

Cover Page

Order ID : Q1930

Project ID : Rotor Clip NJ WTD - 2025

Client : VERINA CONSULTING GROUP, LLC

Lab Sample Number

Q1930-01

Client Sample Number

WATER-TREATMENT-DISCHARGE

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: 5/9/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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 #: Q1930

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 Custody

✓

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: 05/09/2025

LAB CHRONICLE

OrderID:	Q1930	OrderDate:	5/1/2025 12:36:00 PM
Client:	VERINA CONSULTING GROUP, LLC	Project:	Rotor Clip NJ WTD - 2025
Contact:	Michael Valenzi	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1930-01	WATER-TREATMENT-D ISCHARGE	Water	Metals Group4	6010D	05/01/25	05/05/25	05/05/25	05/01/25



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Hit Summary Sheet
SW-846

SDG No.: Q1930

Order ID: Q1930

Client: VERINA CONSULTING GROUP, LLC

Project ID: Rotor Clip NJ WTD - 2025

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WATER-TREATMENT-DISCHARGE								
Q1930-01	WATER-TREATMENT-DISCHARGE	Water	Chromium	156		1.06	5.00	ug/L
Q1930-01	WATER-TREATMENT-DISCHARGE	Water	Copper	17.4		2.30	10.0	ug/L
Q1930-01	WATER-TREATMENT-DISCHARGE	Water	Nickel	12.9	J	1.53	20.0	ug/L
Q1930-01	WATER-TREATMENT-DISCHARGE	Water	Zinc	49.2		8.33	20.0	ug/L



SAMPLE DATA

Report of Analysis

Client:	VERINA CONSULTING GROUP, LLC	Date Collected:	05/01/25
Project:	Rotor Clip NJ WTD - 2025	Date Received:	05/01/25
Client Sample ID:	WATER-TREATMENT-DISCHARGE	SDG No.:	Q1930
Lab Sample ID:	Q1930-01	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.
7440-47-3	Chromium	156		1	1.06	5.00	ug/L	05/05/25 11:05	05/05/25 22:08	SW6010	SW3010
7440-50-8	Copper	17.4		1	2.30	10.0	ug/L	05/05/25 11:05	05/05/25 22:08	SW6010	SW3010
7440-02-0	Nickel	12.9	J	1	1.53	20.0	ug/L	05/05/25 11:05	05/05/25 22:08	SW6010	SW3010
7440-66-6	Zinc	49.2		1	8.33	20.0	ug/L	05/05/25 11:05	05/05/25 22:08	SW6010	SW3010

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

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N =Spiked sample recovery not within control limits



METAL CALIBRATION DATA

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** Q1930
Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930
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	Chromium	508	520	98	90 - 110	P	05/05/2025	14:18	LB135674
	Copper	499	510	98	90 - 110	P	05/05/2025	14:18	LB135674
	Nickel	490	530	92	90 - 110	P	05/05/2025	14:18	LB135674
	Zinc	969	1000	97	90 - 110	P	05/05/2025	14:18	LB135674

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** Q1930
Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Chromium	10.2	10.0	102	80 - 120	P	05/05/2025	14:36	LB135674
	Copper	22.4	20.0	112	80 - 120	P	05/05/2025	14:36	LB135674
	Nickel	39.5	40.0	99	80 - 120	P	05/05/2025	14:36	LB135674
	Zinc	41.2	40.0	103	80 - 120	P	05/05/2025	14:36	LB135674

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** Q1930

Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930

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	Chromium	996	1000	100	90 - 110	P	05/05/2025	15:20	LB135674
	Copper	1240	1250	99	90 - 110	P	05/05/2025	15:20	LB135674
	Nickel	2450	2500	98	90 - 110	P	05/05/2025	15:20	LB135674
	Zinc	2480	2500	99	90 - 110	P	05/05/2025	15:20	LB135674
CCV02	Chromium	974	1000	97	90 - 110	P	05/05/2025	16:07	LB135674
	Copper	1230	1250	98	90 - 110	P	05/05/2025	16:07	LB135674
	Nickel	2420	2500	97	90 - 110	P	05/05/2025	16:07	LB135674
	Zinc	2430	2500	97	90 - 110	P	05/05/2025	16:07	LB135674
CCV03	Chromium	975	1000	98	90 - 110	P	05/05/2025	16:56	LB135674
	Copper	1260	1250	100	90 - 110	P	05/05/2025	16:56	LB135674
	Nickel	2420	2500	97	90 - 110	P	05/05/2025	16:56	LB135674
	Zinc	2460	2500	98	90 - 110	P	05/05/2025	16:56	LB135674
CCV04	Chromium	977	1000	98	90 - 110	P	05/05/2025	17:55	LB135674
	Copper	1220	1250	98	90 - 110	P	05/05/2025	17:55	LB135674
	Nickel	2420	2500	97	90 - 110	P	05/05/2025	17:55	LB135674
	Zinc	2420	2500	97	90 - 110	P	05/05/2025	17:55	LB135674
CCV05	Chromium	970	1000	97	90 - 110	P	05/05/2025	18:43	LB135674
	Copper	1230	1250	99	90 - 110	P	05/05/2025	18:43	LB135674
	Nickel	2430	2500	97	90 - 110	P	05/05/2025	18:43	LB135674
	Zinc	2470	2500	99	90 - 110	P	05/05/2025	18:43	LB135674
CCV06	Chromium	940	1000	94	90 - 110	P	05/05/2025	19:32	LB135674
	Copper	1180	1250	94	90 - 110	P	05/05/2025	19:32	LB135674
	Nickel	2360	2500	94	90 - 110	P	05/05/2025	19:32	LB135674
	Zinc	2380	2500	95	90 - 110	P	05/05/2025	19:32	LB135674
CCV07	Chromium	955	1000	96	90 - 110	P	05/05/2025	20:19	LB135674
	Copper	1170	1250	93	90 - 110	P	05/05/2025	20:19	LB135674
	Nickel	2360	2500	94	90 - 110	P	05/05/2025	20:19	LB135674
	Zinc	2350	2500	94	90 - 110	P	05/05/2025	20:19	LB135674
CCV08	Chromium	961	1000	96	90 - 110	P	05/05/2025	21:07	LB135674
	Copper	1190	1250	95	90 - 110	P	05/05/2025	21:07	LB135674
	Nickel	2380	2500	95	90 - 110	P	05/05/2025	21:07	LB135674
	Zinc	2350	2500	94	90 - 110	P	05/05/2025	21:07	LB135674
CCV09	Chromium	959	1000	96	90 - 110	P	05/05/2025	21:59	LB135674
	Copper	1180	1250	95	90 - 110	P	05/05/2025	21:59	LB135674

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC SDG No.: Q1930

Contract: VERI01 Lab Code: CHEM Case No.: Q1930 SAS No.: Q1930

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
CCV09	Nickel	2410	2500	96	90 - 110	P	05/05/2025	21:59	LB135674
	Zinc	2320	2500	93	90 - 110	P	05/05/2025	21:59	LB135674
CCV10	Chromium	967	1000	97	90 - 110	P	05/05/2025	22:33	LB135674
	Copper	1180	1250	95	90 - 110	P	05/05/2025	22:33	LB135674
	Nickel	2370	2500	95	90 - 110	P	05/05/2025	22:33	LB135674
	Zinc	2330	2500	93	90 - 110	P	05/05/2025	22:33	LB135674



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Metals

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CRDL STANDARD FOR AA & ICP

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

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	Chromium	10.3	10.0	103	40 - 160	P	05/05/2025	14:47	LB135674
	Copper	22.4	20.0	112	40 - 160	P	05/05/2025	14:47	LB135674
	Nickel	39.9	40.0	100	40 - 160	P	05/05/2025	14:47	LB135674
	Zinc	42.7	40.0	107	40 - 160	P	05/05/2025	14:47	LB135674



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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	14:41	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	14:41	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	14:41	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	14:41	LB135674

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC		SDG No.: Q1930							
Contract: VERI01	Lab Code: CHEM	Case No.: Q1930	SAS No.: Q1930						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	15:26	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	15:26	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	15:26	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	15:26	LB135674
CCB02	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	16:12	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	16:12	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	16:12	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	16:12	LB135674
CCB03	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	17:00	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	17:00	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	17:00	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	17:00	LB135674
CCB04	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	17:59	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	17:59	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	17:59	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	17:59	LB135674
CCB05	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	18:47	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	18:47	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	18:47	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	18:47	LB135674
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	19:37	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	19:37	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	19:37	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	19:37	LB135674
CCB07	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	20:23	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	20:23	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	20:23	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	20:23	LB135674
CCB08	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	21:12	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	21:12	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	21:12	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	21:12	LB135674
CCB09	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	22:03	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	22:03	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	22:03	LB135674
	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	22:03	LB135674
CCB10	Chromium	10.0	+/-10.0	U	10.0	P	05/05/2025	22:37	LB135674
	Copper	20.0	+/-20.0	U	20.0	P	05/05/2025	22:37	LB135674
	Nickel	40.0	+/-40.0	U	40.0	P	05/05/2025	22:37	LB135674

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Zinc	40.0	+/-40.0	U	40.0	P	05/05/2025	22:37	LB135674

Metals
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PREPARATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167858BL	WATER			Batch Number:	PB167858		Prep Date:	05/05/2025	
	Chromium	5.00	<5.00	U	5.00	P	05/05/2025	18:22	LB135674
	Copper	10.0	<10.0	U	10.0	P	05/05/2025	18:22	LB135674
	Nickel	20.0	<20.0	U	20.0	P	05/05/2025	18:22	LB135674
	Zinc	20.0	<20.0	U	20.0	P	05/05/2025	18:22	LB135674

Metals

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INTERFERENCE CHECK SAMPLE

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** Q1930
Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930
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	Chromium	53.8	52.0	104	42	62	05/05/2025	14:52	LB135674
	Copper	12.1	2.0	605	-18	22	05/05/2025	14:52	LB135674
	Nickel	1.16	2.0	58	-38	42	05/05/2025	14:52	LB135674
	Zinc	3.23			-40	40	05/05/2025	14:52	LB135674
ICSAB01	Chromium	572	542	106	460	624	05/05/2025	15:07	LB135674
	Copper	520	511	102	434	588	05/05/2025	15:07	LB135674
	Nickel	1020	954	107	810	1100	05/05/2025	15:07	LB135674
	Zinc	1070	952	112	809	1095	05/05/2025	15:07	LB135674



METAL

QC

DATA

metals
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MATRIX SPIKE SUMMARY

client: VERINA CONSULTING GROUP, LLC **level:** low **sdg no.:** Q1930
contract: VERI01 **lab code:** CHEM **case no.:** Q1930 **sas no.:** Q1930
matrix: Water **sample id:** Q1930-01 **client id:** WATER-TREATMENT-DISCHARGEMS
Percent Solids for Sample: NA **Spiked ID:** Q1930-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/L	75 - 125	345		156		200	94		P
Copper	ug/L	75 - 125	151		17.4		150	89		P
Nickel	ug/L	75 - 125	267		12.9	J	250	101		P
Zinc	ug/L	75 - 125	157		49.2		100	108		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VERINA CONSULTING GROUP, LLC **level:** low **sdg no.:** Q1930
contract: VERI01 **lab code:** CHEM **case no.:** Q1930 **sas no.:** Q1930
matrix: Water **sample id:** Q1930-01 **client id:** WATER-TREATMENT-DISCHARGEMSD
Percent Solids for Sample: NA **Spiked ID:** Q1930-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/L	75 - 125	341		156		200	93		P
Copper	ug/L	75 - 125	152		17.4		150	90		P
Nickel	ug/L	75 - 125	269		12.9	J	250	102		P
Zinc	ug/L	75 - 125	151		49.2		100	102		P

Metals
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Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930 **SAS No.:** Q1930

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: VERINA CONSULTING GROUP, LLC **Level:** LOW **SDG No.:** Q1930
Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930
Matrix: Water **Sample ID:** Q1930-01 **Client ID:** WATER-TREATMENT-DISCHARGEDUP
Percent Solids for Sample: NA **Duplicate ID** Q1930-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/L	20	156		159		2		P
Copper	ug/L	20	17.4		17.4		0		P
Nickel	ug/L	20	12.9	J	12.8	J	1		P
Zinc	ug/L	20	49.2		49.8		1		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: VERINA CONSULTING GROUP, LLC **Level:** LOW **SDG No.:** Q1930
Contract: VERI01 **Lab Code:** CHEM **Case No.:** Q1930 **SAS No.:** Q1930
Matrix: Water **Sample ID:** Q1930-01MS **Client ID:** WATER-TREATMENT-DISCHARGEMSD
Percent Solids for Sample: NA **Duplicate ID** Q1930-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/L	20	345		341		1		P
Copper	ug/L	20	151		152		1		P
Nickel	ug/L	20	267		269		1		P
Zinc	ug/L	20	157		151		4		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167858BS							
Chromium	ug/L	200	183		92	80 - 120	P
Copper	ug/L	150	140		93	80 - 120	P
Nickel	ug/L	250	228		91	80 - 120	P
Zinc	ug/L	100	91.9		92	80 - 120	P

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

WATER-TREATMENT-DISCHARGEL

Lab Name: Chemtech Consulting Group

Contract: VERI01

Lab Code: CHEM **Lb No.:** lb135674 **Lab Sample ID :** Q1930-01L **SDG No.:** Q1930

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ- ence		Q	M
	C		C					
Chromium	156		151		3			P
Copper	17.4		17.4	J	0			P
Nickel	12.9	J	12.4	J	4			P
Zinc	49.2		42.9	J	13			P



METAL PREPARATION & INSTRUMENT DATA



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

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

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
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
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000



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Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

Instrument ID: _____

Date: _____

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		As	Ba	Be	Cd	Co
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
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

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
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
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

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
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
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000



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Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Case No.: Q1930

SAS No.: Q1930

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
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
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: Q1930

Contract: VERI01

Lab Code: CHEM

Method: _____

Case No.: Q1930 **SAS No.:** Q1930

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB167858							
PB167858BL	PB167858BL	MB	WATER	05/05/2025	50.0	25.0	
PB167858BS	PB167858BS	LCS	WATER	05/05/2025	50.0	25.0	
Q1930-01	WATER-TREATMENT-DISCHARGE	SAM	WATER	05/05/2025	50.0	25.0	
Q1930-01DUP	WATER-TREATMENT-DISCHARGEDUP	DUP	WATER	05/05/2025	50.0	25.0	
Q1930-01MS	WATER-TREATMENT-DISCHARGEMS	MS	WATER	05/05/2025	50.0	25.0	
Q1930-01MSD	WATER-TREATMENT-DISCHARGEMSD	MSD	WATER	05/05/2025	50.0	25.0	

metals
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ANALYSIS RUN LOG

Client: VERINA CONSULTING GROUP, LLC

Contract: VERI01

Lab code: CHEM

Case no.: Q1930

Sas no.: Q1930

Sdg no.: Q1930

Instrument id number:

Method:

Run number: LB135674

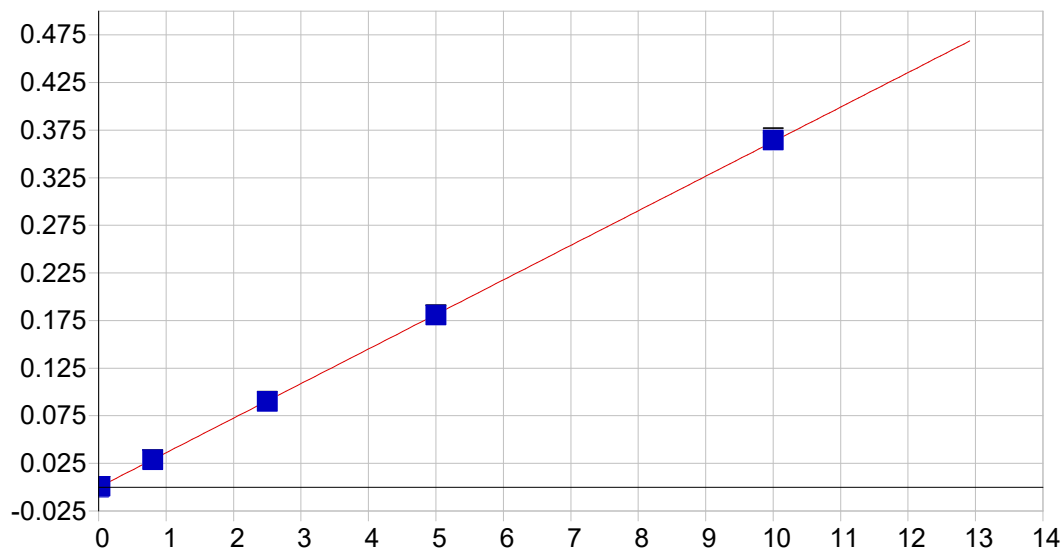
Start date: 05/05/2025

End date: 05/05/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1302	Cr,Cu,Ni,Zn
S1	S1	1	1307	Cr,Cu,Ni,Zn
S2	S2	1	1311	Cr,Cu,Ni,Zn
S3	S3	1	1315	Cr,Cu,Ni,Zn
S4	S4	1	1319	Cr,Cu,Ni,Zn
S5	S5	1	1324	Cr,Cu,Ni,Zn
ICV01	ICV01	1	1418	Cr,Cu,Ni,Zn
LLICV01	LLICV01	1	1436	Cr,Cu,Ni,Zn
ICB01	ICB01	1	1441	Cr,Cu,Ni,Zn
CRI01	CRI01	1	1447	Cr,Cu,Ni,Zn
ICSA01	ICSA01	1	1452	Cr,Cu,Ni,Zn
ICSAB01	ICSAB01	1	1507	Cr,Cu,Ni,Zn
CCV01	CCV01	1	1520	Cr,Cu,Ni,Zn
CCB01	CCB01	1	1526	Cr,Cu,Ni,Zn
CCV02	CCV02	1	1607	Cr,Cu,Ni,Zn
CCB02	CCB02	1	1612	Cr,Cu,Ni,Zn
CCV03	CCV03	1	1656	Cr,Cu,Ni,Zn
CCB03	CCB03	1	1700	Cr,Cu,Ni,Zn
CCV04	CCV04	1	1755	Cr,Cu,Ni,Zn
CCB04	CCB04	1	1759	Cr,Cu,Ni,Zn
PB167858BL	PB167858BL	1	1822	Cr,Cu,Ni,Zn
PB167858BS	PB167858BS	1	1827	Cr,Cu,Ni,Zn
CCV05	CCV05	1	1843	Cr,Cu,Ni,Zn
CCB05	CCB05	1	1847	Cr,Cu,Ni,Zn
CCV06	CCV06	1	1932	Cr,Cu,Ni,Zn
CCB06	CCB06	1	1937	Cr,Cu,Ni,Zn
CCV07	CCV07	1	2019	Cr,Cu,Ni,Zn
CCB07	CCB07	1	2023	Cr,Cu,Ni,Zn
CCV08	CCV08	1	2107	Cr,Cu,Ni,Zn
CCB08	CCB08	1	2112	Cr,Cu,Ni,Zn
CCV09	CCV09	1	2159	Cr,Cu,Ni,Zn
CCB09	CCB09	1	2203	Cr,Cu,Ni,Zn
Q1930-01	WATER-TREATMENT-DISCH/	1	2208	Cr,Cu,Ni,Zn
Q1930-01DUP	WATER-TREATMENT-DISCH/	1	2212	Cr,Cu,Ni,Zn
Q1930-01L	WATER-TREATMENT-DISCH/	5	2216	Cr,Cu,Ni,Zn
Q1930-01MS	WATER-TREATMENT-DISCH/	1	2221	Cr,Cu,Ni,Zn
Q1930-01MSD	WATER-TREATMENT-DISCH/	1	2225	Cr,Cu,Ni,Zn
CCV10	CCV10	1	2233	Cr,Cu,Ni,Zn
CCB10	CCB10	1	2237	Cr,Cu,Ni,Zn



METAL RAW DATA

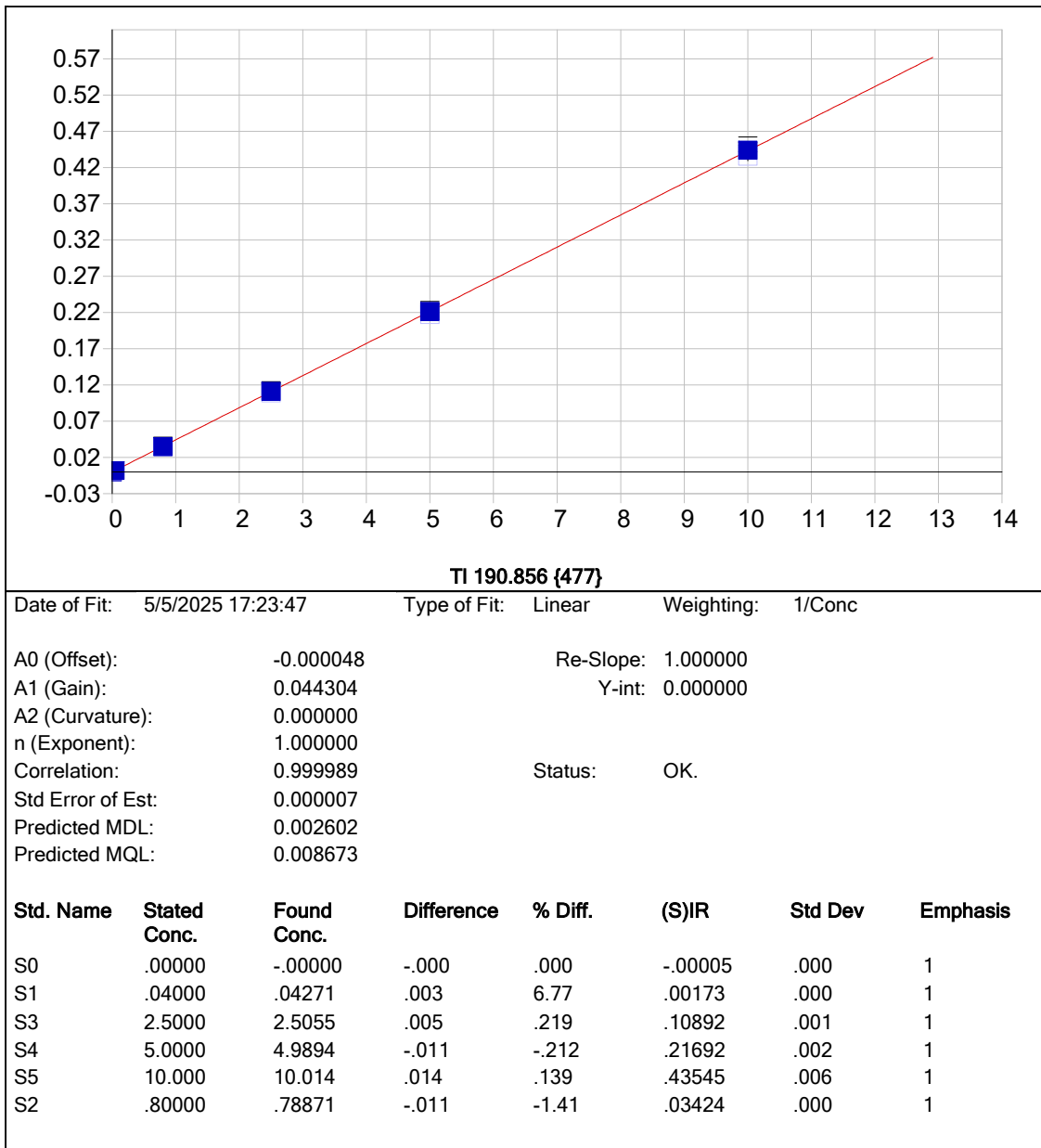


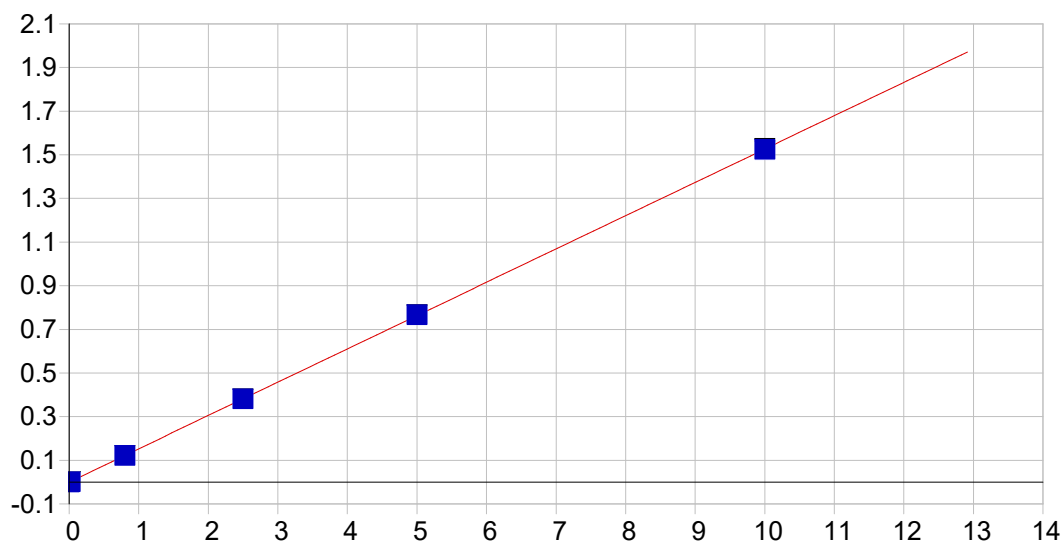
As 189.042 {479}

Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000094 Re-Slope: 1.000000
A1 (Gain): 0.036299 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999974 Status: OK.
Std Error of Est: 0.000006
Predicted MDL: 0.003795
Predicted MQL: 0.012651

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00009	.000	1
S1	.02000	.02296	.003	14.8	.00074	.000	1
S3	2.5000	2.4800	-.020	-.799	.08983	.000	1
S4	5.0000	4.9827	-.017	-.346	.18058	.000	1
S5	10.000	10.043	.043	.430	.36407	.002	1
S2	.80000	.79130	-.009	-1.09	.02860	.000	1



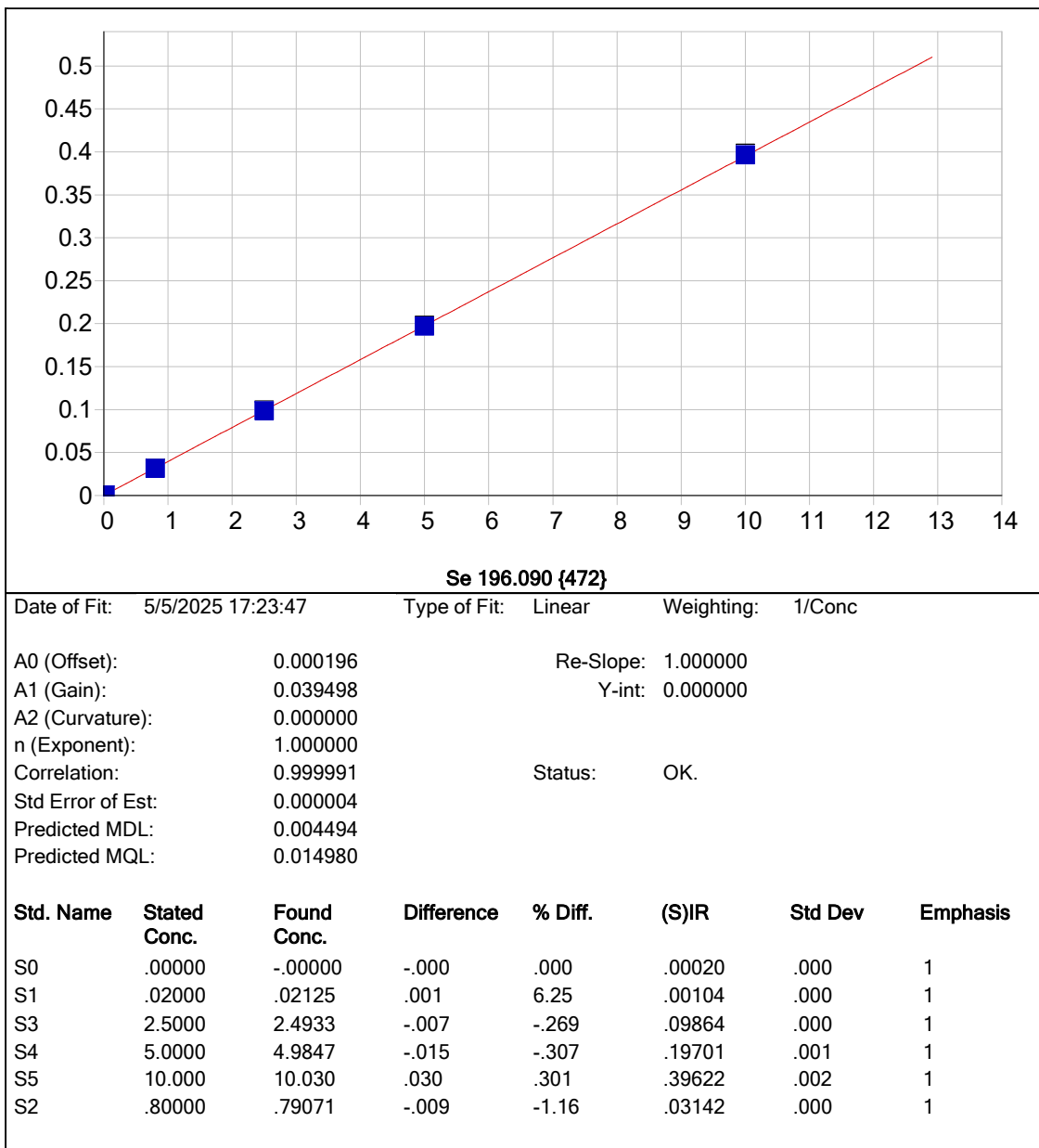


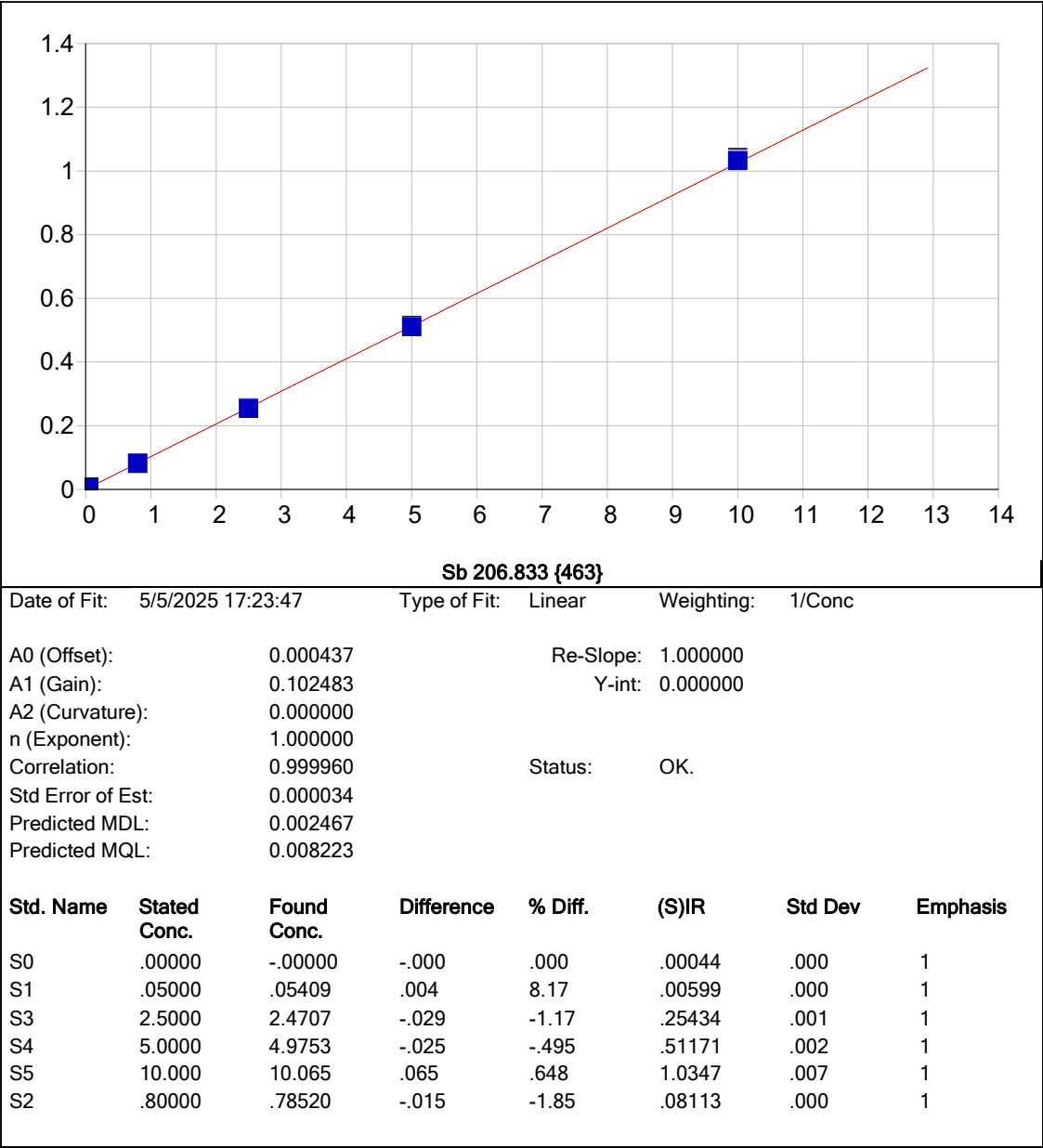
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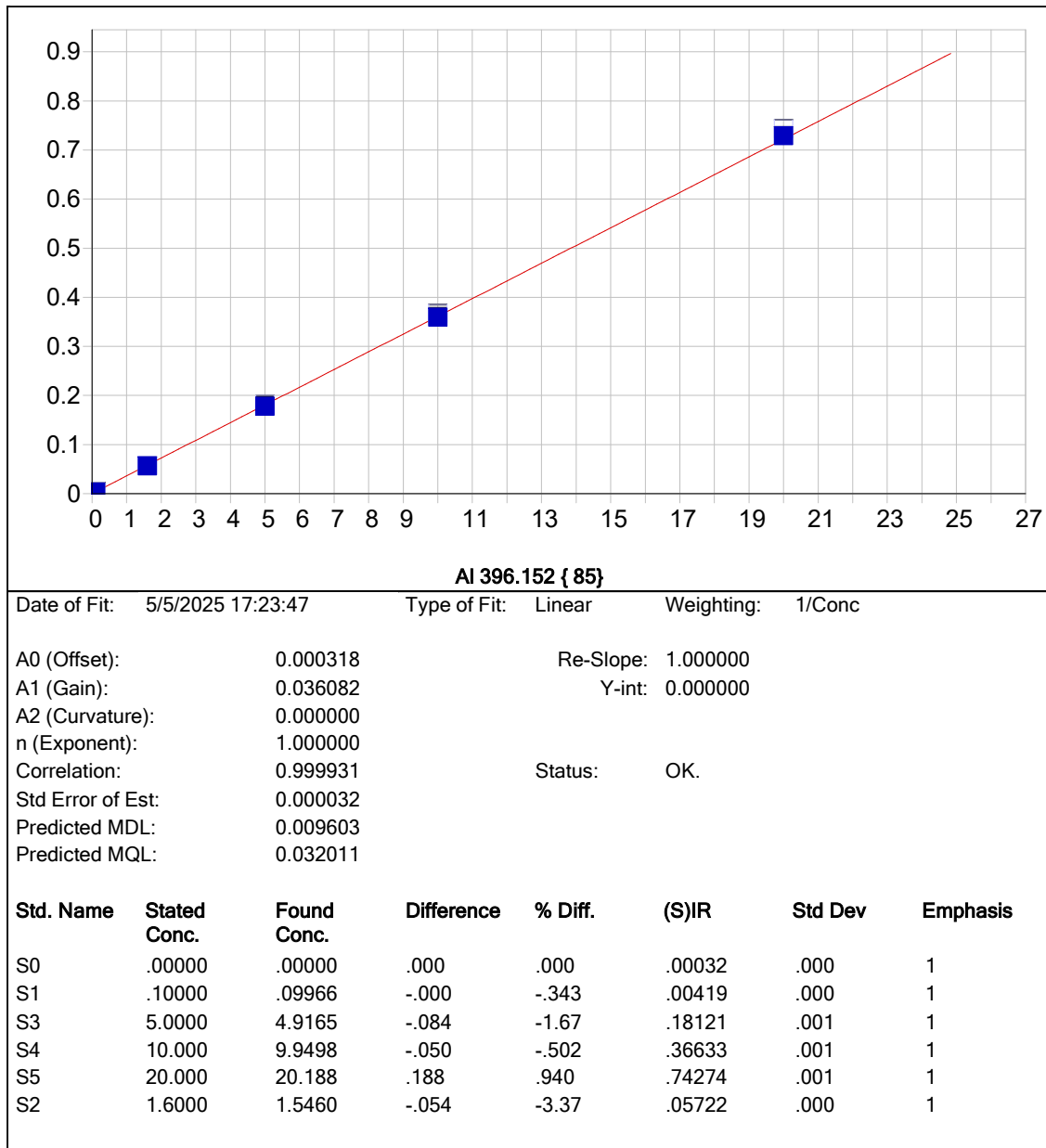
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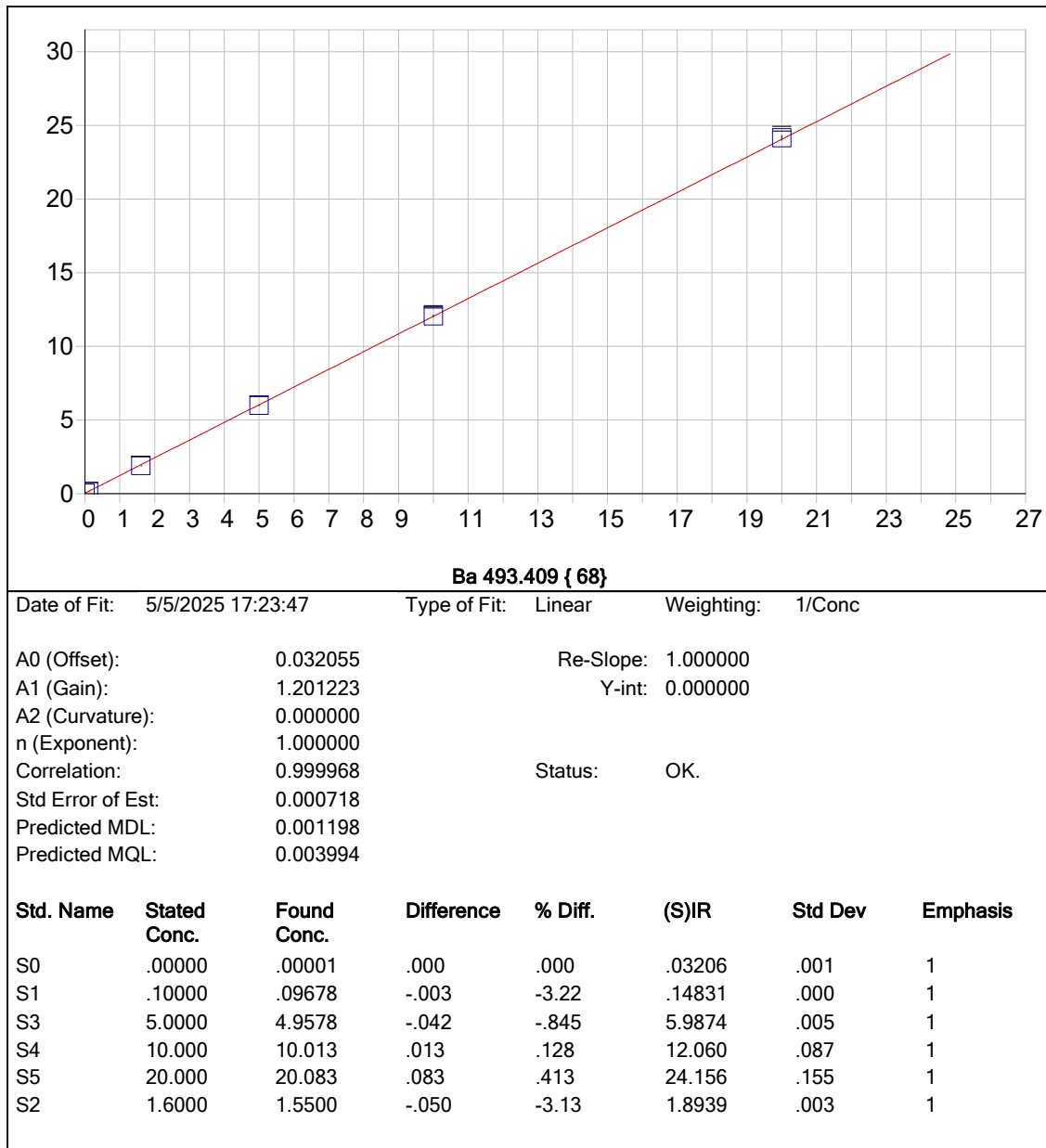
A0 (Offset): -0.000020 Re-Slope: 1.000000
A1 (Gain): 0.152643 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999997 Status: OK.
Std Error of Est: 0.000007
Predicted MDL: 0.001868
Predicted MQL: 0.006225

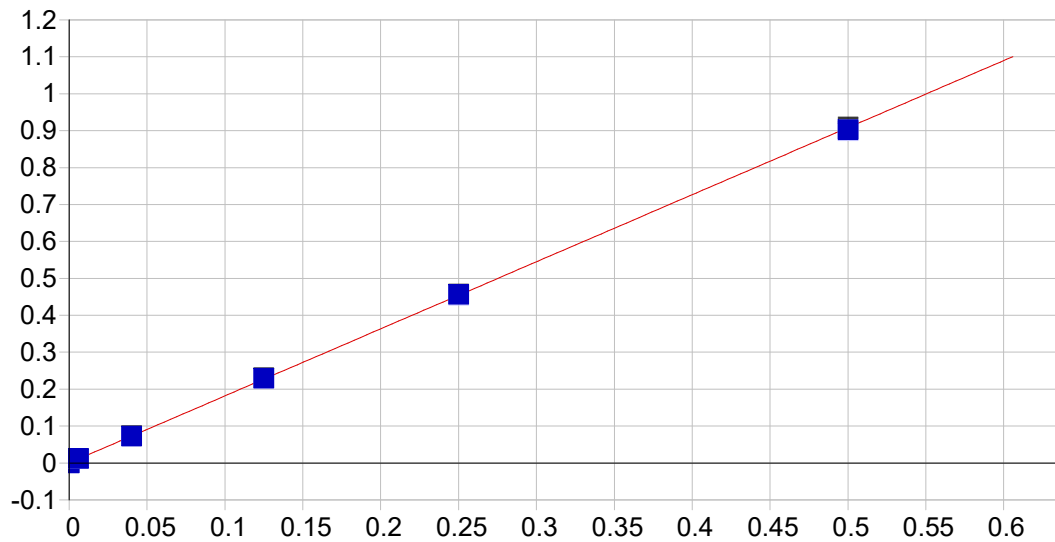
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.01200	.01199	-.000	-.061	.00178	.000	1
S3	2.5000	2.4970	-.003	-.120	.38074	.001	1
S4	5.0000	5.0203	.020	.406	.76551	.002	1
S5	10.000	9.9868	-.013	-.132	1.5228	.006	1
S2	.80000	.79585	-.004	-.518	.12134	.000	1









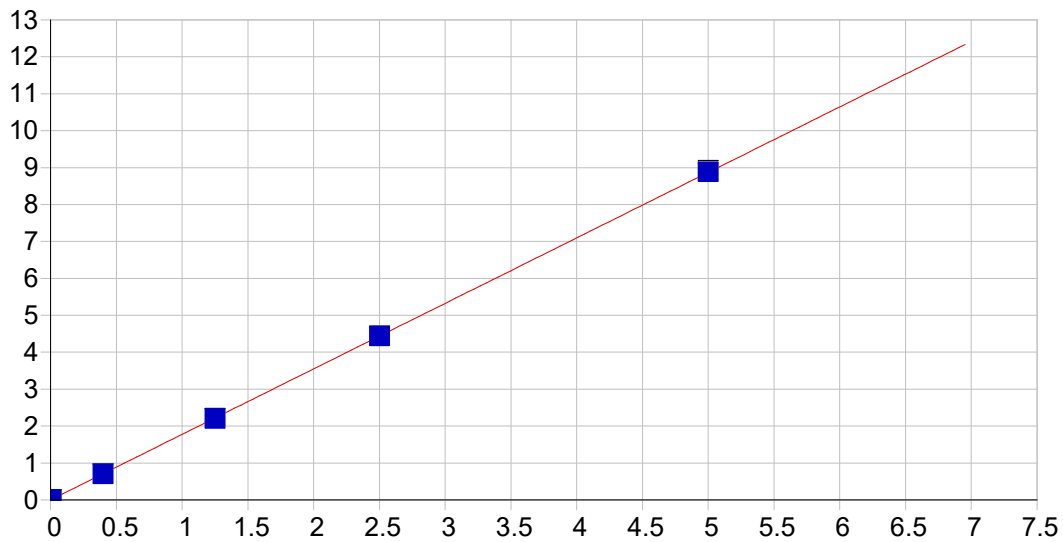


Be 234.861 {144}

Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000065 Re-Slope: 1.000000
A1 (Gain): 1.816241 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999972 Status: OK.
Std Error of Est: 0.000039
Predicted MDL: 0.000073
Predicted MQL: 0.000243

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.00600	.00629	.000	4.82	.01141	.000	1
S3	.12500	.12643	.001	1.14	.22868	.000	1
S4	.25000	.25113	.001	.451	.45414	.001	1
S5	.50000	.49724	-.003	-.553	.89910	.006	1
S2	.04000	.03992	-.000	-.201	.07224	.000	1

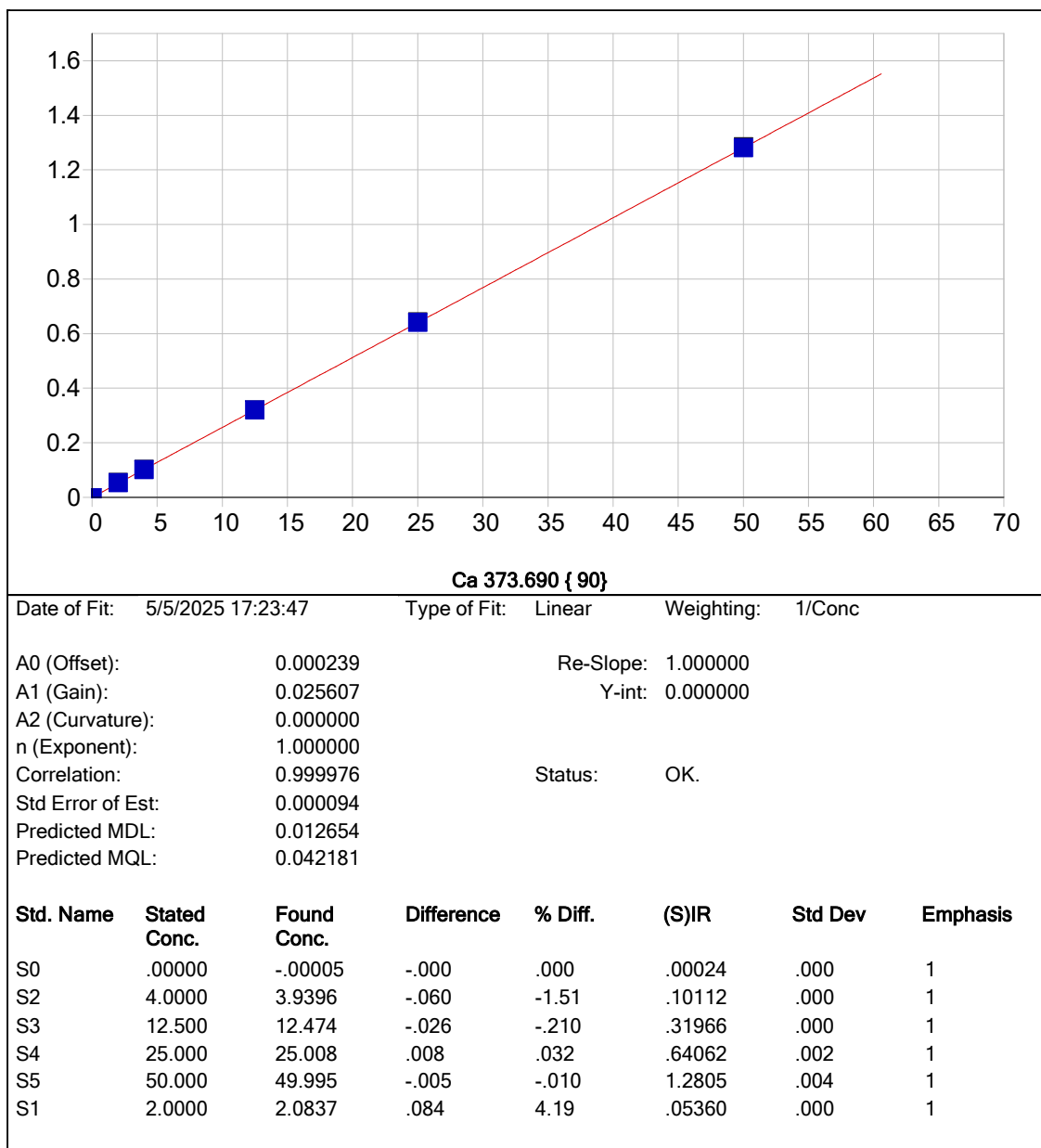


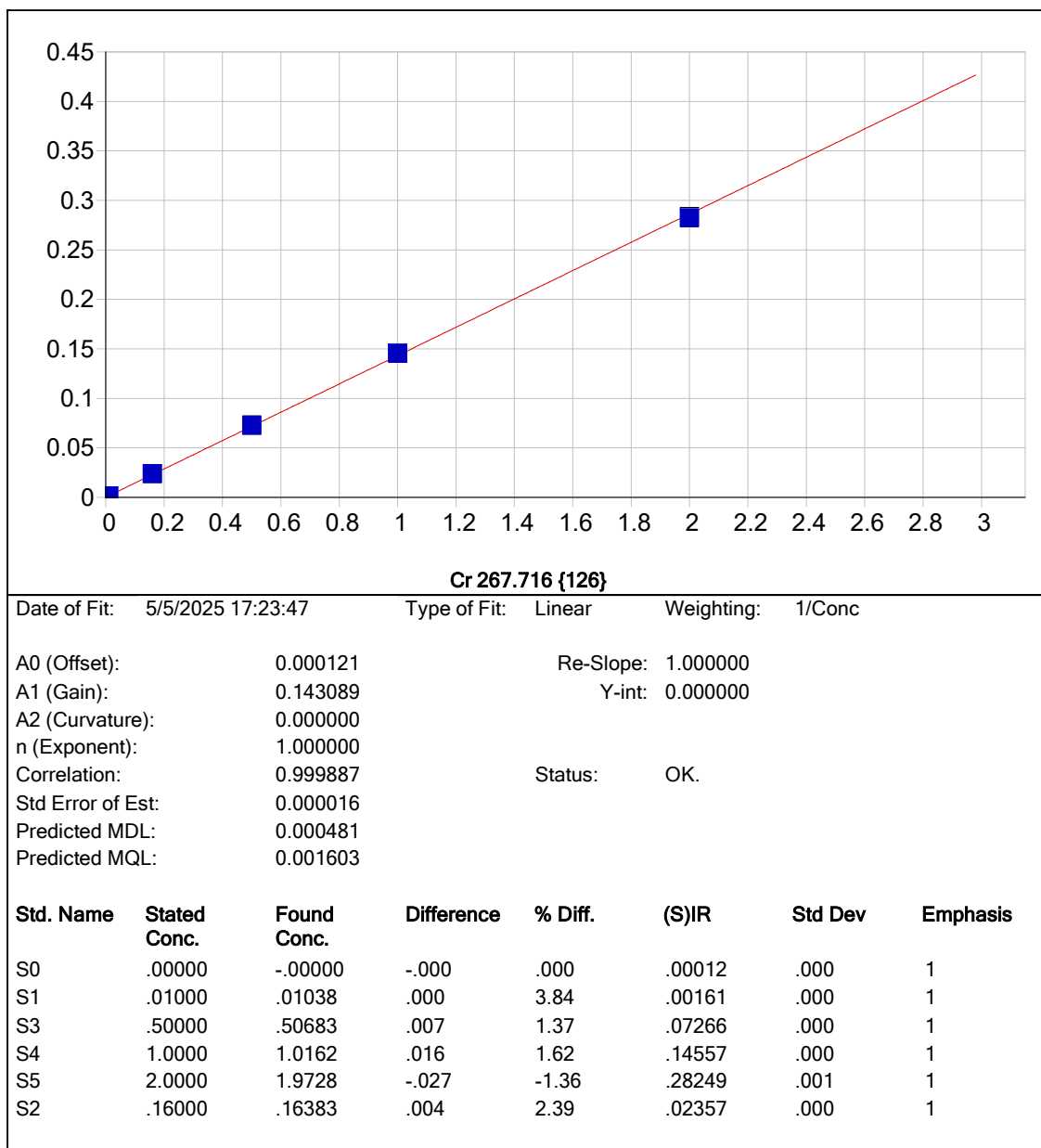
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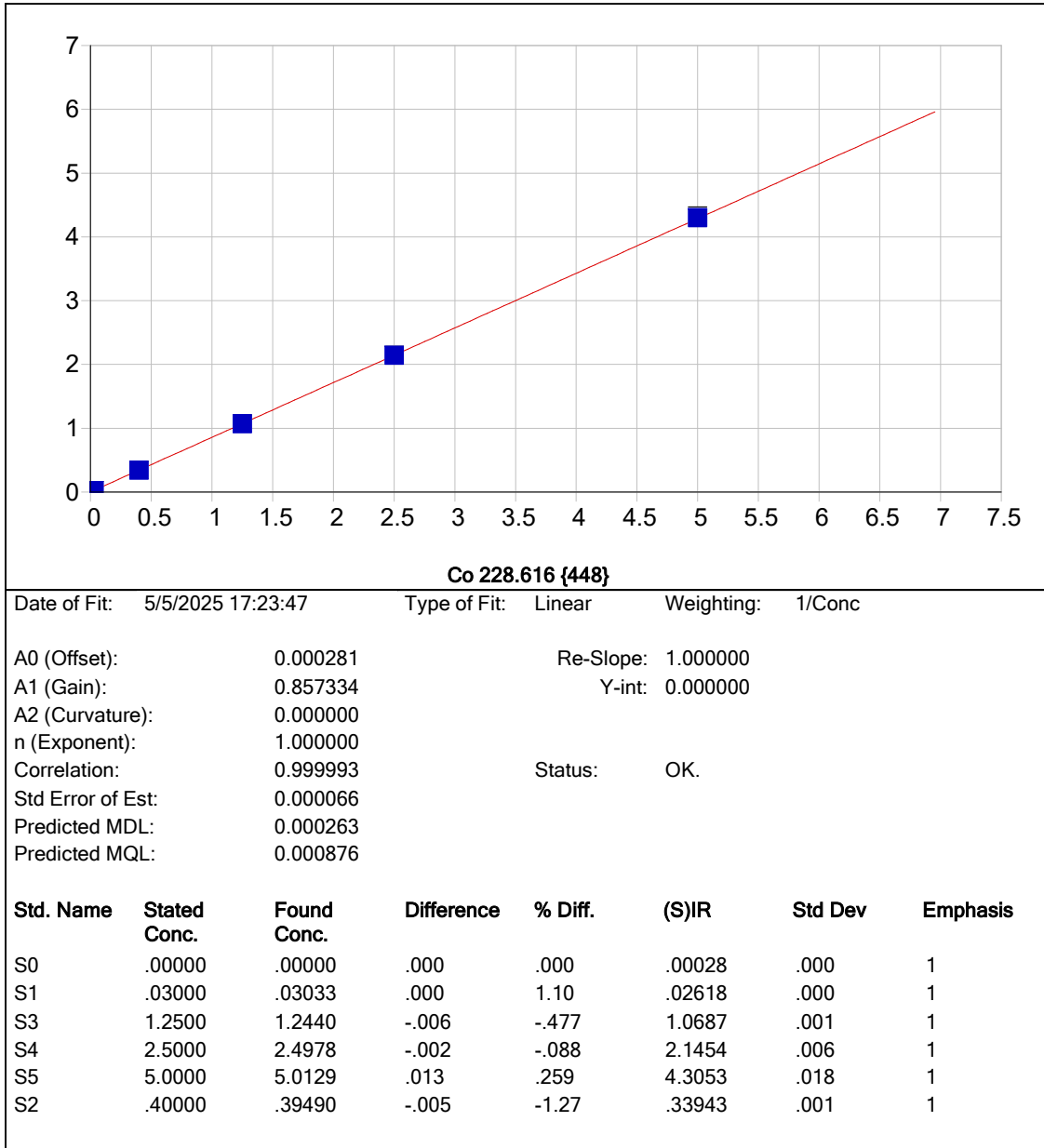
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A1 (Gain): 1.773963 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999996 Status: OK.
Std Error of Est: 0.000047
Predicted MDL: 0.000110
Predicted MQL: 0.000367

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00072	.000	1
S1	.00600	.00611	.000	1.75	.01160	.000	1
S3	1.2500	1.2426	-.007	-.596	2.2069	.005	1
S4	2.5000	2.5032	.003	.126	4.4451	.005	1
S5	5.0000	5.0070	.007	.139	8.8907	.036	1
S2	.40000	.39722	-.003	-.696	.70599	.001	1

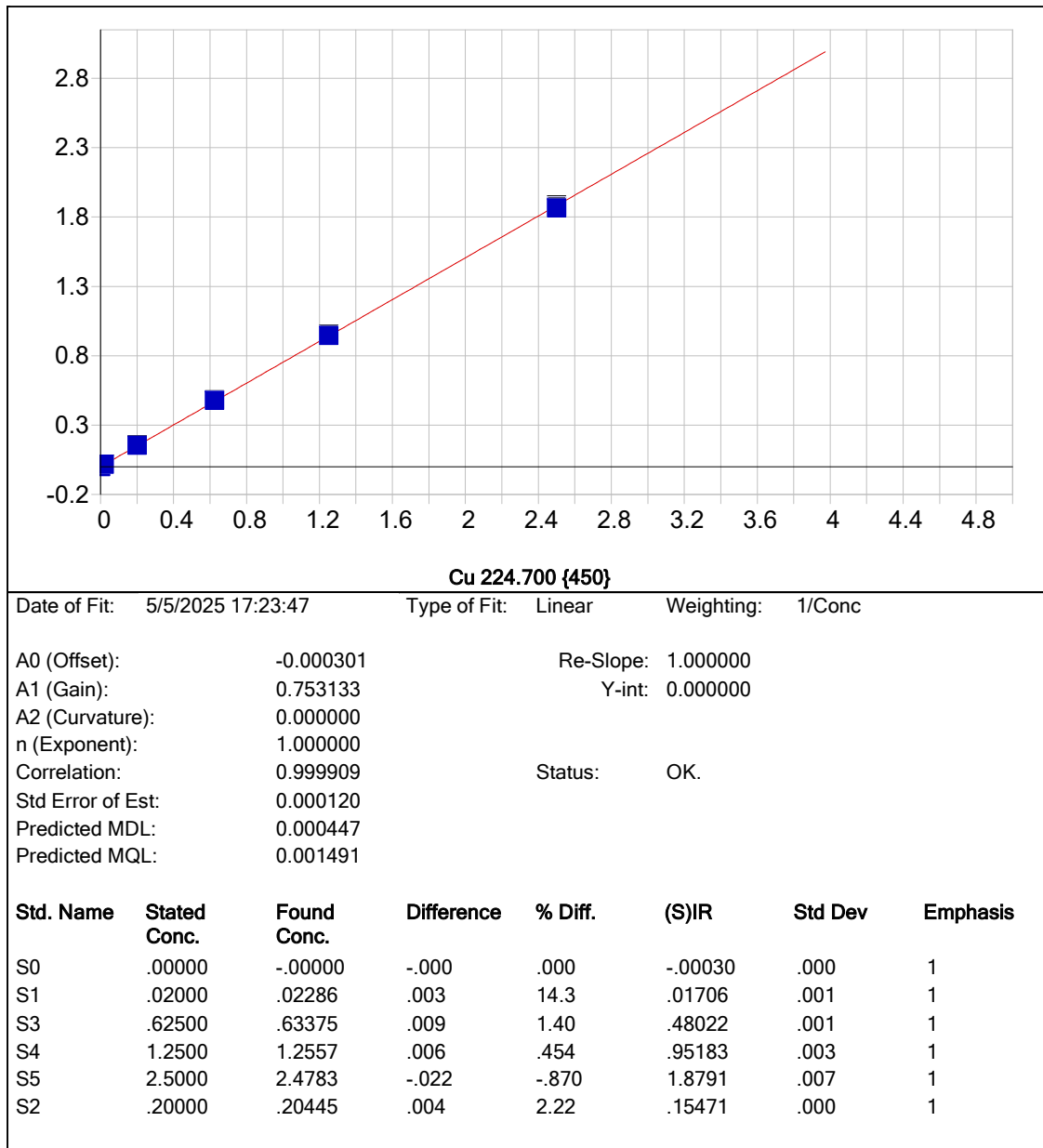


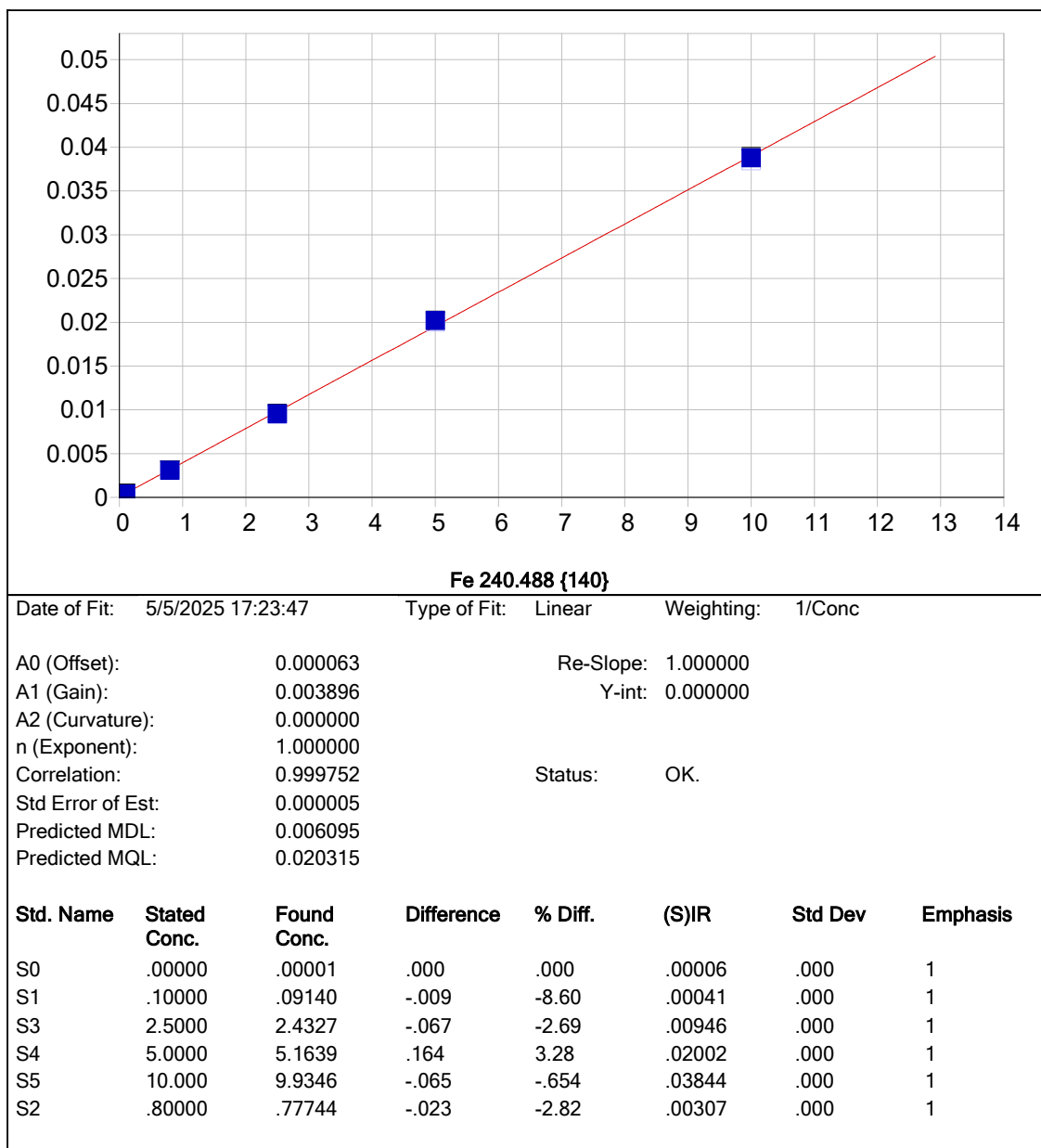


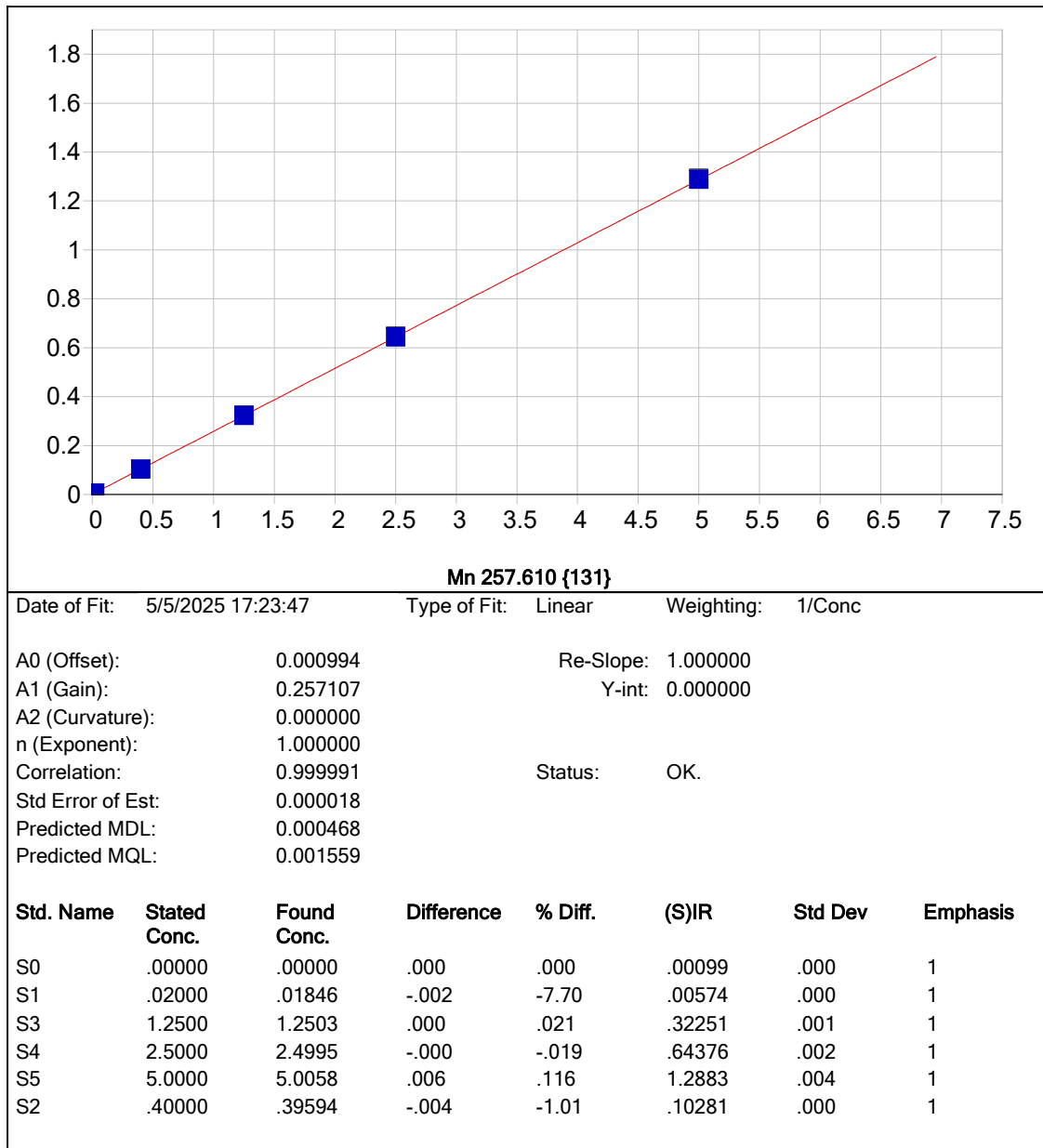


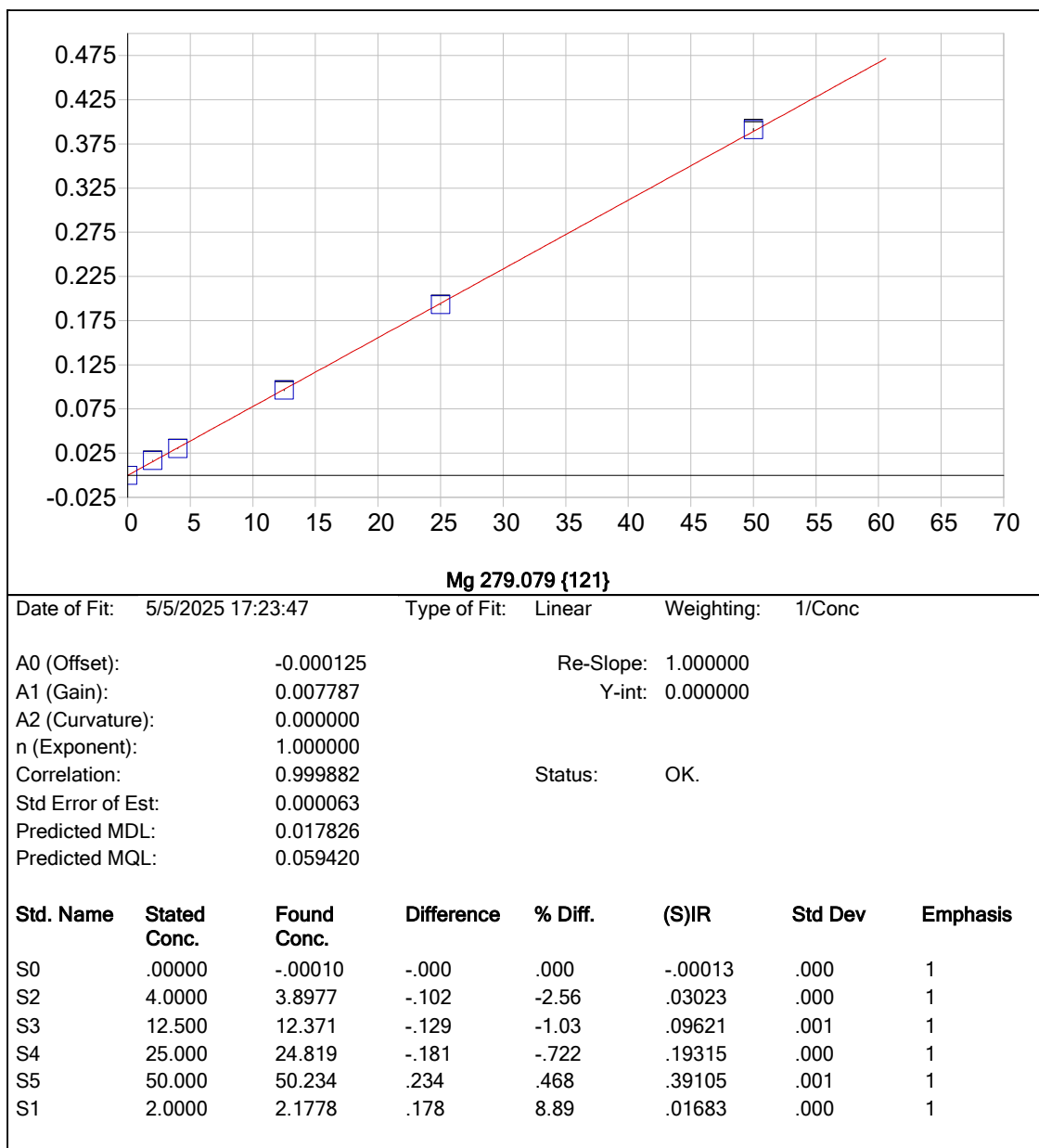
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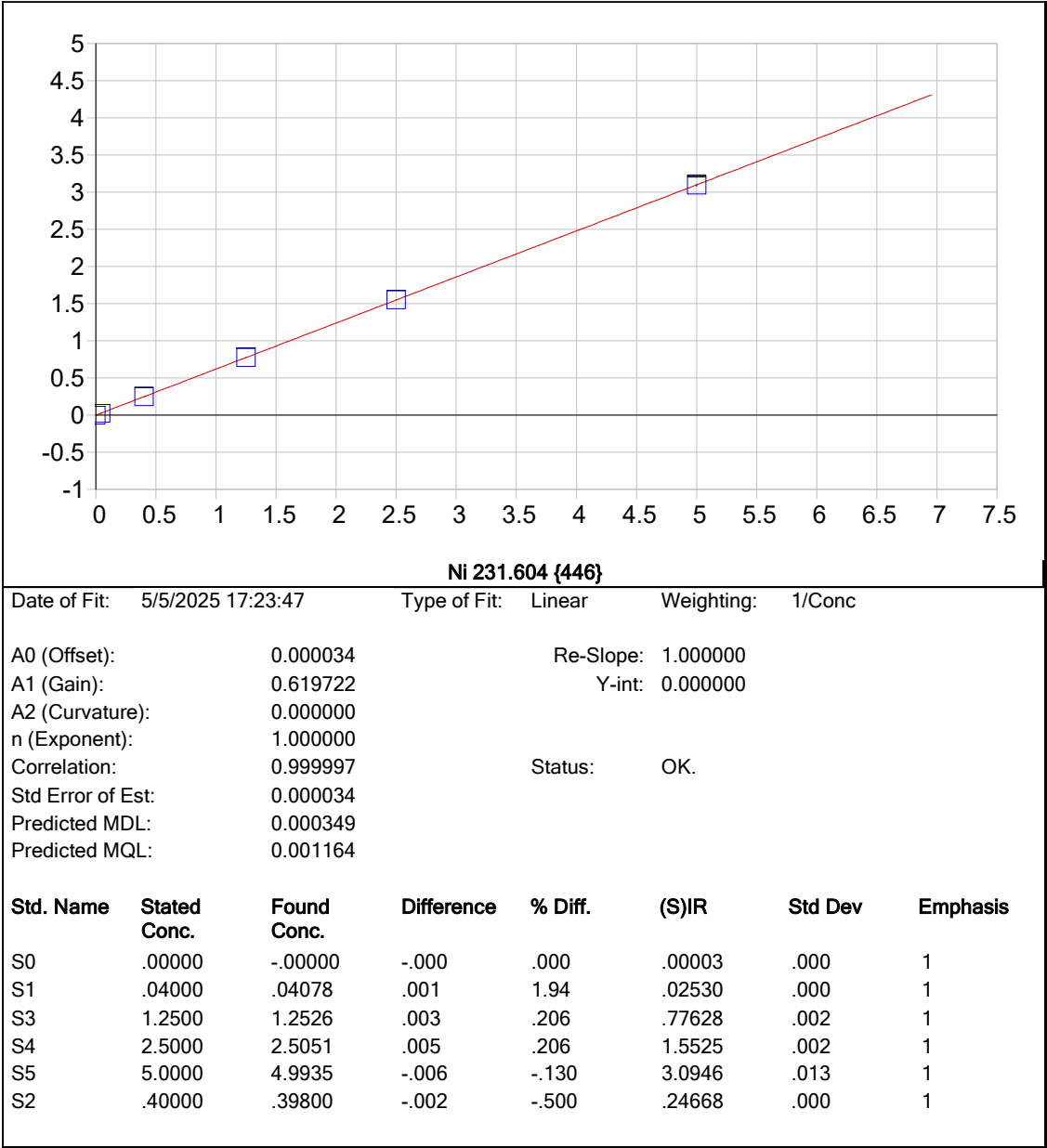
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A1 (Gain): 0.857334 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999993 Status: OK.
Std Error of Est: 0.000066
Predicted MDL: 0.000263
Predicted MQL: 0.000876

