	.1284326	.0002357	.0260904	.7677832	3.899951	2.862961
#3	3.523827	.1247402	-.000341	.0230767	.7728586	3.884758	2.843136

Sample Name: Q2074-08 Acquired: 5/21/2025 20:14:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	8.700769	.2991444	-.456512
Stddev	.024317	.0025543	.005371
%RSD	.2794848	.8538714	1.176496

#1	8.674463	.3015830	-.462491
#2	8.705415	.2964883	-.452096
#3	8.722427	.2993620	-.454949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2906.374	67707.65	19151.25	2622.660	4025.575
Stddev	3.060	168.11	127.84	15.190	3.728
%RSD	.1052910	.2482868	.6675450	.5791812	.0926164

#1	2905.781	67513.54	19191.14	2605.763	4027.867
#2	2903.654	67803.90	19254.40	2627.033	4027.585
#3	2909.687	67805.52	19008.22	2635.184	4021.273

Sample Name: Q2080-01 Acquired: 5/21/2025 20:19:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0913785	.0212206	.4666169	-.040872	-.003114	185.6945	1.569318
Stddev	.0056715	.0010160	.0002535	.005326	.003769	.1744	.001572
%RSD	6.206609	4.787606	.0543321	13.03155	121.0631	.0939311	.1001842

#1	.0956652	.0214180	.4663275	-.035014	-.001912	185.8234	1.570888
#2	.0849475	.0221233	.4667998	-.042178	-.000091	185.4960	1.569323
#3	.0935228	.0201204	.4667233	-.045424	-.007337	185.7642	1.567744

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0154595	.0098233	15.88707	.3446519	.1901525	.1927021	393.4795
Stddev	.0000802	.0004935	.00984	.0010567	.0008644	.0009682	1.9943
%RSD	.5189408	5.024056	.0619130	.3065925	.4545931	.5024481	.5068293

#1	.0155325	.0097632	15.88241	.3435883	.1905110	.1935011	393.0438
#2	.0154724	.0103441	15.88042	.3446657	.1907800	.1929797	391.7391
#3	.0153736	.0093626	15.89836	.3457016	.1891665	.1916253	395.6556

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.69880	64.51415	.3560890	.0015052	1.519446	.4645462	.9640046
Stddev	.01205	.09052	.0007788	.0005842	.016862	.0031526	.0024780
%RSD	.1029610	.1403157	.2187009	38.81058	1.109771	.6786398	.2570550

#1	11.70548	64.59883	.3569828	.0008664	1.529325	.4609732	.9618894
#2	11.70603	64.41874	.3557283	.0016368	1.499976	.4657291	.9633933
#3	11.68490	64.52488	.3555560	.0020123	1.529037	.4669362	.9667310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.50822	.1658913	.0063220	.0155637	2.873925	3.234240	9.189555
Stddev	.07222	.0032924	.0004715	.0004667	.009528	.009543	.035392
%RSD	.4978198	1.984655	7.458394	2.998479	.3315205	.2950623	.3851347

#1	14.48800	.1655412	.0059014	.0160111	2.884877	3.228955	9.211855
#2	14.44826	.1627879	.0068317	.0150799	2.869351	3.228508	9.208064
#3	14.58840	.1693447	.0062330	.0156000	2.867547	3.245256	9.148746

Sample Name: Q2080-01 Acquired: 5/21/2025 20:19:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.553373	.5718003	-.276525
Stddev	.008140	.0022457	.001935
%RSD	.3187872	.3927512	.6998555

#1	2.562168	.5739321	-.275712
#2	2.551849	.5694557	-.275128
#3	2.546103	.5720131	-.278734

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3096.431	73531.69	21102.26	2828.462	3977.437
Stddev	11.003	355.70	53.29	24.586	10.614
%RSD	.3553323	.4837430	.2525271	.8692196	.2668666

#1	3096.199	73739.49	21143.34	2841.808	3973.875
#2	3085.546	73734.61	21042.05	2843.488	3969.061
#3	3107.548	73120.97	21121.40	2800.090	3989.374

Sample Name: Q2080-07 Acquired: 5/21/2025 20:23:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0815485	.0169255	.6120363	-.038611	-.000188	207.9659	1.475461
Stddev	.0014386	.0027774	.0030052	.001969	.002281	.7528	.006147
%RSD	1.764156	16.40959	.4910215	5.100549	1210.517	.3619836	.4166163

#1	.0799061	.0137852	.6085841	-.038189	.002111	207.1309	1.468644
#2	.0825856	.0179318	.6140672	-.040757	-.000225	208.1744	1.477155
#3	.0821537	.0190595	.6134578	-.036887	-.002451	208.5925	1.480583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0169175	.0153011	26.42554	.3903242	.2224856	.2801461	385.2339
Stddev	.0000376	.0002738	.11444	.0011466	.0007093	.0005581	1.4850
%RSD	.2220622	1.789247	.4330759	.2937568	.3187894	.1992183	.3854907

#1	.0169592	.0156024	26.35510	.3891670	.2220418	.2795309	383.7287
#2	.0169069	.0150676	26.36392	.3914599	.2233036	.2806198	385.2750
#3	.0168864	.0152333	26.55758	.3903457	.2221114	.2802877	386.6979

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.57528	76.50256	.4375934	-.000919	2.555519	.4882786	1.088813
Stddev	.07746	.27435	.0008113	.000584	.020419	.0017376	.006807
%RSD	.4973284	.3586093	.1853893	63.61414	.7990039	.3558522	.6251461

#1	15.51583	76.33697	.4367109	-.001201	2.533619	.4886089	1.086866
#2	15.54712	76.35148	.4377627	-.001308	2.574033	.4863996	1.083191
#3	15.66288	76.81924	.4383067	-.000247	2.558905	.4898273	1.096381

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.57689	.1138602	.0061779	.0169306	3.563376	2.273845	6.262797
Stddev	.08715	.0024691	.0007294	.0011947	.020875	.009546	.015509
%RSD	.5257326	2.168500	11.80635	7.056321	.5858225	.4198352	.2476411

#1	16.47930	.1110099	.0053467	.0180437	3.547515	2.272995	6.252626
#2	16.64697	.1153400	.0064757	.0156684	3.555586	2.283788	6.280648
#3	16.60438	.1152308	.0067112	.0170797	3.587025	2.264752	6.255118

Sample Name: Q2080-07 Acquired: 5/21/2025 20:23:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.378036	.6005856	-.214899
Stddev	.007862	.0035983	.000832
%RSD	.3305902	.5991296	.3870088

#1	2.384804	.5965154	-.214133
#2	2.369413	.6018978	-.214782
#3	2.379892	.6033437	-.215784

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.187	73290.98	20320.97	2841.015	3956.169
Stddev	1.901	159.62	66.47	17.417	2.843
%RSD	.0605799	.2177940	.3271232	.6130570	.0718651

#1	3137.450	73471.13	20344.05	2858.064	3954.876
#2	3136.765	73167.15	20372.83	2841.730	3954.202
#3	3140.347	73234.65	20246.03	2823.252	3959.429

Sample Name: Q2084-01 Acquired: 5/21/2025 20:27:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0207604	.0039371	.0792732	-.012700	-.003397	101.9001	.5479446
Stddev	.0027863	.0002110	.0010616	.002488	.000698	.1756	.0009745
%RSD	13.42140	5.360163	1.339221	19.58776	20.54294	.1723431	.1778528

#1	.0239511	.0041795	.0782500	-.011839	-.003999	101.7235	.5470800
#2	.0195228	.0037947	.0803695	-.010757	-.002632	102.0748	.5490007
#3	.0188072	.0038369	.0792001	-.015504	-.003560	101.9021	.5477531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056015	.0023732	13.11243	.1450613	.0657275	.1276657	167.8441
Stddev	.0001218	.0003699	.03508	.0007723	.0001012	.0009994	2.2883
%RSD	2.175318	15.58494	.2675200	.5323580	.1539248	.7827942	1.363328

#1	.0055424	.0022495	13.08772	.1442190	.0658171	.1277170	168.1207
#2	.0057416	.0027891	13.15258	.1457360	.0656178	.1286385	165.4301
#3	.0055204	.0020811	13.09700	.1452288	.0657476	.1266418	169.9814

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.068911	22.39661	.1061661	.0002076	1.350774	.2701135	.2300998
Stddev	.006585	.04569	.0008308	.0004571	.019235	.0012810	.0019739
%RSD	.2145634	.2040065	.7825151	220.1905	1.423979	.4742247	.8578631

#1	3.062000	22.35119	.1053253	.0001117	1.348180	.2711961	.2319631
#2	3.069622	22.39608	.1061866	-.000194	1.332968	.2686994	.2280313
#3	3.075112	22.44256	.1069864	.000705	1.371175	.2704451	.2303052

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.949983	.0608858	.0011914	.0003941	2.915063	5.106096	3.868762
Stddev	.104256	.0040425	.0005396	.0004355	.002946	.079978	.004542
%RSD	1.500087	6.639542	45.28965	110.5076	.1010769	1.566333	.1174103

#1	6.978760	.0618409	.0011974	.0004665	2.914343	5.107020	3.865634
#2	6.834361	.0564513	.0006488	-.000073	2.912544	5.025660	3.873972
#3	7.036827	.0643653	.0017280	.000789	2.918303	5.185609	3.866680

Sample Name: Q2084-01 Acquired: 5/21/2025 20:27:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.5889599	.1494229	-.111924
Stddev	.0055172	.0018867	.002223
%RSD	.9367781	1.262666	1.986060

#1	.5850109	.1484614	-.112130
#2	.5952638	.1482107	-.109605
#3	.5866049	.1515967	-.114037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3093.504	71240.17	19832.13	2804.499	4100.757
Stddev	5.697	462.37	193.78	16.693	7.754
%RSD	.1841603	.6490338	.9770849	.5952087	.1890857

#1	3096.860	71504.43	19969.53	2810.664	4104.057
#2	3086.926	71509.81	19610.49	2817.232	4091.899
#3	3096.725	70706.28	19916.38	2785.600	4106.315

Sample Name: Q2084-01DUP Acquired: 5/21/2025 20:31:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0475346	.0105451	.4013946	-.020180	-.006478	166.4890	1.425626
Stddev	.0021831	.0015565	.0007892	.001190	.004245	.2765	.007470
%RSD	4.592680	14.75992	.1966058	5.897132	65.53044	.1660588	.5240140

#1	.0500319	.0087902	.4015722	-.021547	-.003553	166.3071	1.417126
#2	.0465831	.0110867	.4005318	-.019379	-.011347	166.3528	1.428604
#3	.0459887	.0117585	.4020798	-.019614	-.004534	166.8072	1.431148

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0118652	.0051420	14.80914	.2200206	.1656940	.1553567	211.6240
Stddev	.0000630	.0003060	.03036	.0005391	.0002239	.0004047	1.5243
%RSD	.5307783	5.950781	.2050335	.2450450	.1351234	.2604825	.7202881

#1	.0119126	.0054938	14.77663	.2195896	.1655605	.1552399	209.8760
#2	.0117937	.0049375	14.83677	.2206251	.1655689	.1550232	212.6766
#3	.0118892	.0049948	14.81403	.2198470	.1659524	.1558069	212.3193

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.32118	61.37922	.3158003	.0005537	1.242703	.2861989	.8653027
Stddev	.03811	.11376	.0010785	.0001903	.027815	.0044548	.0008592
%RSD	.3692098	.1853428	.3415138	34.37121	2.238240	1.556540	.0992901

#1	10.27842	61.47290	.3148880	.0006076	1.213411	.2834976	.8644809
#2	10.33359	61.25263	.3155223	.0003423	1.245942	.2913407	.8661949
#3	10.35154	61.41213	.3169906	.0007113	1.268757	.2837584	.8652323

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.01498	.0506493	-.000756	.0019979	.9991222	1.235154	6.513845
Stddev	.12267	.0012154	.000368	.0005546	.0007367	.023735	.006477
%RSD	.9425484	2.399724	48.66280	27.75976	.0737321	1.921636	.0994421

#1	12.87790	.0493697	-.000406	.0013810	.9998345	1.225815	6.519628
#2	13.11441	.0507899	-.000723	.0021576	.9983633	1.262139	6.515062
#3	13.05264	.0517883	-.001139	.0024551	.9991689	1.217510	6.506845

Sample Name: Q2084-01DUP Acquired: 5/21/2025 20:31:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.214630	.4669813	-.122035
Stddev	.006112	.0030158	.001132
%RSD	.2759662	.6458168	.9279187

#1	2.217533	.4636640	-.120770
#2	2.207608	.4677226	-.122954
#3	2.218749	.4695574	-.122382

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.559	75275.82	20807.85	2889.754	4102.021
Stddev	8.409	71.68	74.94	4.718	8.636
%RSD	.2707824	.0952175	.3601562	.1632827	.2105307

#1	3096.016	75327.49	20726.65	2892.358	4092.183
#2	3111.882	75194.00	20874.35	2892.598	4108.349
#3	3108.780	75305.98	20822.56	2884.308	4105.532

Sample Name: Q2084-01LX5 Acquired: 5/21/2025 20:35:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0053431	-.000262	.0157566	-.005462	-.000294	22.77051	.1245352
Stddev	.0028403	.000231	.0008607	.002579	.000876	.01621	.0011404
%RSD	53.15901	88.28847	5.462515	47.21251	298.2143	.0711796	.9156942

#1	.0074459	-.000529	.0163105	-.008237	-.001195	22.76544	.1245845
#2	.0064714	-.000148	.0147650	-.005009	.000555	22.78865	.1233710
#3	.0021120	-.000110	.0161942	-.003140	-.000241	22.75744	.1256501

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012387	-.000447	3.001219	.0322773	.0135991	.0299118	38.10642
Stddev	.0000146	.000116	.004908	.0001853	.0002135	.0004016	.32317
%RSD	1.176814	26.03964	.1635488	.5740457	1.570355	1.342781	.8480740

#1	.0012538	-.000425	3.002015	.0320633	.0136295	.0297345	37.73329
#2	.0012377	-.000343	2.995961	.0323854	.0137958	.0296293	38.28839
#3	.0012247	-.000573	3.005681	.0323831	.0133719	.0303716	38.29758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7185348	5.121865	.0219907	-.000120	.2075224	.0624970	.0519108
Stddev	.0015527	.031760	.0003588	.000206	.0124250	.0008430	.0003085
%RSD	.2160852	.6200965	1.631740	171.3166	5.987313	1.348850	.5942382

#1	.7190369	5.087789	.0223351	-.000358	.1943202	.0630724	.0515946
#2	.7167932	5.127160	.0220181	-.000011	.2189874	.0615294	.0522109
#3	.7197742	5.150645	.0216190	.000008	.2092596	.0628894	.0519268

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.495561	.0142972	-.000177	-.002461	.6748834	1.424091	.7952109
Stddev	.051276	.0004859	.000214	.001046	.0017944	.015404	.0076187
%RSD	3.428576	3.398890	121.1852	42.48284	.2658788	1.081651	.9580739

#1	1.483340	.0137375	-.000075	-.002742	.6739605	1.425931	.8029992
#2	1.451499	.0146125	-.000422	-.001304	.6737384	1.438492	.7948595
#3	1.551844	.0145414	-.000032	-.003337	.6769514	1.407850	.7877739

Sample Name: Q2084-01LX5 Acquired: 5/21/2025 20:35:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.1138673	.0323824	-.025259
Stddev	.0021885	.0005001	.000416
%RSD	1.921986	1.544309	1.646121

#1	.1156055	.0324590	-.024783
#2	.1145869	.0318485	-.025441
#3	.1114096	.0328398	-.025553

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.769	68974.68	18792.21	2706.150	4315.578
Stddev	12.242	533.75	62.81	32.258	12.850
%RSD	.4150281	.7738324	.3342365	1.192028	.2977572

#1	2953.726	69590.08	18776.10	2743.354	4318.270
#2	2959.543	68696.22	18861.51	2685.976	4326.869
#3	2936.038	68637.75	18739.03	2689.120	4301.595

Sample Name: Q2084-01MS Acquired: 5/21/2025 20:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7190136	1.787373	1.374503	1.450237	.2809910	194.9739	1.570749
Stddev	.0058232	.010329	.001352	.004308	.0021071	.3824	.004157
%RSD	.8098798	.5778886	.0983708	.2970211	.7498818	.1961065	.2646286

#1	.7203356	1.791042	1.373376	1.448862	.2792940	194.5834	1.575074
#2	.7240621	1.795367	1.374131	1.455064	.2833495	194.9906	1.570388
#3	.7126431	1.775711	1.376003	1.446785	.2803295	195.3476	1.566785

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1818612	.1931383	15.88646	.6511942	.3686900	.4172143	353.3941
Stddev	.0002436	.0003177	.08590	.0010904	.0003756	.0008860	.7063
%RSD	.1339319	.1644918	.5407263	.1674408	.1018775	.2123574	.1998660

#1	.1819256	.1935051	15.83760	.6524458	.3685385	.4164288	354.1964
#2	.1820660	.1929470	15.98565	.6506868	.3684138	.4170394	353.1198
#3	.1815918	.1929629	15.83614	.6504500	.3691177	.4181746	352.8660

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.20609	70.27396	.8160610	.0646000	3.930210	.6644321	1.162399
Stddev	.01858	.22756	.0006788	.0004945	.030970	.0024171	.003979
%RSD	.1657796	.3238169	.0831791	.7655247	.7879925	.3637896	.3423458

#1	11.21587	70.08271	.8161247	.0641902	3.965968	.6627066	1.166871
#2	11.21773	70.52563	.8153527	.0644604	3.912745	.6671947	1.161077
#3	11.18467	70.21355	.8167058	.0651493	3.911918	.6633950	1.159249

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.57475	.2937808	.3362932	.6170035	3.192564	2.761341	12.97127
Stddev	.06959	.0037212	.0003789	.0014429	.002709	.021758	.01574
%RSD	.2951872	1.266648	.1126753	.2338606	.0848493	.7879598	.1213702

#1	23.59665	.2978945	.3366508	.6154846	3.190699	2.757714	12.98816
#2	23.49684	.2906492	.3358960	.6171699	3.195671	2.741624	12.96864
#3	23.63075	.2927986	.3363328	.6183560	3.191322	2.784685	12.95700

Sample Name: Q2084-01MS Acquired: 5/21/2025 20:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.386708	.7574745	-.070206
Stddev	.006702	.0012930	.000406
%RSD	.2808064	.1706936	.5787161

#1	2.390436	.7588343	-.070665
#2	2.378971	.7573283	-.069894
#3	2.390717	.7562608	-.070059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3039.062	70609.18	20009.24	2781.161	3950.545
Stddev	7.620	34.47	38.37	5.247	9.605
%RSD	.2507351	.0488226	.1917555	.1886443	.2431257

#1	3033.840	70618.63	20045.81	2775.145	3944.454
#2	3047.806	70637.95	19969.29	2784.785	3961.617
#3	3035.540	70570.97	20012.61	2783.553	3945.564

Sample Name: CCV08 Acquired: 5/21/2025 20:43:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.801229	4.730133	4.823726	4.815623	4.772286	9.506578	9.410234
Stddev	.015517	.036679	.006079	.017429	.003058	.003829	.064202
%RSD	.3231920	.7754311	.1260189	.3619204	.0640838	.0402737	.6822611

#1	4.809520	4.701648	4.826473	4.818086	4.770262	9.504317	9.406080
#2	4.783327	4.717232	4.816759	4.797093	4.775804	9.510999	9.476412
#3	4.810839	4.771520	4.827946	4.831689	4.770792	9.504418	9.348209

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2505944	2.412405	23.81311	.9742530	2.394858	1.212385	4.722155
Stddev	.0005225	.004052	.03874	.0007440	.003564	.001700	.014099
%RSD	.2085096	.1679685	.1627025	.0763699	.1488096	.1401878	.2985747

#1	.2511515	2.410558	23.78289	.9746453	2.391677	1.213623	4.719572
#2	.2501153	2.409606	23.85679	.9733949	2.394186	1.210447	4.737368
#3	.2505163	2.417052	23.79966	.9747187	2.398709	1.213085	4.709527

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.392427	24.12034	2.407758	1.209486	22.62965	2.384720	2.428799
Stddev	.008787	.07977	.004380	.002771	.07116	.008941	.002498
%RSD	.3672696	.3307295	.1819308	.2291096	.3144674	.3749429	.1028547

#1	2.393279	24.02942	2.404566	1.207152	22.65561	2.375403	2.425918
#2	2.400756	24.15300	2.405957	1.212548	22.68418	2.393232	2.430114
#3	2.383244	24.17860	2.412752	1.208756	22.54914	2.385524	2.430365

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.79994	4.933494	4.796433	4.808173	4.738391	4.687876	4.990161
Stddev	.05004	.009191	.010254	.012119	.009452	.028533	.019751
%RSD	.2194769	.1863057	.2137883	.2520470	.1994865	.6086619	.3957917

#1	22.76036	4.938120	4.792687	4.800086	4.745498	4.662256	4.967383
#2	22.85619	4.922909	4.788578	4.802326	4.742012	4.718626	5.000573
#3	22.78328	4.939453	4.808034	4.822107	4.727664	4.682746	5.002527

Sample Name: CCV08 Acquired: 5/21/2025 20:43:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.797352	4.611722	4.728957
Stddev	.018744	.015061	.059030
%RSD	.3907208	.3265766	1.248276

#1	4.781404	4.616811	4.662594
#2	4.792653	4.623580	4.775612
#3	4.817999	4.594777	4.748666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.699	64885.91	17791.19	2516.716	4036.299
Stddev	3.592	165.68	28.90	8.520	9.266
%RSD	.1303059	.2553442	.1624236	.3385537	.2295654

#1	2760.814	65056.52	17820.68	2526.084	4046.996
#2	2755.092	64725.64	17762.93	2509.430	4030.780
#3	2754.190	64875.58	17789.97	2514.632	4031.120

Sample Name: CCB08 Acquired: 5/21/2025 20:48:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001896	-.001513	-.002134	.0012599	.0019779	.0027589	-.003222
Stddev	.001884	.001788	.001453	.0014134	.0015944	.0012576	.001031
%RSD	99.33215	118.2023	68.09731	112.1802	80.60858	45.58223	31.98888

#1	-.000986	-.002449	-.000592	-.000327	.0016384	.0027240	-.002032
#2	-.004063	.000549	-.003478	.002382	.0037147	.0015191	-.003822
#3	-.000641	-.002638	-.002332	.001725	.0005806	.0040335	-.003813

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000351	-.000014	-.002711	.0003126	.0001006	.0004638	.0065077
Stddev	.0000791	.000083	.011848	.0001584	.0001620	.0000790	.0045247
%RSD	225.0812	582.8476	437.0772	50.65659	161.0321	17.02393	69.52801

#1	.0000450	.000082	-.015896	.0004471	.0002873	.0004309	.0116904
#2	-.000048	-.000059	.007040	.0003527	.0000185	.0004067	.0044885
#3	.000109	-.000066	.000725	.0001381	-.000004	.0005539	.0033443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000172	-.011168	-.000015	.0003051	-.132249	.0003976	-.000297
Stddev	.000503	.010297	.000277	.0002572	.004320	.0008877	.000160
%RSD	292.1856	92.19590	1882.792	84.28583	3.266507	223.2592	53.86298

#1	-.000454	-.000019	-.000259	.0000656	-.128374	-.000406	-.000219
#2	-.000472	-.013166	-.000072	.0002728	-.136907	.001350	-.000481
#3	.000409	-.020320	.000287	.0005769	-.131465	.000249	-.000191

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.069177	.0046394	.0007289	.0000572	-.000697	-.000509	-.001478
Stddev	.010716	.0005173	.0001133	.0005437	.000703	.005098	.000633
%RSD	15.49057	11.15123	15.53875	950.2722	100.8265	1002.293	42.83039

#1	-.061587	.0040429	.0008406	.0006682	-.001004	.005365	-.000778
#2	-.064508	.0049653	.0006141	-.000123	.000107	-.003106	-.002011
#3	-.081435	.0049100	.0007319	-.000373	-.001194	-.003784	-.001645

Sample Name: CCB08 Acquired: 5/21/2025 20:48:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0024621	-.000498	.0000156
Stddev	.0039751	.000309	.0000444
%RSD	161.4542	62.16327	284.9287

#1	.0038190	-.000817	.0000062
#2	-.002014	-.000200	-.000023
#3	.005581	-.000476	.000064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2899.510	70774.87	18578.72	2690.992	4420.028
Stddev	5.929	274.96	97.90	14.752	1.302
%RSD	.2044984	.3884931	.5269682	.5481914	.0294491

#1	2897.895	70777.41	18468.05	2676.264	4420.496
#2	2894.555	71048.54	18654.05	2705.768	4418.557
#3	2906.079	70498.65	18614.06	2690.944	4421.030

Sample Name: Q2084-01MSD Acquired: 5/21/2025 20:52:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7295707	1.790246	1.416128	1.456887	.2898376	222.3259	1.753330
Stddev	.0016915	.005112	.001218	.001573	.0039572	.4755	.004796
%RSD	.2318521	.2855583	.0860288	.1079504	1.365310	.2138818	.2735257

#1	.7278209	1.784356	1.416192	1.457509	.2937011	221.9142	1.753424
#2	.7311972	1.792859	1.414879	1.458055	.2857930	222.8464	1.758078
#3	.7296939	1.793524	1.417313	1.455099	.2900187	222.2170	1.748488

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1780500	.1949046	17.53335	.7003566	.4073604	.4331303	414.6328
Stddev	.0006810	.0007744	.07921	.0039604	.0012532	.0013029	3.7994
%RSD	.3824797	.3973014	.4517739	.5654794	.3076369	.3008135	.9163299

