

Cover Page

Order ID : Q2704

Project ID : Banker

Client : G Environmental

Lab Sample Number

Q2704-01
Q2704-02
Q2704-03

Client Sample Number

MW3
MW4
MW2D

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: 7/30/2025

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 #: Q2704

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: KETAN PATEL

Date: 07/30/2025

LAB CHRONICLE

OrderID: Q2704	OrderDate: 7/25/2025 1:01:00 PM
Client: G Environmental	Project: Banker
Contact: Gary Landis	Location: D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2704-01	MW3	Water	Metals Group4	6010D	07/23/25	07/28/25	07/29/25	07/25/25
Q2704-02	MW4	Water	Metals Group4	6010D	07/23/25	07/28/25	07/29/25	07/25/25
Q2704-03	MW2D	Water	Metals Group4	6010D	07/23/25	07/28/25	07/29/25	07/25/25



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Hit Summary Sheet
SW-846

SDG No.: Q2704

Order ID: Q2704

Client: G Environmental

Project ID: Banker

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : MW3								
Q2704-01	MW3	Water	Sodium	7380		434	1000	ug/L
Client ID : MW4								
Q2704-02	MW4	Water	Sodium	7250		434	1000	ug/L
Client ID : MW2D								
Q2704-03	MW2D	Water	Sodium	1240		434	1000	ug/L



SAMPLE DATA

Report of Analysis

Client:	G Environmental	Date Collected:	07/23/25
Project:	Banker	Date Received:	07/25/25
Client Sample ID:	MW3	SDG No.:	Q2704
Lab Sample ID:	Q2704-01	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.
7440-23-5	Sodium	7380		1	434	1000	ug/L	07/28/25 12:20	07/29/25 15:48	6010D	SW3010

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

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

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

Report of Analysis

Client:	G Environmental	Date Collected:	07/23/25
Project:	Banker	Date Received:	07/25/25
Client Sample ID:	MW4	SDG No.:	Q2704
Lab Sample ID:	Q2704-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-23-5	Sodium	7250	1	434		1000	ug/L	07/28/25 12:20	07/29/25 15:52	6010D	SW3010

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

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

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

Report of Analysis

Client:	G Environmental	Date Collected:	07/23/25
Project:	Banker	Date Received:	07/25/25
Client Sample ID:	MW2D	SDG No.:	Q2704
Lab Sample ID:	Q2704-03	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.
7440-23-5	Sodium	1240	1	434		1000	ug/L	07/28/25 12:20	07/29/25 15:57	6010D	SW3010

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

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

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



METAL CALIBRATION DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Sodium	21000	20000	105	90 - 110	P	07/29/2025	12:20	LB136648

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Sodium	1700	2000	85	80 - 120	P	07/29/2025	13:01	LB136648

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Sodium	26100	25000	104	90 - 110	P	07/29/2025	14:21	LB136648
CCV02	Sodium	22600	25000	91	90 - 110	P	07/29/2025	15:11	LB136648
CCV03	Sodium	23000	25000	92	90 - 110	P	07/29/2025	16:14	LB136648
CCV04	Sodium	24200	25000	97	90 - 110	P	07/29/2025	17:20	LB136648
CCV05	Sodium	23600	25000	94	90 - 110	P	07/29/2025	18:11	LB136648
CCV06	Sodium	21000	25000	84	90 - 110	P	07/29/2025	18:31	LB136648

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Sodium	19100	20000	95	90 - 110	P	07/30/2025	14:11	LB136658

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Sodium	1850	2000	93	80 - 120	P	07/30/2025	14:16	LB136658

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Sodium	23600	25000	95	90 - 110	P	07/30/2025	14:45	LB136658
CCV02	Sodium	22600	25000	90	90 - 110	P	07/30/2025	15:35	LB136658
CCV03	Sodium	23900	25000	96	90 - 110	P	07/30/2025	15:51	LB136658



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Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Sodium	1570	2000	78	65 - 135	P	07/29/2025	13:09	LB136648
CRI01	Sodium	1810	2000	90	65 - 135	P	07/30/2025	14:24	LB136658



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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Sodium	868	+/-1000	U	2000	P	07/29/2025	13:05	LB136648

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Sodium	868	+/-1000	U	2000	P	07/29/2025	14:25	LB136648
CCB02	Sodium	868	+/-1000	U	2000	P	07/29/2025	15:15	LB136648
CCB03	Sodium	868	+/-1000	U	2000	P	07/29/2025	16:20	LB136648
CCB04	Sodium	868	+/-1000	U	2000	P	07/29/2025	17:24	LB136648
CCB05	Sodium	868	+/-1000	U	2000	P	07/29/2025	18:15	LB136648
CCB06	Sodium	868	+/-1000	U	2000	P	07/29/2025	18:36	LB136648

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Sodium	868	+/-1000	U	2000	P	07/30/2025	14:20	LB136658

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Sodium	868	+/-1000	U	2000	P	07/30/2025	14:49	LB136658
CCB02	Sodium	868	+/-1000	U	2000	P	07/30/2025	15:39	LB136658
CCB03	Sodium	868	+/-1000	U	2000	P	07/30/2025	15:56	LB136658

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: G Environmental

SDG No.: Q2704

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB169032BL		WATER		Batch Number:	PB169032		Prep Date:	07/28/2025	
	Sodium	434	<500	U	1000	P	07/29/2025	15:36	LB136648

Metals

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INTERFERENCE CHECK SAMPLE

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

ICS Source: EPA

Instrument ID: P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Sodium	-89.9			0	0	07/29/2025	13:14	LB136648
ICSAB01	Sodium	-145			0	0	07/29/2025	13:20	LB136648
ICSA01	Sodium	-7.49			0	0	07/30/2025	14:28	LB136658
ICSAB01	Sodium	-66.7			0	0	07/30/2025	14:33	LB136658



METAL

QC

DATA

metals
- 5a -
MATRIX SPIKE SUMMARY

client: G Environmental **level:** low **sdg no.:** Q2704
contract: GENV01 **lab code:** ACE
matrix: Water **sample id:** Q2696-02 **client id:** RW8-SP303-20250724MS
Percent Solids for Sample: NA **Spiked ID:** Q2696-02MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/L	87 - 115	8610		7480		1500	75		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: G Environmental **level:** low **sdg no.:** Q2704
contract: GENV01 **lab code:** ACE
matrix: Water **sample id:** Q2696-02 **client id:** RW8-SP303-20250724MSD
Percent Solids for Sample: NA **Spiked ID:** Q2696-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/L	87 - 115	8750		7480		1500	85		P

Metals
- 5b -

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Matrix: _____

Level: LOW

Client ID: _____

Sample ID: _____

Spiked ID: _____

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

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DUPLICATE SAMPLE SUMMARY

Client:	<u>G Environmental</u>	Level:	<u>LOW</u>	SDG No.:	<u>Q2704</u>
Contract:	<u>GENV01</u>			Lab Code:	<u>ACE</u>
Matrix:	<u>Water</u>	Sample ID:	<u>Q2696-02</u>	Client ID:	<u>RW8-SP303-20250724DUP</u>
Percent Solids for Sample:	NA	Duplicate ID	Q2696-02DUP	Percent Solids for Spike Sample:	NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Sodium	ug/L	20	7480		7100		5		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	<u>G Environmental</u>	Level:	<u>LOW</u>	SDG No.:	<u>Q2704</u>
Contract:	<u>GENV01</u>			Lab Code:	<u>ACE</u>
Matrix:	<u>Water</u>	Sample ID:	<u>Q2696-02MS</u>	Client ID:	<u>RW8-SP303-20250724MSD</u>
Percent Solids for Sample:	NA	Duplicate ID	Q2696-02MSD	Percent Solids for Spike Sample:	NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Sodium	ug/L	20	8610		8750		2		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169032BS Sodium	ug/L	1500	1430		95	87 - 115	P

Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

RW8-SP303-20250724L

Lab Name: Alliance

Contract: GENV01

Lab Code: ACE

Lb No.: lb136658

Lab Sample ID : Q2696-02L

SDG No.: Q2704

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Sodium	7480	7080	5		P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		As	Ba	Be	Cd	Co
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



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Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Instrument ID: _____

Date: _____

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client: G Environmental

SDG No.: Q2704

Contract: GENV01

Lab Code: ACE

Method: _____

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB169032							
PB169032BL	PB169032BL	MB	WATER	07/28/2025	50.0	25.0	
PB169032BS	PB169032BS	LCS	WATER	07/28/2025	50.0	25.0	
Q2696-02DUP	RW8-SP303-20250724DUP	DUP	WATER	07/28/2025	50.0	25.0	
Q2696-02MS	RW8-SP303-20250724MS	MS	WATER	07/28/2025	50.0	25.0	
Q2696-02MSD	RW8-SP303-20250724MSD	MSD	WATER	07/28/2025	50.0	25.0	
Q2704-01	MW3	SAM	WATER	07/28/2025	50.0	25.0	
Q2704-02	MW4	SAM	WATER	07/28/2025	50.0	25.0	
Q2704-03	MW2D	SAM	WATER	07/28/2025	50.0	25.0	

metals
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ANALYSIS RUN LOG

Client: G Environmental

Contract: GENV01

Lab code: ACE

Sdg no.: Q2704

Instrument id number: _____

Method: _____

Run number: LB136648

Start date: 07/29/2025

End date: 07/29/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1120	Na
S1	S1	1	1124	Na
S2	S2	1	1128	Na
S3	S3	1	1132	Na
S4	S4	1	1137	Na
S5	S5	1	1141	Na
ICV01	ICV01	1	1220	Na
LLICV01	LLICV01	1	1301	Na
ICB01	ICB01	1	1305	Na
CRI01	CRI01	1	1309	Na
ICSA01	ICSA01	1	1314	Na
ICSAB01	ICSAB01	1	1320	Na
CCV01	CCV01	1	1421	Na
CCB01	CCB01	1	1425	Na
CCV02	CCV02	1	1511	Na
CCB02	CCB02	1	1515	Na
PB169032BL	PB169032BL	1	1536	Na
Q2704-01	MW3	1	1548	Na
Q2704-02	MW4	1	1552	Na
Q2704-03	MW2D	1	1557	Na
PB169032BS	PB169032BS	1	1606	Na
CCV03	CCV03	1	1614	Na
CCB03	CCB03	1	1620	Na
CCV04	CCV04	1	1720	Na
CCB04	CCB04	1	1724	Na
CCV05	CCV05	1	1811	Na
CCB05	CCB05	1	1815	Na
CCV06	CCV06	1	1831	Na
CCB06	CCB06	1	1836	Na