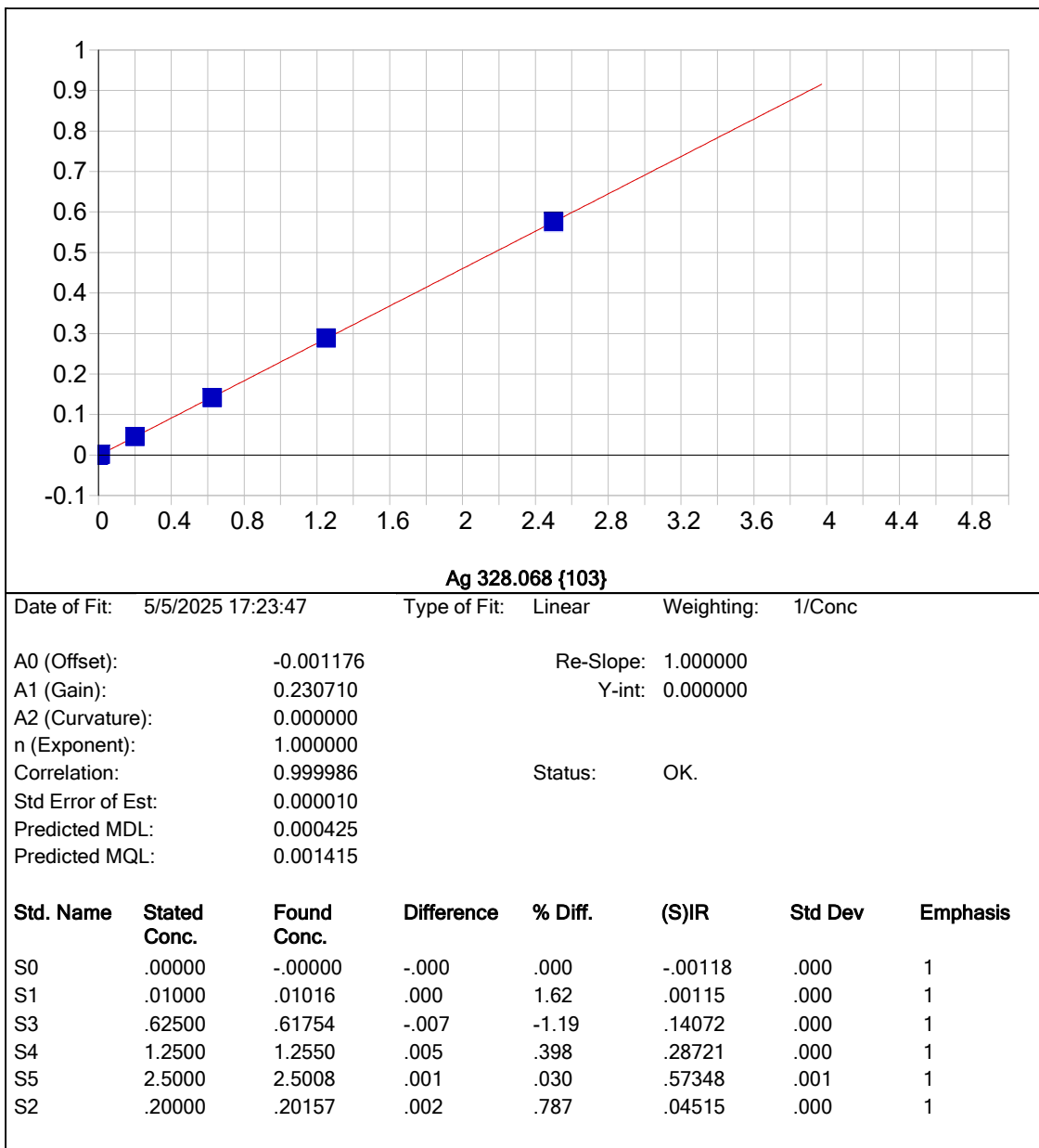


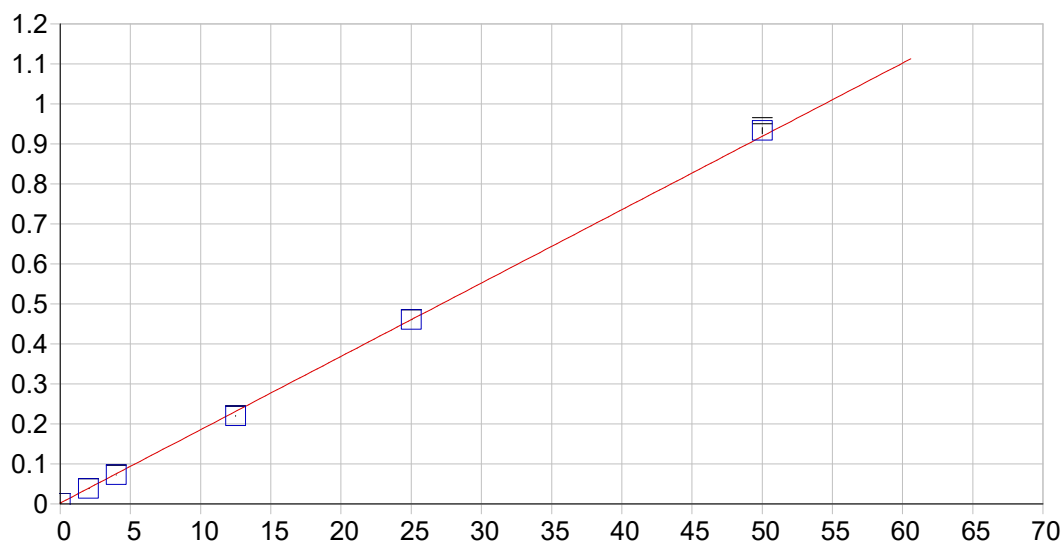










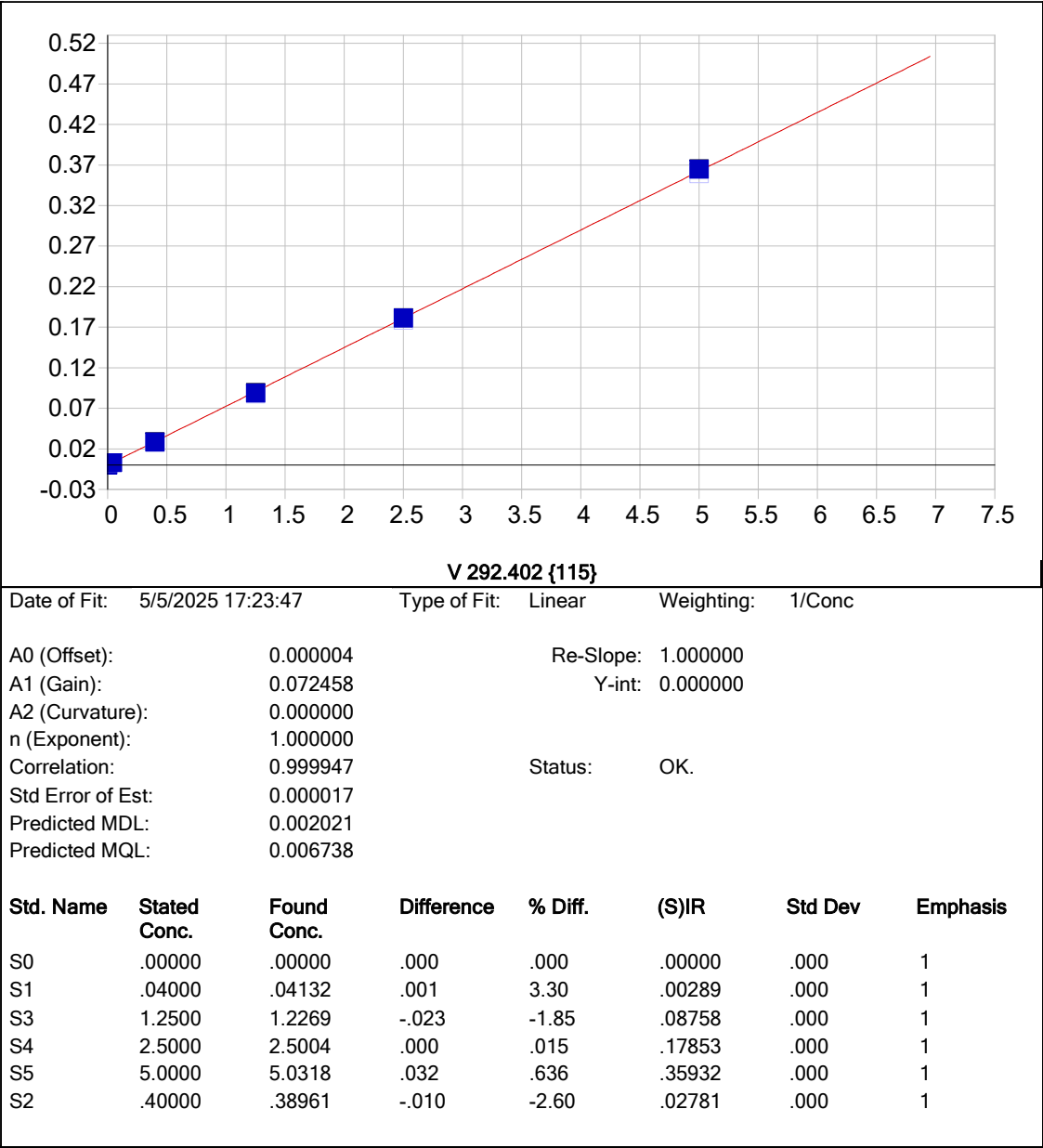


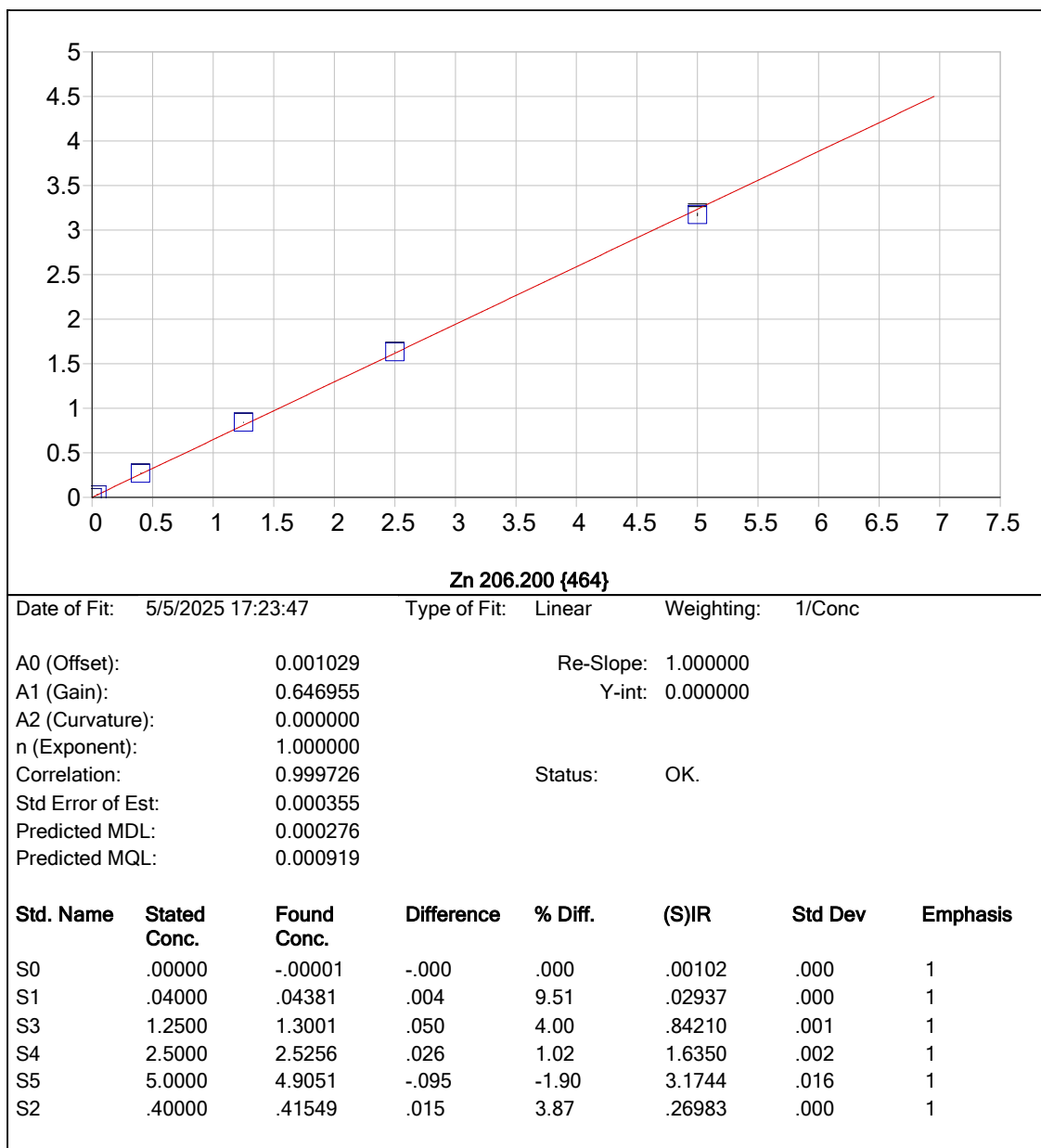
Na 589.592 { 57}

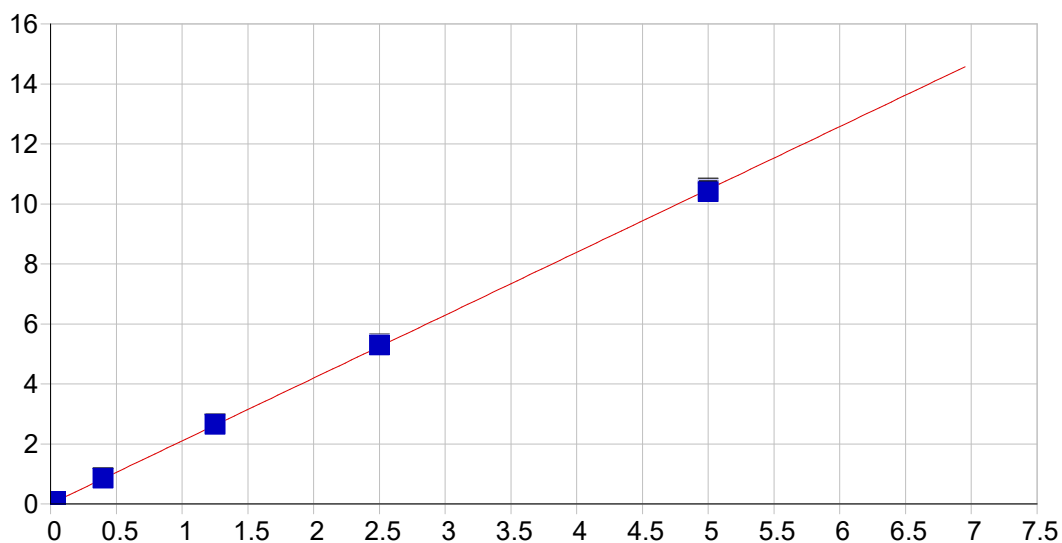
Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

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A1 (Gain): 0.018330 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999734 Status: OK.
Std Error of Est: 0.000224
Predicted MDL: 0.011786
Predicted MQL: 0.039287

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00017	.000	.000	.00226	.000	1
S2	4.0000	3.8457	-.154	-3.86	.07274	.000	1
S3	12.500	11.880	-.620	-4.96	.22000	.000	1
S4	25.000	25.011	.011	.042	.46069	.000	1
S5	50.000	50.793	.793	1.59	.93327	.008	1
S1	2.0000	1.9711	-.029	-1.44	.03838	.000	1





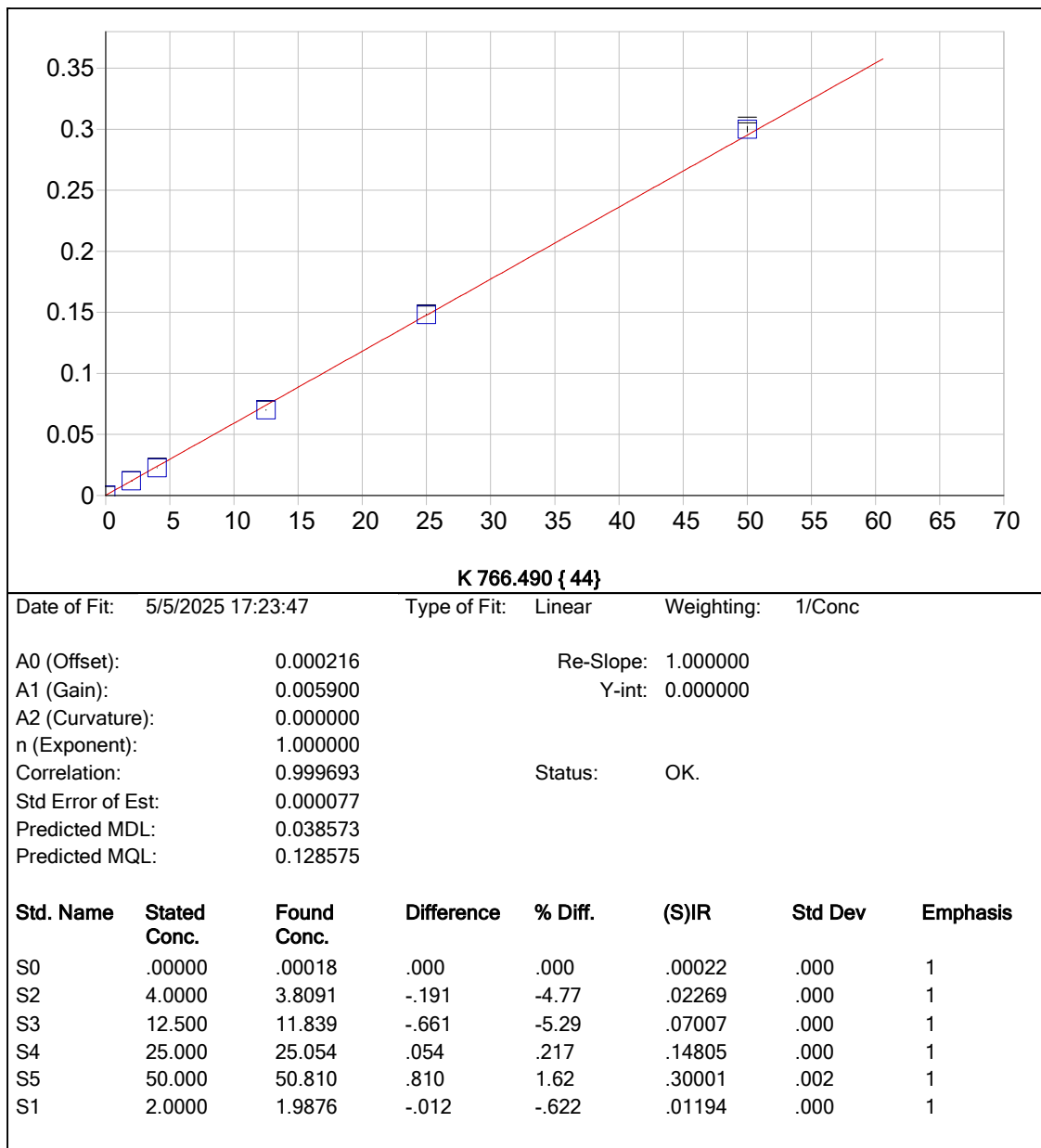


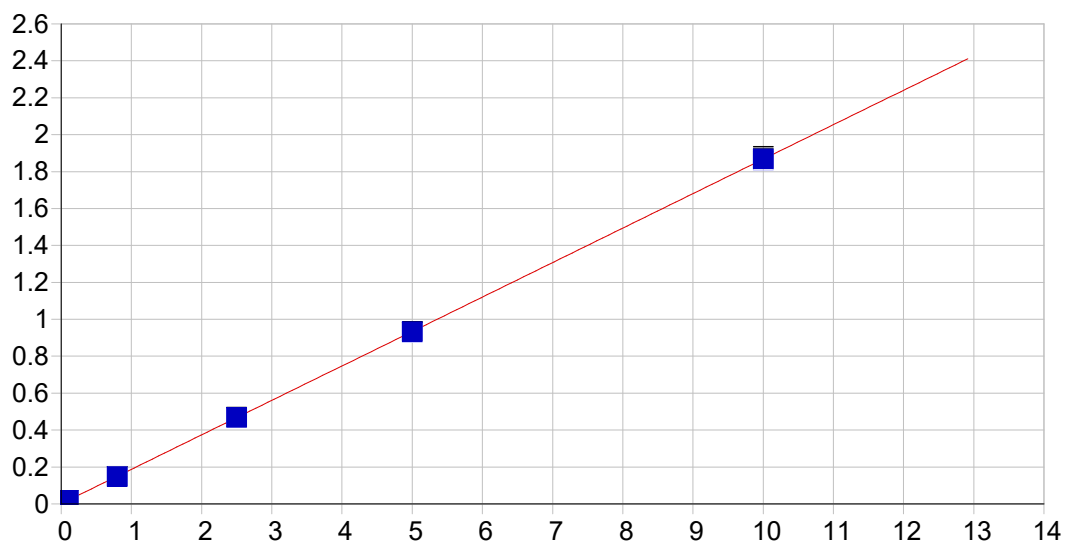
Zn 213.856 {158}

Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.004260 Re-Slope: 1.000000
A1 (Gain): 2.095568 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999956 Status: OK.
Std Error of Est: 0.000464
Predicted MDL: 0.000414
Predicted MQL: 0.001381

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00425	.001	1
S1	.04000	.04274	.003	6.85	.09441	.001	1
S3	1.2500	1.2596	.010	.767	2.6620	.012	1
S4	2.5000	2.5220	.022	.882	5.3258	.009	1
S5	5.0000	4.9609	-.039	-.782	10.473	.050	1
S2	.40000	.40474	.005	1.18	.85824	.008	1



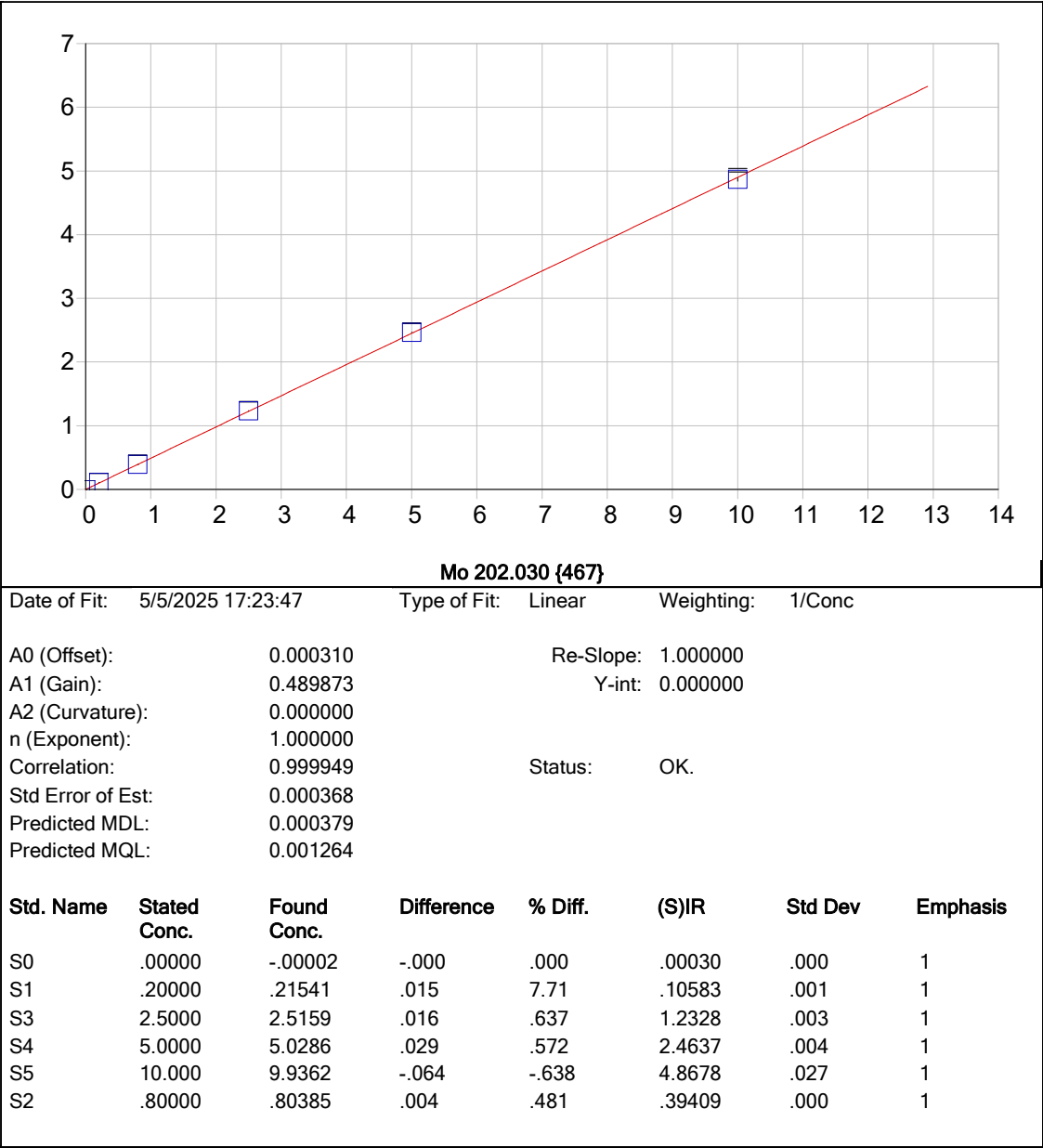


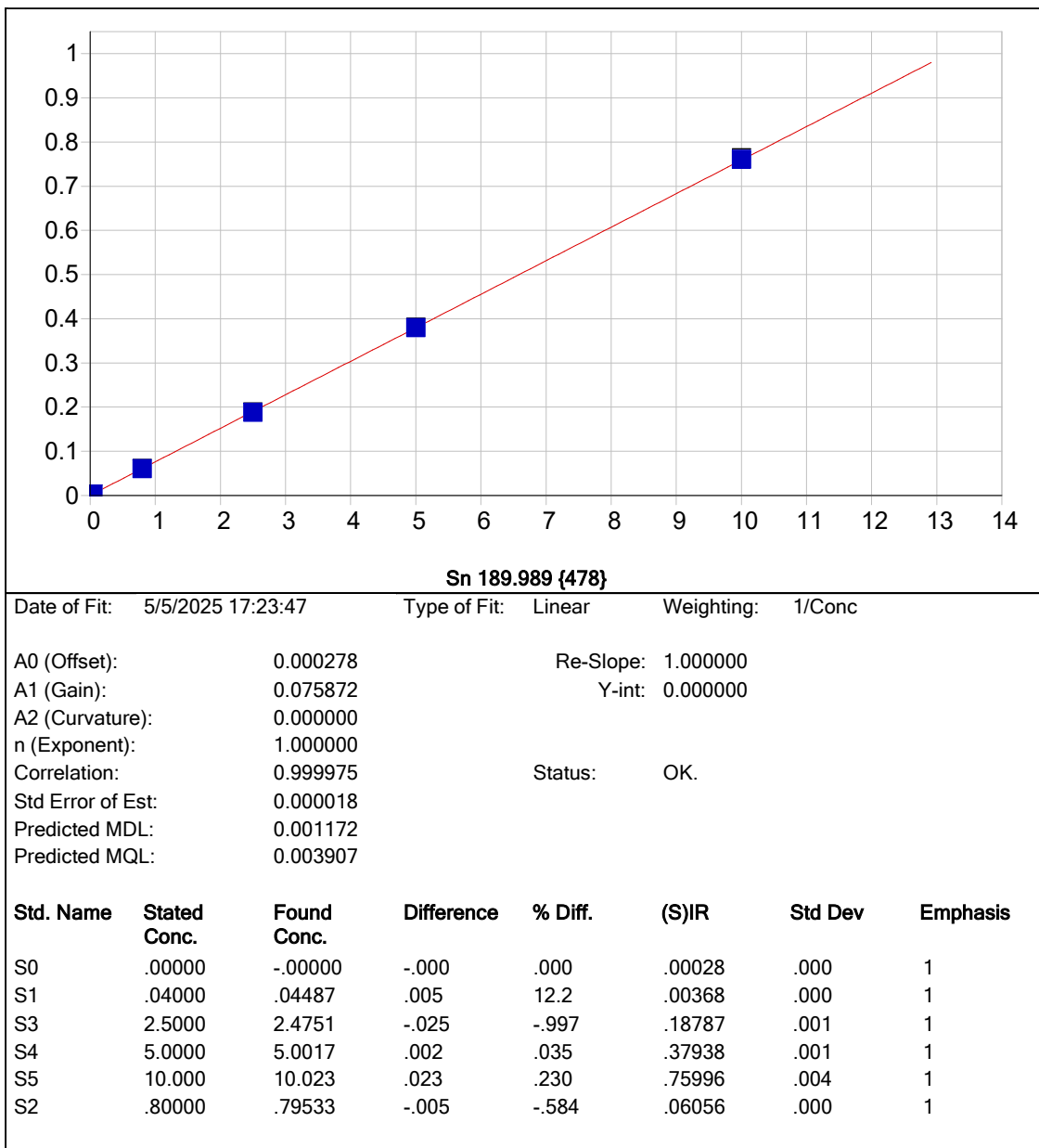
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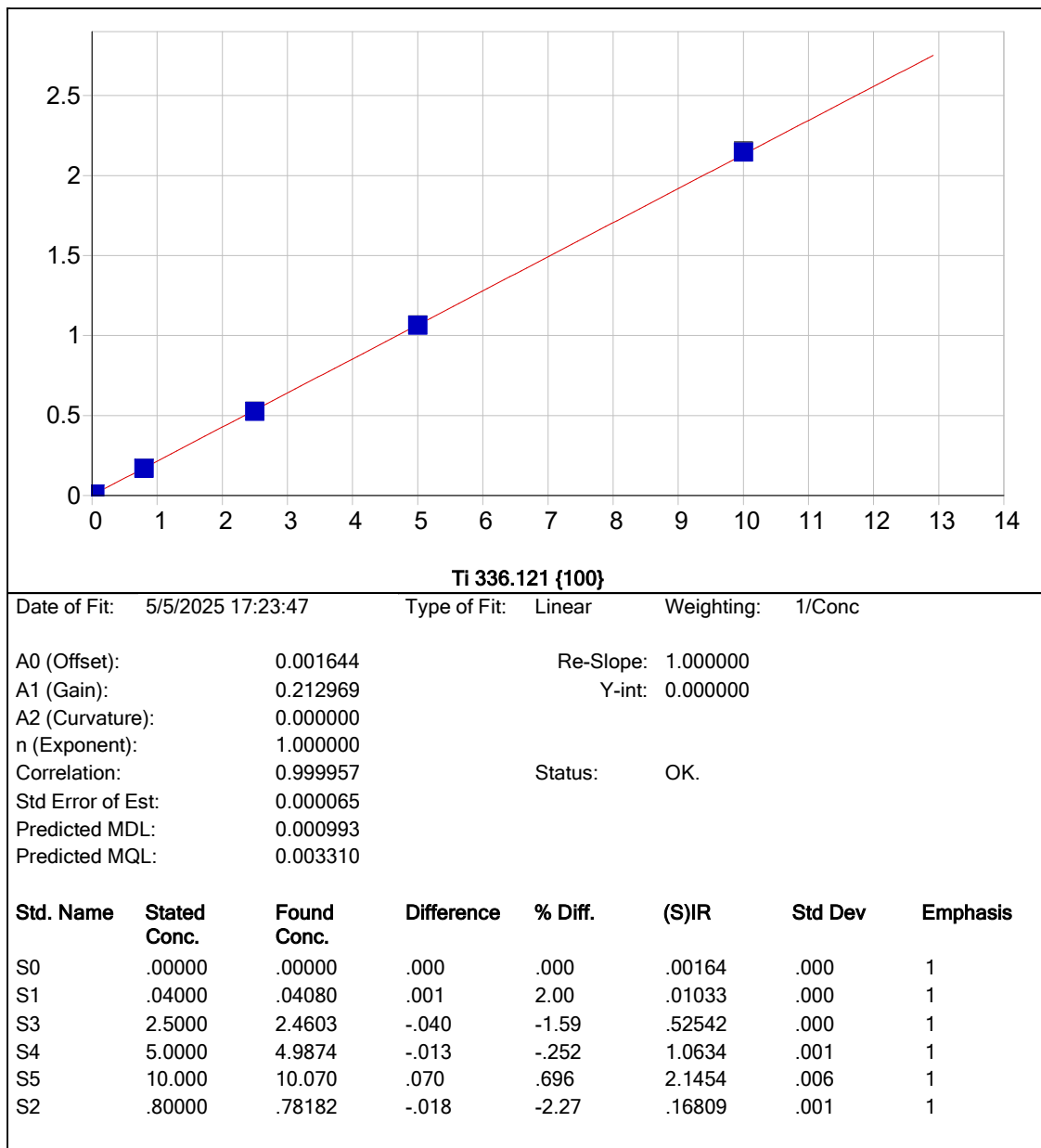
Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

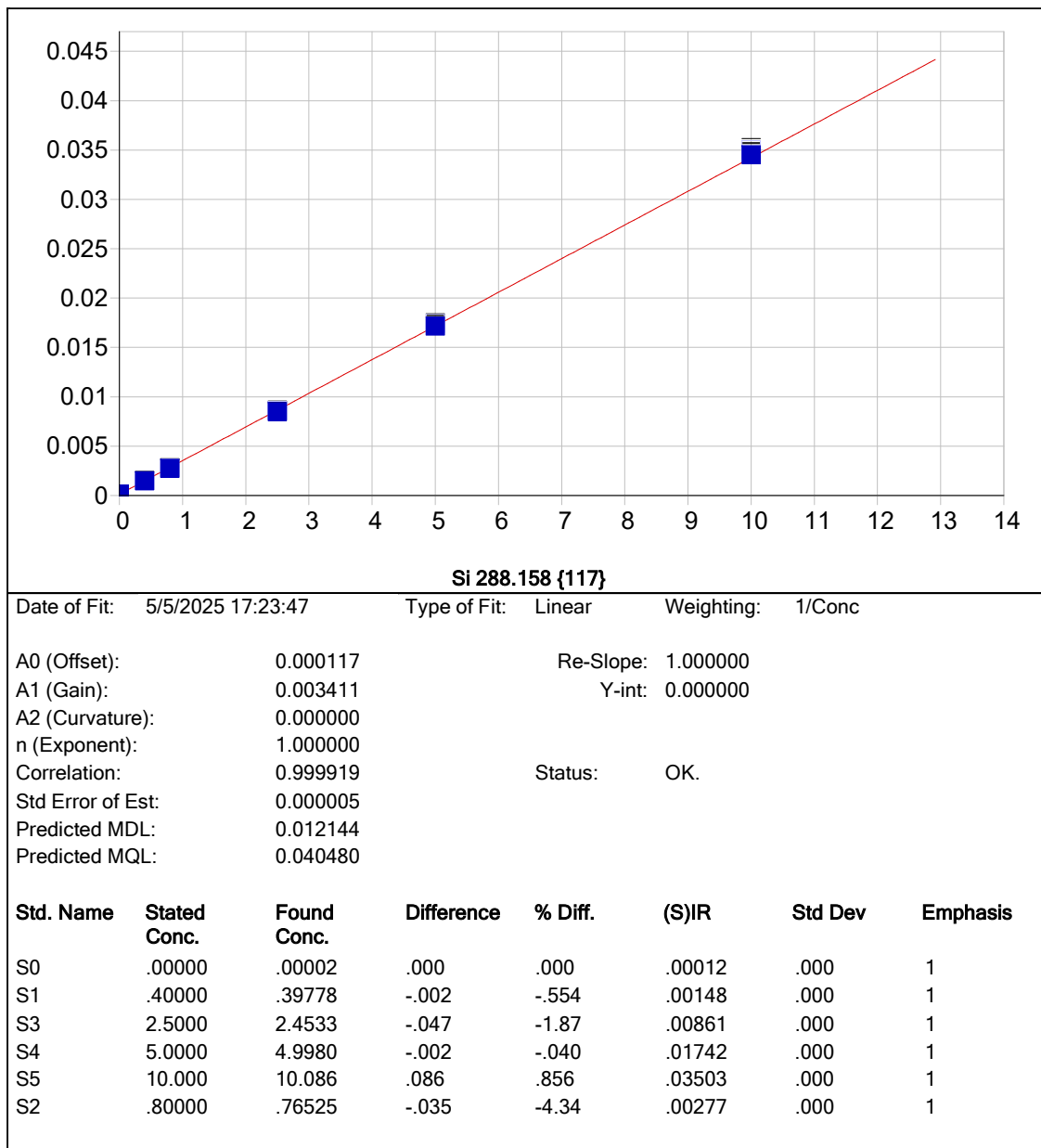
A0 (Offset): 0.000888 Re-Slope: 1.000000
A1 (Gain): 0.186630 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999972 Status: OK.
Std Error of Est: 0.000074
Predicted MDL: 0.000906
Predicted MQL: 0.003019

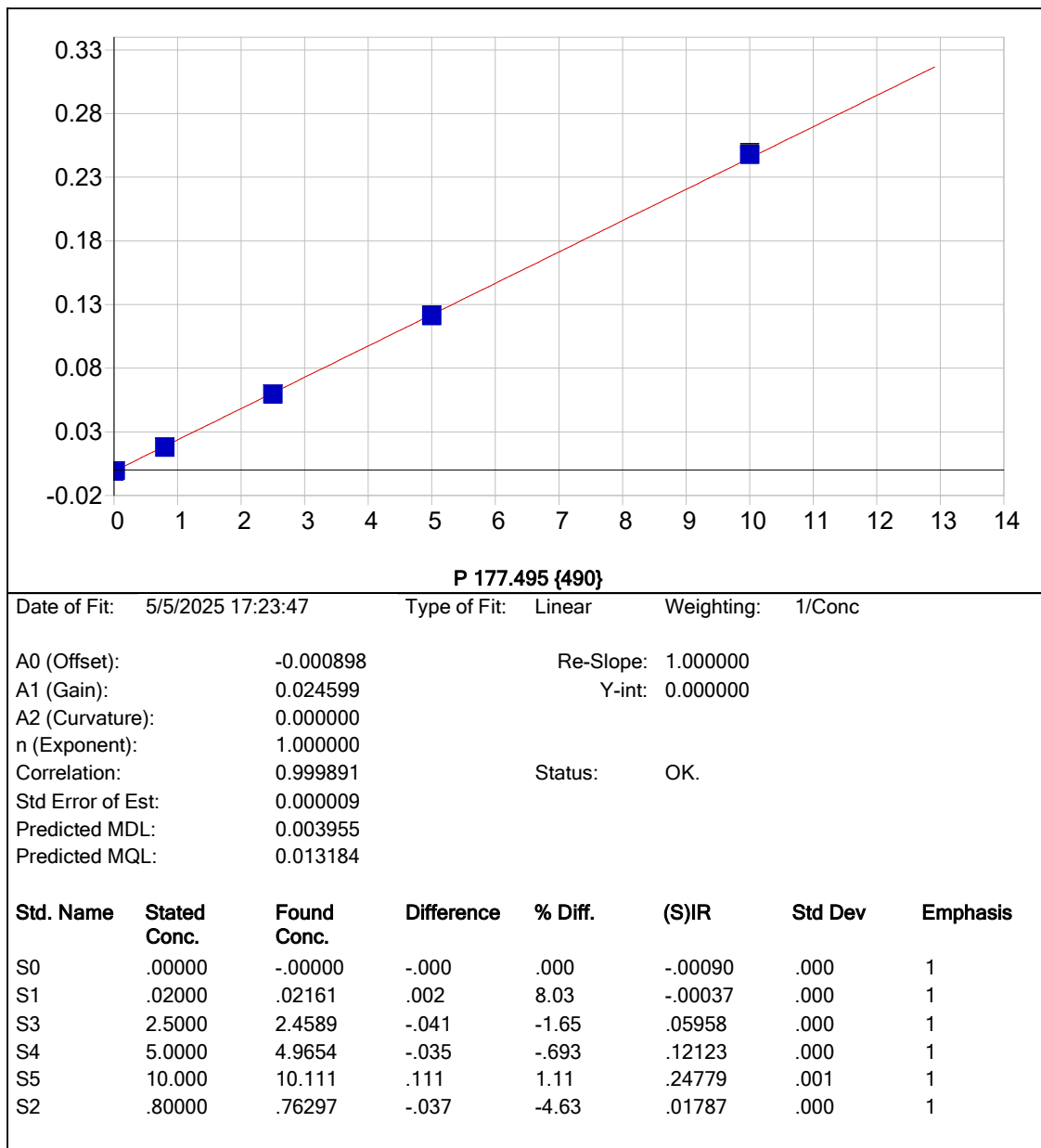
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00089	.000	1
S1	.10000	.10905	.009	9.05	.02111	.000	1
S3	2.5000	2.5034	.003	.136	.46593	.002	1
S4	5.0000	4.9907	-.009	-.186	.92797	.001	1
S5	10.000	10.009	.009	.091	1.8602	.014	1
S2	.80000	.78773	-.012	-1.53	.14721	.000	1





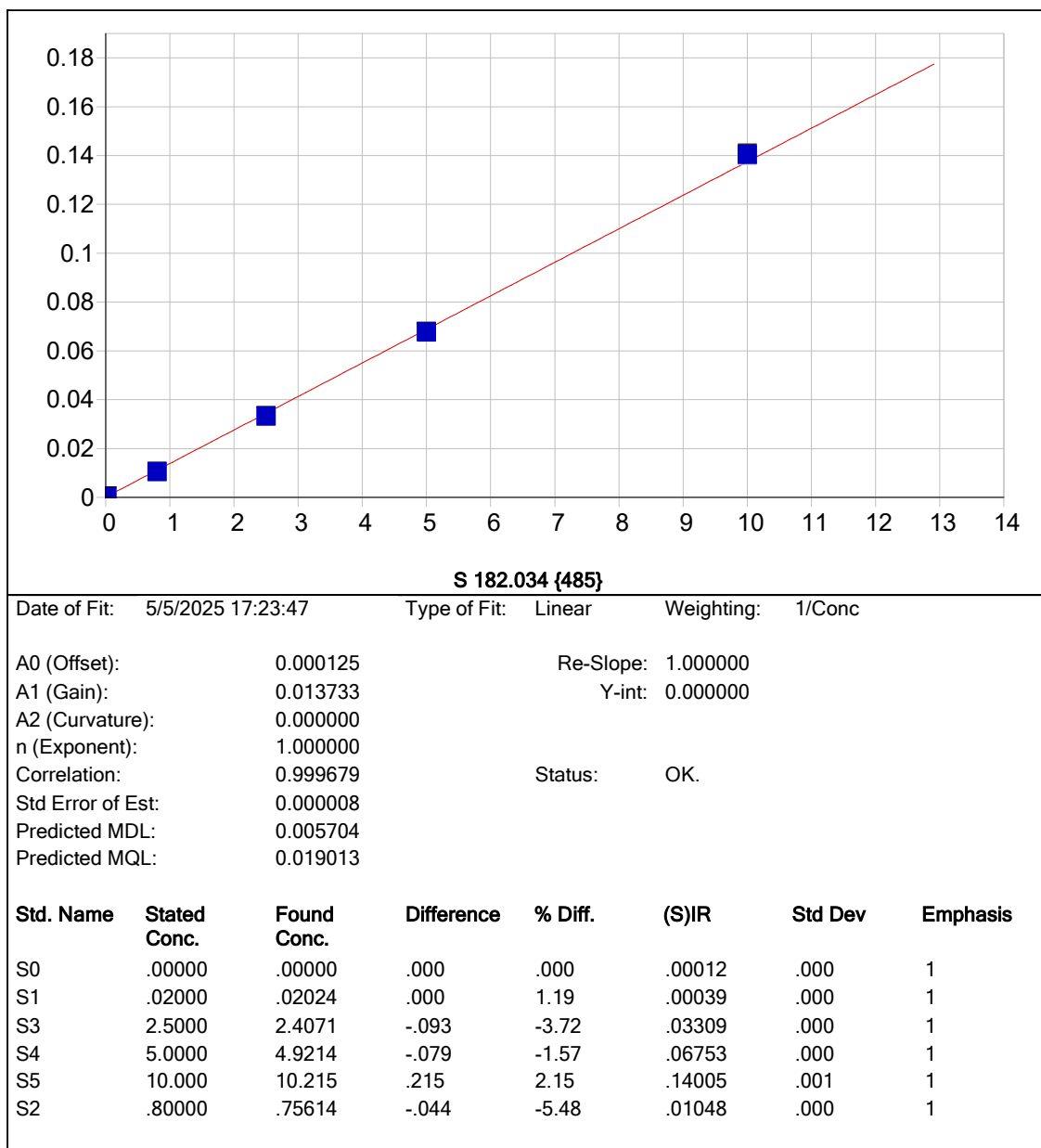


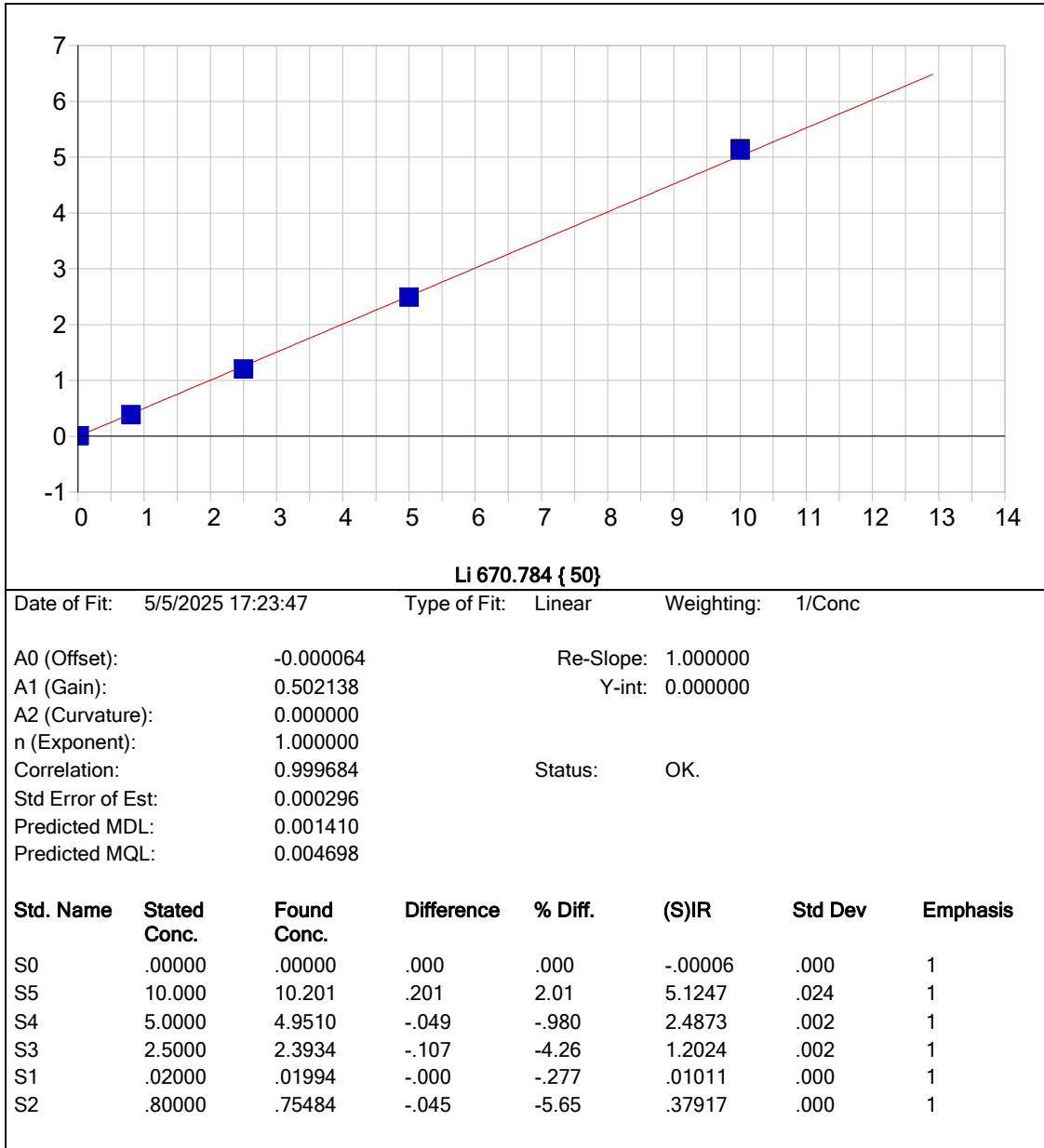


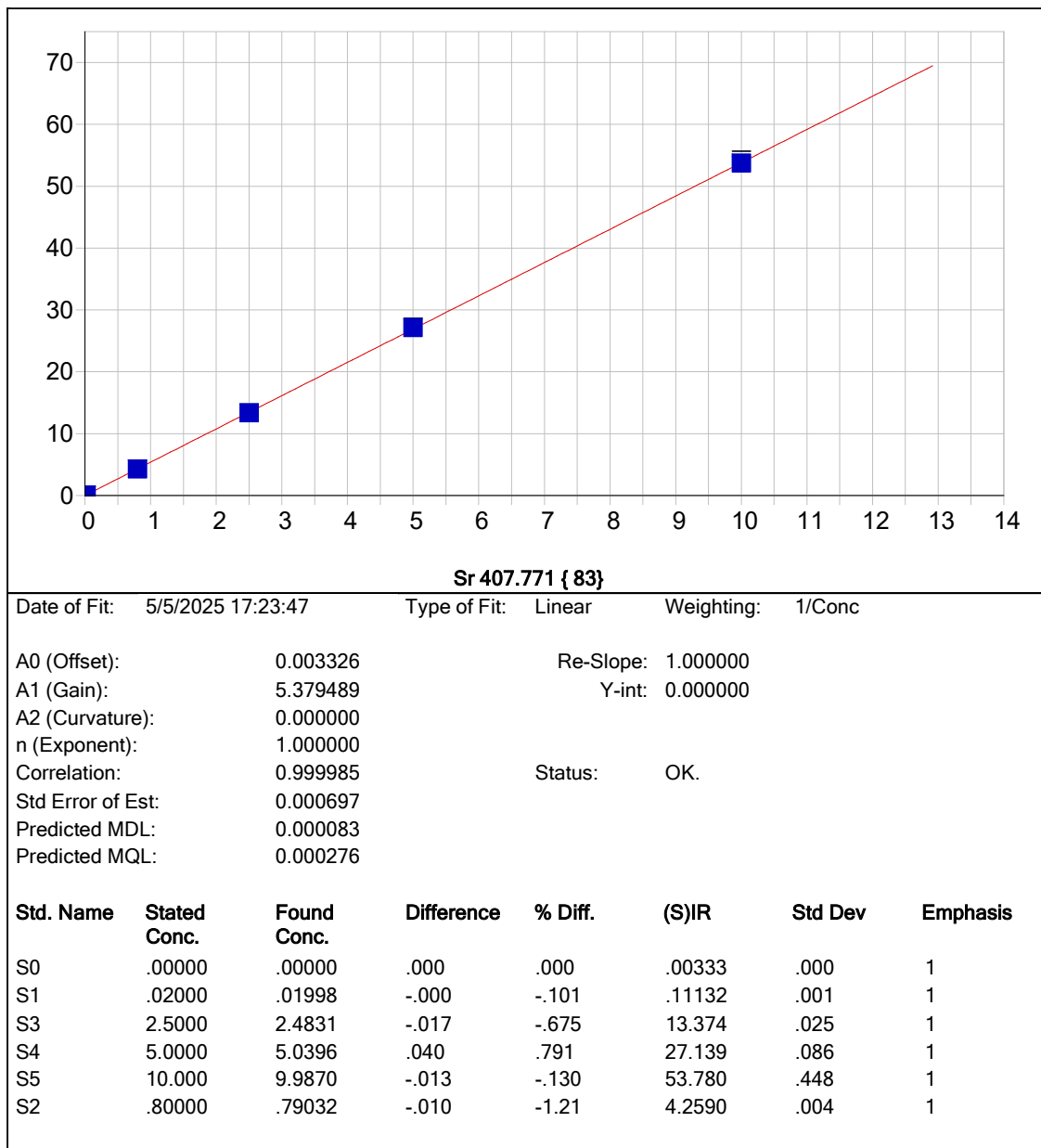


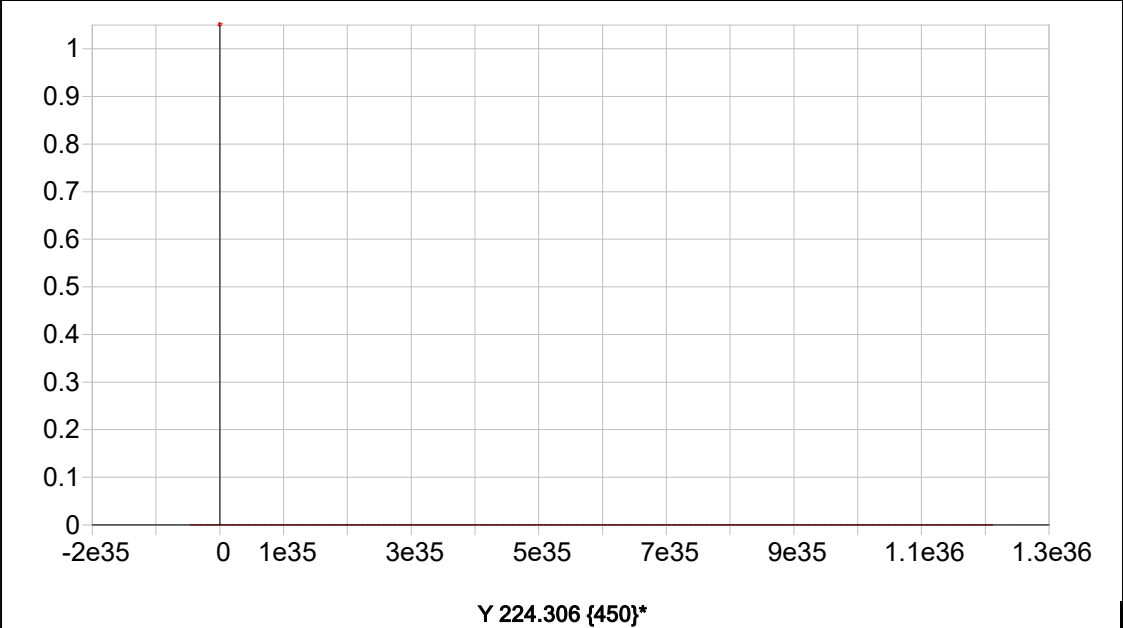
Date of Fit: 5/5/2025 17:23:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000898 Re-Slope: 1.000000
A1 (Gain): 0.024599 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999891 Status: OK.
Std Error of Est: 0.000009
Predicted MDL: 0.003955
Predicted MQL: 0.013184



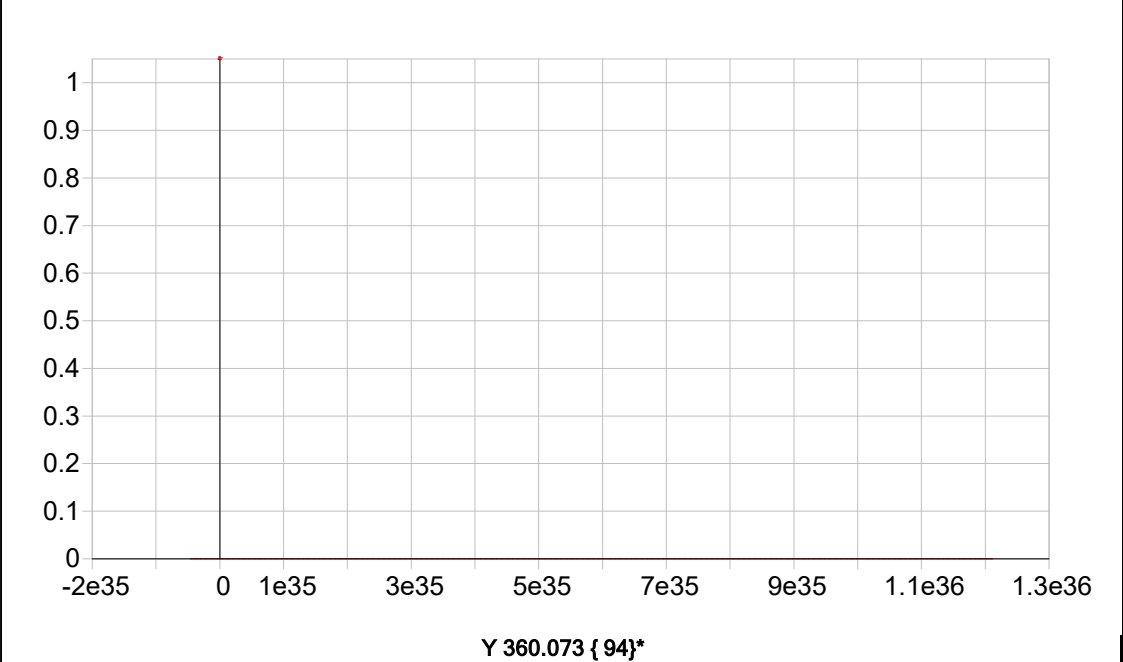




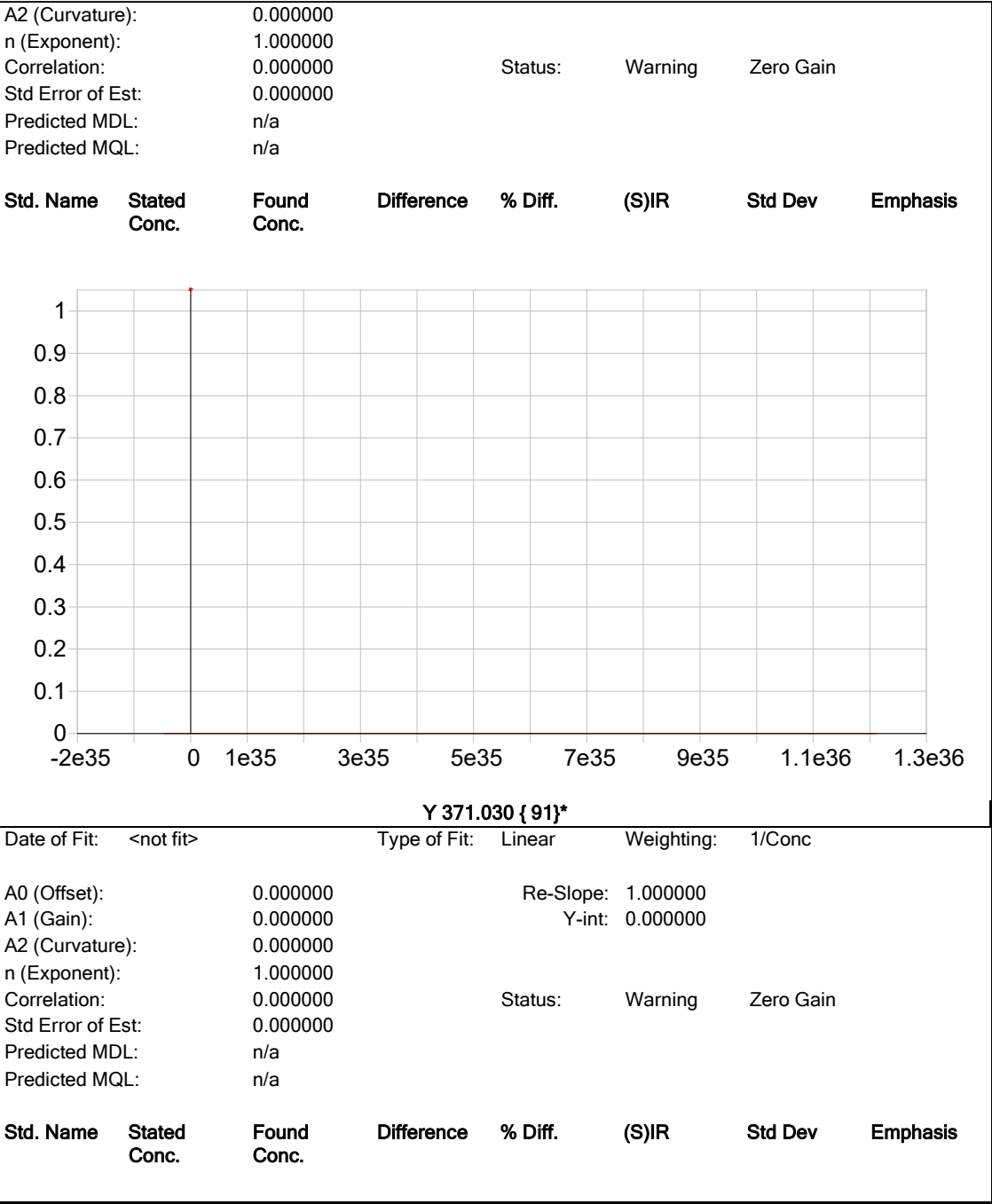


Date of Fit:	5/5/2025 17:23:47	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

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



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: 5/5/2025 13:02:48 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.00009	-.00005	-.00002	.00020	.00044	.00032	.03206	.00006
Stddev	.00011	.00004	.00022	.00006	.00011	.00007	.00092	.00009
%RSD	113.61	88.622	1108.6	31.139	24.989	22.424	2.8684	142.00
#1	-.00018	-.00006	.00024	.00015	.00047	.00038	.03219	.00008
#2	-.00013	-.00000	-.00015	.00017	.00032	.00034	.03292	-.00003
#3	.00003	-.00009	-.00015	.00027	.00053	.00024	.03109	.00015
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	.00072	.00024	.00012	.00028	-.00030	.00006	.00099	-.00013
Stddev	.00012	.00019	.00002	.00014	.00019	.00002	.00008	.00008
%RSD	17.027	78.227	19.831	50.918	62.336	33.170	7.8160	60.457
#1	.00077	.00004	.00010	.00038	-.00052	.00006	.00091	-.00007
#2	.00058	.00041	.00015	.00012	-.00015	.00008	.00105	-.00009
#3	.00080	.00027	.00012	.00034	-.00025	.00004	.00103	-.00021
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	.00003	-.00118	.00226	.00000	.00425	.00022	.00089	.00030
Stddev	.00015	.00006	.00025	.00008	.00065	.00011	.00011	.00018
%RSD	436.70	5.0985	11.241	1920.2	15.335	52.496	12.815	58.532
#1	.00004	-.00117	.00203	-.00006	.00434	.00009	.00093	.00028
#2	.00018	-.00124	.00253	-.00002	.00486	.00028	.00076	.00014
#3	-.00012	-.00112	.00221	.00009	.00356	.00029	.00098	.00049
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	.00028	.00164	.00012	-.00090	.00012	-.00006	.00333	
Stddev	.00005	.00025	.00003	.00004	.00002	.00017	.00005	
%RSD	17.584	14.907	21.513	4.2273	12.836	263.85	1.4992	
#1	.00032	.00160	.00012	-.00094	.00012	-.00005	.00337	
#2	.00022	.00191	.00014	-.00089	.00011	-.00024	.00327	
#3	.00029	.00143	.00009	-.00086	.00014	.00010	.00334	

Sample Name: S0 Acquired: 5/5/2025 13:02:48 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2911.6	68035.	19080.	1894.2	4641.9
Stddev	7.1	116.	21.	10.3	8.8
%RSD	.24503	.16977	.11187	.54277	.18886
#1	2904.6	67945.	19098.	1903.7	4632.0
#2	2918.9	68165.	19056.	1895.6	4648.6
#3	2911.3	67995.	19084.	1883.3	4645.2

Sample Name: S1 Acquired: 5/5/2025 13:07:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.00074	.00173	.00178	.00104	.00599	.00419	.14831	.01141
Stddev	.00012	.00012	.00017	.00008	.00029	.00005	.00037	.00009
%RSD	16.520	6.6892	9.3378	7.9103	4.9207	1.1847	.25155	.80996
#1	.00070	.00166	.00159	.00098	.00616	.00421	.14796	.01130
#2	.00087	.00186	.00182	.00113	.00616	.00423	.14870	.01145
#3	.00064	.00166	.00192	.00100	.00565	.00414	.14828	.01147
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	.01160	.05360	.00161	.02618	.01706	.00041	.00574	.01683
Stddev	.00028	.00002	.00005	.00008	.00051	.00001	.00008	.00012
%RSD	2.4428	.03086	3.2394	.30986	3.0166	3.1131	1.3606	.69573
#1	.01193	.05358	.00167	.02613	.01683	.00042	.00582	.01693
#2	.01148	.05361	.00157	.02627	.01765	.00042	.00574	.01670
#3	.01140	.05360	.00159	.02613	.01670	.00040	.00567	.01687
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	.02530	.00115	.03838	.00289	.09441	.01194	.02111	.10583
Stddev	.00021	.00005	.00020	.00004	.00125	.00010	.00013	.00051
%RSD	.81055	4.2395	.52618	1.2431	1.3279	.79631	.63428	.48641
#1	.02526	.00111	.03840	.00292	.09300	.01205	.02126	.10632
#2	.02553	.00114	.03817	.00285	.09483	.01189	.02102	.10588
#3	.02513	.00121	.03857	.00290	.09540	.01188	.02105	.10530
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	.00368	.01033	.00148	-.00037	.00039	.01011	.11132	
Stddev	.00008	.00014	.00001	.00006	.00006	.00023	.00085	
%RSD	2.0608	1.3782	.98721	16.574	15.257	2.2717	.76051	
#1	.00360	.01016	.00149	-.00031	.00034	.01005	.11209	
#2	.00370	.01041	.00146	-.00043	.00046	.00992	.11147	
#3	.00375	.01041	.00148	-.00036	.00038	.01036	.11041	

Sample Name: S1 Acquired: 5/5/2025 13:07:13 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2852.2	67937.	18911.	1889.5	4493.6
Stddev	10.2	217.	22.	4.9	13.8
%RSD	.35730	.31882	.11841	.25966	.30786
#1	2840.9	67791.	18894.	1886.2	4480.2
#2	2860.7	68185.	18936.	1895.2	4507.8
#3	2855.1	67833.	18902.	1887.2	4492.7

Sample Name: S2 Acquired: 5/5/2025 13:11:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.02860	.03424	.12134	.03142	.08113	.05722	1.8939	.07224
Stddev	.00008	.00041	.00004	.00005	.00010	.00021	.0026	.00041
%RSD	.27066	1.2021	.03457	.16846	.12334	.37569	.13710	.56157
#1	.02860	.03472	.12132	.03136	.08118	.05710	1.8968	.07271
#2	.02868	.03397	.12131	.03142	.08101	.05709	1.8933	.07202
#3	.02852	.03404	.12138	.03146	.08120	.05747	1.8917	.07199
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	.70599	.10112	.02357	.33943	.15471	.00307	.10281	.03023
Stddev	.00117	.00020	.00004	.00099	.00028	.00001	.00029	.00006
%RSD	.16623	.19989	.18205	.29260	.17779	.37527	.27921	.20770
#1	.70465	.10092	.02356	.33864	.15500	.00307	.10279	.03025
#2	.70649	.10132	.02362	.33910	.15446	.00308	.10254	.03016
#3	.70683	.10113	.02353	.34054	.15467	.00305	.10311	.03027
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	.24668	.04515	.07274	.02781	.85824	.02269	.14721	.39409
Stddev	.00045	.00022	.00045	.00010	.00826	.00014	.00038	.00019
%RSD	.18097	.48124	.61328	.35560	.96205	.60170	.26021	.04779
#1	.24620	.04504	.07224	.02786	.85585	.02256	.14753	.39426
#2	.24676	.04540	.07307	.02770	.86743	.02283	.14731	.39389
#3	.24709	.04500	.07292	.02788	.85144	.02268	.14679	.39413
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	.06056	.16809	.00277	.01787	.01048	.37917	4.2590	
Stddev	.00020	.00058	.00004	.00005	.00008	.00049	.0039	
%RSD	.33703	.34231	1.4395	.27928	.79020	.13002	.09216	
#1	.06036	.16743	.00275	.01792	.01044	.37974	4.2630	
#2	.06056	.16836	.00274	.01784	.01058	.37892	4.2587	
#3	.06076	.16848	.00281	.01784	.01042	.37885	4.2552	

Sample Name: S2 Acquired: 5/5/2025 13:11:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2843.4	67752.	19064.	1874.7	4442.8
Stddev	3.3	112.	93.	3.2	7.0
%RSD	.11540	.16580	.48854	.16881	.15787
#1	2839.6	67853.	18975.	1874.1	4449.7
#2	2845.1	67631.	19160.	1871.8	4443.1
#3	2845.5	67771.	19057.	1878.1	4435.7

Sample Name: S3 Acquired: 5/5/2025 13:15:40 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.08983	.10892	.38074	.09864	.25434	.18121	5.9874	.22868
Stddev	.00025	.00062	.00083	.00042	.00111	.00052	.0046	.00024
%RSD	.27704	.56966	.21903	.42359	.43706	.28874	.07591	.10667
#1	.08968	.10931	.37978	.09859	.25312	.18116	5.9824	.22860
#2	.08969	.10923	.38114	.09825	.25458	.18072	5.9888	.22895
#3	.09012	.10820	.38129	.09908	.25531	.18176	5.9912	.22848
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	2.2069	.31966	.07266	1.0687	.48022	.00946	.32251	.09621
Stddev	.0052	.00020	.00018	.0015	.00136	.00003	.00103	.00052
%RSD	.23337	.06375	.24858	.13775	.28373	.31947	.31844	.54212
#1	2.2012	.31986	.07247	1.0670	.47890	.00943	.32312	.09566
#2	2.2085	.31945	.07271	1.0692	.48014	.00946	.32308	.09629
#3	2.2111	.31966	.07282	1.0698	.48163	.00949	.32132	.09669
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	.77628	.14072	.22000	.08758	2.6620	.07007	.46593	1.2328
Stddev	.00218	.00017	.00045	.00016	.0120	.00020	.00164	.0033
%RSD	.28041	.12424	.20567	.18520	.45089	.28210	.35218	.26577
#1	.77377	.14071	.21967	.08758	2.6487	.06990	.46688	1.2322
#2	.77752	.14090	.21982	.08742	2.6719	.07029	.46688	1.2298
#3	.77757	.14056	.22052	.08775	2.6655	.07002	.46404	1.2363
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	.18787	.52542	.00861	.05958	.03309	1.2024	13.374	
Stddev	.00065	.00029	.00001	.00008	.00022	.0016	.025	
%RSD	.34728	.05450	.09764	.13778	.67033	.13161	.18859	
#1	.18716	.52570	.00861	.05957	.03290	1.2012	13.358	
#2	.18802	.52513	.00861	.05966	.03304	1.2018	13.362	
#3	.18844	.52544	.00862	.05950	.03334	1.2042	13.403	

Sample Name: S3 Acquired: 5/5/2025 13:15:40 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2847.1	69305.	19026.	1894.2	4391.1
Stddev	8.5	151.	14.	12.8	15.3
%RSD	.29877	.21855	.07266	.67681	.34859
#1	2855.0	69470.	19036.	1907.2	4408.4
#2	2848.4	69273.	19011.	1893.9	4385.3
#3	2838.1	69172.	19033.	1881.5	4379.5