#1	.1775964	.1955346	17.52194	.6964897	.4086979	.4343628	413.2435
#2	.1777204	.1940401	17.61765	.7044043	.4062134	.4317668	418.9313
#3	.1788330	.1951390	17.46046	.7001757	.4071698	.4332612	411.7235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.23688	81.64396	.8962701	.0668529	4.241452	.7013180	1.306206
Stddev	.02784	.27244	.0017197	.0008242	.042425	.0024737	.002593
%RSD	.2477254	.3336938	.1918669	1.232795	1.000244	.3527169	.1985066

#1	11.21857	81.54179	.8976868	.0661040	4.235184	.7031190	1.306586
#2	11.26891	81.95272	.8967667	.0677358	4.286662	.7023374	1.308588
#3	11.22315	81.43737	.8943568	.0667188	4.202510	.6984975	1.303444

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.29036	.3246012	.3363751	.6229892	3.442291	3.389835	13.04342
Stddev	.16570	.0038329	.0010765	.0029665	.005245	.063075	.00766
%RSD	.6071904	1.180809	.3200183	.4761735	.1523667	1.860696	.0587007

#1	27.18488	.3233896	.3376095	.6197503	3.442500	3.363724	13.03932
#2	27.48135	.3288934	.3356313	.6236431	3.447429	3.461772	13.05225
#3	27.20485	.3215204	.3358846	.6255743	3.436945	3.344008	13.03868

Sample Name: Q2084-01MSD Acquired: 5/21/2025 20:52:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.445026	.8587402	-.120390
Stddev	.008596	.0014227	.003204
%RSD	.3515739	.1656761	2.661359

#1	2.450907	.8575072	-.118555
#2	2.435160	.8602969	-.124090
#3	2.449010	.8584166	-.118526

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3022.905	70041.17	20799.69	2739.964	3895.272
Stddev	8.946	483.71	27.18	19.307	6.468
%RSD	.2959558	.6906121	.1306908	.7046621	.1660500

#1	3016.765	70302.76	20827.74	2733.926	3891.183
#2	3018.780	69482.99	20773.47	2724.397	3891.903
#3	3033.170	70337.76	20797.84	2761.569	3902.729

Sample Name: Q2084-01A Acquired: 5/21/2025 20:56:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7075345	1.839148	1.098520	1.638966	.6773473	120.1948	.9730683
Stddev	.0002019	.032764	.002751	.005619	.0005437	.2120	.0033312
%RSD	.0285413	1.781504	.2504309	.3428413	.0802645	.1763555	.3423347

#1	.7077313	1.869400	1.097417	1.645018	.6772588	119.9752	.9737684
#2	.7073278	1.843697	1.096492	1.637965	.6779298	120.2112	.9694428
#3	.7075443	1.804346	1.101652	1.633915	.6768533	120.3981	.9759938

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1686838	.1918334	14.17115	.5072900	.2814623	.3819360	191.9323
Stddev	.0005147	.0005105	.00754	.0007252	.0006795	.0001925	.6633
%RSD	.3051036	.2661002	.0532325	.1429646	.2414028	.0504152	.3455737

#1	.1684965	.1913239	14.16299	.5068357	.2812208	.3819153	192.6968
#2	.1682890	.1923448	14.17788	.5081264	.2809365	.3817547	191.5887
#3	.1692658	.1918316	14.17258	.5069079	.2822295	.3821381	191.5112

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.318970	34.92237	.6332805	.0655827	3.881071	.5180681	.5858544
Stddev	.013416	.06702	.0009976	.0003863	.012702	.0014428	.0021856
%RSD	.2522375	.1919001	.1575317	.5890572	.3272763	.2784937	.3730704

#1	5.325074	34.92388	.6321338	.0657750	3.870880	.5168233	.5842036
#2	5.303587	34.98861	.6339493	.0651379	3.877032	.5177315	.5883330
#3	5.328249	34.85460	.6337584	.0658351	3.895302	.5196494	.5850265

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.67418	.3146055	.3508690	.6730209	2.531371	5.959394	10.56715
Stddev	.04375	.0014643	.0005638	.0012788	.007239	.036843	.04981
%RSD	.2475432	.4654443	.1606841	.1900045	.2859907	.6182280	.4713908

#1	17.72167	.3151167	.3507303	.6715586	2.523414	6.000608	10.62024
#2	17.66536	.3157457	.3514892	.6739300	2.537568	5.947922	10.55979
#3	17.63551	.3129542	.3503876	.6735739	2.533132	5.929653	10.52143

Sample Name: Q2084-01A Acquired: 5/21/2025 20:56:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	1.086165	.4123558	.0411458
Stddev	.009792	.0010844	.0009655
%RSD	.9015552	.2629867	2.346617

#1	1.095877	.4120972	.0403595
#2	1.086324	.4114240	.0408544
#3	1.076294	.4135461	.0422234

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3016.994	70367.02	20781.48	2742.022	3964.734
Stddev	5.529	326.01	30.74	17.658	5.599
%RSD	.1832713	.4632960	.1479004	.6439663	.1412183

#1	3021.049	70091.18	20751.92	2728.282	3970.124
#2	3010.696	70283.09	20779.25	2735.844	3958.947
#3	3019.237	70726.78	20813.27	2761.938	3965.132

Sample Name: Q2072-01 Acquired: 5/21/2025 21:00:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002988	-.005120	.0008946	-.003741	.0020734	.1447835
Stddev	.001724	.001832	.0004109	.000773	.0018876	.0022037
%RSD	57.68632	35.78023	45.92773	20.65980	91.04137	1.522076

#1	-.001350	-.006328	.0006805	-.004514	.0010459	.1425499
#2	-.004786	-.003012	.0006350	-.002969	.0009223	.1448447
#3	-.002828	-.006019	.0013683	-.003740	.0042519	.1469560

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064619	-.000077	.0004074	202.5188	.0022868	.0003176
Stddev	.0004342	.000050	.0001269	.1937	.0001027	.0001745
%RSD	6.718626	64.78785	31.14818	.0956692	4.491337	54.94067

#1	.0067742	-.000100	.0004625	202.4868	.0024042	.0001497
#2	.0066454	-.000112	.0002623	202.3430	.0022421	.0003050
#3	.0059661	-.000020	.0004974	202.7265	.0022140	.0004980

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043962	.4782507	.0689564	68.64098	.0027353	-.000197
Stddev	.0002488	.0069723	.0004614	.12588	.0003018	.000097
%RSD	5.660067	1.457867	.6691233	.1833938	11.03465	49.10949

#1	.0041231	.4783862	.0694664	68.60381	.0030705	-.000087
#2	.0044553	.4712117	.0688346	68.78127	.0026503	-.000232
#3	.0046101	.4851542	.0685680	68.53788	.0024850	-.000271

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.27223	.0229536	.0400022	2.924676	.1263957	.0010295
Stddev	.63596	.0009230	.0011782	.036208	.0026389	.0000073
%RSD	.8922955	4.021219	2.945325	1.238029	2.087811	.7134495

#1	71.86600	.0236315	.0410931	2.964822	.1254793	.0010282
#2	70.60115	.0219024	.0401608	2.914716	.1293707	.0010374
#3	71.34955	.0233268	.0387528	2.894489	.1243372	.0010229

Sample Name: Q2072-01 Acquired: 5/21/2025 21:00:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-0.007867	-0.000108	F 37.78451	.1266688	12.03999	-0.030355
Stddev	.000773	.000282	.28699	.0022924	.02135	.000140
%RSD	9.823677	260.7998	.7595556	1.809770	.1772897	.4622686

#1	-0.008035	.000212	38.09523	.1287278	12.02525	-0.030251
#2	-0.008542	-0.000217	37.52937	.1270799	12.06447	-0.030514
#3	-0.007024	-0.000320	37.72895	.1241986	12.03025	-0.030299

Elem	Sr4077
Units	ppm
Avg	.6342025
Stddev	.0020522
%RSD	.3235844

#1	.6356360
#2	.6318517
#3	.6351199

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2706.421	63982.38	18791.28	2429.118	3963.343
Stddev	30.626	351.16	6.14	24.764	27.506
%RSD	1.131621	.5488453	.0326677	1.019471	.6940199

#1	2732.018	63632.13	18796.61	2401.539	3984.791
#2	2714.755	64334.45	18792.67	2436.363	3972.908
#3	2672.490	63980.57	18784.57	2449.451	3932.331

Sample Name: Q2072-02 Acquired: 5/21/2025 21:04:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.002733	-.005416	.0039248	-.004527	.0018234	12.79414
Stddev	.004424	.003445	.0015980	.004133	.0009431	.00639
%RSD	161.8764	63.61082	40.71560	91.30210	51.72457	.0499463

#1	-.004775	-.009372	.0056610	-.009164	.0019429	12.80150
#2	.002343	-.003797	.0035976	-.001232	.0008262	12.79078
#3	-.005768	-.003078	.0025156	-.003185	.0027011	12.79012

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0125731	.0002547	-.000314	46.12142	.0214519	.0172459
Stddev	.0007372	.0000610	.000073	.05023	.0004545	.0003983
%RSD	5.863329	23.93056	23.22891	.1089030	2.118453	2.309734

#1	.0119669	.0002557	-.000244	46.06713	.0210044	.0168180
#2	.0123588	.0003152	-.000390	46.16623	.0214382	.0176060
#3	.0133938	.0001933	-.000308	46.13089	.0219130	.0173137

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0734951	27.93504	.7969301	28.04111	.0269630	.0005975
Stddev	.0001994	.19943	.0001122	.05665	.0001784	.0001157
%RSD	.2713710	.7139117	.0140840	.2020306	.6616149	19.36912

#1	.0734453	27.74063	.7970419	27.97589	.0271315	.0004699
#2	.0733253	27.92534	.7968174	28.07809	.0269816	.0006957
#3	.0737147	28.13914	.7969311	28.06936	.0267761	.0006268

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.21188	.0477427	.0485717	4.771658	.2673264	.0002298
Stddev	.39626	.0015884	.0000799	.076842	.0023769	.0001664
%RSD	.6171119	3.326928	.1644805	1.610378	.8891508	72.40945

#1	64.00819	.0495631	.0485716	4.727781	.2699798	.0003643
#2	63.95891	.0470261	.0486516	4.726807	.2653919	.0000437
#3	64.66856	.0466389	.0484918	4.860385	.2666075	.0002812

Sample Name: Q2072-02 Acquired: 5/21/2025 21:04:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.005309	.7146641	F 39.38324	.1957936	5.716551	.0204825
Stddev	.000176	.0028844	.20737	.0018005	.006749	.0015674
%RSD	3.320620	.4036075	.5265544	.9195894	.1180682	7.652404

#1	-.005241	.7119014	39.22646	.1972728	5.709942	.0209666
#2	-.005176	.7176565	39.30488	.1937888	5.723433	.0217508
#3	-.005509	.7144345	39.61838	.1963192	5.716279	.0187302

Elem	Sr4077
Units	ppm
Avg	.1561880
Stddev	.0004388
%RSD	.2809381

#1	.1566353
#2	.1561702
#3	.1557583

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2831.105	66195.51	19235.54	2580.350	4130.570
Stddev	6.911	469.06	47.25	27.723	5.229
%RSD	.2441119	.7085955	.2456205	1.074404	.1265829

#1	2831.311	66446.95	19218.33	2596.788	4129.930
#2	2837.911	66485.24	19288.97	2595.920	4136.090
#3	2824.094	65654.34	19199.31	2548.342	4125.691

Sample Name: Q2072-03 Acquired: 5/21/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.001880	-.005898	.0014888	-.001705	.0017285	1.283333
Stddev	.002452	.000631	.0017173	.001129	.0002040	.009885
%RSD	130.4126	10.70666	115.3498	66.20729	11.79888	.7702982

#1	-.003118	-.005782	.0025380	-.000488	.0015254	1.287011
#2	.000944	-.005332	-.000493	-.002718	.0017270	1.272135
#3	-.003467	-.006579	.002421	-.001909	.0019333	1.290852

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091328	-.000238	.0020168	141.1161	.0040980	.0086803
Stddev	.0009233	.000037	.0001086	.3704	.0001997	.0002121
%RSD	10.10968	15.45137	5.383922	.2624801	4.873379	2.443913

#1	.0081779	-.000217	.0019100	141.1554	.0040996	.0085211
#2	.0091997	-.000280	.0021271	140.7276	.0038975	.0089211
#3	.0100209	-.000216	.0020132	141.4652	.0042969	.0085987

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160183	2.545192	4.333909	65.70044	.0094840	-.000329
Stddev	.0009052	.024511	.012749	.17411	.0001121	.000141
%RSD	5.651333	.9630411	.2941701	.2650100	1.182046	42.71962

#1	.0151510	2.559326	4.345801	65.64357	.0096133	-.000211
#2	.0159465	2.559360	4.320448	65.56187	.0094149	-.000292
#3	.0169573	2.516888	4.335477	65.89588	.0094237	-.000485

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.87353	.0100135	.0229291	3.532741	.2702921	.0008898
Stddev	.41351	.0014292	.0002821	.022938	.0016059	.0000961
%RSD	.7535739	14.27255	1.230307	.6493014	.5941515	10.80209

#1	55.19720	.0104616	.0232391	3.558900	.2701413	.0007827
#2	55.01569	.0084140	.0228607	3.523257	.2687669	.0009183
#3	54.40768	.0111649	.0226874	3.516066	.2719681	.0009685

Sample Name: Q2072-03 Acquired: 5/21/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.007199	.0795681	F 24.87273	.0628129	19.65589	-.018742
Stddev	.000869	.0009830	.08376	.0060865	.32229	.000761
%RSD	12.06505	1.235454	.3367701	9.689895	1.639669	4.060748

#1	-.006578	.0785418	24.86547	.0563199	19.44185	-.019331
#2	-.006827	.0796612	24.95988	.0683888	20.02656	-.017882
#3	-.008191	.0805013	24.79283	.0637301	19.49926	-.019012

Elem	Sr4077
Units	ppm
Avg	.4063910
Stddev	.0025066
%RSD	.6167855

#1	.4092637
#2	.4046487
#3	.4052606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.847	65017.43	17838.03	2510.345	4011.862
Stddev	48.447	243.59	52.47	3.196	71.036
%RSD	1.764378	.3746512	.2941262	.1273228	1.770659

#1	2772.757	64979.37	17823.43	2513.726	4056.394
#2	2689.918	64795.11	17896.25	2507.374	3929.940
#3	2774.865	65277.81	17794.41	2509.934	4049.252

Sample Name: Q2072-04 Acquired: 5/21/2025 21:13:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003284	-.004845	-.000341	-.003060	.0022922	.3993589
Stddev	.002204	.001391	.003172	.003756	.0028717	.0084339
%RSD	67.09539	28.71214	931.0989	122.7721	125.2821	2.111865

#1	-.002555	-.003697	.003281	-.002484	.0055815	.4090157
#2	-.001538	-.004446	-.001674	-.007071	.0010100	.3934395
#3	-.005760	-.006392	-.002629	.000376	.0002849	.3956214

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002671	-.000063	-.000035	175.3133	.0024479	.0004144
Stddev	.002324	.000019	.000056	.6171	.0004669	.0001334
%RSD	86.98750	30.48056	159.6561	.3520129	19.07165	32.20372

#1	-.001210	-.000053	-.000027	175.4945	.0019101	.0002733
#2	-.001453	-.000085	.000016	175.8195	.0026848	.0004313
#3	-.005350	-.000051	-.000095	174.6258	.0027488	.0005385

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019308	.8310619	.0600290	41.77001	.0028699	-.000402
Stddev	.0000942	.0072712	.0008757	.13749	.0002849	.000057
%RSD	4.878514	.8749258	1.458860	.3291506	9.928568	14.18113

#1	.0018239	.8381064	.0608976	41.77454	.0028352	-.000425
#2	.0020015	.8314958	.0600431	41.90518	.0026039	-.000443
#3	.0019670	.8235835	.0591463	41.63032	.0031706	-.000337

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.12871	.0083348	.0072836	.5012082	.6758738	.0009272
Stddev	.15308	.0011279	.0001236	.0203736	.0027767	.0001664
%RSD	.6091777	13.53302	1.696935	4.064899	.4108274	17.94849

#1	25.29106	.0086286	.0071463	.5202105	.6730456	.0010879
#2	25.10808	.0092867	.0073188	.4796959	.6785959	.0007556
#3	24.98699	.0070890	.0073858	.5037182	.6759800	.0009380

Sample Name: Q2072-04 Acquired: 5/21/2025 21:13:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006588	.0166411	F 27.06180	.0389438	12.55754	-.026068
Stddev	.000707	.0008601	.06594	.0027094	.04258	.000621
%RSD	10.72551	5.168461	.2436814	6.957185	.3390698	2.381263

#1	-.006691	.0164085	27.10466	.0382369	12.52490	-.026742
#2	-.007237	.0159212	27.09489	.0366579	12.54202	-.025520
#3	-.005836	.0175935	26.98587	.0419366	12.60571	-.025943

Elem	Sr4077
Units	ppm
Avg	.1404277
Stddev	.0005180
%RSD	.3688952

#1	.1409724
#2	.1403694
#3	.1399412

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.881	64256.10	18175.17	2448.930	4085.271
Stddev	15.910	94.28	40.22	9.456	20.109
%RSD	.5783768	.1467324	.2212840	.3861460	.4922437

#1	2738.305	64292.84	18200.12	2450.956	4068.262
#2	2745.569	64148.98	18128.77	2438.624	4080.085
#3	2768.767	64326.49	18196.62	2457.208	4107.465

Sample Name: Q2072-04DUP Acquired: 5/21/2025 21:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006551	-.006139	-.001383	-.001700	.0013319	.3764337
Stddev	.001736	.001371	.001214	.002025	.0004152	.0060958
%RSD	26.49537	22.32495	87.79202	119.1581	31.17461	1.619345

#1	-.004655	-.007721	-.002149	.000468	.0010067	.3819867
#2	-.008062	-.005302	.000017	-.003545	.0017995	.3699114
#3	-.006936	-.005395	-.002018	-.002022	.0011894	.3774030

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001336	-.000045	.0000432	174.9020	.0040362	.0000885
Stddev	.001474	.000035	.0001258	1.3593	.0001336	.0003473
%RSD	110.3046	78.88847	291.1760	.7771755	3.310653	392.3524

#1	-.002208	-.000083	-.000099	174.6359	.0041023	-.000117
#2	.000366	-.000015	.000088	176.3746	.0038824	-.000107
#3	-.002166	-.000036	.000140	173.6954	.0041239	.000489

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027379	.7692471	.0582291	41.91617	.0017957	-.000167
Stddev	.0003680	.0073436	.0005883	.44123	.0003089	.000197
%RSD	13.44194	.9546438	1.010391	1.052650	17.20181	117.8330

#1	.0023765	.7755988	.0581462	41.90941	.0020861	-.000336
#2	.0027249	.7612061	.0588545	42.36074	.0018298	-.000213
#3	.0031123	.7709365	.0576866	41.47836	.0014712	.000049

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.90175	.0090296	.0091878	.4324376	.7111747	.0008871
Stddev	.09589	.0003830	.0004619	.0214786	.0042068	.0004080
%RSD	.4187011	4.241009	5.027616	4.966868	.5915308	45.98707

#1	22.82588	.0093930	.0096541	.4081898	.7106625	.0004289
#2	22.86983	.0086297	.0091790	.4490740	.7156141	.0010213
#3	23.00952	.0090662	.0087304	.4400489	.7072474	.0012110

Sample Name: Q2072-04DUP Acquired: 5/21/2025 21:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.007557	.0162976	F 25.40062	.0369733	12.61913	-.025563
Stddev	.000992	.0001832	.07750	.0012031	.03322	.000888
%RSD	13.13106	1.124146	.3051139	3.253860	.2632324	3.474362

#1	-.008540	.0161189	25.33708	.0383428	12.58148	-.024654
#2	-.006556	.0164850	25.37781	.0360869	12.63162	-.026429
#3	-.007575	.0162888	25.48697	.0364901	12.64430	-.025607

Elem	Sr4077
Units	ppm
Avg	.1373735
Stddev	.0004650
%RSD	.3385053

#1	.1375060
#2	.1377578
#3	.1368566

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.390	65483.47	17265.30	2495.959	4082.119
Stddev	3.794	64.33	124.77	11.972	9.530
%RSD	.1380014	.0982310	.7226746	.4796621	.2334527

#1	2747.461	65539.63	17257.37	2504.142	4071.495
#2	2746.949	65413.29	17144.67	2482.218	4084.951
#3	2753.762	65497.48	17393.84	2501.516	4089.912

Sample Name: Q2072-04LX5 Acquired: 5/21/2025 21:21:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.006098	-.003222	-.001652	-.000686	.0017991	.0828885	-.002517
Stddev	.001834	.000739	.001697	.001824	.0009165	.0014260	.001380
%RSD	30.07111	22.92717	102.7141	265.8313	50.94340	1.720432	54.81289
#1	-.004596	-.002402	-.002174	-.001103	.0020749	.0817608	-.001583
#2	-.005556	-.003836	-.003028	.001310	.0025460	.0844915	-.004102
#3	-.008142	-.003428	.000244	-.002266	.0007763	.0824133	-.001867
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000355	-.000051	35.18322	.0003650	.0002816	.0004739	.1708600
Stddev	.0000193	.000075	.10210	.0003440	.0000936	.0003336	.0034211
%RSD	54.36612	145.9904	.2901959	94.22629	33.23268	70.39423	2.002298
#1	.0000188	-.000098	35.21061	.0002507	.0001832	.0007329	.1672477
#2	.0000311	.000035	35.26883	.0000928	.0002922	.0000975	.1712812
#3	.0000566	-.000091	35.07022	.0007516	.0003694	.0005914	.1740510
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116410	8.433095	.0010183	-.000087	4.434514	.0015381	.0009934
Stddev	.0005390	.019842	.0002047	.000132	.045167	.0021347	.0000498
%RSD	4.629934	.2352923	20.10740	150.6989	1.018544	138.7882	5.013065
#1	.0115708	8.455415	.0009650	-.000090	4.387366	.0002233	.0009541
#2	.0111405	8.426412	.0008454	-.000218	4.477399	.0003899	.0010494
#3	.0122116	8.417456	.0012444	.000046	4.438777	.0040011	.0009767
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0625451	.1448854	.0003056	-.003736	.0036652	5.220646	.0050252
Stddev	.0115484	.0007740	.0000732	.001004	.0011876	.039424	.0007844
%RSD	18.46418	.5342459	23.95831	26.87200	32.40077	.7551627	15.60932
#1	.0744043	.1454120	.0003708	-.003130	.0023056	5.183763	.0059236
#2	.0513347	.1439967	.0002264	-.003184	.0044999	5.215978	.0046760
#3	.0618963	.1452475	.0003197	-.004895	.0041900	5.262196	.0044760

Sample Name: Q2072-04LX5 Acquired: 5/21/2025 21:21:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	2.537036	-.005574	.0279775
Stddev	.006678	.001222	.0001528
%RSD	.2632039	21.93295	.5460989

#1	2.544642	-.004682	.0278045
#2	2.534332	-.006967	.0280338
#3	2.532135	-.005072	.0280941

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2879.059	67294.63	18352.55	2623.353	4318.847
Stddev	7.949	396.88	23.65	11.733	7.924
%RSD	.2761074	.5897700	.1288538	.4472632	.1834771

#1	2871.994	67695.38	18371.41	2631.031	4310.863
#2	2887.666	67286.77	18326.02	2629.180	4326.710
#3	2877.516	66901.74	18360.22	2609.846	4318.967

Sample Name: Q2072-04MS Acquired: 5/21/2025 21:25:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7653984	1.841271	.9267356	1.842227	.7721102	2.298611
Stddev	.0044332	.010106	.0001595	.007675	.0031349	.007886
%RSD	.5792055	.5488562	.0172142	.4165968	.4060203	.3430632

#1	.7650899	1.851490	.9269190	1.846050	.7685948	2.296992
#2	.7611274	1.841040	.9266285	1.833392	.7731199	2.307181
#3	.7699778	1.831282	.9266594	1.847239	.7746158	2.291661

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1816771	.1838473	.1906555	168.3168	.3912953	.1857162
Stddev	.0007081	.0013923	.0003872	.7056	.0008318	.0004810
%RSD	.3897855	.7573144	.2030965	.4192200	.2125667	.2589973

#1	.1823231	.1839630	.1902561	168.3790	.3922353	.1852444
#2	.1817883	.1851782	.1906812	168.9893	.3906546	.1856983
#3	.1809200	.1824008	.1910293	167.5822	.3909961	.1862059

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2812595	3.837760	.2493008	41.29445	.4645585	.0332643
Stddev	.0002933	.002759	.0022293	.24627	.0003827	.0004691
%RSD	.1042955	.0718792	.8942168	.5963864	.0823816	1.410169

#1	.2814213	3.837869	.2476122	41.24744	.4645462	.0333857
#2	.2809208	3.840463	.2518277	41.56083	.4641820	.0336608
#3	.2814362	3.834949	.2484626	41.07506	.4649471	.0327465

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.92219	.2958666	.1990128	10.29786	.8837748	.4089497
Stddev	.10171	.0017022	.0013365	.01897	.0077483	.0007160
%RSD	.3642703	.5753373	.6715854	.1842092	.8767291	.1750749

#1	27.92346	.2948955	.2002483	10.27994	.8816021	.4081252
#2	27.81985	.2978321	.1991959	10.31773	.8923775	.4094155
#3	28.02327	.2948722	.1975942	10.29591	.8773447	.4093082