metals
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ANALYSIS RUN LOG

Client: G Environmental

Contract: GENV01

Lab code: ACE

Sdg no.: Q2704

Instrument id number: _____

Method: _____

Run number: LB136658

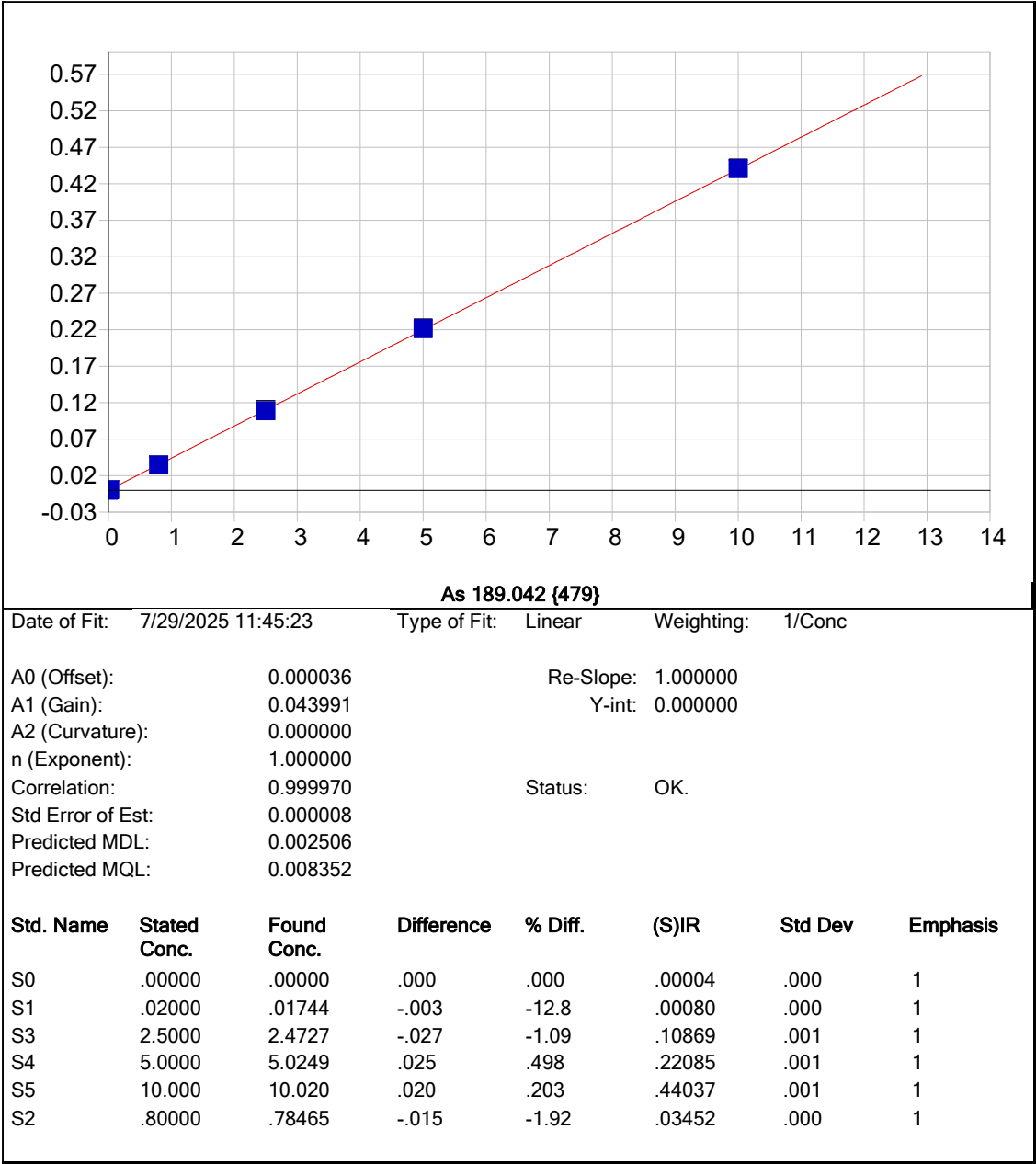
Start date: 07/30/2025

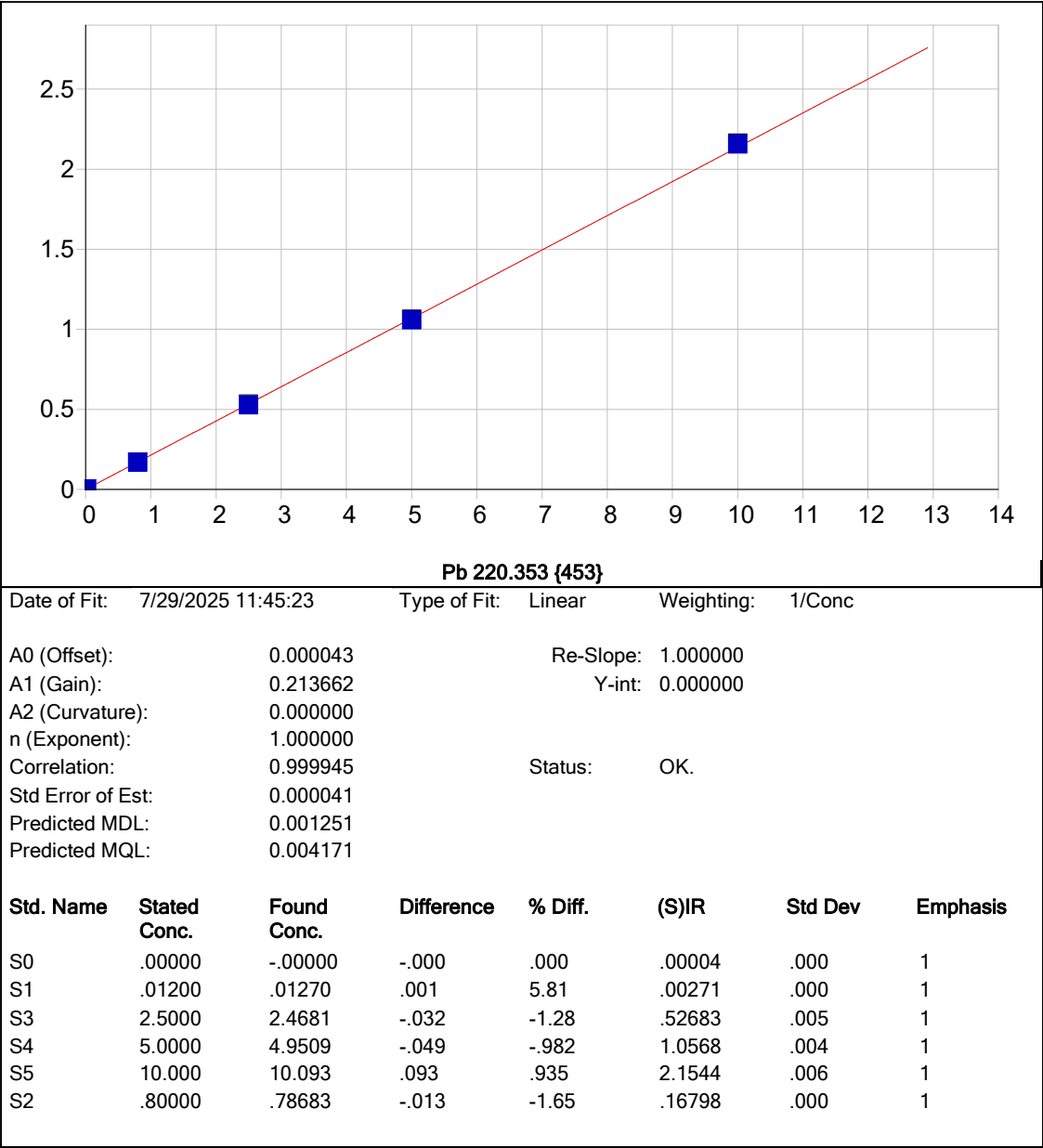
End date: 07/30/2025

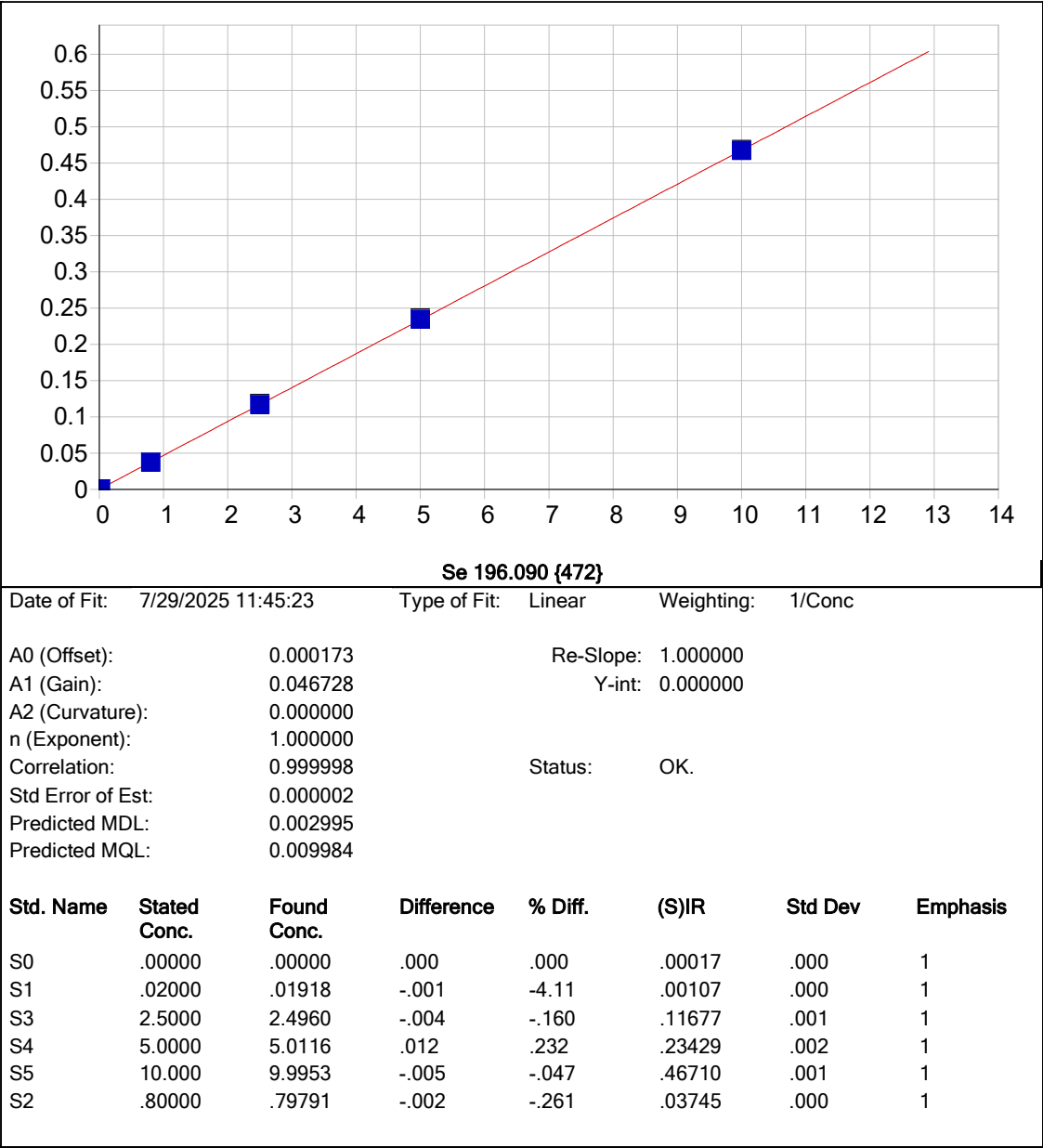
Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1340	Na
S1	S1	1	1345	Na
S2	S2	1	1349	Na
S3	S3	1	1353	Na
S4	S4	1	1357	Na
S5	S5	1	1401	Na
ICV01	ICV01	1	1411	Na
LLICV01	LLICV01	1	1416	Na
ICB01	ICB01	1	1420	Na
CRI01	CRI01	1	1424	Na
ICSA01	ICSA01	1	1428	Na
ICSAB01	ICSAB01	1	1433	Na
CCV01	CCV01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