Sample Name: S4 Acquired: 5/5/2025 13:19:49 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.18058	.21692	.76551	.19701	.51171	.36633	12.060	.45414
Stddev	.00031	.00155	.00160	.00061	.00225	.00113	.087	.00075
%RSD	.16924	.71361	.20850	.30800	.43921	.30922	.72228	.16581
#1	.18079	.21741	.76671	.19642	.51156	.36524	12.031	.45396
#2	.18023	.21817	.76370	.19697	.50954	.36625	12.158	.45496
#3	.18071	.21519	.76612	.19763	.51403	.36750	11.991	.45349
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	4.4451	.64062	.14557	2.1454	.95183	.02002	.64376	.19315
Stddev	.0051	.00168	.00035	.0059	.00316	.00005	.00181	.00030
%RSD	.11394	.26232	.24051	.27698	.33166	.22878	.28162	.15529
#1	4.4439	.63926	.14523	2.1453	.95261	.01996	.64240	.19298
#2	4.4408	.64250	.14593	2.1395	.94836	.02004	.64582	.19349
#3	4.4507	.64011	.14554	2.1514	.95453	.02005	.64308	.19297
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	1.5525	.28721	.46069	.17853	5.3258	.14805	.92797	2.4637
Stddev	.0022	.00033	.00021	.00046	.0092	.00049	.00126	.0040
%RSD	.14276	.11349	.04517	.25753	.17318	.33131	.13614	.16211
#1	1.5533	.28728	.46073	.17812	5.3195	.14805	.92708	2.4652
#2	1.5500	.28750	.46087	.17903	5.3216	.14854	.92743	2.4591
#3	1.5542	.28686	.46046	.17845	5.3364	.14756	.92942	2.4667
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	.37938	1.0634	.01742	.12123	.06753	2.4873	27.139	
Stddev	.00073	.0010	.00005	.00029	.00025	.0018	.086	
%RSD	.19321	.09639	.28503	.23729	.37177	.07125	.31531	
#1	.37904	1.0634	.01737	.12151	.06773	2.4864	27.063	
#2	.37887	1.0645	.01746	.12122	.06725	2.4893	27.232	
#3	.38022	1.0624	.01744	.12094	.06761	2.4861	27.124	

Sample Name: S4 Acquired: 5/5/2025 13:19:49 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2836.8	67233.	19058.	1840.9	4310.8
Stddev	4.0	152.	32.	4.2	2.9
%RSD	.14189	.22639	.16692	.22654	.06636
#1	2834.4	67222.	19054.	1843.2	4310.1
#2	2841.4	67087.	19028.	1843.5	4314.0
#3	2834.5	67391.	19091.	1836.1	4308.4

Sample Name: S5 Acquired: 5/5/2025 13:24:02 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.36407	.43545	1.5228	.39622	1.0347	.74274	24.156	.89910
Stddev	.00240	.00596	.0056	.00197	.0072	.00055	.155	.00635
%RSD	.65989	1.3686	.36824	.49622	.69453	.07433	.64365	.70630

#1	.36276	.43044	1.5177	.39557	1.0349	.74216	24.086	.90599
#2	.36260	.43387	1.5219	.39466	1.0274	.74281	24.048	.89348
#3	.36684	.44204	1.5288	.39843	1.0418	.74326	24.334	.89782

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.8907	1.2805	.28249	4.3053	1.8791	.03844	1.2883	.39105
Stddev	.0357	.0037	.00092	.0185	.0070	.00015	.0036	.00129
%RSD	.40163	.28689	.32589	.42883	.37454	.38971	.27647	.33062

#1	8.8629	1.2828	.28317	4.2905	1.8767	.03827	1.2862	.39232
#2	8.8782	1.2762	.28144	4.2994	1.8735	.03856	1.2862	.38974
#3	8.9310	1.2824	.28286	4.3260	1.8870	.03848	1.2924	.39110

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	3.0946	.57348	.93327	.35932	10.473	.30001	1.8602	4.8678
Stddev	.0127	.00081	.00752	.00044	.050	.00229	.0137	.0271
%RSD	.41026	.14189	.80575	.12308	.47877	.76426	.73457	.55760

#1	3.0855	.57442	.92476	.35914	10.482	.29737	1.8743	4.8568
#2	3.0893	.57292	.93902	.35899	10.518	.30133	1.8470	4.8479
#3	3.1091	.57311	.93602	.35982	10.419	.30134	1.8593	4.8987

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	.75996	2.1454	.03503	.24779	.14005	5.1247	53.780	
Stddev	.00355	.0059	.00021	.00133	.00054	.0244	.448	
%RSD	.46696	.27478	.58843	.53610	.38337	.47633	.83364	

#1	.75736	2.1403	.03480	.24655	.13969	5.0985	53.596	
#2	.75852	2.1440	.03518	.24763	.13980	5.1287	53.453	
#3	.76400	2.1519	.03512	.24919	.14067	5.1468	54.291	

Sample Name: S5 Acquired: 5/5/2025 13:24:02 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2779.1	67215.	18845.	1810.0	4140.3
Stddev	10.1	252.	176.	9.4	15.4
%RSD	.36446	.37488	.93384	.51779	.37241
#1	2785.8	66925.	18651.	1809.5	4155.8
#2	2784.0	67377.	18995.	1800.9	4139.9
#3	2767.4	67344.	18889.	1819.6	4125.0

Sample Name: ICV01 Acquired: 5/5/2025 14:18:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.9728087	1.015012	.9876056	1.015439	1.001098	2.362805
Stddev	.0041793	.000795	.0011998	.002591	.002139	.004588
%RSD	.4296092	.0783415	.1214827	.2551334	.2136173	.1941867

#1	.9722727	1.015273	.9863627	1.014740	1.001572	2.365353
#2	.9772301	1.014119	.9876971	1.013269	.998763	2.357508
#3	.9689232	1.015643	.9887570	1.018307	1.002960	2.365555

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5222020	.4826048	.5012437	9.506268	.5081659	.4890881
Stddev	.0023407	.0007307	.0001904	.028528	.0007111	.0006915
%RSD	.4482320	.1514014	.0379850	.3001016	.1399276	.1413872

#1	.5243771	.4821935	.5014449	9.538694	.5077989	.4898458
#2	.5197251	.4834484	.5010664	9.495082	.5089855	.4884911
#3	.5225037	.4821724	.5012196	9.485027	.5077134	.4889272

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4994333	9.599951	.4848101	5.637945	.4902754	.2276493
Stddev	.0014573	.043408	.0010291	.008304	.0007649	.0001074
%RSD	.2917842	.4521678	.2122798	.1472840	.1560215	.0471761

#1	.5011159	9.645878	.4858563	5.646445	.4899875	.2275280
#2	.4986059	9.559602	.4837989	5.629852	.4896961	.2276876
#3	.4985779	9.594374	.4847751	5.637539	.4911424	.2277322

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.281986	.4721611	.9693329	9.265026	F .0285938	F -.000418
Stddev	.037159	.0012885	.0036488	.052484	.0003680	.000152
%RSD	.4003386	.2728987	.3764207	.5664740	1.287027	36.31454

#1	9.299975	.4720040	.9727502	9.284428	.0289231	-.000250
#2	9.239255	.4709584	.9654900	9.205603	.0286618	-.000460
#3	9.306727	.4735210	.9697586	9.305046	.0281965	-.000545

Sample Name: ICV01 Acquired: 5/5/2025 14:18:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.002340	F -.001122	F -.013485	F -.000464	F .0028167	F .0026534
Stddev	.001214	.000385	.004238	.001355	.0034529	.0001723
%RSD	51.89990	34.27387	31.42436	291.9530	122.5883	6.492185

#1	-.001444	-.001247	-.014333	.000500	.0014432	.0025821
#2	-.003722	-.001429	-.008888	-.002013	.0002619	.0025282
#3	-.001854	-.000691	-.017235	.000121	.0067450	.0028499

Elem	Sr4077
Units	ppm
Avg	F -.008616
Stddev	.000059
%RSD	.6841570

#1	-.008618
#2	-.008555
#3	-.008673

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2974.416	69461.73	20057.08	1939.248	4624.312
Stddev	10.948	237.31	65.99	11.437	13.530
%RSD	.3680642	.3416453	.3290024	.5897788	.2925749

#1	2963.319	69193.13	19988.02	1926.605	4609.859
#2	2974.720	69643.02	20063.72	1942.261	4626.403
#3	2985.209	69549.05	20119.49	1948.876	4636.674

Sample Name: LLICV01 Acquired: 5/5/2025 14:36:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0234152	.0410295	.0108933	.0225647	.0533687	.1001954	.0952049
Stddev	.0027254	.0011875	.0006119	.0031351	.0012780	.0014107	.0007249
%RSD	11.63935	2.894290	5.616917	13.89397	2.394613	1.407917	.7614272

#1	.0247913	.0414504	.0112605	.0243636	.0518977	.1011056	.0945326
#2	.0251781	.0396889	.0112325	.0189446	.0542059	.1009100	.0951093
#3	.0202761	.0419493	.0101870	.0243858	.0540024	.0985704	.0959729

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058742	.0058258	2.029337	.0101621	.0296520	.0224318	.0906298
Stddev	.0000256	.0000584	.002763	.0003067	.0001090	.0003420	.0052311
%RSD	.4359839	1.002628	.1361408	3.017771	.3676368	1.524444	5.771936

#1	.0058779	.0058433	2.028796	.0102355	.0296970	.0220916	.0944903
#2	.0058978	.0057607	2.026885	.0104253	.0295276	.0224284	.0927228
#3	.0058469	.0058735	2.032330	.0098253	.0297312	.0227755	.0846763

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0184452	2.145744	.0394795	.0101542	1.931894	.0396625	.0412486
Stddev	.0000558	.007150	.0001479	.0002983	.012392	.0006255	.0002552
%RSD	.3026480	.3332147	.3745910	2.937739	.6414273	1.577168	.6187252

#1	.0184968	2.146529	.0395261	.0104932	1.933124	.0396733	.0411050
#2	.0183859	2.138234	.0393140	.0099317	1.943625	.0402826	.0415433
#3	.0184529	2.152469	.0395985	.0100376	1.918933	.0390317	.0410975

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.923389	.1030308	.2124132	.0435206	.0398021	.3919183	.0192484
Stddev	.030437	.0001289	.0008077	.0007821	.0003180	.0057167	.0008162
%RSD	1.582482	.1250679	.3802408	1.797181	.7988382	1.458644	4.240186

#1	1.952132	.1030718	.2115930	.0443271	.0397029	.3937726	.0198276
#2	1.926533	.1028864	.2124387	.0434694	.0395456	.3964777	.0196026
#3	1.891501	.1031341	.2132078	.0427653	.0401579	.3855047	.0183150

Sample Name: LLICV01 Acquired: 5/5/2025 14:36:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0195617	.0189800	.0196947
Stddev	.0084211	.0006499	.0000361
%RSD	43.04894	3.424088	.1833109
#1	.0127844	.0197253	.0196637
#2	.0289890	.0185310	.0197343
#3	.0169116	.0186838	.0196859

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3052.118	72978.34	20673.06	1997.858	4873.554
Stddev	4.630	270.44	79.30	10.940	4.714
%RSD	.1516980	.3705817	.3835744	.5475964	.0967303
#1	3049.051	72669.12	20648.12	1985.237	4872.901
#2	3057.444	73095.19	20761.84	2003.699	4878.561
#3	3049.859	73170.72	20609.24	2004.638	4869.201

Sample Name: ICB01 Acquired: 5/5/2025 14:41:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0027381	-.000807	-.000144	.0011157	.0005178	.0003750	-.001095
Stddev	.0012416	.001195	.001068	.0020125	.0008801	.0032038	.000663
%RSD	45.34691	148.2058	740.7650	180.3808	169.9827	854.3565	60.53829

#1	.0041342	-.001312	-.000004	.0032630	-.000213	-.003108	-.001766
#2	.0023225	.000559	-.001275	.0008115	.000272	.001036	-.000440
#3	.0017575	-.001666	.000847	-.000727	.001495	.003197	-.001080

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000035	-.000122	.0084229	-.000105	-.000117	-.000136	-.011024
Stddev	.000058	.000055	.0086528	.000121	.000299	.000221	.003824
%RSD	166.4220	44.89751	102.7287	115.5946	255.5437	162.0398	34.69092

#1	-.000063	-.000155	.0181085	-.000244	-.000421	-.000063	-.006612
#2	.000032	-.000059	.0057043	-.000046	.000176	-.000385	-.013382
#3	-.000073	-.000151	.0014559	-.000024	-.000106	.000038	-.013079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000377	.0061170	.0000248	.0001786	-.004889	.0001931	-.000434
Stddev	.000568	.0079326	.0002934	.0001922	.014465	.0021257	.000162
%RSD	150.4560	129.6800	1182.500	107.6357	295.8894	1101.064	37.27114

#1	-.000818	.0097472	-.000066	-.000025	-.021458	.0014269	-.000387
#2	-.000578	.0115849	-.000212	.000358	.005224	-.002262	-.000301
#3	.000263	-.002981	.000353	.000203	.001568	.001414	-.000613

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.042754	-.001408	.0000745	.0051780	.0009252	-.001895	-.002602
Stddev	.026645	.000507	.0001446	.0007566	.0004200	.006943	.001157
%RSD	62.32268	36.02495	194.0539	14.61239	45.39695	366.4008	44.47017

#1	-.072767	-.001130	.0002334	.0045124	.0007943	-.007838	-.001404
#2	-.033612	-.001994	.0000397	.0060009	.0005862	.005737	-.002689
#3	-.021883	-.001100	-.000050	.0050206	.0013950	-.003584	-.003713

Sample Name: ICB01 Acquired: 5/5/2025 14:41:55 Type: Unk
 Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0037596	.0001466	-.000085
Stddev	.0017771	.0007976	.000015
%RSD	47.26884	544.2427	17.89868

#1	.0054167	.0007061	-.000100
#2	.0018829	.0005003	-.000070
#3	.0039792	-.000767	-.000085

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2876.974	73047.24	20656.28	2016.865	4602.896
Stddev	10.975	105.67	72.84	13.132	21.527
%RSD	.3814719	.1446573	.3526058	.6510848	.4676748

#1	2867.171	73130.83	20579.72	2005.968	4589.082
#2	2888.830	73082.42	20724.72	2031.445	4627.699
#3	2874.920	72928.47	20664.39	2013.184	4591.908

Sample Name: CRI01 Acquired: 5/5/2025 14:47:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0206324	.0427961	.0111982	.0227954	.0528456	.0996157	.0921706
Stddev	.0029326	.0027796	.0002899	.0056586	.0014404	.0013398	.0008029
%RSD	14.21368	6.495085	2.588961	24.82326	2.725623	1.344917	.8711203

#1	.0211386	.0448042	.0110035	.0162718	.0533971	.0981415	.0918372
#2	.0174796	.0396237	.0110597	.0263748	.0539287	.1007589	.0915882
#3	.0232789	.0439606	.0115314	.0257397	.0512109	.0999467	.0930866

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058492	.0057855	2.004309	.0102800	.0296264	.0223589	.0939083
Stddev	.0000213	.0000830	.005891	.0003729	.0002778	.0006127	.0018688
%RSD	.3637825	1.434745	.2939318	3.627839	.9375836	2.740162	1.989971

#1	.0058336	.0057135	1.998336	.0098931	.0296093	.0218960	.0960658
#2	.0058734	.0058763	2.010115	.0103096	.0293575	.0221270	.0928641
#3	.0058405	.0057668	2.004476	.0106372	.0299123	.0230537	.0927950

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0180182	2.096402	.0398814	.0103324	2.002003	.0417198	.0427000
Stddev	.0003406	.027878	.0002801	.0001966	.008271	.0018129	.0003502
%RSD	1.890483	1.329817	.7024227	1.902976	.4131478	4.345390	.8201913

#1	.0176591	2.070594	.0399026	.0105525	2.004764	.0403946	.0429637
#2	.0183367	2.125969	.0395912	.0102710	1.992704	.0437858	.0428336
#3	.0180589	2.092644	.0401503	.0101739	2.008540	.0409791	.0423026

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.021382	.1013594	.2139881	.0423545	.0408330	.3992185	.0173844
Stddev	.020976	.0007470	.0006244	.0011493	.0016158	.0058710	.0047570
%RSD	1.037721	.7370061	.2917902	2.713627	3.956977	1.470614	27.36361

#1	2.043358	.1007402	.2142771	.0421357	.0401209	.4058200	.0176575
#2	2.001574	.1021890	.2132715	.0435975	.0426825	.3945825	.0219990
#3	2.019214	.1011489	.2144156	.0413302	.0396956	.3972529	.0124968

Sample Name: CRI01 Acquired: 5/5/2025 14:47:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0230191	.0186162	.0196803
Stddev	.0027755	.0012831	.0000646
%RSD	12.05733	6.892138	.3283726
#1	.0260773	.0193409	.0196445
#2	.0223200	.0171347	.0197549
#3	.0206600	.0193728	.0196416

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.874	69228.54	20270.13	1881.965	4667.620
Stddev	11.455	295.67	70.79	7.476	15.899
%RSD	.3925788	.4270863	.3492294	.3972266	.3406331
#1	2907.554	68889.56	20318.36	1875.131	4650.158
#2	2930.199	69433.17	20188.86	1889.949	4681.261
#3	2915.870	69362.91	20303.16	1880.815	4671.442

Sample Name: ICSA01 Acquired: 5/5/2025 14:52:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044690	.0059508	-.001420	-.015174	-.003421	240.3036
Stddev	.0034415	.0002281	.002859	.003921	.003616	.5932
%RSD	77.00936	3.833767	201.3799	25.84067	105.6996	.2468381

#1	.0008600	.0059479	.001303	-.018668	-.004595	240.6450
#2	.0077141	.0057242	-.004398	-.010933	.000636	239.6187
#3	.0048328	.0061805	-.001165	-.015919	-.006306	240.6472

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004042	.0012921	-.001986	226.1558	.0537768	.0011041
Stddev	.0010341	.0000442	.000054	.1073	.0004064	.0001032
%RSD	255.8350	3.424901	2.727720	.0474448	.7556749	9.347102

#1	-.000396	.0012412	-.002003	226.2401	.0542076	.0010598
#2	.001572	.0013219	-.001925	226.0350	.0537225	.0010304
#3	.000036	.0013131	-.002030	226.1922	.0534003	.0012220

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0121332	91.46136	.0019655	241.5761	.0011647	.0007876
Stddev	.0006566	.10799	.0001510	.1450	.0002117	.0002988
%RSD	5.411868	.1180739	7.681015	.0600260	18.17925	37.93051

#1	.0117822	91.52404	.0021228	241.4520	.0009295	.0010385
#2	.0128908	91.33666	.0019518	241.5409	.0012246	.0004571
#3	.0117267	91.52338	.0018218	241.7355	.0013400	.0008673

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075737	.0019405	.0032254	-.011564	F .2760671	-.000186
Stddev	.0075331	.0013539	.0002572	.010469	.0005278	.000272
%RSD	99.46422	69.77334	7.975504	90.52998	.1911699	146.1828

#1	.0155746	.0032714	.0029369	-.014105	.2763448	.000062
#2	.0006174	.0019853	.0033084	-.020528	.2754585	-.000143
#3	.0065290	.0005647	.0034308	-.000058	.2763980	-.000477

Sample Name: ICSA01 Acquired: 5/5/2025 14:52:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006076	-.001882	.0062596	.0001568	F -.020292	.0016170
Stddev	.000690	.000948	.0082979	.0028980	.003456	.0003612
%RSD	11.36125	50.38272	132.5630	1847.898	17.03326	22.33629

#1	-.006849	-.001640	-.002924	-.003189	-.020589	.0016674
#2	-.005523	-.002928	.008485	.001849	-.023590	.0012333
#3	-.005855	-.001078	.013218	.001811	-.016696	.0019503

Elem	Sr4077
Units	ppm
Avg	.0077279
Stddev	.0002447
%RSD	3.165740

#1	.0080097
#2	.0075703
#3	.0076037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2658.616	66540.85	19486.31	1773.764	3907.407
Stddev	5.685	138.11	34.89	9.113	1.502
%RSD	.2138399	.2075633	.1790712	.5137560	.0384434

#1	2659.864	66633.91	19518.72	1782.878	3906.180
#2	2663.574	66606.48	19490.84	1764.652	3909.082
#3	2652.410	66382.15	19449.38	1773.761	3906.957

Sample Name: ICSAB01 Acquired: 5/5/2025 15:07:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.1122296	.1043392	.0484356	.0356583	.6511259	232.7005
Stddev	.0039690	.0042265	.0026683	.0052951	.0030036	.4046
%RSD	3.536491	4.050771	5.508923	14.84954	.4612997	.1738831

#1	.1116833	.1089273	.0454190	.0411571	.6484457	232.3754
#2	.1164434	.1034857	.0494011	.0352240	.6505595	232.5725
#3	.1085620	.1006045	.0504868	.0305937	.6543724	233.1537

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4957937	.5041967	1.047958	218.8387	.5721209	.5170101
Stddev	.0014369	.0011742	.001458	.5047	.0027590	.0008691
%RSD	.2898144	.2328823	.1391351	.2306168	.4822490	.1680997

#1	.4970523	.5030981	1.048696	218.8945	.5724347	.5170640
#2	.4942281	.5040579	1.046278	218.3084	.5692184	.5161153
#3	.4961006	.5054342	1.048899	219.3131	.5747096	.5178510

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5195944	93.66188	.4911192	233.8256	1.020818	.1945312
Stddev	.0025490	.63406	.0012619	.4419	.002727	.0004261
%RSD	.4905773	.6769682	.2569468	.1889806	.2671165	.2190319

#1	.5223537	93.89394	.4911307	233.8527	1.023161	.1947671
#2	.5173275	92.94448	.4898516	233.3708	1.017825	.1940393
#3	.5191020	94.14721	.4923754	234.2533	1.021468	.1947872

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028048	.4870764	1.065762	-.013155	F .2887278	F .0000903
Stddev	.004321	.0023427	.005394	.016723	.0027103	.0004031
%RSD	15.40416	.4809786	.5061243	127.1239	.9387144	446.6282

#1	-.026352	.4896389	1.071296	-.027760	.2900505	.0000445
#2	-.032959	.4850444	1.060520	-.016792	.2856101	-.000288
#3	-.024833	.4865459	1.065471	.005087	.2905228	.000514

Sample Name: ICSAB01 Acquired: 5/5/2025 15:07:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.007220	F -.003539	F .0103072	F .0020325	F -.002155	F .0032086
Stddev	.001183	.000672	.0110207	.0002325	.009482	.0008188
%RSD	16.38754	18.98315	106.9221	11.43953	440.0332	25.52048

#1	-.008236	-.003251	.0084166	.0020394	-.000271	.0022808
#2	-.007502	-.004307	.0221509	.0022615	.006244	.0035147
#3	-.005921	-.003060	.0003541	.0017966	-.012437	.0038304

Elem	Sr4077
Units	ppm
Avg	F .0023525
Stddev	.0002640
%RSD	11.22239

#1	.0020532
#2	.0025521
#3	.0024524

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.180	62734.12	19417.88	1724.259	3891.793
Stddev	5.530	93.98	38.59	8.007	6.479
%RSD	.2097034	.1498106	.1987324	.4643639	.1664685

#1	2631.672	62639.78	19396.74	1717.981	3884.467
#2	2637.136	62827.74	19394.49	1733.276	3896.767
#3	2642.732	62734.84	19462.42	1721.521	3894.145

Sample Name: ICSADLX20 Acquired: 5/5/2025 15:11:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000336	-.000235	-.001499	.0029718	.0004327	11.61617	-.004681
Stddev	.001548	.000227	.003114	.0008556	.0006152	.02205	.000604
%RSD	460.6558	96.63788	207.7093	28.79204	142.2047	.1898276	12.90142

#1	-.000980	.000027	-.004922	.0032953	.0001945	11.59150	-.005096
#2	-.001458	-.000368	.001169	.0020016	-.000028	11.62303	-.004960
#3	.001430	-.000364	-.000746	.0036185	.001131	11.63397	-.003988

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000510	-.000610	11.45161	.0026934	-.000240	.0001614	4.725424
Stddev	.0000768	.000162	.01529	.0001245	.000145	.0000497	.029357
%RSD	150.6603	26.50017	.1335205	4.623057	60.63996	30.78654	.6212626

#1	.0000580	-.000777	11.46903	.0025536	-.000288	.0001338	4.698713
#2	.0001240	-.000455	11.44043	.0027923	-.000076	.0001316	4.720702
#3	-.000029	-.000597	11.44536	.0027342	-.000355	.0002187	4.756856

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001314	11.67188	.0002649	-.000206	-.049675	-.001217	-.000443
Stddev	.000256	.03389	.0001255	.000233	.007672	.001642	.000318
%RSD	19.46687	.2903954	47.39739	112.9901	15.44519	134.9533	71.68785

#1	-.001030	11.63411	.0002395	-.000012	-.055776	-.000494	-.000805
#2	-.001527	11.68189	.0004011	-.000465	-.052188	-.003096	-.000210
#3	-.001384	11.69965	.0001539	-.000142	-.041061	-.000060	-.000314

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028730	.0130870	-.000147	-.001637	-.001010	-.009500	-.005384
Stddev	.025014	.0004824	.000137	.000526	.000597	.005946	.001858
%RSD	87.06513	3.685901	92.69688	32.11327	59.11698	62.58924	34.51006

#1	-.037205	.0129658	.000008	-.001861	-.001582	-.002980	-.006790
#2	-.000580	.0136184	-.000200	-.001036	-.000391	-.010896	-.006084
#3	-.048406	.0126768	-.000250	-.002013	-.001057	-.014624	-.003277

Sample Name: ICSADLX20 Acquired: 5/5/2025 15:11:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0029561	-.000352	-.000398
Stddev	.0012805	.000875	.000085
%RSD	43.31813	248.7616	21.24614
#1	.0027108	-.000519	-.000378
#2	.0043415	-.001130	-.000326
#3	.0018160	.000595	-.000491

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2943.834	69139.62	20073.39	1893.905	4671.427
Stddev	29.747	43.68	59.03	2.412	42.633
%RSD	1.010471	.0631731	.2940731	.1273785	.9126372
#1	2909.820	69105.13	20040.46	1894.971	4622.462
#2	2964.982	69125.00	20038.17	1895.602	4700.320
#3	2956.700	69188.74	20141.54	1891.144	4691.498

Sample Name: ICSABDLX20 Acquired: 5/5/2025 15:16:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047770	.0076617	.0012160	.0030673	.0302866	11.22435	.0196828
Stddev	.0023075	.0009610	.0007675	.0011417	.0012895	.01615	.0011267
%RSD	48.30434	12.54242	63.11463	37.22004	4.257729	.1438636	5.724076

#1	.0024960	.0067370	.0013355	.0043461	.0315844	11.20573	.0208027
#2	.0071101	.0086552	.0003958	.0027052	.0302700	11.23271	.0185495
#3	.0047249	.0075928	.0019166	.0021507	.0290055	11.23460	.0196961

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0249942	.0509549	11.13448	.0290342	.0248184	.0267342	4.696528
Stddev	.0000386	.0002641	.02340	.0005934	.0000876	.0003760	.002565
%RSD	.1542968	.5182497	.2101764	2.043939	.3531207	1.406538	.0546234

#1	.0250386	.0506606	11.15704	.0296979	.0247442	.0270173	4.695667
#2	.0249759	.0510332	11.13607	.0288500	.0247958	.0263075	4.699413
#3	.0249683	.0511710	11.11032	.0285547	.0249151	.0268777	4.694504

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0237775	11.29397	.0504288	.0089776	-.061290	.0237290	.0521262
Stddev	.0000690	.04621	.0003263	.0002648	.001747	.0026226	.0006134
%RSD	.2902330	.4091407	.6470434	2.949181	2.849587	11.05219	1.176823

#1	.0237572	11.33168	.0500520	.0091127	-.061513	.0213931	.0527239
#2	.0237209	11.30780	.0506222	.0091475	-.059443	.0232281	.0521566
#3	.0238543	11.24242	.0506120	.0086725	-.062915	.0265659	.0514982

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.041140	.0124888	-.000245	-.000371	-.000177	-.004455	-.005920
Stddev	.014043	.0007480	.000287	.001027	.000612	.007312	.002751
%RSD	34.13503	5.989126	116.7684	277.0974	346.2063	164.1420	46.46821

#1	-.047159	.0122775	-.000288	-.000820	-.000882	.001386	-.003620
#2	-.051171	.0133196	-.000508	-.001096	.000137	-.012655	-.005172
#3	-.025091	.0118691	.000060	.000804	.000215	-.002094	-.008967

Sample Name: ICSABDLX20 Acquired: 5/5/2025 15:16:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0047506	-.000737	-.000451
Stddev	.0051042	.001931	.000023
%RSD	107.4439	261.9232	5.168312
#1	.0095753	-.001213	-.000478
#2	.0052696	.001387	-.000435
#3	-.000593	-.002385	-.000440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2921.221	68583.83	20448.19	1891.600	4609.119
Stddev	6.025	270.90	79.91	14.296	3.969
%RSD	.2062650	.3949892	.3907974	.7557723	.0861156
#1	2919.217	68319.01	20356.34	1877.006	4605.617
#2	2927.994	68572.06	20501.78	1892.216	4613.431
#3	2916.454	68860.42	20486.46	1905.579	4608.310

Sample Name: CCV01 Acquired: 5/5/2025 15:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.932022	4.981239	4.935041	4.962019	4.948346	9.772024	9.849862
Stddev	.036680	.016201	.015691	.024018	.023768	.015664	.005317
%RSD	.7437025	.3252349	.3179575	.4840314	.4803136	.1602919	.0539845

#1	4.919375	4.962535	4.922925	4.956235	4.947155	9.787238	9.855811
#2	4.903339	4.990919	4.929431	4.941421	4.925197	9.772889	9.845572
#3	4.973351	4.990261	4.952766	4.988400	4.972687	9.755946	9.848202

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2425941	2.449843	24.37217	.9958938	2.453990	1.239531	5.099937
Stddev	.0018432	.006870	.10653	.0022972	.006533	.004203	.027594
%RSD	.7597795	.2804332	.4370994	.2306692	.2662296	.3390534	.5410565

#1	.2406471	2.442700	24.25147	.9944018	2.448943	1.239194	5.127195
#2	.2428230	2.450426	24.45306	.9985392	2.451658	1.235506	5.100596
#3	.2443121	2.456403	24.41197	.9947404	2.461370	1.243892	5.072020

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.430803	24.20008	2.448378	1.237736	24.96723	2.438968	2.481081
Stddev	.009472	.20172	.005776	.002452	.14925	.008699	.014322
%RSD	.3896793	.8335341	.2358939	.1981184	.5978019	.3566579	.5772516

#1	2.424319	23.97186	2.442984	1.234987	25.07096	2.440875	2.464552
#2	2.441673	24.35452	2.447679	1.238523	25.03455	2.446555	2.488871
#3	2.426416	24.27385	2.454471	1.239698	24.79617	2.429474	2.489819

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.91208	4.818402	4.982410	4.926264	4.874668	4.920609	4.973906
Stddev	.13138	.031791	.021387	.019038	.011618	.026523	.021810
%RSD	.5273854	.6597921	.4292524	.3864664	.2383433	.5390209	.4384822

#1	24.94035	4.786179	4.974453	4.906223	4.876081	4.932394	4.950982
#2	25.02702	4.819284	4.966143	4.928457	4.885516	4.939197	4.976338
#3	24.76886	4.849743	5.006635	4.944110	4.862408	4.890235	4.994398

Sample Name: CCV01 Acquired: 5/5/2025 15:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.853895	4.826145	4.953520
Stddev	.015934	.018594	.040191
%RSD	.3282747	.3852676	.8113598
#1	4.849341	4.830954	4.929542
#2	4.840733	4.841862	4.931099
#3	4.871610	4.805620	4.999920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2892.978	68679.22	19863.66	1872.949	4414.559
Stddev	6.769	106.84	56.82	7.011	6.029
%RSD	.2339790	.1555641	.2860327	.3743506	.1365660
#1	2894.942	68695.57	19927.69	1880.381	4421.238
#2	2898.548	68565.15	19844.04	1866.452	4412.918
#3	2885.445	68776.94	19819.25	1872.014	4409.520

Sample Name: CCB01 Acquired: 5/5/2025 15:26:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0010443	.0002949	-.001209	.0032656	-.002404	.0019833	-.002933
Stddev	.0033697	.0018192	.000925	.0042365	.000900	.0057013	.001572
%RSD	322.6771	616.8556	76.52682	129.7318	37.42235	287.4688	53.61044

#1	-.001998	.0020649	-.000142	-.000958	-.001399	-.003409	-.002482
#2	.000464	.0003897	-.001696	.003240	-.002678	.007950	-.001635
#3	.004666	-.001570	-.001789	.007515	-.003135	.001408	-.004682

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000361	-.000045	.0093603	-.000023	.0000462	.0000897	-.001157
Stddev	.0000635	.000111	.0022125	.000206	.0001963	.0003767	.002523
%RSD	175.9552	245.8932	23.63756	888.9453	424.8860	419.8270	218.0797

#1	.0000590	-.000100	.0119108	.000187	.0000281	.0000649	-.001067
#2	-.000036	-.000118	.0079571	-.000032	-.000140	-.000274	.001320
#3	.000085	.000083	.0082128	-.000224	.000251	.000478	-.003724

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000204	.0061299	.0001475	.0002299	-.060186	.0002179	-.000171
Stddev	.000113	.0029933	.0002305	.0001972	.006359	.0012051	.000255
%RSD	55.56771	48.83127	156.3189	85.81450	10.56481	553.0018	148.8036

#1	-.000296	.0080101	.0002947	.0001020	-.056932	.0010891	.000120
#2	-.000077	.0077016	-.000118	.0001305	-.056113	.0007221	-.000279
#3	-.000238	.0026781	.000266	.0004570	-.067513	-.001157	-.000355

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.045228	.0030277	.0008112	.0058194	.0007331	-.000110	-.004178
Stddev	.030775	.0008125	.0002922	.0004735	.0004900	.004286	.000589
%RSD	68.04460	26.83548	36.02748	8.137502	66.84078	3887.557	14.09040

#1	-.080735	.0034722	.0011144	.0053106	.0011146	.002693	-.004378
#2	-.026223	.0035209	.0007878	.0059004	.0009042	.002020	-.004641
#3	-.028727	.0020899	.0005313	.0062473	.0001805	-.005044	-.003516

Sample Name: CCB01 Acquired: 5/5/2025 15:26:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0044512	-.000200	.0002299
Stddev	.0038201	.000915	.0000530
%RSD	85.82234	457.7323	23.06938

#1	.0019768	.000387	.0001755
#2	.0088509	-.001254	.0002814
#3	.0025259	.000267	.0002328

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2902.407	71199.77	20711.39	1939.165	4621.699
Stddev	26.860	158.49	46.06	13.865	48.656
%RSD	.9254537	.2225929	.2224065	.7149888	1.052764

#1	2871.996	71049.52	20663.72	1924.875	4566.128
#2	2922.893	71365.38	20714.80	1952.561	4656.643
#3	2912.332	71184.42	20755.65	1940.058	4642.327

Sample Name: Q1916-01 Acquired: 5/5/2025 15:30:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0547028	.0230152	1.285847	-.075366	-.002662	185.8678	1.092394
Stddev	.0012690	.0012162	.004938	.004540	.003320	.1836	.003021
%RSD	2.319837	5.284462	.3840127	6.023397	124.7265	.0987923	.2765742

#1	.0548034	.0224363	1.286766	-.079620	.000072	185.6558	1.091256
#2	.0533865	.0221965	1.280514	-.075892	-.006355	185.9726	1.090107
#3	.0559185	.0244127	1.290261	-.070587	-.001702	185.9750	1.095819

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0180292	-.000287	50.20529	.3816707	.2252095	.3916252	496.9115
Stddev	.0001838	.000199	.16656	.0006601	.0001723	.0012311	1.5911
%RSD	1.019475	69.27955	.3317649	.1729523	.0765256	.3143634	.3202061

#1	.0179254	-.000428	50.12905	.3811180	.2253347	.3902554	495.9380
#2	.0182414	-.000374	50.09049	.3814925	.2250130	.3919810	498.7477
#3	.0179207	-.000060	50.39633	.3824017	.2252809	.3926393	496.0488

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.156200	112.0497	.4795529	.0095510	20.72582	.4552183	1.518140
Stddev	.018403	.3267	.0010809	.0001426	.11760	.0029860	.003549
%RSD	.3569110	.2915693	.2253910	1.492991	.5674296	.6559516	.2337746

#1	5.142389	111.7599	.4789806	.0096300	20.81878	.4518508	1.520851
#2	5.149118	111.9856	.4788785	.0096366	20.76507	.4562610	1.519445
#3	5.177091	112.4038	.4807996	.0093864	20.59361	.4575431	1.514123

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.81567	1.629082	.0113697	.0202787	5.451440	1.990442	3.212773
Stddev	.15180	.006628	.0005312	.0011307	.014108	.005312	.012929
%RSD	.3630258	.4068379	4.672450	5.575604	.2587949	.2668568	.4024247

#1	41.93987	1.625506	.0107897	.0203627	5.442512	1.995104	3.199942
#2	41.86070	1.636730	.0118327	.0191084	5.444103	1.984659	3.212578
#3	41.64645	1.625011	.0114867	.0213650	5.467705	1.991563	3.225798

Sample Name: Q1916-01 Acquired: 5/5/2025 15:30:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2.215572	.8910031	-.212696
Stddev	.017827	.0010728	.001870
%RSD	.8046370	.1203993	.8793182
#1	2.199321	.8897681	-.212358
#2	2.212753	.8915371	-.214712
#3	2.234640	.8917041	-.211018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3278.635	78047.82	23741.64	2135.552	4068.463
Stddev	3.351	206.52	106.90	6.899	.421
%RSD	.1022011	.2646085	.4502790	.3230561	.0103485
#1	3277.968	78018.92	23859.79	2130.043	4067.980
#2	3275.668	77857.26	23713.54	2133.323	4068.755
#3	3282.270	78267.26	23651.60	2143.289	4068.652

Sample Name: Q1917-01 Acquired: 5/5/2025 15:35:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0310738	.0154137	.1961929	-.049789	-.004239	154.4341	1.210224
Stddev	.0021725	.0034986	.0031811	.005832	.002800	.2096	.003094
%RSD	6.991499	22.69796	1.621438	11.71396	66.06096	.1356943	.2556917

#1	.0324119	.0149548	.1950497	-.053579	-.007194	154.2394	1.209031
#2	.0285671	.0121672	.1937413	-.043073	-.001625	154.6559	1.213737
#3	.0322425	.0191192	.1997876	-.052715	-.003897	154.4070	1.207904

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0135526	-.002691	21.69921	.2622821	.1746617	.2721947	323.8902
Stddev	.0000896	.000419	.07349	.0003629	.0002486	.0018137	2.1430
%RSD	.6610104	15.56397	.3386665	.1383445	.1423568	.6663408	.6616431

#1	.0134517	-.003111	21.63468	.2618763	.1745695	.2705777	326.3025
#2	.0135830	-.002688	21.77920	.2625753	.1744723	.2718506	323.1616
#3	.0136229	-.002273	21.68374	.2623947	.1749433	.2741559	322.2065

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.597094	72.29726	.3348484	.0065675	14.62095	.3367277	.7357781
Stddev	.023351	.13132	.0016830	.0004523	.07722	.0000595	.0004540
%RSD	.3073609	.1816364	.5026265	6.887549	.5281773	.0176825	.0617045

#1	7.596474	72.21152	.3346915	.0070615	14.70566	.3367458	.7358615
#2	7.620749	72.44844	.3332493	.0061736	14.55448	.3366612	.7361846
#3	7.574060	72.23182	.3366044	.0064673	14.60270	.3367760	.7352882

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.43976	1.077492	.0046374	.0004474	4.471215	2.483720	3.738897
Stddev	.12790	.010514	.0002049	.0013878	.011245	.006517	.000695
%RSD	.5027574	.9757844	4.418517	310.1694	.2514989	.2623858	.0185974

#1	25.58270	1.089440	.0048447	.0011906	4.472739	2.488899	3.738094
#2	25.40047	1.073385	.0044350	-.001154	4.481620	2.476402	3.739287
#3	25.33611	1.069652	.0046324	.001305	4.459285	2.485859	3.739309

Sample Name: Q1917-01 Acquired: 5/5/2025 15:35:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7195035	.5290031	-.111101
Stddev	.0095532	.0013970	.002086
%RSD	1.327745	.2640892	1.877992
#1	.7273372	.5292061	-.113510
#2	.7088607	.5302875	-.109947
#3	.7223126	.5275156	-.109847

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3346.463	79632.57	23733.30	2191.378	4207.131
Stddev	4.120	191.52	91.10	3.445	4.613
%RSD	.1231189	.2405095	.3838641	.1571861	.1096467
#1	3351.035	79423.73	23833.97	2191.725	4212.441
#2	3345.318	79800.00	23656.54	2187.773	4204.832
#3	3343.037	79673.98	23709.38	2194.636	4204.118

Sample Name: Q1923-01 Acquired: 5/5/2025 15:39:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0602732	.0081671	.4329044	-.035265	-.006817	129.4764
Stddev	.0025074	.0020455	.0046826	.005293	.005360	.1773
%RSD	4.160121	25.04532	1.081672	15.00908	78.61846	.1369195

#1	.0600565	.0059961	.4344012	-.038657	-.006243	129.5332
#2	.0628820	.0084470	.4366557	-.029166	-.012441	129.2777
#3	.0578811	.0100582	.4276565	-.037973	-.001768	129.6184

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6948268	.0103068	-.004838	44.55937	.2263483	.1151709
Stddev	.0013104	.0000583	.000526	.10516	.0006970	.0009864
%RSD	.1885971	.5658487	10.86960	.2359912	.3079428	.8564281

#1	.6946123	.0103143	-.004404	44.67853	.2262367	.1152191
#2	.6936369	.0103610	-.004688	44.51997	.2270944	.1161323
#3	.6962313	.0102451	-.005423	44.47960	.2257139	.1141613

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2381921	240.5967	3.544138	40.24085	.1950366	.0045140
Stddev	.0031807	1.2771	.009908	.14041	.0017256	.0002805
%RSD	1.335354	.5308078	.2795536	.3489352	.8847447	6.214814

#1	.2393014	239.2660	3.555205	40.36363	.1961298	.0043058
#2	.2406697	241.8125	3.536094	40.27115	.1959328	.0048330
#3	.2346053	240.7116	3.541114	40.08775	.1930474	.0044032

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.674766	.3284281	.6534014	14.83100	.7912337	.0030660
Stddev	.040041	.0008050	.0043550	.09476	.0048302	.0003394
%RSD	.7056048	.2451156	.6665151	.6389128	.6104616	11.06865

#1	5.628777	.3275107	.6483747	14.72163	.7869458	.0027607
#2	5.693624	.3287570	.6557932	14.88834	.7964665	.0034314
#3	5.701896	.3290167	.6560365	14.88303	.7902889	.0030059

Sample Name: Q1923-01 Acquired: 5/5/2025 15:39:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0113207	2.552631	F 17.82467	4.174888	2.069874	.2678883
Stddev	.0020411	.002544	.14632	.042309	.027075	.0006439
%RSD	18.03024	.0996619	.8208757	1.013411	1.308072	.2403466

#1	.0124122	2.554062	17.65929	4.197546	2.077243	.2679160
#2	.0125840	2.554137	17.93728	4.201042	2.092502	.2685179
#3	.0089659	2.549694	17.87745	4.126075	2.039877	.2672311

Elem	Sr4077
Units	ppm
Avg	-.019932
Stddev	.001309
%RSD	6.568567

#1	-.018818
#2	-.021374
#3	-.019604

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3228.805	76326.93	22685.00	2105.186	4288.719
Stddev	27.426	226.08	124.62	6.852	40.697
%RSD	.8494124	.2962036	.5493612	.3254859	.9489342

#1	3207.042	76412.46	22541.37	2108.032	4265.741
#2	3219.764	76070.56	22764.37	2097.370	4264.707
#3	3259.610	76497.77	22749.27	2110.157	4335.708

Sample Name: Q1923-01DUP Acquired: 5/5/2025 15:43:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0624156	.0023123	.4503672	-.034908	-.004275	129.2258	.6560853
Stddev	.0047864	.0034422	.0028181	.001686	.002607	.0496	.0003119
%RSD	7.668631	148.8617	.6257296	4.831113	60.98779	.0383857	.0475327

#1	.0648241	.0012960	.4510149	-.033706	-.002620	129.2278	.6564058
#2	.0655195	-.000507	.4528050	-.036836	-.002924	129.1753	.6560672
#3	.0569033	.006148	.4472817	-.034183	-.007280	129.2745	.6557828

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117810	-.002118	34.91689	.2277672	.1117290	.2415842	235.7438
Stddev	.0000724	.000185	.01732	.0008290	.0003604	.0009955	.9653
%RSD	.6146005	8.745090	.0496081	.3639500	.3225237	.4120626	.4094522

#1	.0117425	-.002320	34.92457	.2286899	.1113482	.2404680	236.5635
#2	.0117360	-.002078	34.92904	.2275266	.1117741	.2419045	235.9880
#3	.0118645	-.001956	34.89706	.2270852	.1120646	.2423802	234.6799

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.230583	43.48759	.2032314	.0028191	5.275123	.3402033	.6078758
Stddev	.002663	.09939	.0009109	.0001784	.024145	.0014992	.0016927
%RSD	.0824363	.2285594	.4482004	6.329795	.4577225	.4406873	.2784560

#1	3.231059	43.37293	.2042830	.0028292	5.299490	.3418455	.6089809
#2	3.232976	43.54049	.2027197	.0029923	5.274674	.3398567	.6059271
#3	3.227714	43.54935	.2026913	.0026358	5.251206	.3389078	.6087195

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.52873	.7577771	.0032495	.0052177	2.770858	5.620722	4.426004
Stddev	.05813	.0050898	.0001239	.0009824	.006075	.038673	.014329
%RSD	.3743260	.6716743	3.812787	18.82928	.2192571	.6880386	.3237390

#1	15.58383	.7610455	.0032100	.0042061	2.776075	5.665277	4.420261
#2	15.53438	.7603731	.0033883	.0052787	2.772312	5.601037	4.442314
#3	15.46799	.7519128	.0031502	.0061681	2.764188	5.595852	4.415438

Sample Name: Q1923-01DUP Acquired: 5/5/2025 15:43:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	1.737415	.2721635	-.023747
Stddev	.010888	.0001107	.000525
%RSD	.6266701	.0406705	2.209043
#1	1.734077	.2722803	-.024163
#2	1.749582	.2721503	-.023921
#3	1.728588	.2720601	-.023158

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.943	76991.41	21845.93	2119.004	4199.147
Stddev	7.219	210.77	7.39	10.795	6.642
%RSD	.2274402	.2737627	.0338181	.5094178	.1581692
#1	3167.497	76760.25	21843.20	2106.568	4193.565
#2	3172.589	77041.05	21854.30	2124.487	4197.384
#3	3181.743	77172.93	21840.31	2125.956	4206.493

Sample Name: Q1923-01LX5 Acquired: 5/5/2025 15:47:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0119278	.0010333	.0865550	-.008396	-.003978	27.37311	.1419838
Stddev	.0003818	.0026294	.0015527	.003848	.001177	.05191	.0004160
%RSD	3.201294	254.4798	1.793906	45.83510	29.58771	.1896530	.2929958

#1	.0114872	-.002003	.0849305	-.004403	-.003205	27.40314	.1424629
#2	.0121638	.002508	.0880242	-.008703	-.003397	27.40301	.1417137
#3	.0121324	.002595	.0867104	-.012081	-.005333	27.31316	.1417749

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023663	-.001956	9.739782	.0482772	.0222698	.0552395	48.43281
Stddev	.0000651	.000184	.019789	.0001765	.0002163	.0003591	.23391
%RSD	2.750622	9.412264	.2031733	.3655459	.9711188	.6500329	.4829672

#1	.0023937	-.002140	9.741737	.0484581	.0224884	.0554242	48.33967
#2	.0022920	-.001772	9.719088	.0482681	.0222651	.0548257	48.25980
#3	.0024133	-.001956	9.758520	.0481055	.0220559	.0554687	48.69894

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7788359	8.605601	.0382900	.0000737	1.044741	.0699599	.1382991
Stddev	.0026430	.001737	.0001271	.0002229	.003647	.0010246	.0004897
%RSD	.3393501	.0201789	.3318471	302.5332	.3490466	1.464603	.3540995

#1	.7803380	8.607418	.0382284	-.000182	1.043859	.0688742	.1379668
#2	.7803855	8.603958	.0384361	.000174	1.041617	.0709101	.1388615
#3	.7757842	8.605427	.0382054	.000228	1.048748	.0700953	.1380691

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.737365	.1539296	.0003556	.0016268	.5153835	1.248742	.8208593
Stddev	.034296	.0011770	.0000816	.0014557	.0014063	.003577	.0016985
%RSD	1.252867	.7646580	22.93357	89.48121	.2728565	.2864360	.2069125

#1	2.760251	.1536644	.0004008	.0027702	.5138740	1.245377	.8208509
#2	2.697934	.1529079	.0002615	-.000012	.5166565	1.252499	.8191650
#3	2.753911	.1552167	.0004046	.002122	.5156200	1.248349	.8225619

Sample Name: Q1923-01LX5 Acquired: 5/5/2025 15:47:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4077283	.0537874	-.001866
Stddev	.0044353	.0003654	.000401
%RSD	1.087801	.6793480	21.50310
#1	.4125797	.0536591	-.001836
#2	.4038815	.0541996	-.001480
#3	.4067236	.0535033	-.002281

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2976.759	73369.63	20106.17	2005.045	4507.978
Stddev	3.729	238.74	70.34	8.802	3.787
%RSD	.1252694	.3253908	.3498403	.4389731	.0840096
#1	2980.903	73285.99	20046.30	2007.321	4508.725
#2	2973.674	73638.93	20088.57	2012.486	4503.873
#3	2975.700	73183.97	20183.64	1995.330	4511.336

Sample Name: Q1923-01MS Acquired: 5/5/2025 15:51:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7481859	1.923367	1.479157	1.612322	.2871578	148.0128	.8904886
Stddev	.0055252	.010788	.003996	.010112	.0032929	.1365	.0019798
%RSD	.7384814	.5608926	.2701644	.6271684	1.146739	.0922441	.2223284

#1	.7441810	1.932806	1.477698	1.623845	.2909121	148.1476	.8925312
#2	.7458875	1.911608	1.476095	1.608189	.2858031	148.0162	.8903563
#3	.7544894	1.925687	1.483677	1.604930	.2847583	147.8746	.8885782

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1735697	.1938647	45.17343	.5865259	.3124275	.5533124	272.9727
Stddev	.0004288	.0001808	.03504	.0007762	.0007272	.0004577	1.6440
%RSD	.2470579	.0932358	.0775750	.1323461	.2327525	.0827171	.6022490

#1	.1731024	.1938597	45.14354	.5874203	.3132616	.5532549	274.8500
#2	.1739451	.1936865	45.21199	.5860276	.3119264	.5537962	271.7898
#3	.1736617	.1940479	45.16475	.5861299	.3120947	.5528863	272.2785

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.365829	45.59339	.6997077	.0728960	9.061489	.5981785	.8696765
Stddev	.007134	.04246	.0010009	.0002926	.047219	.0014873	.0016924
%RSD	.1634127	.0931349	.1430502	.4013426	.5210906	.2486466	.1945950

#1	4.370129	45.55835	.7005502	.0732281	9.103919	.5994634	.8715586
#2	4.369764	45.58119	.6986012	.0727838	9.069928	.5985229	.8691906
#3	4.357594	45.64061	.6999717	.0726761	9.010620	.5965491	.8682802

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.92842	1.086661	.3504238	.6849967	2.363705	8.230378	11.07009
Stddev	.14883	.006797	.0005889	.0021240	.003645	.036792	.01238
%RSD	.6786876	.6254622	.1680563	.3100787	.1542143	.4470320	.1118086

#1	22.08231	1.093395	.3500410	.6861422	2.366124	8.267452	11.06301
#2	21.91771	1.079804	.3501285	.6825458	2.359512	8.229810	11.06287
#3	21.78524	1.086785	.3511019	.6863021	2.365478	8.193873	11.08438

Sample Name: Q1923-01MS Acquired: 5/5/2025 15:51:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2.109797	.4775651	.1363516
Stddev	.010726	.0013170	.0011625
%RSD	.5083967	.2757756	.8525749
#1	2.118689	.4782843	.1355656
#2	2.112819	.4783659	.1376870
#3	2.097884	.4760451	.1358023

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3237.639	75986.21	23500.10	2090.332	4237.820
Stddev	3.055	269.23	32.99	2.940	5.748
%RSD	.0943495	.3543168	.1403755	.1406449	.1356306
#1	3238.265	75677.78	23535.03	2087.126	4235.773
#2	3240.333	76106.67	23469.48	2090.965	4244.311
#3	3234.320	76174.17	23495.80	2092.903	4233.377

Sample Name: Q1923-01MSD Acquired: 5/5/2025 15:55:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7460952	1.912244	1.393654	1.595566	.2986035	141.0207	.8557578
Stddev	.0081027	.011146	.005852	.011543	.0018110	.2028	.0013592
%RSD	1.086019	.5828909	.4198740	.7234238	.6064834	.1438027	.1588320

#1	.7367715	1.907526	1.391185	1.600312	.2980295	141.1492	.8568311
#2	.7500819	1.924973	1.400335	1.603979	.2971491	141.1259	.8562128
#3	.7514322	1.904232	1.389441	1.582407	.3006320	140.7869	.8542294

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1755237	.1916869	43.81603	.5741719	.3081601	.5015422	253.0010
Stddev	.0006831	.0011851	.11730	.0002799	.0016652	.0023554	.3534
%RSD	.3891668	.6182503	.2677215	.0487553	.5403598	.4696422	.1396937

#1	.1754738	.1921980	43.83134	.5741384	.3083901	.5009672	253.3132
#2	.1762304	.1925307	43.92492	.5739103	.3096984	.5041318	252.6173
#3	.1748670	.1903320	43.69182	.5744672	.3063919	.4995274	253.0725

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.805253	43.78539	.6813884	.0693591	8.142812	.5780867	.8318625
Stddev	.012791	.13663	.0034065	.0002668	.022569	.0017688	.0067871
%RSD	.3361329	.3120362	.4999293	.3846240	.2771589	.3059766	.8158910

#1	3.809147	43.73735	.6823716	.0696293	8.157884	.5800486	.8240625
#2	3.815645	43.93955	.6841951	.0693521	8.116865	.5766140	.8351038
#3	3.790968	43.67928	.6775984	.0690959	8.153686	.5775975	.8364213

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.89066	1.002831	.3494329	.6767772	2.187343	6.799969	10.79303
Stddev	.07314	.002784	.0022781	.0034280	.005638	.005061	.05759
%RSD	.3501030	.2776337	.6519268	.5065163	.2577385	.0744271	.5336173

#1	20.97400	1.005833	.3508171	.6770759	2.188856	6.795768	10.79651
#2	20.83714	1.000334	.3506779	.6800461	2.192070	6.798550	10.84880
#3	20.86085	1.002326	.3468036	.6732097	2.181103	6.805588	10.73377

Sample Name: Q1923-01MSD Acquired: 5/5/2025 15:55:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	3.548425	.4600052	.1802590
Stddev	.020663	.0006847	.0008514
%RSD	.5823122	.1488497	.4723181
#1	3.553587	.4596443	.1800390
#2	3.566018	.4607948	.1811987
#3	3.525671	.4595763	.1795391

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3227.785	77858.15	22834.53	2121.548	4266.720
Stddev	14.041	221.93	146.58	9.291	21.055
%RSD	.4350066	.2850473	.6419309	.4379391	.4934791
#1	3218.447	78100.93	22917.75	2132.148	4251.463
#2	3220.975	77665.71	22665.27	2114.814	4257.954
#3	3243.932	77807.82	22920.55	2117.683	4290.742

Sample Name: Q1923-01A Acquired: 5/5/2025 15:59:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7246263	1.798027	1.327354	1.578585	.6680750	128.4399
Stddev	.0027520	.009597	.003619	.006205	.0021246	.6687
%RSD	.3797861	.5337352	.2726851	.3930804	.3180216	.5206194

#1	.7228790	1.790120	1.327877	1.575148	.6663573	128.9866
#2	.7277986	1.795258	1.330684	1.585748	.6674169	127.6944
#3	.7232013	1.808704	1.323502	1.574859	.6704508	128.6388

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8500075	.1645147	.1799053	44.34253	.5495454	.2962168
Stddev	.0049651	.0020755	.0007193	.37387	.0019528	.0003507
%RSD	.5841203	1.261573	.3998238	.8431357	.3553446	.1183830

#1	.8499530	.1665538	.1805921	44.55971	.5500549	.2966186
#2	.8450699	.1624047	.1799665	43.91083	.5473883	.2959721
#3	.8549996	.1645855	.1791573	44.55705	.5511929	.2960598

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4721386	242.6161	3.621074	40.73439	.6448708	.0680622
Stddev	.0012496	1.0699	.029366	.38953	.0026185	.0004693
%RSD	.2646579	.4409738	.8109675	.9562599	.4060451	.6894581

#1	.4724562	241.5507	3.634454	40.95703	.6460745	.0682260
#2	.4731986	242.6071	3.587401	40.28461	.6466710	.0675330
#3	.4707609	243.6904	3.641366	40.96152	.6418669	.0684277

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.280434	.5588833	.8035952	23.50415	1.024839	.3471358
Stddev	.065953	.0056003	.0012553	.11057	.004831	.0004723
%RSD	.7964900	1.002056	.1562146	.4704199	.4713624	.1360584

#1	8.210106	.5636249	.8027931	23.37656	1.021177	.3471731
#2	8.340901	.5527044	.8029508	23.57179	1.023027	.3475883
#3	8.290294	.5603207	.8050419	23.56411	1.030314	.3466459

Sample Name: Q1923-01A Acquired: 5/5/2025 15:59:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6768049	2.673669	F 18.80440	9.800852	2.010888	.4338718
Stddev	.0015809	.015254	.07498	.014270	.000323	.0008424
%RSD	.2335860	.5705217	.3987596	.1455988	.0160579	.1941623

#1	.6762141	2.678246	18.73438	9.813362	2.011243	.4331501
#2	.6785961	2.656650	18.88352	9.785310	2.010613	.4336677
#3	.6756045	2.686110	18.79529	9.803884	2.010808	.4347975

Elem	Sr4077
Units	ppm
Avg	.1418112
Stddev	.0017994
%RSD	1.268843

#1	.1431453
#2	.1397647
#3	.1425236

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3203.702	76209.32	23172.97	2084.958	4269.453
Stddev	4.058	68.12	244.60	3.509	5.168
%RSD	.1266590	.0893874	1.055553	.1683155	.1210470

#1	3208.347	76147.42	22949.38	2086.734	4273.075
#2	3200.849	76282.31	23434.21	2080.916	4263.534
#3	3201.910	76198.23	23135.31	2087.225	4271.748

Sample Name: Q1944-01 Acquired: 5/5/2025 16:03:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000507	-.001523	-.002561	.0173864	.0028021	.0213292	.0051885
Stddev	.001459	.001191	.001109	.0022742	.0002374	.0069038	.0002738
%RSD	287.7826	78.21593	43.30927	13.08027	8.471863	32.36791	5.277335

#1	-.001533	-.001085	-.002669	.0167445	.0027204	.0185735	.0055020
#2	.001163	-.000612	-.003612	.0199126	.0026163	.0162289	.0049965
#3	-.001152	-.002871	-.001402	.0155022	.0030695	.0291853	.0050669

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000088	-.000766	.1975654	.0717790	.0593918	.0226714	.2108373
Stddev	.000043	.000104	.0037201	.0004122	.0006530	.0002167	.0051103
%RSD	49.07535	13.63203	1.882977	.5742118	1.099398	.9558644	2.423797

#1	-.000042	-.000766	.2013722	.0720473	.0601135	.0227048	.2062684
#2	-.000095	-.000662	.1939386	.0713045	.0592201	.0228695	.2163558
#3	-.000127	-.000871	.1973853	.0719853	.0588419	.0224400	.2098878

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026895	.0351989	.2999807	.0001752	-.028679	.0001610	.0483592
Stddev	.0003327	.0180505	.0015926	.0001747	.005332	.0007731	.0005966
%RSD	12.37070	51.28136	.5309050	99.72693	18.59255	480.0810	1.233595

#1	.0025496	.0363314	.3010950	.0000507	-.027835	-.000370	.0485058
#2	.0024496	.0166088	.3006905	.0003750	-.023819	-.000195	.0488689
#3	.0030693	.0526564	.2981566	.0000999	-.034383	.001048	.0477031

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.034794	-.004555	.0240289	.0223749	.0134059	.0419066	.0210055
Stddev	.016159	.000261	.0001382	.0013832	.0013836	.0126871	.0009485
%RSD	46.44103	5.731332	.5751017	6.181834	10.32069	30.27461	4.515437

#1	-.053450	-.004297	.0241331	.0239684	.0149364	.0295030	.0200214
#2	-.025756	-.004819	.0238721	.0214853	.0122437	.0548593	.0210813
#3	-.025176	-.004549	.0240815	.0216709	.0130378	.0413573	.0219138

Sample Name: Q1944-01 Acquired: 5/5/2025 16:03:39 Type: Unk
 Method: NON EPA-6010-200.7 NEW LR(v29) 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	.1134272	-.001830	-.000320
Stddev	.0024132	.000260	.000081
%RSD	2.127508	14.21409	25.28959
#1	.1115638	-.001927	-.000272
#2	.1161531	-.002027	-.000274
#3	.1125648	-.001535	-.000414

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.861	75976.97	19890.72	1979.005	4796.892
Stddev	20.927	266.59	88.90	15.545	34.478
%RSD	.7196820	.3508843	.4469346	.7855203	.7187671
#1	2893.889	75857.83	19788.86	1971.921	4780.849
#2	2897.772	75790.72	19952.72	1968.263	4773.359
#3	2931.921	76282.35	19930.56	1996.831	4836.469

Sample Name: CCV02 Acquired: 5/5/2025 16:07:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.884650	4.885557	4.871057	4.921786	4.913279	9.706831	9.884200
Stddev	.011566	.022890	.004845	.010678	.007613	.133090	.060280
%RSD	.2367914	.4685314	.0994608	.2169554	.1549422	1.371095	.6098653

#1	4.873080	4.859446	4.866690	4.930301	4.906010	9.860277	9.905301
#2	4.896212	4.902167	4.870212	4.925251	4.921195	9.637435	9.816205
#3	4.884657	4.895059	4.876269	4.909806	4.912633	9.622782	9.931092

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2396360	2.411948	24.23578	.9740619	2.425203	1.229559	4.990312
Stddev	.0024074	.003670	.39195	.0007053	.003060	.000863	.044067
%RSD	1.004610	.1521417	1.617247	.0724079	.1261894	.0702029	.8830431

#1	.2415645	2.409946	24.68413	.9744534	2.424116	1.229893	5.038526
#2	.2404056	2.409715	24.06507	.9732477	2.422834	1.228578	4.952119
#3	.2369379	2.416183	23.95813	.9744847	2.428658	1.230204	4.980291

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.427279	24.00263	2.415445	1.213134	24.39963	2.432876	2.431397
Stddev	.040608	.35246	.004853	.002665	.20022	.037560	.009275
%RSD	1.672974	1.468402	.2009085	.2197153	.8205876	1.543866	.3814701

#1	2.473690	24.39527	2.417026	1.214513	24.59669	2.474512	2.430733
#2	2.409861	23.89904	2.409998	1.214828	24.19640	2.422579	2.440987
#3	2.398285	23.71358	2.419310	1.210062	24.40581	2.401539	2.422472

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.28029	4.796323	4.933865	4.844644	4.863941	4.849514	4.937343
Stddev	.18370	.056259	.007167	.004197	.076481	.053704	.023597
%RSD	.7565650	1.172959	.1452582	.0866376	1.572407	1.107414	.4779346

#1	24.48127	4.841644	4.925968	4.847448	4.951000	4.903779	4.912533
#2	24.12107	4.813970	4.939956	4.846666	4.833256	4.796389	4.939991
#3	24.23853	4.733357	4.935673	4.839818	4.807568	4.848375	4.959504

Sample Name: CCV02 Acquired: 5/5/2025 16:07:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.789148	4.811980	4.891141
Stddev	.006080	.071817	.049817
%RSD	.1269569	1.492459	1.018513

#1	4.782323	4.894640	4.893009
#2	4.791139	4.776400	4.939998
#3	4.793984	4.764899	4.840417

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2922.322	70947.88	20129.93	1914.175	4475.819
Stddev	6.979	229.74	224.03	3.476	13.671
%RSD	.2388201	.3238219	1.112908	.1816071	.3054379

#1	2929.247	70692.25	19897.64	1910.283	4483.833
#2	2922.429	71137.12	20147.48	1915.270	4483.590
#3	2915.290	71014.27	20344.67	1916.972	4460.034

Sample Name: CCB02 Acquired: 5/5/2025 16:12:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0009794	.0012841	-.000560	.0004428	.0019299	.0002610	-.003080
Stddev	.0019189	.0007449	.000565	.0030000	.0008788	.0036541	.000419
%RSD	195.9178	58.00773	100.9082	677.4749	45.53704	1399.846	13.60503

#1	-.000544	.0014565	-.001039	-.001601	.0029258	-.003923	-.003562
#2	.000348	.0004681	-.000704	.003887	.0012632	.001882	-.002807
#3	.003135	.0019277	.000063	-.000957	.0016007	.002825	-.002869

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000731	.0003489	.0172327	-.000092	.0005165	.0002416	-.000620
Stddev	.0000648	.0000447	.0086745	.000240	.0001507	.0007418	.003868
%RSD	88.69466	12.81036	50.33768	260.1744	29.17335	307.0147	624.0141

#1	.0000886	.0003434	.0191893	-.000357	.0006905	.0009249	-.001839
#2	.0000019	.0003961	.0077470	-.000034	.0004263	.0003472	.003711
#3	.0001287	.0003072	.0247618	.000113	.0004328	-.000547	-.003732

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000122	.0143229	.0004859	.0003219	-.044822	-.000571	.0010973
Stddev	.000288	.0092444	.0000831	.0001603	.000495	.000037	.0001650
%RSD	235.8323	64.54274	17.10286	49.80029	1.104589	6.545488	15.03768

#1	-.000209	.0143577	.0004934	.0004474	-.045257	-.000551	.0009216
#2	.000199	.0235498	.0005650	.0003772	-.044926	-.000547	.0012490
#3	-.000357	.0050612	.0003993	.0001413	-.044284	-.000614	.0011212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003922	.0066057	.0017001	.0081491	.0020088	.0053377	-.000342
Stddev	.020066	.0006968	.0003602	.0004365	.0006414	.0106120	.003954
%RSD	511.6101	10.54867	21.18577	5.356942	31.93059	198.8140	1157.714

#1	.004481	.0067172	.0015136	.0086531	.0022400	-.006317	-.004634
#2	.010576	.0072401	.0021152	.0079057	.0025027	.007887	.000458
#3	-.026824	.0058599	.0014714	.0078885	.0012839	.014443	.003152

Sample Name: CCB02 Acquired: 5/5/2025 16:12:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0032983	.0009147	.0009550
Stddev	.0026956	.0004506	.0000475
%RSD	81.72759	49.25909	4.972799
#1	.0064034	.0013972	.0009974
#2	.0015585	.0008419	.0009037
#3	.0019330	.0005050	.0009639

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3028.148	73582.60	19571.07	1978.259	4878.885
Stddev	1.580	369.62	23.88	8.785	4.304
%RSD	.0521846	.5023220	.1219952	.4440734	.0882151
#1	3027.436	73415.03	19573.41	1968.790	4877.239
#2	3027.049	73326.44	19546.11	1979.842	4883.769
#3	3029.959	74006.33	19593.69	1986.144	4875.647

Sample Name: Q1865-08 Acquired: 5/5/2025 16:16:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0076102	-.006611	.3093447	.0018634	.0124934	-.046820
Stddev	.0038937	.001923	.0029055	.0025797	.0017574	.004084
%RSD	51.16449	29.08339	.9392261	138.4415	14.06637	8.721905

#1	.0062164	-.008173	.3107715	-.000784	.0107822	-.046722
#2	.0046052	-.004463	.3112608	.002005	.0124044	-.042786
#3	.0120090	-.007197	.3060017	.004370	.0142935	-.050952

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0331775	-.000134	.0268741	128.6961	.0169785	.2208022
Stddev	.0003474	.000052	.0001367	.3091	.0004474	.0006915
%RSD	1.047175	38.36015	.5088266	.2402009	2.635130	.3131734

#1	.0327784	-.000098	.0267813	128.6945	.0172478	.2211162
#2	.0333423	-.000111	.0270311	129.0060	.0172256	.2212809
#3	.0334120	-.000193	.0268098	128.3878	.0164620	.2200094

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073114	.1903543	.6984535	6.928972	.0296747	.0000734
Stddev	.0007078	.0058683	.0020513	.011618	.0002008	.0002025
%RSD	9.681019	3.082810	.2936902	.1676670	.6765112	275.8637

#1	.0065089	.1968184	.6972548	6.917090	.0298632	.0002907
#2	.0078468	.1853621	.7008220	6.940306	.0294636	.0000398
#3	.0075784	.1888824	.6972835	6.929519	.0296974	-.000110

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	379.1995	.0011609	F 23.99685	126.5453	.1427872	-.003196
Stddev	4.1062	.0018902	.11611	.8371	.0007767	.000356
%RSD	1.082850	162.8266	.4838415	.6615078	.5439421	11.14157

#1	375.1117	.0033434	24.11648	127.3330	.1427375	-.003324
#2	379.1632	.0000523	23.98943	125.6663	.1435876	-.002793
#3	383.3238	.0000869	23.88463	126.6368	.1420366	-.003470

Sample Name: Q1865-08 Acquired: 5/5/2025 16:16:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-0.006124	-0.002633	4.023119	.1384508	F 123.5120	.1497225
Stddev	.001322	.000078	.021706	.0032204	.4467	.0008112
%RSD	21.58838	2.958798	.5395290	2.326015	.3616382	.5417986

#1	-0.006054	-0.002710	4.047991	.1372207	123.3903	.1488076
#2	-0.007479	-0.002554	4.013368	.1360268	124.0069	.1500060
#3	-0.004838	-0.002635	4.008000	.1421049	123.1387	.1503538

Elem	Sr4077
Units	ppm
Avg	1.081692
Stddev	.000359
%RSD	.0331591

#1	1.082091
#2	1.081395
#3	1.081589

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.586	66222.30	20595.16	1774.561	3954.449
Stddev	13.780	136.04	122.84	7.546	21.615
%RSD	.5196901	.2054326	.5964553	.4252480	.5465952

#1	2647.352	66065.39	20663.39	1766.568	3950.795
#2	2640.419	66294.19	20453.35	1775.555	3934.893
#3	2666.986	66307.31	20668.74	1781.562	3977.657

Sample Name: Q1916-04 Acquired: 5/5/2025 16:20:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000455	-.003276	-.000266	.0035484	.0001709	.0733089	.4435552
Stddev	.001928	.003687	.000815	.0060675	.0012370	.0023136	.0026959
%RSD	423.9875	112.5619	306.0943	170.9945	723.9548	3.155888	.6077999

#1	-.002653	.000481	-.000668	.0042891	-.001010	.0710374	.4421828
#2	.000337	-.006889	-.000803	-.002856	.001458	.0732272	.4418217
#3	.000952	-.003418	.000672	.009212	.000065	.0756623	.4466612

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002197	-.000536	9.748763	.0015644	.0037563	.0150577	2.306398
Stddev	.0000672	.000028	.053487	.0004150	.0001716	.0005300	.009300
%RSD	30.56893	5.194020	.5486535	26.52794	4.568982	3.520039	.4032444

#1	.0001809	-.000563	9.693020	.0010934	.0035782	.0151379	2.310282
#2	.0002972	-.000539	9.753604	.0017235	.0037703	.0155430	2.295785
#3	.0001809	-.000507	9.799665	.0018762	.0039205	.0144921	2.313127

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5928922	1.009550	.0035818	-.000148	362.3202	.0000159	.1130728
Stddev	.0015949	.015342	.0002797	.000402	2.0318	.0002834	.0007404
%RSD	.2690005	1.519657	7.808933	271.3758	.5607763	1783.118	.6547736

#1	.5919334	.991950	.0039013	.000249	364.4505	-.000191	.1138901
#2	.5920099	1.020096	.0033809	-.000555	362.1065	-.000100	.1128814
#3	.5947333	1.016604	.0034633	-.000139	360.4038	.000339	.1124469

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.960290	.0546708	-.000077	-.003020	.0000376	.9182498	.0106541
Stddev	.029004	.0005133	.000310	.000623	.0003832	.0085649	.0034146
%RSD	1.479597	.9389322	402.3281	20.61638	1020.099	.9327402	32.04957

#1	1.949397	.0541379	.000124	-.002408	-.000202	.9087740	.0144439
#2	1.938308	.0551620	.000079	-.003653	.000480	.9205353	.0078172
#3	1.993163	.0547126	-.000434	-.003000	-.000165	.9254400	.0097012

Sample Name: Q1916-04 Acquired: 5/5/2025 16:20:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.9089075	-.002553	.0800529
Stddev	.0062161	.000758	.0005638
%RSD	.6839068	29.68139	.7042203
#1	.9069137	-.002494	.0800685
#2	.9158759	-.003339	.0794814
#3	.9039329	-.001827	.0806086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.907	69417.30	20711.89	1865.526	4274.709
Stddev	5.388	120.38	115.53	4.025	25.177
%RSD	.1910541	.1734132	.5577801	.2157726	.5889758
#1	2816.664	69279.16	20837.36	1864.303	4253.471
#2	2816.932	69472.98	20688.40	1870.021	4268.136
#3	2826.126	69499.76	20609.91	1862.254	4302.521

Sample Name: Q1906-04 Acquired: 5/5/2025 16:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.005227	-.004660	.0136051	.0025508	.0000410	.0346670	.2473182
Stddev	.003449	.000948	.0018757	.0027016	.0004856	.0048240	.0004740
%RSD	65.98417	20.35576	13.78705	105.9141	1185.542	13.91523	.1916682