Sample Name: Q2072-04MS Acquired: 5/21/2025 21:25:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6695603	.2082299	F 27.55302	5.932960	12.00188	.1704408
Stddev	.0039508	.0000956	.09816	.011542	.00955	.0004897
%RSD	.5900547	.0459271	.3562440	.1945481	.0796043	.2872984

#1	.6649985	.2081415	27.59051	5.926649	11.99608	.1701295
#2	.6718052	.2083314	27.44165	5.946282	11.99666	.1701877
#3	.6718772	.2082168	27.62691	5.925949	12.01291	.1710052

Elem	Sr4077
Units	ppm
Avg	.3258544
Stddev	.0006118
%RSD	.1877612

#1	.3258091
#2	.3264876
#3	.3252665

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2780.061	64993.45	19077.73	2477.225	4131.189
Stddev	4.463	167.09	67.08	7.799	8.139
%RSD	.1605374	.2570924	.3516160	.3148272	.1970111

#1	2779.398	64961.40	19092.89	2472.617	4138.435
#2	2784.818	65174.25	19004.37	2486.229	4132.751
#3	2775.967	64844.71	19135.94	2472.827	4122.383

Sample Name: CCV09 Acquired: 5/21/2025 21:29:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.785532	4.826143	4.888938	4.794219	4.778450	9.618435
Stddev	.033142	.046913	.011158	.023505	.024825	.060372
%RSD	.6925452	.9720570	.2282389	.4902751	.5195120	.6276662

#1	4.770565	4.781570	4.878998	4.770072	4.761159	9.659696
#2	4.762513	4.875089	4.886808	4.795563	4.767296	9.646465
#3	4.823517	4.821770	4.901007	4.817024	4.806895	9.549144

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.434760	.2576640	2.442139	24.37123	.9925795	2.419328
Stddev	.043902	.0022372	.005790	.15248	.0059493	.005781
%RSD	.4653215	.8682558	.2370939	.6256690	.5993758	.2389415

#1	9.474028	.2599496	2.437609	24.41954	.9974848	2.414251
#2	9.442889	.2575639	2.440147	24.49371	.9942920	2.418112
#3	9.387361	.2554786	2.448663	24.20044	.9859618	2.425620

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.204549	4.752854	2.438762	24.83158	2.430544	1.219373
Stddev	.004588	.017751	.010921	.15059	.007755	.002126
%RSD	.3808772	.3734858	.4477910	.6064383	.3190811	.1743928

#1	1.201973	4.750179	2.449404	24.87035	2.424850	1.221323
#2	1.201827	4.771790	2.439297	24.95899	2.427404	1.219691
#3	1.209845	4.736591	2.427583	24.66540	2.439377	1.217106

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.36404	2.427029	2.452603	22.76099	5.078279	4.852003
Stddev	.04157	.012682	.004268	.06985	.036247	.014602
%RSD	.1858747	.5225170	.1740006	.3068733	.7137667	.3009447

#1	22.39327	2.425446	2.454161	22.68088	5.115937	4.841168
#2	22.38240	2.440428	2.455872	22.80917	5.075270	4.846232
#3	22.31645	2.415213	2.447775	22.79291	5.043631	4.868608

Sample Name: CCV09 Acquired: 5/21/2025 21:29:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.870695	4.808023	4.737929	4.908555	4.743428	4.618731
Stddev	.014982	.023081	.038602	.020973	.032824	.020118
%RSD	.3075861	.4800607	.8147443	.4272805	.6919885	.4355798

#1	4.854422	4.829486	4.708368	4.884957	4.706821	4.641457
#2	4.873748	4.810976	4.781601	4.915639	4.753222	4.611539
#3	4.883915	4.783607	4.723820	4.925069	4.770239	4.603197

Elem	Sr4077
Units	ppm
Avg	4.749297
Stddev	.034958
%RSD	.7360613

#1	4.748151
#2	4.784813
#3	4.714926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2880.173	66167.77	17862.67	2578.531	4206.240
Stddev	9.276	202.80	63.79	16.566	9.467
%RSD	.3220481	.3064975	.3570957	.6424406	.2250607

#1	2880.655	66347.78	17820.86	2596.282	4208.101
#2	2889.198	65948.05	17831.07	2563.484	4214.638
#3	2870.666	66207.48	17936.09	2575.827	4195.981

Sample Name: CCB09 Acquired: 5/21/2025 21:34:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002916	-.000498	-.001204	.0014419	.0022524	.0030642	-.002541
Stddev	.003836	.001495	.000910	.0015753	.0006077	.0077002	.001142
%RSD	131.5647	300.1826	75.58712	109.2514	26.97827	251.2945	44.93419

#1	-.000828	-.001878	-.001251	.0018206	.0026264	.0044120	-.003434
#2	-.000577	-.000706	-.000271	.0027933	.0015512	.0100016	-.002934
#3	-.007343	.001090	-.002089	-.000288	.0025795	-.005221	-.001254

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000181	-.000040	-.003857	.0004582	.0002713	.0001536	.0076985
Stddev	.0000160	.000117	.002123	.0000586	.0001718	.0004234	.0020019
%RSD	88.52939	290.6787	55.03757	12.78687	63.33008	275.6479	26.00326

#1	.0000339	.000094	-.002241	.0003913	.0002242	.0005832	.0099989
#2	.0000019	-.000119	-.006261	.0005004	.0004617	-.000263	.0063520
#3	.0000183	-.000096	-.003069	.0004829	.0001280	.000141	.0067446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000512	-.009879	.0002485	-.000059	-.119360	.0010944	-.000241
Stddev	.000111	.005942	.0000902	.000505	.016882	.0025299	.000243
%RSD	21.58801	60.14362	36.31677	861.0784	14.14408	231.1548	101.0214

#1	-.000638	-.011633	.0002086	.000241	-.136658	.0037410	-.000105
#2	-.000428	-.003258	.0003518	.000225	-.118496	.0008421	-.000096
#3	-.000471	-.014747	.0001851	-.000642	-.102926	-.001300	-.000522

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.038034	.0064822	.0001941	-.000641	.0000301	-.000443	-.002283
Stddev	.009488	.0003701	.0001976	.000805	.0001347	.006320	.001505
%RSD	24.94622	5.709197	101.8303	125.6098	447.6744	1426.045	65.92577

#1	-.040816	.0061119	.0002960	-.000761	.0001702	-.006191	-.002492
#2	-.045820	.0068520	.0003200	-.001379	-.000098	-.001464	-.003673
#3	-.027466	.0064826	-.000034	.000218	.000018	.006325	-.000684

Sample Name: CCB09 Acquired: 5/21/2025 21:34:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000706	-.000427	.0000482
Stddev	.005311	.000190	.0000330
%RSD	752.3237	44.40138	68.48153

#1	-.006791	-.000352	.0000281
#2	.002993	-.000287	.0000862
#3	.001680	-.000643	.0000302

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2945.163	67615.53	19402.91	2671.535	4432.029
Stddev	54.399	793.33	40.97	37.093	86.938
%RSD	1.847072	1.173297	.2111423	1.388466	1.961591

#1	2882.385	68301.61	19444.05	2699.710	4331.657
#2	2974.686	66746.81	19402.57	2629.509	4480.716
#3	2978.418	67798.17	19362.12	2685.385	4483.715

Sample Name: Q2072-04MSD Acquired: 5/21/2025 21:38:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7817981	1.855804	.9477568	1.880279	.7870765	2.343167
Stddev	.0042994	.028346	.0032163	.007795	.0027365	.001911
%RSD	.5499416	1.527434	.3393565	.4145402	.3476850	.0815447

#1	.7768778	1.882507	.9506982	1.880322	.7884949	2.342345
#2	.7836854	1.826060	.9443225	1.872464	.7839219	2.345352
#3	.7848311	1.858846	.9482497	1.888053	.7888126	2.341806

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1845439	.1921684	.1938757	174.1903	.3836258	.1890593
Stddev	.0011719	.0006208	.0006348	.3434	.0013772	.0008193
%RSD	.6350055	.3230693	.3274046	.1971399	.3589935	.4333612

#1	.1855962	.1916268	.1945137	174.1565	.3824979	.1899865
#2	.1847545	.1920324	.1932442	173.8650	.3832189	.1884331
#3	.1832810	.1928459	.1938692	174.5493	.3851606	.1887581

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2873914	3.607501	.2600520	42.95305	.4733993	.0316500
Stddev	.0013382	.002951	.0007880	.16179	.0022942	.0001968
%RSD	.4656244	.0818113	.3030087	.3766706	.4846241	.6217635

#1	.2881298	3.610872	.2598686	42.98304	.4751821	.0317400
#2	.2858467	3.606250	.2593720	42.77837	.4708109	.0317856
#3	.2881976	3.605382	.2609156	43.09776	.4742048	.0314243

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.71897	.3002916	.1965508	9.726048	.9439800	.4114251
Stddev	.05202	.0006056	.0003724	.047598	.0026354	.0018162
%RSD	.1947084	.2016798	.1894603	.4893906	.2791838	.4414541

#1	26.71981	.3006890	.1961209	9.754723	.9426946	.4111148
#2	26.77056	.3005913	.1967740	9.752318	.9422339	.4097839
#3	26.66652	.2995946	.1967574	9.671104	.9470115	.4133765

Sample Name: Q2072-04MSD Acquired: 5/21/2025 21:38:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6829891	.2151856	F 26.17317	6.194916	12.72190	.1749709
Stddev	.0022944	.0012014	.00732	.028039	.08405	.0010284
%RSD	.3359368	.5583267	.0279794	.4526196	.6607006	.5877408

#1	.6841393	.2165713	26.18137	6.222400	12.78989	.1749175
#2	.6803471	.2145504	26.16728	6.166352	12.62792	.1760249
#3	.6844809	.2144351	26.17085	6.195995	12.74789	.1739703

Elem	Sr4077
Units	ppm
Avg	.3339927
Stddev	.0005254
%RSD	.1573143

#1	.3343618
#2	.3342252
#3	.3333912

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2714.483	67843.98	18207.69	2561.330	3998.921
Stddev	15.543	75.76	64.34	1.575	19.306
%RSD	.5725978	.1116623	.3533409	.0615028	.4827912

#1	2710.343	67835.65	18231.96	2560.350	3987.873
#2	2731.677	67923.55	18256.36	2563.147	4021.213
#3	2701.429	67772.73	18134.75	2560.493	3987.675

Sample Name: Q2072-04A Acquired: 5/21/2025 21:42:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.7320723	1.758932	.8936402	1.770464	.7523980	2.212798
Stddev	.0077891	.008038	.0031494	.001011	.0063891	.018410
%RSD	1.063985	.4569559	.3524278	.0571017	.8491587	.8319882

#1	.7242731	1.749715	.8950268	1.769763	.7508144	2.220827
#2	.7398514	1.762596	.8958584	1.770006	.7469497	2.225829
#3	.7320925	1.764483	.8900354	1.771623	.7594300	2.191736

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1730612	.1798123	.1827416	173.2795	.3734765	.1778357
Stddev	.0011858	.0010675	.0004688	.4713	.0007402	.0001125
%RSD	.6851719	.5936900	.2565584	.2719884	.1982036	.0632653

#1	.1740404	.1810424	.1824932	173.5994	.3733212	.1778672
#2	.1734004	.1791284	.1832824	173.5007	.3742820	.1779290
#3	.1717428	.1792661	.1824492	172.7382	.3728262	.1777107

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2706393	3.671242	.2405883	42.84685	.4457900	.0613296
Stddev	.0003675	.037710	.0007852	.20943	.0001715	.0039450
%RSD	.1357732	1.027159	.3263834	.4887927	.0384625	6.432409

#1	.2703889	3.632644	.2409516	43.01339	.4459194	.0620815
#2	.2710612	3.707995	.2411260	42.91545	.4458551	.0570628
#3	.2704679	3.673087	.2396871	42.61173	.4455956	.0648446

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.32463	.2796221	.1905833	9.804067	.9136332	.3941655
Stddev	.24867	.0006260	.0019985	.047102	.0068562	.0012472
%RSD	.8779315	.2238795	1.048615	.4804347	.7504275	.3164135

#1	28.03752	.2799649	.1901144	9.751683	.9214085	.3934136
#2	28.46413	.2800019	.1927746	9.817589	.9110355	.3934777
#3	28.47222	.2788996	.1888610	9.842930	.9084554	.3956051

Sample Name: Q2072-04A Acquired: 5/21/2025 21:42:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.6530287	.2042422	F 28.07233	5.883444	12.68165	.1612315
Stddev	.0010348	.0000918	.22754	.009993	.01249	.0013826
%RSD	.1584639	.0449559	.8105632	.1698477	.0985178	.8575116

#1	.6521538	.2041382	27.82347	5.873391	12.67094	.1599289
#2	.6541710	.2042766	28.26974	5.893375	12.67862	.1610836
#3	.6527614	.2043119	28.12379	5.883566	12.69537	.1626822

Elem	Sr4077
Units	ppm
Avg	.3214061
Stddev	.0003757
%RSD	.1168822

#1	.3217907
#2	.3210400
#3	.3213876

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2721.912	63971.87	18481.84	2459.664	4016.696
Stddev	14.190	370.26	80.58	21.133	10.838
%RSD	.5213344	.5787914	.4359992	.8591713	.2698262

#1	2731.440	64392.07	18389.48	2473.659	4023.444
#2	2728.692	63693.41	18518.20	2435.355	4022.450
#3	2705.603	63830.14	18537.83	2469.978	4004.195

Sample Name: Q2072-05 Acquired: 5/21/2025 21:46:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	-.003594	-.004464	-.001331	.0014213	.0026153	.0072066	-.003717
Stddev	.001515	.001045	.000978	.0030979	.0019252	.0026869	.000601
%RSD	42.15284	23.40140	73.51799	217.9662	73.61157	37.28396	16.15882

#1	-.001967	-.004075	-.001960	-.002084	.0004555	.0041186	-.003677
#2	-.004965	-.003669	-.001828	.003793	.0041511	.0084910	-.003138
#3	-.003850	-.005647	-.000204	.002555	.0032394	.0090103	-.004337

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000098	-.000196	.4612558	-.000011	-.000008	.0018421	.0069886
Stddev	.000006	.000063	.0045806	.000154	.000200	.0001954	.0037827
%RSD	6.112303	32.19684	.9930726	1372.124	2542.471	10.60625	54.12723

#1	-.000105	-.000165	.4657044	-.000006	-.000092	.0019401	.0112688
#2	-.000097	-.000154	.4565537	.000140	.000220	.0016171	.0040946
#3	-.000093	-.000268	.4615095	-.000168	-.000151	.0019690	.0056022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0319773	.0058197	-.000065	.0000491	-.043176	.0014829	.0158540
Stddev	.0001159	.0099778	.000040	.0002366	.002348	.0003771	.0001658
%RSD	.3623904	171.4489	61.15016	481.9251	5.437317	25.43002	1.045938

#1	.0320331	-.005645	-.000065	.0001369	-.040808	.0015036	.0157865
#2	.0318441	.010566	-.000106	.0002292	-.045503	.0018492	.0160430
#3	.0320548	.012538	-.000026	-.000219	-.043216	.0010959	.0157326

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0675257	.0067425	.0001599	-.001843	-.000804	.0125604	.0084516
Stddev	.0069014	.0000770	.0001150	.000622	.000700	.0052288	.0007251
%RSD	10.22040	1.141768	71.92561	33.73875	87.08185	41.62938	8.579436

#1	.0746018	.0068314	.0002074	-.001577	.000003	.0173440	.0088608
#2	.0608134	.0066997	.0000288	-.002554	-.001248	.0133588	.0076143
#3	.0671620	.0066964	.0002436	-.001398	-.001167	.0069783	.0088795

Sample Name: Q2072-05 Acquired: 5/21/2025 21:46:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) 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	.0519971	-.001566	.0001591
Stddev	.0033080	.001018	.0000840
%RSD	6.361856	64.97483	52.79223

#1	.0493009	-.000461	.0000851
#2	.0510022	-.002464	.0002504
#3	.0556884	-.001775	.0001419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2936.180	69372.65	18614.84	2704.442	4492.318
Stddev	10.199	141.55	30.04	28.599	18.854
%RSD	.3473393	.2040475	.1613937	1.057490	.4196896

#1	2927.513	69209.20	18589.50	2671.627	4477.984
#2	2933.610	69453.82	18606.99	2717.638	4485.295
#3	2947.418	69454.95	18648.03	2724.060	4513.675

Sample Name: CCV10 Acquired: 5/21/2025 21:50:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.862544	4.830693	4.870325	4.861540	4.861114	9.685680	9.422137
Stddev	.010626	.020202	.008166	.018653	.005356	.028855	.043298
%RSD	.2185346	.4182086	.1676629	.3836862	.1101791	.2979138	.4595334

#1	4.850445	4.830996	4.862829	4.840769	4.857696	9.716521	9.456386
#2	4.870362	4.810341	4.879027	4.876860	4.858359	9.681178	9.373469
#3	4.866825	4.850743	4.869121	4.866992	4.867286	9.659341	9.436555

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2594453	2.429954	24.17858	.9868950	2.425088	1.228055	4.728177
Stddev	.0018116	.004164	.07846	.0041365	.002739	.003197	.015197
%RSD	.6982637	.1713781	.3245093	.4191437	.1129538	.2603337	.3214080

#1	.2608736	2.425152	24.26277	.9908576	2.422017	1.224677	4.740520
#2	.2600547	2.432584	24.16547	.9872233	2.427280	1.231033	4.711204
#3	.2574075	2.432124	24.10750	.9826041	2.425967	1.228457	4.732807

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.418481	24.49831	2.428974	1.233379	22.51812	2.420998	2.466417
Stddev	.010094	.06561	.004172	.003887	.08174	.005423	.004010
%RSD	.4173807	.2678268	.1717552	.3151197	.3629992	.2240135	.1625911

#1	2.429244	24.55603	2.424191	1.235331	22.52437	2.420761	2.470698
#2	2.416975	24.51195	2.430864	1.235904	22.43343	2.426536	2.462748
#3	2.409224	24.42695	2.431865	1.228904	22.59656	2.415697	2.465806

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.78004	5.120786	4.900190	4.861039	4.799688	4.709471	4.996736
Stddev	.08718	.051698	.013598	.010140	.015679	.031724	.009936
%RSD	.3827105	1.009567	.2775073	.2085925	.3266591	.6736276	.1988574

#1	22.73230	5.159738	4.884928	4.849726	4.815113	4.685470	4.987201
#2	22.72715	5.140486	4.911019	4.869308	4.800183	4.697506	4.995978
#3	22.88066	5.062135	4.904622	4.864082	4.783767	4.745438	5.007030

Sample Name: CCV10 Acquired: 5/21/2025 21:50:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.800680	4.698654	4.800784
Stddev	.010477	.010430	.061794
%RSD	.2182467	.2219783	1.287172

#1	4.812754	4.709298	4.861851
#2	4.793980	4.698211	4.738287
#3	4.795306	4.688452	4.802213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.903	64750.78	17510.10	2514.938	4088.244
Stddev	9.739	95.51	99.13	1.003	9.764
%RSD	.3512329	.1475095	.5661388	.0398862	.2388298

#1	2784.077	64683.93	17421.57	2516.088	4098.782
#2	2768.411	64860.17	17491.54	2514.484	4086.447
#3	2766.219	64708.23	17617.20	2514.243	4079.504

Sample Name: CCB10 Acquired: 5/21/2025 21:54:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004541	-.001678	-.000804	-.003491	.0012197	.0010614	-.003268
Stddev	.0012185	.000514	.001762	.005035	.0009480	.0028937	.000756
%RSD	268.3142	30.63390	219.2407	144.2228	77.72436	272.6361	23.12451

#1	.0005298	-.001548	.001161	-.001080	.0019912	-.001244	-.003112
#2	-.000800	-.002244	-.002245	-.009277	.0001614	.000120	-.004089
#3	.001633	-.001241	-.001327	-.000115	.0015065	.004309	-.002602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000419	.0000130	-.003460	.0000850	.0003744	.0005672	.0027484
Stddev	.0000458	.0000736	.002864	.0001681	.0000316	.0001344	.0069097
%RSD	109.4458	567.3335	82.77275	197.7263	8.440780	23.69798	251.4092

#1	-.000001	.0000884	-.005628	-.000074	.0003497	.0006400	-.001094
#2	.000090	.0000092	-.004540	.000069	.0004100	.0006496	.010725
#3	.000037	-.000059	-.000213	.000261	.0003634	.0004121	-.001386

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000102	-.005942	.0002132	.0002280	-.115021	.0009759	.0000581
Stddev	.000019	.012551	.0004715	.0001538	.006785	.0005975	.0002264
%RSD	18.58961	211.2303	221.2135	67.43385	5.898682	61.22600	389.7782

#1	-.000121	-.020286	-.000223	.0000698	-.110125	.0012696	.0002443
#2	-.000103	.003022	.000148	.0003769	-.122766	.0013697	.0001239
#3	-.000083	-.000562	.000714	.0002374	-.112172	.0002884	-.000194

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.050132	.0077131	.0006117	-.001129	.0002904	.0013269	-.002167
Stddev	.011903	.0003266	.0001683	.001158	.0002107	.0023145	.001945
%RSD	23.74375	4.234556	27.52056	102.5525	72.55664	174.4352	89.72861

#1	-.059600	.0077605	.0004918	-.001683	.0000995	.0038344	-.000749
#2	-.054028	.0080135	.0008041	.000202	.0005165	-.000728	-.001369
#3	-.036769	.0073654	.0005391	-.001907	.0002551	.000874	-.004384

Sample Name: CCB10 Acquired: 5/21/2025 21:54:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002079	.0000591	.0002710
Stddev	.002353	.0008459	.0000210
%RSD	113.1576	1432.217	7.743672

#1	.000172	-.000109	.0002901
#2	-.004522	-.000690	.0002486
#3	-.001888	.000977	.0002743

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2939.991	67624.10	18138.47	2661.864	4462.673
Stddev	9.066	74.89	186.41	4.019	9.857
%RSD	.3083629	.1107381	1.027699	.1509915	.2208776

#1	2933.933	67707.56	17929.37	2662.443	4456.702
#2	2935.627	67562.78	18198.80	2665.563	4457.266
#3	2950.414	67601.96	18287.24	2657.587	4474.050

SOP ID : M200.7-Trace Elements-22

SDG No : N/A

Matrix : WATER

Pipette 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: 05/21/2025 Time : 10:15 Temp : 96 °C

End Digest Date: 05/21/2025 Time : 13:21 Temp : 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: *[Signature]*

Supervisor Signature: *[Signature]*

Temp : 1. 96°C 2. N/A

Standardized 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#1 CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05/21/25 14:21	SPS. met. dig	<i>[Signature]</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB168107BL	PBW107	<2	50	25	Colorless	Colorless	Clear	N/A	N/A	1
PB168107BS	LCS107	<2	50	25	Colorless	Colorless	Clear	N/A	M6005,M6016	2
Q2090-01	001-WILLETS-PT-BLVD(APR)	<2	50	25	Colorless	Colorless	Clear	N/A	N/A	3
Q2090-02	002-35TH-AVE(APR)	<2	50	25	Colorless	Colorless	Clear	N/A	N/A	4
Q2090-02MS	002-35TH-AVE(APR)MS	<2	50	25	Colorless	Colorless	Clear	N/A	M6005,M6016	6
Q2090-02MSD	002-35TH-AVE(APR)MSD	<2	50	25	Colorless	Colorless	Clear	N/A	M6005,M6016	7
Q2090-02DUP	002-35TH-AVE(APR)DUP	<2	50	25	Colorless	Colorless	Clear	N/A	N/A	5

WORKLIST(Hardcopy Internal Chain)

Worklist Name : PB168107

Worklist ID : 189671

Department : Digestion

Date : 05-21-2025 09:54:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2090-01	001-WILLETS-PT-BLVD(APR)	Water	Metals Group 10	1:1 HNO3 to pH < 2	TULL01	L31	05/16/2025	200.7
Q2090-02	002-35TH-AVE(APR)	Water	Metals Group 10	1:1 HNO3 to pH < 2	TULL01	L31	05/16/2025	200.7

Date/Time 05/21/25 10:05

Raw Sample Received by: SP3.mct.d19

Raw Sample Relinquished by: [Signature]

Date/Time 05/21/25 11:05

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: SP3.mct.d19

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard	MP85552		
LCS Standard			
Chk Standard	MP85557,MP85558		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/21/25 12:05		Kareem	OK
2	S1	S1	CAL2	05/21/25 12:09		Kareem	OK
3	S2	S2	CAL3	05/21/25 12:13		Kareem	OK
4	S3	S3	CAL4	05/21/25 12:17		Kareem	OK
5	S4	S4	CAL5	05/21/25 12:22		Kareem	OK
6	S5	S5	CAL6	05/21/25 12:26		Kareem	OK
7	ICV01	ICV01	ICV	05/21/25 13:19		Kareem	OK
8	LLICV01	LLICV01	LLICV	05/21/25 13:29		Kareem	OK
9	ICB01	ICB01	ICB	05/21/25 13:36		Kareem	OK
10	CRI01	CRI01	CRDL	05/21/25 13:43		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/21/25 13:52		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/21/25 13:56		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/21/25 14:00		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/21/25 14:05		Kareem	OK
15	CCV01	CCV01	CCV	05/21/25 14:09		Kareem	OK
16	CCB01	CCB01	CCB	05/21/25 14:13		Kareem	OK
17	Q2068-01	LAW-25-0075	SAM	05/21/25 14:17		Kareem	OK
18	Q2067-01	303-PPR-FRAC	SAM	05/21/25 14:22		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135868

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Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM
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ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard	MP85552		
LCS Standard			
Chk Standard	MP85557,MP85558		