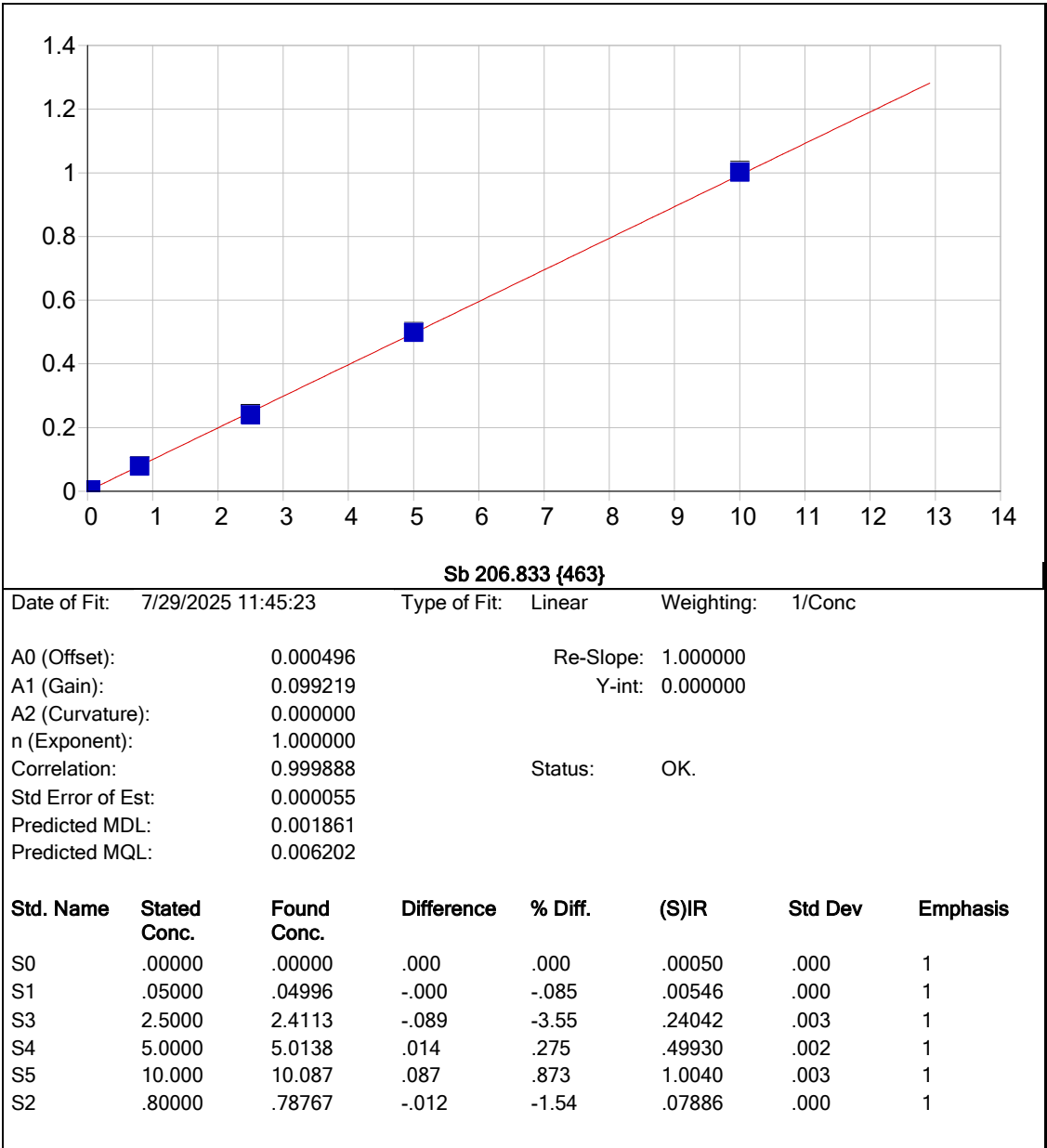


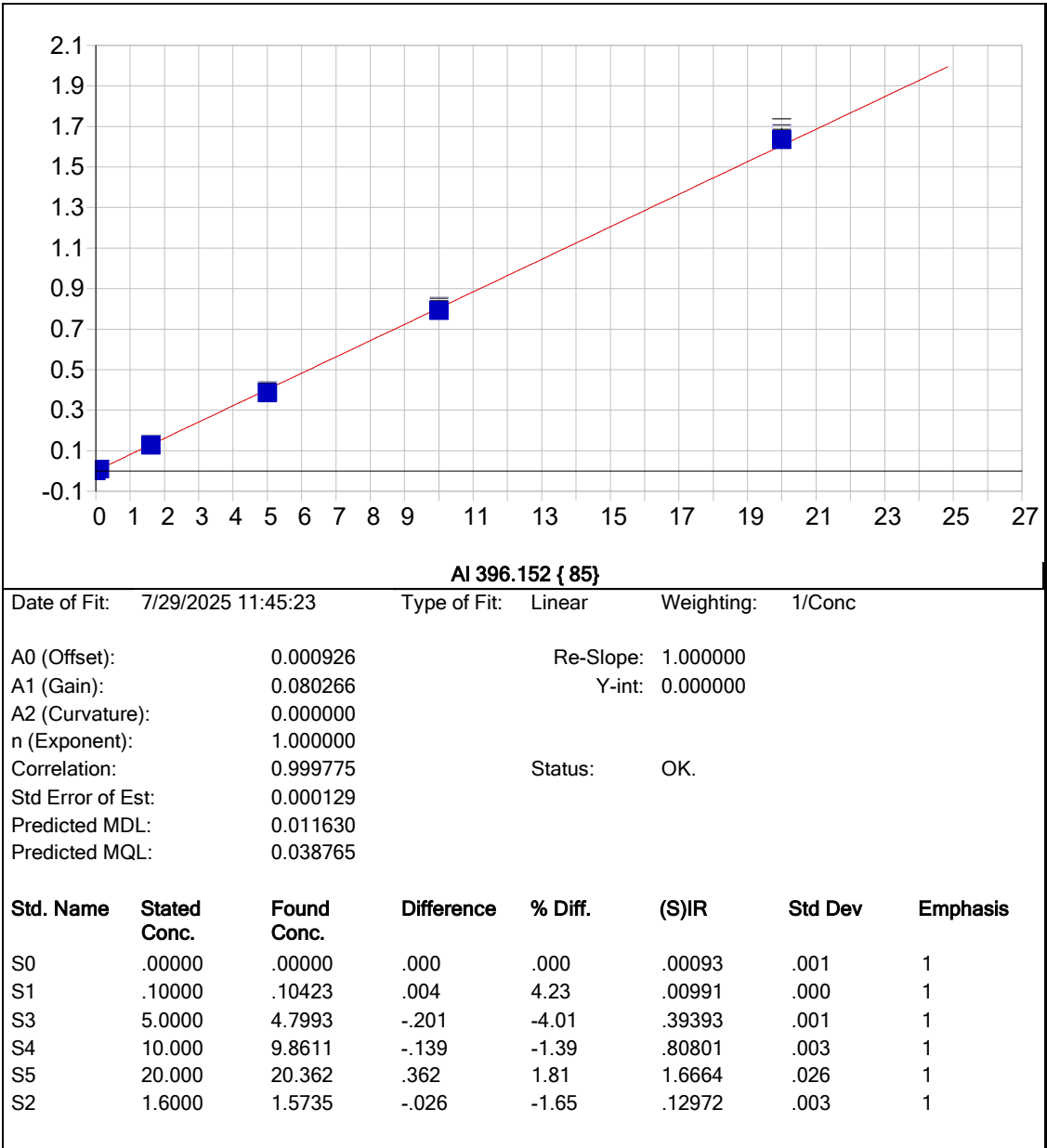
METAL RAW DATA

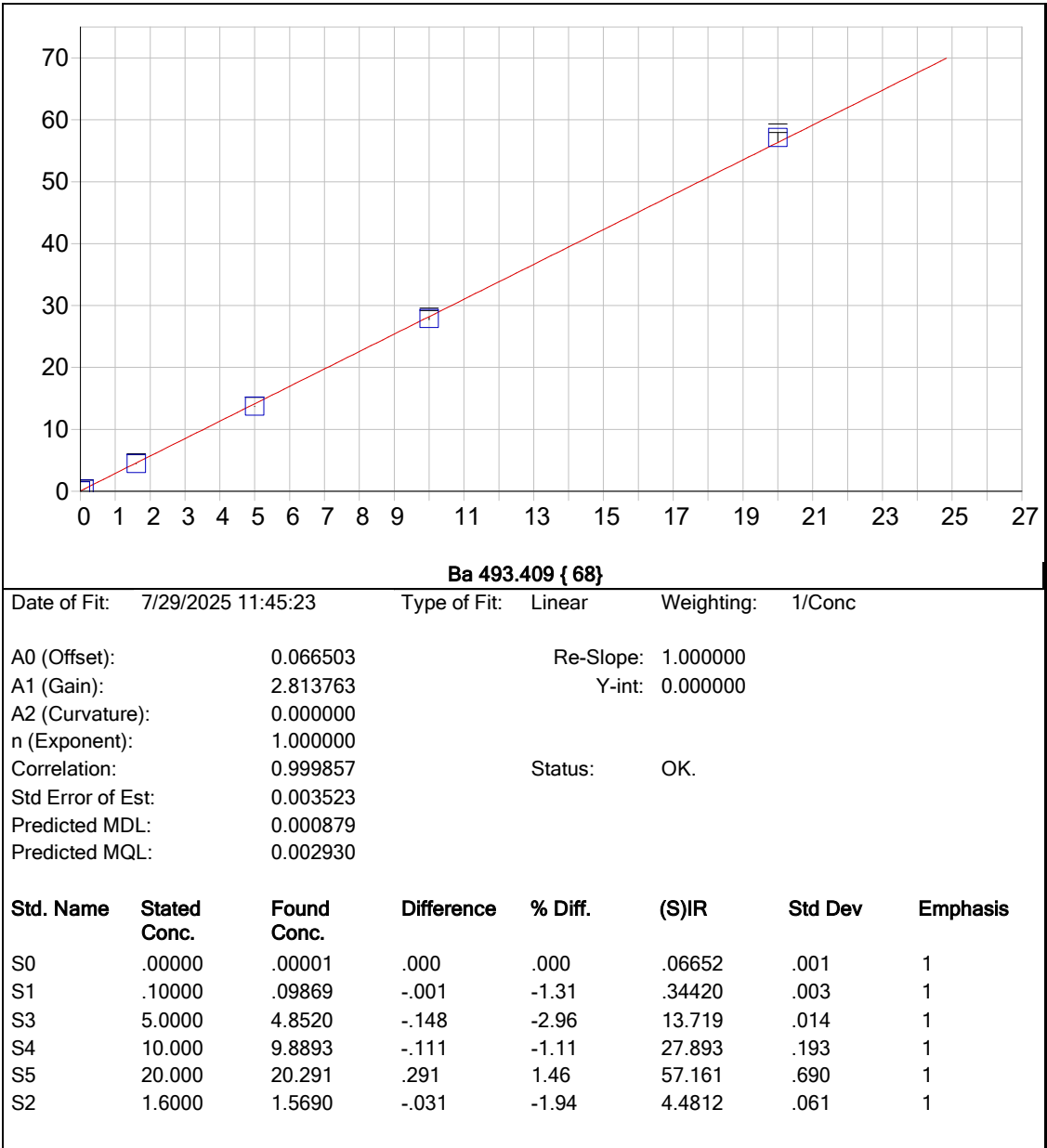


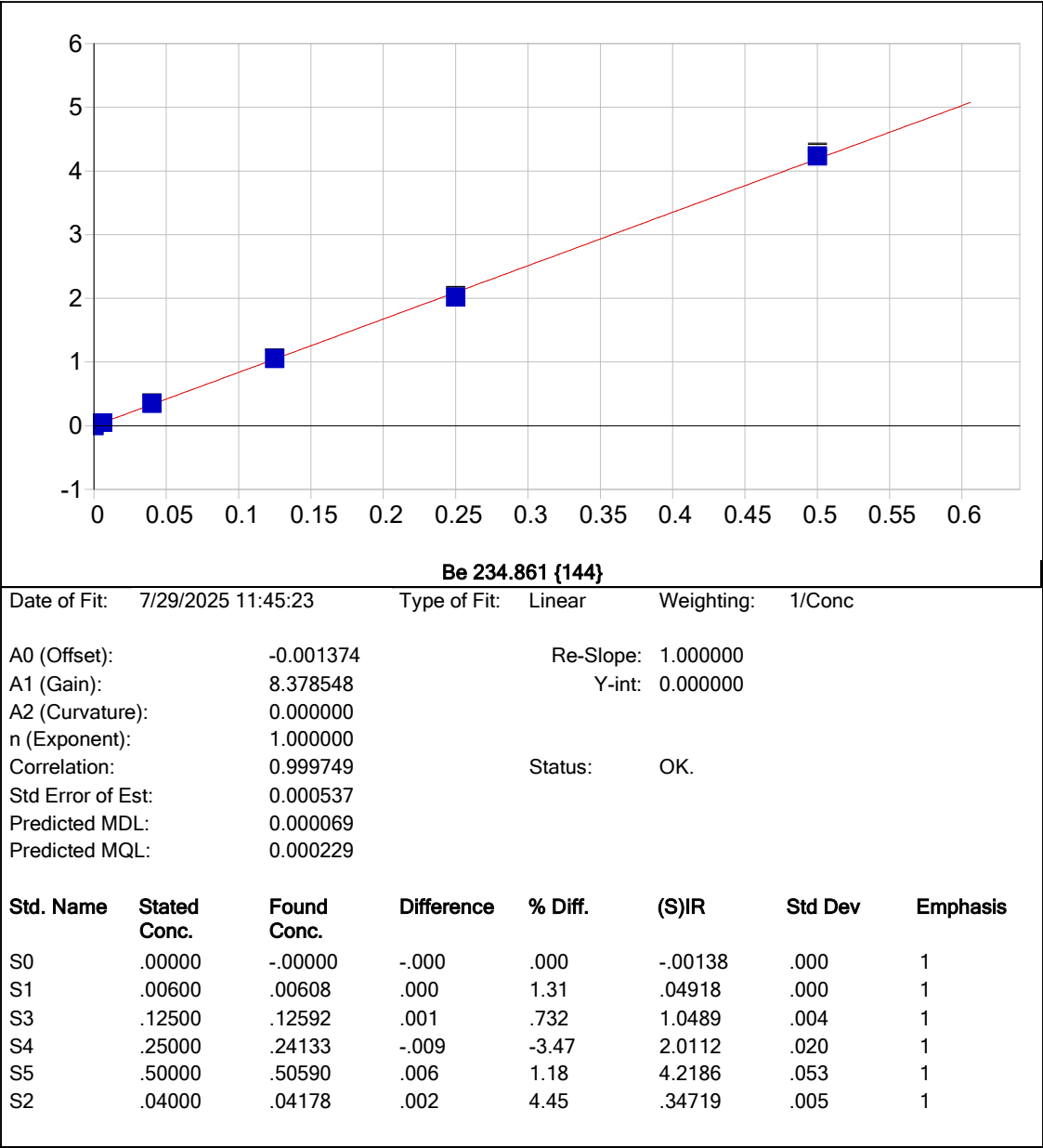


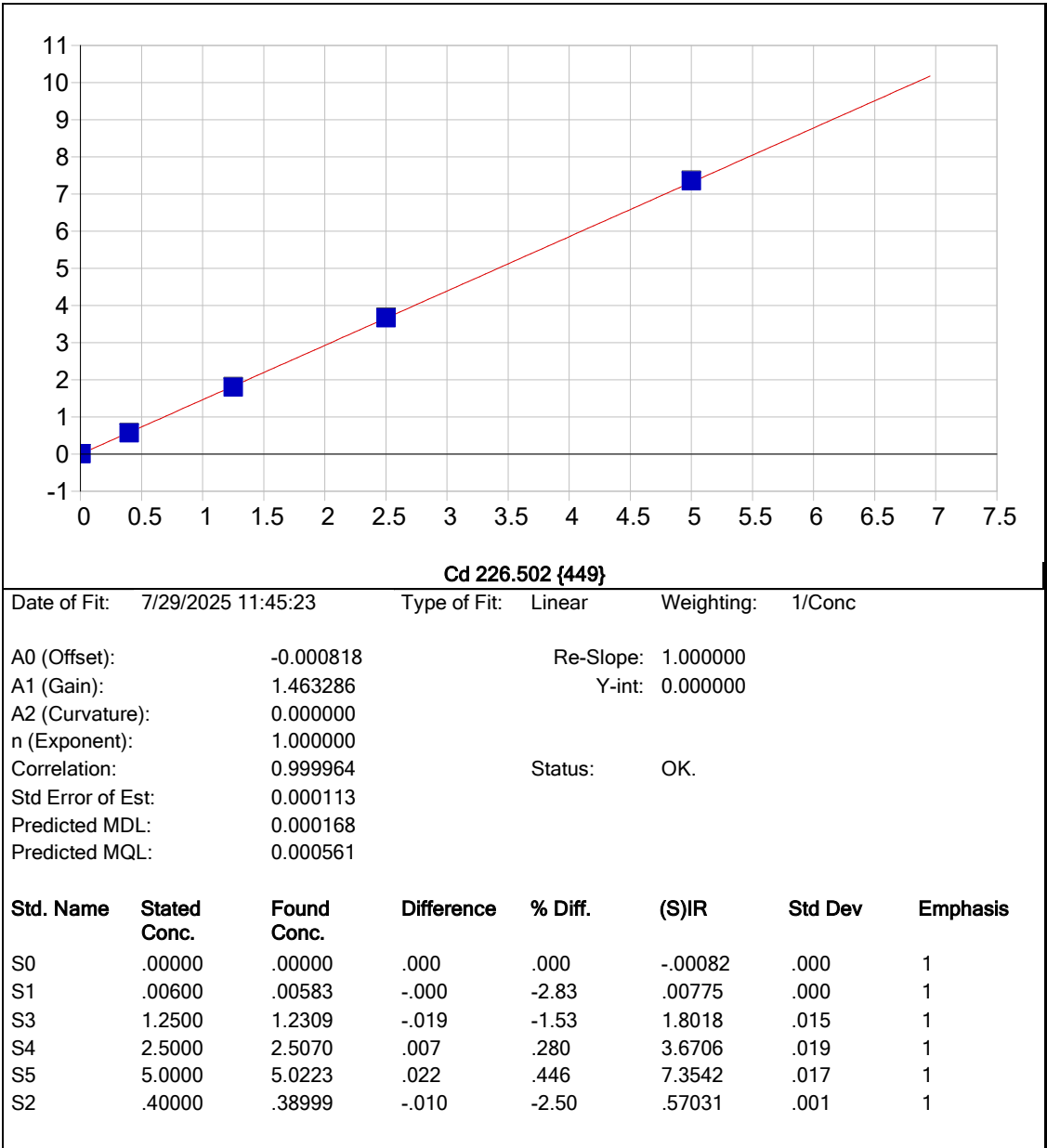


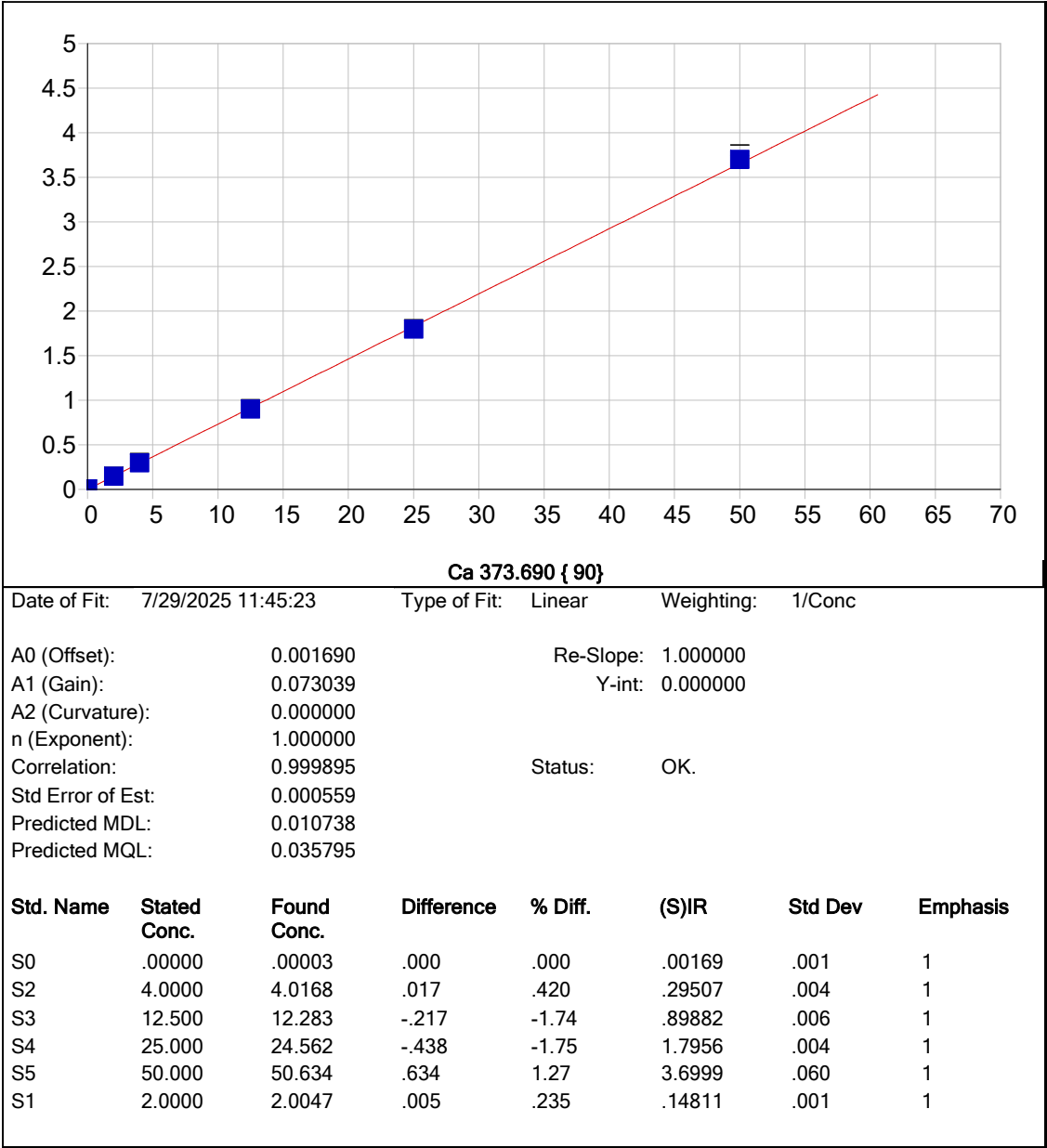