#1	-.009193	-.003789	.0150660	.0030392	.0004704	.0313964	.2469057
#2	-.002926	-.005670	.0142594	-.000362	-.000486	.0402072	.2478360
#3	-.003563	-.004520	.0114898	.004975	.000138	.0323974	.2472131

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001631	.0007832	13.09751	.0005665	.0021260	.0350027	.0049821
Stddev	.0000438	.0000199	.05759	.0001878	.0001422	.0003221	.0041295
%RSD	26.83371	2.535817	.4397347	33.15498	6.687710	.9203286	82.88718

#1	.0002091	.0007913	13.06107	.0007302	.0021634	.0350551	.0096234
#2	.0001219	.0007978	13.16391	.0006078	.0022458	.0346576	.0017144
#3	.0001584	.0007606	13.06756	.0003615	.0019689	.0352954	.0036085

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5302178	1.299843	.0058671	-.000177	320.6496	-.000356	.1908399
Stddev	.0006940	.016764	.0002328	.000365	6.8268	.000800	.0008548
%RSD	.1308980	1.289678	3.967222	206.5617	2.129067	224.7134	.4479197

#1	.5300900	1.299058	.0058407	.000140	327.4612	-.001149	.1914558
#2	.5309668	1.316985	.0061119	-.000095	320.6799	.000451	.1912000
#3	.5295964	1.283485	.0056486	-.000576	313.8076	-.000370	.1898640

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.834595	.0234649	-.000252	-.002649	-.000284	1.025781	.0116385
Stddev	.068859	.0006898	.000076	.000393	.000131	.013219	.0025060
%RSD	1.795721	2.939748	30.09952	14.82400	45.99969	1.288693	21.53229

#1	3.895913	.0239853	-.000264	-.003004	-.000150	1.029114	.0145008
#2	3.847771	.0237269	-.000321	-.002227	-.000411	1.037015	.0098393
#3	3.760100	.0226824	-.000171	-.002715	-.000290	1.011215	.0105754

Sample Name: Q1906-04 Acquired: 5/5/2025 16:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.2893517	-.001517	.0891032
Stddev	.0025169	.000239	.0001214
%RSD	.8698384	15.76036	.1361910
#1	.2920181	-.001374	.0891965
#2	.2890196	-.001793	.0891472
#3	.2870173	-.001383	.0889661

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2839.509	69818.05	21665.80	1868.079	4347.412
Stddev	15.285	469.08	208.60	10.686	24.255
%RSD	.5383126	.6718674	.9628285	.5720254	.5579139
#1	2852.657	69742.40	21906.26	1866.704	4369.401
#2	2843.131	69391.39	21557.72	1858.147	4351.440
#3	2822.737	70320.36	21533.41	1879.386	4321.395

Sample Name: Q1944-02 Acquired: 5/5/2025 16:29:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001144	-.003581	-.000842	-.001152	.0010992	-.085221
Stddev	.002325	.002152	.001403	.001242	.0022336	.024131
%RSD	203.2498	60.10703	166.4837	107.8623	203.2106	28.31613

#1	.000398	-.001111	-.000279	-.002438	-.001331	-.104187
#2	-.003818	-.004577	.000191	-.001058	.001567	-.058059
#3	-.000012	-.005054	-.002439	.000041	.003062	-.093418

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491469	-.000206	-.000275	193.1854	.0002916	-.000404
Stddev	.0020558	.000035	.000079	2.7660	.0001929	.000230
%RSD	4.182951	17.10992	28.56009	1.431802	66.14941	57.05131

#1	.0507176	-.000202	-.000235	194.7755	.0002991	-.000195
#2	.0468201	-.000173	-.000366	189.9915	.0000951	-.000366
#3	.0499030	-.000243	-.000225	194.7893	.0004807	-.000651

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.071856	.0179366	.0018937	66.77634	.0039685	-.000487
Stddev	.002246	.0024266	.0005057	.97890	.0001398	.000195
%RSD	.2095787	13.52896	26.70417	1.465942	3.522828	39.97926

#1	1.071158	.0153511	.0024683	67.31077	.0038128	-.000440
#2	1.070042	.0201647	.0016968	65.64655	.0040834	-.000701
#3	1.074369	.0182942	.0015161	67.37170	.0040093	-.000320

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	63.85803	.0040018	.1657330	3.707175	.1032359	.0021190
Stddev	.19755	.0017079	.0010563	.041215	.0008744	.0005347
%RSD	.3093520	42.67805	.6373345	1.111764	.8469951	25.23456

#1	63.63476	.0054775	.1645305	3.680058	.1035034	.0021717
#2	63.92918	.0021310	.1661575	3.686864	.1022589	.0015598
#3	64.01014	.0043971	.1665110	3.754603	.1039452	.0026253

Sample Name: Q1944-02 Acquired: 5/5/2025 16:29:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-0.005081	-0.005495	F 19.14926	.1836085	19.26373	-.030104
Stddev	.001198	.000343	.10142	.0062012	.07120	.000266
%RSD	23.57203	6.243808	.5296256	3.377407	.3696234	.8847090

#1	-0.006209	-0.005887	19.05535	.1870731	19.22255	-.029827
#2	-.003824	-.005250	19.13563	.1764492	19.22270	-.030126
#3	-.005209	-.005348	19.25681	.1873032	19.34595	-.030359

Elem	Sr4077
Units	ppm
Avg	.5717068
Stddev	.0070292
%RSD	1.229519

#1	.5757771
#2	.5635901
#3	.5757532

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2764.507	67403.43	19096.61	1802.484	4260.534
Stddev	2.226	199.33	288.32	2.642	2.273
%RSD	.0805290	.2957205	1.509796	.1465605	.0533600

#1	2767.030	67504.97	18919.35	1801.980	4262.893
#2	2763.674	67531.54	19429.29	1805.342	4258.358
#3	2762.818	67173.78	18941.18	1800.131	4260.350

Sample Name: Q1944-03DLX5 Acquired: 5/5/2025 16:33:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0228378	.2888894	.0171236	.4999377	.0953714	-.076120
Stddev	.0034632	.0023884	.0023375	.0019300	.0022484	.004167
%RSD	15.16447	.8267359	13.65046	.3860431	2.357488	5.474115

#1	.0264111	.2909124	.0144677	.4977521	.0942703	-.078428
#2	.0194962	.2895010	.0188678	.5014076	.0979581	-.078622
#3	.0226063	.2862547	.0180354	.5006535	.0938858	-.071310

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028732	-.002751	-.002368	1.080507	.0419264	-.010134
Stddev	.000222	.000025	.000053	.005171	.0002365	.000115
%RSD	.7714934	.9167579	2.245968	.4785980	.5640605	1.139390

#1	-.028519	-.002780	-.002394	1.084132	.0418701	-.010039
#2	-.028962	-.002742	-.002404	1.082804	.0421860	-.010100
#3	-.028715	-.002732	-.002307	1.074585	.0417231	-.010262

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8769889	.2167784	.0001869	-.155780	-.005296	-.001251
Stddev	.0018817	.0065724	.0001530	.007767	.000205	.000616
%RSD	.2145653	3.031876	81.86260	4.985976	3.861209	49.23308

#1	.8774608	.2099588	.0003026	-.151658	-.005061	-.001254
#2	.8785898	.2230721	.0002448	-.150943	-.005398	-.000633
#3	.8749162	.2173043	.0000134	-.164739	-.005430	-.001865

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	310.6576	-.052022	.0205066	1670.293	.0093337	F 38.57646
Stddev	2.6083	.001481	.0003424	1.547	.0009895	.10150
%RSD	.8396065	2.846554	1.669539	.0926096	10.60140	.2631090

#1	312.3440	-.050692	.0201174	1672.014	.0096555	38.57521
#2	311.9756	-.051757	.0206412	1669.847	.0101224	38.67858
#3	307.6534	-.053618	.0207613	1669.018	.0082234	38.47559

Sample Name: Q1944-03DLX5 Acquired: 5/5/2025 16:33:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.1574065	.0056759	.6402899	F 418.3865	3.274931	.0124342
Stddev	.0010022	.0004613	.0061829	1.6149	.010960	.0010155
%RSD	.6366749	8.127859	.9656412	.3859848	.3346784	8.167074

#1	.1568650	.0053703	.6423796	418.2815	3.284060	.0113017
#2	.1567915	.0062066	.6451571	420.0514	3.277957	.0127374
#3	.1585629	.0054509	.6333329	416.8267	3.262775	.0132636

Elem	Sr4077
Units	ppm
Avg	.0026276
Stddev	.0000145
%RSD	.5521529

#1	.0026398
#2	.0026315
#3	.0026116

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2221.388	58886.08	22081.21	1430.926	3807.538
Stddev	9.408	158.55	14.13	8.589	15.206
%RSD	.4235309	.2692437	.0639911	.6002156	.3993686

#1	2228.037	58828.50	22089.32	1430.820	3818.908
#2	2210.623	58764.37	22089.41	1422.391	3790.266
#3	2225.503	59065.37	22064.89	1439.567	3813.442

Sample Name: Q1913-01 Acquired: 5/5/2025 16:38:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002258	-.004234	.0130069	.0067401	.0008693	.0182984	.2878315
Stddev	.000478	.000591	.0009460	.0071284	.0029533	.0082379	.0007039
%RSD	21.17430	13.94778	7.273163	105.7618	339.7421	45.02000	.2445394

#1	-.002149	-.003555	.0139544	.0149291	.0022416	.0267538	.2883634
#2	-.001844	-.004624	.0120624	.0019247	-.002520	.0102967	.2870333
#3	-.002782	-.004523	.0130038	.0033664	.002887	.0178446	.2880977

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000782	-.000996	16.16425	.0049597	.0120814	.0148419	10.64006
Stddev	.0000550	.000084	.04770	.0003135	.0000600	.0004442	.03222
%RSD	70.32238	8.433779	.2951225	6.321712	.4962179	2.993166	.3028012

#1	.0000617	-.001014	16.18437	.0051955	.0120207	.0148256	10.65366
#2	.0001397	-.000905	16.10979	.0050796	.0121405	.0152941	10.66324
#3	.0000334	-.001070	16.19861	.0046039	.0120830	.0144061	10.60327

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.415469	3.230481	.0217178	.0002611	380.2449	.0001644	.0711399
Stddev	.001307	.006357	.0001902	.0000421	2.9531	.0013489	.0004245
%RSD	.0923145	.1967873	.8757347	16.13013	.7766423	820.3934	.5967024

#1	1.416950	3.236411	.0215048	.0002304	381.3255	.0003719	.0716285
#2	1.414980	3.231262	.0217779	.0003091	382.5055	.0013976	.0709288
#3	1.414477	3.223769	.0218706	.0002437	376.9036	-.001276	.0708623

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.729718	.0735516	.0010461	-.003169	-.000961	.9382027	.0409653
Stddev	.020604	.0003693	.0002140	.001141	.000476	.0021393	.0013355
%RSD	1.191203	.5021157	20.46111	35.99273	49.52065	.2280189	3.260167

#1	1.752017	.0736250	.0012483	-.004274	-.000412	.9406709	.0423577
#2	1.711385	.0731512	.0010681	-.003237	-.001229	.9370542	.0396950
#3	1.725752	.0738788	.0008219	-.001996	-.001242	.9368828	.0408432

Sample Name: Q1913-01 Acquired: 5/5/2025 16:38:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4819251	.0012016	.0801327
Stddev	.0048594	.0006923	.0003593
%RSD	1.008324	57.61744	.4484030
#1	.4844926	.0015886	.0804727
#2	.4849622	.0016139	.0801686
#3	.4763205	.0004023	.0797567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.503	68646.40	20761.40	1849.716	4278.550
Stddev	1.750	179.43	64.79	7.365	6.057
%RSD	.0621058	.2613883	.3120617	.3981936	.1415595
#1	2816.685	68586.26	20747.70	1847.124	4284.848
#2	2820.177	68504.75	20831.94	1858.027	4278.032
#3	2818.648	68848.17	20704.55	1843.997	4272.768

Sample Name: Q1913-03 Acquired: 5/5/2025 16:42:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002009	-.003419	-.001452	.0014560	-.000174	.0144441	.3061460
Stddev	.001058	.002447	.000363	.0017807	.003669	.0071821	.0007654
%RSD	52.69204	71.58546	25.03208	122.3011	2111.980	49.72320	.2500230

#1	-.001980	-.000693	-.001755	-.000569	.003704	.0089797	.3053066
#2	-.000965	-.004135	-.001049	.002777	-.003592	.0225789	.3063263
#3	-.003081	-.005429	-.001552	.002160	-.000633	.0117738	.3068052

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000899	-.001733	29.72938	.0010731	.0047883	.0114368	21.29311
Stddev	.0000414	.000128	.06744	.0002021	.0002307	.0001244	.09342
%RSD	46.00332	7.384857	.2268308	18.83098	4.816813	1.087403	.4387476

#1	.0000946	-.001590	29.80557	.0008638	.0049045	.0115173	21.21809
#2	.0000464	-.001772	29.70523	.0012670	.0049378	.0114997	21.39775
#3	.0001288	-.001837	29.67735	.0010884	.0045227	.0112936	21.26349

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7946204	3.174924	.0059861	.0005029	317.4061	.0002501	.0982717
Stddev	.0016504	.017364	.0003052	.0000566	1.6773	.0011378	.0006074
%RSD	.2076981	.5469206	5.098138	11.25582	.5284395	454.9278	.6180919

#1	.7952406	3.194968	.0060372	.0004397	316.7762	-.000909	.0977356
#2	.7927497	3.165335	.0062626	.0005489	319.3071	.001366	.0989314
#3	.7958709	3.164468	.0056586	.0005201	316.1348	.000293	.0981482

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.622539	.1129478	-.000127	-.004275	-.000689	.4139237	.0220494
Stddev	.027850	.0008356	.000456	.000973	.000790	.0137922	.0014624
%RSD	1.716436	.7397991	357.9846	22.75191	114.7019	3.332070	6.632596

#1	1.606727	.1119844	.000145	-.004538	-.001155	.4095581	.0231030
#2	1.654696	.1133852	.000127	-.005090	-.001135	.4293705	.0226656
#3	1.606194	.1134740	-.000654	-.003198	.000223	.4028426	.0203797

Sample Name: Q1913-03 Acquired: 5/5/2025 16:42:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.8878238	.0026193	.0769198
Stddev	.0046491	.0000886	.0001043
%RSD	.5236529	3.381029	.1355968
#1	.8925839	.0025446	.0768707
#2	.8832942	.0025962	.0770396
#3	.8875932	.0027171	.0768491

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.427	68600.12	21503.18	1846.962	4323.908
Stddev	11.189	317.24	128.29	8.595	15.699
%RSD	.3960237	.4624531	.5965915	.4653813	.3630665
#1	2815.283	68495.19	21355.85	1849.351	4306.871
#2	2823.570	68348.64	21590.20	1837.424	4327.066
#3	2837.429	68956.54	21563.49	1854.109	4337.788

Sample Name: Q1913-03DUP Acquired: 5/5/2025 16:47:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001459	-.004452	-.000971	.0014883	-.001546	.0147274	.1753695
Stddev	.001337	.002097	.000223	.0004973	.001289	.0075093	.0007866
%RSD	91.58636	47.10848	22.96924	33.41752	83.38062	50.98894	.4485654

#1	-.002599	-.006511	-.000722	.0015795	-.000062	.0200222	.1745510
#2	.000012	-.004526	-.001154	.0019337	-.002388	.0180267	.1761199
#3	-.001790	-.002318	-.001037	.0009516	-.002187	.0061332	.1754376

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000253	-.001150	17.27921	.0006936	.0025253	.0057207	12.18836
Stddev	.0000333	.000100	.04669	.0001455	.0001658	.0002846	.00553
%RSD	131.7705	8.656489	.2701867	20.97346	6.566485	4.975569	.0453420

#1	.0000413	-.001175	17.28293	.0005256	.0023823	.0053933	12.19436
#2	.0000476	-.001040	17.23077	.0007786	.0024865	.0058596	12.18722
#3	-.000013	-.001235	17.32392	.0007767	.0027071	.0059093	12.18348

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4609540	1.830113	.0037855	.0001910	181.7402	-.000414	.0580033
Stddev	.0013323	.002947	.0001578	.0004185	1.4815	.000502	.0005726
%RSD	.2890416	.1610063	4.167223	219.1278	.8151888	121.4061	.9871634

#1	.4596341	1.833205	.0037823	.0000631	180.3159	-.000571	.0586626
#2	.4609293	1.827337	.0039448	.0006585	181.6317	-.000818	.0576310
#3	.4622985	1.829796	.0036294	-.000149	183.2730	.000148	.0577163

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8851729	.0632921	-.000073	-.003206	-.000629	.2424304	.0168276
Stddev	.0492239	.0003806	.000805	.001210	.000648	.0069188	.0038456
%RSD	5.560932	.6014017	1097.954	37.74210	103.0756	2.853920	22.85311

#1	.9074320	.0628706	.000851	-.003546	-.000180	.2491345	.0202252
#2	.8287511	.0636107	-.000621	-.004209	-.000335	.2428415	.0126527
#3	.9193356	.0633950	-.000450	-.001862	-.001372	.2353153	.0176049

Sample Name: Q1913-03DUP Acquired: 5/5/2025 16:47:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.5056721	.0001069	.0451931
Stddev	.0048346	.0009927	.0001232
%RSD	.9560647	928.6722	.2725575
#1	.5086401	.0010088	.0450763
#2	.5000935	-.000957	.0451813
#3	.5082828	.000269	.0453218

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2871.222	71401.71	22057.13	1891.135	4464.676
Stddev	8.199	440.74	66.91	17.832	9.821
%RSD	.2855435	.6172704	.3033527	.9429494	.2199713
#1	2863.987	71069.07	22008.42	1871.519	4456.898
#2	2869.552	71234.46	22029.55	1895.519	4461.418
#3	2880.127	71901.60	22133.42	1906.366	4475.712

Sample Name: Q1913-03LX5 Acquired: 5/5/2025 16:51:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000634	-.003416	.0003118	.0024435	.0020763	-.001266	.0525480
Stddev	.003177	.002531	.0008996	.0022074	.0015008	.012514	.0006023
%RSD	500.9433	74.08692	288.5576	90.33628	72.28221	988.3367	1.146265

#1	.000866	-.000899	-.000700	.0021861	.0035236	.003789	.0530603
#2	-.004284	-.005960	.000615	.0047683	.0005271	.007930	.0526993
#3	.001515	-.003389	.001021	.0003761	.0021784	-.015517	.0518844

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000029	-.000661	5.866513	.0001453	.0007952	.0023335	4.065456
Stddev	.000030	.000037	.019279	.0003945	.0001457	.0003676	.026464
%RSD	104.2741	5.524710	.3286351	271.4376	18.32453	15.75294	.6509366

#1	-.000058	-.000627	5.867164	.0005711	.0007696	.0023178	4.087410
#2	.000002	-.000658	5.885459	.0000726	.0009521	.0027087	4.036072
#3	-.000030	-.000699	5.846916	-.000208	.0006640	.0019740	4.072885

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1546997	.6355133	.0010473	.0003616	60.54218	.0011996	.0185531
Stddev	.0012511	.0138787	.0003036	.0000471	.45184	.0015616	.0002565
%RSD	.8086992	2.183860	28.98597	13.03495	.7463174	130.1799	1.382594

#1	.1541496	.6455360	.0011790	.0003137	60.92837	.0017801	.0184219
#2	.1561316	.6413315	.0012629	.0004079	60.04528	.0023879	.0183887
#3	.1538180	.6196725	.0007001	.0003632	60.65288	-.000569	.0188487

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4435311	.0197685	-.000230	-.000255	-.000345	.0818308	.0025450
Stddev	.0135455	.0008458	.000258	.000632	.000646	.0092986	.0010851
%RSD	3.054013	4.278281	111.9417	247.2907	187.0730	11.36324	42.63843

#1	.4567089	.0198619	.000063	.000302	.000220	.0831402	.0037968
#2	.4442389	.0188800	-.000423	-.000942	-.001049	.0719469	.0018731
#3	.4296456	.0205637	-.000331	-.000126	-.000207	.0904053	.0019650

Sample Name: Q1913-03LX5 Acquired: 5/5/2025 16:51:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.1738771	.0070109	.0149028
Stddev	.0013461	.0012917	.0000328
%RSD	.7741524	18.42455	.2198991
#1	.1750521	.0068170	.0148772
#2	.1741708	.0083887	.0149397
#3	.1724085	.0058272	.0148915

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2984.049	72313.42	22045.57	1936.691	4715.797
Stddev	6.941	265.62	213.84	16.375	8.122
%RSD	.2326081	.3673192	.9699753	.8454983	.1722352
#1	2982.453	72019.18	22109.48	1919.226	4710.036
#2	2991.649	72385.56	21807.06	1939.149	4725.086
#3	2978.044	72535.52	22220.16	1951.698	4712.267

Sample Name: CCV03 Acquired: 5/5/2025 16:56:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.045052	4.969435	4.881831	5.158988	5.081599	9.672683	9.906207
Stddev	.034238	.019527	.011476	.065041	.045953	.023326	.133255
%RSD	.6786442	.3929440	.2350858	1.260729	.9043062	.2411483	1.345168
#1	5.007457	4.958360	4.892688	5.093372	5.034194	9.654966	10.05103
#2	5.053254	4.957963	4.869822	5.160153	5.084657	9.663974	9.78878
#3	5.074443	4.991982	4.882984	5.223438	5.125947	9.699111	9.87881
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2402013	2.409799	24.06766	.9753438	2.430538	1.255507	5.081362
Stddev	.0009175	.009478	.01767	.0040893	.005252	.006371	.047785
%RSD	.3819618	.3933201	.0734323	.4192620	.2160696	.5074312	.9403961
#1	.2405646	2.420041	24.05640	.9715847	2.434190	1.249335	5.026827
#2	.2391578	2.401336	24.05854	.9796980	2.424519	1.255127	5.115899
#3	.2408815	2.408021	24.08803	.9747487	2.432904	1.262060	5.101360
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.420925	23.77671	2.420413	1.229855	24.81538	2.415043	2.463354
Stddev	.005487	.03581	.006464	.005809	.18405	.009425	.009367
%RSD	.2266439	.1505974	.2670807	.4723026	.7416768	.3902572	.3802568
#1	2.415242	23.73978	2.425634	1.224254	24.61861	2.404394	2.454520
#2	2.426192	23.77906	2.413183	1.235851	24.98330	2.418421	2.462365
#3	2.421342	23.81128	2.422423	1.229460	24.84424	2.422313	2.473176
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.77338	4.817378	4.978940	4.855428	4.842583	4.886706	4.989810
Stddev	.18331	.016932	.023950	.016041	.005756	.039901	.008041
%RSD	.7399570	.3514869	.4810332	.3303633	.1188566	.8165164	.1611397
#1	24.62567	4.834789	4.956644	4.873950	4.836006	4.840793	4.999093
#2	24.97853	4.800968	4.975918	4.846184	4.845042	4.912993	4.985299
#3	24.71592	4.816377	5.004258	4.846150	4.846701	4.906331	4.985037

Sample Name: CCV03 Acquired: 5/5/2025 16:56:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.949784	4.821643	4.934453
Stddev	.008091	.008067	.015236
%RSD	.1634608	.1673006	.3087659
#1	4.941626	4.812700	4.917956
#2	4.949919	4.828370	4.947995
#3	4.957806	4.823859	4.937407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2918.387	70679.74	20409.32	1917.105	4499.230
Stddev	6.632	400.16	21.37	8.807	27.949
%RSD	.2272471	.5661645	.1047194	.4593815	.6212037
#1	2912.805	71098.74	20405.22	1926.401	4467.635
#2	2925.719	70301.53	20432.45	1916.025	4520.728
#3	2916.639	70638.96	20390.30	1908.887	4509.325

Sample Name: CCB03 Acquired: 5/5/2025 17:00:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0031713	.0008444	.0004586	.0060531	.0020665	.0010602	-.008993
Stddev	.0018456	.0007412	.0006900	.0033209	.0015018	.0011754	.000504
%RSD	58.19647	87.78186	150.4600	54.86325	72.67247	110.8650	5.604891

#1	.0014202	.0014827	.0008284	.0098438	.0007702	.0017686	-.008466
#2	.0029950	.0010188	.0008848	.0036561	.0017173	-.000297	-.009471
#3	.0050987	.0000315	-.000337	.0046594	.0037122	.001709	-.009042

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000010	.0002715	.0161274	-.000063	.0003753	.0003527	.0154629
Stddev	.000064	.0000439	.0075778	.000387	.0001756	.0002717	.0034805
%RSD	641.3823	16.15642	46.98730	618.3642	46.77523	77.01555	22.50886

#1	.000040	.0003222	.0172051	.000063	.0001936	.0004972	.0114767
#2	-.000083	.0002458	.0080684	.000246	.0003885	.0005217	.0178998
#3	.000012	.0002466	.0231087	-.000497	.0005439	.0000394	.0170121

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000221	.0129725	.0007344	.0006687	.0427447	.0003758	.0007501
Stddev	.000222	.0079388	.0001239	.0002837	.0093081	.0009927	.0000751
%RSD	100.5421	61.19730	16.86668	42.42891	21.77604	264.1420	10.01113

#1	-.000319	.0046001	.0006108	.0005925	.0330608	-.000259	.0007008
#2	.000033	.0139257	.0008586	.0004308	.0435484	-.000134	.0008365
#3	-.000376	.0203917	.0007338	.0009827	.0516249	.001520	.0007129

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0448944	.0055786	.0014622	.0075342	.0012584	.0000518	.0017541
Stddev	.0089705	.0005656	.0001951	.0010996	.0009011	.0085420	.0031498
%RSD	19.98128	10.13809	13.34443	14.59512	71.60696	16482.40	179.5657

#1	.0358679	.0060906	.0014612	.0073116	.0006086	.0097861	-.000421
#2	.0450076	.0049715	.0012675	.0087281	.0008795	-.006194	.000317
#3	.0538078	.0056737	.0016577	.0065629	.0022871	-.003437	.005366

Sample Name: CCB03 Acquired: 5/5/2025 17:00:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0006432	.0034330	.0008576
Stddev	.0037369	.0000545	.0000960
%RSD	580.9676	1.588462	11.19747
#1	-.000218	.0033822	.0009569
#2	-.002588	.0034262	.0007652
#3	.004736	.0034906	.0008506

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2932.482	74709.11	22404.71	1982.793	4722.694
Stddev	42.219	211.05	118.88	8.096	72.604
%RSD	1.439718	.2825014	.5305853	.4083163	1.537335
#1	2953.252	74559.09	22491.34	1973.478	4769.886
#2	2883.901	74617.79	22269.18	1988.141	4639.090
#3	2960.293	74950.44	22453.59	1986.759	4759.106

Sample Name: Q1913-03MS Acquired: 5/5/2025 17:04:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002326	-.001573	-.001844	.0014762	-.002541	.0029810	.2123110
Stddev	.003658	.001482	.001470	.0029801	.001180	.0032116	.0002104
%RSD	157.2782	94.22084	79.73611	201.8728	46.44001	107.7364	.0990994

#1	-.000407	.000075	-.003026	-.001929	-.002608	.0008005	.2120681
#2	-.006544	-.001997	-.000198	.002750	-.003687	.0066689	.2124331
#3	-.000027	-.002796	-.002307	.003608	-.001329	.0014734	.2124319

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000071	-.001267	20.63543	.0025515	.0032285	.0070049	15.05919
Stddev	.0000503	.000088	.01255	.0001095	.0000680	.0000868	.09133
%RSD	708.7160	6.985117	.0607970	4.290095	2.106627	1.238517	.6065063

#1	-.000051	-.001356	20.63782	.0026649	.0031680	.0070960	15.06474
#2	.000040	-.001179	20.62186	.0024465	.0032153	.0069232	15.14763
#3	.000032	-.001265	20.64661	.0025430	.0033021	.0069954	14.96521

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5568254	2.171043	.0071893	.0001714	229.3796	.0005034	.0711363
Stddev	.0009149	.016050	.0001568	.0004036	1.6506	.0008201	.0005782
%RSD	.1643150	.7392839	2.180805	235.5096	.7196058	162.9323	.8128695

#1	.5562781	2.153878	.0071098	-.000264	228.7159	-.000430	.0709496
#2	.5563164	2.173572	.0070882	.000246	231.2587	.000832	.0717849
#3	.5578816	2.185678	.0073699	.000533	228.1641	.001108	.0706745

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.158297	.0816376	-.000145	-.003836	-.001284	.2929508	.0154227
Stddev	.006010	.0009090	.000356	.000348	.000683	.0065723	.0033902
%RSD	.5188824	1.113491	246.1516	9.083228	53.21680	2.243475	21.98183

#1	1.164837	.0815158	-.000160	-.003442	-.001226	.2855179	.0115098
#2	1.153017	.0826013	-.000493	-.003967	-.001994	.2979933	.0174799
#3	1.157037	.0807955	.000219	-.004101	-.000632	.2953414	.0172785

Sample Name: Q1913-03MS Acquired: 5/5/2025 17:04:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6211003	.0020012	.0551317
Stddev	.0029991	.0007127	.0002150
%RSD	.4828775	35.61570	.3899305
#1	.6182721	.0013063	.0549237
#2	.6207836	.0027305	.0551184
#3	.6242452	.0019667	.0553530

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2883.744	72864.26	23120.71	1921.984	4482.227
Stddev	5.048	568.40	106.13	11.854	12.185
%RSD	.1750368	.7800795	.4590226	.6167398	.2718426
#1	2889.035	72378.41	22998.18	1915.399	4494.788
#2	2883.217	72725.03	23180.54	1914.885	4470.457
#3	2878.981	73489.34	23183.42	1935.669	4481.435

Sample Name: Q1913-03MSD Acquired: 5/5/2025 17:08:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000924	-.003063	-.001618	-.000204	-.000493	.0132909	.2453307
Stddev	.002323	.002404	.001124	.003733	.002696	.0041597	.0011358
%RSD	251.3729	78.50049	69.46292	1830.971	546.6683	31.29758	.4629689

#1	-.001809	-.005136	-.000403	.000150	.001565	.0167765	.2443206
#2	-.002675	-.000427	-.001831	.003339	.000501	.0086861	.2451113
#3	.001711	-.003626	-.002621	-.004101	-.003546	.0144103	.2465602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000093	-.001475	23.57784	.0007754	.0042126	.0082113	17.24942
Stddev	.0000527	.000044	.10886	.0004866	.0000711	.0004134	.07779
%RSD	565.2698	3.011913	.4617139	62.74862	1.688081	5.034929	.4509997

#1	-.000051	-.001510	23.58316	.0013235	.0042706	.0078108	17.24403
#2	.000046	-.001425	23.68395	.0003943	.0041333	.0086365	17.17446
#3	.000033	-.001490	23.46642	.0006085	.0042339	.0081865	17.32977

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6386613	2.482293	.0138746	.0005286	262.3244	.0005468	.0809981
Stddev	.0002743	.022386	.0002214	.0002905	.5541	.0005539	.0002401
%RSD	.0429571	.9018435	1.596068	54.95050	.2112113	101.3078	.2964503

#1	.6383829	2.473453	.0139344	.0003439	262.8885	.0004657	.0807432
#2	.6389314	2.507750	.0136294	.0003785	262.3038	.0011368	.0812200
#3	.6386695	2.465676	.0140600	.0008634	261.7809	.0000378	.0810312

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.297134	.0922627	-.000499	-.004298	-.001019	.3400119	.0238274
Stddev	.018287	.0001156	.000112	.000486	.000450	.0111772	.0029260
%RSD	1.409839	.1253141	22.51169	11.30691	44.16742	3.287306	12.28009

#1	1.302077	.0923913	-.000622	-.004840	-.000554	.3341865	.0249968
#2	1.276882	.0922297	-.000472	-.003902	-.001453	.3528985	.0204975
#3	1.312441	.0921673	-.000403	-.004153	-.001049	.3329507	.0259879

Sample Name: Q1913-03MSD Acquired: 5/5/2025 17:08:58 Type: Unk
 Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7077744	.0014794	.0631664
Stddev	.0028926	.0005470	.0000451
%RSD	.4086859	36.97851	.0714127
#1	.7096584	.0015921	.0631200
#2	.7044439	.0019613	.0632101
#3	.7092210	.0008847	.0631693

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2891.516	72176.56	22859.52	1908.238	4454.270
Stddev	5.603	341.96	162.08	1.735	11.779
%RSD	.1937835	.4737785	.7090408	.0908968	.2644480
#1	2891.889	71783.23	22746.33	1908.455	4463.518
#2	2896.924	72403.27	22787.03	1906.405	4458.283
#3	2885.736	72343.19	23045.19	1909.854	4441.009

Sample Name: Q1913-03A Acquired: 5/5/2025 17:13:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7734770	1.743691	.8801098	1.917443	.7652059	1.794119	.4610190
Stddev	.0030308	.014893	.0025271	.007293	.0030440	.005317	.0002512
%RSD	.3918397	.8540889	.2871365	.3803327	.3977970	.2963493	.0544891

#1	.7705800	1.746793	.8778358	1.909816	.7645211	1.797372	.4612356
#2	.7732252	1.756788	.8796630	1.918166	.7685339	1.787984	.4610777
#3	.7766259	1.727492	.8828305	1.924347	.7625627	1.797003	.4607436

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1621467	.1827850	27.43549	.3610589	.1855048	.2814070	21.78351
Stddev	.0002878	.0007953	.06051	.0017465	.0006016	.0010565	.02884
%RSD	.1774898	.4350822	.2205446	.4837087	.3242852	.3754164	.1323976

#1	.1624577	.1825736	27.47365	.3600884	.1850966	.2801894	21.76016
#2	.1618898	.1836646	27.46709	.3600132	.1861956	.2820802	21.81575
#3	.1620927	.1821168	27.36572	.3630751	.1852222	.2819513	21.77463

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8903879	4.466962	.4561541	.0690228	290.4190	.2724757	.2751116
Stddev	.0015583	.016040	.0014960	.0002509	2.4981	.0002111	.0002166
%RSD	.1750180	.3590810	.3279581	.3635335	.8601846	.0774699	.0787188

#1	.8910778	4.478395	.4555900	.0692941	290.9557	.2724320	.2748695
#2	.8914821	4.473865	.4578501	.0687992	287.6962	.2722898	.2752868
#3	.8886036	4.448626	.4550221	.0689751	292.6052	.2727052	.2751787

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.89469	.3467586	.3950608	.6316547	.1818739	1.202519	5.666596
Stddev	.02901	.0006678	.0017798	.0027751	.0003317	.007052	.020880
%RSD	.2439146	.1925953	.4504996	.4393353	.1823708	.5864445	.3684781

#1	11.89312	.3467847	.3930059	.6309735	.1820991	1.194583	5.664705
#2	11.86650	.3474131	.3960668	.6347069	.1820295	1.204908	5.688358
#3	11.92446	.3460781	.3961098	.6292836	.1814930	1.208067	5.646726

Sample Name: Q1913-03A Acquired: 5/5/2025 17:13:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7711355	.1970687	.2584539
Stddev	.0071192	.0015725	.0001202
%RSD	.9232038	.7979368	.0464989
#1	.7752366	.1957214	.2585589
#2	.7752548	.1987965	.2583228
#3	.7629150	.1966883	.2584800

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2888.024	72267.17	22496.16	1902.003	4428.097
Stddev	7.427	75.66	56.97	5.574	15.566
%RSD	.2571564	.1046963	.2532555	.2930516	.3515372
#1	2890.416	72351.77	22486.06	1907.405	4427.213
#2	2879.696	72206.00	22444.91	1896.271	4412.992
#3	2893.961	72243.73	22557.50	1902.332	4444.087

Sample Name: PB167837BL Acquired: 5/5/2025 17:17:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000219	-.000594	-.000575	.0002513	.0006113	.0017890	-.008007
Stddev	.002570	.002141	.000886	.0013940	.0010216	.0038257	.000925
%RSD	1173.682	360.6474	153.9221	554.6885	167.1278	213.8488	11.54864

#1	-.002434	-.002390	-.001439	-.000266	-.000568	-.002297	-.007067
#2	-.000821	.001775	.000331	.001830	.001210	.002378	-.008916
#3	.002599	-.001165	-.000619	-.000810	.001193	.005286	-.008038

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000007	-.000369	-.002811	-.000164	-.000391	-.000109	-.009428
Stddev	.000072	.000006	.004901	.000307	.000074	.000112	.004058
%RSD	1003.730	1.586588	174.3555	187.4792	18.83608	102.9850	43.03969

#1	-.000054	-.000373	-.006342	-.000396	-.000344	.000007	-.008049
#2	-.000044	-.000372	.002785	-.000280	-.000352	-.000118	-.013996
#3	.000076	-.000363	-.004875	.000184	-.000475	-.000217	-.006240

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000774	-.001880	.0000171	.0000451	.1130033	-.000218	-.000771
Stddev	.000065	.007367	.0001435	.0002704	.0021060	.001601	.000396
%RSD	8.401050	391.8320	839.9049	599.3204	1.863705	733.5088	51.39781

#1	-.000714	.001542	-.000081	.0001517	.1118972	.001125	-.000517
#2	-.000843	.003154	.000182	-.000262	.1154320	.000210	-.000568
#3	-.000765	-.010336	-.000050	.000246	.1116809	-.001990	-.001227

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0794597	.0001075	-.000272	.0063303	-.000501	-.009667	-.003390
Stddev	.0339615	.0008148	.000199	.0008224	.000242	.001714	.001675
%RSD	42.74050	757.7973	73.23106	12.99073	48.37967	17.73164	49.40792

#1	.0509664	-.000652	-.000184	.0056568	-.000763	-.010026	-.005137
#2	.1170405	.000968	-.000132	.0072467	-.000284	-.011173	-.003235
#3	.0703722	.000006	-.000501	.0060872	-.000456	-.007802	-.001798

Sample Name: PB167837BL Acquired: 5/5/2025 17:17:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002997	.0054983	-.000544
Stddev	.003485	.0007164	.000044
%RSD	116.2854	13.02968	8.095741
#1	-.000077	.0060761	-.000570
#2	-.006855	.0046967	-.000493
#3	-.002058	.0057222	-.000569

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3009.113	73237.07	20303.91	1987.489	4850.046
Stddev	14.971	76.87	88.11	7.088	26.987
%RSD	.4975356	.1049631	.4339778	.3566294	.5564190
#1	3025.737	73325.40	20232.58	1993.546	4880.372
#2	2996.693	73185.35	20402.41	1989.227	4828.677
#3	3004.909	73200.45	20276.73	1979.694	4841.088

Sample Name: PB167815TB Acquired: 5/5/2025 17:31:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003527	-.004628	-.001684	.0051850	-.000752	-.007697	-.009799
Stddev	.002531	.001207	.000717	.0035435	.000040	.008484	.001469
%RSD	71.76226	26.06952	42.59881	68.34103	5.265494	110.2354	14.99126

#1	-.006237	-.005954	-.001748	.0092400	-.000732	-.008860	-.008482
#2	-.001224	-.004337	-.000936	.0036311	-.000725	.001309	-.011383
#3	-.003120	-.003594	-.002367	.0026840	-.000797	-.015539	-.009533

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000208	-.000490	.0099795	-.000253	-.000485	-.000017	.0522068
Stddev	.000020	.000070	.0045588	.000407	.000125	.000213	.0017207
%RSD	9.396924	14.27476	45.68156	161.1186	25.72783	1227.730	3.295850

#1	-.000193	-.000417	.0106104	-.000689	-.000416	.000186	.0502369
#2	-.000200	-.000496	.0051381	-.000185	-.000409	.000002	.0534162
#3	-.000230	-.000556	.0141900	.000116	-.000629	-.000240	.0529671

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002651	-.011529	.0006705	.0001544	346.4940	-.000467	-.000227
Stddev	.000379	.009770	.0003256	.0001350	2.9721	.001210	.000181
%RSD	14.29111	84.74063	48.55690	87.44825	.8577765	259.0662	79.91993

#1	-.002374	-.020155	.0010351	.0001479	344.7362	.000091	-.000436
#2	-.002497	-.013513	.0005677	.0002924	349.9256	-.001856	-.000122
#3	-.003083	-.000920	.0004087	.0000227	344.8201	.000364	-.000122

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078449	-.002267	-.000094	-.001450	-.000418	.0061757	.0042774
Stddev	.0092009	.000702	.000247	.000928	.000580	.0093580	.0019045
%RSD	117.2854	30.94787	263.5858	64.02297	138.7993	151.5277	44.52425

#1	.0085055	-.001468	-.000197	-.000384	.000208	.0168247	.0025623
#2	-.001669	-.002782	.000188	-.001883	-.000523	.0024391	.0039430
#3	.016698	-.002550	-.000272	-.002082	-.000938	-.000737	.0063270

Sample Name: PB167815TB Acquired: 5/5/2025 17:31:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0260943	-.002741	-.000571
Stddev	.0011984	.000373	.000049
%RSD	4.592414	13.62152	8.611468
#1	.0248686	-.003155	-.000622
#2	.0261512	-.002636	-.000567
#3	.0272633	-.002431	-.000524

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2884.826	71019.35	21644.21	1865.380	4440.474
Stddev	12.672	403.45	104.52	5.281	8.949
%RSD	.4392808	.5680840	.4828812	.2831209	.2015290
#1	2880.881	70598.44	21549.15	1861.931	4441.313
#2	2874.594	71056.88	21627.35	1862.750	4431.136
#3	2899.001	71402.72	21756.13	1871.460	4448.975

Sample Name: PB167837BS Acquired: 5/5/2025 17:36:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7464681	1.844138	.9131765	1.896356	.7541858	1.748611
Stddev	.0030959	.019515	.0008693	.012249	.0024046	.007058
%RSD	.4147361	1.058226	.0951907	.6459366	.3188268	.4036605

#1	.7478786	1.848543	.9136245	1.910293	.7569588	1.750209
#2	.7486076	1.822796	.9121746	1.891473	.7526780	1.740890
#3	.7429182	1.861074	.9137304	1.887301	.7529207	1.754733

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1699498	.1768624	.1843408	.9002096	.3650032	.1793157
Stddev	.0011322	.0010503	.0003955	.0122484	.0014590	.0003297
%RSD	.6662188	.5938383	.2145761	1.360617	.3997361	.1838525

#1	.1711882	.1780368	.1845726	.8969516	.3657287	.1796892
#2	.1696935	.1765374	.1838841	.9137576	.3633236	.1790652
#3	.1689676	.1760131	.1845657	.8899196	.3659572	.1791927

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2819978	2.694128	.1787908	1.755328	.4550118	.0678572
Stddev	.0010735	.015047	.0003222	.027891	.0015475	.0000623
%RSD	.3806716	.5585126	.1802255	1.588936	.3400920	.0917918

#1	.2831067	2.691866	.1788116	1.787490	.4565161	.0679128
#2	.2819232	2.680339	.1784586	1.737789	.4534245	.0678689
#3	.2809636	2.710177	.1791020	1.740705	.4550948	.0677899

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.702474	.2669754	.1832817	8.712112	.2752933	.3786569
Stddev	.018587	.0025052	.0005431	.062599	.0012005	.0005955
%RSD	.6877608	.9383722	.2963183	.7185270	.4360773	.1572616

#1	2.693749	.2695880	.1833281	8.749229	.2763668	.3792419
#2	2.689855	.2667447	.1827169	8.639838	.2755160	.3780515
#3	2.723818	.2645935	.1838001	8.747270	.2739970	.3786774

Sample Name: PB167837BS Acquired: 5/5/2025 17:36:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6439336	.1804832	.7670617	5.543249	F -.015755	.1892563
Stddev	.0029922	.0004888	.0143301	.028018	.001233	.0024459
%RSD	.4646811	.2708529	1.868178	.5054409	7.823153	1.292388

#1	.6434107	.1806410	.7834515	5.558937	-.015225	.1915524
#2	.6412373	.1799349	.7608372	5.510902	-.017163	.1895325
#3	.6471528	.1808736	.7568965	5.559908	-.014875	.1866840

Elem	Sr4077
Units	ppm
Avg	.1796011
Stddev	.0006203
%RSD	.3453829

#1	.1802825
#2	.1790691
#3	.1794519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2954.123	72381.13	20610.51	1963.188	4669.231
Stddev	6.201	294.04	124.30	9.009	12.249
%RSD	.2099152	.4062322	.6031033	.4589036	.2623321

#1	2949.104	72294.51	20468.84	1969.755	4661.503
#2	2961.055	72708.74	20661.42	1966.891	4683.354
#3	2952.209	72140.13	20701.28	1952.917	4662.837

Sample Name: PB167817BL Acquired: 5/5/2025 17:41:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0028974	-.000044	-.001883	.0031618	.0004413	-.003239	-.005701
Stddev	.0007816	.001485	.001024	.0004326	.0023638	.003939	.000393
%RSD	26.97484	3364.102	54.40408	13.68306	535.6321	121.6236	6.888192

#1	.0020296	-.001755	-.001246	.0027940	-.002232	-.006965	-.005494
#2	.0035460	.000715	-.001338	.0030529	.002254	-.003635	-.005455
#3	.0031165	.000908	-.003064	.0036385	.001303	.000884	-.006154

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000025	-.000337	.0051417	-.000274	-.000507	-.000422	-.000698
Stddev	.000058	.000036	.0090571	.000165	.000199	.000073	.000659
%RSD	238.5742	10.71158	176.1484	60.10370	39.28316	17.35097	94.48760

#1	-.000081	-.000374	.0071041	-.000317	-.000380	-.000498	-.000184
#2	-.000028	-.000335	-.004736	-.000413	-.000405	-.000416	-.000468
#3	.000036	-.000302	.013057	-.000092	-.000737	-.000352	-.001441

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000939	-.006039	-.000037	-.000051	.0144009	-.000337	-.001225
Stddev	.000268	.014308	.000307	.000226	.0092393	.001094	.000348
%RSD	28.59879	236.9254	834.4783	441.2595	64.15800	324.0983	28.37388

#1	-.000686	.000690	-.000219	-.000287	.0137999	.000725	-.001607
#2	-.000909	.003664	-.000208	.000162	.0239261	-.000277	-.000927
#3	-.001220	-.022472	.000317	-.000028	.0054767	-.001460	-.001141

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001771	-.001733	-.000357	.0065697	.0000592	-.009317	.0008194
Stddev	.017665	.000406	.000327	.0006133	.0009073	.000332	.0040906
%RSD	997.7054	23.41367	91.64319	9.334827	1531.788	3.558569	499.2425

#1	.005727	-.002056	.000013	.0058671	.0008852	-.009676	.0031122
#2	.010909	-.001865	-.000476	.0068445	-.000912	-.009023	.0032492
#3	-.021947	-.001278	-.000607	.0069974	.000204	-.009251	-.003903

Sample Name: PB167817BL Acquired: 5/5/2025 17:41:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003299	.0017222	-.000541
Stddev	.001275	.0002288	.000065
%RSD	38.64670	13.28553	12.03154

#1	-.002598	.0019845	-.000603
#2	-.004770	.0016181	-.000474
#3	-.002528	.0015639	-.000546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3017.222	71704.48	20927.56	1956.810	4834.959
Stddev	9.713	547.89	140.44	17.667	13.570
%RSD	.3219109	.7640887	.6710656	.9028453	.2806618

#1	3016.443	72155.64	20909.75	1971.080	4835.447
#2	3027.301	71862.98	20796.88	1962.299	4848.279
#3	3007.923	71094.82	21076.05	1937.050	4821.152

Sample Name: PB167817BS Acquired: 5/5/2025 17:46:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7191804	1.811161	.8933622	1.816243	.7361210	1.720917
Stddev	.0059961	.014672	.0006752	.004933	.0021703	.010237
%RSD	.8337396	.8100823	.0755775	.2716195	.2948242	.5948856

#1	.7192485	1.808155	.8927675	1.810622	.7336680	1.719385
#2	.7251422	1.827104	.8932230	1.818248	.7369036	1.731834
#3	.7131506	1.798226	.8940961	1.819857	.7377915	1.711532

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1715168	.1739848	.1793749	.8896572	.3651600	.1748937
Stddev	.0007575	.0006126	.0001803	.0061081	.0006794	.0005020
%RSD	.4416648	.3520996	.1005329	.6865694	.1860429	.2870067

#1	.1717159	.1741597	.1792361	.8827861	.3652998	.1743320
#2	.1706796	.1733038	.1793099	.8917148	.3644216	.1750510
#3	.1721549	.1744910	.1795787	.8944709	.3657585	.1752982

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2736607	2.730750	.1774450	1.742698	.4441915	.0673187
Stddev	.0003099	.014050	.0011439	.007663	.0009780	.0003330
%RSD	.1132434	.5144975	.6446428	.4397250	.2201702	.4946848

#1	.2737766	2.722390	.1765364	1.747782	.4432909	.0669428
#2	.2738959	2.722890	.1770690	1.746428	.4440520	.0675768
#3	.2733095	2.746971	.1787295	1.733884	.4452318	.0674366

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.677783	.2662889	.1822153	8.775890	.2702178	.3771590
Stddev	.014030	.0025477	.0012334	.076431	.0014804	.0003531
%RSD	.5239427	.9567330	.6768792	.8709229	.5478709	.0936274

#1	2.661711	.2650544	.1829676	8.697301	.2711013	.3769968
#2	2.687582	.2645936	.1807919	8.849963	.2685087	.3775641
#3	2.684055	.2692186	.1828864	8.780407	.2710435	.3769161

Sample Name: PB167817BS Acquired: 5/5/2025 17:46:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6303253	.1809568	.7840147	5.306127	F -.011379	.1833912
Stddev	.0017723	.0011888	.0069128	.007623	.003795	.0010289
%RSD	.2811752	.6569687	.8817167	.1436610	33.34766	.5610535

#1	.6299806	.1819947	.7893609	5.301466	-.012942	.1825430
#2	.6322446	.1812159	.7864748	5.301990	-.014143	.1830948
#3	.6287506	.1796598	.7762083	5.314923	-.007053	.1845358

Elem	Sr4077
Units	ppm
Avg	.1787047
Stddev	.0004492
%RSD	.2513754

#1	.1782174
#2	.1787943
#3	.1791023

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3038.303	71929.88	20898.02	1961.061	4844.676
Stddev	5.159	30.30	62.70	4.832	5.055
%RSD	.1697923	.0421236	.3000180	.2463875	.1043488

#1	3043.357	71895.11	20837.46	1957.622	4848.884
#2	3038.508	71950.66	20962.66	1958.976	4846.076
#3	3033.046	71943.85	20893.95	1966.585	4839.068

Sample Name: PB167832BL Acquired: 5/5/2025 17:51:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001557	.0005069	-.001017	.0027604	-.001987	-.006381	-.004605
Stddev	.002185	.0003421	.001199	.0012017	.001426	.009013	.001385
%RSD	140.3634	67.47889	117.9590	43.53439	71.77212	141.2448	30.07354

#1	.000401	.0001121	-.001956	.0014981	-.000617	.003714	-.003236
#2	-.001158	.0006961	-.001429	.0028924	-.001881	-.009239	-.006005
#3	-.003914	.0007127	.000334	.0038907	-.003464	-.013619	-.004574

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000001	-.000268	.0061017	-.000207	-.000064	-.000347	-.012007
Stddev	.000047	.000103	.0058074	.000163	.000081	.000395	.004743
%RSD	7900.376	38.38619	95.17731	78.53489	126.8529	113.9887	39.50090

#1	-.000010	-.000325	.0039956	-.000028	-.000025	-.000635	-.016957
#2	-.000042	-.000330	.0126682	-.000346	-.000009	.000104	-.011561
#3	.000050	-.000149	.0016411	-.000246	-.000157	-.000509	-.007503

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001746	.0089879	.0000774	-.000079	-.008802	-.000616	-.000603
Stddev	.000402	.0118517	.0001579	.000267	.004224	.001417	.000098
%RSD	23.00699	131.8629	203.9373	338.4711	47.99328	229.8739	16.30698

#1	-.001539	.0090704	.0000552	-.000273	-.013062	-.000996	-.000594
#2	-.001490	.0207981	-.000068	.000225	-.008730	.000952	-.000510
#3	-.002209	-.002905	.000245	-.000188	-.004614	-.001805	-.000706

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047522	-.001774	.0001855	.0119709	.0001916	-.004674	-.000080
Stddev	.0255323	.000761	.0001977	.0003629	.0003952	.002273	.002716
%RSD	537.2690	42.89352	106.6189	3.031782	206.1984	48.62015	3405.945

#1	.0335869	-.001051	.0003487	.0118920	.0000141	-.006787	-.001801
#2	-.004344	-.002568	-.000034	.0116539	-.000084	-.002270	.003051
#3	-.014987	-.001703	.000242	.0123668	.000644	-.004967	-.001490

Sample Name: PB167832BL Acquired: 5/5/2025 17:51:11 Type: Unk
 Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0007308	.0011095	-.000199
Stddev	.0015097	.0013970	.000052
%RSD	206.5976	125.9188	26.26896
#1	.0016248	.0015538	-.000178
#2	.0015798	.0022302	-.000161
#3	-.001012	-.000456	-.000259

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3022.650	71539.47	20551.51	1935.193	4878.831
Stddev	1.295	141.72	17.44	6.697	1.457
%RSD	.0428417	.1981066	.0848833	.3460380	.0298591
#1	3021.205	71443.76	20557.27	1927.756	4878.173
#2	3023.038	71472.37	20531.91	1937.076	4877.819
#3	3023.707	71702.29	20565.34	1940.746	4880.500

Sample Name: CCV04 Acquired: 5/5/2025 17:55:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.927615	4.864326	4.873615	4.980050	4.970753	9.610465	9.685065
Stddev	.027590	.047306	.009300	.035287	.039620	.013966	.108047
%RSD	.5599031	.9725185	.1908332	.7085639	.7970714	.1453161	1.115601

#1	4.906015	4.816089	4.865577	4.952272	4.943351	9.621714	9.785099
#2	4.918134	4.910643	4.871468	4.968122	4.952726	9.614847	9.570480
#3	4.958695	4.866246	4.883802	5.019754	5.016181	9.594834	9.699616

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2299706	2.418162	23.82713	.9765638	2.417849	1.222873	4.986336
Stddev	.0004542	.000512	.01891	.0048359	.002462	.005070	.022678
%RSD	.1974819	.0211695	.0793820	.4951926	.1018305	.4145721	.4547996

#1	.2301836	2.417629	23.84272	.9817677	2.415821	1.221374	5.012400
#2	.2302791	2.418208	23.83258	.9722082	2.417138	1.218722	4.975491
#3	.2294491	2.418650	23.80609	.9757154	2.420589	1.228523	4.971118

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.355526	23.63970	2.424378	1.200627	24.44218	2.407834	2.418353
Stddev	.003401	.04090	.002875	.001272	.09400	.006044	.011794
%RSD	.1443921	.1730185	.1185900	.1059504	.3845831	.2510338	.4877034

#1	2.357435	23.67259	2.421828	1.201842	24.54548	2.411392	2.429450
#2	2.357545	23.59390	2.423812	1.200736	24.36167	2.411255	2.419642
#3	2.351600	23.65261	2.427494	1.199304	24.41938	2.400855	2.405968

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.21539	4.619776	4.961773	4.859168	4.795338	4.843563	4.792495
Stddev	.11790	.008730	.025392	.010933	.009732	.033723	.010958
%RSD	.4868770	.1889721	.5117462	.2249910	.2029574	.6962433	.2286536

#1	24.34689	4.618037	4.948593	4.848884	4.806035	4.860857	4.781203
#2	24.11913	4.629244	4.945680	4.870650	4.787006	4.804701	4.803086
#3	24.18016	4.612046	4.991044	4.857971	4.792973	4.865131	4.793196

Sample Name: CCV04 Acquired: 5/5/2025 17:55:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.784418	4.678659	4.839051
Stddev	.020662	.012058	.027837
%RSD	.4318543	.2577126	.5752554
#1	4.765294	4.692579	4.870676
#2	4.781626	4.671440	4.828216
#3	4.806334	4.671959	4.818260

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2987.958	72809.75	21082.77	1905.667	4581.568
Stddev	9.926	359.45	69.84	11.278	12.311
%RSD	.3321947	.4936821	.3312782	.5918064	.2687149
#1	2979.760	72396.46	21015.85	1894.038	4567.521
#2	2998.994	72983.26	21077.24	1906.404	4586.695
#3	2985.121	73049.53	21155.21	1916.558	4590.487

Sample Name: CCB04 Acquired: 5/5/2025 17:59:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0003863	-.000162	.0006786	.0019877	.0005818	.0054453	-.004735
Stddev	.0015986	.000820	.0015628	.0044249	.0006601	.0020506	.000869
%RSD	413.8135	504.7160	230.2775	222.6089	113.4508	37.65862	18.35196

#1	.0020106	.000517	-.000208	.0029447	.0011389	.0076078	-.005062
#2	.0003336	.000069	-.000239	.0058559	-.000147	.0035286	-.005393
#3	-.001185	-.001073	.002483	-.002837	.000754	.0051996	-.003750

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000676	.0004454	.0245371	.0002035	.0003675	.0003917	.0014885
Stddev	.0000664	.0000501	.0027087	.0001368	.0000388	.0002517	.0057581
%RSD	98.16720	11.25502	11.03935	67.23044	10.56109	64.24972	386.8298

#1	.0000909	.0003875	.0246932	.0000680	.0003818	.0006465	.0070208
#2	-.000007	.0004727	.0271644	.0002010	.0003971	.0001433	.0019164
#3	.000119	.0004759	.0217536	.0003416	.0003236	.0003852	-.004472

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022486	.0151493	.0006107	.0004883	-.013457	.0008101	.0021246
Stddev	.0001060	.0066480	.0002347	.0001018	.007713	.0009873	.0002855
%RSD	4.714520	43.88284	38.42625	20.85222	57.31231	121.8749	13.43808

#1	.0021305	.0227662	.0008336	.0005124	-.010094	-.000055	.0023876
#2	.0023357	.0121669	.0006327	.0005758	-.007997	.000600	.0021653
#3	.0022795	.0105148	.0003658	.0003765	-.022280	.001886	.0018209

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0208154	.0077630	.0015953	.0060169	.0018835	.0039009	.0010588
Stddev	.0063919	.0001935	.0003678	.0002845	.0007070	.0103004	.0010904
%RSD	30.70756	2.491957	23.05569	4.728210	37.53693	264.0494	102.9837

#1	.0223873	.0075485	.0018637	.0061650	.0021662	.0053256	.0022119
#2	.0262746	.0079242	.0017462	.0056889	.0010789	.0134149	.0000443
#3	.0137842	.0078162	.0011761	.0061969	.0024055	-.007038	.0009203

Sample Name: CCB04 Acquired: 5/5/2025 17:59:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0049136	.0018011	.0009720
Stddev	.0004200	.0006411	.0000524
%RSD	8.548556	35.59665	5.387476
#1	.0044909	.0011045	.0009246
#2	.0049192	.0023664	.0009632
#3	.0053309	.0019325	.0010282

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3058.990	74413.90	21395.53	2010.529	4899.810
Stddev	3.977	415.46	24.64	4.154	3.250
%RSD	.1299940	.5583106	.1151654	.2065944	.0663379
#1	3054.508	74689.52	21407.92	2014.180	4896.322
#2	3060.368	74616.14	21411.52	2006.010	4902.755
#3	3062.095	73936.04	21367.15	2011.399	4900.354

Sample Name: PB167832BS Acquired: 5/5/2025 18:04:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7439573	1.839082	.9085927	1.873638	.7470876	1.746542
Stddev	.0087428	.006474	.0080455	.013497	.0062440	.006568
%RSD	1.175169	.3520089	.8854952	.7203708	.8357744	.3760819

#1	.7539808	1.831607	.9171658	1.888327	.7534569	1.741562
#2	.7399865	1.842868	.9074057	1.861782	.7409770	1.744079
#3	.7379047	1.842771	.9012066	1.870806	.7468288	1.753986

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1696076	.1799904	.1832373	.8948695	.3627302	.1784049
Stddev	.0017251	.0010019	.0016577	.0045272	.0013048	.0012535
%RSD	1.017082	.5566158	.9046771	.5059014	.3597284	.7026199

#1	.1676487	.1809271	.1851372	.8925945	.3630991	.1798512
#2	.1702745	.1801101	.1824891	.9000829	.3638109	.1776320
#3	.1708996	.1789341	.1820856	.8919310	.3612806	.1777315

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2788012	2.650471	.1791049	1.711240	.4534638	.0676946
Stddev	.0024832	.016339	.0011588	.005634	.0035841	.0004520
%RSD	.8906751	.6164529	.6470210	.3292342	.7903933	.6676772

#1	.2815032	2.641860	.1779679	1.707052	.4574746	.0674789
#2	.2766192	2.669315	.1802844	1.717645	.4523423	.0682140
#3	.2782812	2.640239	.1790623	1.709023	.4505745	.0673908

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.630451	.2676872	.1831697	8.581719	.2879138	.3788440
Stddev	.007214	.0006747	.0011061	.056241	.0005174	.0032416
%RSD	.2742431	.2520417	.6038442	.6553577	.1796950	.8556443

#1	2.623972	.2672866	.1819052	8.531030	.2882513	.3825844
#2	2.629157	.2684662	.1836461	8.642220	.2881719	.3768532
#3	2.638224	.2673088	.1839576	8.571907	.2873182	.3770943

Sample Name: PB167832BS Acquired: 5/5/2025 18:04:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6412582	.1810721	.7513597	5.437079	F -.012060	.1875045
Stddev	.0047494	.0007026	.0155905	.028970	.005140	.0007602
%RSD	.7406316	.3880248	2.074974	.5328253	42.62039	.4054021

#1	.6467401	.1803289	.7452270	5.469013	-.006502	.1871447
#2	.6383829	.1811619	.7690841	5.429739	-.016643	.1883778
#3	.6386516	.1817255	.7397681	5.412485	-.013036	.1869911

Elem	Sr4077
Units	ppm
Avg	.1792648
Stddev	.0005510
%RSD	.3073663

#1	.1792068
#2	.1798424
#3	.1787450

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3047.545	74205.82	20785.49	2006.191	4817.250
Stddev	24.728	159.79	65.57	3.243	36.992
%RSD	.8114017	.2153328	.3154763	.1616386	.7679026

#1	3020.179	74278.12	20726.56	2009.923	4774.838
#2	3068.284	74022.65	20773.78	2004.065	4842.853
#3	3054.173	74316.67	20856.13	2004.584	4834.058

Sample Name: PB167868BL Acquired: 5/5/2025 18:10:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000759	-.000230	-.000089	.0046415	-.001365	-.008597	-.006716
Stddev	.003399	.000810	.001239	.0024526	.001431	.001530	.000981
%RSD	447.5205	351.3969	1390.455	52.83980	104.9010	17.79734	14.60570

#1	-.003391	.000686	-.000536	.0073943	.000251	-.009851	-.005613
#2	-.001965	-.000528	-.001043	.0026892	-.001871	-.009049	-.007490
#3	.003078	-.000850	.001312	.0038410	-.002474	-.006892	-.007045

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000057	-.000372	-.001955	-.000174	-.000313	-.000135	-.015521
Stddev	.000066	.000065	.010384	.000231	.000068	.000382	.001095
%RSD	115.8464	17.36775	531.1794	132.2370	21.55441	282.9708	7.053065

#1	-.000133	-.000443	-.005267	-.000098	-.000249	-.000296	-.016698
#2	-.000028	-.000318	-.010279	-.000434	-.000383	.000301	-.014532
#3	-.000011	-.000353	.009681	.000008	-.000308	-.000410	-.015334

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001518	.0060099	-.000168	-.000400	-.022590	-.001203	-.000713
Stddev	.000359	.0111255	.000392	.000188	.004230	.000511	.000249
%RSD	23.67320	185.1181	233.5687	46.93939	18.72426	42.48782	34.93916

#1	-.001697	.0188563	.000266	-.000189	-.025676	-.001369	-.000612
#2	-.001753	-.000359	-.000272	-.000463	-.017769	-.000629	-.000530
#3	-.001104	-.000467	-.000497	-.000549	-.024325	-.001610	-.000997

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.021120	.0005372	-.000322	-.001501	-.000404	-.003736	-.001994
Stddev	.020187	.0005341	.000387	.000815	.000469	.013397	.002351
%RSD	95.58245	99.41334	120.1360	54.29256	116.0168	358.6242	117.9345

#1	-.043639	.0008362	-.000436	-.000580	.000047	-.011658	-.004675
#2	-.004648	-.000079	.000109	-.002129	-.000889	.011732	-.001023
#3	-.015072	.000855	-.000639	-.001794	-.000371	-.011281	-.000283

Sample Name: PB167868BL Acquired: 5/5/2025 18:10:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001579	-.000139	-.000571
Stddev	.004664	.000055	.000022
%RSD	295.4641	39.97369	3.781369
#1	-.006805	-.000194	-.000587
#2	.002160	-.000139	-.000581
#3	-.000090	-.000083	-.000547

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3123.455	74966.15	21801.46	2030.694	5037.287
Stddev	8.549	119.82	21.92	6.003	15.143
%RSD	.2737185	.1598313	.1005513	.2956045	.3006153
#1	3131.753	75064.78	21825.08	2027.849	5053.694
#2	3123.939	74832.81	21797.53	2026.641	5034.319
#3	3114.674	75000.86	21781.77	2037.590	5023.848

Sample Name: PB167868BS Acquired: 5/5/2025 18:14:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7599195	1.834376	.9116634	1.906898	.7617468	1.728064
Stddev	.0113787	.031155	.0146708	.038627	.0138006	.004137
%RSD	1.497352	1.698404	1.609228	2.025640	1.811700	.2393833

#1	.7493910	1.834151	.9030618	1.879819	.7512070	1.724272
#2	.7583764	1.803333	.9033254	1.889744	.7566658	1.732476
#3	.7719909	1.865642	.9286030	1.951131	.7773675	1.727443

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1650631	.1758010	.1846414	.8701819	.3607827	.1783912
Stddev	.0018689	.0002953	.0028856	.0054191	.0007117	.0033205
%RSD	1.132214	.1679668	1.562827	.6227530	.1972533	1.861359

#1	.1668878	.1760257	.1831449	.8757941	.3607800	.1762901
#2	.1631530	.1754665	.1828114	.8649792	.3600724	.1766642
#3	.1651485	.1759107	.1879679	.8697725	.3614957	.1822193

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2806999	2.634221	.1743236	1.698014	.4545459	.0673413
Stddev	.0049841	.013290	.0012331	.008171	.0067627	.0003320
%RSD	1.775601	.5045201	.7073602	.4812344	1.487798	.4930779

#1	.2776338	2.649520	.1755306	1.704566	.4508647	.0673044
#2	.2780151	2.627609	.1730659	1.700618	.4504224	.0676902
#3	.2864509	2.625533	.1743743	1.688858	.4623506	.0670292

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.610603	.2627833	.1812210	8.497748	.2776215	.3808669
Stddev	.002281	.0029422	.0009283	.023432	.0008207	.0063601
%RSD	.0873584	1.119635	.5122432	.2757403	.2956164	1.669898

#1	2.608627	.2658753	.1801502	8.507240	.2771510	.3763831
#2	2.610084	.2600182	.1817144	8.471059	.2785691	.3780717
#3	2.613099	.2624565	.1817983	8.514944	.2771442	.3881459

Sample Name: PB167868BS Acquired: 5/5/2025 18:14:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6482559	.1780220	.7601401	5.564134	F -.011573	.1841186
Stddev	.0090475	.0019094	.0073955	.091053	.002692	.0016268
%RSD	1.395665	1.072541	.9729147	1.636423	23.26013	.8835387

#1	.6444335	.1798819	.7684047	5.514245	-.010500	.1829082
#2	.6417470	.1760668	.7578694	5.508929	-.014636	.1859678
#3	.6585873	.1781173	.7541462	5.669228	-.009583	.1834798

Elem	Sr4077
Units	ppm
Avg	.1755321
Stddev	.0009191
%RSD	.5235839

#1	.1765039
#2	.1746770
#3	.1754154

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2978.694	73824.80	21018.99	1982.530	4700.359
Stddev	41.363	112.31	61.49	8.061	62.925
%RSD	1.388640	.1521251	.2925457	.4065918	1.338721

#1	3010.940	73700.55	20959.01	1991.831	4744.260
#2	2993.085	73854.76	21016.09	1977.560	4728.549
#3	2932.058	73919.08	21081.88	1978.199	4628.269

Sample Name: PB167774TB Acquired: 5/5/2025 18:18:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003977	-.004533	-.000528	.0037739	.0009146	-.004047	-.012067
Stddev	.001767	.002947	.002091	.0015128	.0017695	.004030	.000585
%RSD	44.42600	65.00643	395.9187	40.08575	193.4736	99.57133	4.850071

#1	-.005946	-.005026	-.000364	.0045864	.0026672	.000576	-.012531
#2	-.003456	-.007203	-.002696	.0020285	.0009479	-.005898	-.012260
#3	-.002529	-.001371	.001476	.0047068	-.000871	-.006819	-.011409

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000180	-.000501	.0075526	.0027513	-.000552	.0002494	-.005385
Stddev	.000009	.000043	.0038087	.0006054	.000233	.0000685	.005790
%RSD	4.941904	8.585438	50.42949	22.00416	42.09502	27.48263	107.5205

#1	-.000190	-.000480	.0113815	.0033975	-.000313	.0001716	-.003051
#2	-.000174	-.000551	.0075119	.0026591	-.000566	.0002754	-.001126
#3	-.000176	-.000474	.0037644	.0021973	-.000777	.0003011	-.011978

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001368	-.006330	.0032648	.0000218	336.9867	-.001187	.0021742
Stddev	.000127	.004816	.0002120	.0001740	1.8816	.000511	.0002971
%RSD	9.267817	76.08809	6.492259	798.8709	.5583511	43.02948	13.66301

#1	-.001397	-.001577	.0033856	-.000107	339.1574	-.000598	.0024980
#2	-.001477	-.006206	.0033888	-.000048	335.9822	-.001473	.0019142
#3	-.001229	-.011207	.0030201	.000220	335.8206	-.001491	.0021105

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.021521	-.001491	-.000026	-.000967	-.000667	.0025981	.0025197
Stddev	.025437	.000470	.000196	.000232	.000308	.0042759	.0018430
%RSD	118.1960	31.53477	756.1200	24.00896	46.20266	164.5748	73.14358

#1	-.012846	-.000948	-.000030	-.000871	-.000640	.0001965	.0043364
#2	-.001556	-.001748	-.000220	-.000798	-.000373	.0075349	.0025712
#3	-.050161	-.001776	.000172	-.001231	-.000987	.0000630	.0006515

Sample Name: PB167774TB Acquired: 5/5/2025 18:18:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0218038	-.001759	-.000555
Stddev	.0050072	.001019	.000036
%RSD	22.96471	57.89836	6.507437

#1	.0264967	-.002746	-.000592
#2	.0165325	-.001820	-.000520
#3	.0223822	-.000711	-.000552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.128	70762.24	23292.46	1850.583	4480.755
Stddev	16.669	338.36	290.50	5.469	21.578
%RSD	.5725915	.4781587	1.247170	.2955343	.4815683

#1	2916.372	70420.56	23616.86	1844.564	4494.782
#2	2924.544	70769.00	23204.16	1855.248	4491.575
#3	2892.467	71097.17	23056.36	1851.937	4455.908

Sample Name: PB167858BL Acquired: 5/5/2025 18:22:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001973	-.000489	-.000775	.0012376	-.001761	-.002002	-.007734
Stddev	.004101	.001330	.000851	.0045851	.001391	.003977	.000620
%RSD	207.8231	272.1785	109.7655	370.4864	79.01146	198.6249	8.012142

#1	-.006580	-.001566	-.000375	-.003055	-.001130	-.002421	-.008229
#2	-.000618	.000997	-.000199	.006068	-.003356	.002167	-.007039
#3	.001279	-.000896	-.001753	.000700	-.000797	-.005753	-.007934

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000067	-.000407	-.002178	.0001990	-.000301	-.000381	-.010467
Stddev	.000035	.000027	.011196	.0001574	.000259	.000132	.001373
%RSD	52.46484	6.705880	513.9743	79.09819	85.98174	34.61549	13.11910

#1	-.000030	-.000425	.006775	.0001823	-.000599	-.000477	-.010850
#2	-.000073	-.000420	.001421	.0000506	-.000174	-.000231	-.008942
#3	-.000100	-.000376	-.014731	.0003640	-.000130	-.000435	-.011607

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001281	-.003237	-.000052	-.000109	.0074778	-.001237	-.001304
Stddev	.000211	.016992	.000119	.000402	.0046611	.001283	.000115
%RSD	16.48031	524.8548	227.1406	367.5078	62.33203	103.7464	8.811848

#1	-.001463	-.005996	.000072	-.000241	.0021492	.000239	-.001307
#2	-.001331	-.018682	-.000166	.000342	.0107980	-.002087	-.001418
#3	-.001050	.014965	-.000063	-.000430	.0094862	-.001863	-.001188

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001815	-.001097	-.000339	-.000202	.0000725	.0039449	-.001424
Stddev	.031283	.000326	.000349	.000567	.0011313	.0106486	.001936
%RSD	1723.560	29.67274	102.7540	281.2519	1559.641	269.9344	135.9311

#1	-.028235	-.000812	.000060	.000407	-.000938	-.005123	-.002283
#2	-.009940	-.001028	-.000492	-.000716	.001295	.001288	.000793
#3	.032729	-.001452	-.000586	-.000295	-.000139	.015671	-.002783

Sample Name: PB167858BL Acquired: 5/5/2025 18:22:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001790	.0006872	-.000622
Stddev	.002284	.0006939	.000084
%RSD	127.5646	100.9689	13.47013
#1	.000780	.0006436	-.000572
#2	-.002566	.0000162	-.000718
#3	-.003585	.0014018	-.000575

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3048.850	74765.22	22066.22	2001.277	4877.775
Stddev	12.539	182.45	63.19	2.775	8.811
%RSD	.4112584	.2440291	.2863693	.1386616	.1806333
#1	3049.412	74807.72	22001.42	2000.702	4879.497
#2	3061.098	74565.27	22127.67	1998.835	4885.598
#3	3036.040	74922.67	22069.58	2004.295	4868.231