19	Q2068-03DL	LAW-25-0074DL	SAM	05/21/25 14:26		Kareem	OK
20	Q2065-01	VACTRUCK-728068	SAM	05/21/25 14:30	Ca High	Kareem	Dilution
21	Q2090-01	001-WILLETTS-PT-BL	SAM	05/21/25 14:35		Kareem	OK
22	Q2090-02	002-35TH-AVE(APR)	SAM	05/21/25 14:39		Kareem	OK
23	Q2090-02DUP	002-35TH-AVE(APR)	DUP	05/21/25 14:44		Kareem	OK
24	Q2090-02L	002-35TH-AVE(APR)	SD	05/21/25 14:48		Kareem	OK
25	Q2090-02MS	002-35TH-AVE(APR)	MS	05/21/25 14:52		Kareem	OK
26	Q2090-02MSD	002-35TH-AVE(APR)	MSD	05/21/25 14:56		Kareem	OK
27	CCV02	CCV02	CCV	05/21/25 15:00		Kareem	OK
28	CCB02	CCB02	CCB	05/21/25 15:04		Kareem	OK
29	Q2065-01DL	VACTRUCK-728068D	SAM	05/21/25 15:09	2X For Still High	Kareem	Dilution
30	Q2090-02A	002-35TH-AVE(APR)	PS	05/21/25 15:13		Kareem	OK
31	Q2065-01DL2	VACTRUCK-728068D	SAM	05/21/25 15:18	Bad Injection	Kareem	Not Ok
32	Q1984-05	OU4-PCS-TC-35-050	SAM	05/21/25 15:24		Kareem	OK
33	Q1984-07	OU4-TS-24-050725	SAM	05/21/25 15:28		Kareem	OK
34	Q1984-09	OU4-TS-25-050725	SAM	05/21/25 15:37		Kareem	OK
35	Q1984-11	OU4-TS-26-050725	SAM	05/21/25 15:41		Kareem	OK
36	Q1984-13	OU4-TS-27-050725	SAM	05/21/25 15:45		Kareem	OK
37	Q2065-01DL3	VACTRUCK-728068D	SAM	05/21/25 15:53	20X For Ca	Kareem	Confirms
38	Q1984-15	OU4-TS-28-050725	SAM	05/21/25 15:58		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135868

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CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

39	CCV03	CCV03	CCV	05/21/25 16:02		Kareem	OK
40	CCB03	CCB03	CCB	05/21/25 16:25		Kareem	OK
41	Q1984-15DUP	OU4-TS-28-050725D	DUP	05/21/25 16:29		Kareem	OK
42	Q1984-15L	OU4-TS-28-050725L	SD	05/21/25 16:34		Kareem	OK
43	Q1984-15MS	OU4-TS-28-050725M	MS	05/21/25 16:38		Kareem	OK
44	Q1984-15MSD	OU4-TS-28-050725M	MSD	05/21/25 16:42		Kareem	OK
45	Q1984-15A	OU4-TS-28-050725A	PS	05/21/25 16:46		Kareem	OK
46	PB168085BL	PB168085BL	MB	05/21/25 16:51		Kareem	OK
47	PB168085BS	PB168085BS	LCS	05/21/25 17:05		Kareem	OK
48	PB168087BL	PB168087BL	MB	05/21/25 17:10		Kareem	OK
49	PB168087BS	PB168087BS	LCS	05/21/25 17:15		Kareem	OK
50	PB168086BL	PB168086BL	MB	05/21/25 17:22		Kareem	OK
51	CCV04	CCV04	CCV	05/21/25 17:27		Kareem	OK
52	CCB04	CCB04	CCB	05/21/25 17:32		Kareem	OK
53	PB168086BS	PB168086BS	LCS	05/21/25 17:37		Kareem	OK
54	PB168107BL	PB168107BL	MB	05/21/25 17:41		Kareem	OK
55	PB168107BS	PB168107BS	LCS	05/21/25 17:45		Kareem	OK
56	PB168067TB	PB168067TB	MB	05/21/25 17:49		Kareem	OK
57	Q2071-04	L1-WC-7	SAM	05/21/25 17:53		Kareem	OK
58	Q2071-08	L1-WC-8	SAM	05/21/25 17:58		Kareem	OK

Instrument ID: P4

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ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard	MP85552		
LCS Standard			
Chk Standard	MP85557,MP85558		

59	Q2071-12	L1-WC-9	SAM	05/21/25 18:02		Kareem	OK
60	Q2071-16	L2-WC-5	SAM	05/21/25 18:07		Kareem	OK
61	Q2071-20	L2-WC-6	SAM	05/21/25 18:11		Kareem	OK
62	CCV05	CCV05	CCV	05/21/25 18:16		Kareem	OK
63	CCB05	CCB05	CCB	05/21/25 18:20		Kareem	OK
64	Q2080-06	PL-HRH-COMP-01	SAM	05/21/25 18:24		Kareem	OK
65	Q2080-12	PL-HRH-COMP-02	SAM	05/21/25 18:29		Kareem	OK
66	Q2080-12DUP	PL-HRH-COMP-02DUP	DUP	05/21/25 18:33		Kareem	OK
67	Q2080-12L	PL-HRH-COMP-02L	SD	05/21/25 18:37		Kareem	OK
68	Q2080-12MS	PL-HRH-COMP-02MS	MS	05/21/25 18:42		Kareem	OK
69	Q2080-12MSD	PL-HRH-COMP-02MSD	MSD	05/21/25 18:46		Kareem	OK
70	Q2080-12A	PL-HRH-COMP-02A	PS	05/21/25 18:50		Kareem	OK
71	Q2070-01	CONCRETE-PAD-051	SAM	05/21/25 18:54		Kareem	OK
72	Q2071-01	L1-WC-7	SAM	05/21/25 18:59		Kareem	OK
73	CCV06	CCV06	CCV	05/21/25 19:08		Kareem	OK
74	CCB06	CCB06	CCB	05/21/25 19:16		Kareem	OK
75	Q2071-05	L1-WC-8	SAM	05/21/25 19:20		Kareem	OK
76	Q2071-09	L1-WC-9	SAM	05/21/25 19:24		Kareem	OK
77	Q2071-13	L2-WC-5	SAM	05/21/25 19:28		Kareem	OK
78	Q2071-17	L2-WC-6	SAM	05/21/25 19:32		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135868

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CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

79	Q2074-01	TP-12	SAM	05/21/25 19:36		Kareem	OK
80	Q2074-02	TP-7	SAM	05/21/25 19:41		Kareem	OK
81	Q2074-03	TP-15	SAM	05/21/25 19:45		Kareem	OK
82	Q2074-04	TP-20	SAM	05/21/25 19:49		Kareem	OK
83	Q2074-05	TP-38	SAM	05/21/25 19:53		Kareem	OK
84	CCV07	CCV07	CCV	05/21/25 19:57		Kareem	OK
85	CCB07	CCB07	CCB	05/21/25 20:02		Kareem	OK
86	Q2074-06	TP-19	SAM	05/21/25 20:06		Kareem	OK
87	Q2074-07	TP-40	SAM	05/21/25 20:10		Kareem	OK
88	Q2074-08	TP-18	SAM	05/21/25 20:14		Kareem	OK
89	Q2080-01	PL-HRH-COMP-01	SAM	05/21/25 20:19	Qc Missing	Kareem	Not Ok
90	Q2080-07	PL-HRH-COMP-02	SAM	05/21/25 20:23		Kareem	OK
91	Q2084-01	OR-640-COMP-66	SAM	05/21/25 20:27		Kareem	OK
92	Q2084-01DUP	OR-640-COMP-66DU	DUP	05/21/25 20:31	Wrong Qc Analyzed	Kareem	Not Ok
93	Q2084-01L	OR-640-COMP-66L	SD	05/21/25 20:35	Wrong Qc Analyzed	Kareem	Not Ok
94	Q2084-01MS	OR-640-COMP-66MS	MS	05/21/25 20:39	Wrong Qc Analyzed	Kareem	Not Ok
95	CCV08	CCV08	CCV	05/21/25 20:43		Kareem	OK
96	CCB08	CCB08	CCB	05/21/25 20:48		Kareem	OK
97	Q2084-01MSD	OR-640-COMP-66MS	MSD	05/21/25 20:52	CCV09 Na Fail , Wrong Qc Analyzed	Kareem	Not Ok

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135868

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Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
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CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

98	Q2084-01A	OR-640-COMP-66A	PS	05/21/25 20:56	CCV09 Na Fail , Wrong Qc Analyzed	Kareem	Not Ok
99	Q2072-01	MW-2	SAM	05/21/25 21:00	CCV09 Na Fail	Kareem	Not Ok
100	Q2072-02	MW-3	SAM	05/21/25 21:04	CCV09 Na Fail	Kareem	Not Ok
101	Q2072-03	MW-4	SAM	05/21/25 21:08	CCV09 Na Fail	Kareem	Not Ok
102	Q2072-04	MW-6	SAM	05/21/25 21:13	CCV09 Na Fail	Kareem	Not Ok
103	Q2072-04DUP	MW-6DUP	DUP	05/21/25 21:17	CCV09 Na Fail	Kareem	Not Ok
104	Q2072-04L	MW-6L	SD	05/21/25 21:21	CCV09 Na Fail	Kareem	Not Ok
105	Q2072-04MS	MW-6MS	MS	05/21/25 21:25	CCV09 Na Fail	Kareem	Not Ok
106	CCV09	CCV09	CCV	05/21/25 21:29	Na Fail	Kareem	OK
107	CCB09	CCB09	CCB	05/21/25 21:34		Kareem	OK
108	Q2072-04MSD	MW-6MSD	MSD	05/21/25 21:38	CCV09 Na Fail	Kareem	Not Ok
109	Q2072-04A	MW-6A	PS	05/21/25 21:42	CCV09 Na Fail	Kareem	Not Ok
110	Q2072-05	FB	SAM	05/21/25 21:46	CCV09 Na Fail	Kareem	Not Ok
111	CCV10	CCV10	CCV	05/21/25 21:50		Kareem	OK
112	CCB10	CCB10	CCB	05/21/25 21:54		Kareem	OK

Prep Standard - Chemical Standard Summary

Order ID : Q2090

Test : Metals Group 10

Prepbatch ID : PB168107,

Sequence ID/Qc Batch ID: LB135868,

Standard ID :

MP85156,MP85545,MP85546,MP85547,MP85548,MP85549,MP85551,MP85552,MP85553,MP85554,MP85555,MP8556,MP85557,MP85558,

Chemical ID :

M5429,M5466,M5467,M5470,M5471,M5658,M5747,M5748,M5751,M5798,M5799,M5800,M5801,M5811,M5814,M5815,M5816,M5817,M5820,M5875,M5942,M5959,M5962,M5970,M5985,M5997,M6005,M6016,M6021,M6023,M6028,M6030,M6032,M6058,M6076,M6077,M6127,M6128,M6137,M6138,M6142,M6144,M6145,M6146,M6150,M6151,M6152,M6155,M6158,M6159,W3112,

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85545	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal
								05/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6158 = Final Quantity: 2500.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
907	ICP AES STD S (S5)	MP85546	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
A) FROM 5.00000ml of M5466 + 5.00000ml of M5471 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5997 + 5.00000ml of M6076 + 5.00000ml of M6146 + 455.00000ml of MP85545 = Final Quantity: 500.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
910	ICP AES STD S4	MP85547	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
909	ICP AES STD S3	MP85548	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 25.00000ml of MP85546 + 75.00000ml of MP85545 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3913	ICP AES STD S2	MP85549	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 16.00000ml of MP85546 + 184.00000ml of MP85545 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2950	ICP AES S1/CRI STOCK STD	MP85551	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
A) <u>FROM</u> 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5942 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M5816 + 89.29000ml of MP85545 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2951	ICP AES S1/CRI WORK STD	MP85552	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 2.00000ml of MP85551 + 98.00000ml of MP85545 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
912	ICP AES ICPV SOLN	MP85553	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal 05/07/2025
<u>FROM</u>	0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5467 + 0.25000ml of M5470 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.32500ml of MP85545 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
904	ICP AES ICSA SOLN	MP85554	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 25.00000ml of M6152 + 225.00000ml of MP85545 = Final Quantity: 250.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3494	ICP AES ICSAB SOLN-1	MP85555	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal 05/07/2025
<u>FROM</u>	0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5470 + 0.10000ml of M5970 + 0.10000ml of M6077 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.68000ml of MP85545 = Final Quantity: 100.000 ml A)							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
911	ICP AES CCV SOLN	MP85556	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
919	ICP AES INTERNAL STD	MP85557	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal 05/07/2025
FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6158 = Final Quantity: 2000.000 ml A)								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
903	ICP AES RINSE SOLN	MP85558	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 200.00000ml of M6158 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

CHEMICAL RECEIPT LOG BOOK

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.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

CHEMICAL RECEIPT LOG BOOK

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.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / TI, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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	06/30/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

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 / lwona	07/03/2024 / lwona	W3112



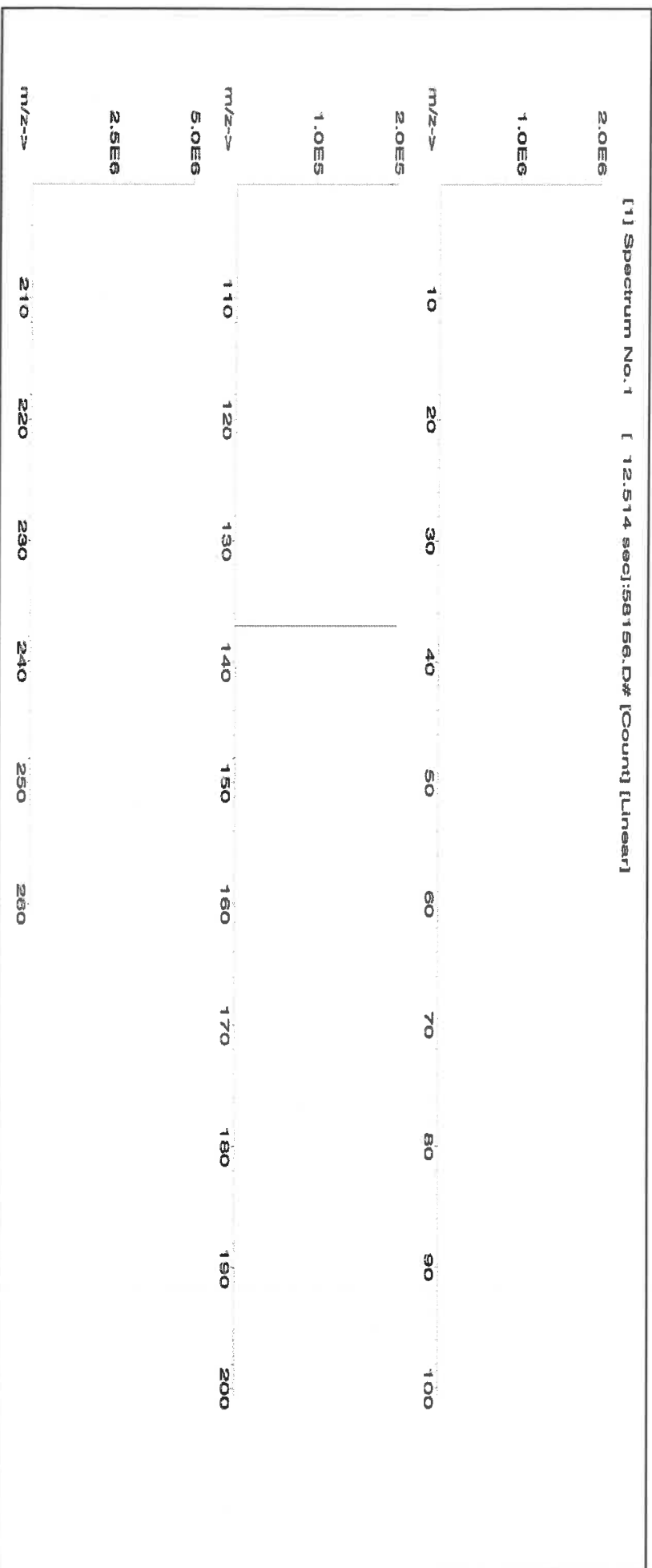
CERTIFIED WEIGHT REPORT:

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

SDS information

Compound	Expanded						SDS Information		NIST				
	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Uncertainty		(Solvent Safety Info. On Attached pg.)			
	RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM

1. Barium nitrate (Ba)	IN023	BA002019A1	1000	99.999	0.10	52.3	3.82417	3.82441	1000.1	2.0	100221-8	0.5 mg/m3	orf-rat 355 mg/kg	3104a
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Solvent: 24002546 Nitric Acid

R: 815/24

Lot #

2% 40.0 Nitric Acid (mL)

Expiration Date: 070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.07 0.100 Flask Uncertainty

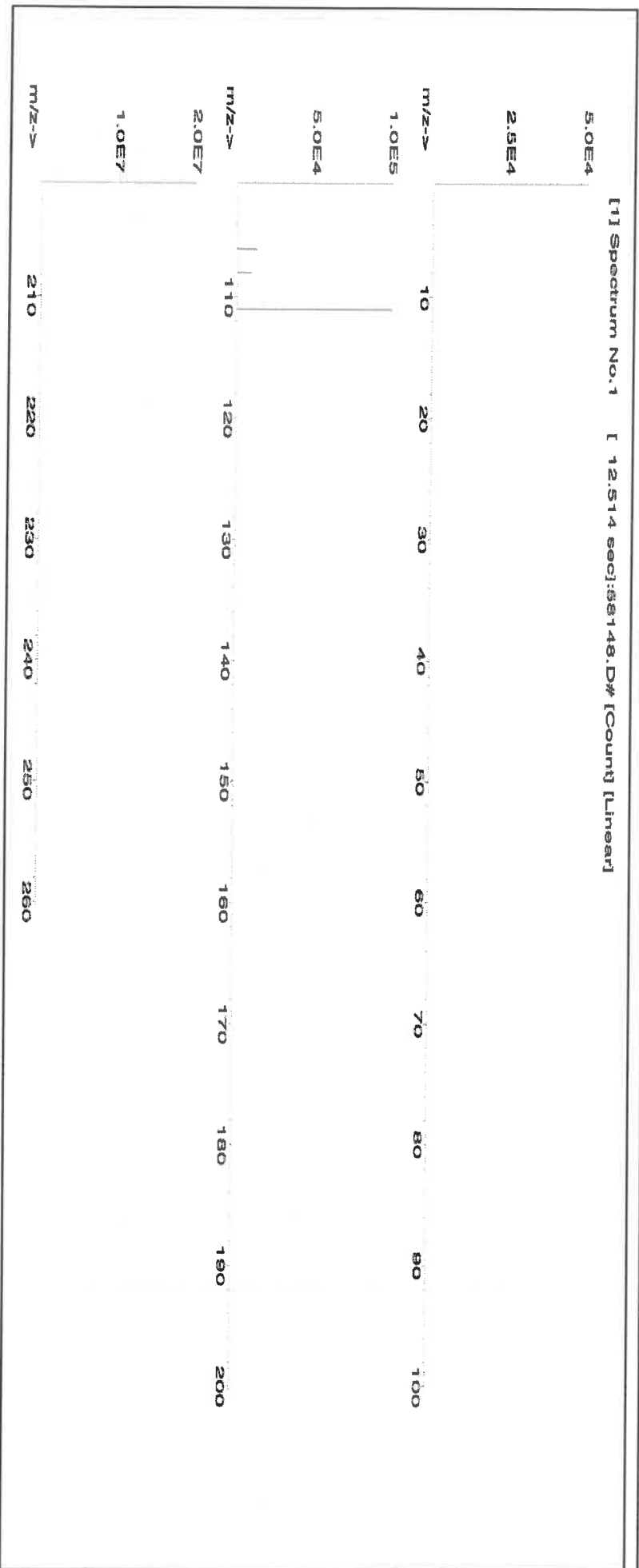
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

Compound

Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Cadmium nitrate tetrahydrate (Cd) IN024 CDM09221A1 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

[1] Spectrum No.1 [12.514 sec]:\$8148.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.2	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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	Ba	<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	Cd	<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	Pr	<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 certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	CLPP-CAL-1	
Lot Number:	T2-MEB714417	
Matrix:	5% (v/v) HNO ₃	
Value / Analyte(s):	5 000 µg/mL ea:	Potassium, Sodium,
	Calcium, Magnesium,	
	2 000 µg/mL ea:	Barium,
	Aluminum,	
	1 000 µg/mL ea:	
	Iron,	
	500 µg/mL ea:	Vanadium, Cobalt,
	Nickel,	
	Zinc,	
	Manganese,	
	250 µg/mL ea:	Copper,
	Silver,	
	200 µg/mL ea:	
	Chromium,	
	50 µg/mL ea:	
	Beryllium	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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





CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

Solvent: 21110221 Nitric Acid

Lot #

Expiration Date: 051526

5.0% 250.0 Nitric Acid (mL)

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

5E-05 Balance Uncertainty

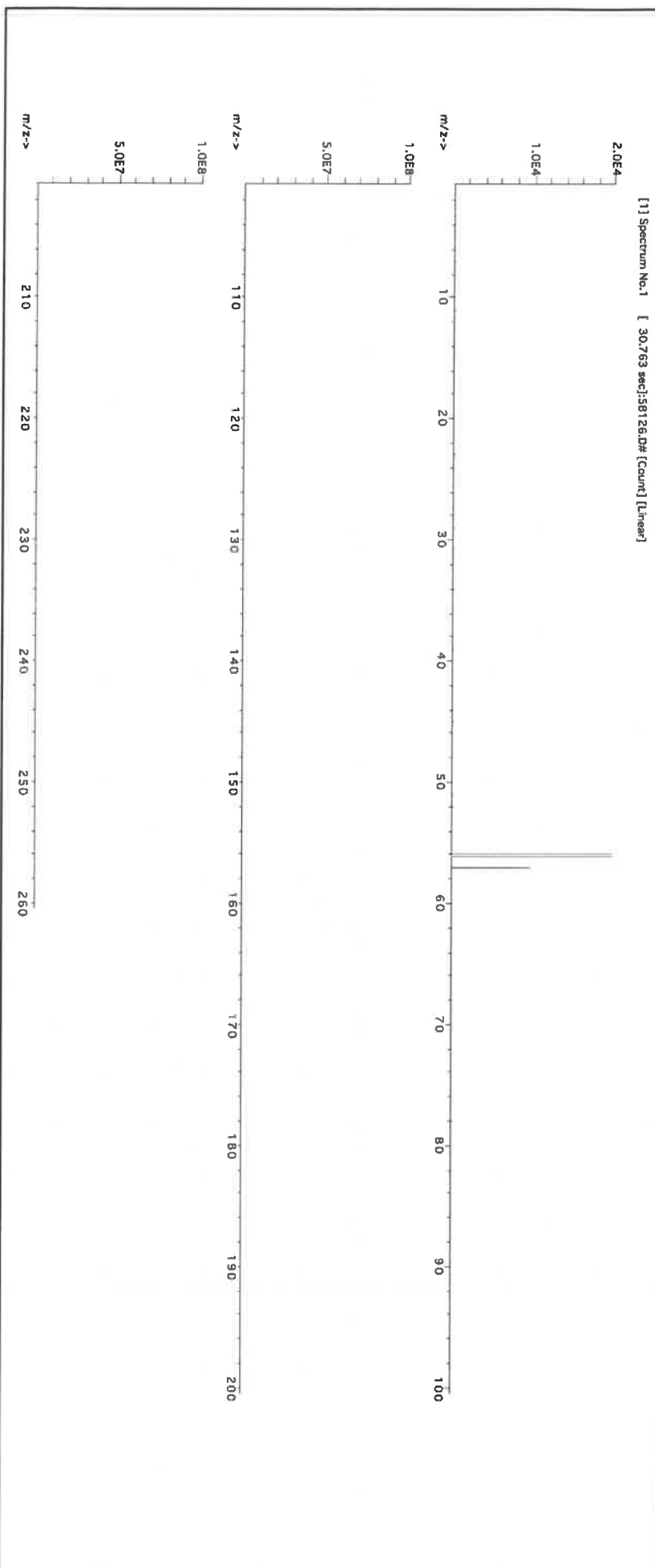
Weight shown below was diluted to (mL): 5000.1 0.12 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
	051523
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	051523

SDS Information

Compound	Lot	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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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	or-tral 7500mg/kg 3126a
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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	Pt	<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	Rb	<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	Tl	<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 certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO ₃

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,	Aluminum,
	Cerium,	Selenium,
	Thallium,	
	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,	Boron,
	Vanadium,	
	20 µg/mL ea:	
	Zinc,	Strontium,
	Barium,	Beryllium,
	Cadmium,	Cobalt,
	Manganese,	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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty (z)} = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum ((w_i)^2 (u_{\text{char } i}^2))]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty (z)} = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 30, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Refine your results. Redefine your industry.