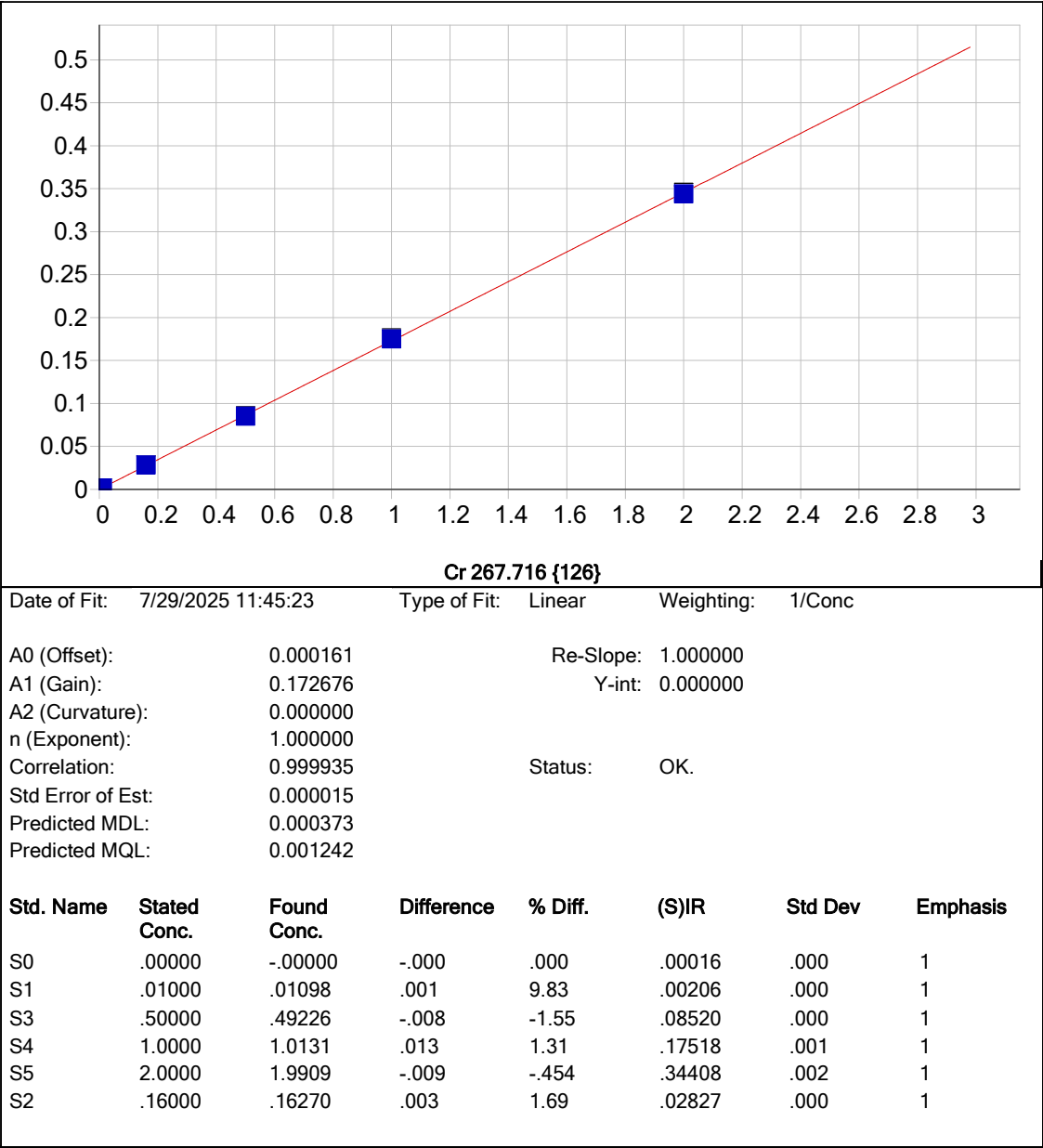


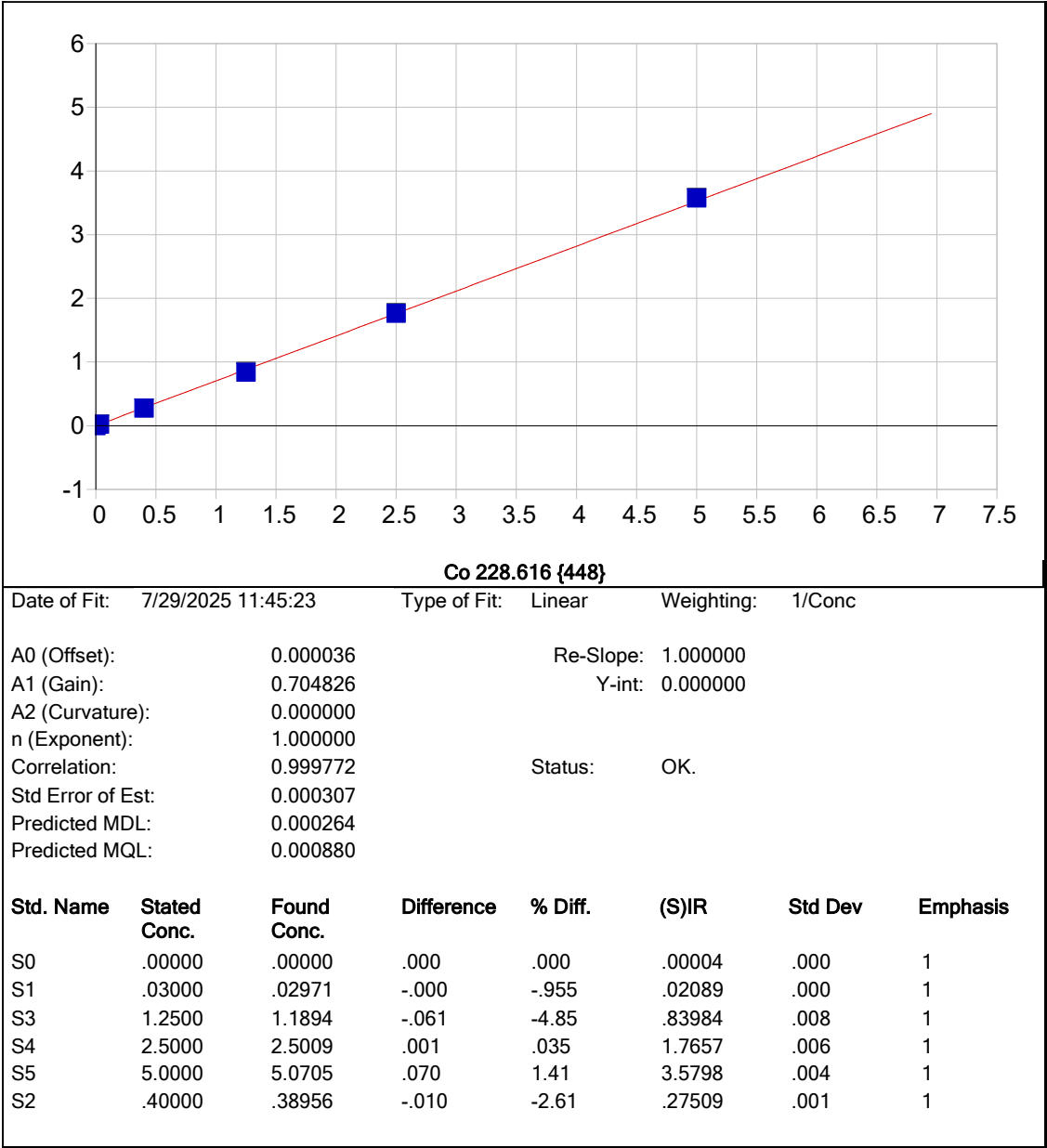


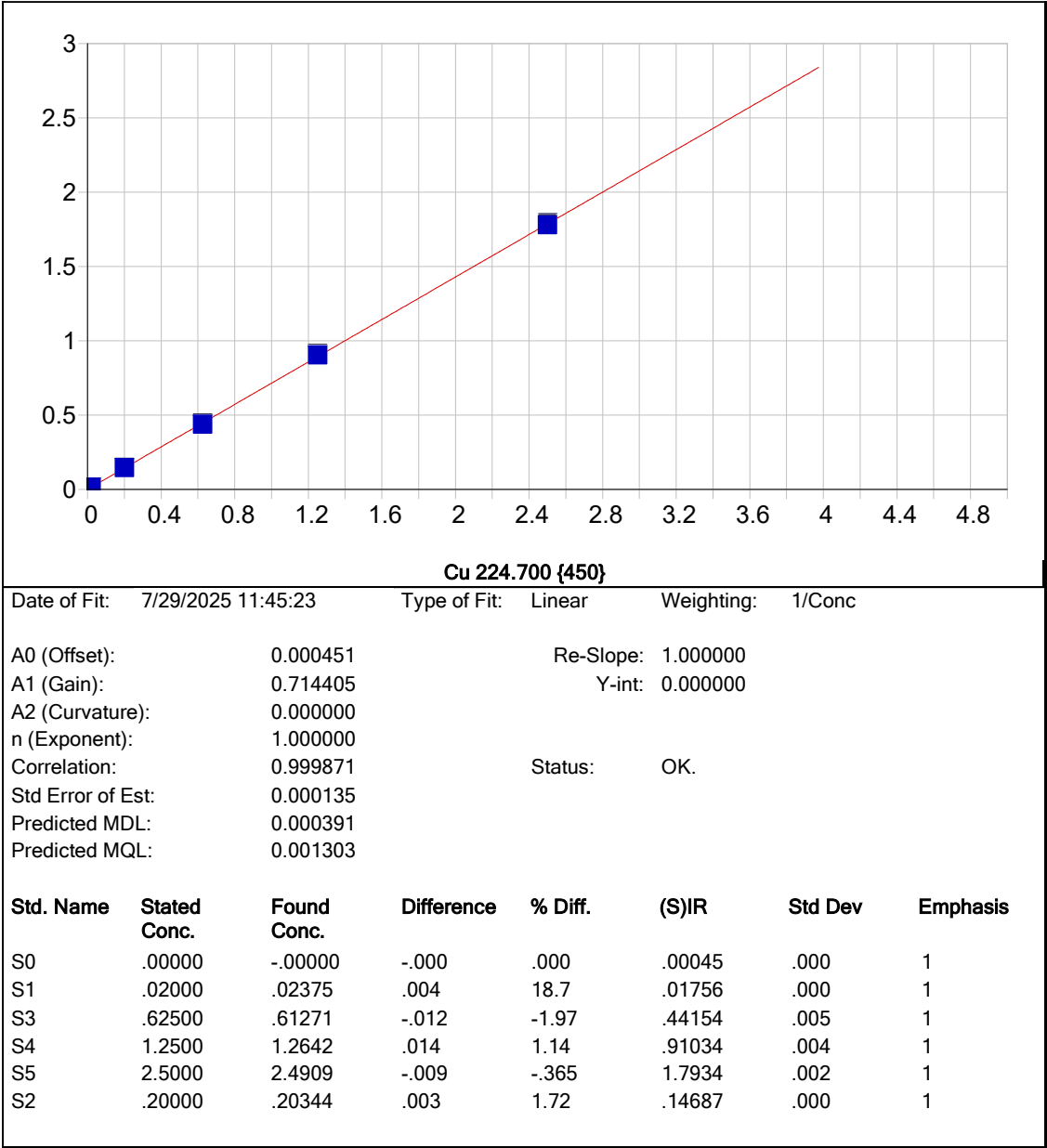


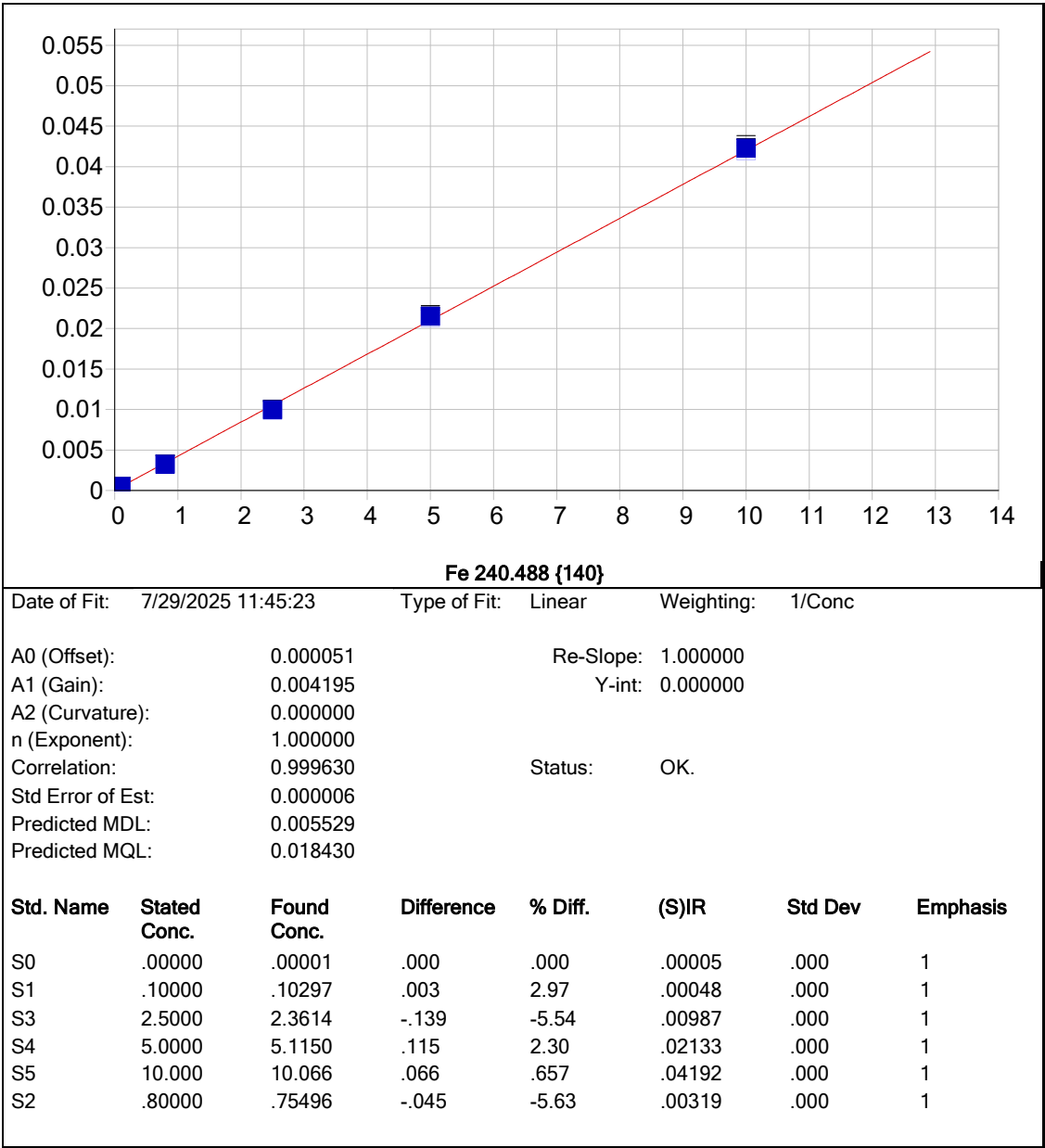


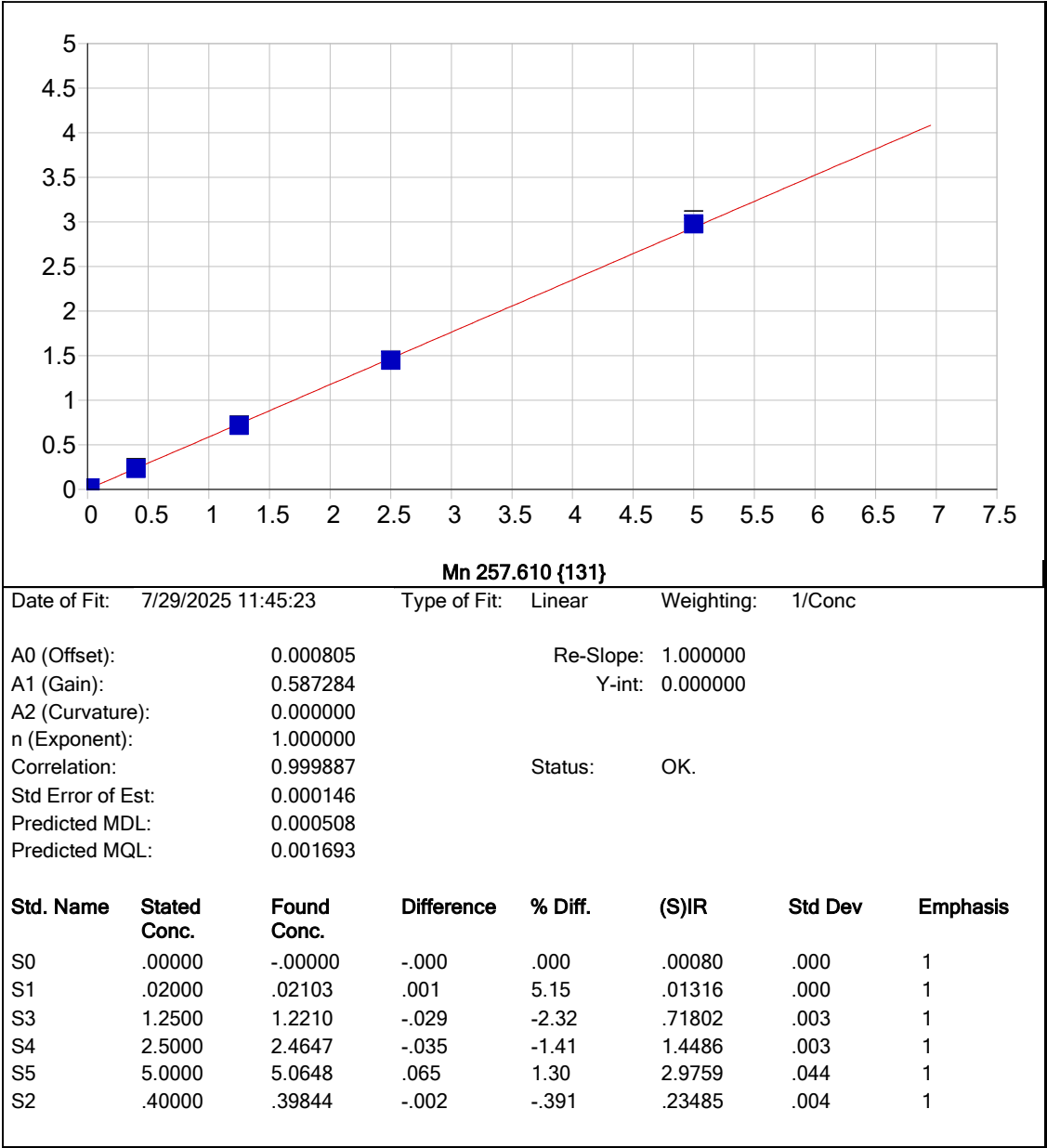


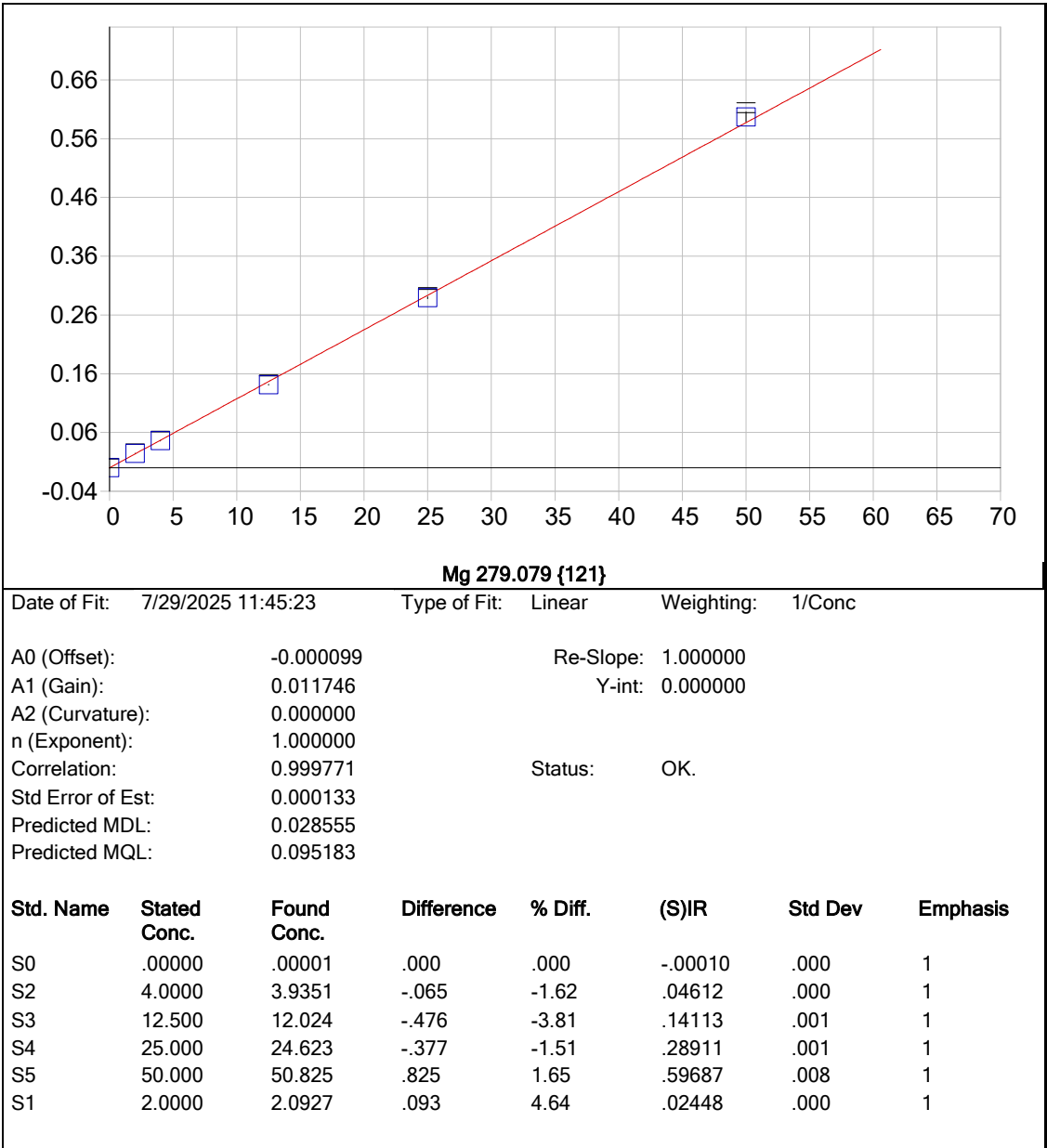