Sample Name: PB167858BS Acquired: 5/5/2025 18:27:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7394059	1.831999	.9130306	1.874278	.7578256	1.737213
Stddev	.0054407	.007926	.0064461	.004408	.0036988	.006478
%RSD	.7358159	.4326214	.7060080	.2351851	.4880743	.3729213

#1	.7331364	1.830137	.9075193	1.873343	.7539895	1.738058
#2	.7428879	1.825170	.9201188	1.870413	.7581176	1.743227
#3	.7421934	1.840690	.9114537	1.879079	.7613697	1.730353

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1744659	.1709410	.1842813	.8957893	.3665746	.1788908
Stddev	.0009727	.0006998	.0003601	.0068555	.0015664	.0001255
%RSD	.5575349	.4093584	.1953990	.7652987	.4272934	.0701321

#1	.1755422	.1715191	.1838829	.9003967	.3683817	.1788296
#2	.1742057	.1711409	.1843775	.8990601	.3656058	.1788077
#3	.1736497	.1701631	.1845835	.8879110	.3657363	.1790351

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2790343	2.794940	.1789996	1.732358	.4557678	.0679982
Stddev	.0009943	.007423	.0017009	.004707	.0006733	.0001792
%RSD	.3563234	.2655928	.9502338	.2716992	.1477263	.2635481

#1	.2785369	2.801231	.1797075	1.735377	.4553298	.0680648
#2	.2783870	2.796836	.1802323	1.726934	.4565431	.0681346
#3	.2801792	2.786753	.1770591	1.734761	.4554306	.0677953

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.741925	.2671504	.1837215	9.027829	.2689694	.3836606
Stddev	.010268	.0019146	.0008067	.036108	.0011338	.0008559
%RSD	.3744828	.7166605	.4390698	.3999633	.4215482	.2230799

#1	2.749707	.2688349	.1831180	9.044612	.2701197	.3834212
#2	2.745780	.2675482	.1846377	8.986384	.2689357	.3829499
#3	2.730287	.2650683	.1834088	9.052490	.2678528	.3846107

Sample Name: PB167858BS Acquired: 5/5/2025 18:27:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6467006	.1842298	.7988479	5.421067	F -.006147	.1865813
Stddev	.0022610	.0011962	.0070315	.012029	.001039	.0004206
%RSD	.3496229	.6492793	.8802013	.2218848	16.90238	.2254095

#1	.6450858	.1852075	.7982136	5.408357	-.007342	.1865812
#2	.6457314	.1845858	.7921551	5.422573	-.005635	.1861608
#3	.6492847	.1828960	.8061751	5.432272	-.005462	.1870020

Elem	Sr4077
Units	ppm
Avg	.1826957
Stddev	.0007917
%RSD	.4333661

#1	.1834530
#2	.1827605
#3	.1818735

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3055.164	74333.14	21933.47	2008.064	4835.633
Stddev	5.285	134.92	72.43	1.645	5.096
%RSD	.1729776	.1815070	.3302121	.0819384	.1053755

#1	3060.230	74214.91	21857.33	2006.351	4841.272
#2	3055.577	74480.12	21941.58	2008.210	4831.358
#3	3049.685	74304.40	22001.50	2009.632	4834.270

Sample Name: Q1922-01 Acquired: 5/5/2025 18:31:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0422206	.0122010	.1727172	-.052541	-.006332	125.9898	2.004368
Stddev	.0055701	.0013320	.0026738	.002939	.001870	.7859	.015373
%RSD	13.19278	10.91743	1.548057	5.593192	29.53011	.6237865	.7669977

#1	.0357968	.0136881	.1697898	-.053858	-.005209	126.1200	2.003537
#2	.0451556	.0111174	.1750304	-.054591	-.008491	125.1470	1.989427
#3	.0457095	.0117974	.1733314	-.049174	-.005297	126.7025	2.020140

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0119360	-.005251	26.07971	.2654565	.1349149	.1065782	312.6348
Stddev	.0000576	.000435	.11488	.0001880	.0005526	.0004030	1.7453
%RSD	.4822348	8.275226	.4404877	.0708137	.4095757	.3781024	.5582684

#1	.0119487	-.005006	26.11743	.2653033	.1342791	.1064145	312.2635
#2	.0119861	-.004995	25.95071	.2656662	.1352796	.1070372	311.1051
#3	.0118731	-.005753	26.17098	.2653999	.1351859	.1062828	314.5360

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.884367	55.82746	.2911051	.0041900	4.247177	.3640050	.6319383
Stddev	.021598	.09723	.0009564	.0004839	.058982	.0009867	.0015409
%RSD	.4421787	.1741547	.3285588	11.54905	1.388736	.2710688	.2438418

#1	4.892255	55.80987	.2900243	.0043240	4.222929	.3646782	.6335537
#2	4.859935	55.74024	.2914487	.0036532	4.204183	.3644646	.6304846
#3	4.900912	55.93228	.2918423	.0045927	4.314418	.3628724	.6317766

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.88909	1.064868	.0018551	.0014810	3.637463	5.369900	6.950265
Stddev	.17525	.007343	.0002692	.0017485	.023357	.039291	.019276
%RSD	1.037634	.6895959	14.50997	118.0645	.6421339	.7316939	.2773441

#1	16.84335	1.062137	.0020818	.0009902	3.640175	5.350369	6.932329
#2	16.74125	1.059282	.0019260	.0034225	3.612868	5.344201	6.947819
#3	17.08267	1.073186	.0015576	.0000303	3.659346	5.415130	6.970648

Sample Name: Q1922-01 Acquired: 5/5/2025 18:31:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4528067	.4230215	-.181021
Stddev	.0079776	.0033726	.000775
%RSD	1.761822	.7972603	.4283173
#1	.4452542	.4228674	-.180783
#2	.4520155	.4197286	-.180393
#3	.4611505	.4264685	-.181888

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3414.730	82085.74	25180.26	2222.639	4385.308
Stddev	1.109	145.87	41.09	1.145	9.289
%RSD	.0324804	.1777056	.1631815	.0515156	.2118251
#1	3415.537	82169.91	25137.59	2223.632	4394.316
#2	3413.465	82170.00	25183.64	2221.386	4375.761
#3	3415.187	81917.30	25219.56	2222.898	4385.847

Sample Name: Q1922-05 Acquired: 5/5/2025 18:35:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0426053	.0146371	.1845052	-.041235	-.007031	125.8347	.8239982
Stddev	.0024141	.0017437	.0020435	.002938	.000692	1.1551	.0074770
%RSD	5.666211	11.91273	1.107546	7.124655	9.843956	.9179285	.9074083

#1	.0440263	.0126244	.1823887	-.039157	-.006744	126.7215	.8311183
#2	.0398179	.0156896	.1864669	-.039952	-.006529	124.5285	.8162092
#3	.0439717	.0155974	.1846599	-.044597	-.007821	126.2541	.8246672

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123916	-.005660	16.48286	.2465095	.1468910	.1338505	315.6283
Stddev	.0001725	.000347	.12491	.0001267	.0009821	.0001583	.6579
%RSD	1.392027	6.124911	.7578369	.0513825	.6685832	.1182892	.2084468

#1	.0125798	-.005728	16.61260	.2464090	.1464349	.1339701	315.8168
#2	.0122410	-.005968	16.36341	.2464676	.1462199	.1336710	314.8967
#3	.0123540	-.005285	16.47258	.2466518	.1480182	.1339105	316.1714

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.423901	55.47111	.2970378	.0042247	7.113301	.3268547	.6375129
Stddev	.053956	.49875	.0009623	.0003228	.037323	.0041349	.0033719
%RSD	.8399331	.8991121	.3239649	7.641102	.5246958	1.265068	.5289080

#1	6.480203	55.95671	.2970682	.0038931	7.098042	.3305293	.6412098
#2	6.372644	54.96018	.2960607	.0042430	7.086025	.3223772	.6346066
#3	6.418855	55.49644	.2979846	.0045380	7.155836	.3276576	.6367222

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.58935	1.081165	.0027122	-.000274	3.502757	1.884714	5.963837
Stddev	.05301	.003051	.0003739	.001798	.029379	.026286	.008948
%RSD	.3013573	.2822344	13.78584	656.7713	.8387275	1.394685	.1500360

#1	17.59719	1.078792	.0031433	-.000426	3.528922	1.897301	5.955469
#2	17.53286	1.080096	.0024767	-.001991	3.470976	1.854501	5.962771
#3	17.63799	1.084607	.0025165	.001596	3.508374	1.902339	5.973270

Sample Name: Q1922-05 Acquired: 5/5/2025 18:35:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.2597542	.4402818	-.203930
Stddev	.0064901	.0035395	.000479
%RSD	2.498555	.8039126	.2348860
#1	.2648472	.4433973	-.203412
#2	.2619687	.4364331	-.204024
#3	.2524466	.4410150	-.204356

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3464.731	83248.41	25888.93	2256.597	4419.635
Stddev	11.463	66.33	159.35	7.519	17.234
%RSD	.3308460	.0796715	.6154996	.3332199	.3899471
#1	3465.125	83322.32	25706.92	2248.619	4425.147
#2	3475.991	83194.09	26003.27	2257.619	4433.438
#3	3453.075	83228.81	25956.60	2263.554	4400.318

Sample Name: Q1928-01 Acquired: 5/5/2025 18:39:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0429105	.0058270	.4241479	-.019214	.0002127	87.72604	1.033883
Stddev	.0042437	.0026586	.0006712	.004397	.0012749	.63985	.007427
%RSD	9.889570	45.62544	.1582556	22.88420	599.3669	.7293758	.7183437

#1	.0417540	.0027577	.4247976	-.015802	.0016847	88.40125	1.041065
#2	.0393651	.0073107	.4241892	-.017664	-.000507	87.12866	1.026233
#3	.0476126	.0074127	.4234570	-.024176	-.000539	87.64820	1.034350

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059100	-.003211	17.33655	.1635701	.0599590	.2308967	137.1294
Stddev	.0000846	.000240	.12607	.0010060	.0004176	.0014308	.7742
%RSD	1.432410	7.466115	.7271827	.6150256	.6965039	.6196869	.5645628

#1	.0059327	-.003136	17.46709	.1628019	.0602289	.2307227	136.8257
#2	.0058162	-.003479	17.21549	.1647088	.0594779	.2295608	138.0094
#3	.0059809	-.003017	17.32705	.1631996	.0601701	.2324066	136.5532

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.170935	27.12406	.1424522	.0018648	4.169139	.2129606	.8087872
Stddev	.011898	.20409	.0009302	.0001141	.036412	.0019328	.0048406
%RSD	.5480412	.7524431	.6529629	6.118050	.8733672	.9076032	.5984995

#1	2.182564	27.30870	.1416219	.0017790	4.161242	.2141007	.8041469
#2	2.158786	26.90492	.1422774	.0018212	4.208851	.2107290	.8138058
#3	2.171455	27.15857	.1434574	.0019942	4.137323	.2140522	.8084089

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.624153	.4876223	.0059694	.0142785	1.437290	6.150621	3.382607
Stddev	.075519	.0035454	.0001440	.0005401	.008399	.024999	.015714
%RSD	.9905212	.7270824	2.412237	3.782973	.5843420	.4064492	.4645494

#1	7.600242	.4864341	.0058033	.0148695	1.442783	6.163331	3.377467
#2	7.708732	.4916092	.0060461	.0138104	1.427622	6.166711	3.370107
#3	7.563483	.4848235	.0060589	.0141557	1.441464	6.121820	3.400247

Sample Name: Q1928-01 Acquired: 5/5/2025 18:39:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2.919293	.2219091	-.015710
Stddev	.017516	.0013782	.001428
%RSD	.6000012	.6210655	9.089719
#1	2.922000	.2231721	-.014513
#2	2.900582	.2204391	-.017290
#3	2.935298	.2221161	-.015326

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3202.681	76412.93	22007.84	2048.286	4659.640
Stddev	10.102	403.00	178.29	4.991	18.155
%RSD	.3154174	.5273934	.8101319	.2436566	.3896143
#1	3211.416	76554.05	21832.71	2052.441	4665.560
#2	3205.009	75958.35	22189.13	2042.750	4674.095
#3	3191.619	76726.39	22001.67	2049.668	4639.264

Sample Name: CCV05 Acquired: 5/5/2025 18:43:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.987843	4.765885	4.858772	5.066439	5.047070	9.588827	9.565281
Stddev	.000432	.109159	.027985	.027048	.019691	.006361	.116129
%RSD	.0086579	2.290433	.5759698	.5338679	.3901434	.0663354	1.214072

#1	4.987783	4.803205	4.851343	5.071029	5.054174	9.593029	9.449040
#2	4.988302	4.642959	4.835250	5.090899	5.062223	9.581509	9.681299
#3	4.987444	4.851489	4.889722	5.037390	5.024813	9.591942	9.565506

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2351312	2.416607	23.51078	.9701509	2.412435	1.233437	4.980956
Stddev	.0028258	.014711	.03766	.0025035	.008804	.002491	.053865
%RSD	1.201814	.6087434	.1601624	.2580561	.3649478	.2019877	1.081412

#1	.2375789	2.412588	23.55278	.9709347	2.408690	1.231956	4.942004
#2	.2357760	2.404323	23.49953	.9721687	2.406123	1.236314	4.958439
#3	.2320387	2.432910	23.48004	.9673492	2.422493	1.232043	5.042426

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.335594	23.33343	2.431611	1.223064	24.77407	2.394164	2.471045
Stddev	.003670	.09816	.010858	.001332	.36734	.002988	.003088
%RSD	.1571372	.4206821	.4465374	.1089154	1.482747	.1248088	.1249854

#1	2.338291	23.44178	2.428611	1.221532	24.47526	2.395276	2.470393
#2	2.331415	23.30807	2.422568	1.223946	24.66277	2.390780	2.468334
#3	2.337076	23.25044	2.443654	1.223714	25.18419	2.396437	2.474407

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.47724	4.741397	4.969863	4.842234	4.761678	4.883111	4.787987
Stddev	.30273	.052205	.005496	.034694	.015296	.072353	.035155
%RSD	1.236768	1.101056	.1105773	.7164976	.3212414	1.481696	.7342310

#1	24.26080	4.788398	4.973225	4.837419	4.762814	4.811047	4.788456
#2	24.34774	4.750587	4.963521	4.810199	4.745845	4.882537	4.752601
#3	24.82318	4.685207	4.972843	4.879085	4.776375	4.955749	4.822906

Sample Name: CCV05 Acquired: 5/5/2025 18:43:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.840821	4.752575	4.786216
Stddev	.018113	.030662	.070024
%RSD	.3741733	.6451729	1.463035
#1	4.838629	4.747592	4.730458
#2	4.823903	4.724710	4.864806
#3	4.859930	4.785424	4.763383

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2988.778	72589.78	21236.40	1910.619	4592.256
Stddev	10.313	310.82	202.08	12.871	28.816
%RSD	.3450736	.4281937	.9515842	.6736815	.6274955
#1	2996.193	72946.43	21093.66	1924.451	4604.833
#2	2993.140	72376.69	21147.92	1908.411	4612.645
#3	2977.000	72446.21	21467.63	1898.994	4559.289

Sample Name: CCB05 Acquired: 5/5/2025 18:47:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0017269	.0020115	.0003455	.0025021	.0002648	.0090795	-.002591
Stddev	.0023374	.0006479	.0020190	.0043643	.0017218	.0049385	.001041
%RSD	135.3537	32.21051	584.3899	174.4263	650.3735	54.39231	40.16406

#1	-.000799	.0025607	-.001837	-.001798	.0004963	.0081032	-.003763
#2	.002165	.0021767	.002147	.006928	.0018591	.0144332	-.001777
#3	.003814	.0012969	.000727	.002376	-.001561	.0047020	-.002233

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000187	.0003373	.0187742	.0002736	.0003508	.0008225	.0028653
Stddev	.0000353	.0000461	.0022310	.0003217	.0001910	.0001295	.0029613
%RSD	188.3941	13.66364	11.88313	117.5938	54.44759	15.74410	103.3511

#1	.0000481	.0003015	.0176679	.0003328	.0005714	.0009712	.0003581
#2	.0000284	.0003893	.0213421	.0005616	.0002371	.0007611	.0021052
#3	-.000020	.0003210	.0173125	-.000074	.0002440	.0007350	.0061326

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009715	.0157253	.0005634	.0002002	-.023095	-.000697	.0028978
Stddev	.0003494	.0054849	.0002390	.0003232	.002067	.001228	.0001256
%RSD	35.96990	34.87986	42.42487	161.4477	8.950536	176.1613	4.335314

#1	.0010452	.0220558	.0007451	.0004775	-.025132	.000002	.0029012
#2	.0012782	.0123943	.0006526	.0002777	-.023155	.000022	.0027705
#3	.0005911	.0127256	.0002926	-.000155	-.020999	-.002115	.0030217

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009882	.0070108	.0016768	.0081226	.0011251	-.004045	.0018806
Stddev	.037507	.0002116	.0003080	.0005655	.0003541	.011268	.0010813
%RSD	379.5281	3.018801	18.36755	6.961731	31.46841	278.6011	57.50016

#1	.032419	.0070458	.0015923	.0086889	.0010543	.008685	.0007283
#2	-.022987	.0072028	.0020182	.0081210	.0008117	-.008076	.0028732
#3	-.039079	.0067839	.0014198	.0075580	.0015092	-.012743	.0020401

Sample Name: CCB05 Acquired: 5/5/2025 18:47:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0051201	.0009863	.0008708
Stddev	.0042486	.0006518	.0000222
%RSD	82.97841	66.08492	2.543743
#1	.0045552	.0015403	.0008536
#2	.0011823	.0011506	.0008958
#3	.0096230	.0002681	.0008629

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3071.244	74575.11	20860.64	2032.133	4896.766
Stddev	4.678	179.70	20.41	5.424	4.691
%RSD	.1523164	.2409595	.0978632	.2669323	.0958003
#1	3065.928	74391.34	20845.58	2026.255	4892.862
#2	3074.729	74750.43	20852.46	2036.946	4895.467
#3	3073.077	74583.55	20883.87	2033.198	4901.971

Sample Name: Q1932-01 Acquired: 5/5/2025 18:52:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0291361	.0022194	.0716484	-.042820	-.009367	114.8125	.4989778
Stddev	.0035104	.0012805	.0023306	.004096	.001695	.1131	.0013894
%RSD	12.04813	57.69714	3.252845	9.566430	18.09451	.0984669	.2784539

#1	.0267889	.0007516	.0736571	-.047469	-.009949	114.7360	.4993716
#2	.0331716	.0027985	.0721949	-.041247	-.007458	114.7591	.4974339
#3	.0274478	.0031079	.0690930	-.039743	-.010694	114.9424	.5001278

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069759	-.004522	36.21444	.2290896	.1514688	.2130102	252.4910
Stddev	.0000667	.000204	.03666	.0005020	.0006823	.0015277	1.2588
%RSD	.9558161	4.518335	.1012323	.2191499	.4504500	.7171998	.4985478

#1	.0069404	-.004757	36.24377	.2288071	.1511173	.2112561	253.9301
#2	.0069346	-.004419	36.17334	.2287926	.1522551	.2137252	251.9481
#3	.0070529	-.004390	36.22620	.2296693	.1510339	.2140493	251.5947

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.441706	47.51491	.2337194	.0028034	2.542110	.4169818	.8940389
Stddev	.011545	.11142	.0005614	.0000533	.010297	.0007370	.0043523
%RSD	.2599121	.2344857	.2402188	1.901258	.4050569	.1767425	.4868165

#1	4.443341	47.64356	.2340697	.0027734	2.552954	.4161371	.8968012
#2	4.429431	47.45085	.2340167	.0028649	2.540910	.4173142	.8962937
#3	4.452346	47.45033	.2330718	.0027719	2.532466	.4174940	.8890218

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.244878	.8160013	.0032504	-.006802	6.342381	2.524768	5.819617
Stddev	.035580	.0052007	.0003692	.000857	.008399	.009441	.008942
%RSD	.5697492	.6373387	11.35956	12.60293	.1324248	.3739328	.1536560

#1	6.283461	.8218869	.0033414	-.007714	6.349505	2.533815	5.828675
#2	6.237810	.8140916	.0028442	-.006679	6.333120	2.514977	5.810795
#3	6.213362	.8120255	.0035656	-.006013	6.344519	2.525514	5.819381

Sample Name: Q1932-01 Acquired: 5/5/2025 18:52:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	6.894238	.2081365	-.139512
Stddev	.008265	.0008309	.001307
%RSD	.1198810	.3991954	.9369388
#1	6.885255	.2090674	-.140877
#2	6.895938	.2074700	-.139387
#3	6.901520	.2078722	-.138271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3371.907	81965.26	24096.94	2218.414	4525.862
Stddev	6.516	231.52	68.90	16.586	1.606
%RSD	.1932381	.2824560	.2859254	.7476610	.0354920
#1	3377.816	81698.64	24123.36	2199.369	4526.813
#2	3372.986	82115.46	24148.73	2226.189	4526.766
#3	3364.919	82081.68	24018.74	2229.685	4524.007

Sample Name: Q1932-03 Acquired: 5/5/2025 18:56:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0318230	-.008033	.0708304	-.047396	-.009144	123.3726	.5112651
Stddev	.0050079	.003201	.0016148	.000790	.001819	.2148	.0015418
%RSD	15.73680	39.84377	2.279851	1.667058	19.89742	.1740684	.3015603

#1	.0286891	-.011717	.0697245	-.048182	-.007088	123.3126	.5105741
#2	.0375987	-.006442	.0726835	-.047406	-.010545	123.1941	.5101898
#3	.0291813	-.005939	.0700833	-.046602	-.009800	123.6109	.5130315

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070708	-.000711	93.40593	.2715613	.1644344	.4982737	281.8469
Stddev	.0000332	.000329	.14239	.0002247	.0002422	.0030174	.4595
%RSD	.4701568	46.30825	.1524405	.0827500	.1472795	.6055771	.1630282

#1	.0070625	-.001081	93.39797	.2713524	.1644493	.4958278	282.3229
#2	.0071074	-.000603	93.26769	.2717990	.1646688	.4973478	281.8119
#3	.0070424	-.000450	93.55214	.2715325	.1641851	.5016456	281.4059

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.825985	54.58295	.2703872	.0042692	2.485001	.4992291	.7857446
Stddev	.008739	.10114	.0002609	.0003150	.005280	.0008496	.0016396
%RSD	.1810846	.1852994	.0964940	7.378729	.2124547	.1701718	.2086720

#1	4.831244	54.65829	.2701677	.0044729	2.487068	.4997701	.7855466
#2	4.815897	54.46799	.2706757	.0039063	2.479001	.4996672	.7874742
#3	4.830815	54.62256	.2703184	.0044283	2.488935	.4982499	.7842129

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.233502	.9246146	.0030340	-.010645	8.464101	3.330966	6.399567
Stddev	.003426	.0029648	.0003419	.001543	.014592	.016626	.015866
%RSD	.0473636	.3206498	11.26851	14.49698	.1723960	.4991433	.2479201

#1	7.231106	.9269685	.0029629	-.012384	8.460265	3.313051	6.412792
#2	7.237426	.9255902	.0034059	-.009438	8.451810	3.333948	6.403935
#3	7.231974	.9212849	.0027333	-.010112	8.480227	3.345900	6.381975

Sample Name: Q1932-03 Acquired: 5/5/2025 18:56:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	5.306764	.2213929	-.152601
Stddev	.016322	.0008695	.000559
%RSD	.3075778	.3927496	.3664936
#1	5.290240	.2206442	-.153145
#2	5.307176	.2211878	-.152631
#3	5.322877	.2223466	-.152027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3513.425	86725.63	26792.75	2309.102	4418.196
Stddev	15.645	79.20	56.56	11.968	16.734
%RSD	.4452898	.0913203	.2110975	.5183011	.3787467
#1	3528.226	86787.89	26828.62	2319.753	4435.249
#2	3514.994	86636.49	26822.08	2296.151	4417.539
#3	3497.054	86752.51	26727.55	2311.402	4401.800

Sample Name: Q1932-05 Acquired: 5/5/2025 19:00:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0287746	-.003524	.0605944	-.036099	-.007899	105.2793	.5793339
Stddev	.0045984	.003870	.0019639	.002999	.001663	.0830	.0005607
%RSD	15.98062	109.8089	3.241107	8.308210	21.05080	.0788213	.0967790

#1	.0340453	-.000954	.0592898	-.039288	-.009795	105.3741	.5795541
#2	.0266963	-.001643	.0596402	-.035675	-.007215	105.2444	.5786965
#3	.0255823	-.007975	.0628531	-.033335	-.006687	105.2195	.5797510

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062438	-.004242	32.59487	.2914097	.1429456	.2364903	260.7527
Stddev	.0000279	.000225	.07244	.0001985	.0010884	.0027895	1.0251
%RSD	.4464879	5.297772	.2222329	.0681042	.7613936	1.179531	.3931180

#1	.0062506	-.004372	32.57826	.2912896	.1417569	.2338267	260.3722
#2	.0062676	-.003983	32.53217	.2913006	.1431867	.2393906	259.9723
#3	.0062131	-.004372	32.67416	.2916387	.1438932	.2362537	261.9136

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.915324	44.28730	.2233179	.0047509	4.547087	.4803691	2.924372
Stddev	.009562	.18648	.0007437	.0000984	.013018	.0013292	.020670
%RSD	.1945416	.4210705	.3330292	2.070823	.2862919	.2767091	.7068251

#1	4.911081	44.36601	.2225713	.0047350	4.541578	.4796926	2.930937
#2	4.908617	44.07437	.2233237	.0046615	4.537730	.4795141	2.901217
#3	4.926274	44.42152	.2240587	.0048563	4.561954	.4819004	2.940963

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.664769	.8630572	.0005313	-.006576	5.763847	2.020697	6.754907
Stddev	.045537	.0028084	.0001926	.000231	.005026	.001654	.017523
%RSD	.8038590	.3253975	36.24546	3.520380	.0872032	.0818671	.2594143

#1	5.624830	.8610212	.0005185	-.006840	5.758249	2.019621	6.740489
#2	5.655119	.8618893	.0003454	-.006408	5.767973	2.019869	6.774411
#3	5.714357	.8662611	.0007299	-.006481	5.765320	2.022602	6.749823

Sample Name: Q1932-05 Acquired: 5/5/2025 19:00:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.8225060	.2228710	-.155849
Stddev	.0130368	.0005054	.000914
%RSD	1.585008	.2267882	.5862543
#1	.8076313	.2223035	-.155561
#2	.8319471	.2232728	-.155114
#3	.8279396	.2230367	-.156872

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3376.516	83133.23	26490.61	2207.638	4485.758
Stddev	11.714	264.14	80.85	7.769	13.582
%RSD	.3469181	.3177305	.3051995	.3518926	.3027781
#1	3389.788	82977.06	26422.63	2209.839	4498.929
#2	3367.624	83438.20	26580.02	2214.069	4471.799
#3	3372.134	82984.42	26469.20	2199.007	4486.547

Sample Name: Q1932-07 Acquired: 5/5/2025 19:04:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0357031	.0003696	.0890104	-.033741	-.002297	95.55067	.6791870
Stddev	.0007623	.0021322	.0011577	.001111	.003234	.45047	.0029164
%RSD	2.135024	576.9563	1.300687	3.291389	140.7657	.4714410	.4293897

#1	.0349503	.0012924	.0893167	-.034412	.001182	95.13376	.6772152
#2	.0356845	.0018848	.0877303	-.032459	-.002863	95.48976	.6778087
#3	.0364745	-.002069	.0899842	-.034352	-.005211	96.02849	.6825370

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072422	-.002856	45.23147	.1931904	.1094052	.1739784	213.8042
Stddev	.0000814	.000051	.18644	.0010249	.0006668	.0012913	.6585
%RSD	1.124185	1.798181	.4121958	.5305287	.6095171	.7422240	.3080070

#1	.0073345	-.002915	45.09024	.1935098	.1088641	.1725539	213.0944
#2	.0071806	-.002835	45.16136	.1940176	.1092014	.1743093	213.9230
#3	.0072115	-.002819	45.44280	.1920438	.1101502	.1750721	214.3953

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.640878	43.94150	.1816651	.0027086	1.584850	.3606626	.8393683
Stddev	.011855	.12390	.0011505	.0002303	.008380	.0010190	.0014005
%RSD	.3256019	.2819631	.6332987	8.501123	.5287704	.2825360	.1668558

#1	3.633179	43.81336	.1803377	.0026785	1.575207	.3607892	.8377627
#2	3.634925	43.95047	.1823764	.0024949	1.590371	.3595862	.8400035
#3	3.654529	44.06067	.1822811	.0029525	1.588971	.3616124	.8403386

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.306124	.7063663	.0036973	-.001455	3.919807	3.518821	5.519374
Stddev	.031759	.0024914	.0002586	.000674	.016562	.017227	.036944
%RSD	.5036164	.3527119	6.995242	46.36320	.4225133	.4895612	.6693508

#1	6.282417	.7037703	.0035316	-.002209	3.909679	3.503019	5.478437
#2	6.293747	.7065908	.0039953	-.000909	3.910822	3.516258	5.529451
#3	6.342208	.7087380	.0035649	-.001246	3.938919	3.537186	5.550235

Sample Name: Q1932-07 Acquired: 5/5/2025 19:04:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	1.375020	.1845543	-.092243
Stddev	.017766	.0016371	.000478
%RSD	1.292068	.8870784	.5184660
#1	1.357156	.1826640	-.091748
#2	1.375216	.1854795	-.092703
#3	1.392687	.1855194	-.092277

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3284.125	80756.77	24415.97	2139.515	4468.621
Stddev	7.248	130.10	16.18	5.863	17.177
%RSD	.2206898	.1611020	.0662487	.2740166	.3843850
#1	3291.178	80786.01	24406.92	2146.269	4487.983
#2	3284.501	80614.53	24434.65	2135.740	4462.667
#3	3276.697	80869.76	24406.35	2136.537	4455.214

Sample Name: Q1933-01 Acquired: 5/5/2025 19:08:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0316557	-.001137	.1104982	-.042543	-.008021	98.96881	.5093670
Stddev	.0026788	.001848	.0022858	.001062	.000214	.10577	.0014314
%RSD	8.462424	162.5247	2.068611	2.496634	2.663267	.1068714	.2810159

#1	.0326680	-.000916	.1081554	-.041322	-.008041	98.85927	.5089646
#2	.0336809	.000590	.1106168	-.043252	-.007797	98.97681	.5109565
#3	.0286183	-.003085	.1127224	-.043056	-.008223	99.07035	.5081798

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056448	-.003667	51.91467	.3113778	.1574236	.6920208	267.5561
Stddev	.0000151	.000250	.23523	.0001142	.0019077	.0075615	.6384
%RSD	.2672442	6.820284	.4531174	.0366657	1.211850	1.092671	.2386010

#1	.0056507	-.003806	52.10912	.3114951	.1568603	.6870715	266.8306
#2	.0056561	-.003817	51.98170	.3112670	.1558610	.6882660	268.0321
#3	.0056277	-.003378	51.65320	.3113712	.1595496	.7007248	267.8056

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.140153	60.68527	.2851105	.0043690	2.689566	.3718600	.4240361
Stddev	.010930	.29929	.0022878	.0003105	.019350	.0015330	.0014309
%RSD	.3480671	.4931855	.8024308	7.107671	.7194364	.4122415	.3374556

#1	3.144097	60.95936	.2843327	.0040427	2.671821	.3706243	.4256561
#2	3.148564	60.73052	.2833130	.0046609	2.686680	.3735755	.4235075
#3	3.127799	60.36593	.2876858	.0044035	2.710196	.3713803	.4229446

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.88256	.8626536	.0272768	-.006817	7.505093	4.008978	12.29864
Stddev	.17447	.0024282	.0003183	.002035	.016569	.020250	.10795
%RSD	.5838535	.2814848	1.166749	29.84764	.2207649	.5051255	.8777463

#1	29.68962	.8598794	.0269531	-.008979	7.503241	4.000348	12.29353
#2	29.92882	.8636884	.0275893	-.004940	7.522510	3.994472	12.19334
#3	30.02924	.8643930	.0272881	-.006532	7.489529	4.032114	12.40906

Sample Name: Q1933-01 Acquired: 5/5/2025 19:08:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	21.68607	.2515048	-.144314
Stddev	.22953	.0015813	.000376
%RSD	1.058399	.6287377	.2604861
#1	21.60048	.2496797	-.143912
#2	21.51163	.2523689	-.144374
#3	21.94609	.2524658	-.144656

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3379.152	83844.32	26623.47	2217.701	4449.091
Stddev	23.276	172.31	140.61	7.962	36.337
%RSD	.6888106	.2055128	.5281577	.3590334	.8167200
#1	3399.168	83824.00	26471.60	2215.428	4475.846
#2	3384.677	84025.90	26649.65	2226.553	4463.705
#3	3353.611	83683.08	26749.15	2211.123	4407.723

Sample Name: Q1933-01DUP Acquired: 5/5/2025 19:12:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0475009	-.005771	.0755190	-.039105	-.006762	99.01285	.6655184
Stddev	.0024982	.003359	.0016943	.000562	.003422	.13077	.0016382
%RSD	5.259168	58.19795	2.243517	1.437203	50.60739	.1320730	.2461559

#1	.0446340	-.004912	.0736271	-.038502	-.010713	98.93384	.6643467
#2	.0492109	-.009476	.0760337	-.039199	-.004801	98.94091	.6648181
#3	.0486579	-.002925	.0768964	-.039614	-.004771	99.16379	.6673904

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052653	-.004594	49.42615	.3332053	.1288853	.3551894	250.7527
Stddev	.0000886	.000018	.07220	.0001600	.0003187	.0009332	.5260
%RSD	1.682324	.3922487	.1460680	.0480074	.2473033	.2627262	.2097866

#1	.0051695	-.004574	49.41425	.3330500	.1291976	.3562665	250.1978
#2	.0052822	-.004610	49.50356	.3331964	.1288978	.3546266	251.2441
#3	.0053442	-.004596	49.36065	.3333695	.1285605	.3546749	250.8163

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.728615	61.66085	.2413974	.0048715	2.842247	.4064168	.4073671
Stddev	.002438	.11489	.0005774	.0003317	.009111	.0021029	.0012311
%RSD	.0893335	.1863266	.2392103	6.808689	.3205604	.5174226	.3022019

#1	2.728881	61.64357	.2420463	.0046809	2.831752	.4067067	.4087263
#2	2.730909	61.78341	.2412059	.0052545	2.846861	.4083597	.4070483
#3	2.726055	61.55559	.2409400	.0046790	2.848128	.4041840	.4063268

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.00284	.8214003	.0061269	-.000671	9.159067	4.491919	13.27050
Stddev	.16546	.0018156	.0001300	.001776	.015717	.023700	.02700
%RSD	.4595669	.2210345	2.121218	264.7564	.1716047	.5276153	.2034349

#1	35.84175	.8203690	.0062221	.001138	9.141009	4.480560	13.29109
#2	35.99442	.8234967	.0059788	-.000737	9.169663	4.476037	13.28047
#3	36.17235	.8203353	.0061797	-.002413	9.166530	4.519161	13.23993

Sample Name: Q1933-01DUP Acquired: 5/5/2025 19:12:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	11.04015	.2480171	-.155530
Stddev	.01609	.0006228	.000402
%RSD	.1457433	.2511047	.2583550
#1	11.02187	.2473273	-.155144
#2	11.05217	.2481859	-.155946
#3	11.04640	.2485381	-.155501

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3437.397	84493.19	27106.95	2263.510	4512.311
Stddev	4.108	187.43	102.82	4.683	9.169
%RSD	.1194976	.2218268	.3793234	.2068746	.2031973
#1	3438.254	84531.19	27063.04	2263.390	4507.155
#2	3441.008	84289.67	27033.37	2258.888	4506.882
#3	3432.928	84658.70	27224.44	2268.251	4522.897

Sample Name: Q1933-01LX5 Acquired: 5/5/2025 19:16:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0067635	.0000085	.0192956	-.006540	-.002519	21.51740	.1060825
Stddev	.0026831	.0007566	.0010055	.002064	.001035	.10659	.0007097
%RSD	39.67031	8910.965	5.210903	31.56133	41.08661	.4953895	.6689821

#1	.0038547	.0006415	.0196158	-.006544	-.002125	21.39979	.1057136
#2	.0091417	.0002134	.0201019	-.008602	-.001740	21.54477	.1056332
#3	.0072942	-.000829	.0181690	-.004474	-.003694	21.60764	.1069006

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013569	-.002830	11.71323	.0703152	.0303015	.1569924	57.92706
Stddev	.0000185	.000065	.04716	.0005380	.0001408	.0005252	.68333
%RSD	1.365330	2.285009	.4026054	.7651083	.4645568	.3345157	1.179646

#1	.0013504	-.002887	11.66557	.0701726	.0301604	.1569936	58.07805
#2	.0013778	-.002760	11.71424	.0698629	.0303020	.1575170	57.18086
#3	.0013425	-.002843	11.75987	.0709101	.0304420	.1564666	58.52228

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7128238	13.41344	.0568360	.0000999	.5038455	.0849344	.0915007
Stddev	.0014466	.02375	.0000990	.0001708	.0124134	.0001723	.0004584
%RSD	.2029350	.1770681	.1742343	170.9249	2.463724	.2029037	.5009744

#1	.7119353	13.38873	.0568106	.0001504	.5065522	.0850546	.0920300
#2	.7120432	13.41549	.0569452	-.000090	.4903021	.0847370	.0912337
#3	.7144930	13.43610	.0567521	.000240	.5146822	.0850116	.0912383

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.044532	.1853466	.0053951	-.002908	1.722033	1.275204	2.456097
Stddev	.067009	.0034734	.0001700	.000419	.007462	.006050	.007919
%RSD	1.108581	1.874011	3.150834	14.39877	.4333020	.4744688	.3224030

#1	6.036545	.1862939	.0054495	-.002841	1.717937	1.273778	2.455730
#2	5.981875	.1814978	.0055312	-.002527	1.717517	1.269995	2.448368
#3	6.115176	.1882481	.0052045	-.003356	1.730646	1.281841	2.464193

Sample Name: Q1933-01LX5 Acquired: 5/5/2025 19:16:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.106025	.0549031	-.030909
Stddev	.016303	.0004397	.000659
%RSD	.3970477	.8008801	2.132676
#1	4.103336	.0550212	-.031188
#2	4.091234	.0552718	-.030156
#3	4.123505	.0544164	-.031383

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3150.242	77632.44	23470.47	2078.352	4745.173
Stddev	13.486	483.48	57.60	15.543	19.443
%RSD	.4281012	.6227867	.2454186	.7478510	.4097384
#1	3151.084	77618.91	23526.89	2064.130	4752.827
#2	3163.286	78122.55	23411.75	2094.944	4759.625
#3	3136.354	77155.87	23472.77	2075.982	4723.069

Sample Name: Q1933-01MS Acquired: 5/5/2025 19:20:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6965482	1.805733	1.016846	1.585840	.3006326	104.5096	.6688486
Stddev	.0016140	.019448	.002331	.000767	.0010930	.0509	.0014570
%RSD	.2317121	1.077042	.2292717	.0483485	.3635512	.0487268	.2178435

#1	.6947638	1.819522	1.019226	1.586443	.2997784	104.4602	.6675562
#2	.6969748	1.814189	1.014567	1.584977	.3002552	104.5068	.6685621
#3	.6979060	1.783487	1.016744	1.586099	.3018643	104.5619	.6704277

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1608788	.1897227	49.46614	.6541061	.3433432	.8898265	251.7290
Stddev	.0009105	.0002192	.12994	.0005810	.0000470	.0022784	.3649
%RSD	.5659867	.1155253	.2626916	.0888255	.0137014	.2560526	.1449466

#1	.1598860	.1895994	49.34324	.6535592	.3433611	.8880010	252.1448
#2	.1616749	.1899758	49.60214	.6547161	.3433787	.8890986	251.4622
#3	.1610755	.1895930	49.45303	.6540431	.3432898	.8923799	251.5801

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.693860	63.48618	.8016199	.0656080	4.968478	.6172819	.5593388
Stddev	.005276	.14576	.0006718	.0005033	.014984	.0012270	.0006007
%RSD	.1958556	.2295892	.0838115	.7670746	.3015809	.1987796	.1074007

#1	2.690400	63.39127	.8021998	.0657758	4.985256	.6161465	.5586584
#2	2.699933	63.65401	.8017762	.0660060	4.956427	.6171156	.5597959
#3	2.691248	63.41326	.8008837	.0650423	4.963752	.6185836	.5595620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.04941	1.008479	.3446454	.6680526	7.733069	5.076303	17.86596
Stddev	.10528	.002430	.0004418	.0012703	.009187	.009199	.05322
%RSD	.2920513	.2409386	.1281869	.1901520	.1188059	.1812222	.2978734

#1	36.14836	1.010836	.3447946	.6694956	7.722569	5.071364	17.91031
#2	35.93877	1.008618	.3441483	.6675591	7.739630	5.070628	17.88062
#3	36.06109	1.005983	.3449932	.6671031	7.737009	5.086917	17.80695

Sample Name: Q1933-01MS Acquired: 5/5/2025 19:20:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	21.88919	.4099049	-.004784
Stddev	.03127	.0005789	.000828
%RSD	.1428670	.1412360	17.31126
#1	21.87938	.4094944	-.005721
#2	21.92419	.4096531	-.004149
#3	21.86399	.4105670	-.004483

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3349.403	80919.35	24364.77	2179.372	4333.341
Stddev	9.021	57.83	75.67	8.612	2.792
%RSD	.2693182	.0714657	.3105778	.3951592	.0644373
#1	3351.325	80853.39	24438.37	2169.853	4331.431
#2	3357.308	80943.31	24287.19	2186.622	4336.546
#3	3339.577	80961.36	24368.76	2181.641	4332.047

Sample Name: Q1933-01MSD Acquired: 5/5/2025 19:24:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7142956	1.816412	1.039993	1.626107	.2799283	102.1460
Stddev	.0034355	.012188	.003649	.001653	.0021801	.1652
%RSD	.4809564	.6710142	.3508327	.1016347	.7787887	.1617404

#1	.7178105	1.818634	1.035933	1.624519	.2774140	102.3338
#2	.7109455	1.827337	1.041049	1.627817	.2812918	102.0232
#3	.7141308	1.803266	1.042997	1.625984	.2810792	102.0809

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6709650	.1531606	.1908043	53.38495	.6292693	.3300882
Stddev	.0019631	.0002450	.0003755	.10387	.0026832	.0009731
%RSD	.2925719	.1599464	.1967988	.1945703	.4263918	.2948024

#1	.6726133	.1533350	.1903836	53.50413	.6318459	.3289709
#2	.6714883	.1528805	.1911057	53.33701	.6264910	.3307504
#3	.6687933	.1532662	.1909234	53.31371	.6294710	.3305432

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6464016	248.3954	2.865526	63.48986	.7125008	.0649022
Stddev	.0018493	.5238	.001719	.18358	.0009946	.0002062
%RSD	.2860886	.2108702	.0599854	.2891559	.1395981	.3177743

#1	.6447959	248.7964	2.865226	63.68253	.7115206	.0646932
#2	.6459853	247.8028	2.867376	63.31696	.7124726	.0649079
#3	.6484235	248.5871	2.863977	63.47009	.7135093	.0651055

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.554299	.6076008	.5741562	37.76739	.9922484	.4047100
Stddev	.013620	.0015071	.0056638	.02766	.0020453	.0005246
%RSD	.2452187	.2480437	.9864489	.0732430	.2061310	.1296326

#1	5.563948	.6091000	.5791700	37.76720	.9936087	.4041096
#2	5.538719	.6076163	.5680127	37.73983	.9898962	.4050801
#3	5.560229	.6060859	.5752860	37.79515	.9932402	.4049403

Sample Name: Q1933-01MSD Acquired: 5/5/2025 19:24:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6625634	7.883264	4.695961	F 19.33352	12.51173	.4088080
Stddev	.0011859	.0111110	.014413	.07790	.01757	.0026280
%RSD	.1789891	.1409286	.3069191	.4029493	.1404603	.6428416

#1	.6624763	7.895930	4.696015	19.28541	12.49161	.4057736
#2	.6637905	7.875170	4.681521	19.42340	12.51949	.4103528
#3	.6614234	7.878692	4.710346	19.29176	12.52408	.4102976

Elem	Sr4077
Units	ppm
Avg	.0161668
Stddev	.0003729
%RSD	2.306524

#1	.0158735
#2	.0165864
#3	.0160403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3337.534	82475.04	25583.96	2206.128	4276.456
Stddev	6.032	194.96	67.52	9.749	9.605
%RSD	.1807202	.2363814	.2639212	.4419085	.2246106

#1	3341.465	82252.07	25521.28	2196.963	4287.501
#2	3340.547	82613.41	25575.15	2216.372	4271.804
#3	3330.589	82559.63	25655.46	2205.050	4270.062

Sample Name: Q1933-01A Acquired: 5/5/2025 19:28:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6984069	1.765286	1.008734	1.620817	.6744558	100.2642	.6869350
Stddev	.0003179	.016693	.003782	.005188	.0011910	.2017	.0007496
%RSD	.0455158	.9456265	.3749153	.3200617	.1765865	.2011649	.1091259

#1	.6986640	1.771419	1.012544	1.623921	.6746650	100.1419	.6860747
#2	.6980515	1.746393	1.004981	1.614828	.6731741	100.1537	.6874476
#3	.6985053	1.778044	1.008676	1.623702	.6755284	100.4970	.6872829

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1530196	.1813509	53.53890	.6261018	.3364891	.9010000	272.0802
Stddev	.0012756	.0007692	.12117	.0005338	.0009681	.0043609	1.3908
%RSD	.8336417	.4241352	.2263210	.0852642	.2876914	.4840087	.5111664

#1	.1544155	.1818874	53.67849	.6256723	.3374245	.9029213	270.4952
#2	.1527289	.1804696	53.47730	.6266995	.3354914	.8960083	273.0964
#3	.1519144	.1816956	53.46090	.6259336	.3365514	.9040703	272.6491

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.334790	63.23231	.7372907	.0670130	5.289010	.6136192	.5840061
Stddev	.007876	.18179	.0022096	.0001415	.065505	.0027527	.0021749
%RSD	.2361682	.2875023	.2996865	.2112010	1.238517	.4486023	.3724090

#1	3.339361	63.43025	.7389718	.0669116	5.218020	.6167239	.5853916
#2	3.339314	63.19385	.7347880	.0669527	5.301894	.6114769	.5814994
#3	3.325696	63.07282	.7381122	.0671747	5.347116	.6126568	.5851274

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.62740	1.098557	.3650837	.6488432	7.949768	6.899989	17.46354
Stddev	.29068	.005770	.0009855	.0040352	.003763	.064110	.04468
%RSD	.7525120	.5251960	.2699440	.6218999	.0473325	.9291270	.2558384

#1	38.29662	1.091960	.3646024	.6496203	7.946096	6.826184	17.49187
#2	38.74348	1.102657	.3644313	.6444760	7.949593	6.931927	17.41204
#3	38.84210	1.101055	.3662174	.6524332	7.953615	6.941856	17.48672

Sample Name: Q1933-01A Acquired: 5/5/2025 19:28:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	21.13860	.4198660	.0172296
Stddev	.09850	.0018247	.0010640
%RSD	.4659669	.4345934	6.175384
#1	21.14946	.4178052	.0184283
#2	21.03513	.4212765	.0163969
#3	21.23123	.4205163	.0168636

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3394.180	82108.31	25828.95	2201.769	4449.724
Stddev	10.903	179.54	141.14	2.446	11.504
%RSD	.3212191	.2186565	.5464446	.1111055	.2585341
#1	3393.555	82315.50	25666.27	2201.612	4445.158
#2	3405.382	82010.85	25901.72	2204.290	4462.810
#3	3383.603	81998.58	25918.86	2199.405	4441.203

Sample Name: CCV06 Acquired: 5/5/2025 19:32:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.747002	4.619317	4.677481	4.796171	4.783110	9.209126
Stddev	.049254	.023016	.008586	.055667	.056819	.023685
%RSD	1.037587	.4982493	.1835647	1.160653	1.187913	.2571951

#1	4.746768	4.606166	4.684774	4.779046	4.765822	9.183301
#2	4.697865	4.605892	4.679651	4.751078	4.736942	9.214241
#3	4.796372	4.645893	4.668018	4.858388	4.846565	9.229836

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.675759	F .2152132	2.341413	22.72496	.9403937	2.332217
Stddev	.256785	.0033611	.003544	.10994	.0007938	.002447
%RSD	2.653896	1.561741	.1513558	.4838027	.0844140	.1049337

#1	9.510288	.2158864	2.344027	22.79963	.9412759	2.334303
#2	9.545413	.2115665	2.342832	22.59871	.9397371	2.329523
#3	9.971573	.2181867	2.337379	22.77654	.9401680	2.332826

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.180974	5.029797	2.298056	F 22.07553	2.358535	1.188249
Stddev	.009323	.063436	.009696	.17735	.001775	.000794
%RSD	.7894450	1.261197	.4219304	.8033833	.0752695	.0668019

#1	1.177912	4.994169	2.306167	22.09707	2.360423	1.188569
#2	1.173568	5.103037	2.287317	21.88839	2.356899	1.188832
#3	1.191444	4.992184	2.300683	22.24112	2.358283	1.187345

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.52437	2.337993	2.376504	25.60384	F 4.356150	4.785959
Stddev	.45508	.001964	.013081	.40780	.059348	.030552
%RSD	1.782929	.0839875	.5504254	1.592740	1.362396	.6383635

#1	25.44226	2.339548	2.383382	25.51577	4.368817	4.781742
#2	26.01492	2.338645	2.384710	26.04848	4.291491	4.757735
#3	25.11594	2.335786	2.361419	25.24727	4.408142	4.818401

Sample Name: CCV06 Acquired: 5/5/2025 19:32:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.678969	4.692296	4.987552	4.624508	4.655539	4.713686
Stddev	.002470	.006895	.067323	.014262	.018674	.018311
%RSD	.0527798	.1469480	1.349825	.3083920	.4011095	.3884568

#1	4.680070	4.686419	4.955520	4.639677	4.650739	4.714219
#2	4.676141	4.690582	5.064911	4.611372	4.639733	4.731724
#3	4.680697	4.699886	4.942226	4.622474	4.676144	4.695114

Elem	Sr4077
Units	ppm
Avg	4.821673
Stddev	.066520
%RSD	1.379602

#1	4.762520
#2	4.808816
#3	4.893682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3064.337	73055.14	22655.95	1983.040	4672.265
Stddev	10.396	326.55	270.82	11.621	23.215
%RSD	.3392527	.4469868	1.195379	.5860232	.4968729

#1	3052.935	73010.96	22552.03	1979.069	4648.961
#2	3073.290	72752.93	22963.35	1973.925	4672.443
#3	3066.785	73401.52	22452.49	1996.126	4695.391

Sample Name: CCB06 Acquired: 5/5/2025 19:37:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000295	-.001590	.0001273	-.002184	.0002021	-.005223	-.005951
Stddev	.002992	.001888	.0007491	.003702	.0009557	.003580	.000098
%RSD	1014.638	118.7636	588.2291	169.5169	472.9288	68.54819	1.654025

#1	.002434	-.001491	-.000098	.001995	-.000688	-.001857	-.005876
#2	.000176	-.003526	.000963	-.003495	.001212	-.008985	-.005915
#3	-.003494	.000247	-.000483	-.005052	.000082	-.004829	-.006063

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000037	-.000446	.0032505	.0003529	-.000171	-.000074	-.008675
Stddev	.000017	.000067	.0074289	.0001493	.000183	.000327	.005075
%RSD	45.16613	15.07139	228.5465	42.29491	106.9308	440.0438	58.49693

#1	-.000041	-.000471	.0107001	.0004962	-.000343	-.000325	-.005067
#2	-.000018	-.000370	-.004158	.0003641	-.000190	.000296	-.014478
#3	-.000051	-.000497	.003209	.0001984	.000021	-.000194	-.006480

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057974	.0099056	-.000280	-.000482	-.052241	-.001499	-.000536
Stddev	.0003996	.0099709	.000235	.000203	.008161	.000239	.000197
%RSD	6.893277	100.6601	84.12110	42.13180	15.62267	15.93850	36.75655

#1	.0060714	.0191117	-.000042	-.000688	-.059762	-.001231	-.000596
#2	.0053389	-.000685	-.000512	-.000478	-.043563	-.001575	-.000316
#3	.0059820	.011290	-.000284	-.000281	-.053400	-.001690	-.000695

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010320	.0062173	-.000181	.0000320	-.000229	.0069441	-.003364
Stddev	.006320	.0006866	.000150	.0007014	.000708	.0003859	.001666
%RSD	61.24184	11.04265	82.66732	2190.990	308.9604	5.557623	49.51269

#1	-.017608	.0066680	-.000323	-.000468	.000586	.0069022	-.004287
#2	-.007005	.0065568	-.000198	-.000270	-.000687	.0065808	-.001441
#3	-.006347	.0054272	-.000024	.000834	-.000586	.0073492	-.004364

Sample Name: CCB06 Acquired: 5/5/2025 19:37:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0007686	-.000811	-.000573
Stddev	.0026757	.000828	.000083
%RSD	348.1490	102.1526	14.51372
#1	-.001061	-.001530	-.000509
#2	-.000473	-.000998	-.000543
#3	.003840	.000095	-.000667

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3133.273	73546.30	21223.41	2021.793	5017.318
Stddev	7.202	246.51	23.74	12.108	16.477
%RSD	.2298513	.3351761	.1118481	.5988688	.3284083
#1	3127.262	73320.34	21236.48	2015.005	5011.216
#2	3141.255	73809.19	21196.01	2035.772	5035.976
#3	3131.301	73509.38	21237.74	2014.601	5004.762

Sample Name: Q1939-05 Acquired: 5/5/2025 19:41:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	25.94550	.0584938	80.59502	-.104132	.8364442	69.11380
Stddev	.05418	.0036636	.14068	.005684	.0053495	.22379
%RSD	.2088147	6.263157	.1745493	5.458800	.6395493	.3238024

#1	25.92703	.0609932	80.74967	-.103259	.8335457	68.86292
#2	25.90297	.0601998	80.47466	-.098936	.8331693	69.29286
#3	26.00650	.0542883	80.56073	-.110203	.8426174	69.18563

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.685325	.0120241	.0794258	69.06784	1.211238	.1320121
Stddev	.008086	.0002073	.0016750	.27473	.006155	.0001908
%RSD	.4797774	1.724353	2.108835	.3977680	.5081643	.1445574

#1	1.678961	.0119837	.0792294	68.75329	1.204285	.1317923
#2	1.694423	.0122487	.0778576	69.26078	1.215988	.1321087
#3	1.682591	.0118399	.0811902	69.18943	1.213443	.1321354

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.458623	687.1853	3.676586	21.68735	.3191491	.0250777
Stddev	.010111	6.3976	.019131	.06263	.0004965	.0019826
%RSD	.4112411	.9309900	.5203518	.2888013	.1555574	7.906039

#1	2.452223	690.8559	3.657532	21.65527	.3197150	.0272368
#2	2.453366	690.9020	3.695793	21.75953	.3187869	.0246573
#3	2.470279	679.7980	3.676434	21.64726	.3189454	.0233389

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9851863	.2807503	F 20.00306	9.910024	2.228280	.2613190
Stddev	.0076024	.0009056	.12814	.045931	.026483	.0006347
%RSD	.7716756	.3225505	.6406229	.4634804	1.188514	.2428740

#1	.9767519	.2799062	19.85588	9.863319	2.241292	.2617663
#2	.9872960	.2817068	20.08980	9.955140	2.245742	.2605926
#3	.9915112	.2806379	20.06352	9.911611	2.197808	.2615981

Sample Name: Q1939-05 Acquired: 5/5/2025 19:41:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 51.00996	1.931767	7.975994	9.667754	6.997366	.4033556
Stddev	.12077	.008965	.076648	.011762	.020962	.0024193
%RSD	.2367588	.4641057	.9609780	.1216610	.2995717	.5997880

#1	51.12391	1.921496	7.900940	9.678071	6.999654	.4034464
#2	50.88336	1.938026	8.054142	9.654946	6.975354	.4057282
#3	51.02261	1.935780	7.972899	9.670243	7.017091	.4008922

Elem	Sr4077
Units	ppm
Avg	.0504423
Stddev	.0070056
%RSD	13.88830

#1	.0436023
#2	.0501222
#3	.0576025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2980.118	72000.35	22710.18	1943.849	4275.167
Stddev	6.774	327.82	5.77	16.054	2.948
%RSD	.2272969	.4553056	.0253900	.8258993	.0689638

#1	2987.845	72300.67	22710.12	1959.103	4278.370
#2	2975.203	71650.63	22704.45	1927.099	4272.567
#3	2977.306	72049.75	22715.98	1945.345	4274.564

Sample Name: Q1935-01 Acquired: 5/5/2025 19:45:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0488276	.0183882	.1674800	-.041537	-.008164	142.3495	.8496111
Stddev	.0041547	.0023947	.0009614	.004519	.002402	.1919	.0026609
%RSD	8.508844	13.02294	.5740202	10.88020	29.41928	.1347932	.3131947

#1	.0460115	.0159767	.1666805	-.043907	-.006162	142.5666	.8506700
#2	.0468722	.0207657	.1685467	-.036325	-.007503	142.2028	.8515797
#3	.0535992	.0184223	.1672129	-.044377	-.010827	142.2791	.8465838

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106262	-.010577	13.23847	.2322190	.1227685	.0108756	302.5593
Stddev	.0000396	.000348	.00837	.0010727	.0003867	.0026960	1.8067
%RSD	.3722711	3.292614	.0632281	.4619275	.3149868	24.78955	.5971261

#1	.0105968	-.010978	13.24057	.2328547	.1223240	.0079609	304.5733
#2	.0106106	-.010395	13.24559	.2309805	.1229539	.0113858	302.0233
#3	.0106712	-.010357	13.22925	.2328218	.1230275	.0132800	301.0812

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.110912	43.94178	.2341603	.0051724	15.88045	.3273195	.5353661
Stddev	.013763	.11828	.0012855	.0003044	.07916	.0022019	.0044646
%RSD	.3347802	.2691641	.5489715	5.885809	.4984453	.6726926	.8339398

#1	4.120637	44.01401	.2330950	.0050638	15.95896	.3262737	.5379075
#2	4.116933	43.80529	.2337978	.0055162	15.88171	.3258354	.5302109
#3	4.095165	44.00605	.2355881	.0049371	15.80067	.3298493	.5379798

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.79024	1.012626	.0036679	.0031131	3.517946	2.504719	3.971843
Stddev	.08185	.008293	.0005010	.0005788	.008851	.022800	.006120
%RSD	.5935356	.8189370	13.65812	18.59072	.2515869	.9102935	.1540804

#1	13.88104	1.021857	.0037581	.0037338	3.528027	2.512058	3.964827
#2	13.76755	1.010215	.0031280	.0025881	3.514360	2.522946	3.976080
#3	13.72213	1.005806	.0041177	.0030176	3.511451	2.479153	3.974622

Sample Name: Q1935-01 Acquired: 5/5/2025 19:45:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	1.370236	.3675236	-.179051
Stddev	.014988	.0010115	.001567
%RSD	1.093796	.2752196	.8749219
#1	1.353404	.3672845	-.180846
#2	1.382137	.3686333	-.178341
#3	1.375166	.3666531	-.177965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3227.750	76051.33	23993.85	2085.503	4411.775
Stddev	11.439	314.70	53.09	13.934	14.655
%RSD	.3544027	.4137980	.2212713	.6681552	.3321821
#1	3236.725	75703.67	24008.34	2069.415	4421.275
#2	3231.656	76316.72	24038.19	2093.319	4419.154
#3	3214.870	76133.61	23935.01	2093.775	4394.897

Sample Name: Q1935-05 Acquired: 5/5/2025 19:49:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0453687	.0161249	.2005003	-.050472	-.007140	146.8391	1.342994
Stddev	.0062085	.0021219	.0018250	.003968	.003100	.0635	.001877
%RSD	13.68447	13.15935	.9102068	7.862695	43.41181	.0432518	.1397537

#1	.0456867	.0171431	.1990342	-.054829	-.004380	146.7906	1.341505
#2	.0390074	.0136858	.2025442	-.047066	-.006547	146.9110	1.345102
#3	.0514121	.0175459	.1999225	-.049520	-.010494	146.8156	1.342373

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0127975	-.005372	20.45399	.2631851	.1627600	-.008274	340.9078
Stddev	.0000757	.001151	.08585	.0010187	.0030099	.005321	.1473
%RSD	.5917544	21.43138	.4197177	.3870745	1.849259	64.30720	.0432071

#1	.0128493	-.006002	20.55055	.2634811	.1610680	-.012196	341.0671
#2	.0127106	-.004043	20.42512	.2640231	.1662350	-.002217	340.7765
#3	.0128326	-.006071	20.38630	.2620512	.1609769	-.010408	340.8800

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.733637	64.12050	.3241796	.0049505	6.801347	.3633521	.6785750
Stddev	.017981	.34928	.0060851	.0004053	.028101	.0015106	.0030102
%RSD	.2670376	.5447184	1.877079	8.186537	.4131687	.4157277	.4436140

#1	6.752243	64.46343	.3207073	.0053929	6.770774	.3618499	.6809547
#2	6.732313	64.13285	.3312060	.0048615	6.807220	.3633353	.6795793
#3	6.716354	63.76521	.3206257	.0045971	6.826048	.3648709	.6751910

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.88180	1.147678	.0041513	.0021856	4.133267	2.502115	5.900670
Stddev	.03503	.001805	.0002123	.0012139	.003897	.016232	.121137
%RSD	.1855382	.1572528	5.113043	55.54010	.0942750	.6487188	2.052940

#1	18.85599	1.149606	.0040339	.0032722	4.136985	2.515945	5.825929
#2	18.92168	1.147402	.0043964	.0008755	4.129214	2.484245	6.040435
#3	18.86773	1.146028	.0040238	.0024091	4.133603	2.506156	5.835648

Sample Name: Q1935-05 Acquired: 5/5/2025 19:49:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.5415876	.4868892	-.169533
Stddev	.0160713	.0007891	.000302
%RSD	2.967438	.1620695	.1782971
#1	.5320962	.4862491	-.169881
#2	.5601435	.4877708	-.169337
#3	.5325232	.4866476	-.169380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3493.370	82723.81	25396.98	2289.106	4372.779
Stddev	39.161	281.03	102.37	6.629	67.115
%RSD	1.121019	.3397229	.4030956	.2895778	1.534842
#1	3515.929	82918.66	25399.88	2295.041	4412.006
#2	3448.151	82401.65	25293.19	2281.953	4295.283
#3	3516.032	82851.12	25497.87	2290.324	4411.048

Sample Name: Q1939-01 Acquired: 5/5/2025 19:53:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	2.550063	.0101824	4.814320	-.021641	.0147942	145.0072
Stddev	.011249	.0025564	.003196	.004156	.0028143	.0874
%RSD	.4411332	25.10550	.0663945	19.20336	19.02297	.0603026

#1	2.549062	.0078692	4.814335	-.020377	.0115619	145.0687
#2	2.539347	.0097511	4.811117	-.018263	.0167013	144.9071
#3	2.561779	.0129270	4.817510	-.026281	.0161193	145.0457

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.105908	.0109214	.0026074	49.09197	1.383525	.1112071
Stddev	.001917	.0001022	.0001630	.06376	.004425	.0003095
%RSD	.0910299	.9354808	6.251711	.1298792	.3198147	.2783384

#1	2.105686	.0108049	.0027779	49.15614	1.387419	.1108910
#2	2.107927	.0109638	.0024531	49.02862	1.378713	.1112208
#3	2.104112	.0109957	.0025912	49.09117	1.384443	.1115096

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.076226	223.9190	2.265003	37.06901	.5158699	.0115285
Stddev	.004276	.1453	.001596	.02474	.0007409	.0004412
%RSD	.3973003	.0649003	.0704478	.0667470	.1436200	3.827402

#1	1.076036	224.0163	2.266767	37.09609	.5167104	.0111542
#2	1.072047	223.7520	2.264584	37.04759	.5153116	.0120150
#3	1.080593	223.9889	2.263660	37.06335	.5155876	.0114163

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.642949	.3082056	5.111042	10.10712	.7862753	.0126879
Stddev	.007643	.0022282	.016885	.06931	.0004829	.0004965
%RSD	.4652293	.7229613	.3303684	.6857843	.0614181	3.913291

#1	1.635024	.3096504	5.128334	10.02804	.7868010	.0123345
#2	1.650276	.3056395	5.110197	10.15736	.7861736	.0132555
#3	1.643547	.3093270	5.094595	10.13596	.7858514	.0124736

Sample Name: Q1939-01 Acquired: 5/5/2025 19:53:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.5286205	2.206564	7.947718	F 19.76651	22.05530	.4863201
Stddev	.0018626	.001699	.012630	.03347	.07254	.0004659
%RSD	.3523511	.0770162	.1589178	.1693159	.3289155	.0958021

#1	.5269398	2.205404	7.948534	19.75881	22.09224	.4858820
#2	.5306230	2.205774	7.959920	19.73757	21.97172	.4862688
#3	.5282986	2.208515	7.934699	19.80316	22.10194	.4868095

Elem	Sr4077
Units	ppm
Avg	.3648974
Stddev	.0002259
%RSD	.0619076

#1	.3648078
#2	.3651543
#3	.3647300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3356.054	81633.81	25091.80	2262.114	4334.923
Stddev	5.060	144.12	77.05	7.702	1.874
%RSD	.1507727	.1765384	.3070893	.3404704	.0432309

#1	3357.511	81563.18	25053.66	2262.059	4335.642
#2	3360.225	81799.61	25180.48	2254.440	4332.796
#3	3350.425	81538.64	25041.24	2269.843	4336.331

Sample Name: Q1939-03 Acquired: 5/5/2025 19:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.5594835	.0053752	.2496462	-.017764	-.003143	94.31784	1.575857
Stddev	.0061222	.0014515	.0021432	.003358	.000226	.12195	.002771
%RSD	1.094265	27.00423	.8584920	18.90251	7.175934	.1292953	.1758283

#1	.5647108	.0054130	.2513921	-.018007	-.002995	94.23383	1.577033
#2	.5527482	.0039052	.2502923	-.020994	-.003403	94.26197	1.572693
#3	.5609915	.0068075	.2472544	-.014292	-.003032	94.45771	1.577846

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078136	-.004347	28.89706	.3849556	.0622036	.0241432	145.6350
Stddev	.0000038	.000508	.06033	.0062514	.0000977	.0022775	2.1373
%RSD	.0485203	11.68127	.2087921	1.623937	.1570580	9.433304	1.467591

#1	.0078156	-.004170	28.83938	.3822791	.0621005	.0249608	145.1495
#2	.0078092	-.003952	28.95974	.3804881	.0622155	.0258991	143.7822
#3	.0078159	-.004920	28.89205	.3920997	.0622948	.0215698	147.9734

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7033867	20.55046	.1361260	.0007443	.9944310	.3496595	.4201908
Stddev	.0006063	.09599	.0003007	.0001979	.0269864	.0012336	.0071999
%RSD	.0861906	.4670772	.2208629	26.58089	2.713751	.3528115	1.713477

#1	.7027481	20.46191	.1360388	.0008674	.9867833	.3482504	.4164432
#2	.7039544	20.65246	.1364606	.0005161	.9720938	.3505445	.4156377
#3	.7034576	20.53702	.1358786	.0008494	1.024416	.3501838	.4284915

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.275771	.4710101	.0071766	.0066540	.8358501	6.514673	3.037797
Stddev	.129566	.0083428	.0003149	.0003059	.0030189	.099406	.012259
%RSD	2.064550	1.771260	4.387738	4.596899	.3611746	1.525881	.4035578

#1	6.255916	.4709195	.0073483	.0068990	.8351106	6.483282	3.046695
#2	6.157279	.4627129	.0073683	.0067519	.8332696	6.434752	3.042881
#3	6.414119	.4793978	.0068132	.0063112	.8391700	6.625985	3.023813

Sample Name: Q1939-03 Acquired: 5/5/2025 19:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	10.21548	.1732519	.0590716
Stddev	.01339	.0026189	.0015956
%RSD	.1310781	1.511629	2.701052
#1	10.20918	.1727217	.0593872
#2	10.20639	.1709386	.0604858
#3	10.23085	.1760953	.0573419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3509.822	82166.84	24269.26	2249.896	4701.323
Stddev	5.977	1240.75	110.27	31.426	5.406
%RSD	.1702894	1.510041	.4543522	1.396795	.1149995
#1	3503.899	82668.28	24396.49	2270.492	4696.629
#2	3515.851	83078.40	24210.08	2265.472	4707.234
#3	3509.717	80753.85	24201.23	2213.724	4700.106

Sample Name: Q1917-04 Acquired: 5/5/2025 20:01:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003098	-.004868	.0019836	.0047458	-.000831	.0330577	.3587706
Stddev	.001203	.003507	.0004821	.0012649	.002077	.0025025	.0015121
%RSD	38.83134	72.03712	24.30346	26.65214	249.9483	7.570189	.4214560

#1	-.004312	-.002570	.0024347	.0036109	-.000670	.0314973	.3574190
#2	-.003077	-.008904	.0020406	.0061094	.001161	.0359442	.3604036
#3	-.001906	-.003130	.0014756	.0045170	-.002984	.0317316	.3584893

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000059	-.000239	11.75339	-.000118	.0055051	.0194939	.2584771
Stddev	.000034	.000092	.04206	.000479	.0001413	.0004524	.0072209
%RSD	57.79053	38.38784	.3578195	404.1562	2.567585	2.320704	2.793645

#1	-.000036	-.000184	11.74433	-.000010	.0054103	.0199378	.2517024
#2	-.000042	-.000345	11.79924	.000297	.0054374	.0190335	.2576552
#3	-.000097	-.000189	11.71661	-.000642	.0056676	.0195105	.2660739

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.011560	3.511221	.0023096	-.000266	318.5812	-.002004	.0556686
Stddev	.013950	.014415	.0001246	.000459	2.1733	.001438	.0002430
%RSD	.4632053	.4105443	5.393386	172.6614	.6821938	71.76565	.4365371

#1	2.998376	3.494973	.0023423	-.000782	320.5698	-.000778	.0559399
#2	3.026167	3.522474	.0024146	-.000113	316.2612	-.003587	.0554710
#3	3.010137	3.516218	.0021719	.000097	318.9126	-.001647	.0555949

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7855014	.0287504	-.000781	-.002879	.0003323	.6263471	.0112169
Stddev	.0043269	.0007746	.000133	.000183	.0003525	.0051072	.0002769
%RSD	.5508412	2.694077	17.00284	6.362483	106.0748	.8153999	2.469058

#1	.7896447	.0279841	-.000932	-.002815	-.000040	.6322049	.0113230
#2	.7810118	.0295329	-.000682	-.003085	.000377	.6228277	.0114252
#3	.7858477	.0287342	-.000730	-.002736	.000660	.6240088	.0109026

Sample Name: Q1917-04 Acquired: 5/5/2025 20:01:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3636016	-.003931	.0881909
Stddev	.0081470	.001048	.0001157
%RSD	2.240650	26.64906	.1311348
#1	.3592194	-.005139	.0881066
#2	.3730018	-.003367	.0883227
#3	.3585835	-.003286	.0881434

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2909.417	69802.44	20279.69	1873.185	4381.316
Stddev	5.562	273.91	123.38	4.934	13.853
%RSD	.1911871	.3924066	.6083973	.2633969	.3161891
#1	2904.484	69973.41	20341.59	1878.775	4370.338
#2	2915.446	69947.40	20137.62	1871.339	4396.881
#3	2908.322	69486.51	20359.87	1869.439	4376.729

Sample Name: Q1922-04 Acquired: 5/5/2025 20:06:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.004302	-.004970	.0013156	.0038744	-.001101	.0324058	.2873214
Stddev	.001514	.001134	.0007506	.0021705	.000810	.0052629	.0010855
%RSD	35.18845	22.80771	57.05258	56.02173	73.54273	16.24071	.3778126

#1	-.002638	-.004351	.0005676	.0021507	-.000359	.0318794	.2877379
#2	-.004672	-.004281	.0013104	.0031605	-.000979	.0379122	.2860893
#3	-.005598	-.006279	.0020687	.0063119	-.001965	.0274259	.2881371

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000861	-.000429	8.143072	-.000834	-.000411	.0179555	-.001928
Stddev	.0000242	.000038	.012081	.000370	.000019	.0003738	.003269
%RSD	28.05397	8.893104	.1483636	44.34812	4.626154	2.081609	169.6004

#1	.0000612	-.000420	8.152904	-.000743	-.000401	.0175741	.000976
#2	.0001094	-.000471	8.146726	-.000518	-.000433	.0179715	-.005469
#3	.0000878	-.000396	8.129585	-.001241	-.000399	.0183211	-.001290

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0486419	1.955355	.0025467	-.000097	304.0823	-.000234	.0517998
Stddev	.0002249	.007198	.0003102	.000018	1.1536	.000320	.0003139
%RSD	.4623853	.3681237	12.18183	18.49043	.3793818	137.0858	.6059690

#1	.0485746	1.948032	.0024024	-.000115	303.3862	-.000405	.0514373
#2	.0488928	1.955612	.0023349	-.000079	303.4468	.000136	.0519795
#3	.0484584	1.962421	.0029028	-.000097	305.4139	-.000431	.0519824

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4665791	.0293943	-.000576	-.003425	.0001264	.4035861	.0206285
Stddev	.0228940	.0003922	.000117	.000335	.0008145	.0044836	.0013361
%RSD	4.906776	1.334121	20.25056	9.781234	644.3357	1.110947	6.477109

#1	.4449290	.0297317	-.000668	-.003785	.0002168	.4004345	.0217432
#2	.4642668	.0289641	-.000616	-.003122	.0008919	.4087191	.0209951
#3	.4905415	.0294872	-.000445	-.003367	-.000729	.4016048	.0191474