RD:05/14/2024

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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, SiO ₂	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
SiO ₂	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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (z) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = long term stability standard uncertainty (storage)

u_{TS} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (z) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = long term stability standard uncertainty (storage)

u_{TS} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com;

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 17, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM

M5429 R1 0126/23 (B)

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57103
070622
Lithium (Li)

Solvent: 20510011 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

070625
Ambient (20 °C)
10000
6UTB

2% 20.0 (mL)

Weight shown below was diluted to (mL): 1000.12
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

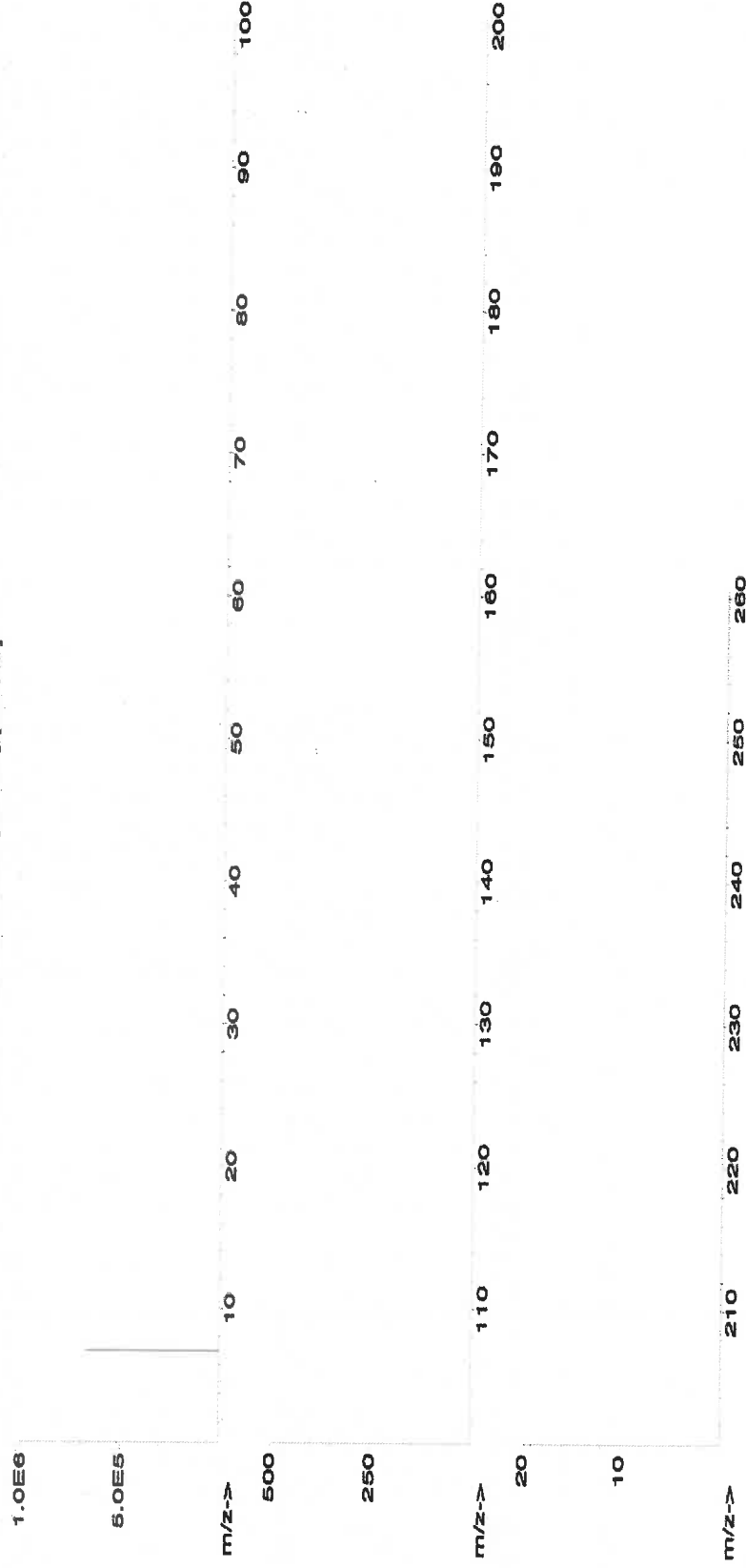
SDS Information

Expanded Uncertainty	(Solvent Safety Info. On Attached pg.)	NIST
+/- (µg/mL)	CAS#	SRM
20.0	7790-69-4	LD50
5 mg/m3	of-rat 1426 mg/kg	NA

Compound	Lot	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Conc. (µg/mL)	Actual
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1. Lithium nitrate (Li)	IN019	10000	99.999	0.10	10.0	100.0134	100.0173	10000.4	20.0	7790-69-4	5 mg/m3	of-rat 1426 mg/kg	NA
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[1] Spectrum No.1 [9.619 sec]:58103.D# [Count] [Linear]





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	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.2	Ho	<0.02	La	<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	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	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 certified (+/-) 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).



AN 5466

Certified Reference Material CRM



ANAB ISO 17034 Accredited
AFR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57058
061322
Cerium (Ce)

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date:

061325

2% 20.0 Nitric Acid (mL)

Recommended Storage:
Nominal Concentration (µg/mL):

Ambient (20 °C)
1000

NIST Test Number:

6UTB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

Compound

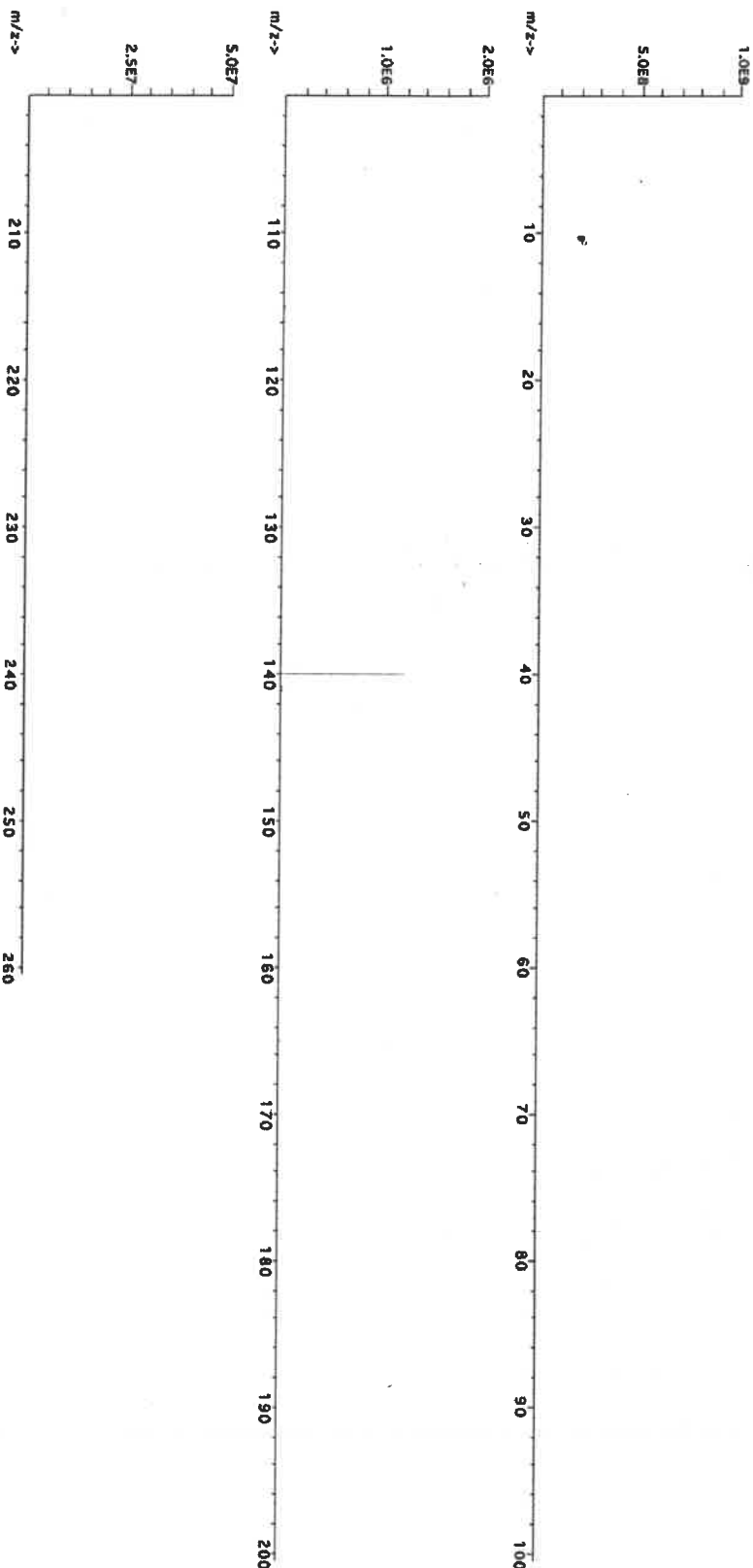
RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA
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SDS Information

Formulated By:	Lawrence Barry
	061322
Reviewed By:	Pedro L. Renteria
	061322

[1] Spectrum No.1 [43.472 sec:158.00e [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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	Rc	<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	Pr	<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 certified (+/-) 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).



M5467 R: 03/01/23 (14)

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1000.12

Solvent: 21110221 Nitric Acid

2% 20.0 Nitric Acid (mL)

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Lawrence Barry 020623
Reviewed By: Pedro L. Rentas 020623

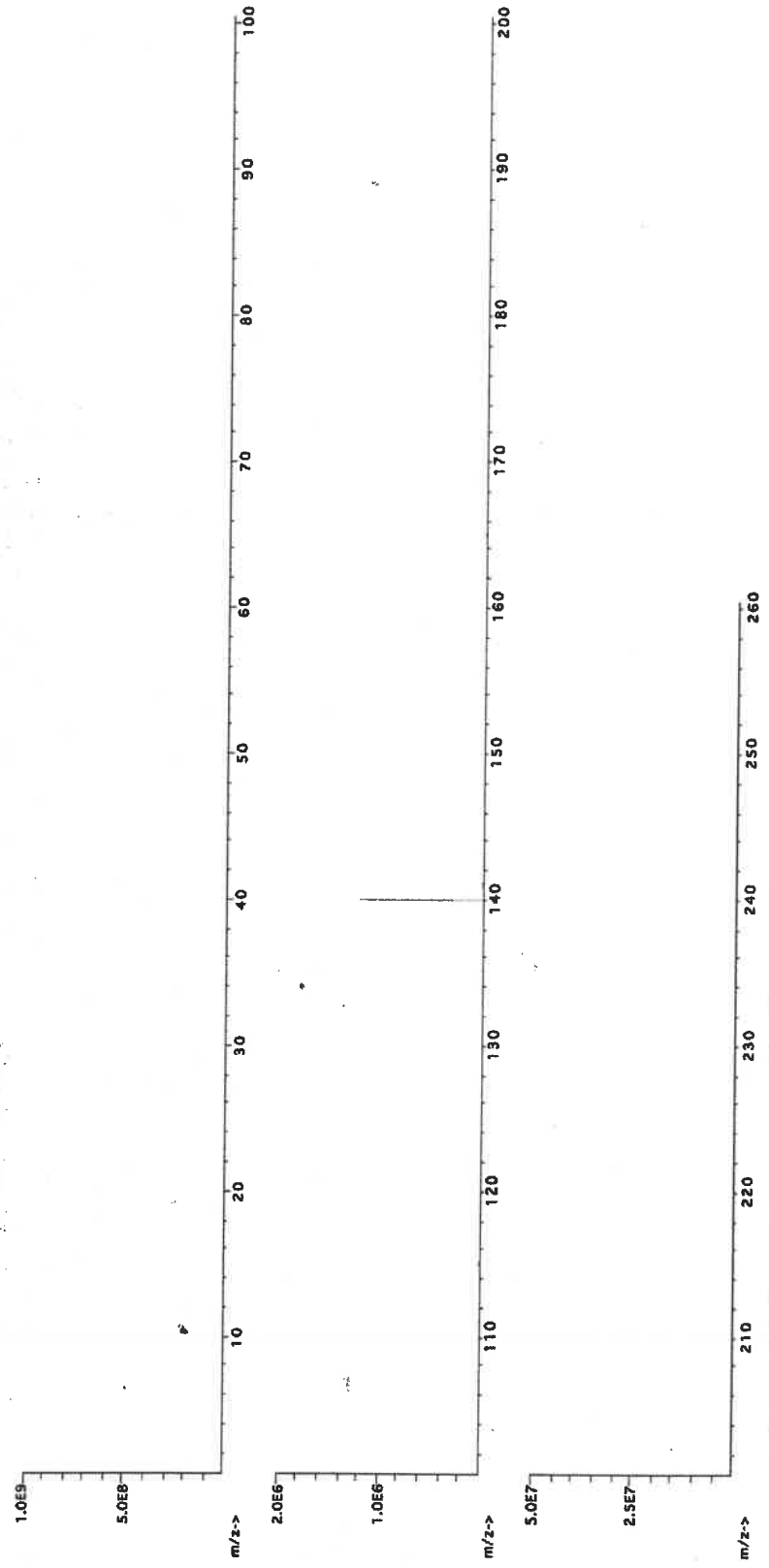
Expanded Uncertainty +/- (µg/mL) 2.0
CAS# 10294-41-4
OSHA PEL (TWA) NA
LD50 NA
SRM NA

SDS Information

(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	1000.0	2.0	10294-41-4	NA	NA

[1] Spectrum No.1 [43.472 sec]58158.D# [Count] [Linear]





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	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.02	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	<0.02	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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot #
21110221
Solvent: Nitric Acid

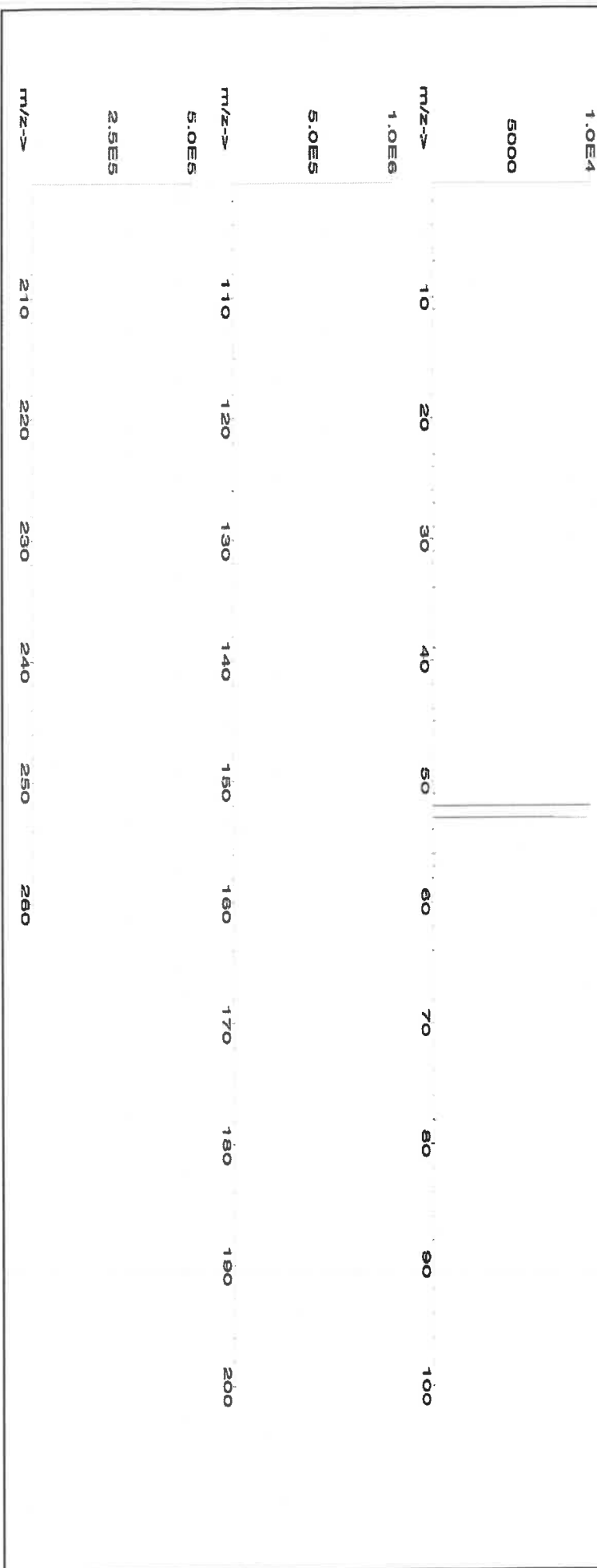
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Henrias
	060523

Expiration Date: 060526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	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 or rat 3250 mg/kg 3112a

[1] Spectrum No.1 [31.393 sec]:57024.D# [Count] [Linear]





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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
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- * Standards are certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Solvent: 24002546 Nitric Acid

Lot #

R: 12/20/23 MS747

Formulated By:	Lawrence Barry
	100923
Reviewed By:	Pedro L. Rentas
	100923

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

2% 60.0 Nitric Acid
(mL)

Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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SDS Information

1. Lead(II) nitrate (Pb) IN029 PB0122016A1 1000 99.999 0.10 62.5 4.80071 4.80077 1000.0 2.0 10099-74-8 0.05 mg/m3 Intyms-ret 89 mg/kg 3128

[1] Spectrum No. 1 [14.144 sec]:58082.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	Ba	<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

Physical Characterization:

(T) = Target analyte

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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57028**
Lot Number: **091223**
Description: **Nickel (NI)**

Lot # **24002546** Solvent: **Nitric Acid**

Expiration Date: **091226**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**

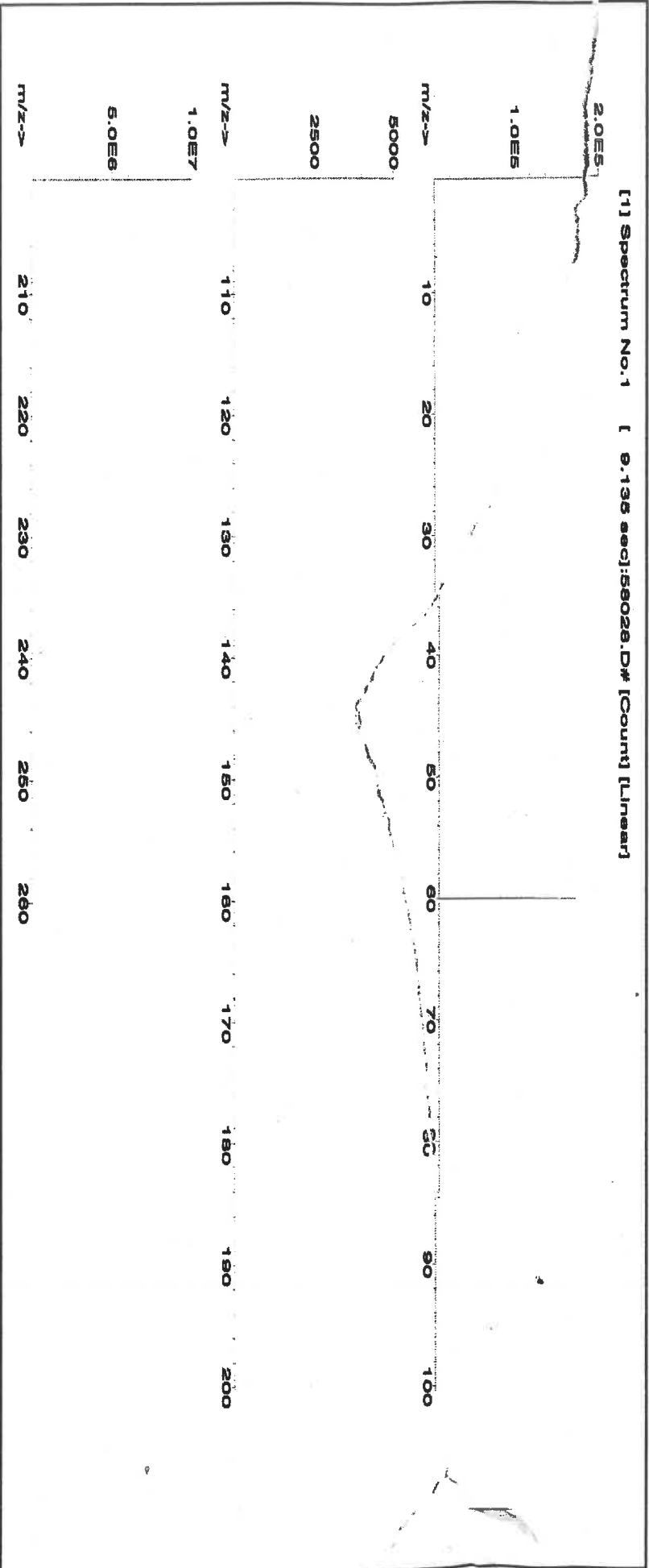
2.0% 40.0 (mL) Nitric Acid

Formulated By:	<i>Lawrence Barry</i>	091223
Reviewed By:	<i>Pedro L. Renteria</i>	091223

NIST Test Number: **6U7B**
Volume shown below was diluted to (mL): **2000.02** Balance Uncertainty **5E-05** Flask Uncertainty **0.056**

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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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 or-rel 1620 mg/kg 3136





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	Tb	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **58029**
Lot Number: **071723**
Description: **Copper (Cu)**

Lot #: **2110221**
Solvent: **Nitric Acid**

2.0%

40.0 (mL)
Nitric Acid

Expiration Date: **071726**
Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6L7B**

Volume shown below was diluted to (mL): **2000.02**

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Ruelas	071723

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Copper(II) nitrate trihydrate (Cu) 58129 022723 0.1000 200.0 0.084 1000 10000.5 1000.0 2.2 10031-43-3 1 mg/m3 or rat 794 mg/kg 3114

[1] Spectrum No.1 [33.422 sec]:58029.D# [Count] [Linear]

1.0E6	m/z-->	10	20	30	40	50	60	70	80	90	100
5.0E5											
5.0E7	m/z-->	110	120	130	140	150	160	170	180	190	200
2.0E7											
2.5E7	m/z-->	210	220	230	240	250	260				
1.0E7											



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	Bu	<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	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	La	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Pb	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02			Nd	<0.02	K	<0.2	Sc	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57004
Lot Number: 102523
Description: Beryllium (Be)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date:

102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty

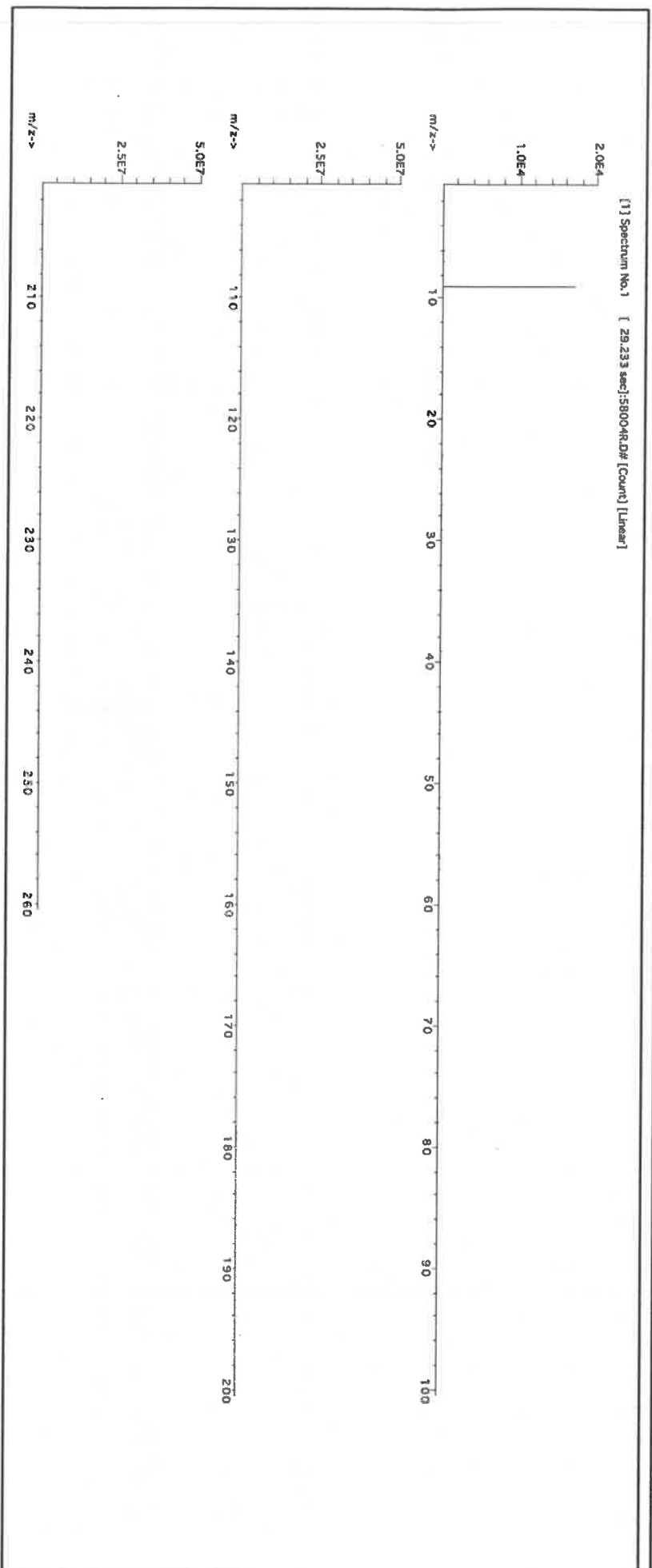
0.058 Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

SDS Information

Compound	Part Number	Lot	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	1000.0	2.2	13597-99-4	0.2µg/m3	intrinsc-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 ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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	Tc	<0.02	U	<0.02
As	<0.02	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<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	<0.02	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	<0.02	Sc	<0.02	Ta	<0.02	Tl	<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 certified (+/-) 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).