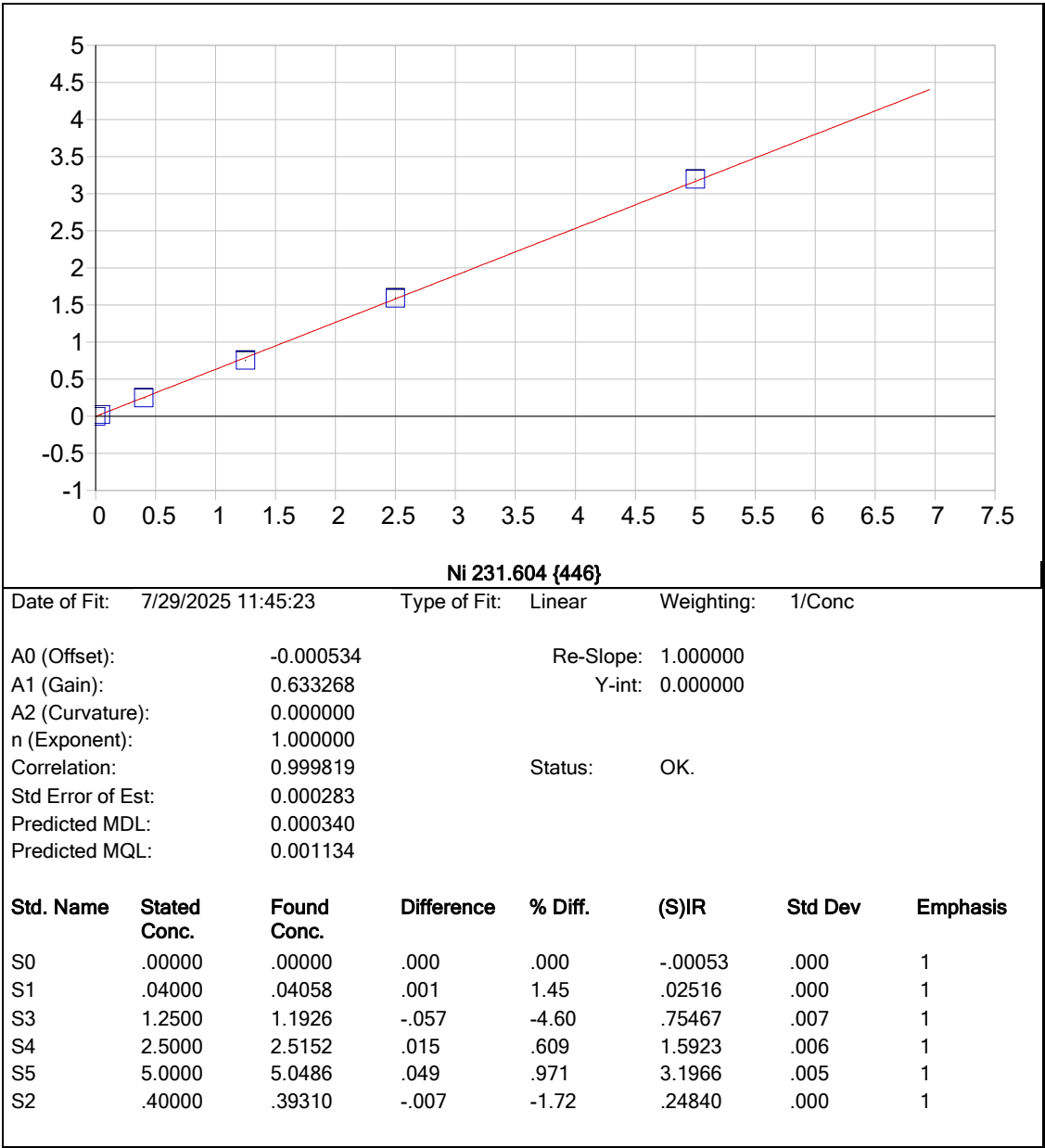


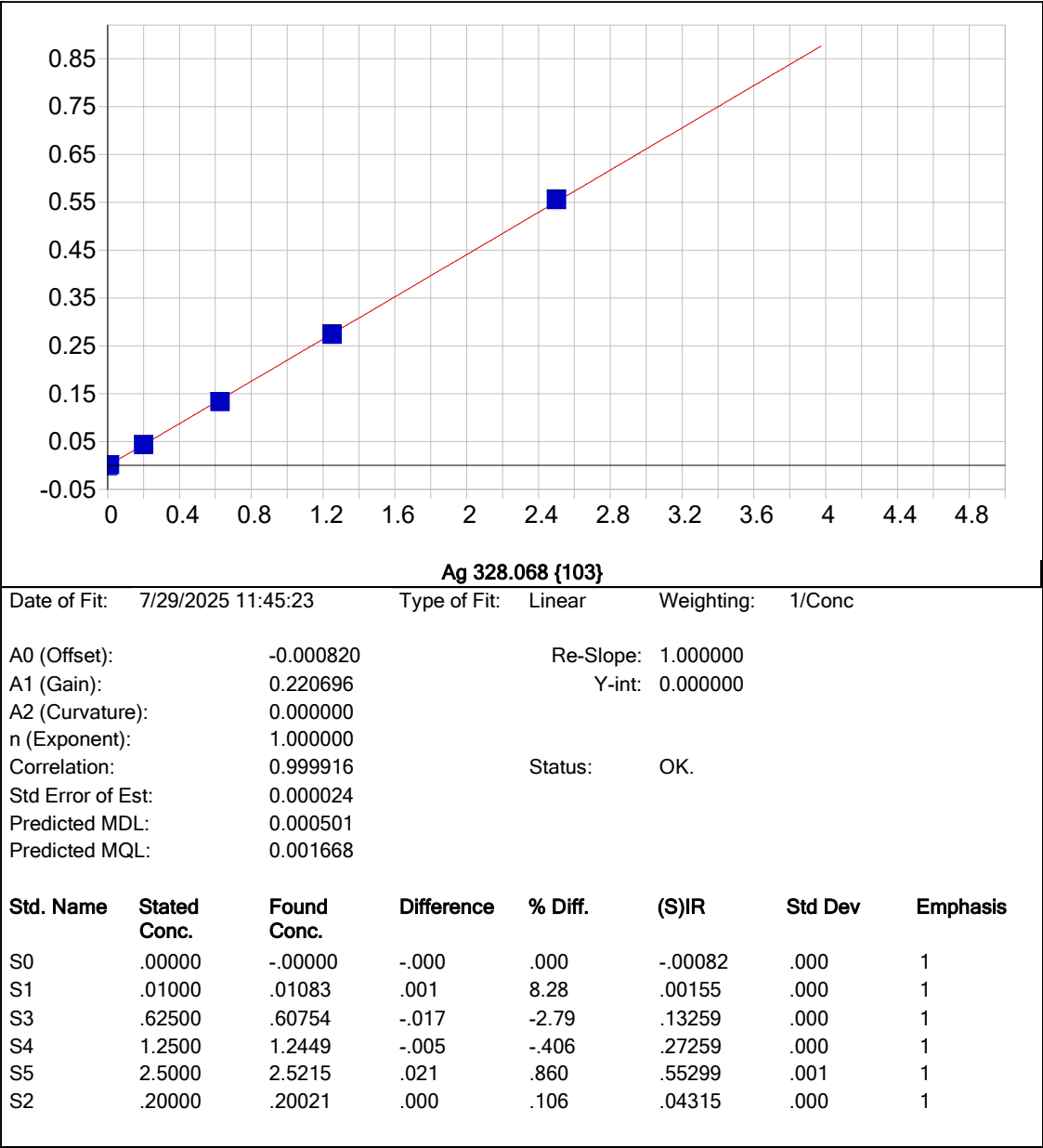


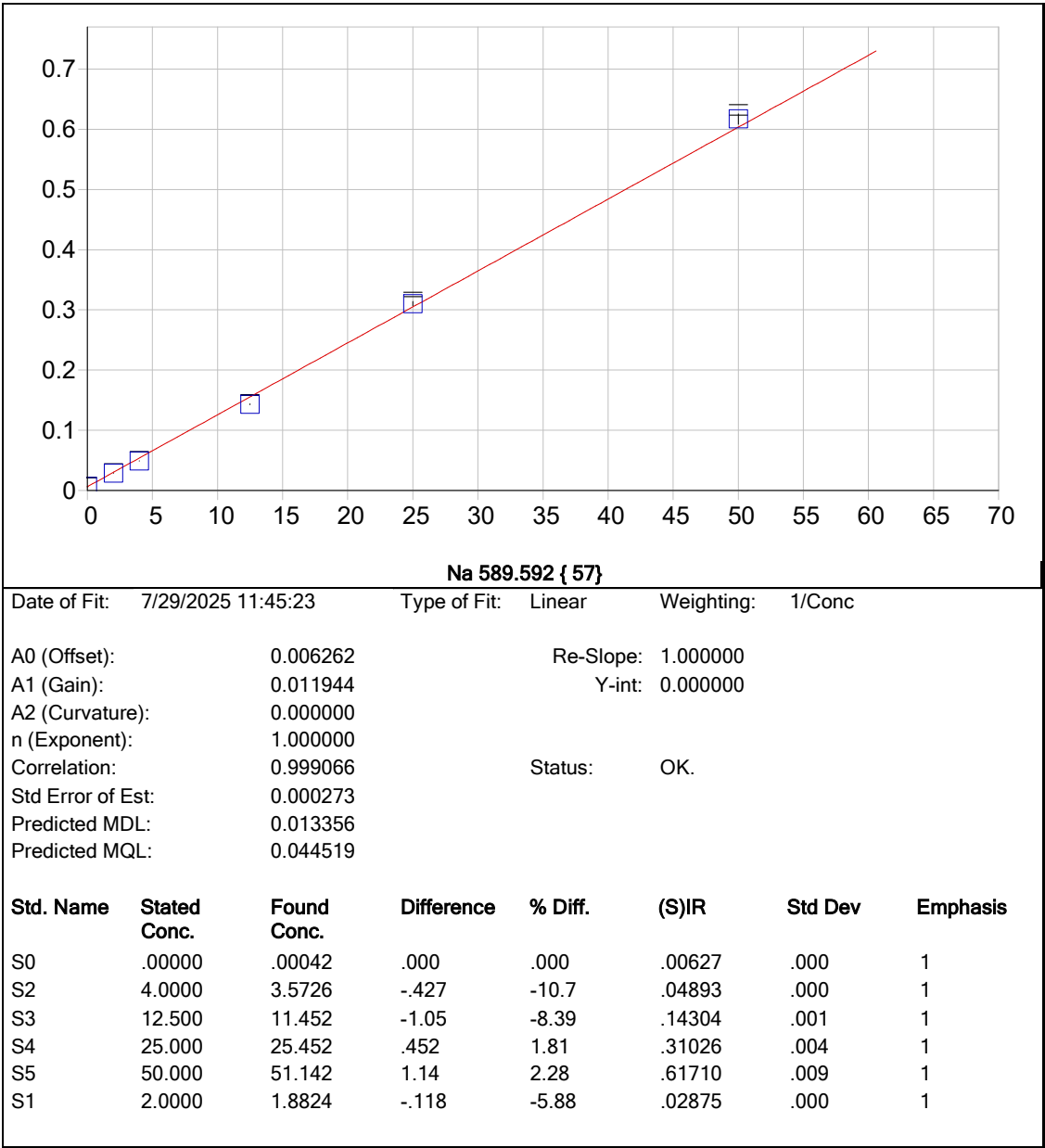


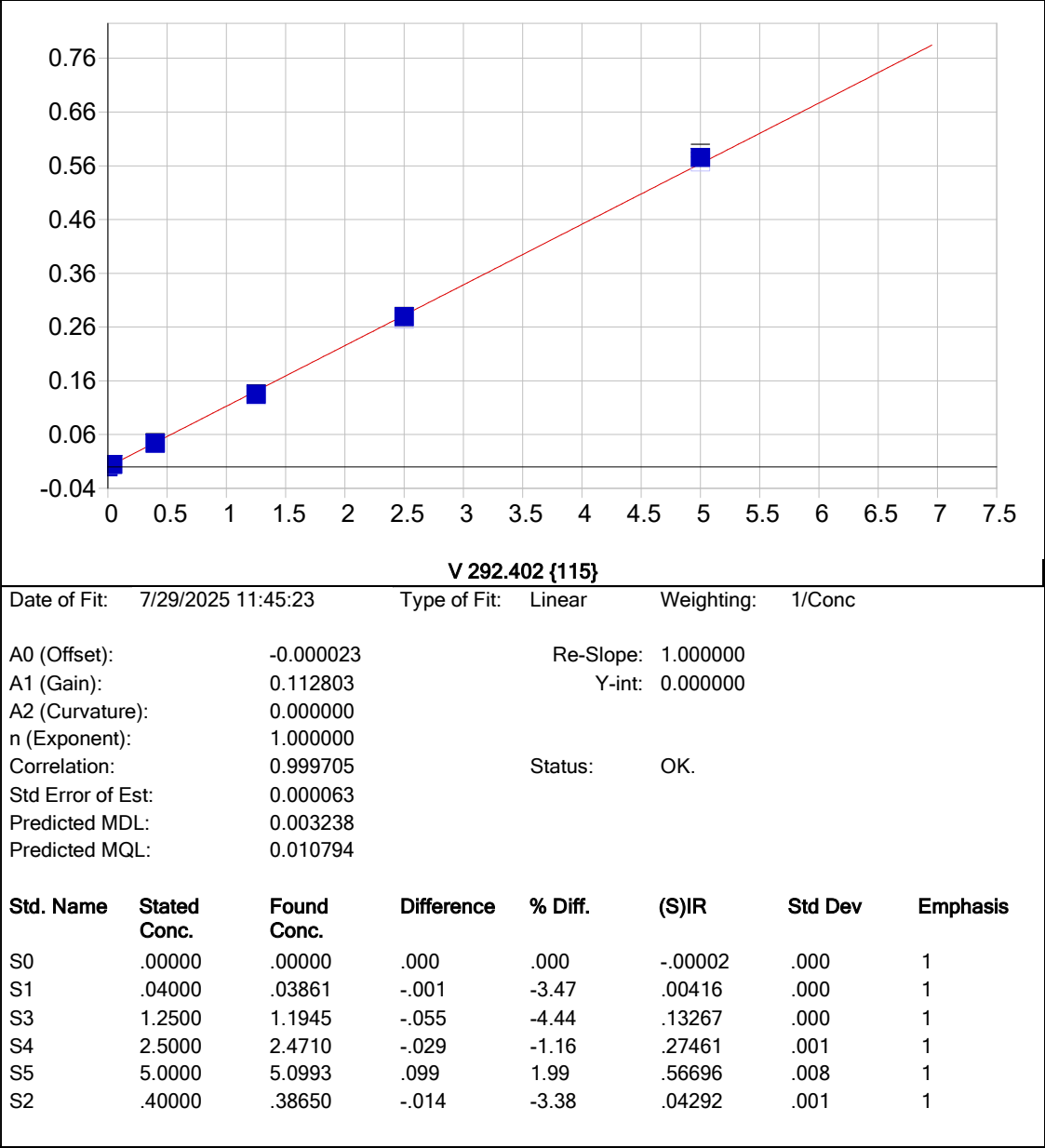


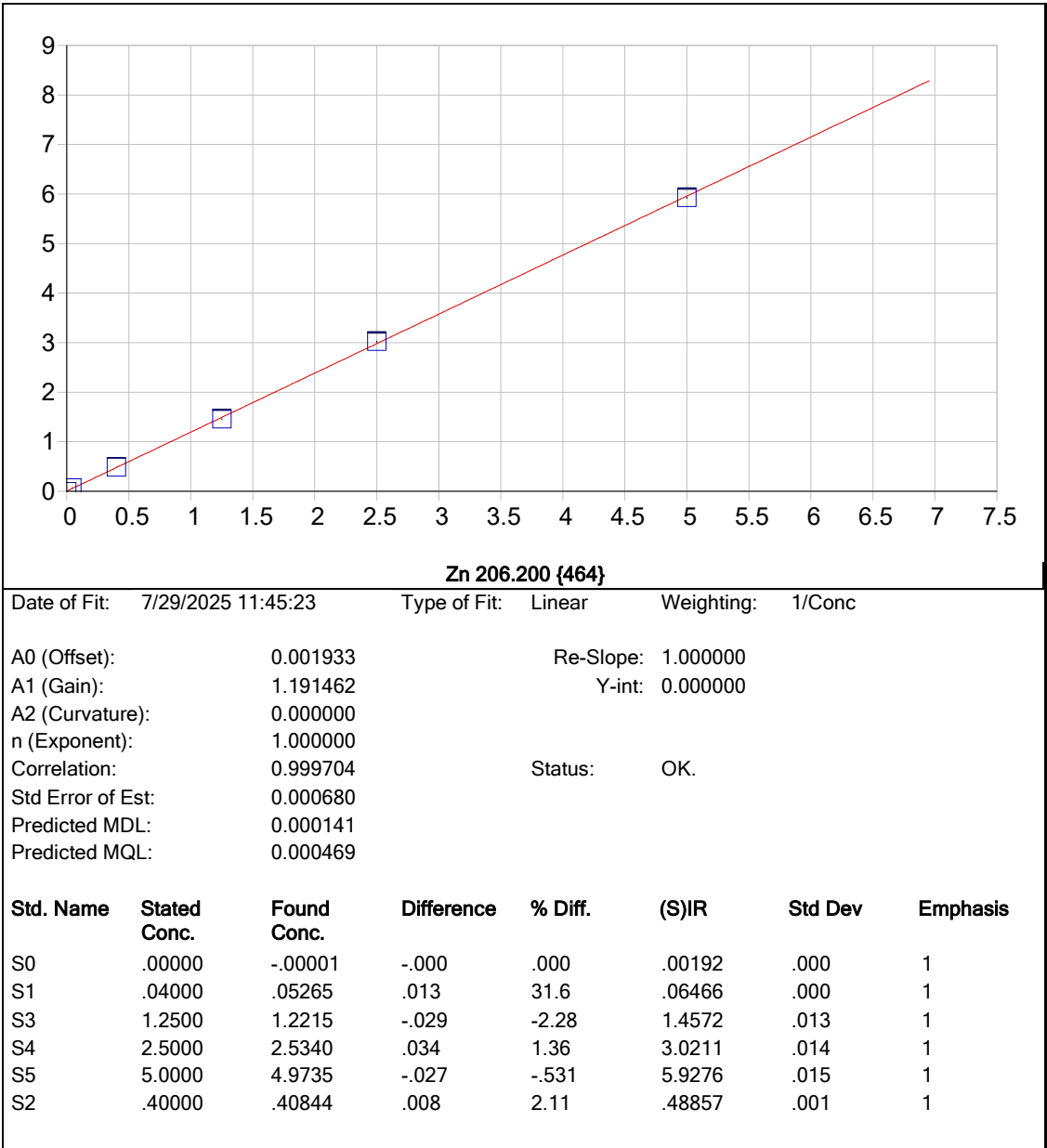


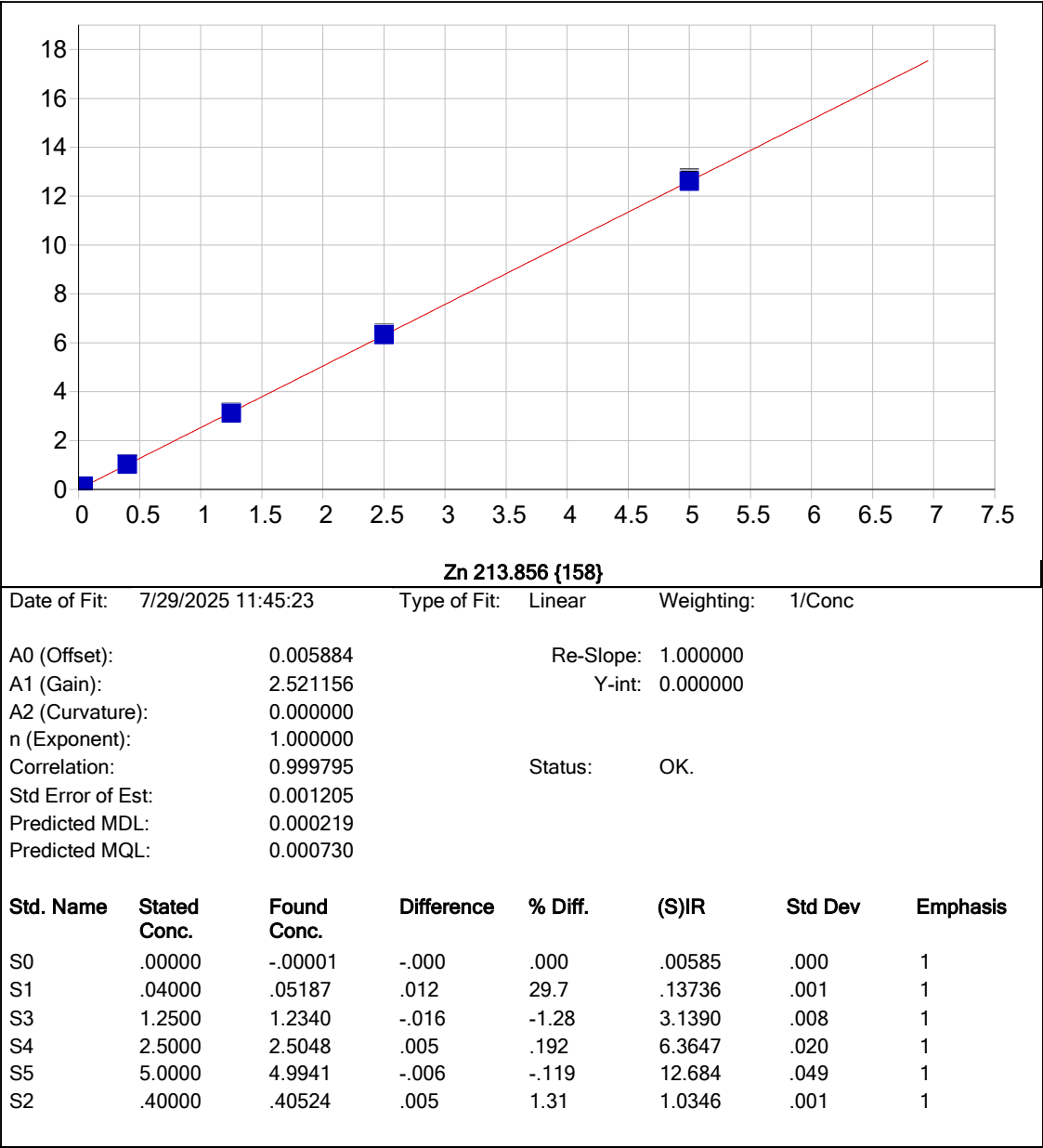


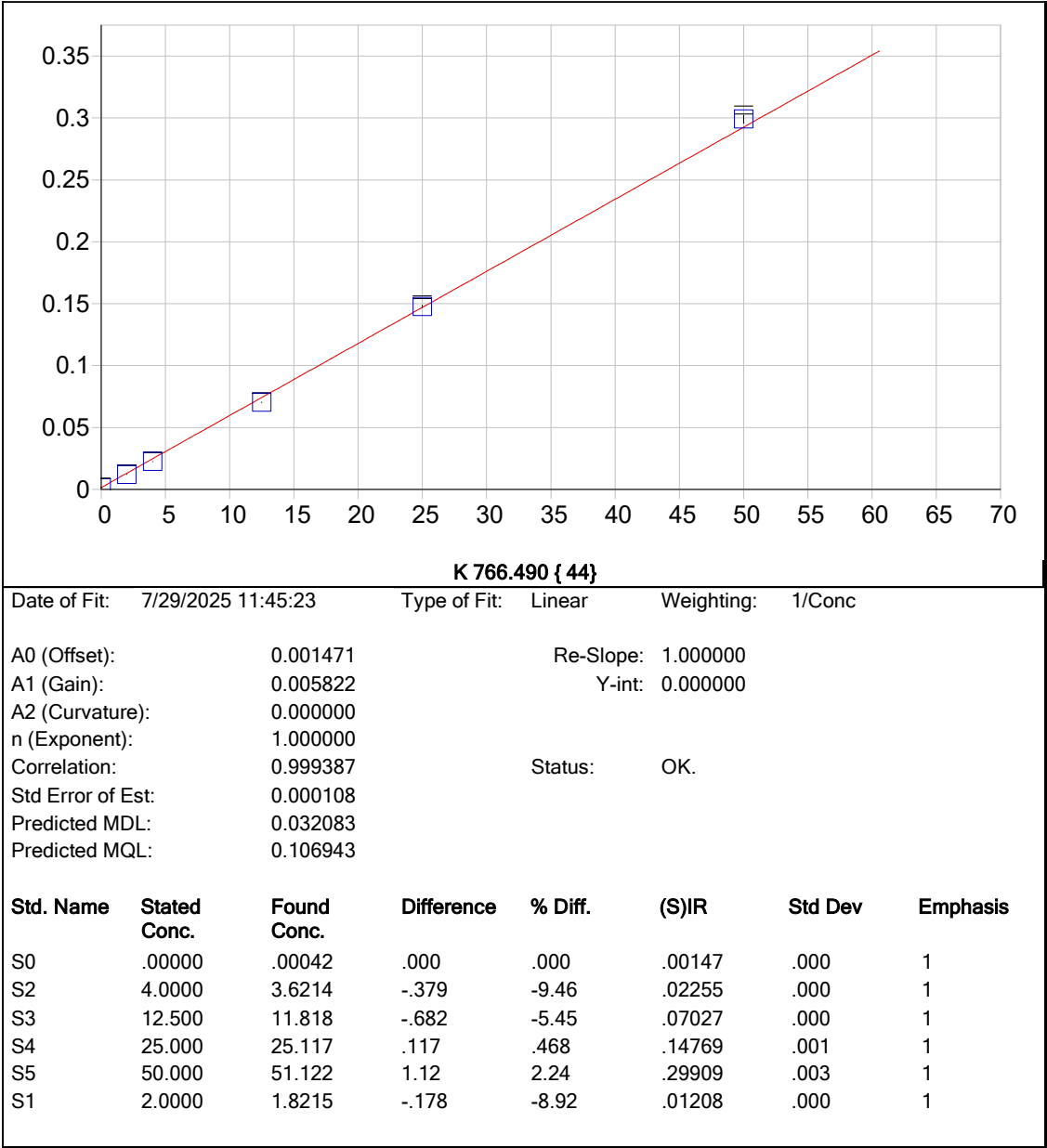