Sample Name: Q1922-04 Acquired: 5/5/2025 20:06:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.2855289	-.001849	.0305557
Stddev	.0038292	.000442	.0001571
%RSD	1.341102	23.88181	.5141396
#1	.2861611	-.002258	.0305396
#2	.2890027	-.001381	.0304073
#3	.2814229	-.001908	.0307203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2969.176	72820.25	22145.60	1920.590	4519.597
Stddev	8.319	361.27	320.75	3.054	5.473
%RSD	.2801688	.4961088	1.448357	.1589950	.1210854
#1	2970.802	72469.24	21892.75	1920.553	4514.109
#2	2976.562	72800.54	22037.65	1917.554	4525.054
#3	2960.165	73190.97	22506.40	1923.661	4519.627

Sample Name: Q1922-08 Acquired: 5/5/2025 20:10:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002575	-.005445	.0019700	.0031347	-.002221	.0376344	.2659263
Stddev	.002257	.002156	.0006164	.0028384	.001089	.0057002	.0015620
%RSD	87.68120	39.60469	31.28848	90.54779	49.03488	15.14637	.5873658

#1	-.001271	-.003083	.0026639	.0031378	-.001818	.0369827	.2641796
#2	-.005181	-.005941	.0014857	.0059715	-.003454	.0322880	.2664105
#3	-.001271	-.007310	.0017605	.0002947	-.001391	.0436325	.2671888

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001221	-.000368	8.855695	.0004675	-.000135	.0162795	.0260151
Stddev	.0000560	.000060	.040388	.0001749	.000291	.0002537	.0044155
%RSD	45.89019	16.20106	.4560710	37.41330	216.0486	1.558308	16.97302

#1	.0001536	-.000332	8.829589	.0006166	-.000067	.0160637	.0210473
#2	.0001553	-.000336	8.835281	.0002750	-.000454	.0162159	.0294928
#3	.0000574	-.000437	8.902215	.0005107	.000117	.0165589	.0275051

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0671784	2.929497	.0026976	-.000583	283.2763	-.000630	.0615718
Stddev	.0006660	.015375	.0001192	.000194	3.3863	.001270	.0002874
%RSD	.9913160	.5248408	4.419292	33.28793	1.195389	201.4740	.4667677

#1	.0672740	2.919389	.0026265	-.000723	286.9277	.000388	.0613220
#2	.0664698	2.921911	.0026312	-.000664	282.6618	-.000225	.0615075
#3	.0677914	2.947191	.0028353	-.000361	280.2394	-.002054	.0618859

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4140126	.0423528	-.000299	-.001896	.0001005	.4888213	.0238500
Stddev	.0433283	.0010204	.000090	.000098	.0004434	.0142275	.0029221
%RSD	10.46546	2.409287	30.06501	5.190695	440.9554	2.910568	12.25194

#1	.4626829	.0421952	-.000223	-.001973	.0005847	.4725256	.0205402
#2	.3796402	.0434429	-.000398	-.001785	.0000027	.4951640	.0249371
#3	.3997147	.0414204	-.000275	-.001930	-.000286	.4987743	.0260727

Sample Name: Q1922-08 Acquired: 5/5/2025 20:10:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4446758	-.001862	.0322686
Stddev	.0027493	.000676	.0001352
%RSD	.6182759	36.29427	.4189238
#1	.4450005	-.001806	.0321751
#2	.4417785	-.001217	.0322071
#3	.4472483	-.002565	.0324236

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2964.071	71909.45	20118.00	1939.871	4510.481
Stddev	11.400	314.76	82.16	10.221	34.179
%RSD	.3846088	.4377179	.4083962	.5268727	.7577720
#1	2953.431	72056.27	20179.07	1941.722	4471.077
#2	2976.103	71548.11	20024.59	1928.852	4532.115
#3	2962.679	72123.98	20150.33	1949.040	4528.251

Sample Name: Q1925-01 Acquired: 5/5/2025 20:15:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0018890	-.001732	.0028910	.0059103	.0136484	.6526103	.1400750
Stddev	.0009790	.000324	.0003471	.0080677	.0024253	.0129495	.0011670
%RSD	51.82499	18.67995	12.00544	136.5016	17.76988	1.984266	.8331340

#1	.0021053	-.001436	.0025363	.0145163	.0118899	.6645070	.1412680
#2	.0027418	-.002078	.0032299	.0046962	.0126401	.6545066	.1389358
#3	.0008200	-.001683	.0029068	-.001481	.0164151	.6388171	.1400212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000130	.0129174	88.57014	-.000800	.0044617	.0943494	.4308233
Stddev	.000020	.0002104	.20933	.000270	.0000834	.0001756	.0033142
%RSD	15.24243	1.628506	.2363401	33.77313	1.869854	.1861132	.7692594

#1	-.000131	.0128122	88.71866	-.001104	.0043791	.0944844	.4333212
#2	-.000149	.0127805	88.33073	-.000589	.0045459	.0944128	.4270636
#3	-.000109	.0131596	88.66102	-.000706	.0044601	.0941509	.4320852

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2920987	5.797388	.0451482	-.000309	394.1272	.0006202	1.154817
Stddev	.0009693	.036917	.0002305	.000037	.6424	.0019358	.001813
%RSD	.3318391	.6367884	.5106030	12.06045	.1629875	312.1119	.1569733

#1	.2920524	5.812742	.0451796	-.000342	394.3675	-.001066	1.152727
#2	.2911535	5.755272	.0453614	-.000316	393.3993	.000193	1.155750
#3	.2930904	5.824150	.0449036	-.000269	394.6148	.002734	1.155973

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.391957	10.35778	.0016824	-.005820	-.003016	1.391138	.0055418
Stddev	.030854	.06529	.0002021	.000442	.000310	.022836	.0038906
%RSD	.9096274	.6303369	12.00974	7.602567	10.28645	1.641548	70.20412

#1	3.422675	10.32865	.0017114	-.005462	-.002658	1.409024	.0011394
#2	3.392228	10.31213	.0018684	-.005682	-.003195	1.398974	.0069677
#3	3.360969	10.43256	.0014674	-.006315	-.003195	1.365415	.0085182

Sample Name: Q1925-01 Acquired: 5/5/2025 20:15:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	11.12815	-.001640	.1998311
Stddev	.00589	.000705	.0008018
%RSD	.0529364	42.98699	.4012250
#1	11.12465	-.001399	.1990577
#2	11.12484	-.001087	.1997770
#3	11.13495	-.002434	.2006585

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2875.539	70585.24	21886.48	1902.549	4286.082
Stddev	20.208	367.87	131.70	3.798	41.816
%RSD	.7027383	.5211750	.6017630	.1996135	.9756267
#1	2889.515	70161.18	21807.89	1898.188	4323.270
#2	2884.733	70775.95	22038.53	1904.336	4294.159
#3	2852.369	70818.61	21813.01	1905.124	4240.816

Sample Name: CCV07 Acquired: 5/5/2025 20:19:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.699065	4.627214	4.706242	4.704497	4.702196	9.212140	9.384379
Stddev	.028038	.030315	.006090	.031145	.040010	.032881	.092476
%RSD	.5966821	.6551544	.1294103	.6620291	.8508798	.3569289	.9854234

#1	4.668686	4.597860	4.699830	4.673867	4.663474	9.215986	9.437138
#2	4.704558	4.625375	4.706946	4.703492	4.699735	9.242929	9.438399
#3	4.723950	4.658407	4.711950	4.736133	4.743380	9.177505	9.277599

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2311267	2.354083	23.25538	.9546546	2.333915	1.166989	4.819386
Stddev	.0008374	.003441	.07497	.0012547	.004001	.007387	.028718
%RSD	.3623271	.1461841	.3223790	.1314298	.1714491	.6330254	.5958865

#1	.2319639	2.356964	23.29218	.9552421	2.333258	1.160185	4.833849
#2	.2311273	2.350273	23.30485	.9555077	2.330282	1.165934	4.837997
#3	.2302891	2.355014	23.16912	.9532139	2.338204	1.174847	4.786312

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.313188	23.13146	2.356677	1.184229	23.75913	2.340056	2.354506
Stddev	.008798	.18114	.004577	.000342	.06403	.010169	.005842
%RSD	.3803345	.7831047	.1942021	.0289131	.2694984	.4345602	.2481092

#1	2.318070	23.15944	2.357781	1.184256	23.70204	2.338592	2.359919
#2	2.318463	23.29698	2.351649	1.184557	23.82836	2.350878	2.355286
#3	2.303032	22.93795	2.360600	1.183874	23.74699	2.330698	2.348314

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.78517	4.597822	4.743977	4.701505	4.656463	4.754031	4.688536
Stddev	.05904	.008071	.021865	.003768	.013581	.007757	.010553
%RSD	.2482413	.1755451	.4609086	.0801434	.2916562	.1631755	.2250884

#1	23.77300	4.607083	4.725135	4.697639	4.654128	4.758179	4.689078
#2	23.84935	4.592284	4.738845	4.705167	4.671060	4.745082	4.677723
#3	23.73315	4.594100	4.767952	4.701709	4.644201	4.758833	4.698809

Sample Name: CCV07 Acquired: 5/5/2025 20:19:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.604426	4.565138	4.765887
Stddev	.015173	.011952	.028248
%RSD	.3295229	.2618201	.5927023
#1	4.591862	4.565676	4.767496
#2	4.600135	4.576813	4.736870
#3	4.621283	4.552926	4.793296

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3023.829	70624.70	20577.05	1933.957	4591.271
Stddev	9.773	132.82	55.42	8.260	23.413
%RSD	.3232020	.1880668	.2693223	.4270973	.5099398
#1	3015.373	70681.00	20542.99	1935.387	4565.252
#2	3034.529	70472.99	20547.17	1925.075	4610.636
#3	3021.586	70720.09	20641.00	1941.408	4597.927

Sample Name: CCB07 Acquired: 5/5/2025 20:23:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000142	.0010953	-.001364	.0042795	.0012243	.0044797	-.007364
Stddev	.001320	.0003973	.000942	.0009327	.0010940	.0062613	.000824
%RSD	928.0393	36.27371	69.06639	21.79477	89.35240	139.7709	11.18412

#1	-.001402	.0006495	-.000283	.0052182	.0000096	.0030011	-.007412
#2	.001231	.0012244	-.002013	.0033529	.0021319	.0113479	-.008163
#3	-.000255	.0014120	-.001796	.0042674	.0015314	-.000910	-.006517

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000038	-.000403	.0142908	-.000175	-.000128	.0000220	.0035717
Stddev	.000002	.000012	.0055945	.000143	.000261	.0001575	.0037095
%RSD	4.369763	2.858260	39.14734	81.59460	204.7004	716.7091	103.8575

#1	-.000038	-.000390	.0081023	-.000082	.000151	-.000124	.0026526
#2	-.000037	-.000411	.0157802	-.000339	-.000168	.000189	.0004082
#3	-.000040	-.000409	.0189898	-.000103	-.000366	.000000	.0076545

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056888	.0179726	-.000111	-.000197	.0116782	-.001050	-.000814
Stddev	.0002497	.0053607	.000171	.000204	.0047922	.001316	.000311
%RSD	4.389528	29.82705	154.3778	103.4643	41.03552	125.4080	38.17069

#1	.0056040	.0118589	.000062	-.000072	.0090986	.000064	-.000793
#2	.0059699	.0201906	-.000113	-.000433	.0087284	-.000711	-.000514
#3	.0054926	.0218683	-.000280	-.000087	.0172076	-.002502	-.001135

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0258715	.0127466	-.000123	-.000237	-.000006	.0285274	.0001722
Stddev	.0194727	.0009994	.000310	.000512	.000622	.0125154	.0030973
%RSD	75.26700	7.840735	251.0053	216.1173	10811.40	43.87165	1798.780

#1	.0126054	.0129817	.000232	.000267	-.000516	.0167684	-.003403
#2	.0482270	.0136075	-.000338	-.000756	.000687	.0271316	.001877
#3	.0167821	.0116506	-.000264	-.000221	-.000189	.0416823	.002042

Sample Name: CCB07 Acquired: 5/5/2025 20:23:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0021499	.0024087	-.000599
Stddev	.0041954	.0010387	.000040
%RSD	195.1494	43.12308	6.640060
#1	-.002647	.0031960	-.000618
#2	.005135	.0027987	-.000553
#3	.003961	.0012315	-.000625

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3063.298	72730.33	22023.30	1982.337	4886.161
Stddev	9.690	247.66	94.26	5.707	3.549
%RSD	.3163372	.3405147	.4279979	.2878791	.0726270
#1	3071.742	72781.25	21965.61	1987.583	4888.287
#2	3065.435	72948.58	22132.08	1976.261	4888.131
#3	3052.718	72461.18	21972.22	1983.167	4882.064

Sample Name: Q1925-02 Acquired: 5/5/2025 20:28:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0005093	-.004051	.0233083	.0049004	.0023304	.2018527	.3302079
Stddev	.0038887	.001328	.0023992	.0039759	.0015018	.0029591	.0005897
%RSD	763.5331	32.78758	10.29313	81.13385	64.44465	1.465965	.1785818

#1	.0049895	-.005030	.0254972	.0074855	.0024010	.2038469	.3307782
#2	-.001470	-.002539	.0207433	.0003222	.0007945	.1984528	.3302449
#3	-.001992	-.004584	.0236844	.0068937	.0037957	.2032585	.3296006

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000060	.0018937	12.10842	.0017051	.0033695	1.330159	4.235573
Stddev	.000052	.0000734	.04350	.0002004	.0001052	.005156	.011199
%RSD	86.42750	3.876545	.3592437	11.75313	3.122466	.3876360	.2644113

#1	-.000031	.0018917	12.11673	.0016964	.0034755	1.329287	4.229446
#2	-.000029	.0018213	12.06137	.0015092	.0033679	1.325494	4.228775
#3	-.000120	.0019681	12.14717	.0019097	.0032650	1.335695	4.248499

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1982418	1.092842	.0446226	.0000489	337.9565	.0001572	.4286776
Stddev	.0009784	.009663	.0004443	.0004216	1.8768	.0004330	.0016699
%RSD	.4935324	.8842414	.9956452	861.2941	.5553446	275.3740	.3895404

#1	.1985712	1.103339	.0441604	-.000430	338.6482	-.000323	.4269152
#2	.1971413	1.084316	.0446609	.000215	335.8319	.000278	.4288815
#3	.1990131	1.090871	.0450464	.000362	339.3892	.000517	.4302362

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.127632	.7514189	-.000194	-.003569	.0001985	.9534803	.0111544
Stddev	.049795	.0023906	.000149	.000766	.0010351	.0060926	.0015035
%RSD	4.415928	.3181496	76.73859	21.45584	521.4756	.6389851	13.47921

#1	1.070721	.7538738	-.000261	-.003302	.0013766	.9501228	.0128277
#2	1.163190	.7490982	-.000297	-.002973	-.000565	.9498051	.0099169
#3	1.148984	.7512847	-.000023	-.004433	-.000216	.9605130	.0107187

Sample Name: Q1925-02 Acquired: 5/5/2025 20:28:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	1.237383	-.001037	.0359517
Stddev	.009054	.001101	.0001467
%RSD	.7317115	106.1783	.4079509
#1	1.226963	.000086	.0361144
#2	1.243326	-.001083	.0359110
#3	1.241861	-.002115	.0358296

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2921.805	72411.98	22502.37	1919.267	4460.365
Stddev	8.494	230.66	46.49	2.765	10.077
%RSD	.2907178	.3185421	.2065875	.1440529	.2259200
#1	2919.477	72540.14	22457.99	1921.560	4460.778
#2	2931.221	72145.70	22550.71	1916.197	4470.229
#3	2914.718	72550.11	22498.40	1920.045	4450.088

Sample Name: Q1925-03 Acquired: 5/5/2025 20:32:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0097116	-.002977	-.000729	.0026629	.0345006	.0657325	.1235237
Stddev	.0045201	.001419	.000922	.0058730	.0012290	.0036790	.0006065
%RSD	46.54401	47.66911	126.5204	220.5497	3.562285	5.596937	.4910020

#1	.0090130	-.001509	-.001777	-.001163	.0359161	.0670868	.1228278
#2	.0145403	-.004342	-.000364	-.000273	.0338818	.0615683	.1239401
#3	.0055813	-.003080	-.000045	.009425	.0337041	.0685424	.1238031

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000186	.0140981	143.3366	.0018716	.0054962	.0828494	.3422221
Stddev	.000046	.0002109	.3494	.0001844	.0000442	.0004402	.0036526
%RSD	24.72040	1.496161	.2437764	9.852019	.8047668	.5313233	1.067321

#1	-.000180	.0140593	143.2615	.0016639	.0055323	.0823411	.3446497
#2	-.000143	.0139093	143.0309	.0019352	.0054469	.0831065	.3439952
#3	-.000234	.0143258	143.7175	.0020159	.0055094	.0831006	.3380214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3515907	9.882606	.0489036	-.000561	485.3827	.0006804	.8892531
Stddev	.0020135	.044927	.0001523	.000442	3.2538	.0008516	.0093570
%RSD	.5726799	.4546068	.3114079	78.83655	.6703551	125.1569	1.052227

#1	.3509465	9.870821	.0489226	-.000979	482.5195	.0011580	.8872978
#2	.3499781	9.844746	.0487427	-.000099	488.9211	-.000303	.8994333
#3	.3538475	9.932251	.0490455	-.000604	484.7077	.001186	.8810284

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.997739	17.78049	.0150233	-.006215	-.004356	1.758817	.0089660
Stddev	.091408	.12478	.0000576	.000357	.000974	.029862	.0028934
%RSD	1.524042	.7018067	.3833906	5.752278	22.35152	1.697828	32.27115

#1	6.054520	17.72507	.0149569	-.006626	-.005350	1.739467	.0097997
#2	6.046402	17.69302	.0150596	-.005978	-.004314	1.793209	.0057472
#3	5.892294	17.92339	.0150534	-.006041	-.003404	1.743775	.0113510

Sample Name: Q1925-03 Acquired: 5/5/2025 20:32:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	20.55244	.0027057	.3327502
Stddev	.02344	.0005619	.0009577
%RSD	.1140261	20.76563	.2878248
#1	20.54646	.0020569	.3336736
#2	20.53257	.0030259	.3317614
#3	20.57828	.0030342	.3328157

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.569	68580.82	22255.73	1848.627	4192.714
Stddev	1.188	451.61	194.72	17.724	10.999
%RSD	.0420551	.6585144	.8749384	.9587865	.2623451
#1	2824.279	68947.67	22350.45	1853.306	4199.842
#2	2825.809	68076.43	22384.96	1829.033	4198.253
#3	2826.619	68718.37	22031.76	1863.543	4180.046

Sample Name: Q1928-04 Acquired: 5/5/2025 20:36:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002680	-.007164	.0003393	.0029049	-.000251	.0658550	.2554917
Stddev	.003432	.001562	.0009978	.0010584	.000787	.0048824	.0020176
%RSD	128.0511	21.79780	294.0766	36.43379	314.1429	7.413829	.7896946

#1	.000181	-.005362	.0013945	.0041242	.000064	.0609106	.2578186
#2	-.006484	-.008017	-.000589	.0022237	-.001146	.0659813	.2544275
#3	-.001736	-.008114	.000212	.0023668	.000331	.0706729	.2542289

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000138	-.000367	9.072368	-.000658	.0007709	.0071480	.3461059
Stddev	.000008	.000049	.030641	.000384	.0000363	.0003379	.0066803
%RSD	5.498842	13.40727	.3377444	58.38103	4.705815	4.727406	1.930126

#1	-.000142	-.000410	9.098764	-.000313	.0008127	.0069384	.3485822
#2	-.000143	-.000377	9.079574	-.001071	.0007483	.0069678	.3385410
#3	-.000129	-.000313	9.038766	-.000589	.0007516	.0075378	.3511943

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.227585	1.892204	.0009843	-.000355	323.8065	.0001512	.0462464
Stddev	.005563	.005473	.0002724	.000327	2.3155	.0003067	.0004942
%RSD	.4531565	.2892162	27.67588	92.03776	.7150756	202.8213	1.068627

#1	1.233017	1.886133	.0012914	-.000132	321.1909	-.000145	.0465490
#2	1.227838	1.896758	.0008893	-.000203	324.6339	.000467	.0465142
#3	1.221900	1.893721	.0007720	-.000730	325.5945	.000132	.0456761

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9127368	.0591428	-.000191	-.003615	.0001463	.5356709	.0081401
Stddev	.0469170	.0011257	.000305	.000253	.0004569	.0079474	.0018261
%RSD	5.140254	1.903329	159.1058	6.987748	312.2528	1.483633	22.43402

#1	.9311898	.0598444	-.000503	-.003894	.0001542	.5326829	.0101530
#2	.8593989	.0597396	-.000177	-.003402	.0005993	.5296507	.0076777
#3	.9476217	.0578444	.000106	-.003548	-.000314	.5446793	.0065895

Sample Name: Q1928-04 Acquired: 5/5/2025 20:36:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.2271048	-.002171	.0371204
Stddev	.0040043	.000406	.0002229
%RSD	1.763211	18.69848	.6004555
#1	.2282561	-.002635	.0373324
#2	.2226510	-.001996	.0368880
#3	.2304075	-.001882	.0371407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2973.629	73018.99	22461.72	1972.188	4506.815
Stddev	36.379	48.49	153.37	11.071	57.090
%RSD	1.223374	.0664098	.6828092	.5613552	1.266749
#1	2994.143	72989.41	22368.14	1973.736	4539.914
#2	2995.117	72992.62	22378.29	1960.425	4539.639
#3	2931.626	73074.96	22638.72	1982.404	4440.894

Sample Name: Q1929-03 Acquired: 5/5/2025 20:41:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001431	-.004400	-.001894	-.000082	-.000170	-.009885	.0358258
Stddev	.003396	.001902	.001492	.007312	.000951	.008136	.0001133
%RSD	237.3694	43.23514	78.80394	8928.797	559.7630	82.30681	.3161315

#1	.001656	-.004672	-.002439	-.007396	-.001130	-.000532	.0357204
#2	-.000880	-.006151	-.000206	.007227	-.000151	-.015329	.0359456
#3	-.005068	-.002376	-.003037	-.000076	.000771	-.013795	.0358115

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000181	-.000480	137.4268	.0057486	-.000531	.0017119	-.002233
Stddev	.000032	.000020	.3609	.0001619	.000280	.0004436	.002727
%RSD	17.44388	4.194914	.2626102	2.815504	52.80907	25.91169	122.1223

#1	-.000147	-.000475	137.8312	.0057131	-.000854	.0020614	-.005104
#2	-.000188	-.000463	137.3117	.0059253	-.000387	.0012129	.000321
#3	-.000209	-.000503	137.1376	.0056075	-.000352	.0018615	-.001915

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007273	.0515022	.0008040	-.000398	299.1748	.0031838	.0003796
Stddev	.0003362	.0050505	.0000504	.000253	4.9845	.0004534	.0003612
%RSD	46.21863	9.806472	6.267383	63.68350	1.666096	14.24042	95.15334

#1	.0004377	.0474057	.0008431	-.000137	293.4315	.0026639	.0005731
#2	.0010960	.0571451	.0007471	-.000413	301.7196	.0034973	-.000037
#3	.0006483	.0499556	.0008216	-.000643	302.3732	.0033902	.000603

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.800287	.0182613	.0049790	-.006374	-.004042	2.407045	.0040428
Stddev	.037062	.0006056	.0002266	.000577	.000040	.010328	.0041488
%RSD	.7720810	3.316109	4.550340	9.051353	.9959440	.4290736	102.6216

#1	4.760745	.0180474	.0047222	-.005793	-.004064	2.395616	.0017049
#2	4.805884	.0189447	.0050645	-.006947	-.004066	2.409810	.0088330
#3	4.834233	.0177916	.0051505	-.006383	-.003995	2.415709	.0015906

Sample Name: Q1929-03 Acquired: 5/5/2025 20:41:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	6.069490	-.019732	.7021811
Stddev	.031964	.000998	.0016551
%RSD	.5266392	5.059839	.2357032
#1	6.038564	-.020600	.7037511
#2	6.067506	-.018641	.7004524
#3	6.102400	-.019955	.7023397

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2874.445	70373.52	21835.61	1872.248	4334.922
Stddev	13.173	277.85	123.98	10.604	18.785
%RSD	.4582683	.3948203	.5677835	.5663660	.4333373
#1	2882.853	70563.20	21692.50	1866.467	4344.915
#2	2881.218	70502.77	21910.28	1884.486	4346.597
#3	2859.264	70054.59	21904.05	1865.791	4313.252

Sample Name: Q1929-07 Acquired: 5/5/2025 20:45:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.004491	-.004921	.0056768	-.000562	.0003555	.1019372	.0851927
Stddev	.004852	.001351	.0010274	.003905	.0030923	.0024888	.0006341
%RSD	108.0309	27.45911	18.09775	694.6051	869.8601	2.441533	.7442949

#1	-.009506	-.003553	.0062769	.002604	.0037775	.0999123	.0858765
#2	-.004146	-.006255	.0062629	-.004926	-.002239	.1011834	.0850774
#3	.000179	-.004955	.0044905	.000636	-.000472	.1047157	.0846241

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000194	-.000457	168.1516	-.000505	-.000454	.0022337	-.000210
Stddev	.000029	.000096	.2970	.000242	.000118	.0000628	.002284
%RSD	15.12048	20.90955	.1766433	48.02764	26.05100	2.813837	1087.340

#1	-.000210	-.000530	167.8718	-.000571	-.000439	.0021720	-.002817
#2	-.000161	-.000349	168.4633	-.000707	-.000343	.0022316	.000748
#3	-.000213	-.000492	168.1197	-.000236	-.000578	.0022976	.001439

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003281	.0188194	.0006870	-.000156	317.1830	.0002236	.0014748
Stddev	.000074	.0040762	.0001739	.000190	1.7763	.0006408	.0004678
%RSD	2.251411	21.65960	25.31079	122.0262	.5600202	286.5842	31.71851

#1	-.003238	.0144241	.0004889	-.000335	317.5312	.0000684	.0010568
#2	-.003238	.0195588	.0008145	.000044	315.2584	.0009277	.0013874
#3	-.003366	.0224753	.0007576	-.000176	318.7595	-.000325	.0019801

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.268034	.0078724	.0071432	-.005753	-.004197	.4197034	.0045999
Stddev	.059631	.0003221	.0001670	.000486	.000169	.0048817	.0013874
%RSD	.8204494	4.091644	2.337431	8.454380	4.029779	1.163139	30.16207

#1	7.199395	.0079132	.0072466	-.005530	-.004011	.4163786	.0036325
#2	7.297627	.0081721	.0072324	-.005419	-.004341	.4253080	.0039776
#3	7.307080	.0075318	.0069506	-.006311	-.004238	.4174236	.0061895

Sample Name: Q1929-07 Acquired: 5/5/2025 20:45:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	1.739293	-.021247	1.072182
Stddev	.005935	.000444	.005585
%RSD	.3412309	2.087833	.5208616
#1	1.740907	-.020781	1.065824
#2	1.732718	-.021665	1.074429
#3	1.744254	-.021295	1.076294

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2860.417	71297.83	22474.56	1859.755	4316.092
Stddev	7.553	112.52	103.82	7.714	7.080
%RSD	.2640366	.1578132	.4619420	.4148123	.1640371
#1	2858.631	71413.09	22355.33	1864.612	4322.366
#2	2868.703	71188.27	22544.94	1850.859	4317.495
#3	2853.918	71292.14	22523.42	1863.793	4308.416

Sample Name: Q1929-11 Acquired: 5/5/2025 20:50:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.002462	-.004330	-.000835	.0009812	.0002996	-.034336	.0433479
Stddev	.002073	.000853	.000884	.0044577	.0022292	.001615	.0014173
%RSD	84.17875	19.69811	105.8700	454.3322	744.0791	4.702801	3.269695

#1	-.000214	-.005169	-.001837	-.002620	.0022716	-.036191	.0421065
#2	-.002875	-.004358	-.000163	.005967	.0007464	-.033241	.0430450
#3	-.004298	-.003464	-.000506	-.000404	-.002119	-.033576	.0448922

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000210	-.000348	179.8494	.0011179	-.000747	.0021908	-.002161
Stddev	.000031	.000051	.5062	.0003300	.000153	.0002583	.004239
%RSD	14.89811	14.73550	.2814604	29.51777	20.50054	11.78826	196.1395

#1	-.000177	-.000371	179.3353	.0014988	-.000669	.0019306	-.006830
#2	-.000213	-.000383	179.8655	.0009308	-.000648	.0021946	.001447
#3	-.000239	-.000289	180.3474	.0009239	-.000923	.0024470	-.001100

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059813	.0882763	.0005309	-.000256	372.8113	.0074177	.0003620
Stddev	.0002881	.0088389	.0002883	.000310	2.7923	.0010362	.0001010
%RSD	4.816405	10.01283	54.29684	121.0518	.7489819	13.96857	27.90808

#1	.0060736	.0804559	.0008532	-.000027	370.8045	.0062985	.0004443
#2	.0056584	.0865069	.0002977	-.000133	376.0002	.0083435	.0002493
#3	.0062120	.0978661	.0004418	-.000609	371.6292	.0076111	.0003925

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.744478	.0238000	.0053969	-.006329	-.004732	4.072157	.0014459
Stddev	.052611	.0006979	.0000797	.001009	.000515	.029135	.0013541
%RSD	1.108889	2.932335	1.477028	15.93866	10.89167	.7154634	93.65228

#1	4.777333	.0230552	.0054829	-.007108	-.004877	4.105679	-.000001
#2	4.683797	.0239059	.0053254	-.006690	-.004160	4.057860	.002683
#3	4.772303	.0244388	.0053823	-.005190	-.005159	4.052933	.001656

Sample Name: Q1929-11 Acquired: 5/5/2025 20:50:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	9.390076	-.026519	.8146874
Stddev	.034845	.000419	.0010952
%RSD	.3710838	1.579418	.1344299
#1	9.429095	-.026048	.8148989
#2	9.362062	-.026851	.8135018
#3	9.379072	-.026657	.8156613

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2824.557	69683.56	20691.21	1847.641	4201.450
Stddev	5.799	108.19	134.58	1.706	12.104
%RSD	.2052987	.1552532	.6504333	.0923285	.2880910
#1	2818.041	69722.70	20846.55	1845.700	4190.246
#2	2829.148	69766.72	20609.70	1848.906	4199.816
#3	2826.484	69561.25	20617.38	1848.316	4214.288

Sample Name: Q1932-02 Acquired: 5/5/2025 20:54:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003824	-.003664	-.001456	.0035705	.0012434	.3721787	.1561850
Stddev	.002398	.000597	.001676	.0037215	.0024433	.0041640	.0012311
%RSD	62.70624	16.30273	115.0793	104.2302	196.5025	1.118831	.7882266

#1	-.005052	-.003099	-.001804	.0026149	.0018506	.3768773	.1573698
#2	-.001061	-.004289	.000366	.0004200	.0033259	.3689452	.1562728
#3	-.005359	-.003605	-.002931	.0076766	-.001446	.3707136	.1549123

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000103	-.000416	23.27928	.0003616	.0056855	.0143126	.3850491
Stddev	.000062	.000087	.15635	.0001721	.0000681	.0003006	.0044624
%RSD	60.16707	20.89477	.6716196	47.60743	1.197360	2.099958	1.158911

#1	-.000172	-.000390	23.45268	.0004307	.0056107	.0139699	.3890602
#2	-.000052	-.000345	23.23613	.0001656	.0057021	.0145313	.3802424
#3	-.000085	-.000513	23.14905	.0004884	.0057438	.0144367	.3858448

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5069908	2.021911	.0070247	-.000144	301.1137	.0004809	.0604070
Stddev	.0027159	.008197	.0000627	.000250	3.0935	.0009558	.0006996
%RSD	.5356816	.4054073	.8923575	173.8308	1.027349	198.7476	1.158215

#1	.5093979	2.029203	.0070729	-.000354	303.9370	-.000560	.0608827
#2	.5075280	2.023491	.0069538	.000132	301.5970	.000683	.0607347
#3	.5040464	2.013040	.0070473	-.000209	297.8070	.001319	.0596037

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.222431	.0200302	-.000151	-.004633	.0143164	1.561026	.0218067
Stddev	.022214	.0006020	.000212	.000456	.0006328	.002725	.0010223
%RSD	1.817232	3.005571	140.2647	9.839380	4.420043	.1745555	4.688092

#1	1.224498	.0203411	-.000127	-.005146	.0140115	1.558212	.0229054
#2	1.243540	.0193362	-.000374	-.004276	.0150439	1.563652	.0216311
#3	1.199256	.0204131	.000048	-.004476	.0138938	1.561214	.0208835

Sample Name: Q1932-02 Acquired: 5/5/2025 20:54:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4641955	-.004457	.0527860
Stddev	.0017320	.000608	.0002740
%RSD	.3731249	13.64499	.5190308
#1	.4656882	-.004912	.0530992
#2	.4622964	-.003766	.0525907
#3	.4646018	-.004693	.0526681

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2947.447	73339.27	22170.65	1975.673	4418.490
Stddev	10.912	231.92	278.24	7.936	11.762
%RSD	.3702065	.3162301	1.254996	.4016796	.2662073
#1	2953.983	73490.66	21907.15	1968.025	4428.806
#2	2953.508	73072.26	22143.19	1975.126	4420.983
#3	2934.851	73454.88	22461.60	1983.869	4405.681

Sample Name: Q1932-04 Acquired: 5/5/2025 20:59:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000956	-.004922	-.001413	.0009768	-.000047	.0438982	.1238704
Stddev	.001107	.000353	.001142	.0021465	.001257	.0069653	.0010698
%RSD	115.7426	7.163845	80.82069	219.7501	2691.410	15.86682	.8636080

#1	-.000986	-.004967	-.000153	-.001448	.000178	.0416854	.1243649
#2	.000165	-.004549	-.001708	.001744	.001083	.0517011	.1246035
#3	-.002049	-.005250	-.002379	.002635	-.001400	.0383082	.1226429

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000095	-.000346	16.84195	-.000169	.0056500	.0135366	-.004422
Stddev	.000038	.000054	.08027	.000329	.0000646	.0003853	.001808
%RSD	39.72850	15.58835	.4765963	194.6572	1.143485	2.846146	40.88876

#1	-.000098	-.000387	16.88348	-.000443	.0056717	.0139035	-.004210
#2	-.000130	-.000367	16.89295	.000195	.0055773	.0131352	-.002729
#3	-.000055	-.000285	16.74943	-.000258	.0057010	.0135710	-.006327

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7171429	1.655461	.0041992	-.000727	273.2217	-.000198	.0755413
Stddev	.0040873	.009578	.0002928	.000154	3.8978	.000368	.0003186
%RSD	.5699449	.5785718	6.972922	21.20244	1.426625	185.5328	.4217508

#1	.7193776	1.645489	.0041050	-.000575	269.5123	.000222	.0753167
#2	.7196256	1.664589	.0039650	-.000724	277.2840	-.000355	.0759059
#3	.7124254	1.656306	.0045275	-.000883	272.8689	-.000462	.0754012

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8797842	.0131843	-.000398	-.003486	-.000289	.7572860	.0130097
Stddev	.0283091	.0006328	.000308	.000641	.000525	.0142275	.0023014
%RSD	3.217733	4.799585	77.30218	18.38486	181.7764	1.878745	17.68970

#1	.8818445	.0138191	-.000645	-.002818	-.000351	.7415559	.0107673
#2	.9070068	.0131804	-.000497	-.003545	-.000779	.7610468	.0128960
#3	.8505012	.0125535	-.000053	-.004096	.000264	.7692552	.0153658

Sample Name: Q1932-04 Acquired: 5/5/2025 20:59:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.2773052	-.004138	.0472797
Stddev	.0029872	.000391	.0001563
%RSD	1.077239	9.440869	.3306327
#1	.2769312	-.004282	.0473990
#2	.2804619	-.003696	.0473374
#3	.2745226	-.004436	.0471027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2971.996	70434.31	21030.30	1946.040	4467.616
Stddev	4.821	103.59	101.05	6.588	6.150
%RSD	.1622137	.1470718	.4805117	.3385458	.1376609
#1	2976.917	70553.65	20993.59	1940.730	4474.612
#2	2971.787	70381.68	20952.73	1953.413	4465.173
#3	2967.282	70367.60	21144.57	1943.977	4463.063

Sample Name: Q1932-06 Acquired: 5/5/2025 21:03:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001320	-.004467	-.000927	.0000234	-.000085	.1484049	.1686657
Stddev	.002791	.001008	.001289	.0017975	.001269	.0047872	.0014018
%RSD	211.4551	22.55599	138.9709	7684.602	1488.937	3.225786	.8310908

#1	-.001887	-.005007	.000477	-.000646	-.000379	.1478406	.1702831
#2	-.003784	-.005090	-.002056	.002060	-.001181	.1439248	.1678033
#3	.001711	-.003305	-.001203	-.001344	.001305	.1534493	.1679106

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000046	-.000287	21.67501	-.000391	.0056431	.0112280	.1252141
Stddev	.000020	.000022	.05551	.000271	.0000674	.0001764	.0018549
%RSD	43.23750	7.548098	.2561056	69.38663	1.193825	1.571372	1.481368

#1	-.000058	-.000310	21.73687	-.000590	.0055848	.0110297	.1244498
#2	-.000056	-.000286	21.62954	-.000082	.0056278	.0113677	.1238635
#3	-.000023	-.000267	21.65862	-.000500	.0057168	.0112866	.1273290

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4612182	1.379099	.0091183	-.000534	314.5470	-.000903	.0804097
Stddev	.0018038	.008158	.0001644	.000317	1.4620	.001591	.0003504
%RSD	.3910848	.5915509	1.803330	59.32233	.4647856	176.2278	.4357756

#1	.4632561	1.371717	.0093081	-.000814	312.9784	.000887	.0804293
#2	.4598268	1.387858	.0090217	-.000190	315.8716	-.002157	.0800499
#3	.4605716	1.377721	.0090250	-.000597	314.7911	-.001438	.0807498

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.239085	.0165537	-.000271	-.003894	.0040788	1.119314	.0085484
Stddev	.010134	.0006137	.000180	.000180	.0007399	.013400	.0007585
%RSD	.8178532	3.707459	66.34632	4.630015	18.14062	1.197132	8.872883

#1	1.228526	.0164293	-.000216	-.003872	.0049050	1.105732	.0092102
#2	1.248732	.0172200	-.000472	-.004085	.0034772	1.119686	.0077207
#3	1.239996	.0160116	-.000125	-.003726	.0038543	1.132524	.0087144

Sample Name: Q1932-06 Acquired: 5/5/2025 21:03:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.4786540	-.004814	.0442760
Stddev	.0104741	.001078	.0002063
%RSD	2.188243	22.38208	.4660033
#1	.4716632	-.005952	.0443120
#2	.4736022	-.003809	.0444619
#3	.4906966	-.004681	.0440540

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2908.297	69445.06	22100.97	1890.229	4366.483
Stddev	26.461	477.60	91.83	16.383	45.189
%RSD	.9098538	.6877376	.4154942	.8667156	1.034908
#1	2922.210	69962.28	22025.97	1908.899	4389.215
#2	2924.899	69352.18	22073.56	1883.535	4395.792
#3	2877.782	69020.73	22203.38	1878.253	4314.441

Sample Name: CCV08 Acquired: 5/5/2025 21:07:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.786536	4.672706	4.766885	4.801830	4.761859	9.245611	9.385912
Stddev	.020226	.031789	.017171	.017927	.020973	.022817	.084023
%RSD	.4225660	.6803223	.3602217	.3733267	.4404428	.2467863	.8952046

#1	4.764228	4.638211	4.759708	4.785399	4.737651	9.262370	9.351200
#2	4.803677	4.700822	4.754467	4.820949	4.774541	9.219626	9.481730
#3	4.791704	4.679085	4.786480	4.799142	4.773387	9.254837	9.324807

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2318519	2.384552	23.30054	.9614089	2.364769	1.190292	4.869179
Stddev	.0004998	.012261	.06532	.0052990	.011219	.004954	.035080
%RSD	.2155746	.5141762	.2803540	.5511734	.4744082	.4162172	.7204443

#1	.2314759	2.380423	23.37270	.9615145	2.357099	1.184864	4.903094
#2	.2316607	2.374888	23.24544	.9560579	2.359563	1.191442	4.833040
#3	.2324191	2.398344	23.28349	.9666544	2.377645	1.194571	4.871404

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.306865	23.32386	2.380449	1.179341	23.65167	2.342388	2.350970
Stddev	.004373	.03402	.011437	.006921	.12603	.006969	.022240
%RSD	.1895505	.1458779	.4804527	.5868365	.5328779	.2975357	.9459928

#1	2.310655	23.33131	2.376288	1.178084	23.77116	2.349174	2.353252
#2	2.307859	23.28674	2.371675	1.173135	23.51998	2.342742	2.327677
#3	2.302081	23.35355	2.393384	1.186804	23.66388	2.335249	2.371981

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.44282	4.601407	4.781920	4.759316	4.635235	4.712557	4.728390
Stddev	.11944	.025470	.018232	.020293	.011867	.036177	.004970
%RSD	.5094836	.5535160	.3812698	.4263919	.2560235	.7676642	.1051001

#1	23.52701	4.577489	4.761878	4.753670	4.648698	4.726582	4.725527
#2	23.30612	4.598547	4.786361	4.742444	4.630720	4.671467	4.725513
#3	23.49532	4.628186	4.797521	4.781835	4.626289	4.739620	4.734128

Sample Name: CCV08 Acquired: 5/5/2025 21:07:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	4.685800	4.504971	4.706816
Stddev	.009411	.011509	.015969
%RSD	.2008370	.2554729	.3392795
#1	4.679620	4.518259	4.688530
#2	4.681150	4.498121	4.713900
#3	4.696631	4.498534	4.718018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2983.417	71309.41	20586.31	1926.540	4529.818
Stddev	7.768	342.75	53.13	15.129	18.816
%RSD	.2603767	.4806474	.2580858	.7852929	.4153765
#1	2991.480	70973.41	20529.21	1916.820	4539.333
#2	2982.790	71658.53	20595.43	1943.971	4541.976
#3	2975.981	71296.30	20634.29	1918.829	4508.145

Sample Name: CCB08 Acquired: 5/5/2025 21:12:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0003174	.0005616	-.000972	-.001173	-.000567	-.013949	-.005723
Stddev	.0030484	.0025313	.001278	.001417	.002337	.010248	.001864
%RSD	960.4940	450.7567	131.4708	120.8909	411.8829	73.46927	32.57263

#1	.0028869	-.000862	-.001537	-.001845	-.003051	-.013810	-.005785
#2	-.003051	-.000937	.000491	.000456	-.000241	-.024266	-.007555
#3	.001116	.003484	-.001870	-.002128	.001589	-.003771	-.003828

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000078	-.000442	-.000152	.0001448	-.000223	-.000107	-.016253
Stddev	.000082	.000048	.005761	.0002486	.000114	.000330	.001884
%RSD	104.2353	10.90591	3782.676	171.7111	51.26444	310.0844	11.59330

#1	-.000108	-.000386	.006272	.0002386	-.000255	.000197	-.016982
#2	-.000141	-.000465	-.004858	.0003328	-.000317	-.000458	-.014113
#3	.000014	-.000474	-.001871	-.000137	-.000096	-.000058	-.017664

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055415	.0093492	.0000395	-.000211	.1085661	-.000837	-.000813
Stddev	.0002922	.0133866	.0001025	.000078	.0028238	.000760	.000224
%RSD	5.273473	143.1845	259.1078	36.93914	2.601015	90.77228	27.50778

#1	.0054182	-.003950	.0000335	-.000169	.1116604	.000001	-.000896
#2	.0053312	.009177	-.000060	-.000163	.1079094	-.001031	-.000983
#3	.0058752	.022821	.000145	-.000301	.1061285	-.001482	-.000560

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0667517	.0092288	-.000225	-.000591	.0001357	.0131081	-.000412
Stddev	.0326291	.0005954	.000131	.000939	.0005994	.0061623	.002415
%RSD	48.88131	6.451828	58.10621	158.9448	441.7545	47.01185	586.4501

#1	.0330567	.0097828	-.000306	-.001184	.0008230	.0100046	.002235
#2	.0689996	.0093042	-.000074	-.001081	-.000137	.0091144	-.002496
#3	.0981987	.0085992	-.000296	.000492	-.000279	.0202052	-.000975

Sample Name: CCB08 Acquired: 5/5/2025 21:12:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000629	.0053592	-.000581
Stddev	.001868	.0003347	.000021
%RSD	297.0725	6.244541	3.535191
#1	-.001741	.0056566	-.000592
#2	-.001673	.0054242	-.000595
#3	.001528	.0049968	-.000558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3060.235	72996.16	19836.03	2000.755	4867.605
Stddev	21.468	472.87	57.38	10.735	45.220
%RSD	.7015157	.6478047	.2892844	.5365267	.9290037
#1	3064.886	72495.43	19902.24	1989.437	4882.367
#2	3078.997	73057.94	19800.82	2002.038	4903.600
#3	3036.823	73435.11	19805.03	2010.791	4816.849

Sample Name: Q1932-08 Acquired: 5/5/2025 21:16:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.004110	-.004394	-.002441	.0033079	-.000633	.0214549	.1999054
Stddev	.002830	.002143	.001173	.0020913	.001228	.0024961	.0004321
%RSD	68.86415	48.78490	48.06800	63.22157	194.0170	11.63437	.2161584

#1	-.002261	-.005283	-.002732	.0028711	.000760	.0239753	.2000116
#2	-.007368	-.001949	-.003442	.0055831	-.001098	.0189837	.2002746
#3	-.002701	-.005950	-.001150	.0014695	-.001561	.0214057	.1994301

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000142	-.000220	22.57460	-.000639	.0010681	.0091555	-.007509
Stddev	.000047	.000011	.01398	.000126	.0000785	.0006437	.001761
%RSD	32.92956	5.219228	.0619155	19.66451	7.348408	7.030894	23.45603

#1	-.000140	-.000230	22.57600	-.000784	.0011107	.0092268	-.009532
#2	-.000096	-.000222	22.58782	-.000565	.0009776	.0084792	-.006669
#3	-.000189	-.000208	22.55997	-.000569	.0011162	.0097607	-.006324

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4174331	2.635953	.0051583	-.000615	291.6707	-.000846	.0600264
Stddev	.0011338	.011696	.0003449	.000407	1.5436	.001478	.0008084
%RSD	.2716128	.4437128	6.685439	66.20913	.5292327	174.7888	1.346650

#1	.4162388	2.645928	.0048184	-.000839	293.0972	-.002479	.0607151
#2	.4175658	2.638851	.0055079	-.000145	290.0320	.000401	.0591364
#3	.4184948	2.623081	.0051486	-.000862	291.8830	-.000459	.0602277

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8837113	.0185805	-.000323	-.002173	-.000238	.8876202	.0080512
Stddev	.0135098	.0004727	.000170	.000488	.000539	.0114984	.0010682
%RSD	1.528759	2.543929	52.62330	22.47887	226.7769	1.295423	13.26738

#1	.8991646	.0181568	-.000505	-.002444	.000367	.9006112	.0090175
#2	.8778320	.0184944	-.000295	-.001609	-.000669	.8834995	.0082319
#3	.8741374	.0190903	-.000168	-.002465	-.000411	.8787499	.0069042

Sample Name: Q1932-08 Acquired: 5/5/2025 21:16:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3588896	-.004869	.0561042
Stddev	.0019017	.001237	.0003164
%RSD	.5298799	25.39685	.5639350
#1	.3604859	-.003506	.0557465
#2	.3593972	-.005919	.0562186
#3	.3567856	-.005182	.0563475

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2935.846	70447.13	20748.55	1946.319	4394.163
Stddev	.361	462.36	110.82	12.991	5.539
%RSD	.0122802	.6563235	.5340965	.6674783	.1260469
#1	2935.469	70040.48	20627.30	1935.535	4400.308
#2	2936.187	70950.05	20773.77	1960.742	4389.557
#3	2935.881	70350.87	20844.58	1942.681	4392.623

Sample Name: Q1935-04 Acquired: 5/5/2025 21:20:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003055	-.003097	-.000799	.0029326	.0012843	.0611559	.2826779
Stddev	.003202	.002234	.000574	.0045641	.0012086	.0040513	.0014249
%RSD	104.7977	72.12030	71.84809	155.6367	94.10995	6.624490	.5040539

#1	-.006729	-.005071	-.001381	.0035710	.0022099	.0593959	.2830657
#2	-.001575	-.003548	-.000785	-.001917	.0017260	.0582823	.2810993
#3	-.000861	-.000672	-.000232	.007144	-.000083	.0657895	.2838687

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000149	-.000438	6.328267	-.000608	.0054056	.0099204	2.236344
Stddev	.0000454	.000044	.015566	.000353	.0001752	.0000469	.022430
%RSD	305.1975	10.06869	.2459819	58.04274	3.240456	.4729340	1.002955

#1	.0000599	-.000450	6.318199	-.000243	.0052045	.0098842	2.261474
#2	-.000031	-.000475	6.346196	-.000633	.0055249	.0099734	2.229205
#3	.000016	-.000389	6.320406	-.000947	.0054874	.0099035	2.218353

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.296297	1.206499	.0023684	-.000224	313.4613	-.000551	.0799010
Stddev	.001864	.017500	.0002240	.000295	1.8130	.001112	.0015219
%RSD	.1437724	1.450498	9.455736	131.9394	.5783905	201.9229	1.904725

#1	1.296659	1.219894	.0021525	.000091	314.9976	-.001640	.0812873
#2	1.294279	1.186699	.0023532	-.000268	311.4615	.000584	.0782725
#3	1.297954	1.212904	.0025996	-.000494	313.9249	-.000597	.0801431

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6032737	.0420682	-.000406	-.003462	-.000479	.6158992	.0097065
Stddev	.0153503	.0008173	.000149	.000644	.000380	.0016856	.0034097
%RSD	2.544493	1.942710	36.79745	18.60020	79.22254	.2736847	35.12821

#1	.6111809	.0428366	-.000533	-.003146	-.000638	.6139528	.0057732
#2	.5855819	.0412095	-.000444	-.004203	-.000046	.6168814	.0118261
#3	.6130583	.0421586	-.000241	-.003038	-.000754	.6168633	.0115200

Sample Name: Q1935-04 Acquired: 5/5/2025 21:20:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.5729072	-.002590	.0456284
Stddev	.0067341	.000700	.0003790
%RSD	1.175420	27.01176	.8305087
#1	.5651421	-.003328	.0460366
#2	.5771431	-.001937	.0452878
#3	.5764365	-.002505	.0455606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2937.091	69738.72	21710.59	1927.960	4399.356
Stddev	9.718	509.05	88.15	12.079	15.205
%RSD	.3308640	.7299423	.4060148	.6265352	.3456126
#1	2931.138	69182.01	21796.73	1914.478	4383.829
#2	2948.305	70180.45	21714.50	1937.796	4414.217
#3	2931.829	69853.69	21620.56	1931.607	4400.023

Sample Name: Q1935-08 Acquired: 5/5/2025 21:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.003237	-.002320	.0014035	.0018227	.0009939	.0441166	.3870011
Stddev	.003940	.001495	.0007247	.0026069	.0009450	.0029481	.0009716
%RSD	121.7124	64.43752	51.63373	143.0230	95.07989	6.682553	.2510608

#1	-.007289	-.004033	.0021247	.0046910	.0020592	.0470004	.3878835
#2	-.003003	-.001644	.0006755	-.000403	.0002566	.0411081	.3859599
#3	.000580	-.001282	.0014102	.001180	.0006660	.0442414	.3871599

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000023	-.000363	8.915505	.0000680	.0098246	.0144197	.3083192
Stddev	.000029	.000048	.005153	.0001842	.0000808	.0005541	.0038013
%RSD	124.0153	13.17739	.0577997	271.0777	.8224661	3.842290	1.232921

#1	-.000022	-.000395	8.919780	.0000689	.0098334	.0139416	.3124731
#2	-.000052	-.000308	8.909783	-.000117	.0097397	.0142907	.3074707
#3	.000005	-.000386	8.916952	.000252	.0099006	.0150269	.3050138

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.719026	4.139624	.0075245	-.000431	311.4667	-.000703	.0767900
Stddev	.006947	.014063	.0000628	.000370	1.7972	.001800	.0001160
%RSD	.2554776	.3397052	.8348198	85.97004	.5770175	256.2127	.1511084

#1	2.726881	4.137398	.0075933	-.000563	312.2909	-.002238	.0768342
#2	2.713694	4.126807	.0074701	-.000716	309.4052	-.001149	.0768775
#3	2.716502	4.154667	.0075102	-.000012	312.7039	.001279	.0766584

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4864443	.0411349	-.000418	-.002787	-.000464	.6129299	.0115520
Stddev	.0348575	.0009620	.000301	.000863	.000440	.0079409	.0014969
%RSD	7.165776	2.338529	71.99903	30.94669	94.80116	1.295567	12.95756

#1	.4471204	.0422450	-.000414	-.002198	-.000358	.6199663	.0129491
#2	.4986717	.0405482	-.000722	-.003777	-.000946	.6145034	.0117346
#3	.5135407	.0406114	-.000119	-.002386	-.000086	.6043201	.0099722

Sample Name: Q1935-08 Acquired: 5/5/2025 21:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3306344	-.002204	.0595372
Stddev	.0071768	.001263	.0002303
%RSD	2.170623	57.30787	.3868789
#1	.3223669	-.003383	.0595243
#2	.3342744	-.002358	.0597737
#3	.3352618	-.000871	.0593136

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2903.444	69069.33	21189.11	1875.452	4360.383
Stddev	11.010	204.47	51.47	4.642	16.969
%RSD	.3791937	.2960361	.2428920	.2475130	.3891626
#1	2909.851	68833.26	21152.93	1870.230	4372.571
#2	2909.751	69184.45	21166.38	1879.112	4367.575
#3	2890.731	69190.30	21248.03	1877.013	4341.002

Sample Name: Q1935-08DUP Acquired: 5/5/2025 21:29:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0007783	-.003169	.0032375	.0052735	-.000536	.0421771	.4369681
Stddev	.0015389	.000480	.0029341	.0038400	.002163	.0061992	.0025598
%RSD	197.7225	15.14703	90.63020	72.81808	403.6521	14.69796	.5857968

#1	.0024623	-.003659	.0033639	.0008400	.001945	.0431727	.4382045
#2	-.000555	-.003148	.0002422	.0075571	-.002020	.0355404	.4386749
#3	.000428	-.002700	.0061063	.0074234	-.001533	.0478183	.4340249

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000068	-.000239	9.992488	-.000032	.0112407	.0165966	.3598773
Stddev	.000100	.000027	.029789	.000302	.0000604	.0001407	.0098903
%RSD	146.0635	11.20422	.2981153	935.1037	.5375775	.8477389	2.748239

#1	-.000059	-.000264	10.01866	.000205	.0112966	.0167207	.3510947
#2	-.000173	-.000243	9.99873	-.000372	.0111766	.0164438	.3579467
#3	.000027	-.000211	9.96007	.000070	.0112489	.0166253	.3705906

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.033779	4.614739	.0052267	-.000338	352.6767	-.001266	.0853875
Stddev	.003716	.041456	.0003727	.000179	2.1969	.001371	.0003518
%RSD	.1224943	.8983364	7.130275	53.01236	.6229278	108.3221	.4119992

#1	3.037006	4.645849	.0056428	-.000440	350.1578	-.002848	.0857749
#2	3.034614	4.630690	.0049237	-.000131	354.1964	-.000503	.0850880
#3	3.029716	4.567676	.0051136	-.000443	353.6759	-.000445	.0852995

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5583946	.0432948	-.000490	-.003153	-.001036	.7035420	.0159498
Stddev	.0105144	.0009889	.000250	.000730	.000378	.0086034	.0012395
%RSD	1.882969	2.284196	51.01593	23.15708	36.52664	1.222869	7.771220

#1	.5614041	.0444091	-.000773	-.003087	-.001462	.6984852	.0173204
#2	.5670761	.0429536	-.000396	-.003914	-.000740	.7134758	.0156215
#3	.5467036	.0425216	-.000301	-.002458	-.000906	.6986650	.0149075

Sample Name: Q1935-08DUP Acquired: 5/5/2025 21:29:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3476084	-.003458	.0671169
Stddev	.0045926	.001689	.0002050
%RSD	1.321189	48.85492	.3054776
#1	.3441268	-.004887	.0671363
#2	.3458851	-.003894	.0673116
#3	.3528134	-.001593	.0669029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2889.735	70394.56	21897.25	1884.099	4341.281
Stddev	3.651	207.79	147.03	7.483	6.458
%RSD	.1263357	.2951859	.6714404	.3971480	.1487570
#1	2892.432	70629.19	21730.81	1879.174	4341.599
#2	2891.191	70320.72	22009.45	1880.412	4347.574
#3	2885.581	70233.77	21951.50	1892.709	4334.670

Sample Name: Q1935-08LX5 Acquired: 5/5/2025 21:34:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0014525	.0003179	.0004690	.0036635	.0013986	.0041344	.0735387
Stddev	.0021051	.0015418	.0011697	.0019087	.0016486	.0042265	.0016106
%RSD	144.9255	484.9411	249.3850	52.09982	117.8767	102.2292	2.190164

#1	.0035799	-.000153	.0014791	.0016338	.0017821	.0089082	.0737982
#2	-.000630	.002040	.0007407	.0054221	-.000408	.0026259	.0718141
#3	.001407	-.000933	-.000813	.0039346	.002822	.0008690	.0750039

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000037	-.000360	1.775390	-.000127	.0015265	.0028303	.0483448
Stddev	.000043	.000098	.008113	.000153	.0001531	.0003922	.0083151
%RSD	115.7461	27.28795	.4569842	120.8397	10.03247	13.85747	17.19955

#1	.000012	-.000346	1.783821	-.000087	.0016990	.0032430	.0452836
#2	-.000066	-.000270	1.767637	-.000296	.0014737	.0024623	.0419943
#3	-.000057	-.000465	1.774710	.000003	.0014067	.0027857	.0577566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5506230	.8446371	.0007921	-.000089	57.55791	.0004573	.0143459
Stddev	.0029323	.0076142	.0002816	.000296	.51614	.0017281	.0000273
%RSD	.5325484	.9014726	35.54691	334.0063	.8967311	377.8916	.1901839

#1	.5532524	.8380822	.0007380	.000146	57.17346	.0022820	.0143187
#2	.5474608	.8428400	.0005416	.000010	58.14453	.0002445	.0143456
#3	.5511557	.8529891	.0010969	-.000422	57.35574	-.001155	.0143733

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1729019	.0099187	-.000249	-.001474	-.000443	.1162510	-.000965
Stddev	.0206541	.0001901	.000299	.000903	.000748	.0038243	.003926
%RSD	11.94553	1.917090	120.1827	61.29608	168.8011	3.289673	406.9110

#1	.1967491	.0100329	-.000590	-.002173	.000408	.1206529	.001043
#2	.1607108	.0096992	-.000035	-.000454	-.000742	.1143543	.001552
#3	.1612457	.0100240	-.000120	-.001794	-.000996	.1137459	-.005489

Sample Name: Q1935-08LX5 Acquired: 5/5/2025 21:34:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0626285	.0056084	.0112774
Stddev	.0049051	.0017022	.0000317
%RSD	7.832012	30.35135	.2814457
#1	.0569770	.0037013	.0112966
#2	.0651301	.0069740	.0112408
#3	.0657784	.0061498	.0112948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2997.875	70998.49	20058.17	1957.685	4605.242
Stddev	3.919	138.87	177.88	8.319	10.760
%RSD	.1307319	.1955897	.8868292	.4249581	.2336572
#1	2995.075	71138.36	19948.97	1967.251	4612.076
#2	3002.354	70860.65	20263.43	1952.142	4610.810
#3	2996.195	70996.45	19962.12	1953.661	4592.838

Sample Name: Q1935-08MS Acquired: 5/5/2025 21:38:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7794156	1.758161	.9390975	1.907701	.7677136	1.826807	.6286766
Stddev	.0054782	.016895	.0047462	.012891	.0058046	.011653	.0040423
%RSD	.7028535	.9609424	.5054005	.6757585	.7560893	.6379107	.6429825

#1	.7738935	1.747816	.9362139	1.903550	.7641913	1.833663	.6293166
#2	.7848487	1.777657	.9445754	1.922156	.7744132	1.833407	.6323607
#3	.7795048	1.749009	.9365031	1.897396	.7645363	1.813352	.6243525

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1745179	.1974455	10.91476	.3794712	.2020983	.2868820	3.305491
Stddev	.0009153	.0009819	.06855	.0012771	.0011342	.0028637	.010025
%RSD	.5244823	.4973242	.6280794	.3365447	.5612087	.9982060	.3032736

#1	.1752825	.1966065	10.92302	.3804419	.2010183	.2846991	3.305912
#2	.1747676	.1985255	10.97881	.3799473	.2032799	.2901244	3.315298
#3	.1735037	.1972045	10.84245	.3780245	.2019969	.2858225	3.295262

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.251937	6.352360	.4847547	.0695784	343.0343	.2814059	.2687962
Stddev	.027678	.051380	.0028883	.0001817	2.0144	.0012585	.0003456
%RSD	.8511371	.8088321	.5958245	.2611029	.5872410	.4472339	.1285530

#1	3.256340	6.342685	.4817928	.0696473	343.3725	.2827989	.2689000
#2	3.277150	6.407890	.4875633	.0697155	340.8721	.2810681	.2690780
#3	3.222321	6.306506	.4849079	.0693723	344.8582	.2803507	.2684107

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.75110	.3004181	.4026421	.6939592	.1917721	1.511422	6.081800
Stddev	.01703	.0022091	.0021717	.0045533	.0008375	.004306	.028485
%RSD	.1583643	.7353364	.5393707	.6561324	.4367073	.2848966	.4683569

#1	10.75467	.3018415	.4007467	.6901444	.1922733	1.507516	6.051521
#2	10.76606	.3015396	.4050118	.6990000	.1922377	1.516039	6.108065
#3	10.73258	.2978732	.4021677	.6927333	.1908052	1.510712	6.085813

Sample Name: Q1935-08MS Acquired: 5/5/2025 21:38:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3517019	.1904505	.2542141
Stddev	.0040313	.0024926	.0017898
%RSD	1.146235	1.308800	.7040398
#1	.3474234	.1897041	.2545105
#2	.3522531	.1932310	.2558371
#3	.3554293	.1884163	.2522946

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2881.816	70011.16	21067.59	1944.639	4256.588
Stddev	13.893	57.39	68.46	3.792	16.478
%RSD	.4821058	.0819662	.3249491	.1949840	.3871267
#1	2889.116	70069.39	21032.82	1940.351	4266.155
#2	2865.794	70009.45	21023.50	1946.014	4237.560
#3	2890.537	69954.66	21146.46	1947.551	4266.048

Sample Name: Q1935-08MSD Acquired: 5/5/2025 21:42:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7700440	1.804099	.9369428	1.890138	.7680455	1.847653	.5944850
Stddev	.0017715	.009435	.0049500	.012685	.0007331	.010863	.0052039
%RSD	.2300480	.5229941	.5283132	.6711345	.0954518	.5879326	.8753677

#1	.7705103	1.796394	.9355940	1.885827	.7678800	1.845675	.5983364
#2	.7680861	1.801281	.9328069	1.880170	.7674093	1.859369	.5965538
#3	.7715357	1.814622	.9424273	1.904417	.7688472	1.837915	.5885648

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1805974	.1971939	10.17578	.3867509	.2002882	.2848473	3.259227
Stddev	.0006769	.0002162	.05421	.0010728	.0004553	.0012665	.002380
%RSD	.3747850	.1096501	.5327391	.2773891	.2273009	.4446097	.0730297

#1	.1810199	.1972087	10.19754	.3858862	.1999874	.2842843	3.261969
#2	.1809556	.1969707	10.21573	.3864150	.2000651	.2839599	3.258014
#3	.1798168	.1974024	10.11407	.3879515	.2008119	.2862976	3.257698

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.024688	6.046204	.4841657	.0703752	311.0292	.2849353	.2644292
Stddev	.013235	.042636	.0018263	.0003248	1.7622	.0014993	.0006509
%RSD	.4375550	.7051646	.3772121	.4614660	.5665609	.5261893	.2461563

#1	3.035682	6.010161	.4838636	.0704582	310.0080	.2866548	.2651521
#2	3.028384	6.093268	.4825093	.0706504	310.0157	.2839014	.2638896
#3	3.009999	6.035182	.4861243	.0700170	313.0640	.2842496	.2642458

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.66688	.3067268	.4063268	.6933704	.1927924	1.463360	6.087979
Stddev	.02292	.0009526	.0021290	.0019754	.0013639	.013857	.022333
%RSD	.2149141	.3105782	.5239534	.2849018	.7074181	.9469019	.3668294

#1	10.66382	.3068877	.4057140	.6911060	.1942705	1.449976	6.074976
#2	10.69117	.3075887	.4045714	.6942643	.1925238	1.462460	6.075195
#3	10.64563	.3057040	.4086949	.6947408	.1915828	1.477645	6.113766

Sample Name: Q1935-08MSD Acquired: 5/5/2025 21:42:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3329105	.1933820	.2499622
Stddev	.0033710	.0012847	.0014558
%RSD	1.012595	.6643101	.5824067
#1	.3368023	.1945214	.2505205
#2	.3310305	.1936350	.2510562
#3	.3308987	.1919897	.2483099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.628	69642.86	20629.69	1937.476	4335.392
Stddev	10.333	169.37	53.30	8.096	9.452
%RSD	.3541695	.2432034	.2583787	.4178742	.2180281
#1	2922.392	69721.49	20642.63	1940.408	4341.050
#2	2924.719	69758.63	20571.10	1928.323	4340.646
#3	2905.772	69448.46	20675.33	1943.698	4324.480

Sample Name: Q1935-08A Acquired: 5/5/2025 21:46:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7573149	1.745290	.9084837	1.875118	.7464654	1.764016	.5849056
Stddev	.0017985	.008420	.0024788	.004586	.0014975	.014985	.0035907
%RSD	.2374885	.4824189	.2728531	.2445536	.2006118	.8494760	.6138873

#1	.7592349	1.738863	.9091394	1.874944	.7458439	1.774958	.5846846
#2	.7570404	1.754821	.9057430	1.870623	.7453786	1.770153	.5814305
#3	.7556694	1.742187	.9105688	1.879789	.7481735	1.746936	.5886016

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1697197	.1904270	10.33445	.3723000	.1945790	.2798979	3.193541
Stddev	.0006893	.0004185	.01619	.0010535	.0000513	.0006594	.022049
%RSD	.4061484	.2197812	.1566193	.2829755	.0263460	.2355844	.6904226

#1	.1705085	.1904238	10.35215	.3711970	.1946319	.2806414	3.174293
#2	.1694175	.1900101	10.32039	.3732958	.1945756	.2793842	3.188733
#3	.1692331	.1908471	10.33081	.3724071	.1945295	.2796679	3.217598

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.051351	6.095606	.4665784	.0675441	325.6329	.2686765	.2622548
Stddev	.002293	.013404	.0007545	.0004991	4.6807	.0013670	.0004886
%RSD	.0751513	.2198993	.1617027	.7390054	1.437421	.5087844	.1863127

#1	3.049385	6.111031	.4668261	.0670001	324.6998	.2683097	.2617525
#2	3.050797	6.088994	.4657312	.0676511	330.7099	.2675303	.2622835
#3	3.053870	6.086792	.4671779	.0679811	321.4891	.2701894	.2627285

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.31758	.2892633	.3895567	.6671018	.1817269	1.471808	5.894671
Stddev	.06365	.0016709	.0006585	.0023830	.0010712	.009992	.009008
%RSD	.6168780	.5776281	.1690381	.3572151	.5894423	.6788647	.1528164

#1	10.24916	.2906324	.3902863	.6666482	.1827658	1.461180	5.891330
#2	10.32855	.2897559	.3890064	.6649782	.1806261	1.481009	5.887811
#3	10.37503	.2874015	.3893773	.6696790	.1817887	1.473236	5.904872

Sample Name: Q1935-08A Acquired: 5/5/2025 21:46:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.3229026	.1806849	.2397645
Stddev	.0049519	.0015397	.0008693
%RSD	1.533555	.8521658	.3625850
#1	.3286194	.1792673	.2396837
#2	.3199448	.1804643	.2389384
#3	.3201436	.1823230	.2406714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2859.323	68561.21	20921.19	1870.197	4263.406
Stddev	3.137	223.87	123.27	6.616	1.354
%RSD	.1096978	.3265321	.5892325	.3537499	.0317645
#1	2855.746	68595.66	20800.95	1873.801	4264.225
#2	2861.605	68322.11	20915.33	1862.561	4264.150
#3	2860.617	68765.87	21047.29	1874.228	4261.843

Sample Name: Q1945-01 Acquired: 5/5/2025 21:51:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.8237345	.0042238	4.014131	-.016760	.0262805	67.85122
Stddev	.0071058	.0023136	.024608	.002927	.0001802	.21579
%RSD	.8626378	54.77452	.6130399	17.46571	.6855285	.3180412

#1	.8254886	.0023608	4.010069	-.020020	.0260998	68.07709
#2	.8159159	.0034972	3.991806	-.015899	.0262815	67.64716
#3	.8297990	.0068135	4.040517	-.014359	.0264601	67.82940

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.924678	.0060824	.0210336	164.2626	1.536589	.0464353
Stddev	.008976	.0000563	.0003654	.6360	.005525	.0002089
%RSD	.2287029	.9249782	1.737404	.3871964	.3595516	.4499571

#1	3.933125	.0061319	.0212093	164.8683	1.542312	.0464023
#2	3.915253	.0060212	.0206134	163.6001	1.536169	.0462449
#3	3.925654	.0060942	.0212779	164.3194	1.531286	.0466588

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.618087	161.9451	1.710700	27.16144	.5242895	.0062520
Stddev	.018195	.4491	.006237	.08600	.0031307	.0004762
%RSD	.3939878	.2773070	.3646114	.3166129	.5971318	7.616733

#1	4.619606	162.0241	1.716101	27.22341	.5235380	.0058367
#2	4.599180	162.3495	1.703873	27.06326	.5216029	.0067718
#3	4.635474	161.4618	1.712126	27.19765	.5277275	.0061477

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.42814	.1589323	F 30.78746	24.30068	.6901489	.0302745
Stddev	.27424	.0006831	.10685	.14733	.0021979	.0004309
%RSD	.3949952	.4297920	.3470554	.6062901	.3184702	1.423280

#1	69.45601	.1589520	30.79890	24.38176	.6920246	.0300703
#2	69.68737	.1596053	30.88812	24.38967	.6906917	.0299837
#3	69.14103	.1582396	30.67535	24.13061	.6877304	.0307695

Sample Name: Q1945-01 Acquired: 5/5/2025 21:51:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0446005	1.332590	F 92.02868	5.501664	F 43.66279	.1893539
Stddev	.0029966	.004498	.40903	.030196	.24620	.0000754
%RSD	6.718821	.3375454	.4444545	.5488430	.5638699	.0398238

#1	.0423234	1.334787	92.26452	5.512042	43.60132	.1893404
#2	.0434827	1.327416	92.26513	5.467648	43.45315	.1894352
#3	.0479953	1.335567	91.55637	5.525303	43.93390	.1892862

Elem	Sr4077
Units	ppm
Avg	.9889979
Stddev	.0022167
%RSD	.2241356

#1	.9910227
#2	.9866294
#3	.9893415

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2991.243	74781.26	21463.31	1976.067	4200.179
Stddev	8.615	287.45	125.67	8.866	15.503
%RSD	.2880181	.3843854	.5855175	.4486640	.3691086

#1	2983.794	74498.32	21334.40	1965.849	4196.246
#2	3000.678	74772.44	21585.47	1980.629	4217.270
#3	2989.258	75073.01	21470.07	1981.722	4187.021

Sample Name: Q1956-07 Acquired: 5/5/2025 21:55:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001190	-.002835	-.000656	.0020033	.0003050	.0156354	-.002323
Stddev	.000869	.001518	.001532	.0003111	.0010604	.0021868	.000990
%RSD	73.04846	53.52370	233.3150	15.53076	347.6943	13.98634	42.58963

#1	-.000269	-.004587	-.000697	.0020151	.0000191	.0147734	-.001720
#2	-.001997	-.001999	.000895	.0016865	.0014789	.0181219	-.001785
#3	-.001304	-.001920	-.002167	.0023084	-.000583	.0140111	-.003465

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000146	-.000422	.0434985	-.000265	-.000509	.0000043	.1456494
Stddev	.000042	.000078	.0139303	.000038	.000319	.0002553	.0035832
%RSD	28.82015	18.44188	32.02469	14.37219	62.71204	5897.357	2.460154

#1	-.000190	-.000342	.0565283	-.000261	-.000514	.0002679	.1460291
#2	-.000106	-.000424	.0451518	-.000305	-.000187	-.000242	.1418915
#3	-.000143	-.000498	.0288153	-.000229	-.000826	-.000013	.1490276

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000152	.0064298	.0000704	-.000250	-.045105	-.000358	.0022769
Stddev	.000103	.0017303	.0000506	.000312	.005190	.000586	.0002616
%RSD	67.66718	26.91103	71.88078	124.5979	11.50709	163.7578	11.48974

#1	-.000063	.0065886	.0000195	-.000411	-.047637	-.000677	.0021688
#2	-.000128	.0046256	.0000710	.000109	-.048543	-.000714	.0020867
#3	-.000264	.0080753	.0001208	-.000450	-.039135	.000318	.0025752

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0298237	.0003844	.0012851	-.001564	.0001677	.0724759	.0391308
Stddev	.0336467	.0003108	.0002743	.000849	.0005075	.0094776	.0016102
%RSD	112.8187	80.84110	21.34417	54.29429	302.7242	13.07693	4.114816

#1	-.001409	.0005869	.0012451	-.002450	.0006970	.0622777	.0397313
#2	.025428	.0005398	.0010329	-.001483	-.000315	.0810135	.0403544
#3	.065452	.0000266	.0015771	-.000758	.000121	.0741366	.0373067