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

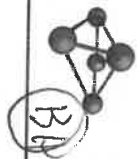
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



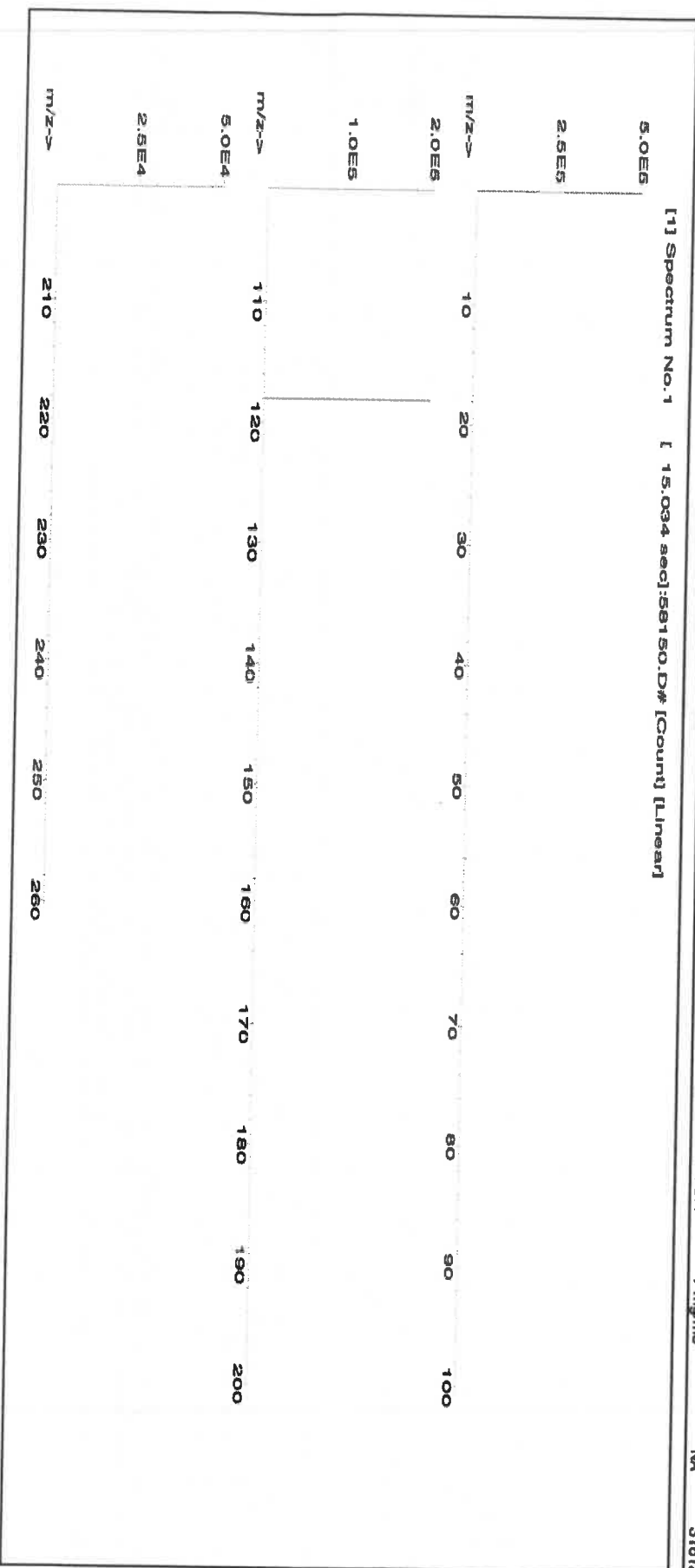
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Benson Chan		071123
Reviewed By: Pedro L. Rientas		071123

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty		CAS#	OSHA PEL (TWA)	LD50	NIST SRM
									+/- (µg/mL)	(µg/mL)				

1. Ammonium hexafluoroantimonate(V) (Sn) INO10 SMD042023A1 1000 99.999 0.10 44.2 1.13107 1.13286 1001.6 2.0 16919-24-7 7 mg/m3 NA 3161a

[1] Spectrum No. 1 [15.034 sec]:56150.D# [Count] [Linear]



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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
Bc	<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	Ta	<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:

[Handwritten signature]

- * 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 certified (+/-) 0.5% of the stated value, unless otherwise stated.
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- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



R: 02/09/24 115800 (54)

CERTIFIED WEIGHT REPORT:

Part Number: 57027
Lot Number: 091923
Description: Cobalt (Co)

Expiration Date: 091926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lot # 24002546
Solvent: Nitric Acid

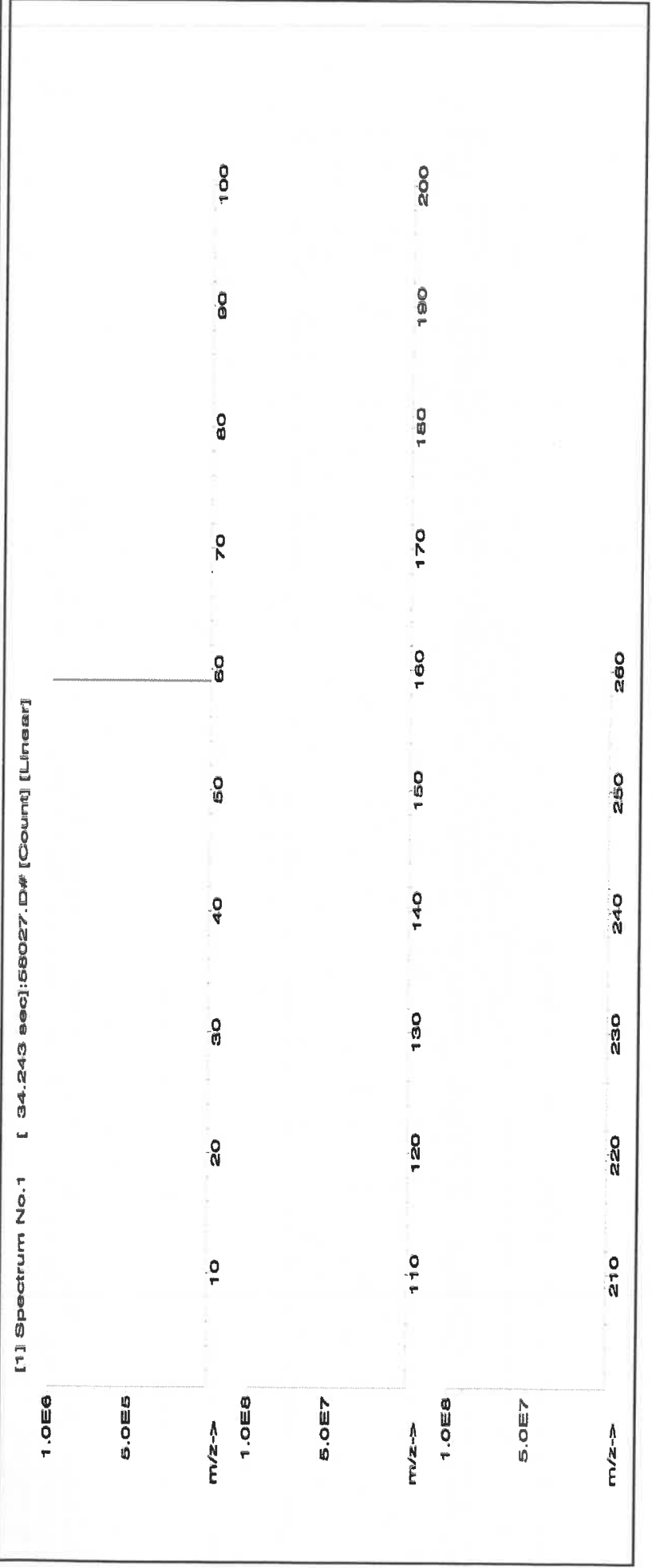
2.0% Nitric Acid
40.0 (mL)

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

SDS Information

Expanded Uncertainty +/- (µg/mL)
(Solvent Safety Info. On Attached pg.)
NIST SRM
CAS# OSHA PEL (TWA) LD50

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





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	<0.02	Os	<0.01	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	<0.2	Na	<0.02	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	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	<0.2	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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57033
111323
Arsenic (As)

Lot #
Solvent:

24002546
Nitric Acid

2.0%

80.0

Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):

111326
Ambient (20 °C)
1000

NIST Test Number:
Volume shown below was diluted to (mL):

6UTB
4000.0

5E-05
Balance Uncertainty
0.06
Flask Uncertainty

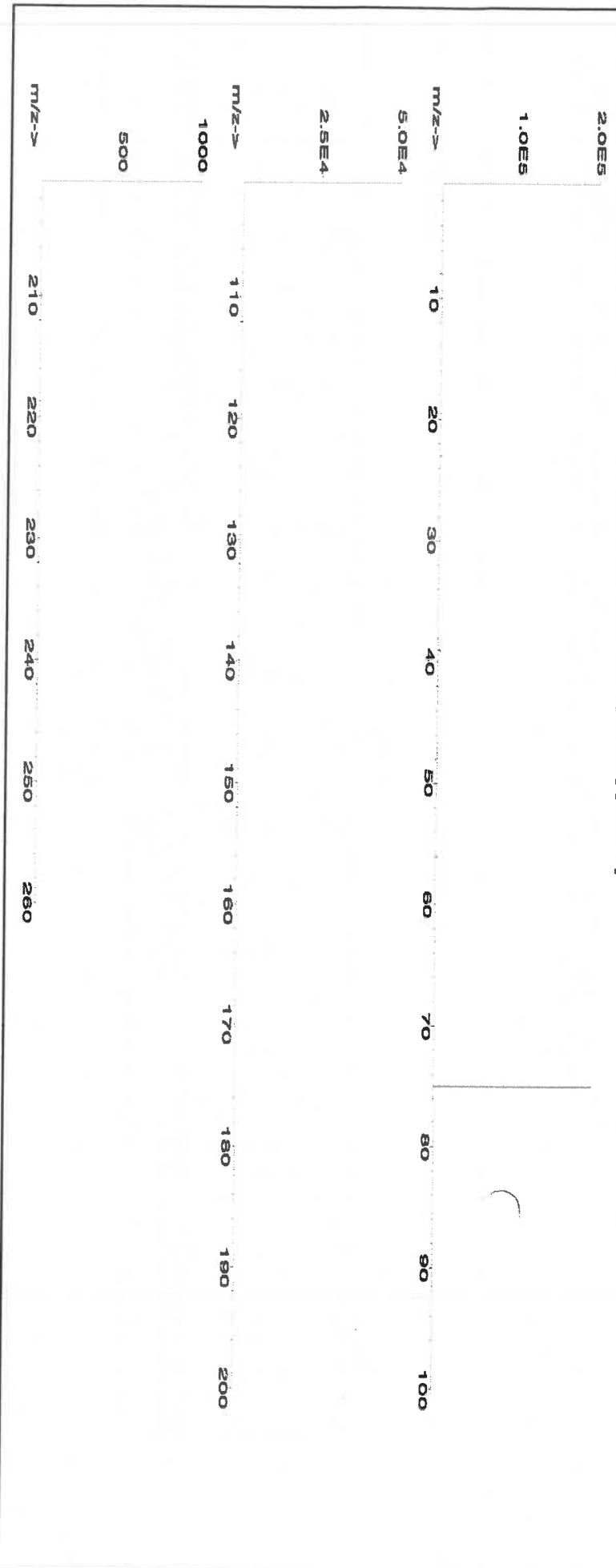
Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rendas	111323

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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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	or-rat 500 mg/kg	3103a
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[1] Spectrum No. 1 [34.433 sec]:57033.D# [Count] [Linear]





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	Pt	<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	Tl	<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	Sa	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57005**
Lot Number: **071123**
Description: **Boron (B)**

Solvent: MKB0857V Ammonium hydroxide

Lot #

AI: 021009124 M5814

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

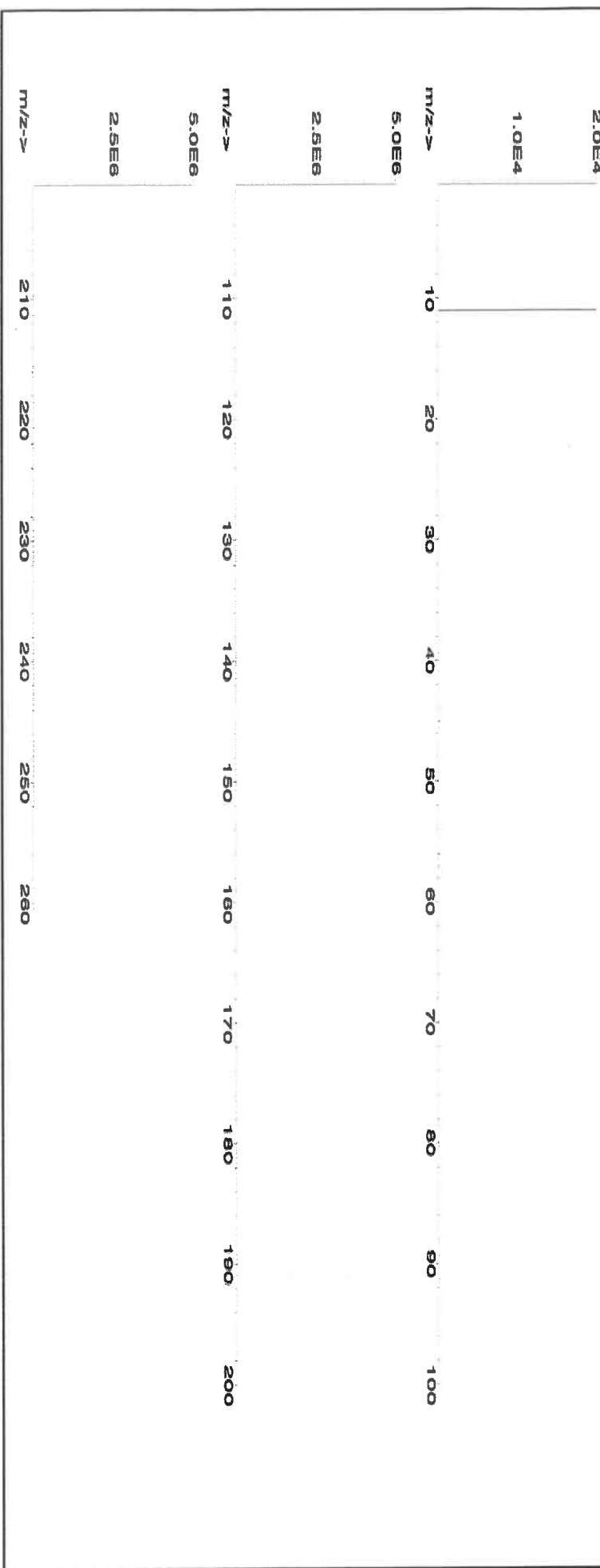
2.0% 40.0 Ammonium hydroxide (mL)

Weight shown below was diluted to (mL): 1999.48 0.058 Balance Uncertainty Flask Uncertainty

Formulated By:	Benson Chan
071123	
Reviewed By:	Pedro L. Rientas
071123	

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
1. Boric acid (B)	IN018 BV082018A1	1000	99.999	0.10	17.3	11.55772	11.56201	1000.4	2.0
								2 mg/m3	10043-35-3
									2 mg/m3
									ort-nat 2660 mg/kg
									3107

[1] Spectrum No. 1 [12.275 sec]:56105.D# [Count] [Linear]





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	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Solvent: 21110221 Nitric Acid

Lot #

R102109124 M5815

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

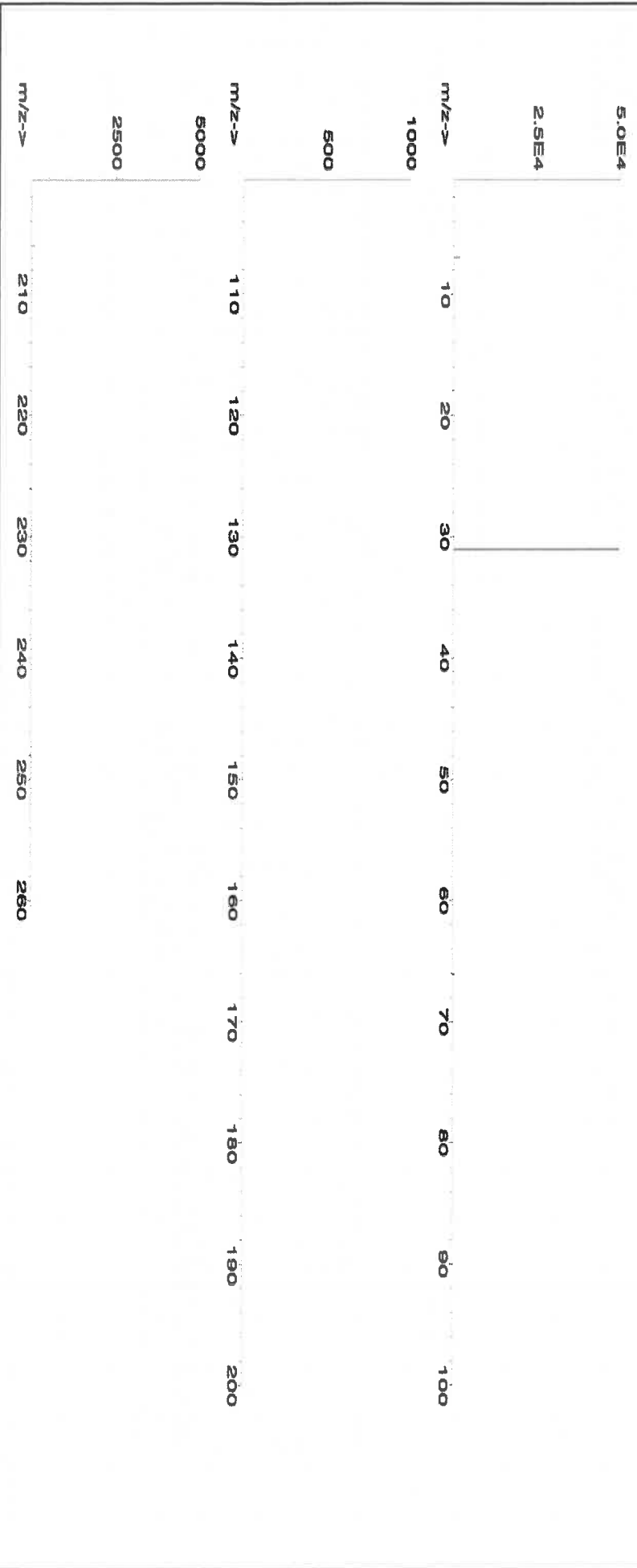
Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

Compound										SDS Information		NIST SRM
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)	(Solvent Safety Info. On Attached pg.)	CAS#	LD50

1. Ammonium dihydrogen phosphate (P) IN008 PVR2019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 or-hal->2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





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	Pt	<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.
- * 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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57016
122923
Sulfur (S)

Lot #

ASTM Type 1 Water

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LUTB
Weight shown below was diluted to (mL): 4000.0
SE-05 Balance Uncertainty
0.06 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium sulfate (S) IN117 SLBR725V 1000 99.9 0.10 24.3 16.4979 16.4980 1000.0 2.0 7783-20-2 NA ort-rel 4250mg/kg 3181

[1] Spectrum No. 1 [33.603 sec]:57016.D# [Count] [Linear]





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	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<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	Ru	<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	S	<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	Ta	<0.02	Ti	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57116**
Lot Number: **071123**
Description: **Sulfur (S)**

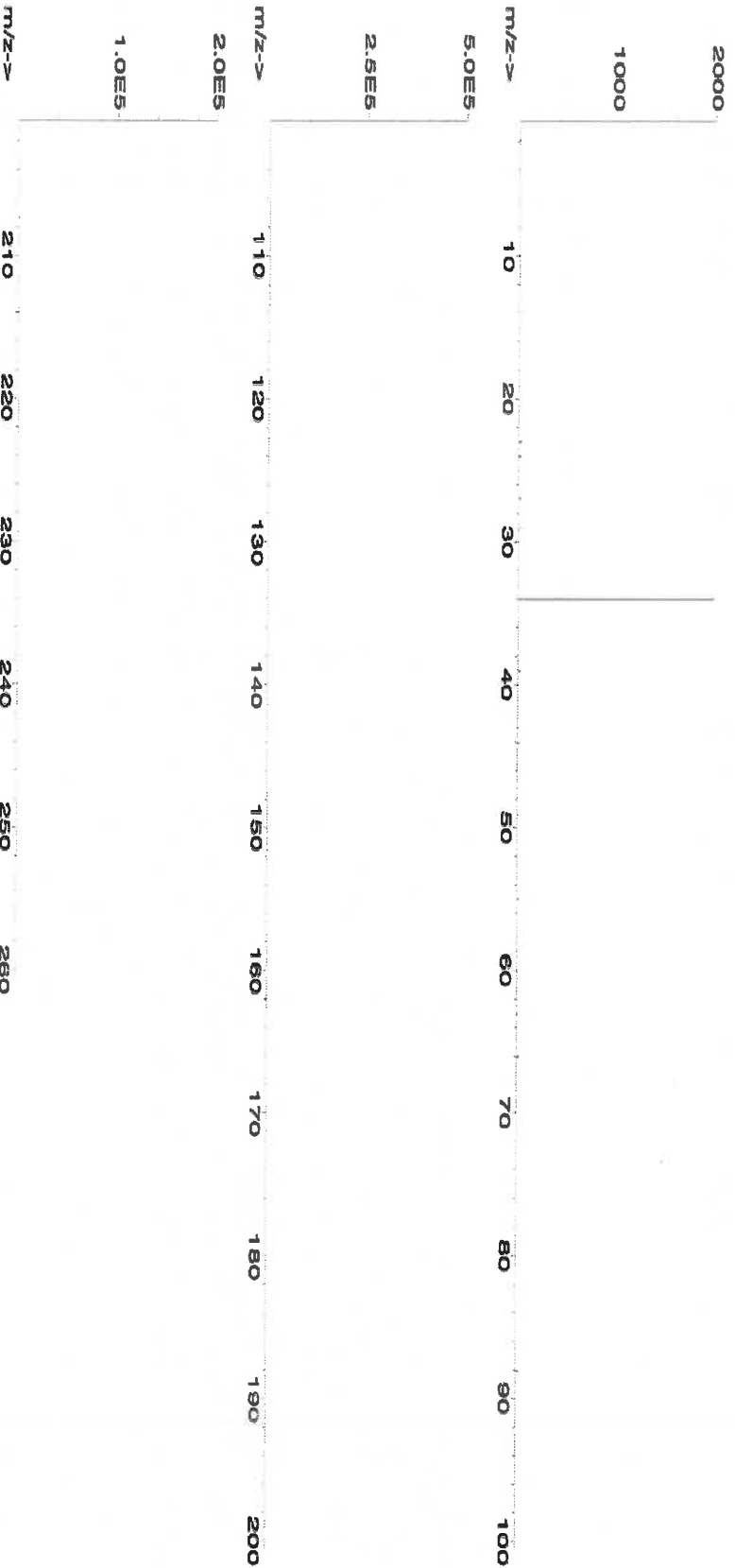
Lot #
Solvent: 071123 ASTM Type 1 Water

Formulated By:	Lawrence Barry
	071123
Reviewed By:	Pedro L. Rentas
	071123

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
Ammonium sulfate (S)	IN117 SLBR725V	10000	99.9	0.10	24.3	82.4675	82.4692	10000.1	20.0
						7763-20-2	NA		
							oral 4250mg/kg	3181	

[1] Spectrum No. 1 [24.004 sec]:58116.D# [Count] [Linear]





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	Pt	<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

Physical Characterization:

(T)= Target analyte

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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57015
Lot Number: 091123
Description: Phosphorous (P)

Solvent: 24002546 Nitric Acid

Lot #

R: 02109124 M5820

Lawrence Barry
Formulated By: Lawrence Barry
091123

Pedro L. Rentas
Reviewed By: Pedro L. Rentas
091123

2% 40.0 (mL) Nitric Acid

Expiration Date: 091126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LJB

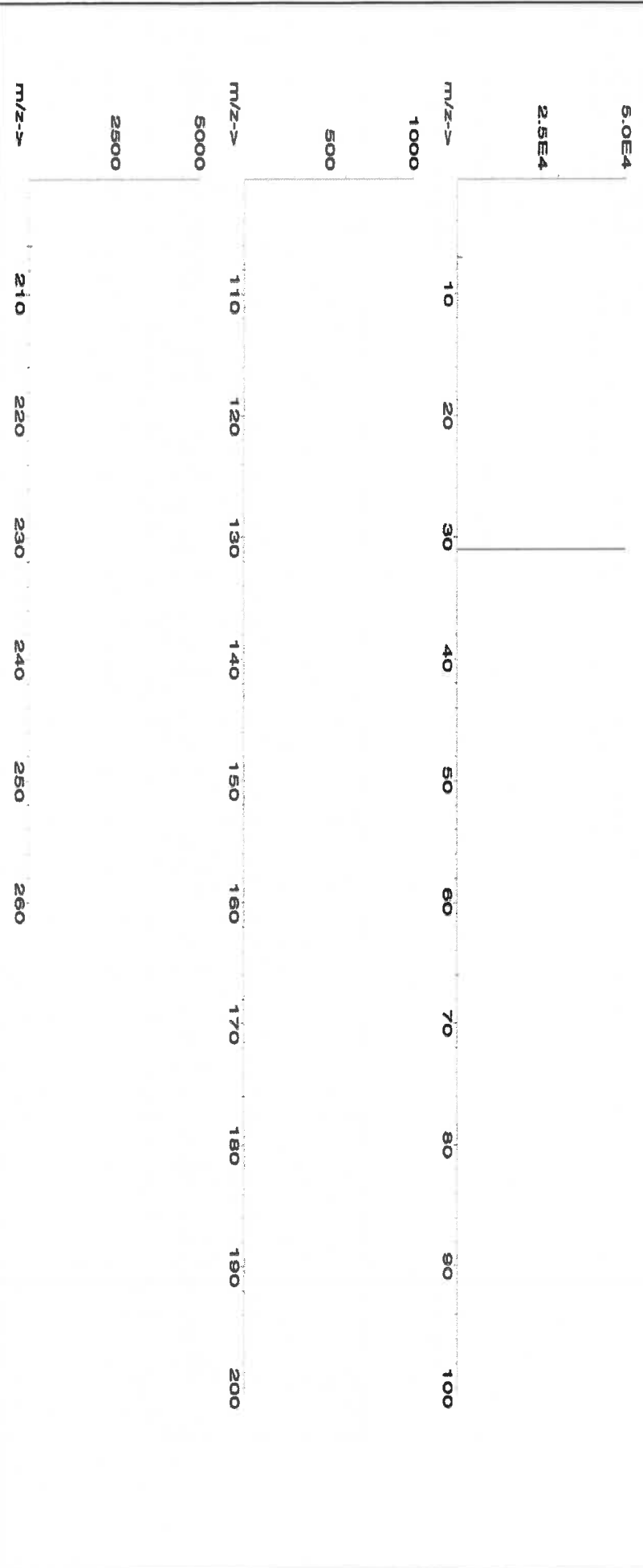
Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium dihydrogen phosphate (P) IN008 PVO82019A1 1000 99.999 0.10 27.5 7.2729 7.2730 1000.0 2.0 7722-76-1 5 mg/m3 xH-rat >2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	Tc	<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	Sa	<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 certified (+/-) 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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F: 540-585-3012
info@inorganicventures.com

R: 02/22/24 M.5942

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: CGT11
Lot Number: T2-TI719972
Matrix: 2% (v/v) HNO₃
tr. HF
Value / Analyte(s): 1 000 µg/mL ea:
Titanium
Starting Material: Ti Metal
Starting Material Lot#: 2094
Starting Material Purity: 99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL
Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 1002 ± 4 µg/mL
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

M5959 R: 6/14/24

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: 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:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

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:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.004600	M Eu	0.009037	M Na	0.086360	M Se <	0.005200	M Zn	0.030125
M Al	0.014862	O Fe	0.002410	M Nb <	0.000570	O Si	0.024100	O Zr <	0.002600
M As <	0.003500	M Ga <	0.000570	M Nd	0.000923	M Sm	0.000461		
M Au <	0.001700	M Gd <	0.003500	M Ni <	0.005700	M Sn <	0.002300		
O B	0.002209	M Ge <	0.005200	M Os <	0.001200	M Sr <	0.004600		
O Ba <	0.002500	M Hf <	0.000570	n P <		M Ta <	0.000570		
O Be <	0.001400	M Hg <	0.000570	M Pb	0.005020	M Tb	0.001044		
M Bi <	0.003500	M Ho	0.009037	M Pd <	0.005100	M Te <	0.002300		
O Ca	0.009841	M In <	0.002300	M Pr <	0.002300	M Th <	0.000570		
M Cd <	0.000570	M Ir <	0.000570	M Pt <	0.000570	M Ti <	0.003500		
M Ce <	0.002300	O K	0.018677	M Rb <	0.000570	M Tl <	0.000570		
M Co <	0.000570	M La	0.000461	M Re <	0.000570	M Tm <	0.003500		
M Cr <	0.004000	O Li <	0.009300	M Rh <	0.008000	M U <	0.000570		
M Cs <	0.000570	M Lu	0.000582	M Ru <	0.000570	M V	0.001265		
M Cu	0.002610	O Mg	0.001486	n S <		M W <	0.002300		
M Dy	0.003815	M Mn	0.000582	M Sb	0.005422	s Y <			
M Er	0.003615	M Mo <	0.005700	M Sc <	0.001200	M Yb	0.001827		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H₂O)_{x+2}

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media.

Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride.

Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H₂O / HNO₃); Ores (Carbonate fusion in PtO 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





Certified Reference Material CRM
M5962 **R10614124**



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57034
Lot Number: 060624
Description: Selenium (Se)

Lot # 24002546
Solvent: Nitric Acid

2.0% 40.0 (mL) Nitric Acid

Expiration Date: 060627

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.07

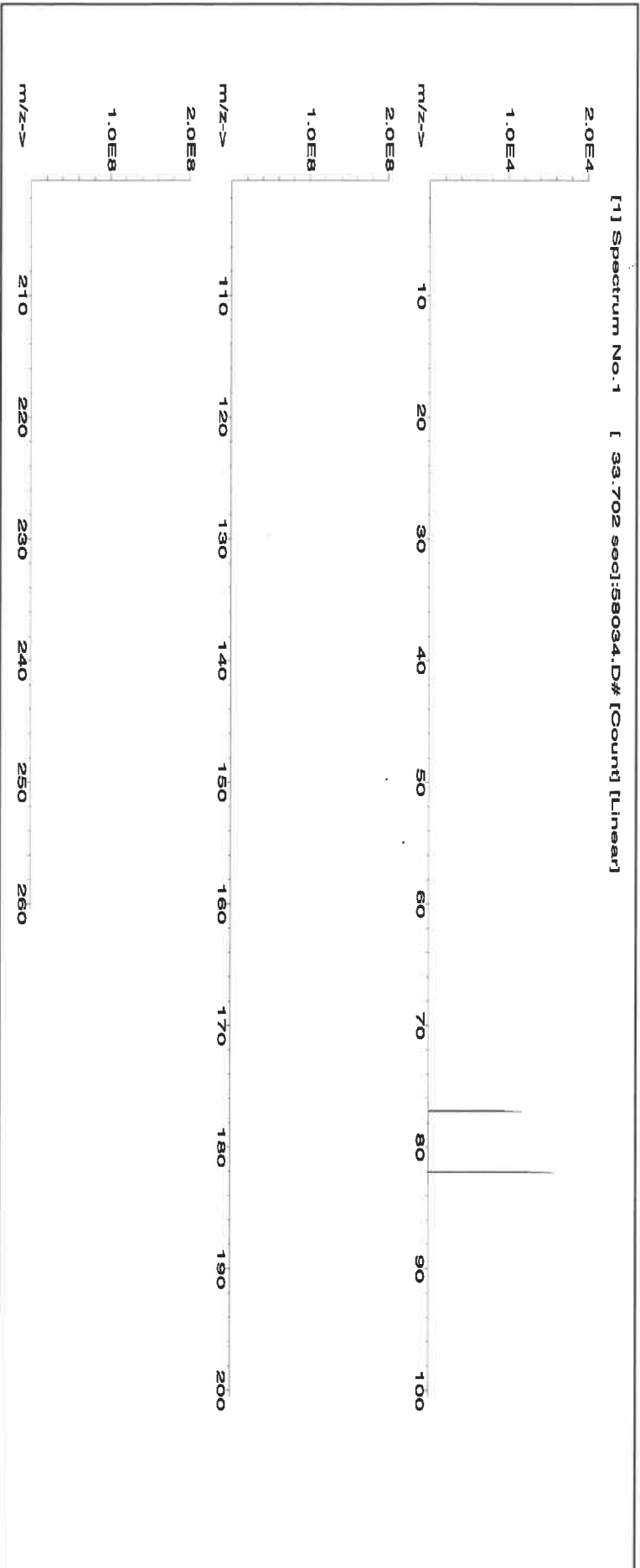
SE-05 Balance Uncertainty
0.100 Flask Uncertainty

Formulated By:	Benson Chan
	060624
Reviewed By:	Pedro L. Rantas
	060624

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LDSO	NIST SRM
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1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	1000.0	2.2	7782-49-2	0.2 mg/m3	or-tral 6700 mg/kg	3149
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	T	Tb	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	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02		<0.02	Ti	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 certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com



Certified Reference Material CRM

M5970 M5971

R. 710124

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: **06/12/27**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**
Volume shown below was diluted to (mL): **250.11**
SE-05 Balance Uncertainty
0.016 Flask Uncertainty

Lot # **24002546**
Solvent: **Nitric Acid**

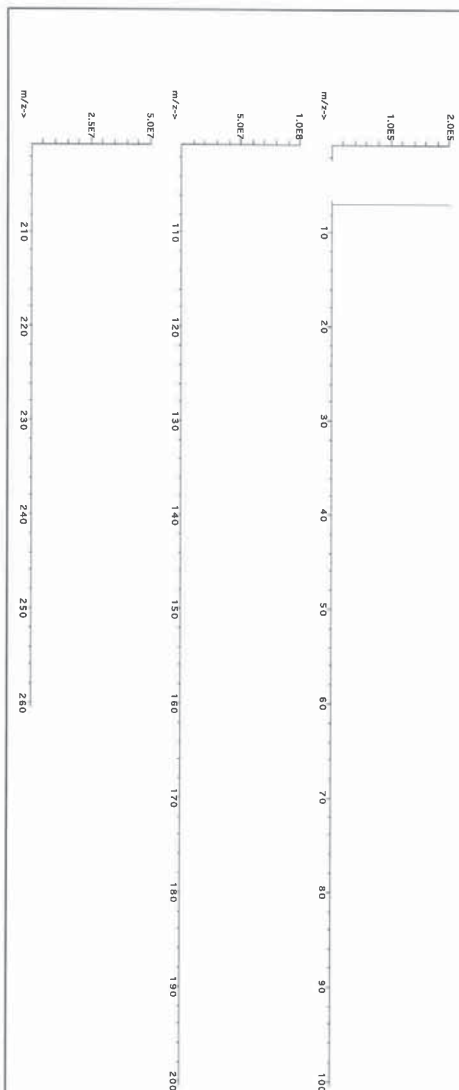
2.0% 5.0 (mL) Nitric Acid

Microvial Capable	
Formulated By:	Giovanni Esposito
Reviewed By:	Petro L. Parias
CAS#	OSHA PEL (TWA)
LD50	
SN#	062124

Compound		Part		Lot		Dilution		Initial		Uncertainty		Nominal		Initial		Final		Expanded		SDS Information		NIST	
Number	Factor	Number	Factor	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Uncertainty	± (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SN#

1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	1000.0	2.0	7790-68-4	5 mg/m3	01-hal 1428 mg/kg	NA
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[1] Spectrum No. 1 [32.093 sec; 15000.0Hz Count [Lines]



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

M5985
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).



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:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

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	<	0.000760	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 PtO 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

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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



Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

R: 2/22/24
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".

Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CLPP-CAL-3
Lot Number: T2-MEB727800
Matrix: 7% (v/v) HNO₃
Value / Analyte(s):
1 000 µg/mL ea:
Arsenic, Lead,
Selenium, Thallium,
500 µg/mL ea:
Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	1 000 ± 7 µg/mL	Cadmium, Cd	500.0 ± 2.2 µg/mL
Lead, Pb	1 000 ± 4 µg/mL	Selenium, Se	1 000 ± 6 µg/mL
Thallium, Tl	1 000 ± 7 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (k) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (k) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale. <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.
- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 21, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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).



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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = 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).

<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





Refine your results. Redefine your industry.

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inorganicventures.com

Certificate of Analysis

M6074
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F: 540-585-3012

info@inorganicventures.com

EXP: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CHEM-CLP-4
Lot Number: V2-MEB746762
Matrix: 3% (v/v) HNO₃
3% (v/v) HF
Value / Analyte(s): 1 000 µg/mL ea:
Boron, Molybdenum,
Silicon, Tin,
Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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

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.

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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

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ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
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Titanium, Ti	1 000 ± 6 µg/mL		

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ANALYTE	METHOD	NIST SRM#	SRM LOT#
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- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

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- Sealed TCT Bag Open Date: _____

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12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot # 112124
Description: Magnesium (Mg)
Solvent: Nitric Acid

Expiration Date: 11/21/27
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
Weight shown below was diluted to (mL): 2000.07
5E-05 Balance Uncertainty
0.100 Flask Uncertainty

NIST Test Number: 6LUB

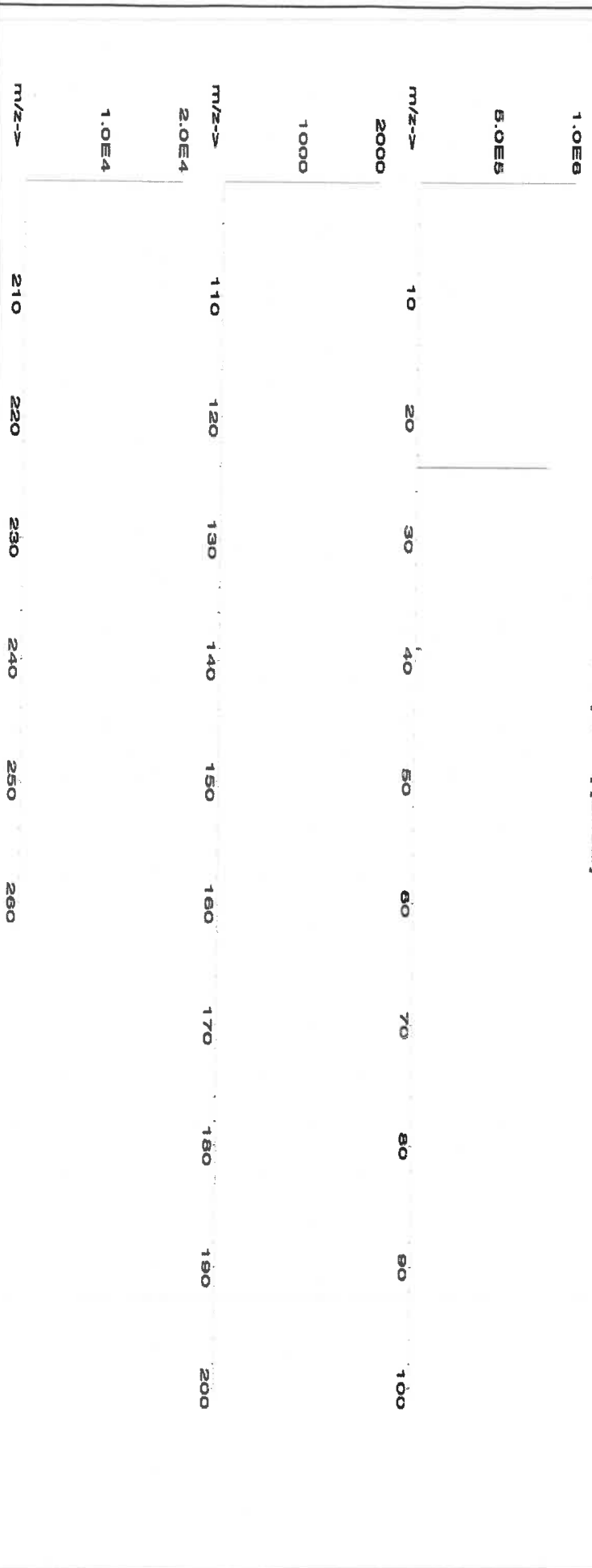
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Rentas
	112124

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	± (µg/mL)	(Solvent Safety Info. On Attached pg.)	SRM

1. Magnesium nitrate hexahydrate (Mg) IN030 MG000023A1 10000 99.999 0.10 8.51 234.9183 234.9459 10001.2 20.0 13446-18-9 NA off-rat 5440 mg/kg 3131a

[1] Spectrum No. 1 [19.823 sec]:58112.D# [Count] [Linear]





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	Pt	<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	Rc	<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	Rb	<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	Ru	<0.02	Na	<0.2	Tm	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sm	<0.02	Sr	<0.02	Sn	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sc	<0.02	S	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2			Ta	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58025
101124
Manganese (Mn)

R-71113128

Lot #
Solvent: 24002546 Nitric Acid

Expiration Date:

101127

2% 80.0 (mL) Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL):

4000.2

0.10 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Renteria</i>
	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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Manganese(II) nitrate hydrate (Mn) IN031 MMN02020A1 1000 99.999 0.10 20.8 19.2322 19.2344 1000.1 2.0 15710-66-4 5 mg/m3 or-rel >300mg/kg 3132

[1] Spectrum No.1 [34.243 sec]:57025.D# [Count] [Linear]

5.0E6	m/z->	10	20	30	40	50	60	70	80	90	100
2.5E6	m/z->	10	20	30	40	50	60	70	80	90	100
1.0E6	m/z->	10	20	30	40	50	60	70	80	90	100
5.0E7	m/z->	10	20	30	40	50	60	70	80	90	100
1.0E6	m/z->	110	120	130	140	150	160	170	180	190	200
5.0E7	m/z->	210	220	230	240	250	260				



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

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Physical Characterization:

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Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
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M6137
R-71013124

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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:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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:

$$w_i = (1/u_{char\ i})^2 / (\sum (1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char\ i})^2]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

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, amorphous (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com;

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 10, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





M6138

R → 11/13/25



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58120
121824
Calcium (Ca)

Solvent: Nitric Acid

Lot #

24012496

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

121827
Ambient (20 °C)
10000
6UTB

2%
80.0 (mL)
Nitric Acid
5E-05 Balance Uncertainty
0.15 Flask Uncertainty

Weight shown below was diluted to (mL):

4000.1

10000

99.999

0.10

39.9

100.2537

100.2677

10001.4

20.0

471-34-1

5 mg/m3

not rat >2000mg/kg

3109a

SDS Information

Expanded

Uncertainty

(Solvent Safety Info. On Attached pg.)

NIST

SRM

LD50

CAS#

OSHA PEL (TWA)

Formulated By: Giovanni Esposito

Reviewed By: Pedro L. Rentas

121824

121824

1. Calcium carbonate (Ca)

IN014 CAD032028B3

10000

99.999

0.10

39.9

100.2537

100.2677

10001.4

20.0

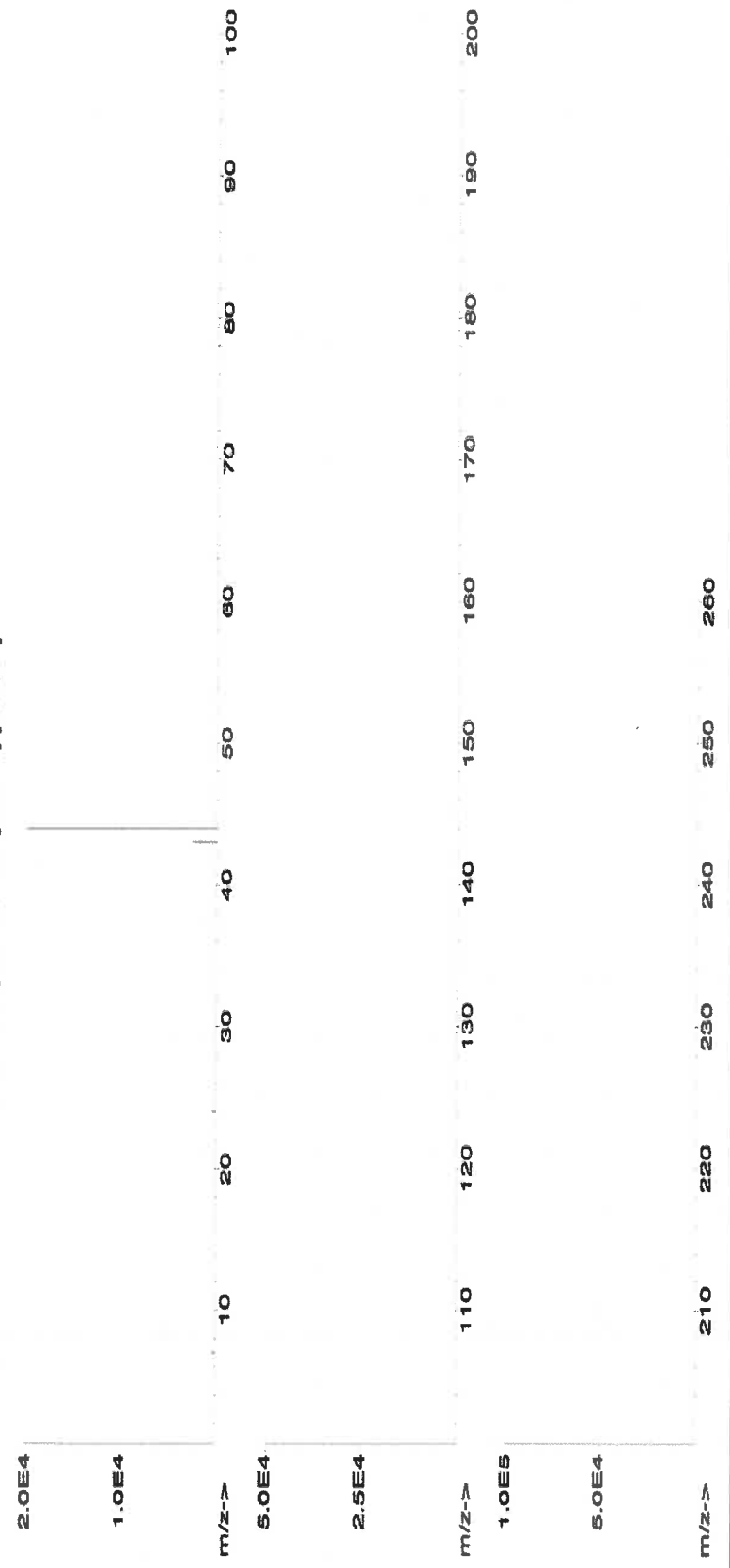
471-34-1

5 mg/m3

not rat >2000mg/kg

3109a

[1] Spectrum No. 1 [12.514 sec]:58120.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)																	
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
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
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
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
Be	<0.01	Cr	<0.02	Ga	30	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<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
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
																W	<0.02
																U	<0.02
																V	<0.02
																Yb	<0.02
																Y	<0.02
																Zn	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

R-21113125

Solvent: 24002546 Nitric Acid
Lot #

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M6141
M6142
M6143

2% 80.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Renteria
	103024

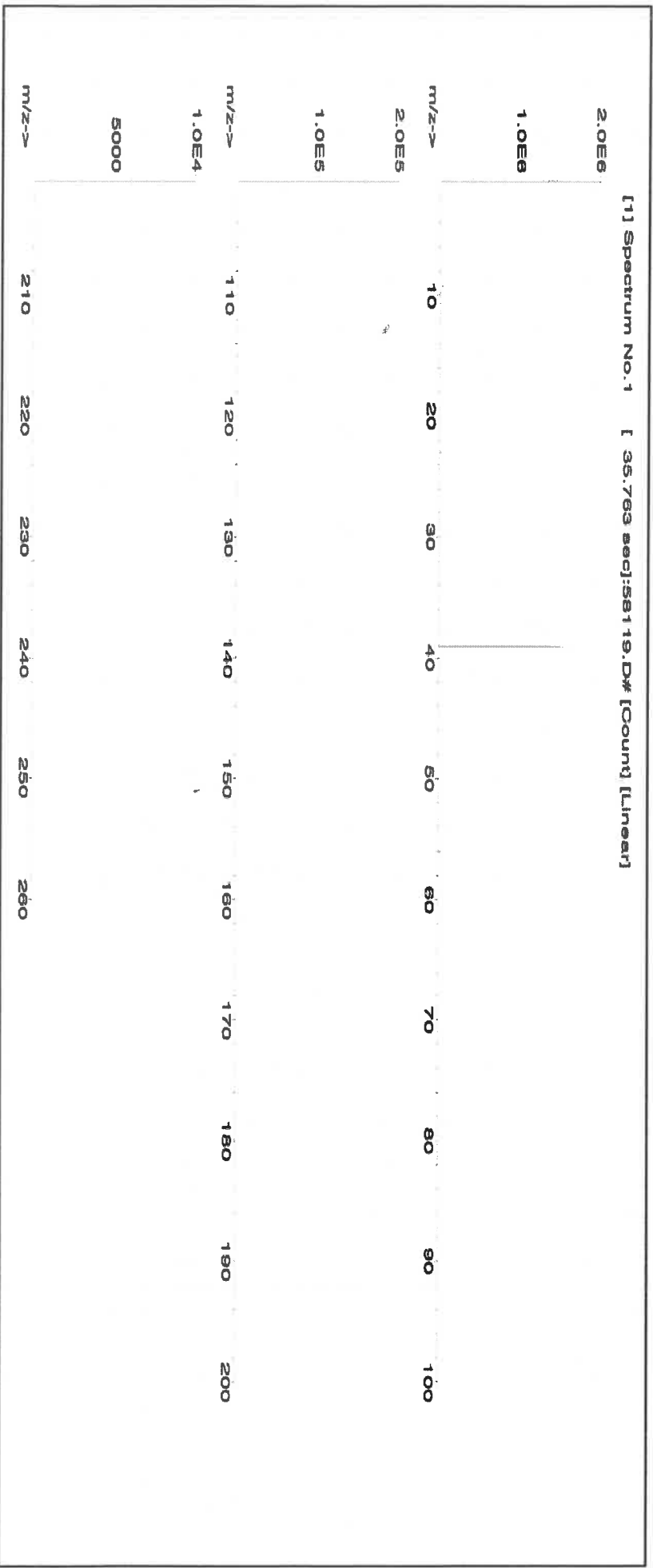
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty		CAS#	OSHA PEL (TWA)	LD50	NIST SRM
										±	(µg/mL)				

SDS Information

(Solvent Safety Info. On Attached pg.)