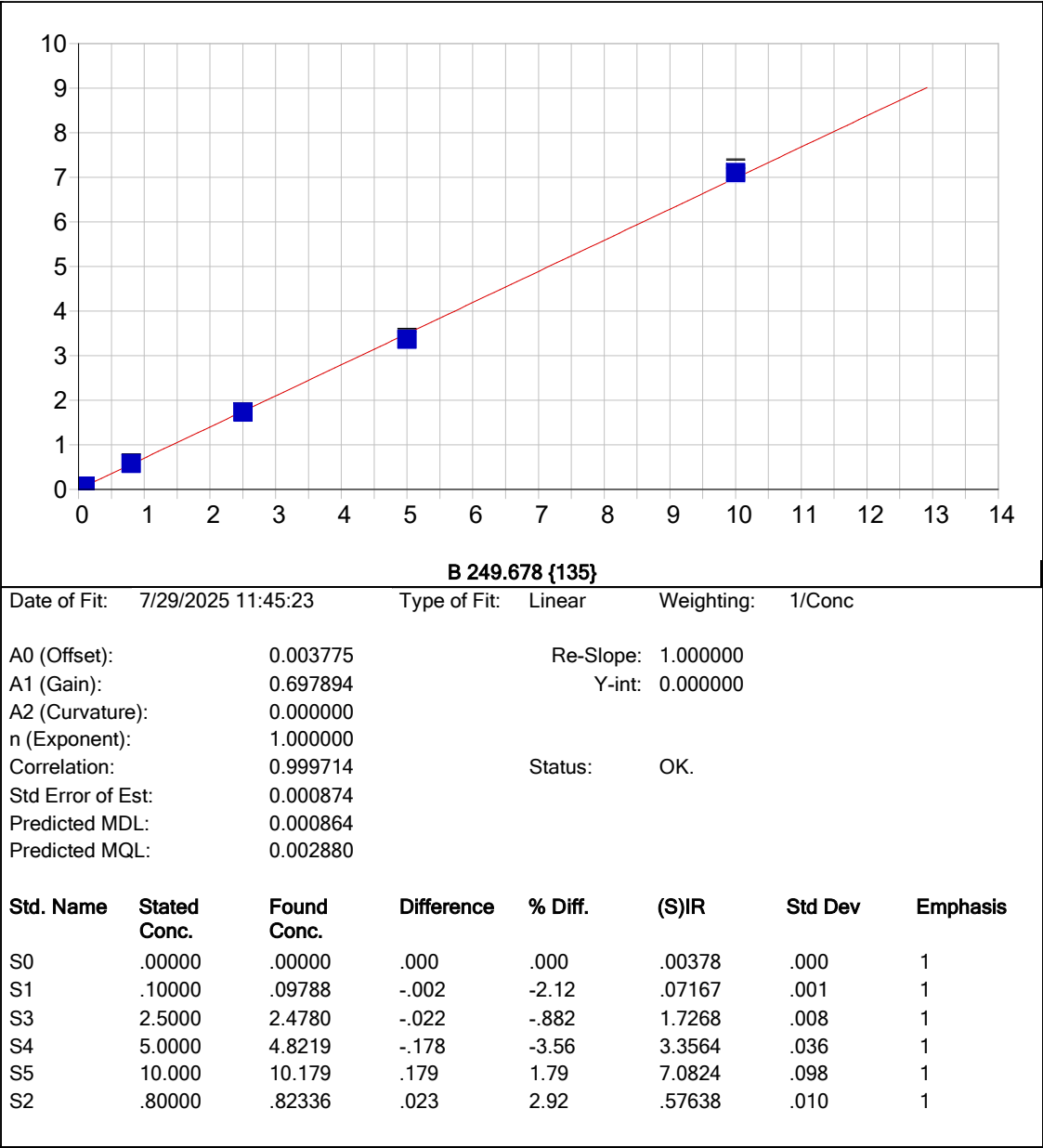


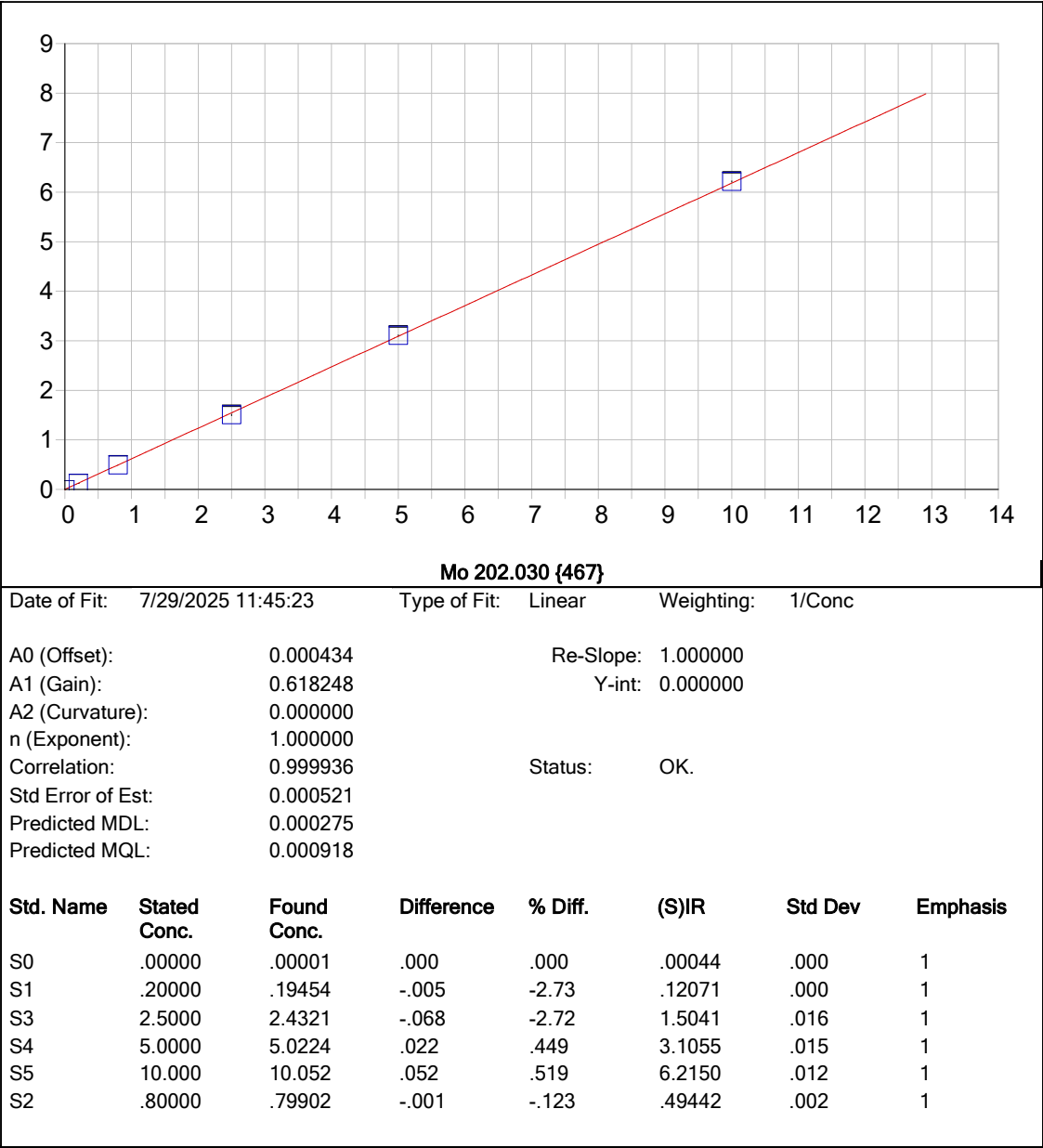


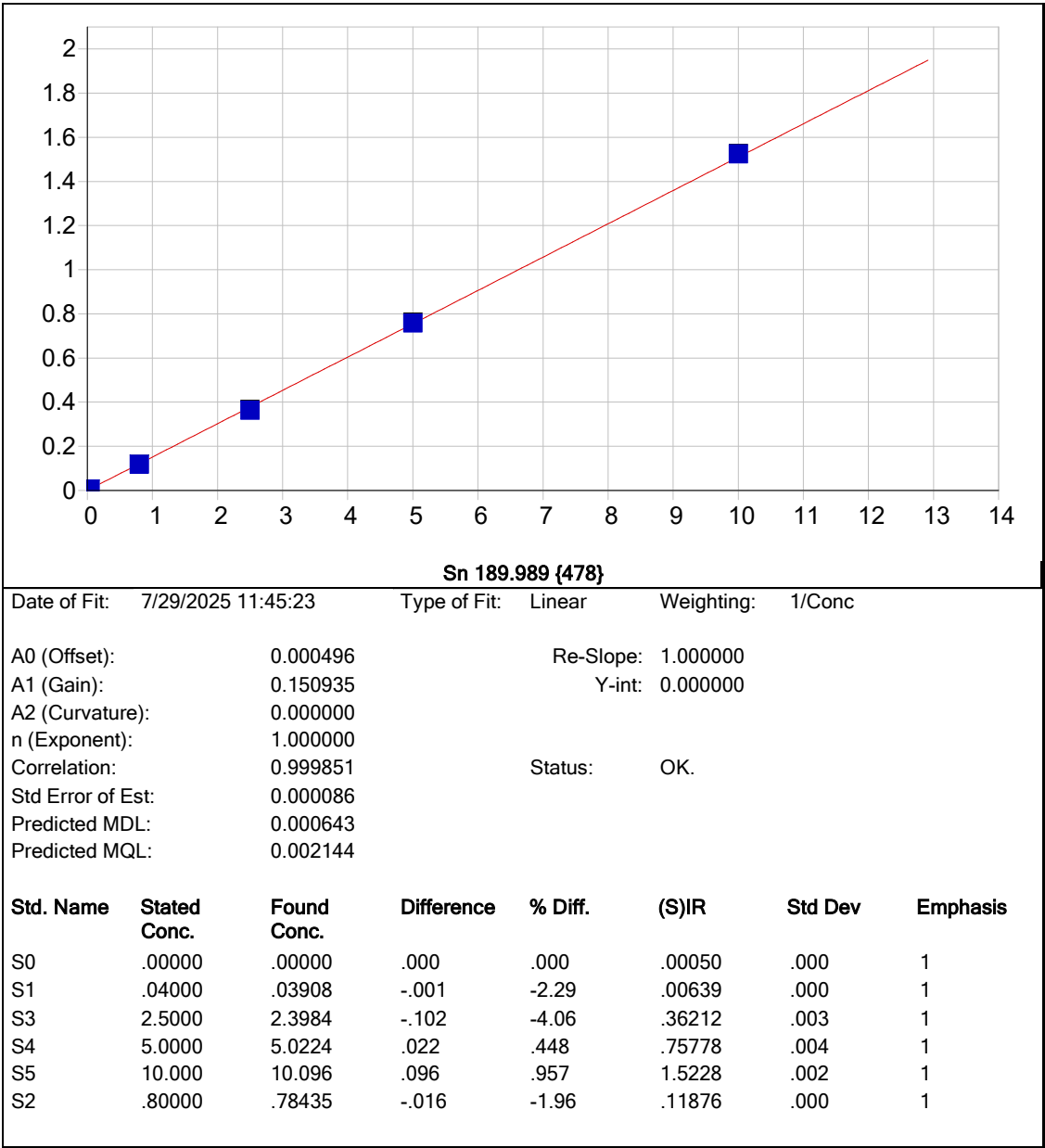


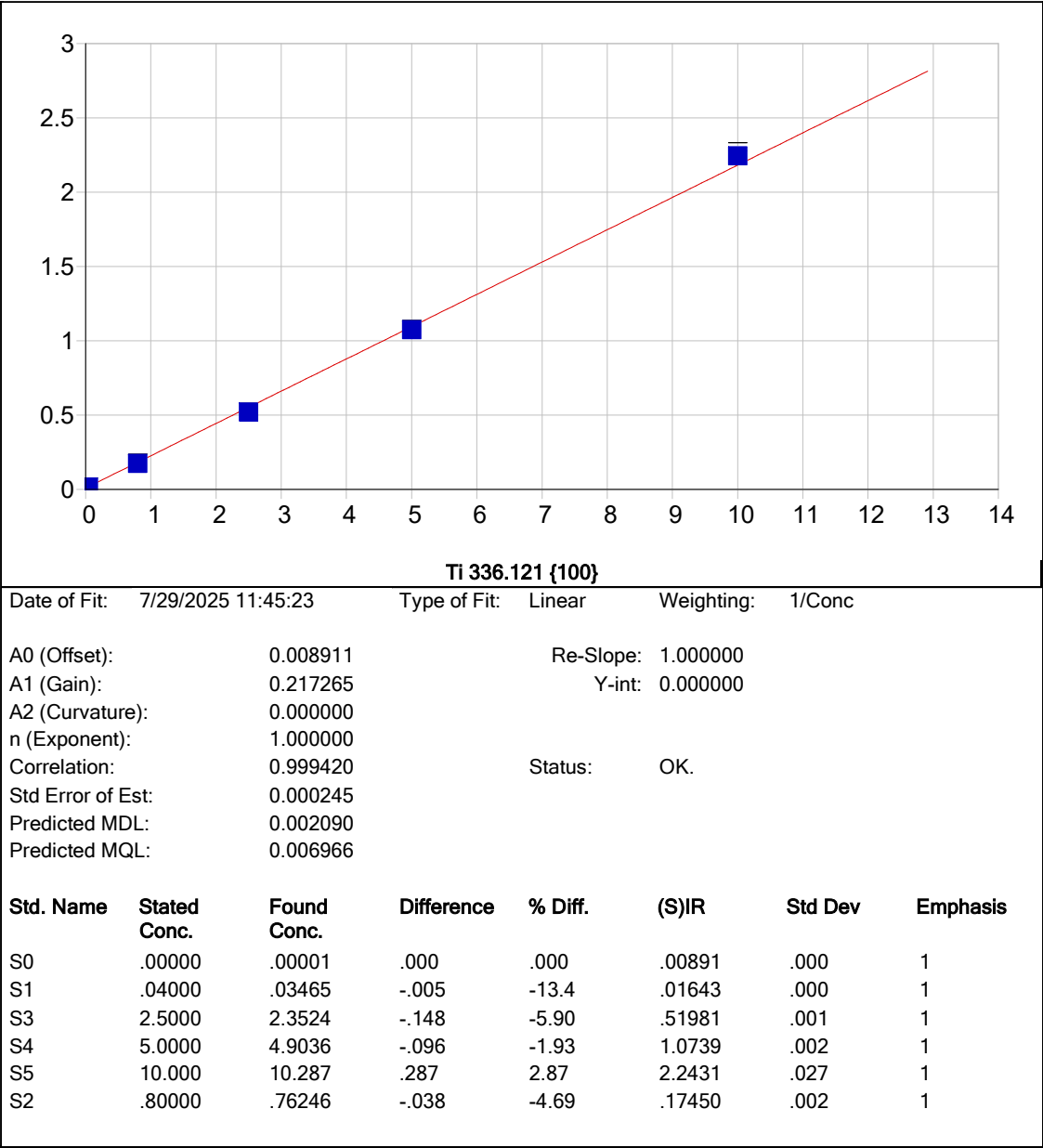


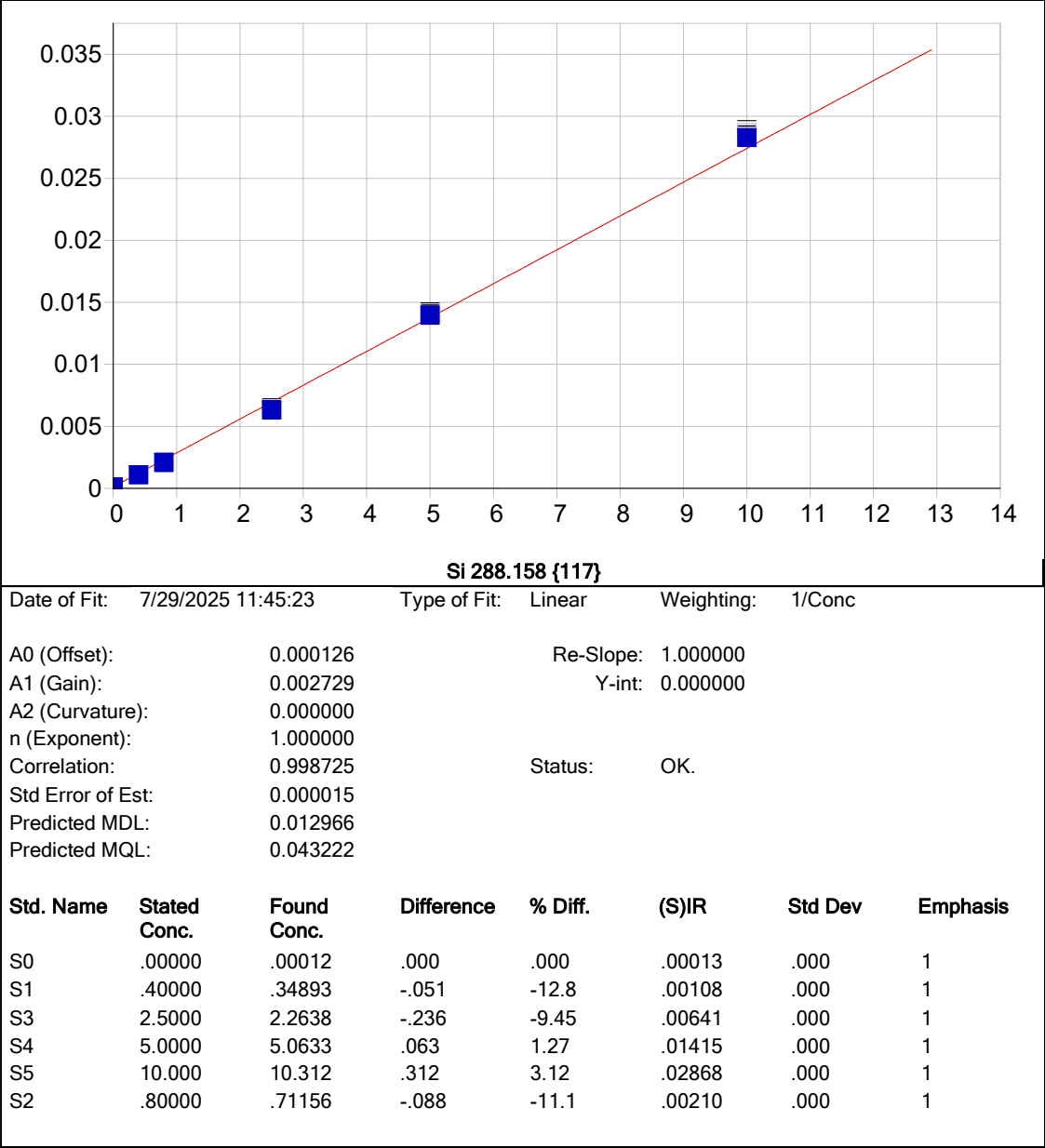


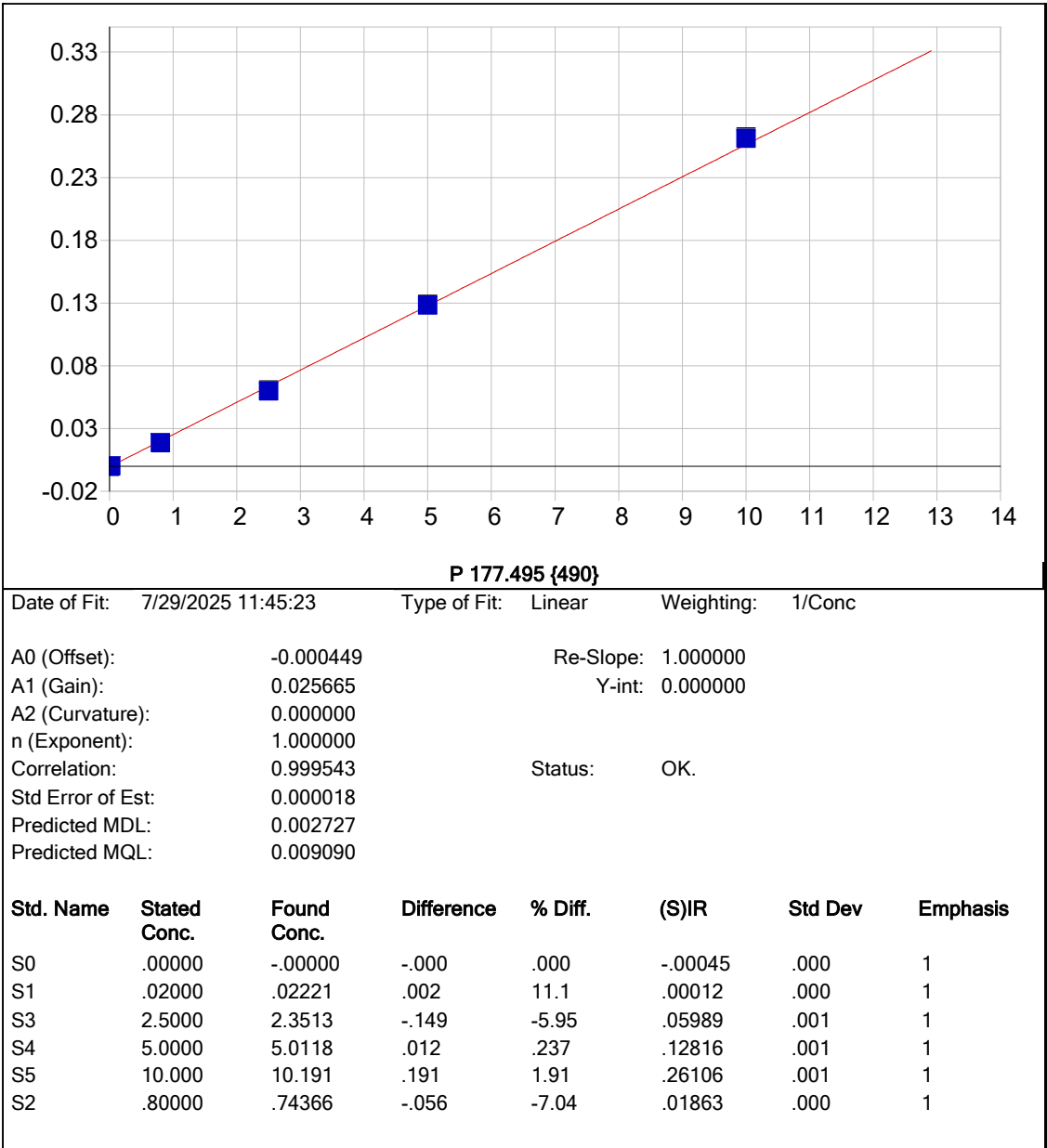