Sample Name: Q1956-07 Acquired: 5/5/2025 21:55:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0208761	-.002327	-.000411
Stddev	.0030773	.001021	.000041
%RSD	14.74076	43.86561	10.10420

#1	.0223758	-.002369	-.000451
#2	.0229161	-.003326	-.000413
#3	.0173365	-.001286	-.000368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3086.010	72758.08	21126.56	2008.751	4918.516
Stddev	8.538	105.43	136.80	6.507	14.072
%RSD	.2766591	.1449015	.6475117	.3239507	.2861077

#1	3095.542	72650.29	21093.12	2001.820	4934.011
#2	3079.064	72762.97	21009.59	2014.730	4915.005
#3	3083.424	72860.98	21276.98	2009.702	4906.531

Sample Name: CCV09 Acquired: 5/5/2025 21:59:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.741504	4.644312	4.814431	4.742149	4.682635	9.272715	9.392952
Stddev	.032952	.083584	.042707	.028903	.024490	.040459	.010921
%RSD	.6949765	1.799701	.8870531	.6094820	.5229963	.4363195	.1162639

#1	4.723707	4.655867	4.787395	4.722686	4.668384	9.233747	9.396067
#2	4.779529	4.721516	4.863665	4.775359	4.710913	9.314515	9.401976
#3	4.721278	4.555551	4.792232	4.728401	4.668608	9.269883	9.380812

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2419214	2.414253	23.62157	.9588551	2.382375	1.183412	4.768066
Stddev	.0013686	.020631	.04833	.0031631	.019769	.006364	.019647
%RSD	.5656983	.8545448	.2046100	.3298789	.8298139	.5377944	.4120500

#1	.2433431	2.401019	23.67104	.9621724	2.369401	1.178388	4.767967
#2	.2418079	2.438025	23.61920	.9558730	2.405128	1.190569	4.748469
#3	.2406131	2.403716	23.57447	.9585200	2.372596	1.181280	4.787762

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.365798	23.67129	2.406149	1.185067	23.03433	2.362780	2.322435
Stddev	.007122	.04801	.017495	.001807	.12523	.004798	.017843
%RSD	.3010490	.2028148	.7270835	.1525153	.5436747	.2030823	.7683030

#1	2.373911	23.72178	2.394048	1.185754	22.89001	2.360382	2.310812
#2	2.360574	23.66585	2.426208	1.183017	23.11433	2.368305	2.313513
#3	2.362910	23.62623	2.398192	1.186431	23.09865	2.359654	2.342979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.17585	4.775837	4.733649	4.811106	4.688691	4.693463	4.873322
Stddev	.13983	.018716	.035314	.039790	.010475	.012287	.047942
%RSD	.6033326	.3918896	.7460175	.8270426	.2234148	.2617895	.9837693

#1	23.01496	4.796251	4.712476	4.789911	4.687761	4.682828	4.848298
#2	23.26805	4.759487	4.774416	4.857007	4.699600	4.690648	4.928598
#3	23.24454	4.771772	4.714055	4.786401	4.678712	4.706914	4.843070

Sample Name: CCV09 Acquired: 5/5/2025 21:59:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.746626	4.588668	4.715214
Stddev	.028784	.012861	.029017
%RSD	.6064073	.2802825	.6153973
#1	4.738620	4.581310	4.698744
#2	4.778566	4.603518	4.748719
#3	4.722693	4.581175	4.698180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.077	70268.58	19689.44	1970.230	4422.814
Stddev	17.960	175.02	110.85	13.961	34.507
%RSD	.6083807	.2490690	.5629958	.7085844	.7801948
#1	2965.075	70123.52	19561.54	1979.349	4444.768
#2	2931.583	70462.97	19749.05	1977.184	4383.041
#3	2959.572	70219.26	19757.73	1954.158	4440.633

Sample Name: CCB09 Acquired: 5/5/2025 22:03:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000116	-.001182	-.001011	.0027885	.0001426	-.003023	-.002274
Stddev	.000504	.001124	.000284	.0023030	.0007716	.002891	.000610
%RSD	432.8162	95.04313	28.10708	82.58840	541.0295	95.64371	26.81869

#1	.000465	-.002222	-.000690	.0050632	-.000040	-.005900	-.002008
#2	-.000426	.000010	-.001113	.0004582	-.000521	-.003050	-.002972
#3	-.000388	-.001334	-.001229	.0028442	.000989	-.000118	-.001843

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000078	-.000384	-.002003	.0001900	-.000323	.0013766	-.014145
Stddev	.000068	.000029	.005324	.0001186	.000172	.0001178	.003952
%RSD	86.83120	7.521465	265.7589	62.43505	53.33183	8.553520	27.94177

#1	-.000157	-.000416	.001553	.0001663	-.000161	.0015120	-.013039
#2	-.000044	-.000359	.000561	.0003186	-.000304	.0012981	-.010864
#3	-.000035	-.000378	-.008125	.0000850	-.000505	.0013198	-.018533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057779	.0103011	.0002458	-.000279	.0971228	-.000090	-.000754
Stddev	.0003121	.0196320	.0000972	.000074	.0024850	.001735	.000083
%RSD	5.402337	190.5822	39.56298	26.40892	2.558600	1930.305	10.96284

#1	.0060149	.0197408	.0001364	-.000194	.0994938	.001770	-.000659
#2	.0058947	.0234301	.0002786	-.000328	.0945377	-.001666	-.000808
#3	.0054242	-.012268	.0003223	-.000316	.0973370	-.000374	-.000796

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0287115	.0065428	-.000205	-.000944	.0003310	.0198635	-.003902
Stddev	.0403928	.0007784	.000469	.001361	.0007054	.0056956	.002192
%RSD	140.6851	11.89649	228.4779	144.1379	213.1361	28.67363	56.18797

#1	.0196334	.0073712	.000335	.000567	.0003057	.0239592	-.003609
#2	.0728709	.0064306	-.000506	-.002073	-.000361	.0222718	-.001871
#3	-.006370	.0058267	-.000445	-.001327	.001049	.0133593	-.006226

Sample Name: CCB09 Acquired: 5/5/2025 22:03:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.000506	.0032180	-.000554
Stddev	.006463	.0007576	.000037
%RSD	1276.932	23.54133	6.712950

#1	.004831	.0028318	-.000564
#2	.001342	.0027314	-.000584
#3	-.007692	.0040908	-.000512

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3079.373	72607.62	20793.29	2015.473	4844.546
Stddev	6.504	121.52	136.31	5.602	15.453
%RSD	.2112066	.1673692	.6555671	.2779556	.3189681

#1	3080.972	72680.07	20719.79	2010.381	4840.435
#2	3072.219	72467.32	20950.58	2014.564	4831.564
#3	3084.928	72675.46	20709.50	2021.474	4861.638

Sample Name: Q1930-01 Acquired: 5/5/2025 22:08:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001264	-.006760	-.001317	.0014418	.0005672	28.53149
Stddev	.002892	.001746	.001244	.0003606	.0024547	.12676
%RSD	228.7026	25.82194	94.40559	25.00851	432.7912	.4442764

#1	.001265	-.005508	-.001718	.0013147	.0005767	28.38576
#2	-.000642	-.008755	.000077	.0011620	.0030171	28.59255
#3	-.004417	-.006018	-.002311	.0018487	-.001892	28.61616

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001592	-.000113	-.000557	16.79623	.3117292	-.000180
Stddev	.000562	.000061	.000062	.07673	.0001238	.000166
%RSD	35.29907	54.13895	11.11444	.4567997	.0397155	92.02094

#1	-.001797	-.000127	-.000624	16.70764	.3118719	-.000154
#2	-.000956	-.000046	-.000546	16.84074	.3116649	-.000357
#3	-.002023	-.000167	-.000501	16.84032	.3116508	-.000029

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0348407	1.335813	.0097199	2.291665	.0258714	-.000808
Stddev	.0004531	.020676	.0005602	.019156	.0003581	.000303
%RSD	1.300442	1.547809	5.763167	.8359001	1.384080	37.47107

#1	.0348194	1.312075	.0103545	2.270595	.0262816	-.000653
#2	.0343986	1.345483	.0095114	2.296372	.0256219	-.000614
#3	.0353040	1.349883	.0092940	2.308029	.0257106	-.001157

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2044.105	.0014774	.0983084	258.8936	7.970967	.0287055
Stddev	5.902	.0001146	.0004991	2.0883	.049773	.0001559
%RSD	.2887543	7.759131	.5077351	.8066268	.6244313	.5432166

#1	2037.628	.0015815	.0978494	256.7190	8.027669	.0285313
#2	2049.180	.0014961	.0982360	259.0784	7.950747	.0288321
#3	2045.508	.0013545	.0988398	260.8833	7.934487	.0287531

Sample Name: Q1930-01 Acquired: 5/5/2025 22:08:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0049661	-.001436	.5346062	1.538491	F 1123.215	.0043333
Stddev	.0006222	.000663	.0153580	.008642	2.713	.0007847
%RSD	12.52972	46.15116	2.872770	.5616940	.2415245	18.10857

#1	.0055135	-.000748	.5397247	1.535473	1124.938	.0035819
#2	.0042894	-.002070	.5173426	1.531763	1120.088	.0051475
#3	.0050954	-.001491	.5467514	1.548237	1124.619	.0042704

Elem	Sr4077
Units	ppm
Avg	.0778275
Stddev	.0002363
%RSD	.3035587

#1	.0775561
#2	.0779389
#3	.0779875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2624.800	61099.05	19424.83	1692.625	3658.789
Stddev	8.718	185.13	111.90	8.146	5.732
%RSD	.3321467	.3030064	.5760857	.4812814	.1566700

#1	2630.468	61231.83	19350.13	1701.988	3653.494
#2	2629.171	60887.57	19370.88	1688.722	3664.876
#3	2614.761	61177.75	19553.49	1687.163	3657.998

Sample Name: Q1930-01DUP Acquired: 5/5/2025 22:12:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.004272	-.006447	-.001817	.0026622	.0002236	28.88415
Stddev	.004673	.001619	.001437	.0054023	.0014700	.29046
%RSD	109.3900	25.11730	79.09428	202.9215	657.2634	1.005621

#1	-.008875	-.007327	-.002612	-.003543	.0007737	29.09532
#2	.000468	-.007436	-.000158	.005213	.0013393	29.00423
#3	-.004409	-.004578	-.002680	.006317	-.001442	28.55290

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001267	-.000124	-.000475	16.97256	.3189873	.0000170
Stddev	.001120	.000023	.000090	.20359	.0021941	.0003477
%RSD	88.38219	18.24326	18.89600	1.199513	.6878299	2043.279

#1	-.000367	-.000104	-.000508	17.11305	.3166742	.0000238
#2	-.000913	-.000148	-.000545	17.06554	.3210390	.0003613
#3	-.002521	-.000119	-.000374	16.73908	.3192488	-.000334

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0348141	1.381953	.0075461	2.307533	.0255976	-.000380
Stddev	.0001174	.021045	.0006583	.027391	.0000310	.000223
%RSD	.3371537	1.522823	8.723973	1.187024	.1210491	58.70579

#1	.0347335	1.357860	.0077307	2.308100	.0255883	-.000201
#2	.0349488	1.396740	.0080924	2.334636	.0255724	-.000630
#3	.0347601	1.391260	.0068152	2.279863	.0256322	-.000309

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2101.123	.0000667	.0996284	267.1414	7.917438	.0292494
Stddev	31.837	.0007904	.0005799	2.4193	.133403	.0004024
%RSD	1.515256	1184.417	.5820947	.9056269	1.684921	1.375639

#1	2074.213	-.000593	.0997788	264.3496	8.032632	.0290854
#2	2136.269	-.000150	.1001183	268.4505	7.948409	.0297079
#3	2092.887	.000943	.0989881	268.6241	7.771275	.0289549

Sample Name: Q1930-01DUP Acquired: 5/5/2025 22:12:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0051720	-.000575	.5518829	1.546037	F 1136.043	.0053821
Stddev	.0006612	.000356	.0050957	.000600	2.788	.0002706
%RSD	12.78323	62.00837	.9233371	.0388078	.2453763	5.027348

#1	.0047923	-.000892	.5479135	1.545359	1134.961	.0054140
#2	.0047883	-.000189	.5576291	1.546249	1139.209	.0056353
#3	.0059355	-.000644	.5501060	1.546502	1133.958	.0050970

Elem	Sr4077
Units	ppm
Avg	.0788466
Stddev	.0008711
%RSD	1.104766

#1	.0796753
#2	.0789260
#3	.0779386

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.471	61249.89	19884.66	1691.033	3666.658
Stddev	3.352	458.49	237.29	9.062	9.435
%RSD	.1272216	.7485543	1.193328	.5358602	.2573256

#1	2637.209	61779.30	19677.40	1697.273	3677.422
#2	2635.470	60985.21	19833.09	1680.639	3662.734
#3	2630.733	60985.14	20143.49	1695.186	3659.818

Sample Name: Q1930-01LX5 Acquired: 5/5/2025 22:16:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	-.001171	-.001353	-.002158	-.002520	-.001960	5.487818
Stddev	.002849	.001132	.001282	.001610	.000865	.022842
%RSD	243.1839	83.66923	59.39877	63.89073	44.11641	.4162397

#1	-.003509	-.000568	-.003598	-.001124	-.002905	5.488785
#2	-.002008	-.000840	-.001142	-.004282	-.001209	5.510162
#3	.002002	-.002651	-.001734	-.002156	-.001766	5.464507

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001226	-.000039	-.000485	3.291967	.0605054	-.000461
Stddev	.000109	.000061	.000104	.026101	.0003015	.000145
%RSD	8.877916	156.2282	21.44767	.7928692	.4983812	31.52673

#1	-.001104	-.000035	-.000372	3.321515	.0602456	-.000366
#2	-.001257	-.000101	-.000578	3.282337	.0604345	-.000388
#3	-.001315	.000020	-.000505	3.272050	.0608361	-.000628

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069598	.2374046	.0005326	.4666364	.0049639	-.000341
Stddev	.0002779	.0065501	.0002468	.0109125	.0002155	.000172
%RSD	3.992363	2.759026	46.32980	2.338553	4.340735	50.53626

#1	.0066604	.2422226	.0002478	.4761698	.0047151	-.000421
#2	.0072094	.2299465	.0006834	.4690054	.0050895	-.000143
#3	.0070096	.2400447	.0006667	.4547339	.0050871	-.000458

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	383.1546	-.000383	.0171513	43.47081	1.782286	.0052642
Stddev	3.4312	.001629	.0003431	.26293	.004857	.0000915
%RSD	.8955161	425.0024	2.000579	.6048335	.2725034	1.738807

#1	387.1125	.001496	.0169956	43.77271	1.779196	.0053686
#2	381.3320	-.001393	.0175446	43.34765	1.787884	.0051981
#3	381.0193	-.001253	.0169135	43.29206	1.779777	.0052258

Sample Name: Q1930-01LX5 Acquired: 5/5/2025 22:16:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.0013843	.0004828	.1039202	.2750034	F 243.6839	.0170117
Stddev	.0006153	.0007019	.0094816	.0073732	.6135	.0013499
%RSD	44.44730	145.3770	9.123972	2.681130	.2517586	7.934869

#1	.0011287	.0011054	.0974385	.2680513	243.7566	.0161110
#2	.0020863	-.000278	.0995194	.2742233	244.2578	.0185638
#3	.0009380	.000621	.1148025	.2827357	243.0373	.0163605

Elem	Sr4077
Units	ppm
Avg	.0145419
Stddev	.0001405
%RSD	.9659885

#1	.0146855
#2	.0145354
#3	.0144048

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2835.192	66269.17	19416.52	1862.360	4126.367
Stddev	10.650	310.96	80.77	10.525	21.276
%RSD	.3756278	.4692333	.4159681	.5651622	.5156222

#1	2822.982	65918.90	19371.56	1854.095	4101.826
#2	2840.027	66375.90	19368.25	1874.209	4139.633
#3	2842.566	66512.70	19509.76	1858.774	4137.642

Sample Name: Q1930-01MS Acquired: 5/5/2025 22:21:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.8567063	1.814107	.9837100	2.242121	.8791504	29.57130
Stddev	.0062701	.017646	.0110664	.020250	.0065474	.24840
%RSD	.7318894	.9727220	1.124962	.9031486	.7447367	.8400200

#1	.8536729	1.811509	.9842872	2.252489	.8796010	29.28496
#2	.8525296	1.797903	.9723664	2.218786	.8723894	29.69996
#3	.8639162	1.832907	.9944765	2.255086	.8854608	29.72899

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1858591	.2000315	.2136953	17.00734	.6892275	.2036267
Stddev	.0007905	.0015153	.0016254	.04880	.0016514	.0017381
%RSD	.4253460	.7575311	.7606012	.2869206	.2395994	.8535569

#1	.1853132	.2013074	.2135069	16.95100	.6902802	.2035189
#2	.1854985	.2004304	.2121723	17.03488	.6900780	.2019451
#3	.1867657	.1983566	.2154066	17.03614	.6873242	.2054162

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3015253	4.376589	.1981497	3.998075	.5330936	.0841989
Stddev	.0022165	.046942	.0010122	.033995	.0040923	.0043626
%RSD	.7351042	1.072569	.5108453	.8502809	.7676421	5.181279

#1	.3019904	4.323433	.1972402	4.002202	.5331116	.0804413
#2	.2991131	4.393985	.1992403	4.029818	.5289924	.0831722
#3	.3034724	4.412350	.1979687	3.962205	.5371769	.0889833

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1922.267	.2915628	.3137191	255.0792	8.244978	.4633938
Stddev	10.938	.0014494	.0020487	3.9979	.043386	.0038289
%RSD	.5690374	.4971160	.6530380	1.567331	.5262163	.8262790

#1	1909.995	.2898981	.3122382	250.4817	8.277424	.4626859
#2	1930.993	.2925441	.3160571	257.0165	8.261812	.4599683
#3	1925.812	.2922464	.3128618	257.7394	8.195697	.4675273

Sample Name: Q1930-01MS Acquired: 5/5/2025 22:21:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7839636	.2099754	1.424064	8.462351	F 1076.519	.2273309
Stddev	.0049298	.0011448	.025015	.091930	8.564	.0042171
%RSD	.6288345	.5452008	1.756572	1.086346	.7955246	1.855062
#1	.7841349	.2086646	1.396276	8.446777	1075.483	.2227945
#2	.7789504	.2104826	1.444785	8.379203	1068.521	.2280663
#3	.7888056	.2107789	1.431131	8.561074	1085.554	.2311320

Elem	Sr4077
Units	ppm
Avg	.2708865
Stddev	.0031063
%RSD	1.146706
#1	.2673929
#2	.2719296
#3	.2733370

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2678.904	62728.92	19222.19	1739.373	3717.291
Stddev	8.718	361.82	189.16	17.453	16.599
%RSD	.3254443	.5767936	.9840803	1.003402	.4465414
#1	2677.224	62476.20	19033.04	1742.549	3722.326
#2	2688.340	62567.17	19222.19	1720.551	3730.790
#3	2671.148	63143.40	19411.36	1755.021	3698.757

Sample Name: Q1930-01MSD Acquired: 5/5/2025 22:25:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.8716915	1.844307	.9892479	2.260019	.8532224	28.06445
Stddev	.0078971	.020114	.0044710	.028089	.0087379	.05171
%RSD	.9059476	1.090583	.4519576	1.242884	1.024100	.1842574

#1	.8637456	1.821294	.9917783	2.231104	.8448566	28.11053
#2	.8717902	1.853099	.9840855	2.261749	.8525205	28.07431
#3	.8795388	1.858528	.9918798	2.287203	.8622900	28.00853

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1913110	.1873918	.2152896	16.51012	.6827468	.2056436
Stddev	.0006219	.0019486	.0007605	.02205	.0056199	.0007176
%RSD	.3250693	1.039874	.3532585	.1335526	.8231238	.3489729

#1	.1909460	.1858497	.2149807	16.49389	.6795064	.2061811
#2	.1920291	.1867437	.2147321	16.50124	.6892360	.2048287
#3	.1909579	.1895819	.2161559	16.53522	.6794979	.2059210

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3038683	4.561862	.2124034	3.877627	.5382642	.0767974
Stddev	.0025003	.054090	.0010140	.031992	.0016983	.0022989
%RSD	.8228222	1.185708	.4773889	.8250476	.3155195	2.993489

#1	.3021197	4.544046	.2114303	3.846071	.5384916	.0790066
#2	.3027531	4.622613	.2134539	3.876772	.5364636	.0744182
#3	.3067322	4.518927	.2123260	3.910038	.5398373	.0769675

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1918.263	.2960691	.3014015	256.0840	7.419335	.4483262
Stddev	51.909	.0011424	.0024205	4.3964	.096761	.0034535
%RSD	2.706057	.3858663	.8030933	1.716794	1.304177	.7703019

#1	1947.824	.2950780	.2992823	256.9072	7.342213	.4454940
#2	1948.639	.2973186	.3040393	260.0106	7.387882	.4473112
#3	1858.325	.2958107	.3008829	251.3341	7.527909	.4521734

Sample Name: Q1930-01MSD Acquired: 5/5/2025 22:25:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7553815	.2028566	1.430442	8.593424	F 1055.618	.2198429
Stddev	.0012597	.0007037	.032739	.038116	3.611	.0011427
%RSD	.1667691	.3468981	2.288721	.4435467	.3420805	.5197954

#1	.7561641	.2021563	1.457173	8.565328	1053.101	.2193603
#2	.7539283	.2035636	1.440225	8.578133	1053.997	.2211477
#3	.7560520	.2028499	1.393926	8.636811	1059.755	.2190206

Elem	Sr4077
Units	ppm
Avg	.2711588
Stddev	.0007723
%RSD	.2848148

#1	.2713516
#2	.2718165
#3	.2703084

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.519	62702.79	20352.96	1748.294	3703.016
Stddev	16.676	519.81	177.52	16.590	17.190
%RSD	.6267942	.8290092	.8722243	.9489539	.4642255

#1	2666.090	62862.78	20462.59	1762.503	3696.093
#2	2673.697	62121.79	20448.15	1730.061	3722.588
#3	2641.771	63123.80	20148.14	1752.317	3690.367

Sample Name: Q1930-01A Acquired: 5/5/2025 22:29:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.7940459	1.685761	.9050202	2.093374	.7779469	29.27392
Stddev	.0101857	.021274	.0058917	.023603	.0071157	.14295
%RSD	1.282762	1.262006	.6510019	1.127527	.9146730	.4883063

#1	.7860047	1.665669	.9019130	2.094947	.7753949	29.11316
#2	.7906333	1.683567	.9013325	2.069024	.7724591	29.32187
#3	.8054998	1.708048	.9118151	2.116152	.7859866	29.38672

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1680893	.1711365	.1964129	17.27343	.6769880	.1870728
Stddev	.0007662	.0005033	.0010372	.07197	.0016424	.0008406
%RSD	.4558243	.2941044	.5280891	.4166518	.2426069	.4493435

#1	.1679129	.1715964	.1959358	17.19547	.6783252	.1864102
#2	.1689283	.1705989	.1957000	17.33735	.6774841	.1867899
#3	.1674268	.1712144	.1976028	17.28746	.6751547	.1880184

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2826369	4.347613	.1783679	3.882233	.4930032	.0709297
Stddev	.0024206	.027592	.0003739	.013608	.0025179	.0025190
%RSD	.8564459	.6346404	.2096168	.3505271	.5107313	3.551462

#1	.2812452	4.315780	.1785556	3.866829	.4921506	.0682493
#2	.2812336	4.364677	.1786108	3.892623	.4910222	.0732483
#3	.2854320	4.362381	.1779373	3.887246	.4958367	.0712916

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2060.283	.2627167	.2916950	270.2875	7.830754	.4114331
Stddev	21.341	.0025187	.0016071	2.0822	.026649	.0026772
%RSD	1.035835	.9587033	.5509679	.7703632	.3403122	.6507020

#1	2074.236	.2647802	.2912455	268.3848	7.831327	.4109627
#2	2070.897	.2634599	.2903604	272.5118	7.803823	.4090222
#3	2035.716	.2599101	.2934790	269.9659	7.857112	.4143142

Sample Name: Q1930-01A Acquired: 5/5/2025 22:29:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) 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	.6969422	.1787739	1.486810	8.076255	F 1122.071	.1957010
Stddev	.0032796	.0019524	.008727	.043826	4.927	.0018670
%RSD	.4705622	1.092114	.5869348	.5426510	.4390996	.9540071

#1	.6966411	.1765562	1.477162	8.077509	1118.880	.1942932
#2	.6938235	.1802339	1.494152	8.031816	1119.586	.1978189
#3	.7003619	.1795316	1.489115	8.119441	1127.745	.1949910

Elem	Sr4077
Units	ppm
Avg	.2505747
Stddev	.0018170
%RSD	.7251347

#1	.2486023
#2	.2521804
#3	.2509414

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2627.725	60836.62	20122.80	1698.912	3658.153
Stddev	10.912	373.79	81.96	2.417	9.538
%RSD	.4152541	.6144217	.4073000	.1422794	.2607322

#1	2633.631	60577.19	20049.06	1696.595	3662.437
#2	2634.410	60667.60	20108.29	1698.722	3664.799
#3	2615.133	61265.07	20211.04	1701.419	3647.225

Sample Name: CCV10 Acquired: 5/5/2025 22:33:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.735615	4.553048	4.745405	4.733807	4.715720	9.234614
Stddev	.012398	.080893	.010660	.005210	.005815	.027861
%RSD	.2617994	1.776687	.2246438	.1100566	.1233067	.3017010

#1	4.746233	4.611136	4.741544	4.739072	4.717299	9.205194
#2	4.738622	4.587353	4.757458	4.733695	4.720582	9.260597
#3	4.721991	4.460655	4.737214	4.728654	4.709279	9.238053

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.085163	.2393016	2.375057	23.26184	.9672749	2.355751
Stddev	.077998	.0028221	.007919	.09272	.0023336	.006774
%RSD	.8585228	1.179317	.3334135	.3986141	.2412589	.2875587

#1	9.038977	.2360474	2.379910	23.16727	.9666193	2.359407
#2	9.041294	.2407800	2.379343	23.35260	.9653392	2.359911
#3	9.175218	.2410773	2.365920	23.26564	.9698662	2.347934

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.182167	4.619161	2.295478	23.59881	2.367928	1.176513
Stddev	.002286	.035403	.010828	.20587	.007381	.004846
%RSD	.1933837	.7664386	.4717105	.8723614	.3117157	.4118543

#1	1.183778	4.659815	2.283016	23.36932	2.374578	1.172695
#2	1.183172	4.595122	2.302581	23.65986	2.369220	1.174880
#3	1.179550	4.602545	2.300839	23.76724	2.359986	1.181964

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.25325	2.326003	2.326593	22.80138	4.711111	4.748132
Stddev	.24738	.005955	.015356	.15065	.062364	.016792
%RSD	1.063859	.2560240	.6600332	.6607103	1.323771	.3536643

#1	23.53801	2.319149	2.308890	22.97438	4.639104	4.760606
#2	23.13042	2.328954	2.334576	22.69908	4.746368	4.754752
#3	23.09132	2.329906	2.336314	22.73069	4.747862	4.729039

Sample Name: CCV10 Acquired: 5/5/2025 22:33:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.730212	4.585221	4.614022	4.701173	4.728432	F 4.432583
Stddev	.019984	.004248	.031620	.024274	.032870	.007332
%RSD	.4224855	.0926395	.6852953	.5163482	.6951586	.1654084

#1	4.745521	4.581547	4.648097	4.718181	4.761423	4.426928
#2	4.737511	4.589872	4.608341	4.711963	4.728189	4.440867
#3	4.707604	4.584245	4.585628	4.673374	4.695684	4.429954

Elem	Sr4077
Units	ppm
Avg	4.550580
Stddev	.071207
%RSD	1.564797

#1	4.468431
#2	4.588640
#3	4.594669

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2998.455	70280.14	19765.73	1920.236	4551.125
Stddev	10.401	61.63	186.69	5.742	20.480
%RSD	.3468788	.0876948	.9444936	.2990307	.4499917

#1	2990.240	70209.09	19980.45	1925.656	4536.338
#2	2994.974	70319.19	19641.82	1920.834	4542.537
#3	3010.150	70312.15	19674.92	1914.218	4574.501

Sample Name: CCB10 Acquired: 5/5/2025 22:37:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021065	-.000308	-.000964	.0026437	-.001295	-.008582
Stddev	.0026670	.000512	.000736	.0048575	.000052	.004115
%RSD	126.6115	166.3808	76.38035	183.7412	4.029543	47.94913

#1	.0043532	-.000711	-.001546	.0010510	-.001256	-.011253
#2	.0028072	.000268	-.000136	.0080975	-.001355	-.003843
#3	-.000841	-.000481	-.001209	-.001218	-.001275	-.010649

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005239	-.000051	-.000407	-.002526	-.000080	-.000274
Stddev	.000481	.000044	.000100	.004949	.000199	.000279
%RSD	9.175282	85.40323	24.47739	195.9328	247.0290	102.0962

#1	-.004710	-.000098	-.000360	-.005840	-.000206	-.000287
#2	-.005356	-.000012	-.000341	-.004901	-.000184	-.000546
#3	-.005649	-.000044	-.000522	.003163	.000149	.000012

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000065	-.012001	.0055560	.0124538	-.000150	-.000255
Stddev	.000134	.002776	.0002792	.0045009	.000151	.000279
%RSD	207.9442	23.12934	5.024777	36.14071	100.6170	109.2392

#1	-.000206	-.015168	.0058450	.0174965	-.000172	-.000413
#2	-.000048	-.009990	.0055353	.0088434	.000011	.000067
#3	.000061	-.010846	.0052878	.0110214	-.000288	-.000418

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4863808	-.000853	-.000890	.2505369	.0241765	.0000787
Stddev	.0067497	.000783	.000612	.0100018	.0007095	.0001175
%RSD	1.387732	91.72377	68.69557	3.992154	2.934764	149.2695

#1	.4939954	-.000247	-.000530	.2513321	.0248876	-.000031
#2	.4811341	-.000576	-.000545	.2601173	.0241732	.000202
#3	.4840129	-.001737	-.001597	.2401611	.0234686	.000065

Sample Name: CCB10 Acquired: 5/5/2025 22:37:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v29) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000205	.0001811	.0109892	-.001246	F .0594133	.0074046
Stddev	.000316	.0007020	.0082796	.001567	.0073607	.0012110
%RSD	154.1055	387.6522	75.34335	125.8104	12.38892	16.35451

#1	-.000535	.0003951	.0131685	-.003038	.0657683	.0061181
#2	.000095	-.000603	.0179611	-.000135	.0611234	.0085224
#3	-.000175	.000751	.0018379	-.000564	.0513481	.0075733

Elem	Sr4077
Units	ppm
Avg	-.000537
Stddev	.000031
%RSD	5.813553

#1	-.000557
#2	-.000501
#3	-.000552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3061.924	73663.64	21447.78	2010.321	4833.798
Stddev	6.472	222.79	73.07	10.911	7.442
%RSD	.2113624	.3024470	.3406936	.5427306	.1539479

#1	3064.267	73680.40	21366.03	2006.912	4834.175
#2	3054.608	73432.95	21470.60	2001.522	4826.176
#3	3066.898	73877.59	21506.73	2022.529	4841.044

SOP ID : M3010A-Digestion-17

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: 05/05/2025 Time : 11:05 Temp : 96 °C

End Digest Date: 05/05/2025 Time : 14:10 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

Standard Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6005
LFS-2	0.25	M6016
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1CELL#50 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05/05/25 13:10	<i>[Signature]</i> SPS.met.dig	<i>[Signature]</i> Metal Lab
	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
PB167858BL	PBW858	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	1
PB167858BS	LCS858	<2	50	25	Colorless	Colorless	Clear	Clear	M6005,M6016	2
Q1930-01MS	WATER-TREATMENT-DISCHA RGEMS	<2	50	25	Colorless	Colorless	Clear	Clear	M6005,M6016	5
Q1930-01MSD	WATER-TREATMENT-DISCHA RGEMSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6005,M6016	6
Q1930-01DUP	WATER-TREATMENT-DISCHA RGEDUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	4
Q1930-01	WATER-TREATMENT-DISCHA RGE	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	3
Q1944-02	CITY-WATER	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	7
Q1944-03	CHILLER-WATER	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	8
Q1945-01	GB1W	<2	50	25	Brown	light Brown	Clear	Clear	N/A	9
Q1956-07	FB-05022025	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB167858 WorkList ID : 189308 Department : Digestion Date : 05-05-2025 09:45:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1930-01	WATER-TREATMENT-DISCHAI	Water	Metals Group4	1:1 HNO3 to pH < 2	VERI01	L41	05/01/2025	6010D
Q1944-02	CITY-WATER	Water	Metals ICP-TAL	Cool 4 deg C	METE01	L41	05/01/2025	6010D
Q1944-03	CHILLER-WATER	Water	Metals ICP-TAL	Cool 4 deg C	METE01	L41	05/01/2025	6010D
Q1945-01	GB1W	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	GENV01	L41	05/02/2025	6010D
Q1956-07	FB-05022025	Water	Metals ICP-TAL	1:1 HNO3 to pH < 2	CAMP02	L31	05/02/2025	6010D

Date/Time 05/05/25 10:05
 Raw Sample Received by: SPB.met.dig
 Raw Sample Relinquished by: SPB

Date/Time 05/05/25 11:05
 Raw Sample Received by: SPB
 Raw Sample Relinquished by: SPB.met.dig

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/05/25 13:02		Kareem	OK
2	S1	S1	CAL2	05/05/25 13:07		Kareem	OK
3	S2	S2	CAL3	05/05/25 13:11		Kareem	OK
4	S3	S3	CAL4	05/05/25 13:15		Kareem	OK
5	S4	S4	CAL5	05/05/25 13:19		Kareem	OK
6	S5	S5	CAL6	05/05/25 13:24		Kareem	OK
7	ICV01	ICV01	ICV	05/05/25 14:18		Kareem	OK
8	LLICV01	LLICV01	LLICV	05/05/25 14:36		Kareem	OK
9	ICB01	ICB01	ICB	05/05/25 14:41		Kareem	OK
10	CRI01	CRI01	CRDL	05/05/25 14:47		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/05/25 14:52		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/05/25 15:07		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/05/25 15:11		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/05/25 15:16		Kareem	OK
15	CCV01	CCV01	CCV	05/05/25 15:20		Kareem	OK
16	CCB01	CCB01	CCB	05/05/25 15:26		Kareem	OK
17	Q1916-01	WC-12	SAM	05/05/25 15:30		Kareem	OK
18	Q1917-01	MH-JJ	SAM	05/05/25 15:35		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

19	Q1923-01	TR-05-04302025	SAM	05/05/25 15:39		Kareem	OK
20	Q1923-01DUP	TR-05-04302025DUP	DUP	05/05/25 15:43		Kareem	OK
21	Q1923-01L	TR-05-04302025L	SD	05/05/25 15:47		Kareem	OK
22	Q1923-01MS	TR-05-04302025MS	MS	05/05/25 15:51		Kareem	OK
23	Q1923-01MSD	TR-05-04302025MSD	MSD	05/05/25 15:55		Kareem	OK
24	Q1923-01A	TR-05-04302025A	PS	05/05/25 15:59		Kareem	OK
25	Q1944-01	MELTED-RUBBER-S	SAM	05/05/25 16:03		Kareem	OK
26	CCV02	CCV02	CCV	05/05/25 16:07		Kareem	OK
27	CCB02	CCB02	CCB	05/05/25 16:12		Kareem	OK
28	Q1865-08	SOM-25-00051	SAM	05/05/25 16:16		Kareem	OK
29	Q1916-04	WC-12	SAM	05/05/25 16:20		Kareem	OK
30	Q1906-04	WC-4	SAM	05/05/25 16:25		Kareem	OK
31	Q1944-02	CITY-WATER	SAM	05/05/25 16:29		Kareem	OK
32	Q1944-03DL	CHILLER-WATERDL	SAM	05/05/25 16:33	Straight 5x for all elements	Kareem	OK
33	Q1913-01	WC-12-S-202504	SAM	05/05/25 16:38		Kareem	OK
34	Q1913-03	WC-13-S-202504	SAM	05/05/25 16:42	MS/MSD fail for many parameters	Kareem	Not Ok
35	Q1913-03DUP	WC-13-S-202504DUP	DUP	05/05/25 16:47	MS/MSD fail for many parameters	Kareem	Not Ok
36	Q1913-03L	WC-13-S-202504L	SD	05/05/25 16:51	MS/MSD fail for many parameters	Kareem	Not Ok
37	CCV03	CCV03	CCV	05/05/25 16:56		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

38	CCB03	CCB03	CCB	05/05/25 17:00		Kareem	OK
39	Q1913-03MS	WC-13-S-202504MS	MS	05/05/25 17:04	MS/MSD fail for many parameters	Kareem	Not Ok
40	Q1913-03MSD	WC-13-S-202504MSD	MSD	05/05/25 17:08	MS/MSD fail for many parameters	Kareem	Not Ok
41	Q1913-03A	WC-13-S-202504A	PS	05/05/25 17:13	MS/MSD fail for many parameters	Kareem	Not Ok
42	PB167837BL	PB167837BL	MB	05/05/25 17:17		Kareem	OK
43	PB167815TB	PB167815TB	MB	05/05/25 17:31		Kareem	OK
44	PB167837BS	PB167837BS	LCS	05/05/25 17:36		Kareem	OK
45	PB167817BL	PB167817BL	MB	05/05/25 17:41		Kareem	OK
46	PB167817BS	PB167817BS	LCS	05/05/25 17:46		Kareem	OK
47	PB167832BL	PB167832BL	MB	05/05/25 17:51		Kareem	OK
48	CCV04	CCV04	CCV	05/05/25 17:55		Kareem	OK
49	CCB04	CCB04	CCB	05/05/25 17:59		Kareem	OK
50	PB167832BS	PB167832BS	LCS	05/05/25 18:04		Kareem	OK
51	PB167868BL	PB167868BL	MB	05/05/25 18:10		Kareem	OK
52	PB167868BS	PB167868BS	LCS	05/05/25 18:14		Kareem	OK
53	PB167774TB	PB167774TB	MB	05/05/25 18:18		Kareem	OK
54	PB167858BL	PB167858BL	MB	05/05/25 18:22		Kareem	OK
55	PB167858BS	PB167858BS	LCS	05/05/25 18:27		Kareem	OK
56	Q1922-01	MH-R	SAM	05/05/25 18:31		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

57	Q1922-05	MH-S	SAM	05/05/25 18:35		Kareem	OK
58	Q1928-01	MH-Q	SAM	05/05/25 18:39		Kareem	OK
59	CCV05	CCV05	CCV	05/05/25 18:43		Kareem	OK
60	CCB05	CCB05	CCB	05/05/25 18:47		Kareem	OK
61	Q1932-01	COMP-4	SAM	05/05/25 18:52	CCV fail for Be,Mg	Kareem	Not Ok
62	Q1932-03	COMP-5	SAM	05/05/25 18:56	CCV fail for Be,Mg	Kareem	Not Ok
63	Q1932-05	COMP-6	SAM	05/05/25 19:00	CCV fail for Be,Mg	Kareem	Not Ok
64	Q1932-07	COMP-7	SAM	05/05/25 19:04	CCV fail for Be,Mg	Kareem	Not Ok
65	Q1933-01	OK-01-050125	SAM	05/05/25 19:08	CCV fail for Be,Mg	Kareem	Not Ok
66	Q1933-01DUP	OK-01-050125DUP	DUP	05/05/25 19:12	CCV fail for Be,Mg	Kareem	Not Ok
67	Q1933-01L	OK-01-050125L	SD	05/05/25 19:16	CCV fail for Be,Mg	Kareem	Not Ok
68	Q1933-01MS	OK-01-050125MS	MS	05/05/25 19:20	CCV fail for Be,Mg	Kareem	Not Ok
69	Q1933-01MSD	OK-01-050125MSD	MSD	05/05/25 19:24	CCV fail for Be,Mg	Kareem	Not Ok
70	Q1933-01A	OK-01-050125A	PS	05/05/25 19:28	CCV fail for Be,Mg	Kareem	Not Ok
71	CCV06	CCV06	CCV	05/05/25 19:32	CCV fail for Be,Mg	Kareem	OK
72	CCB06	CCB06	CCB	05/05/25 19:37		Kareem	OK
73	Q1939-05	GB3	SAM	05/05/25 19:41	CCV fail for Be,Mg	Kareem	Not Ok
74	Q1935-01	MH-NN	SAM	05/05/25 19:45	CCV fail for Be,Mg	Kareem	Not Ok
75	Q1935-05	MH-MM	SAM	05/05/25 19:49	CCV fail for Be,Mg	Kareem	Not Ok
76	Q1939-01	GB1	SAM	05/05/25 19:53	CCV fail for Be,Mg	Kareem	Not Ok

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

77	Q1939-03	GB2	SAM	05/05/25 19:57	CCV fail for Be,Mg	Kareem	Not Ok
78	Q1917-04	MH-JJ	SAM	05/05/25 20:01		Kareem	OK
79	Q1922-04	MH-R	SAM	05/05/25 20:06		Kareem	OK
80	Q1922-08	MH-S	SAM	05/05/25 20:10		Kareem	OK
81	Q1925-01	AUD-25-0068	SAM	05/05/25 20:15		Kareem	OK
82	CCV07	CCV07	CCV	05/05/25 20:19		Kareem	OK
83	CCB07	CCB07	CCB	05/05/25 20:23		Kareem	OK
84	Q1925-02	AUD-25-0069	SAM	05/05/25 20:28		Kareem	OK
85	Q1925-03	AUD-25-0070	SAM	05/05/25 20:32		Kareem	OK
86	Q1928-04	MH-Q	SAM	05/05/25 20:36		Kareem	OK
87	Q1929-03	WC-A4-02-C	SAM	05/05/25 20:41		Kareem	OK
88	Q1929-07	WC-A1-03-C	SAM	05/05/25 20:45		Kareem	OK
89	Q1929-11	WC-A1-04-C	SAM	05/05/25 20:50		Kareem	OK
90	Q1932-02	COMP-4	SAM	05/05/25 20:54		Kareem	OK
91	Q1932-04	COMP-5	SAM	05/05/25 20:59		Kareem	OK
92	Q1932-06	COMP-6	SAM	05/05/25 21:03		Kareem	OK
93	CCV08	CCV08	CCV	05/05/25 21:07		Kareem	OK
94	CCB08	CCB08	CCB	05/05/25 21:12		Kareem	OK
95	Q1932-08	COMP-7	SAM	05/05/25 21:16		Kareem	OK
96	Q1935-04	MH-NN	SAM	05/05/25 21:20		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB135674

Review By	JANVI	Review On	5/6/2025 4:57:41 PM
Supervise By	jaswal	Supervise On	5/7/2025 1:30:24 AM
STD. NAME	STD REF.#		
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546		
ICV Standard	MP85553		
CCV Standard	MP85556		
ICSA Standard	MP85554,MP85555		
CRI Standard			
LCS Standard			
Chk Standard	MP85557,MP85558		

97	Q1935-08	MH-MM	SAM	05/05/25 21:25		Kareem	OK
98	Q1935-08DUP	MH-MMDUP	DUP	05/05/25 21:29		Kareem	OK
99	Q1935-08L	MH-MML	SD	05/05/25 21:34		Kareem	OK
100	Q1935-08MS	MH-MMMS	MS	05/05/25 21:38		Kareem	OK
101	Q1935-08MSD	MH-MMMSD	MSD	05/05/25 21:42		Kareem	OK
102	Q1935-08A	MH-MMA	PS	05/05/25 21:46		Kareem	OK
103	Q1945-01	GB1W	SAM	05/05/25 21:51	Zn high	Kareem	Dilution
104	Q1956-07	FB-05022025	SAM	05/05/25 21:55		Kareem	OK
105	CCV09	CCV09	CCV	05/05/25 21:59		Kareem	OK
106	CCB09	CCB09	CCB	05/05/25 22:03		Kareem	OK
107	Q1930-01	WATER-TREATMENT	SAM	05/05/25 22:08		Kareem	OK
108	Q1930-01DUP	WATER-TREATMENT	DUP	05/05/25 22:12		Kareem	OK
109	Q1930-01L	WATER-TREATMENT	SD	05/05/25 22:16		Kareem	OK
110	Q1930-01MS	WATER-TREATMENT	MS	05/05/25 22:21		Kareem	OK
111	Q1930-01MSD	WATER-TREATMENT	MSD	05/05/25 22:25		Kareem	OK
112	Q1930-01A	WATER-TREATMENT	PS	05/05/25 22:29		Kareem	OK
113	CCV10	CCV10	CCV	05/05/25 22:33		Kareem	OK
114	CCB10	CCB10	CCB	05/05/25 22:37		Kareem	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1930

Test : Metals Group4

Prepbatch ID : PB167858,

Sequence ID/Qc Batch ID: LB135674, LB135674,

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

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>
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
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) FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of 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
A) FROM 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	06/20/2025	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:

Part Number: 57056
Lot Number: 010924
Description: Barium (Ba)
Solvent: Nitric Acid
Lot #

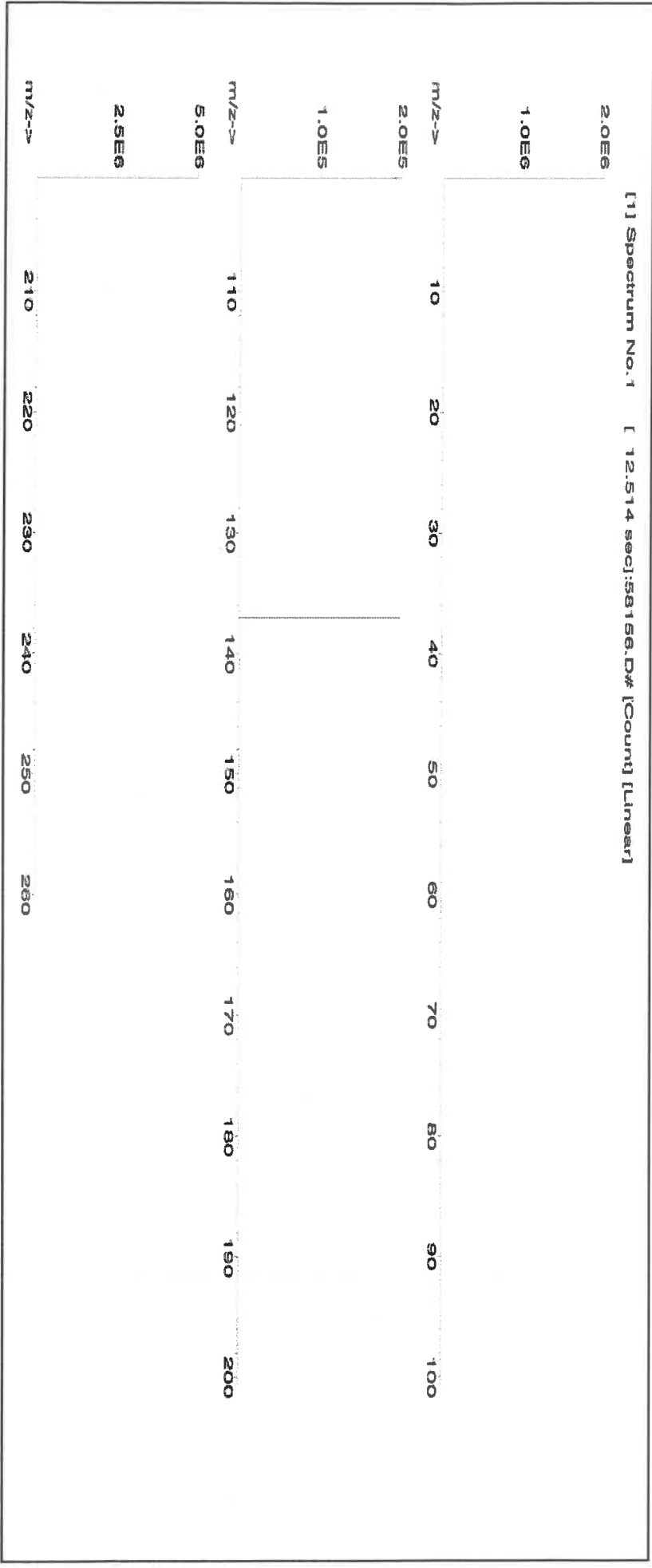
Expiration Date: 010927
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
2% **40.0** **Nitric Acid**
(mL)

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02 **5E-05** **Balance Uncertainty**
0.058 **Flask Uncertainty**

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
	010924
<i>Pedro L. Renteria</i>	
Reviewed By:	Pedro L. Renteria
	010924

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)
Barium nitrate (Ba)	IN023 BA0022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	1000.1	2.0
								10022-31-8	0.5 mg/m ³
									or-hat 355 mg/kg 3104a





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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

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

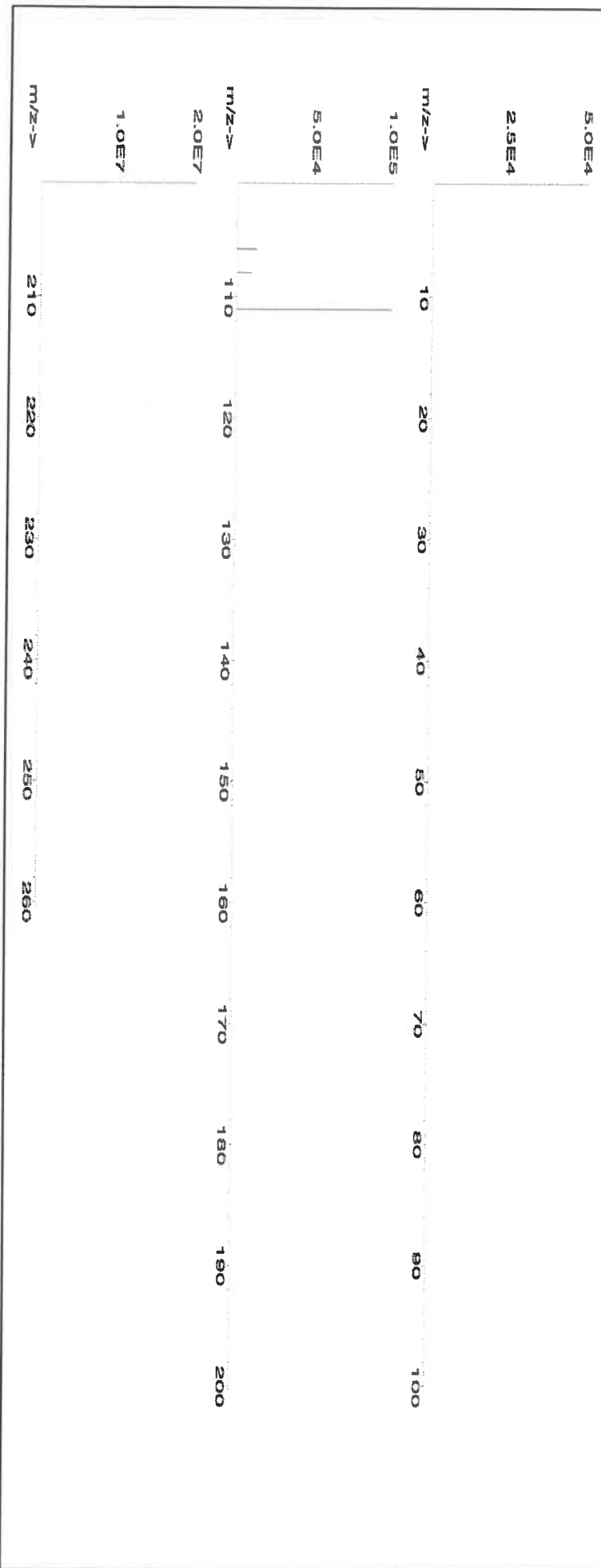
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

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

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	or-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.
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- * 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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1.0 ACCREDITATION / REGISTRATION

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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 (mL) Nitric Acid

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 5000.1 **0.12 Flask Uncertainty**

Giovanni Esposito

Formulated By: Giovanni Esposito **051523**

Pedro L. Renias

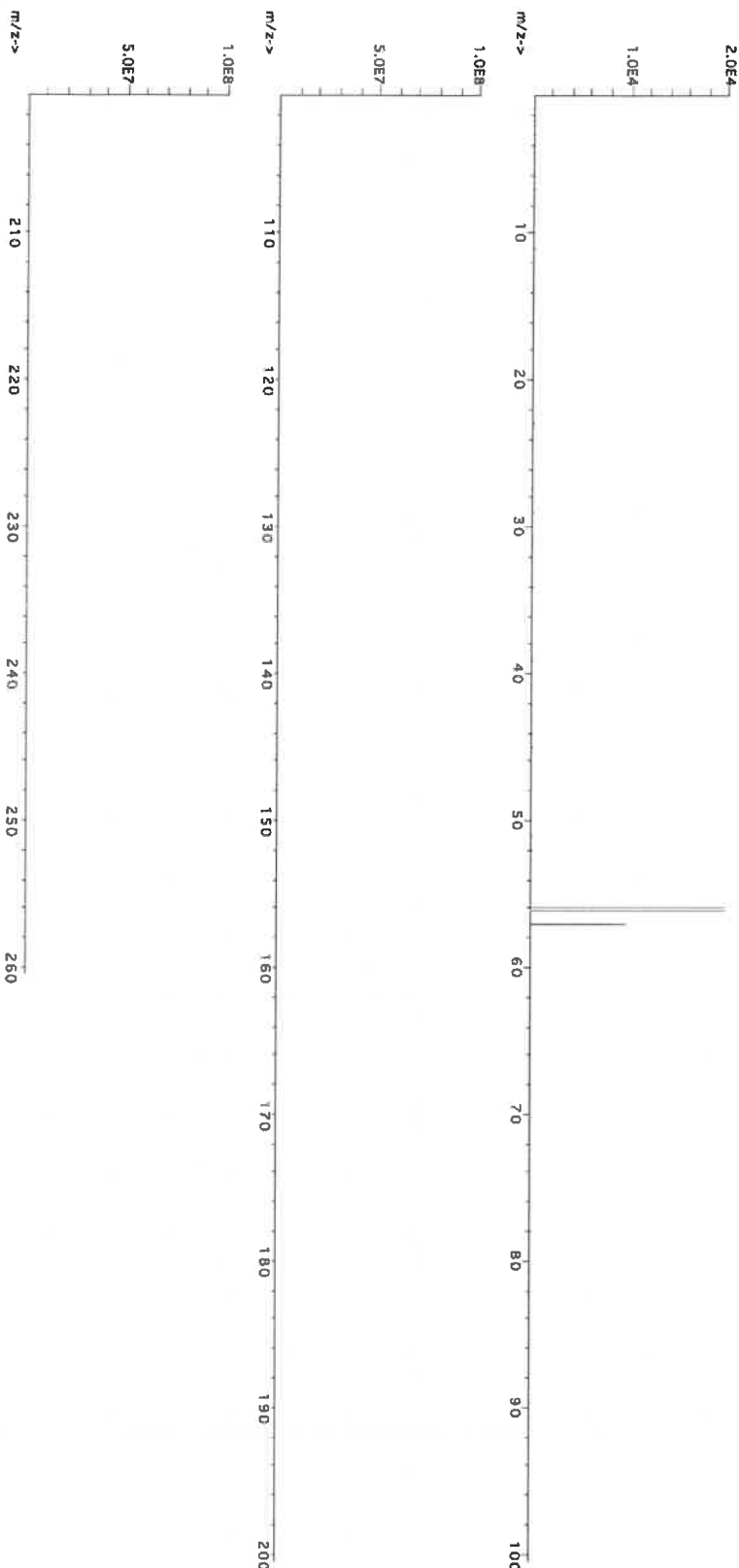
Reviewed By: Pedro L. Renias **051523**

SDS Information

Compound	RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM

1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	10001.5	20.0	7439-89-6	5 mg/m3	or-rat 7500mg/kg 3126a

[1] Spectrum No.1 [30.763 sec]:58126.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	<0.10	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.
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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).



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RD:05/14/2024

Certificate of Analysis

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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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com; inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 30, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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)

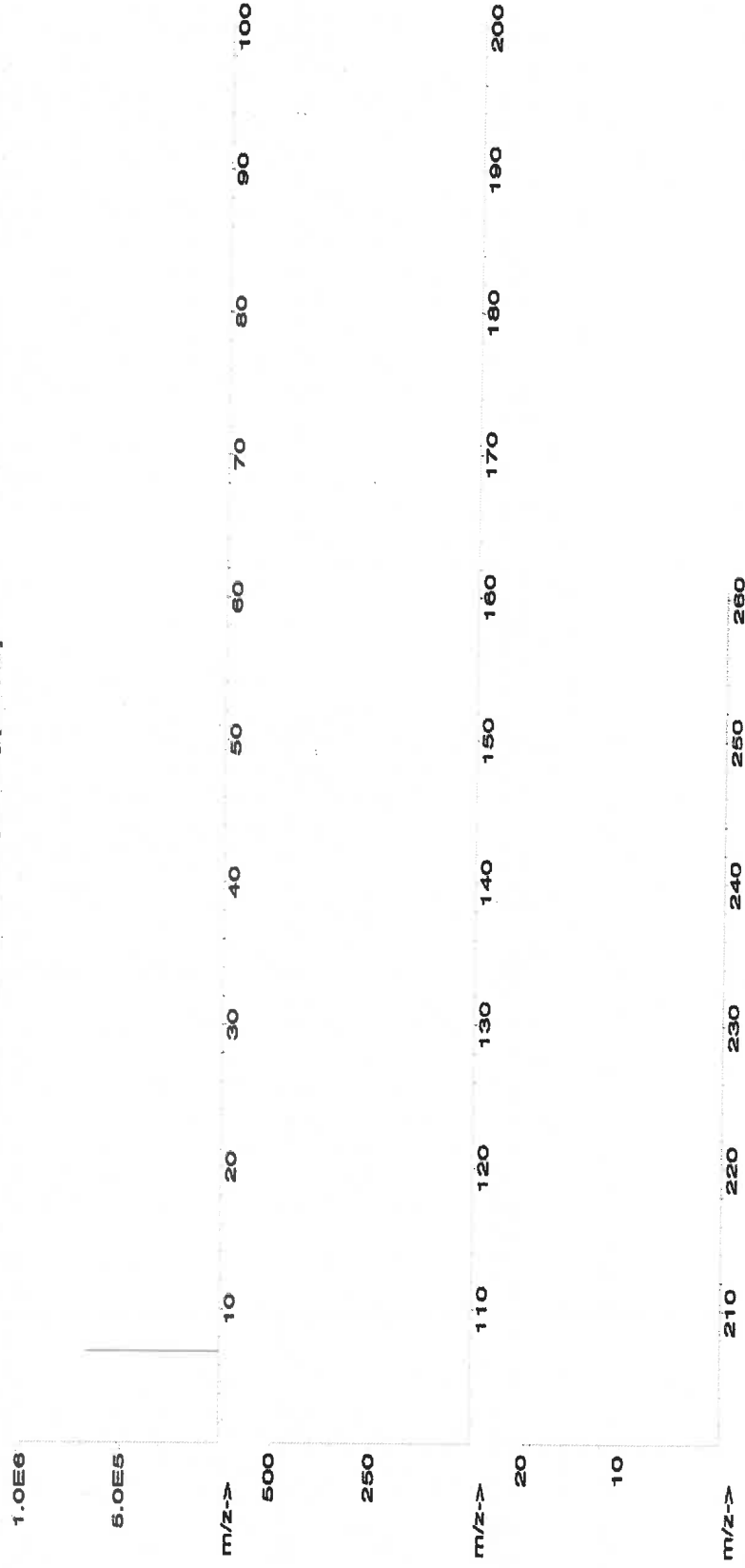
Weight shown below was diluted to (mL): 1000.12
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lawrence Barry
Formulated By: Lawrence Barry 070622
Pedro L. Rentas
Reviewed By: Pedro L. Rentas 070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information		
											(Solvent Safety Info. On Attached pg.)	CAS#	NIST SRM

1. Lithium nitrate (Li)	IN019	L2042018A1	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

[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: 57058
Lot Number: 061322
Description: Cerium (Ce)

Solvent: 2051001 Nitric Acid

Lot #

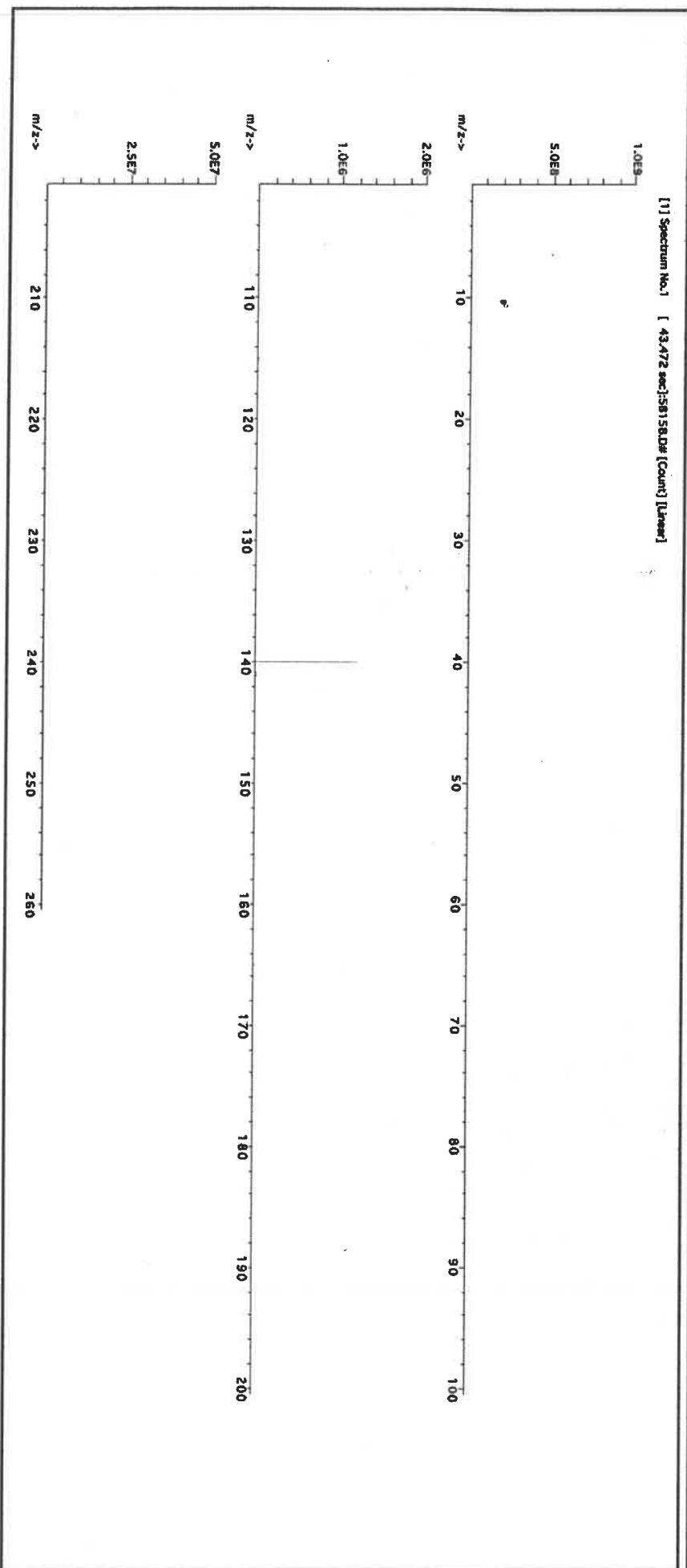
Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LUTB

2% 20.0 Nitric Acid (mL)

Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
	061322
Reviewed By:	Pedro L. Renteria
	061322

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. Cerium nitrate hexahydrate (Ce)	IN146 Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0
									10294-41-4
									NA
									NA
									NA
									NA
									NA
									NA
									NA
									NA





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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57058
020623
Cerium (Ce)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

020626
Ambient (20 °C)
1000
6UTB

Weight shown below was diluted to (mL):

1000.12 **0.058** **Balance Uncertainty**
Flask Uncertainty

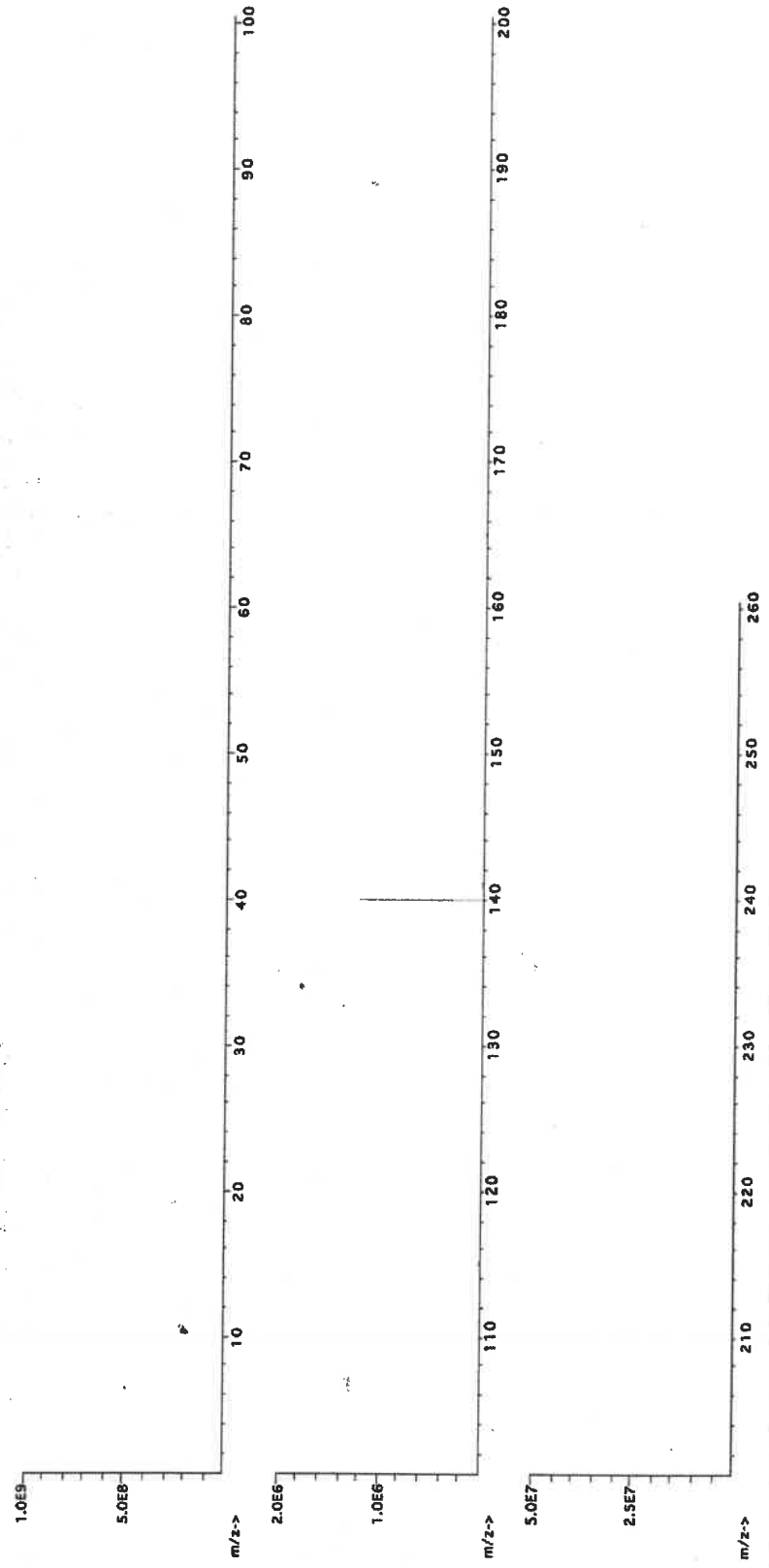
Lot #
Solvent: **21110221** **Nitric Acid**

2% **20.0** **Nitric Acid**
(mL)

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

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)	SDS Information		
										(Solvent Safety Info. On Attached pg.)	CAS#	LD50
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	1000.0	2.0	10294-41-4	NA
											NA	NA

[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	<0.02	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	<0.01	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	<0.02	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).