1. Potassium nitrate (K) IN034 KD062022A1 10000 99.999 0.10 37.7 106.1040 ##### 10001.1 20.0 7757-79-1 5 mg/m3 orl-rat 3750 mg/kg 3141a

[1] Spectrum No. 1 [35.763 sec]:58119.D# [Count] [Linear]





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	Pt	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 58111 **Lot #** R-1113/25
Lot Number: 072424 **Solvent:** 24002546 Nitric Acid
Description: Sodium (Na)

Expiration Date: 072427 **2%** 80.0 Nitric Acid (mL)

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB **5E-05** Balance Uncertainty

Weight shown below was diluted to (mL): 4000.2 **0.10** Flask Uncertainty

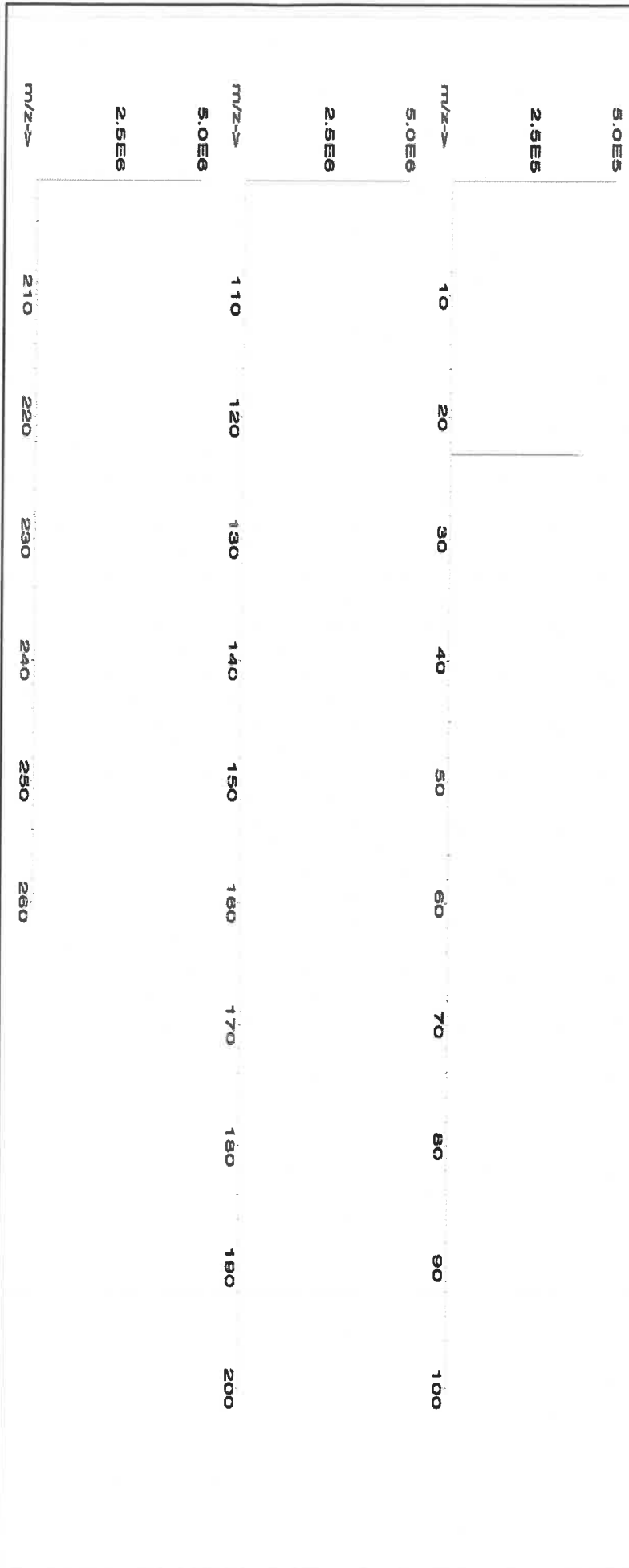
Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Renteria	072424

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 148.7096 ##### 10000.0 20.0 7631-99-4 5 mg/m3 orl-rat 3430 mg/kg 3152a

[1] Spectrum No. 1 [8.935 sec]: 58111.D# [Count] [Linear]





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	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	La	<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	Rb	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * 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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **58030** Lot # **24012496** Nitric Acid
Lot Number: **121724**
Description: **Zinc (Zn)**

Expiration Date: **121727** 2% 40.0 (mL) Nitric Acid

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6UTB**

Weight shown below was diluted to (mL): **2000.1** 0.10 Flask Uncertainty

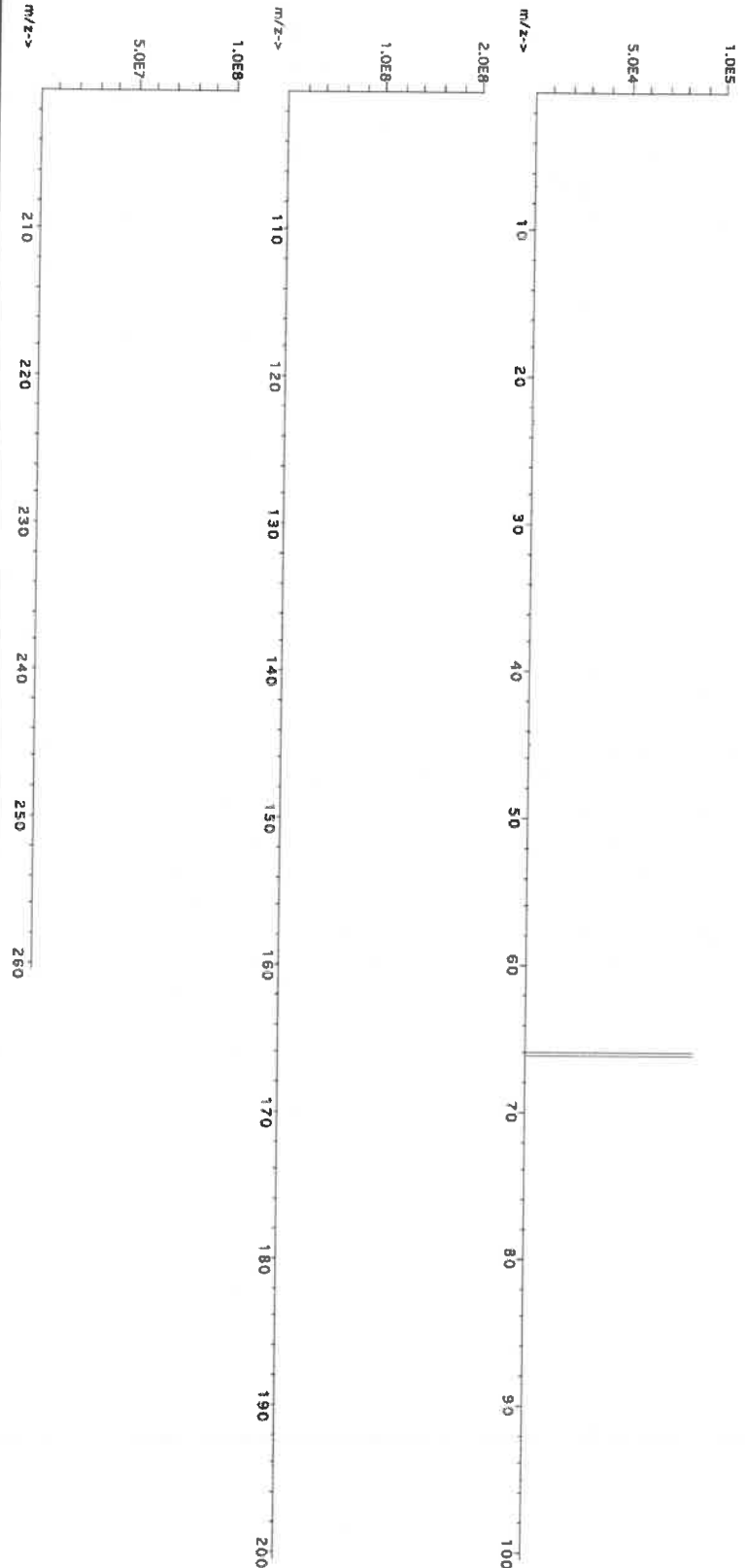
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
Reviewed By:	Pedro L. Rentias
	121724

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	(Solvent Safety Info. On Attached pg.)	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	± (µg/mL)	CAS#	SRM

1. Zinc nitrate hexahydrate (Zn) IN016 ZNE032021A1 1000 99.999 0.10 24.3 8.2308 8.2311 1000.0 2.0 10196-18-6 1 mg/m3 or-rat 1190mg/kg 3168

[1] Spectrum No.1 [31.103 sec;58130.D# [Count] [Linear]





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	Pt	<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	Bu	<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	Md	<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 certified (+/-) 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).



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

R: 4/20/21

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

MG180

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.





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

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) K₂Cr₂O₇ 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 K₃Fe(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™**



M6151

R → 11/15/25

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

 **avantorsm**



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



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
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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

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™



R- 0210212025

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

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production



Certified Reference Material CRM

M6030



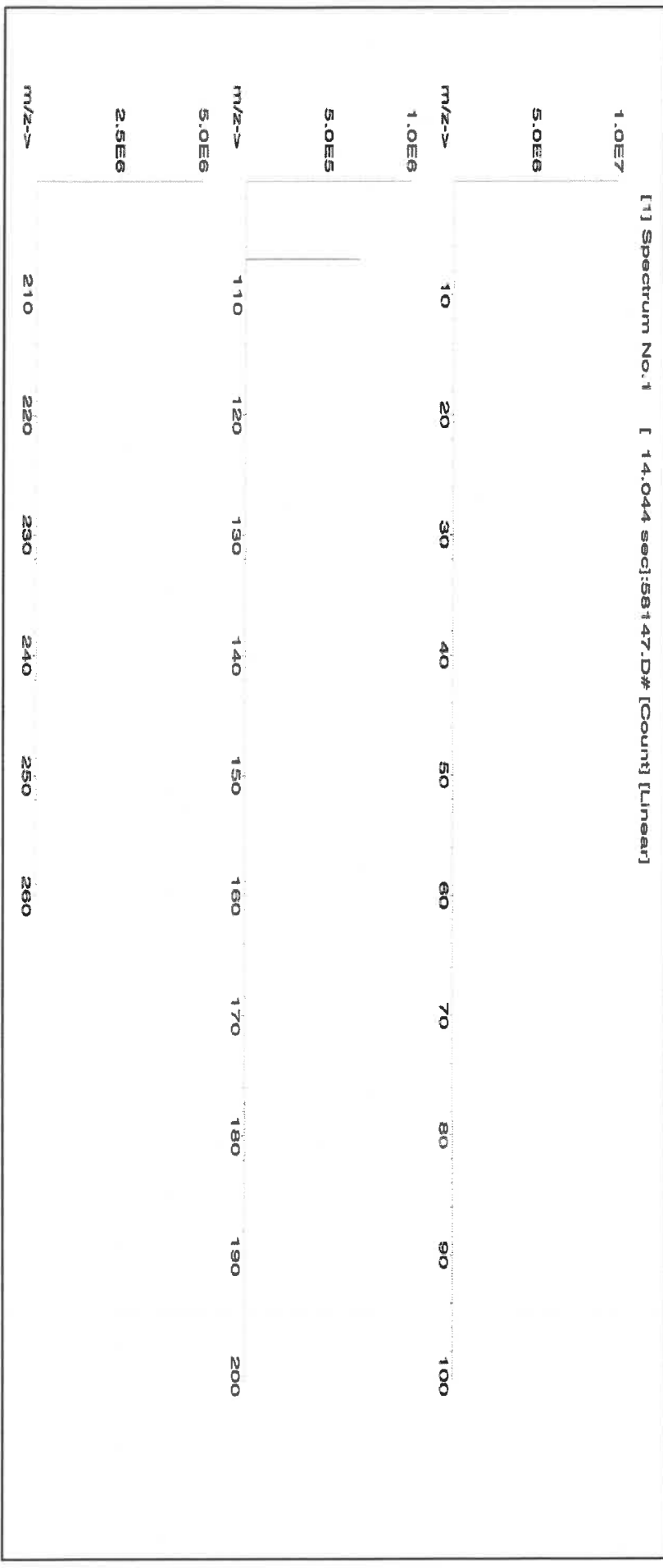
CERTIFIED WEIGHT REPORT:

Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**
Solvent: 24002546 Nitric Acid
Lot #

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
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas
	122823

SDS Information									
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9996	0.10	63.7	6.27992	6.27998	1000.0
							2.0	7761-88-8	10 µg/mL
									NA
									3151





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	Pt	<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 meghom 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 certified (+/-) 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: 10/18/24
Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57051
071724
Antimony (Sb)

Lot #
24002546
Solvent:
Nitric Acid

Expiration Date:

071727

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:
Nominal Concentration (µg/mL):

Ambient (20 °C)

1000

NIST Test Number:

6UJB

5E-05 Balance Uncertainty

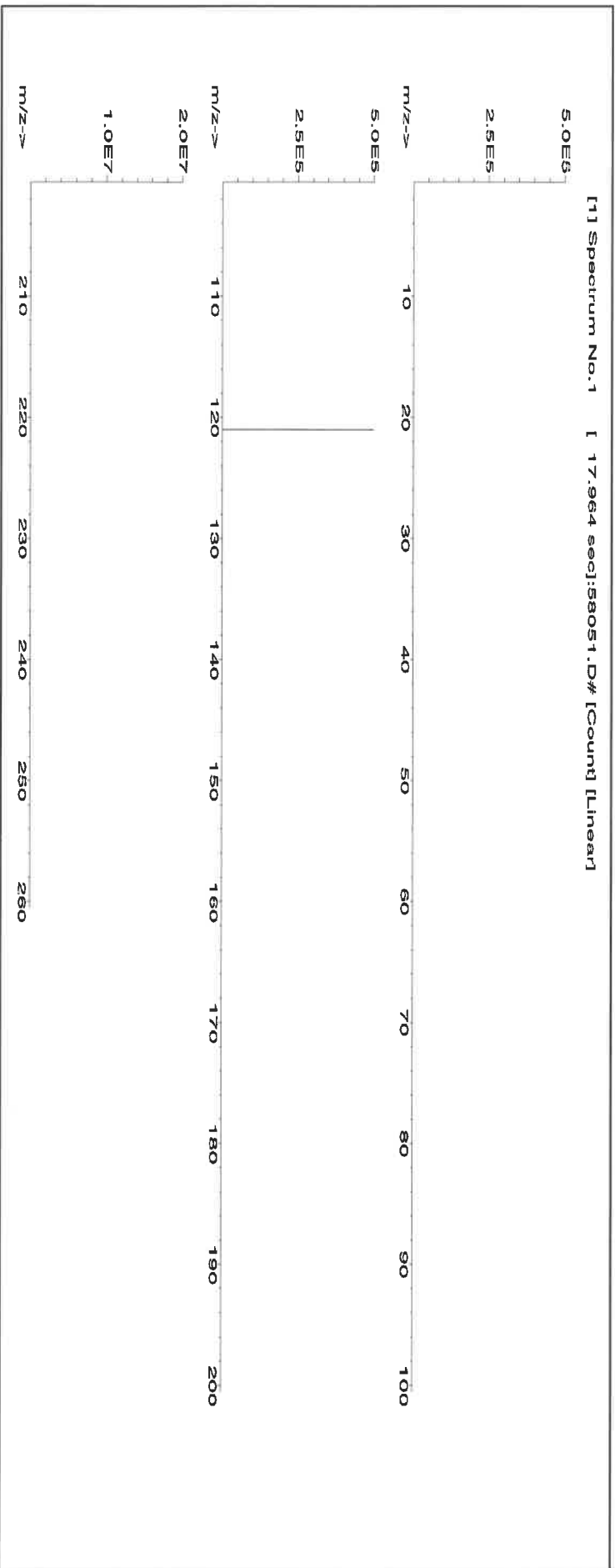
Volume shown below was diluted to (mL):

2000.26 0.058 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
	071724
<i>Pedro L. Rentas</i>	
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		CAS#	OSHA PEL (TWA)	LD50	NIST SRM
									±	(µg/mL)				

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	or-rat 7000 mg/kg	3102a
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Har P. R.



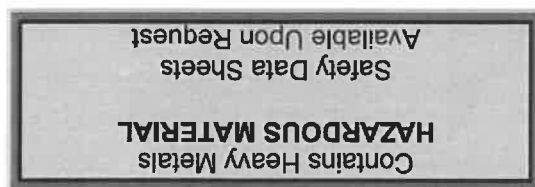
QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

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



(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) interfering elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,





Instructions for QATS Reference Material: ICP-AES ICS
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 HNO₃. 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 HNO₃. 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 (µg/L) +Part B	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 $\pm$ 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value $\pm$ 15 percent of the listed certified value.



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

R : 04/20/21

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

(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,





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: ICP-AES ICS

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 HNO₃. 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 HNO₃. 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.

R: 8/5/24

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: 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:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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:

$$w_i = (1/u_{char\ i})^2 / (\sum (1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = 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

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = 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(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, 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% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO₃ / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Ores (Carbonate fusion in PtO 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



R: 8/5/24

M6019

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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.

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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:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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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

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

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- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

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.

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- 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(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, 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% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO₃ / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Ores (Carbonate fusion in PtO 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





CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (TI)

Lot #

Solvent: 24002546 Nitric Acid

2% 40.0 Nitric Acid (mL)

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

5E-05 Balance Uncertainty
0.10 Flask Uncertainty

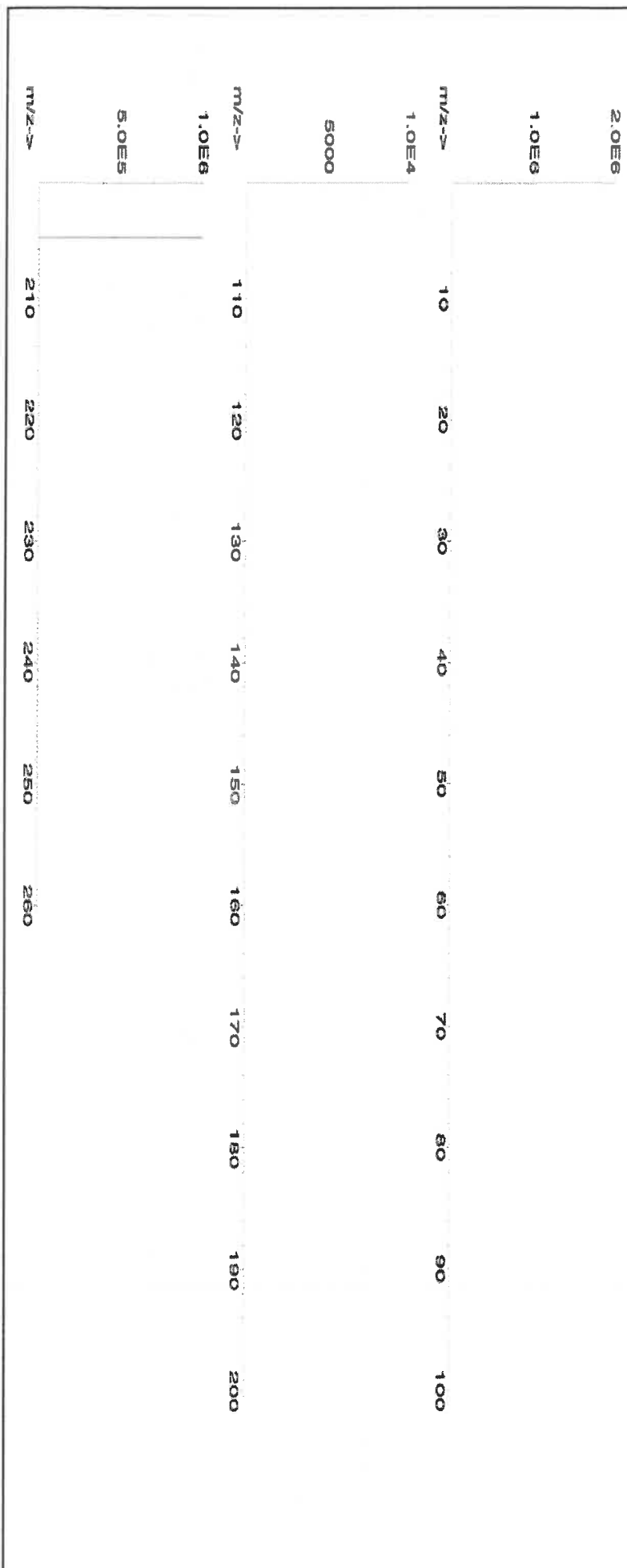
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	062724

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Thallium nitrate (TI) 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

[1] Spectrum No.1 [14.044 sec]:57081.D# [Count] [Linear]





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	Pt	<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	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	Tm	<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	Sn	<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	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Se	<0.02	Ta	<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 certified (+/-) 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).



Certified Reference Material CRM

M6021



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
<https://absolutestandards.com>

CERTIFIED WEIGHT REPORT:

Part Number: **57023**
Lot Number: **062424**
Description: **Vanadium (V)**

Lot # **24002546**
Solvent: **Nitric Acid**

<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
Reviewed By:	<i>Pedro L. Rantas</i>
	Pedro L. Rantas
	062424

Expiration Date: **062427**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

2.0%

40.0 (mL)

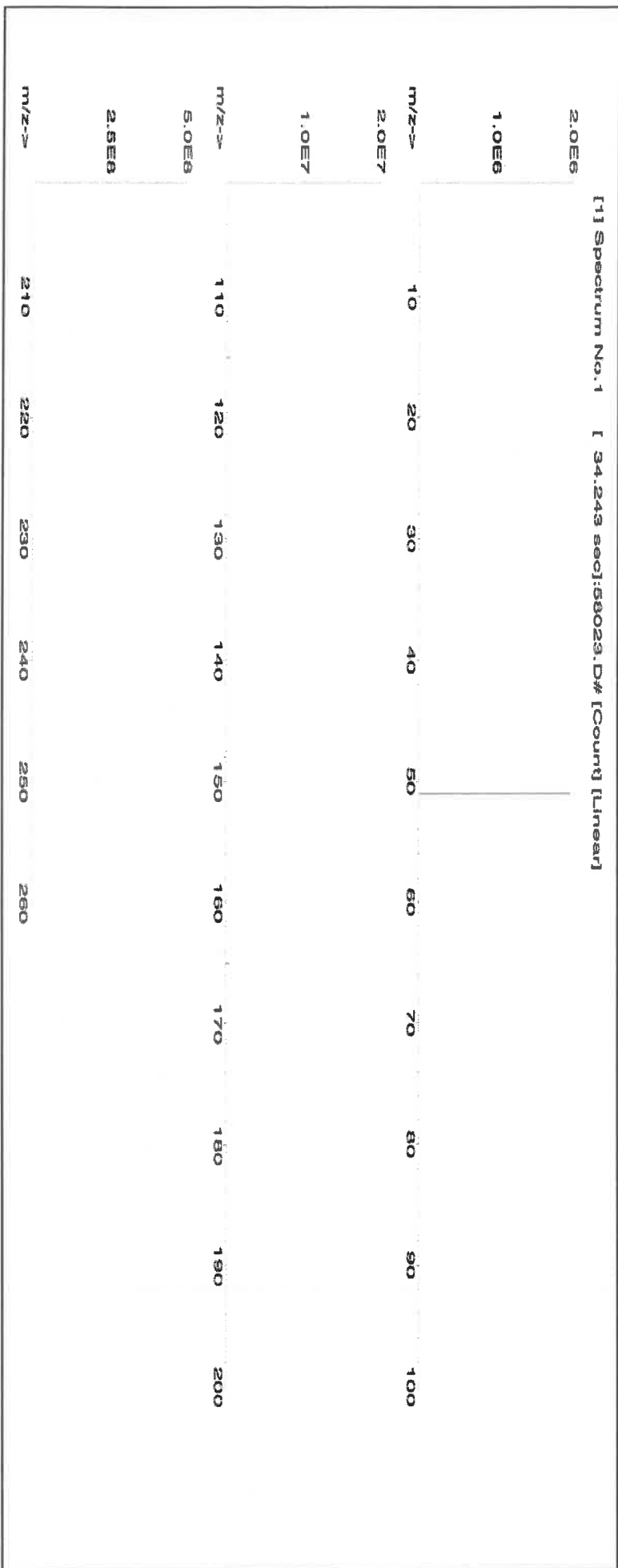
Nitric Acid

Volume shown below was diluted to (mL): **2000.3**

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Compound	SDS information											
	Expanded									(Solvent Safety Info. On Attached pg.)		
	Part	Lot	Dilution	Initial	Uncertainty	Nominal	Initial	Final	Expanded			
Number	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM

[1] Spectrum No.1 [34.243 sec]:58023.D# [Count] [Linear]





SHIPPING DOCUMENTS



284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 788-9222

www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number:

Q2090

COC Number:

CLIENT INFORMATION

COMPANY: Tully Environmental Inc.

ADDRESS: 57 Seaview Blvd

CITY: Pt Washington STATE: NY ZIP: 11050

ATTENTION: Dean Devoe

PHONE: 718 446 7000

FAX:

PROJECT INFORMATION

PROJECT NAME: Transfer Station SPDES

PROJECT #: 252113 LOCATION:

PROJECT MANAGER:

E-MAIL:

PHONE:

FAX:

BILLING INFORMATION

BILL TO: Same

PO#

ADDRESS:

CITY:

STATE: ZIP:

ATTENTION:

PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS*
HARD COPY: _____ DAYS*
EDD _____ DAYS*
* TO BE APPROVED BY ALLIANCE
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

* RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD Format

ANALYSIS

Cu, Fe, Pb

1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles										
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	001 Willets Pt Blvd (Apr)	W		X	5/16/25	10:00		X									
2.	002 35th Ave (Apr)	W		X	5/16/25	10:00		X									
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME May 16, 2025	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 17.3°C MeOH extraction requires an additional 4oz. Jar for percent solid Comments: Ice in Cooler?: <u>no</u> If-6-4
1. D Devoe		1. <u>[Signature]</u>	
RELINQUISHED BY	DATE/TIME 5/24/25	RECEIVED BY	
2.		2. <u>[Signature]</u>	
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY	
3.		3.	

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
ALLIANCE: ☐ Picked Up ☐ Overnight

Shipment Complete
☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

YELLOW - ALLIANCE COPY

PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488