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot #
21110221
Solvent: Nitric Acid

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

2.0%
40.0 (mL)
Nitric Acid

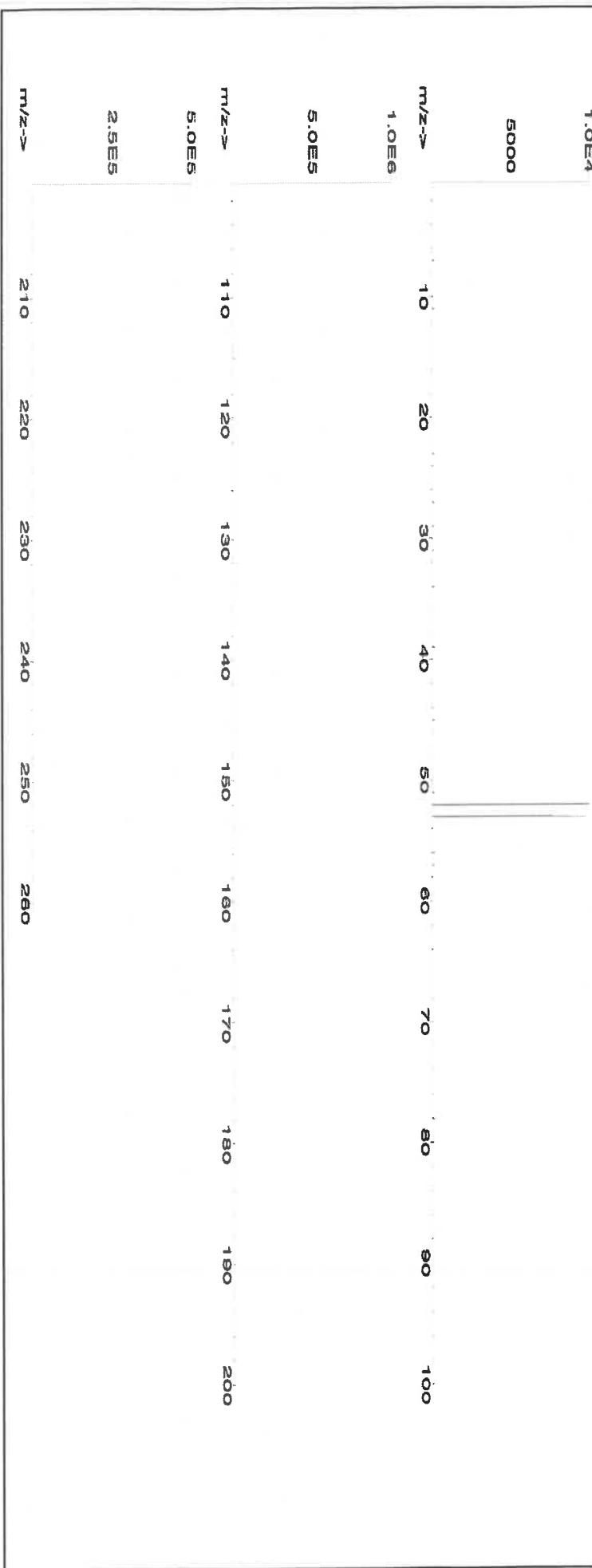
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Ruelas
	060523

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

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.
- * 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: **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

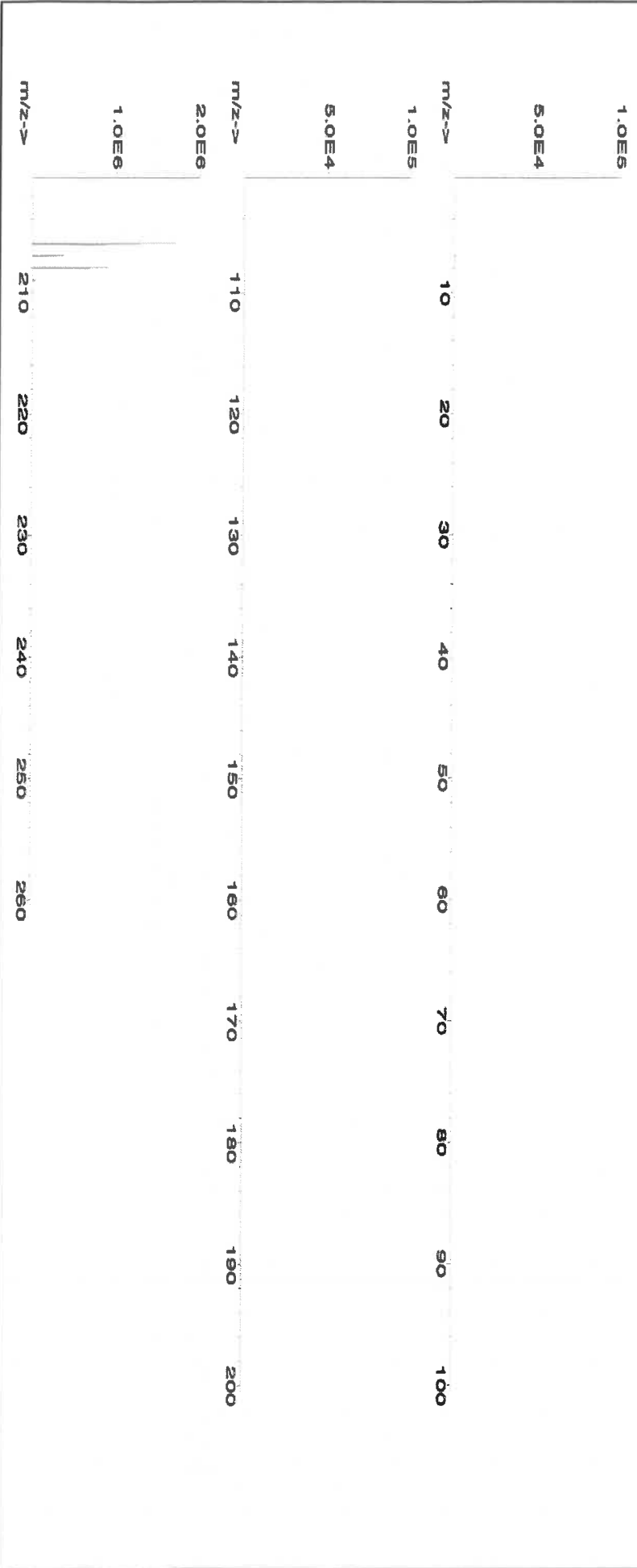
Compound

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

SDS Information

1. Lead(II) nitrate (Pb) IN029 PbO122016A1 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:
Lot Number:
Description:

57028
091223
Nickel (NI)

Lot #
24002546
Solvent:
Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):

091226
Ambient (20 °C)
1000

2.0%
40.0 (mL)
Nitric Acid

NIST Test Number:

6U7B

Volume shown below was diluted to (mL):

5E-05 Balance Uncertainty
0.056 Flask Uncertainty

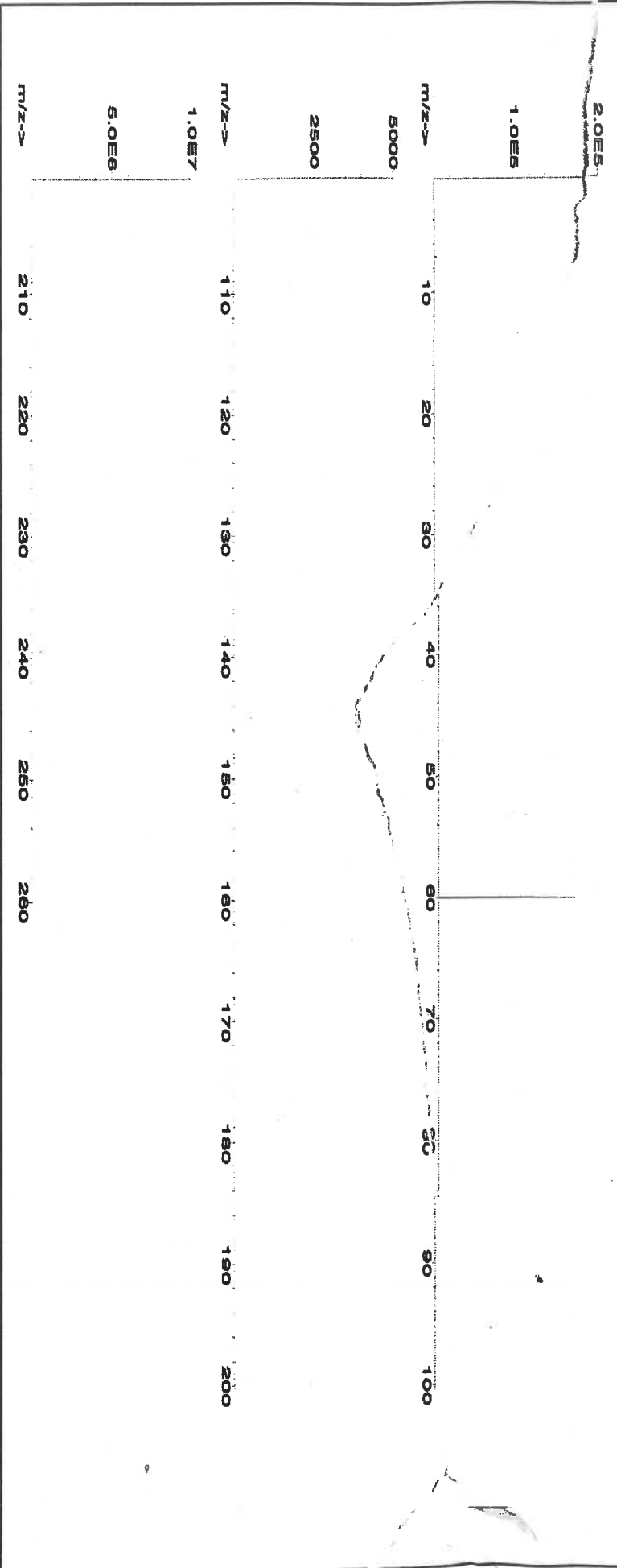
Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Renteria	091223

Compound

Part Number	Lot Number	Dilution Factor	Initial Vd. (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

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

[1] Spectrum No.1 [9.135 sec]:56026.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	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

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Ruelas	071723

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**
Balance Uncertainty: **5E-05**
Flask Uncertainty: **0.058**

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

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	m/z-->	110	120	130	140	150	160	170	180	190	200
2.5E7	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	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):

5E-05

Balance Uncertainty

0.058

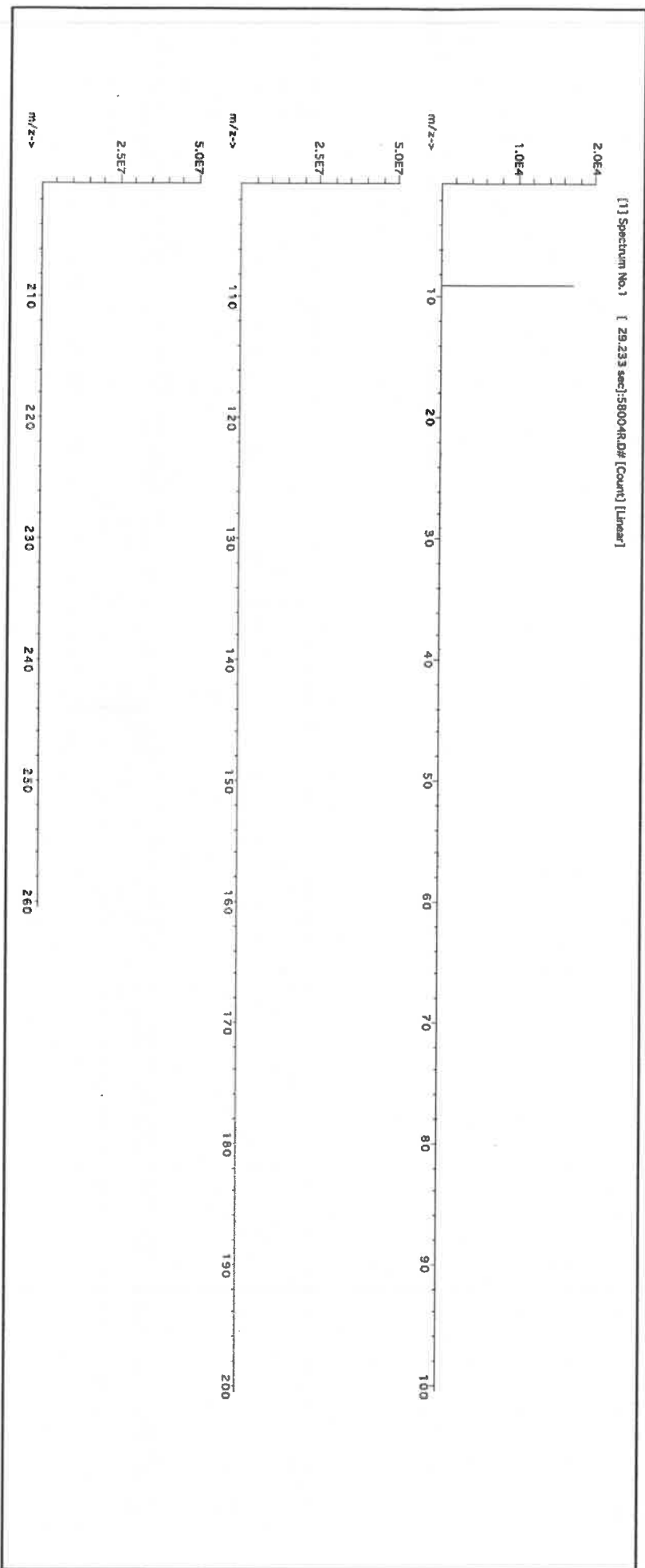
Flask Uncertainty

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

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





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	Ta	<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:

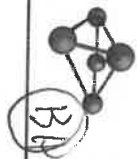
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



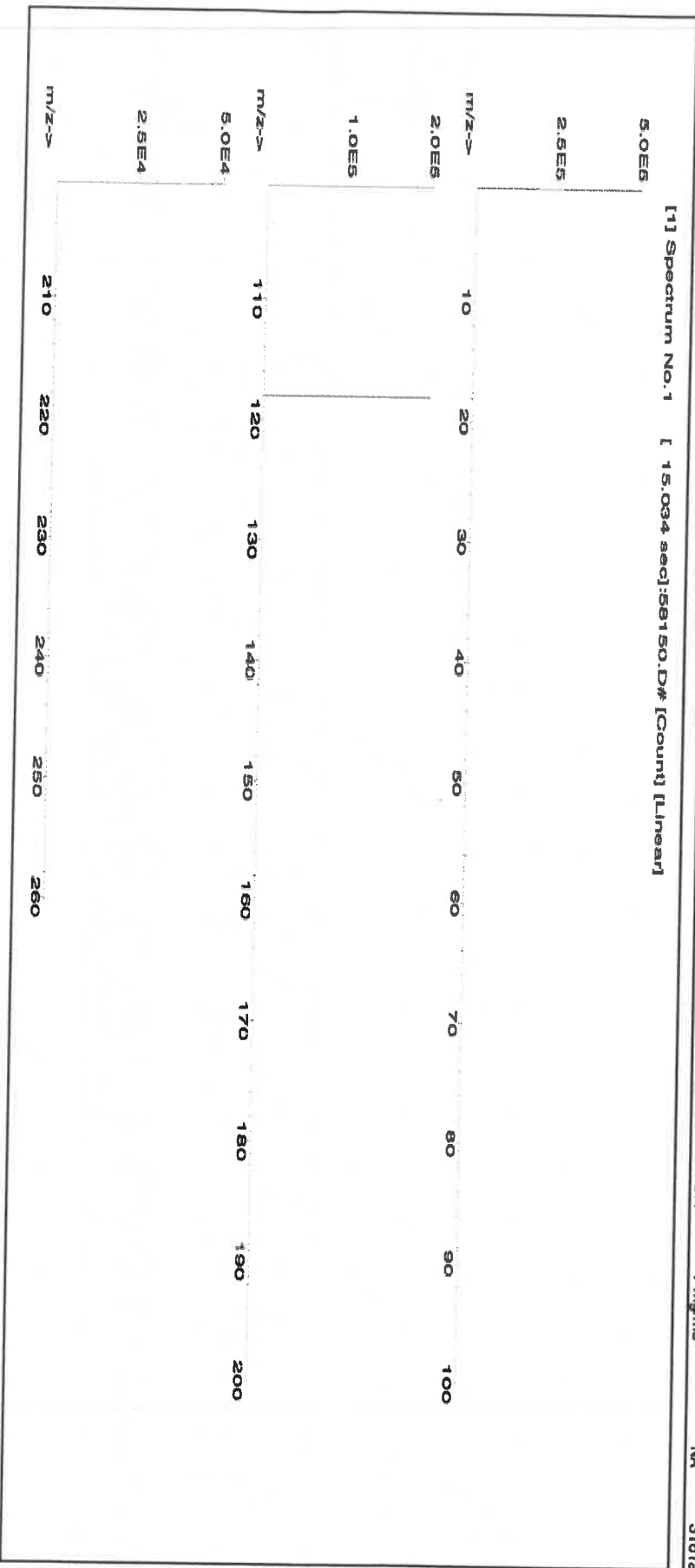
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Benson Chan	
071123	
Reviewed By: Pedro L. Rientas	
071123	

SDS Information														NIST				
Compound		Lot		Nominal		Purity		Uncertainty		Assay		Target			Actual		Expanded	
RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	(%)	(Solvent Safety Info. On Attached pg.)

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 (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	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	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	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	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.
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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).



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

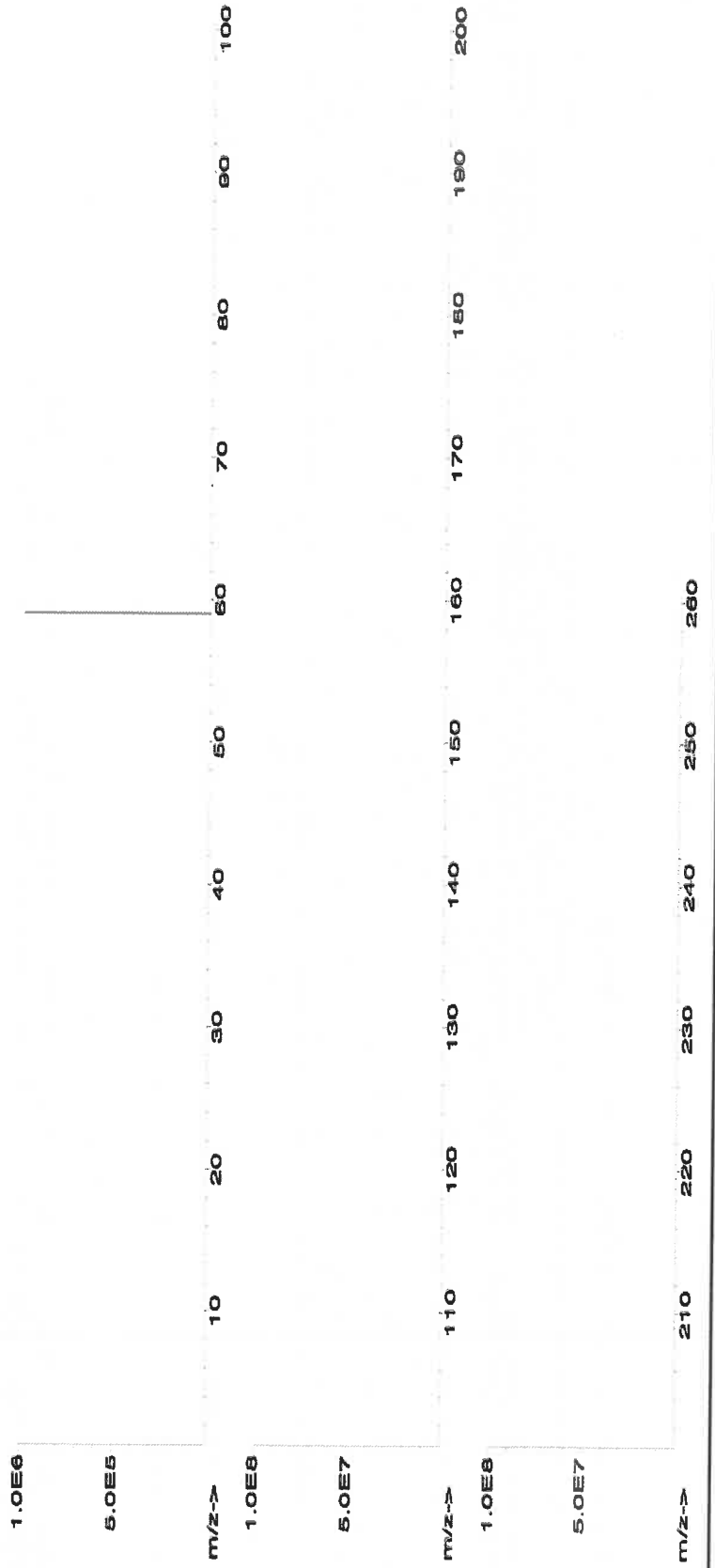
SDS Information

Expanded Uncertainty +/- (µg/mL)
Final Conc. (µg/mL)
Initial Conc. (µg/mL)
Nominal Conc. (µg/mL)
Pipette (mL)
Initial Vol. (mL)
Dilution Factor
Part Number
Lot Number

(Solvent Safety Info. On Attached pg.)
CAS#
OSHA PEL (TWA)
LD50
NIST
SRM

1. Cobalt(II) nitrate hexahydrate (Co) 58127 050923 0.1000 200.0 0.084 1000 10000.0 1000.0 2.2 10026-22-9 0.02 mg/m3 orl-rat 691 mg/kg 3113

[1] Spectrum No.1 [34.243 sec]:58027.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	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

Expiration Date:

111326

2.0%
80.0 (mL)

Nitric Acid

Recommended Storage:
Ambient (20 °C)

Nominal Concentration (µg/mL):
1000

NIST Test Number:
6UTB

Volume shown below was diluted to (mL):
4000.0

5E-05
Balance Uncertainty
0.06
Flask Uncertainty

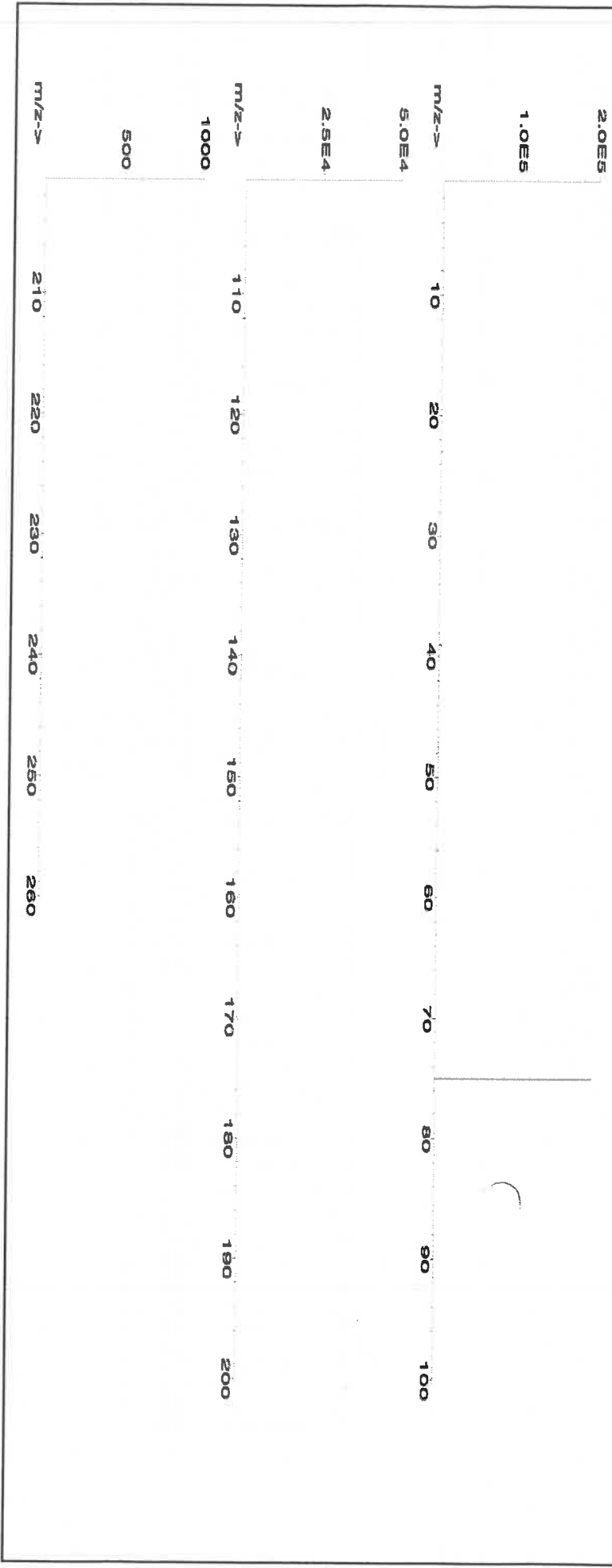
Formulated By:	Lawrence Barry
Reviewed By:	
	Pedro L. Rendas
	111323

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

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

[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 _h	<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	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).
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- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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

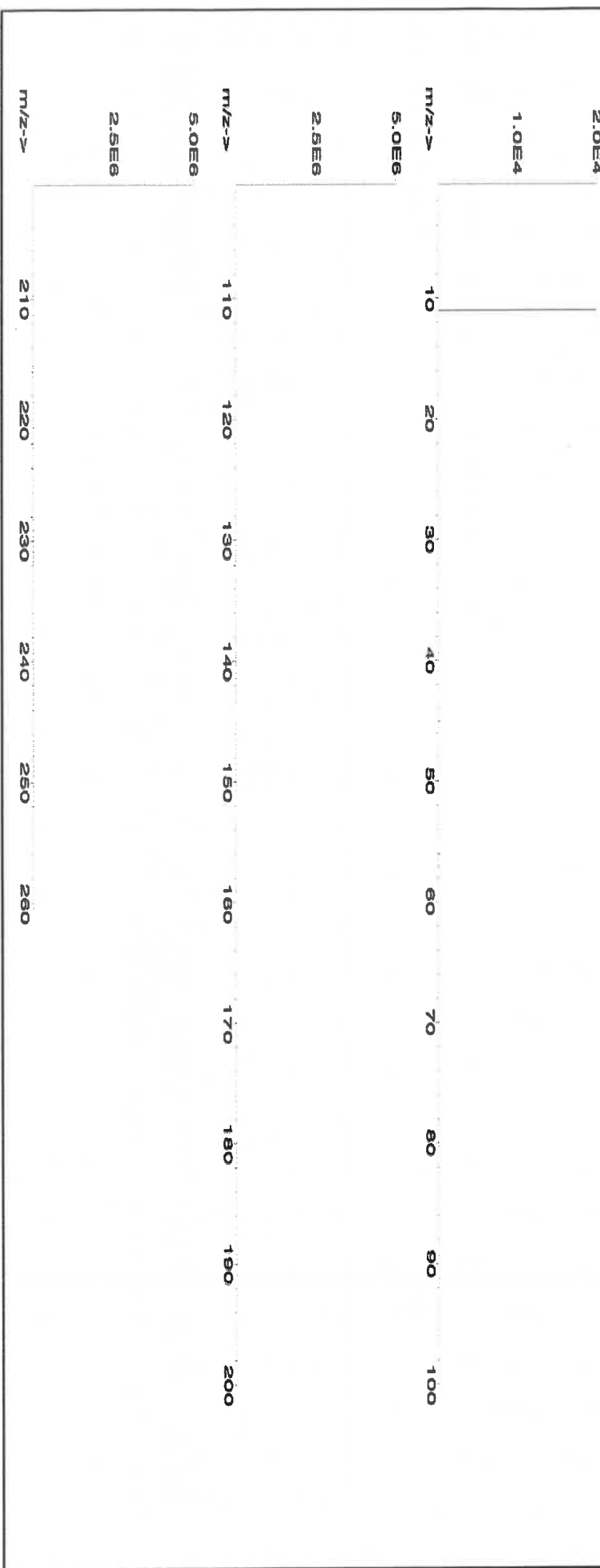
2.0% 40.0 Ammonium hydroxide (mL)

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	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Boric acid (B)	IN018	BV082018A1	1000	99.999	0.10	17.3	11.55772	11.56201	1000.4
							2.0	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

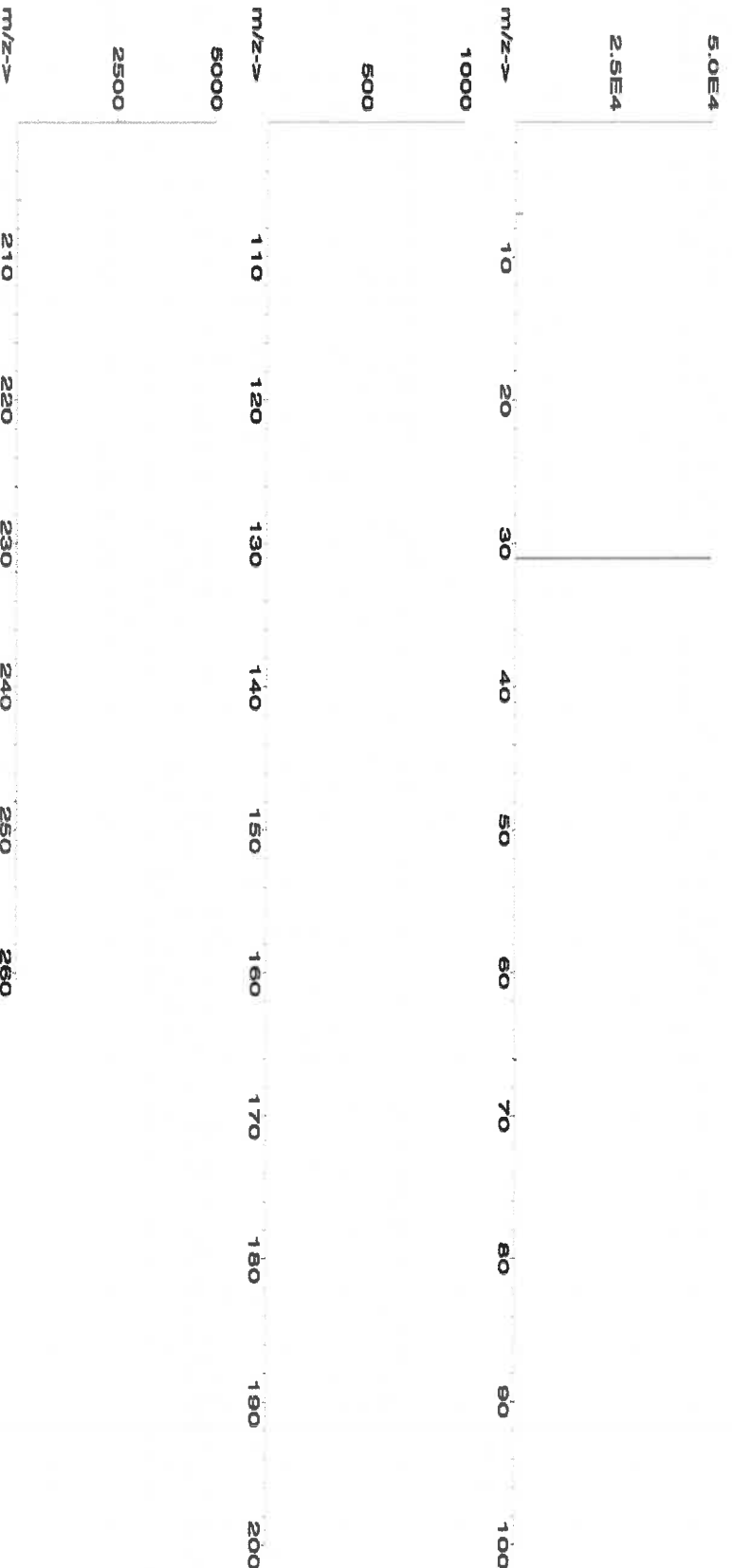
Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

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

1. Ammonium dihydrogen phosphate (P) IN008 P082019A1 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.
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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).



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	

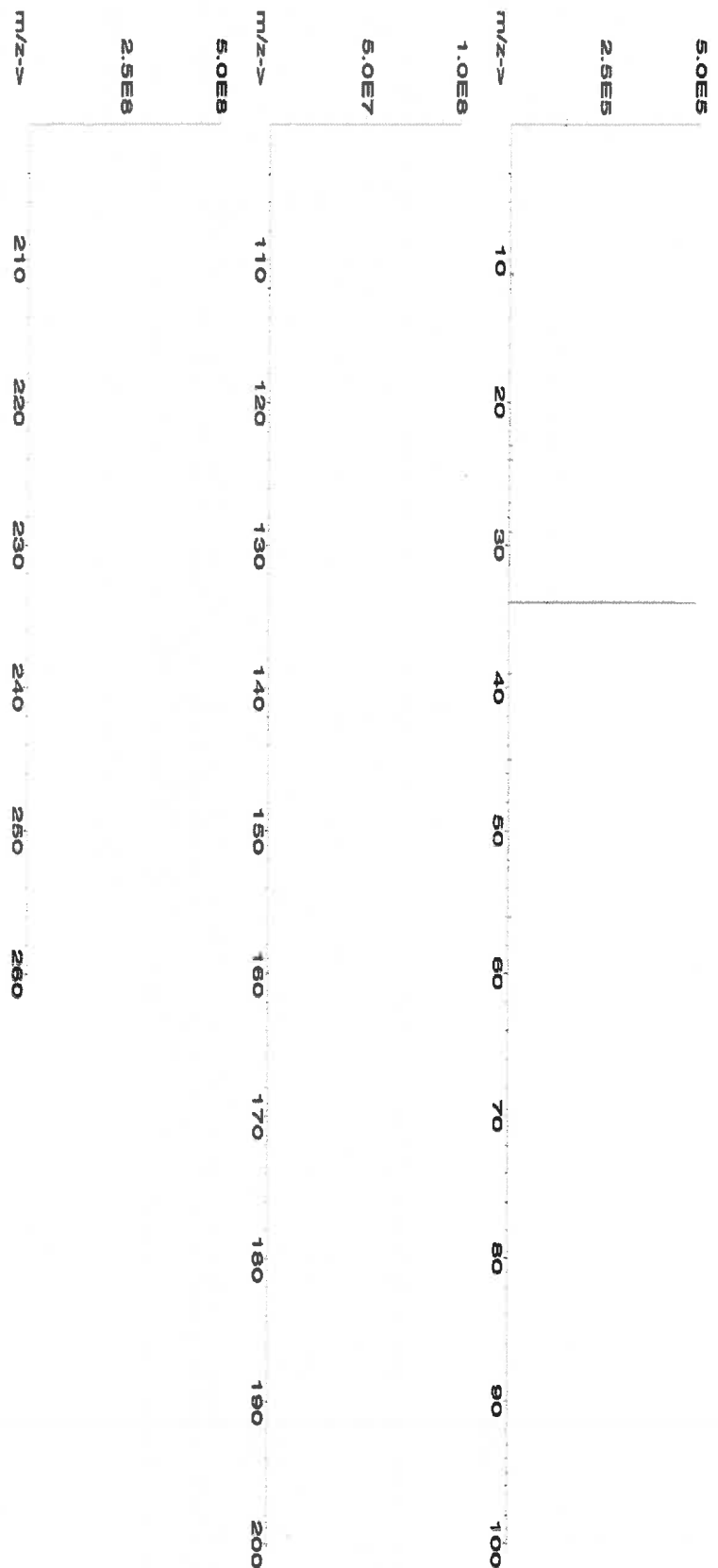
Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6L7B
Weight shown below was diluted to (mL): 4000.0
SE-05 Balance Uncertainty
0.06 Flask Uncertainty

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

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 0.01-0.1 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:

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- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * 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)**

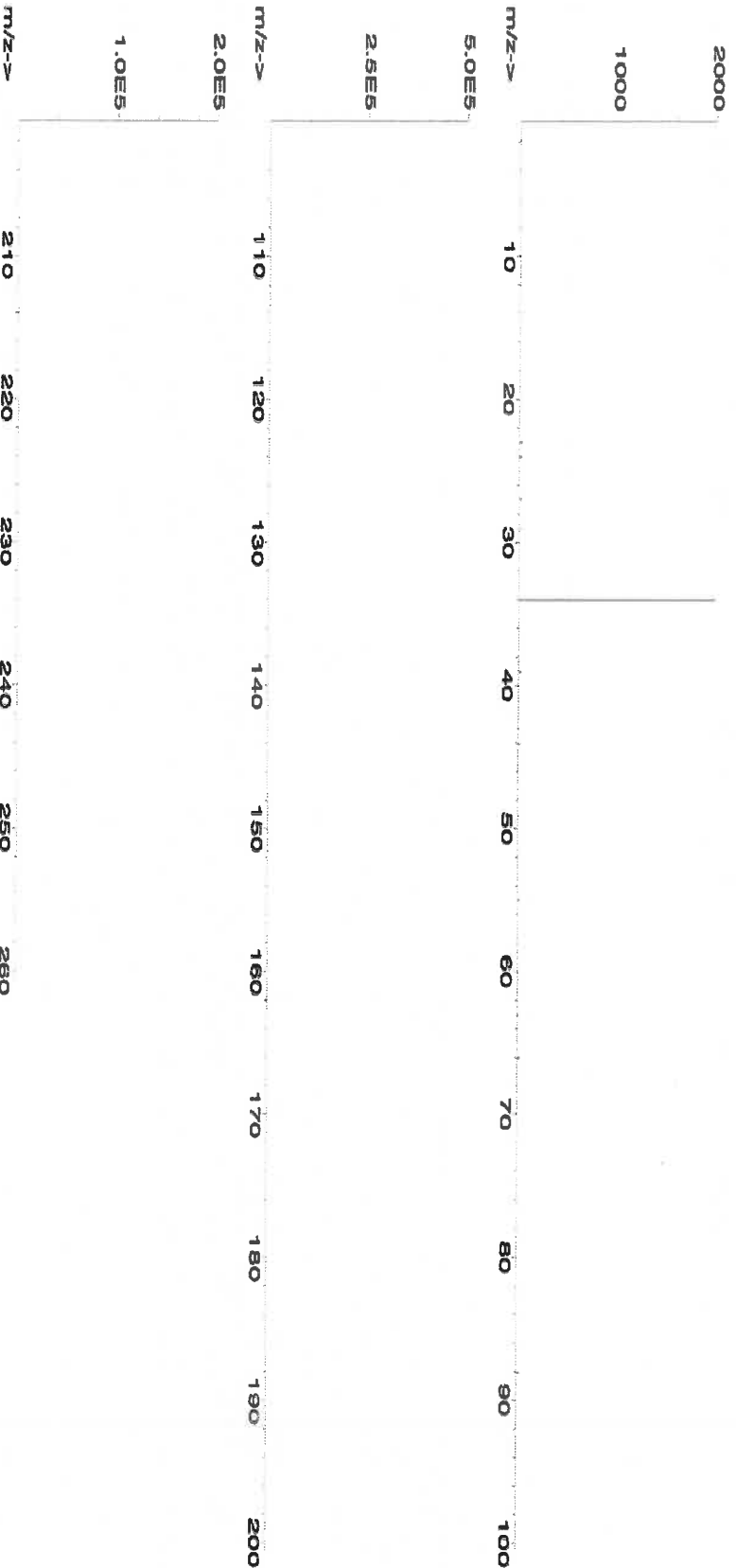
Lot #
Solvent: 071123
ASTM Type 1 Water

Formulated By:	Lawrence Barry
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	oralal 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	Ti	<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.
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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: 57015
Lot Number: 091123
Description: Phosphorous (P)

Solvent: 24002546 Nitric Acid

Lot #

R: 02109124 M5820

Formulated By: Lawrence Barry 091123

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

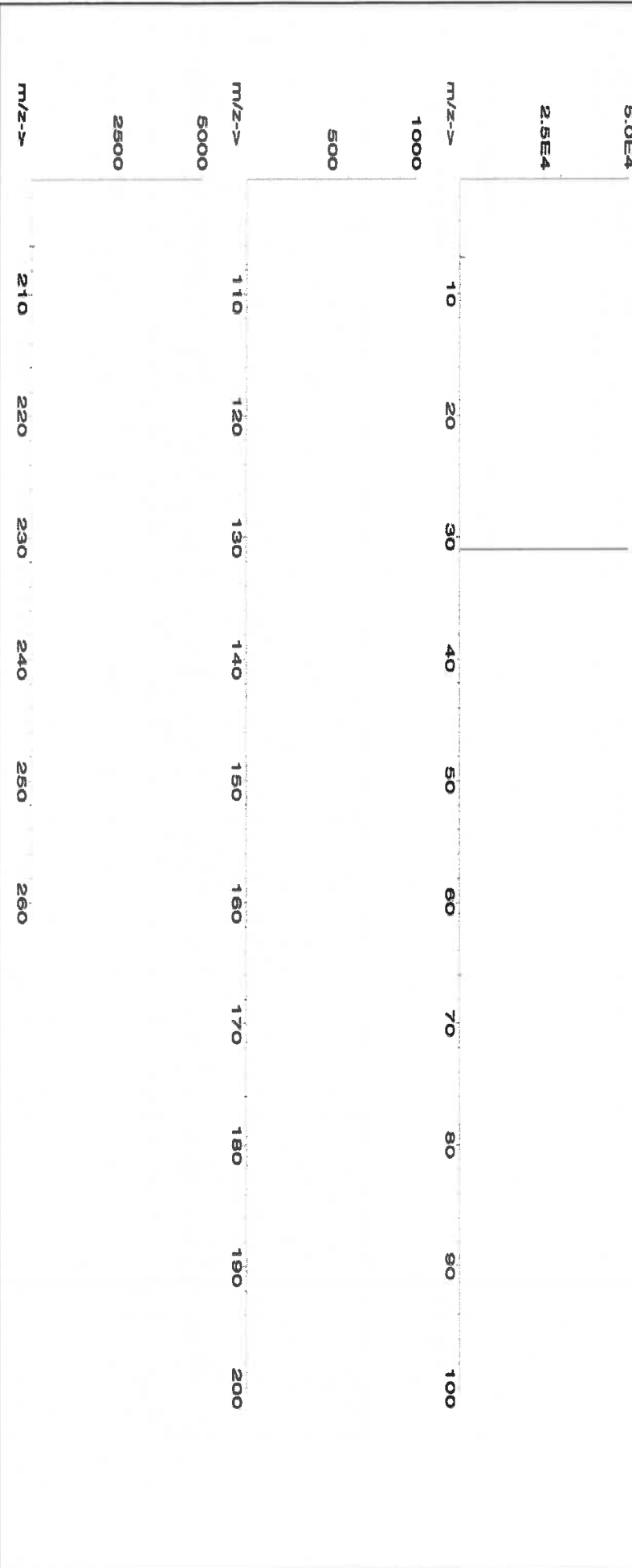
Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

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

1. Ammonium dihydrogen phosphate (P) IN008 PY062019A1 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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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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on 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.

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: 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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





CERTIFIED WEIGHT REPORT:

MS962 **R10614124**

Lot # **24002546** Solvent: **Nitric Acid**

Part Number: **57034**
Lot Number: **060624**
Description: **Selenium (Se)**

2.0% 40.0 (mL) Nitric Acid

Expiration Date: **060627**

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6UTB**

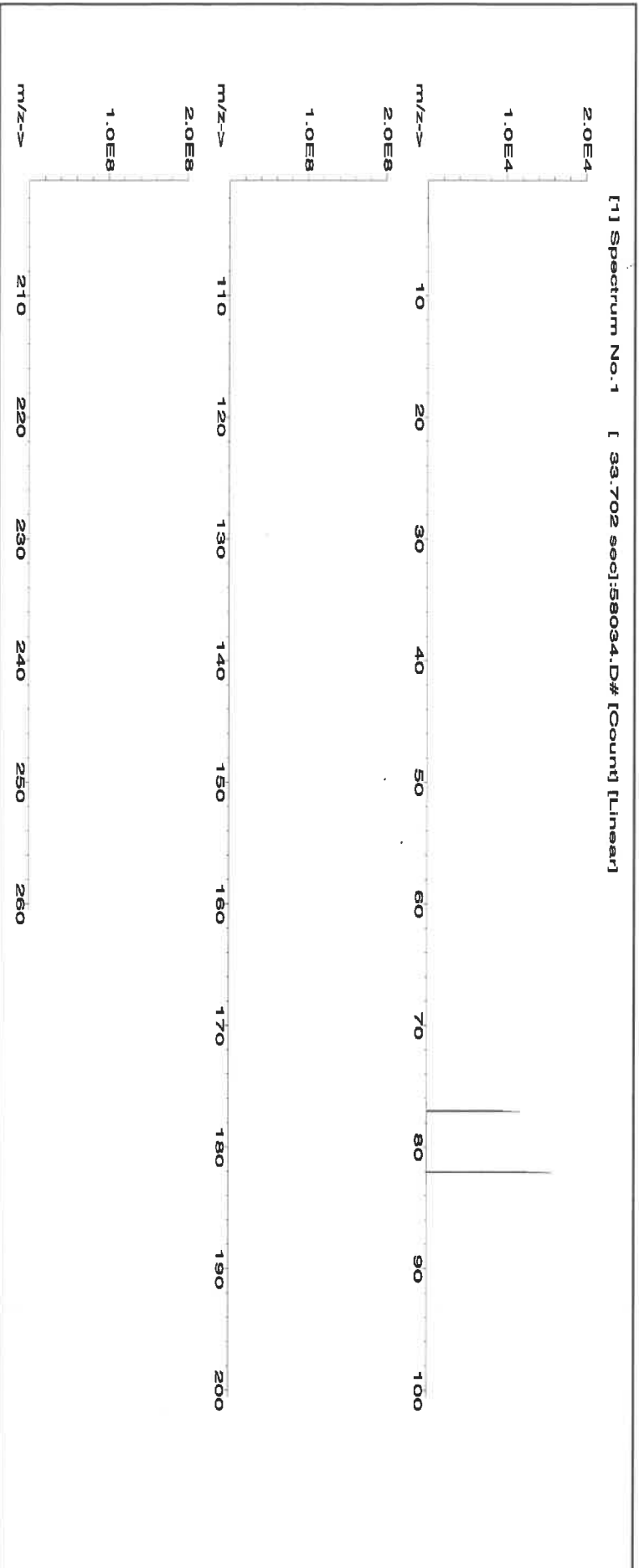
Volume shown below was diluted to (mL): **2000.07** **SE-05** Balance Uncertainty **0.100** Flask Uncertainty

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

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





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	<0.02	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	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	Sr	<0.02	S	<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	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			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).

Lot

24002546

Solvent:
Nitric Acid

Expiration Date: 062127

2.0%

5.0 Nitric Acid
(mL)

Recommended Storage:
Nominal Concentration (µg/mL):

NIST Test Number:

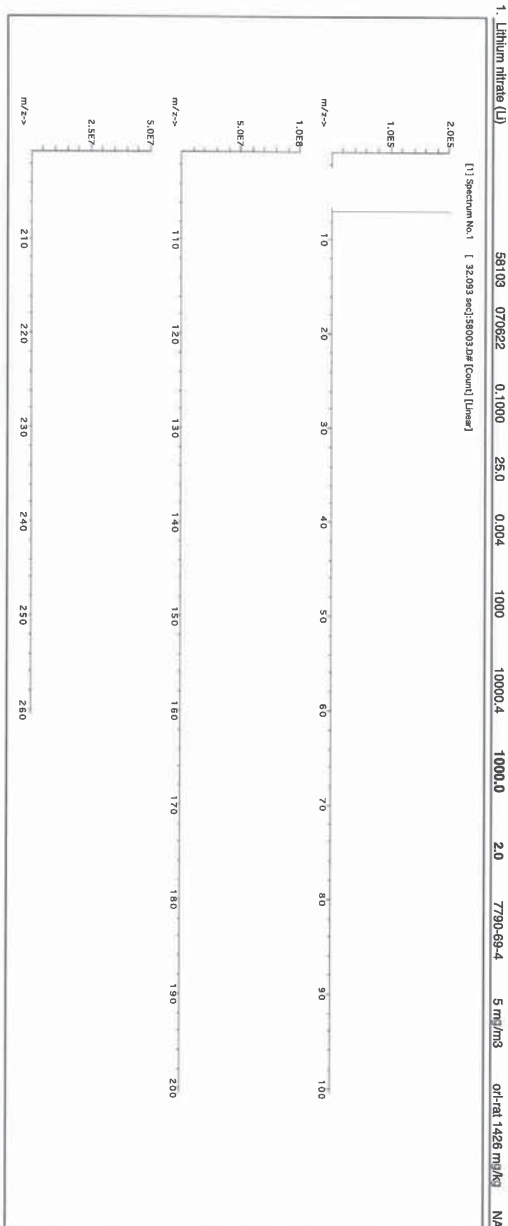
Volume shown below was diluted to (mL): 250.11

5E-05	Balance Uncertainty
0.016	Flask Uncertainty

Formulated By:	Giovanni Esposito	062124
Reviewed By:	Paolo L. Rannas	062124

SDS Information

Compound	Part	Lot	Dilution	Initial	Uncertainty	Normal	Initial	Final	Uncertainty	(Solvent Safety Info. On Attached pg.)	NIST	
	Number	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Conc. (µg/mL)	+/- (µg/mL)			CAS#





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Ca	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pb	<0.02	Sc	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ce	<0.02	Er	<0.02	In	<0.02	Mg	<0.02	Nb	<0.02	Rb	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Co	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Os	<0.02	Sr	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cr	<0.02	Ga	<0.02	La	<0.2	Hg	<0.2	Pd	<0.02	Sn	<0.02	Nd	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cu	<0.02	Ge	<0.02	Mo	<0.02	Se	<0.02	P	<0.02	Sb	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Fe	<0.02	Ag	<0.02	Nd	<0.02	Si	<0.02	K	<0.2	Se	<0.02	Ta	<0.02	Tl	<0.02	Zn	<0.02
B	<0.02	Ca	<0.02	Au	<0.02	Th	<0.02	Na	<0.02										

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

[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.
- * 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).

Certificate of Analysis

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Christiansburg, VA 24073 USA
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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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

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 MS997

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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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 21, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

R: 08/22/24 M6058, M6059

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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





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Certificate of Analysis

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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"

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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

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 06, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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EXP: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

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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

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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:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

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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

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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.

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





CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot # 24012496
Description: Magnesium (Mg)
Solvent: Nitric Acid

Expiration Date: 11/13/25
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6LUB
Weight shown below was diluted to (mL): 2000.07
5E-05 Balance Uncertainty
0.100 Flask Uncertainty

<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

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

1. Manganese(II) nitrate hydrate (Mn) IN031 MNM02020A1 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->	110	120	130	140	150	160	170	180	190	200
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->	110	120	130	140	150	160	170	180	190	200
1.0E6	m/z->	110	120	130	140	150	160	170	180	190	200
5.0E7	m/z->	110	120	130	140	150	160	170	180	190	200
210	m/z->	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

(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).

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137
R-71013124

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: 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:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

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	<	0.000310	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%

Nitric Acid

80.0 (mL)

5E-05 Balance Uncertainty
0.15 Flask Uncertainty

Weight shown below was diluted to (mL):

4000.1

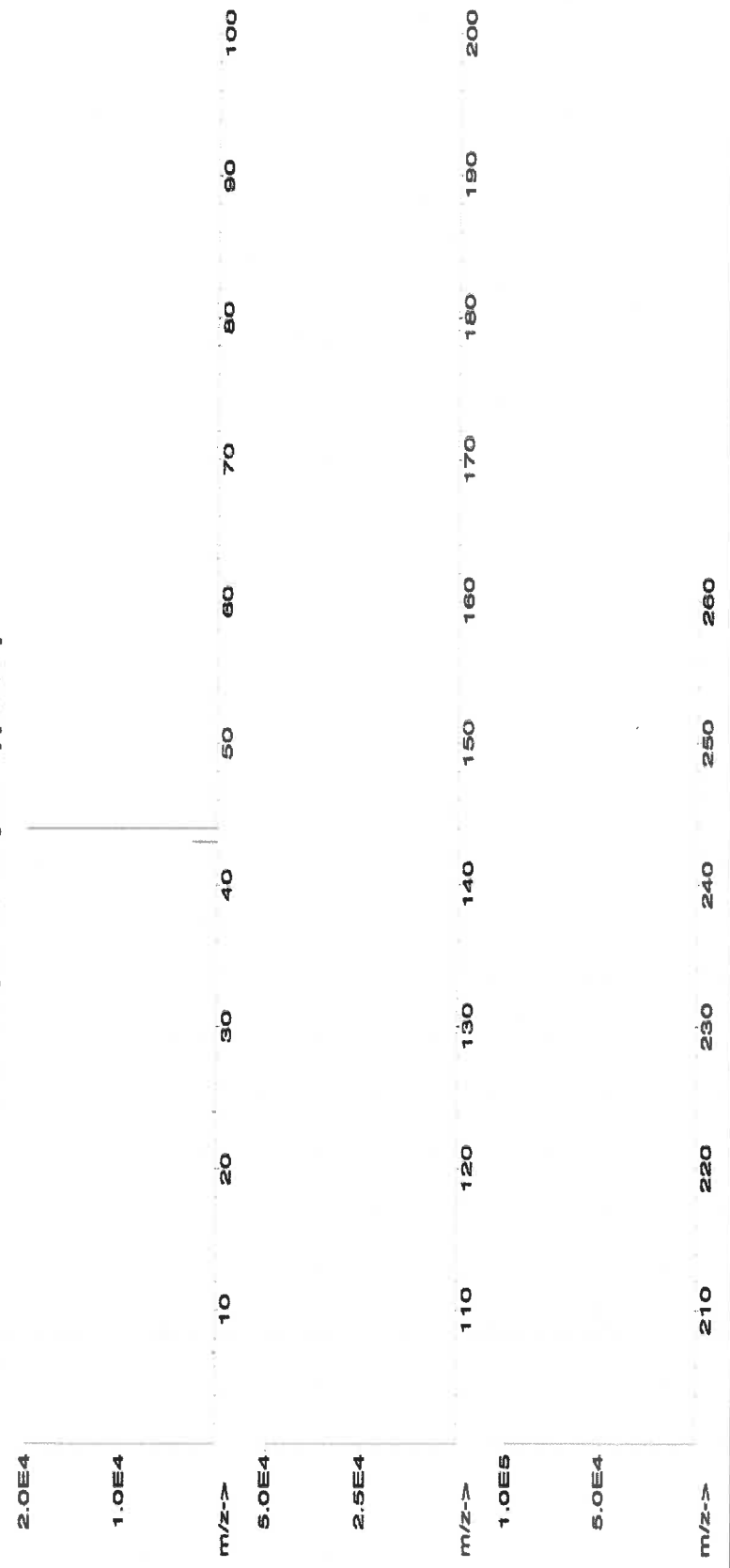
Flask Uncertainty

<i>Giovanni Esposito</i>		
Formulated By:	Giovanni Esposito	121824
<i>Pedro L. Rentas</i>		
Reviewed By:	Pedro L. Rentas	121824

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)	SDS Information	
											(Solvent Safety Info. On Attached pg.)	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD032023B3	10000	99.999	0.10	39.9	100.2537	100.2677	10001.4	20.0	471-34-1	5 mg/m3

1. Calcium carbonate (Ca) IN014 CAD032023B3 10000 99.999 0.10 39.9 100.2537 100.2677 10001.4 20.0 471-34-1 5 mg/m3 otl-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-2113125

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

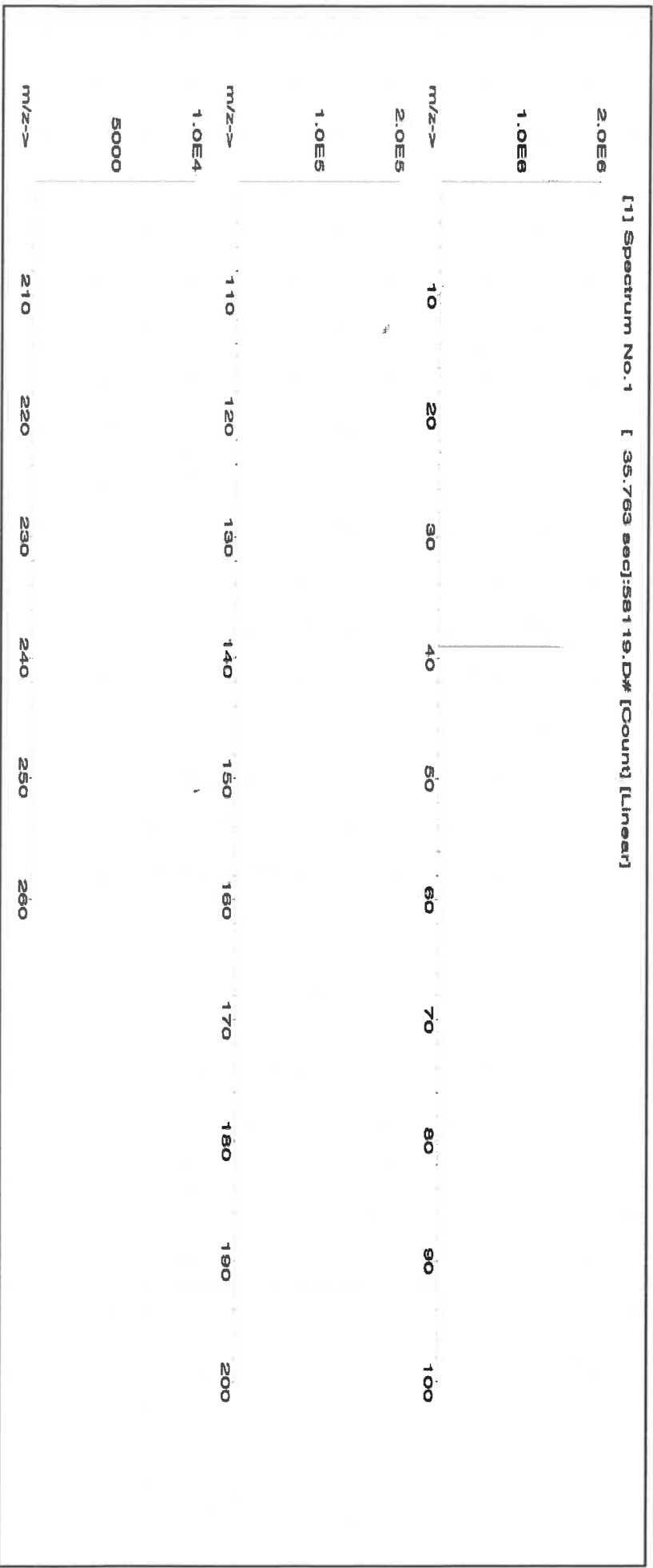
Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

<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)				

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 Number: 072424
Description: Sodium (Na)

Lot # R-1113125
Solvent: 24002546 Nitric Acid

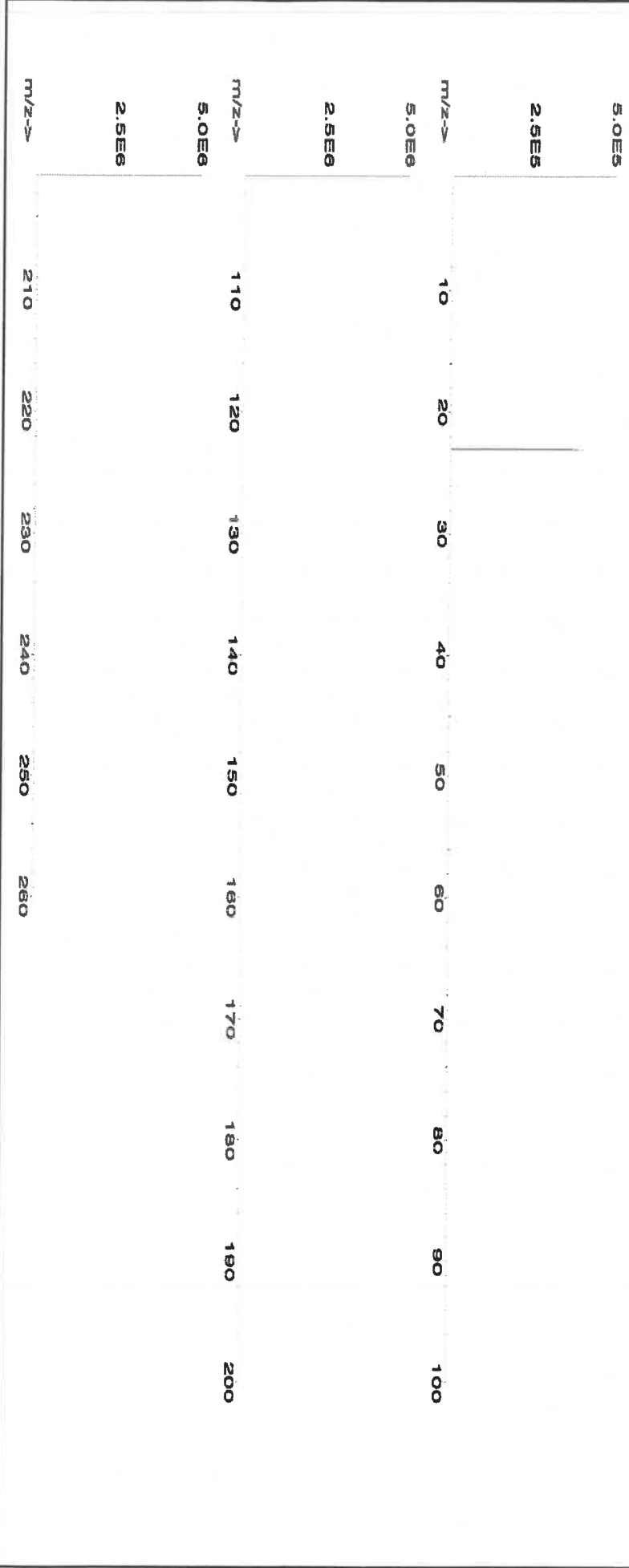
Expiration Date: 072427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 4000.2
5E-05 Balance Uncertainty
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)
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
									ort-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	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	<0.02	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**

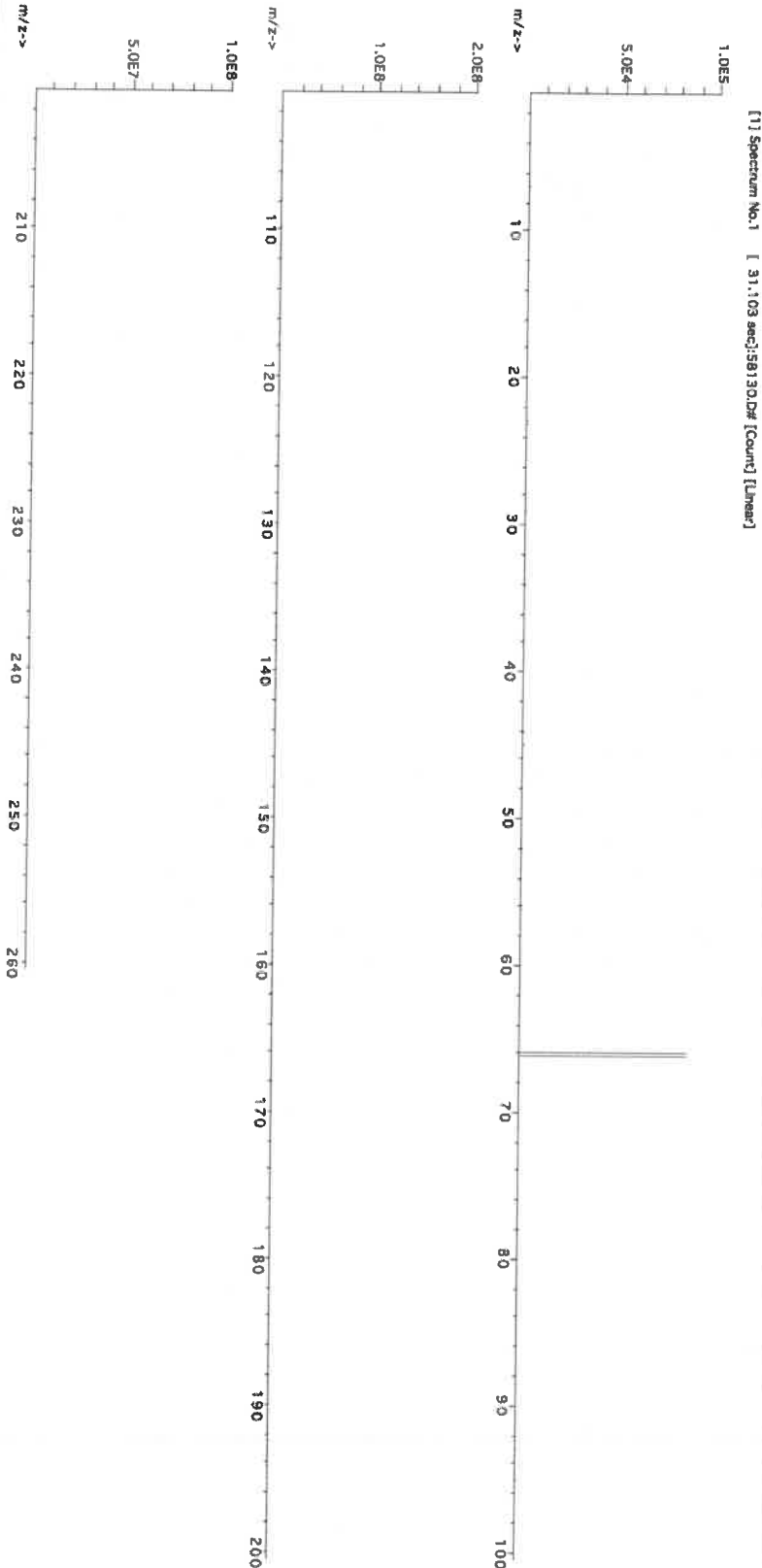
NIST Test Number: **6UTB**

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

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

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





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

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

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



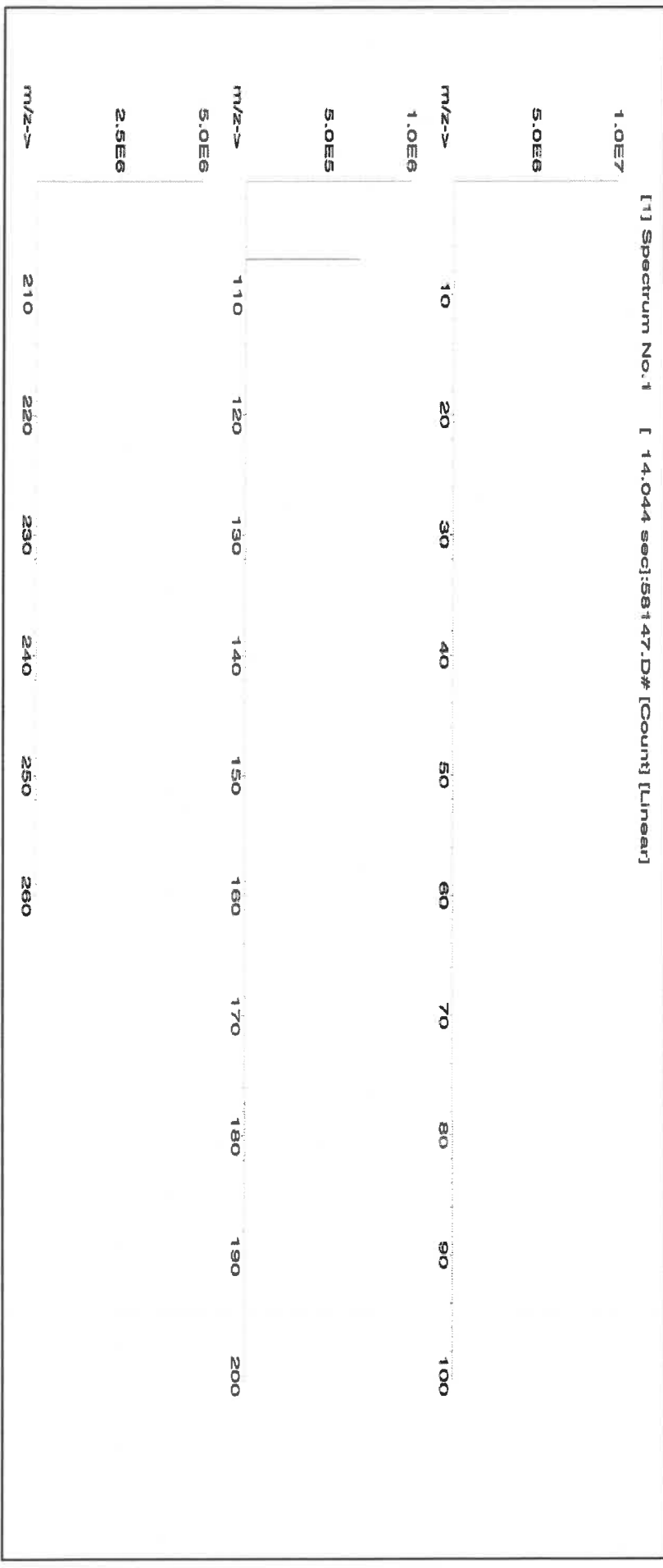
CERTIFIED WEIGHT REPORT:

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	99.999	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:

57051

Lot #
24002546

Solvent:
Nitric Acid

Lot Number:

071724

Description:

Antimony (Sb)

Expiration Date:

071727

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6U7B

Volume shown below was diluted to (mL):

2000.26

Balance Uncertainty
0.058

F flask Uncertainty

2.0%

40.0
(mL)

Nitric Acid

Giovanni Esposito

Formulated By:

Giovanni Esposito

071724

Reviewed By:

Pedro L. Rentas

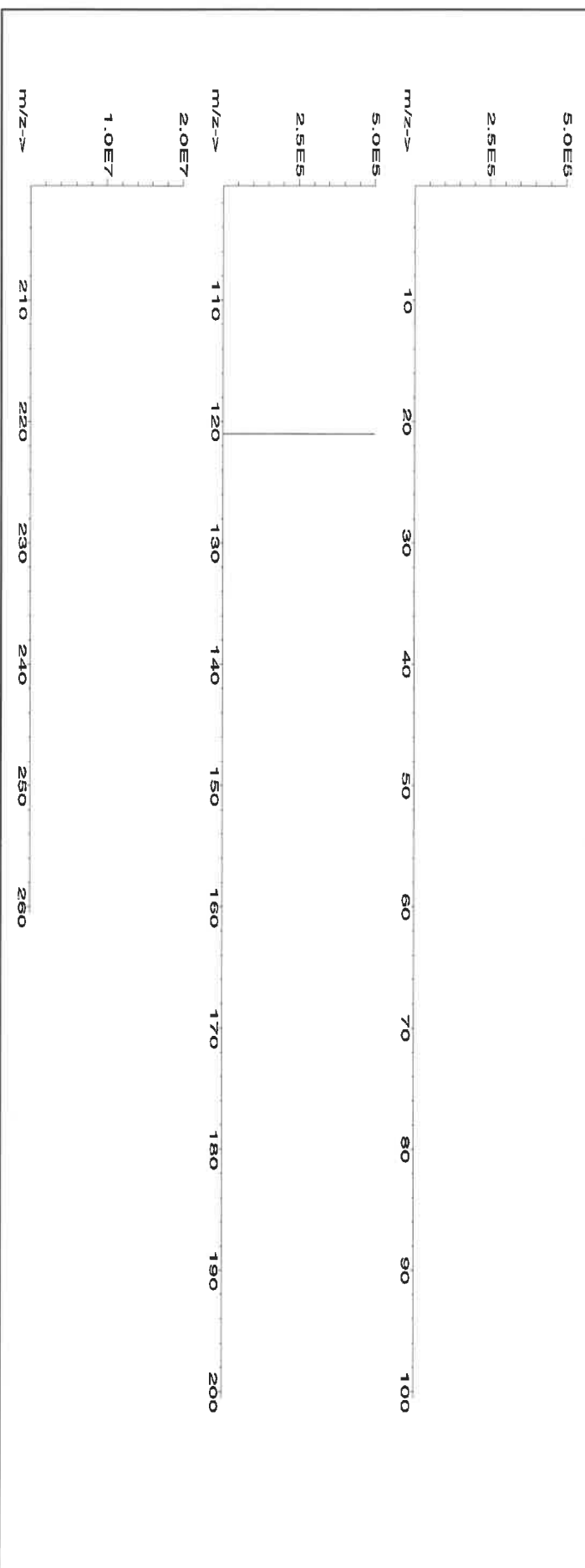
071724

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

1. Antimony (Sb) 58151 060324 0.1000 200.0 0.084 1000 10001.4 1000.0 2.2 7440-36-0 0.5 mg/m3 orl-rat 7000 mg/kg 3102a

[1] Spectrum No.1 [17.964 sec]:58051.D# [Count] [Linear]





John P. ...



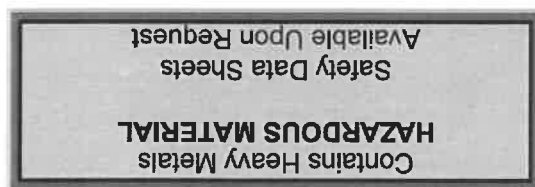
QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

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

M6019

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Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSR1
Lot Number: U2-SR730227
Matrix: 0.1% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Strontium
Starting Material: SrCO₃
Starting Material Lot#: M2-2192
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	998 ± 4 µg/mL ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	1001 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 2 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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; 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

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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





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

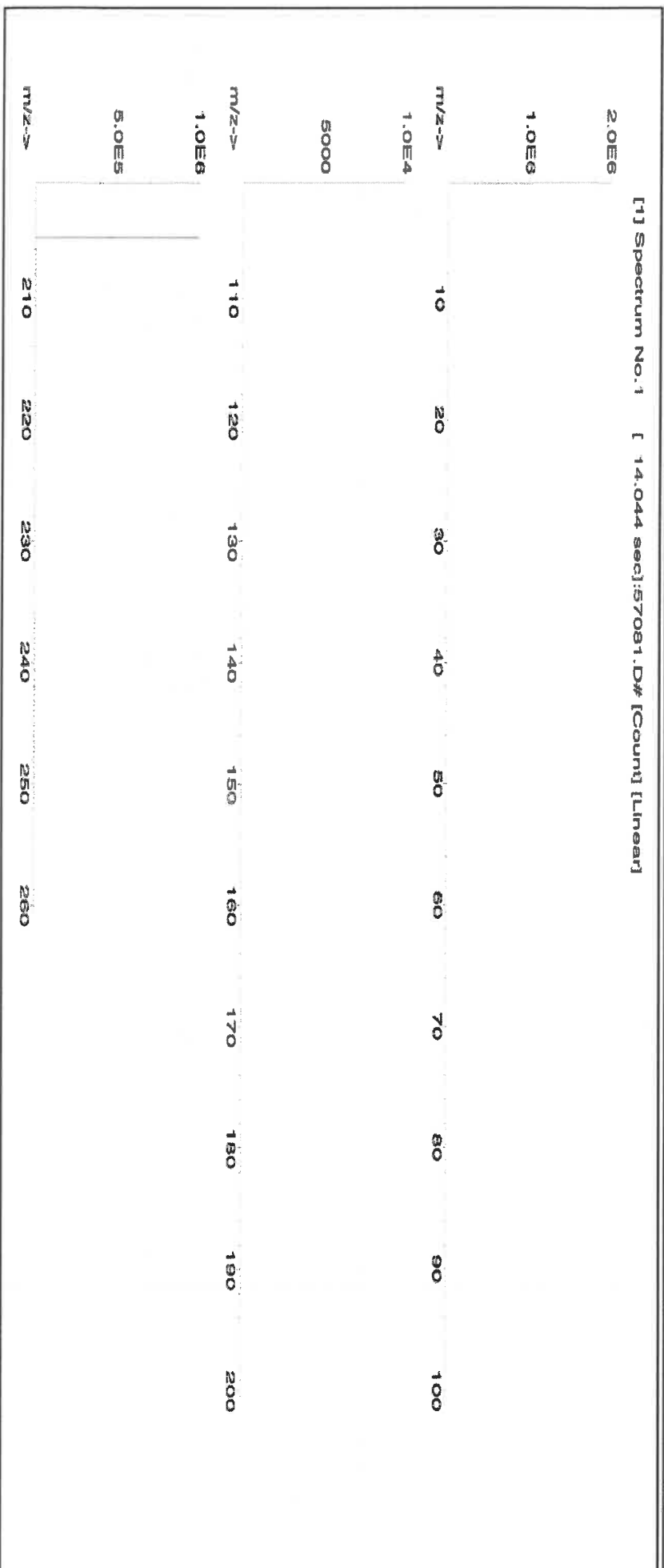
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	062724

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

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 or-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:

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 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**

Aleah O'Brady	
Formulated By:	Aleah O'Brady
	062424
Reviewed By:	Pedro L. Rantas
	062424

Expiration Date: **062427**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

Volume shown below was diluted to (mL): **2000.3**
0.06 Balance Uncertainty
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)	SDS Information (Solvent Safety Info. On Attached pg.)	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	1000.0	2.2	7803-55-6 0.05 mg/m3 or-at 58.1mg/kg	3165

[1] Spectrum No.1 [34.243 sec]:58023.D# [Count] [Linear]

2.0E6	m/z-->	10	20	30	40	50	60	70	80	90	100
1.0E7	m/z-->	110	120	130	140	150	160	170	180	190	200
5.0E8	m/z-->	210	220	230	240	250	260				
2.5E9	m/z-->										



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
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<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
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<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
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ti	<0.02
														Tb	<0.02
														Te	<0.02
														Tl	<0.02
														Tm	<0.02
														Sn	<0.02
														Ti	<0.02
														W	<0.02
														U	<0.02
														V	T
														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).



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Verina Consulting Group

ADDRESS: 1011 US Highway 22, Suite 302

CITY Bridgewater STATE: NJ ZIP: 08807

ATTENTION: Michael Vaunzi

PHONE: 908-864-4400 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Rotor Clip

PROJECT NO.: 5183-0001 LOCATION: NJ

PROJECT MANAGER: Michael Vaunzi

e-mail: mvaunzi@vcg-llc.com
smaccarter@vcg-llc.com

PHONE: 908-864-4400 FAX: 908-864-4401

CLIENT BILLING INFORMATION

BILL TO: See Left

PO#:

ADDRESS:

CITY

STATE:

ZIP:

ATTENTION:

PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*

HARDCOPY (DATA PACKAGE): 5 DAYS*

EDD: 5 DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)

☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP

☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B

+ Raw Data ☐ Other

☐ EDD FORMAT

1. Cr, Cu, Ni, Zn
2. Chlorine Demand
3. Ammonia

PRESERVATIVES

COMMENTS

← Specify Preservatives

A-HCl D-NaOH

B-HNO3 E-ICE

C-H2SO4 F-OTHER

ALLIANCE
SAMPLE
ID

PROJECT
SAMPLE IDENTIFICATION

SAMPLE
MATRIX

SAMPLE
TYPE

SAMPLE
COLLECTION

COMP

GRAB

DATE

TIME

OF BOTTLES

B

E

C

1

2

3

4

5

6

7

8

9

1. Water Treatment Discharge

WW

X

5/11/25

10:23

3

X

X

X

2.

3.

4.

5.

6.

7.

8.

9.

10.

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

ILL-GUW #1

RELINQUISHED BY SAMPLER:

DATE/TIME: 1140

RECEIVED BY:

1. M. Vaunzi

5/11/25

1. [Signature]

RELINQUISHED BY SAMPLER:

DATE/TIME:

RECEIVED BY:

2.

DATE/TIME:

2.

RELINQUISHED BY SAMPLER:

DATE/TIME: 1250

RECEIVED BY:

3. [Signature]

5/11/25

3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 5.3° Adjust from °C to °F

Comments: Flow Rate = please email all

pH = reporting items and

Temperature = invoice to mvaunzi@vcg-llc.com

Metals Group 4 = Cr, Cu, Ni, Zn Smaccarter@vcg-llc.com

Page 1 of 1 CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete

☐ YES ☐ NO

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