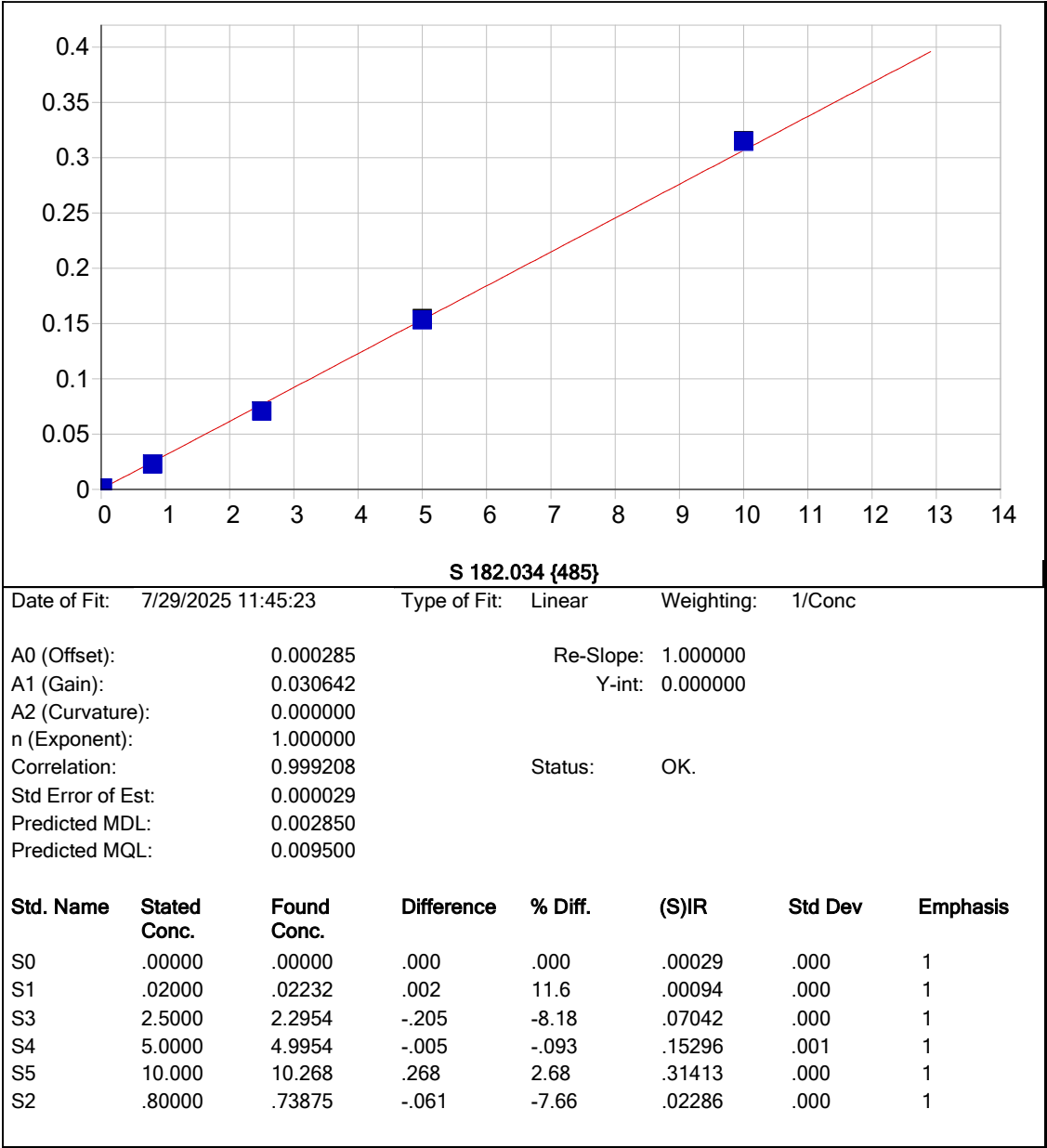


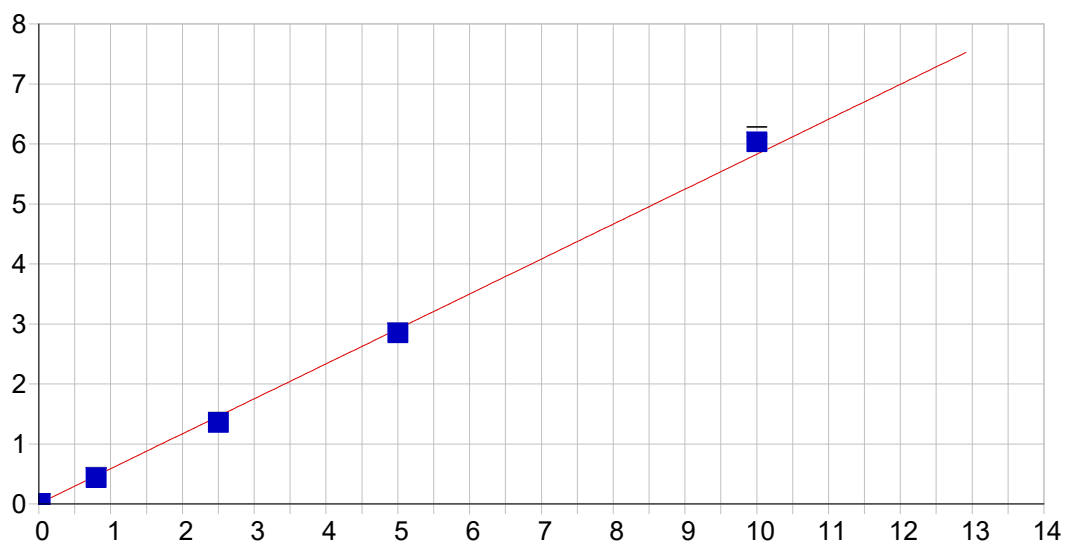












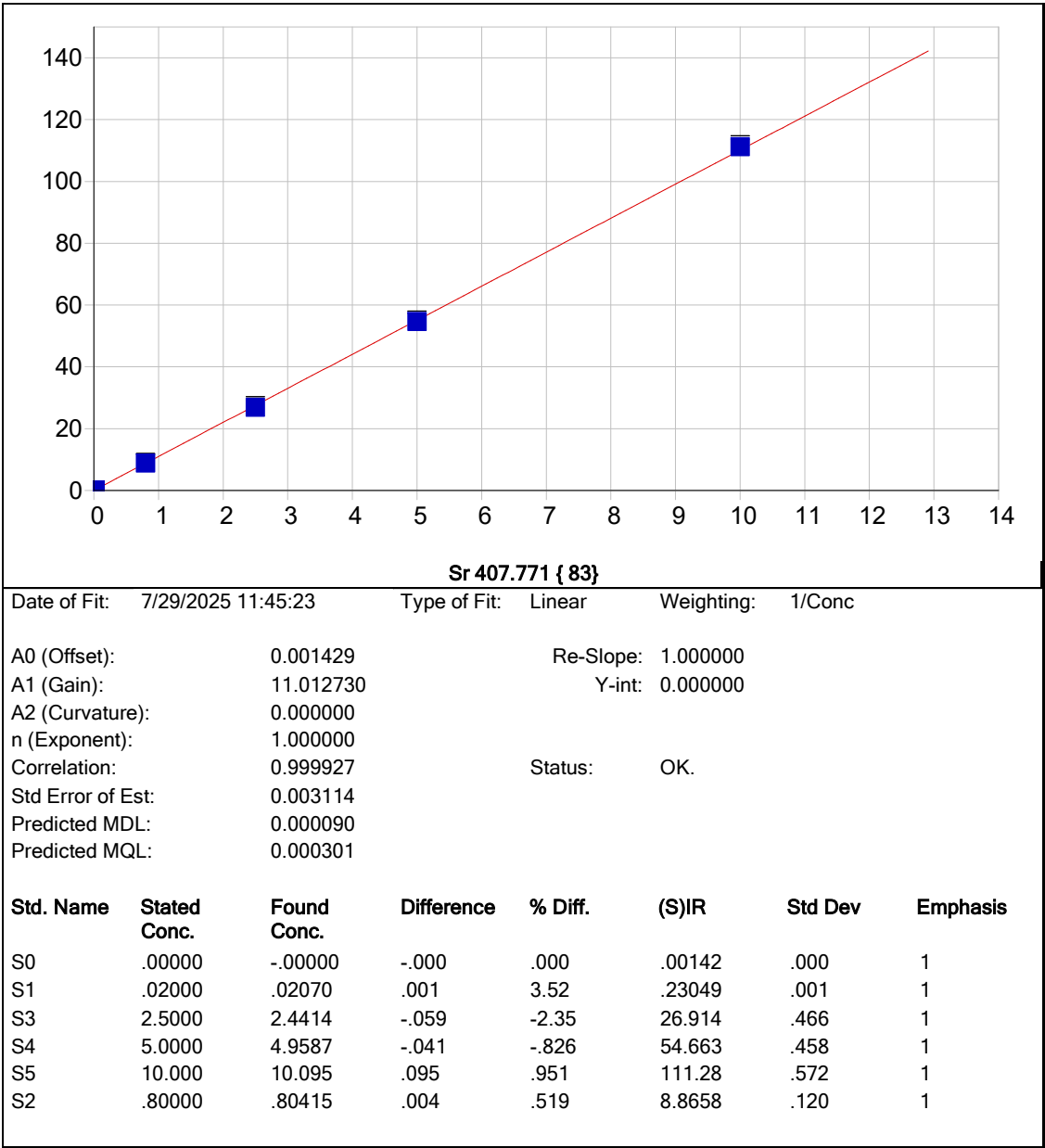
Li 670.784 { 50}

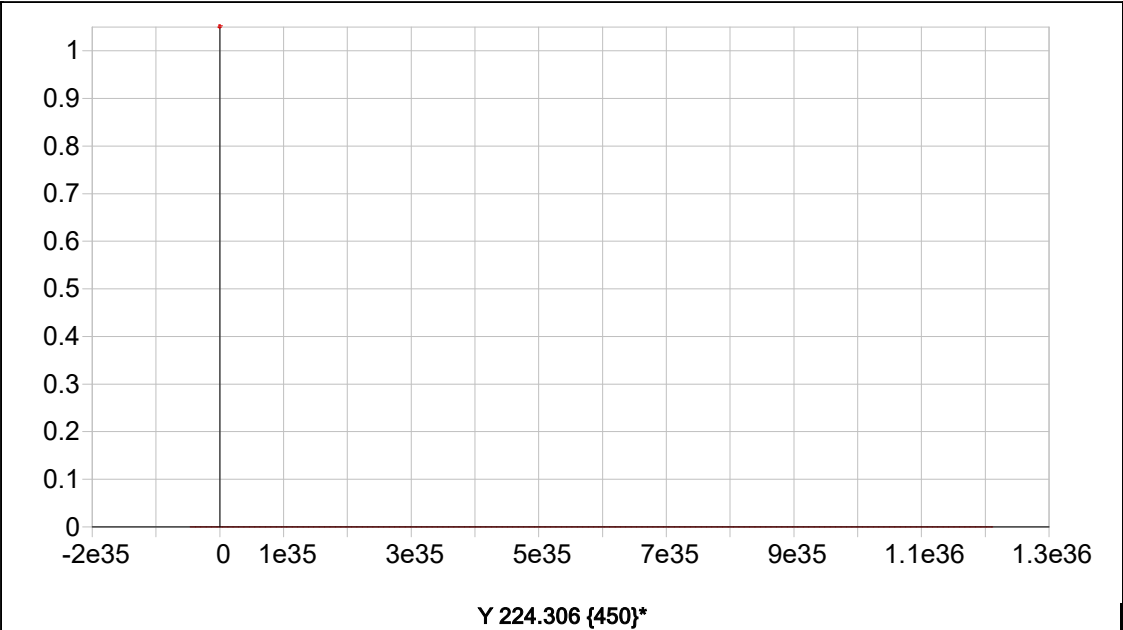
Date of Fit:	7/29/2025 11:45:23	Type of Fit:	Linear	Weighting:	1/Conc
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A0 (Offset):	0.004427	Re-Slope:	1.000000
A1 (Gain):	0.582349	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999114	Status:	OK.
Std Error of Est:	0.000575		
Predicted MDL:	0.003364		
Predicted MQL:	0.011212		

Status: OK.

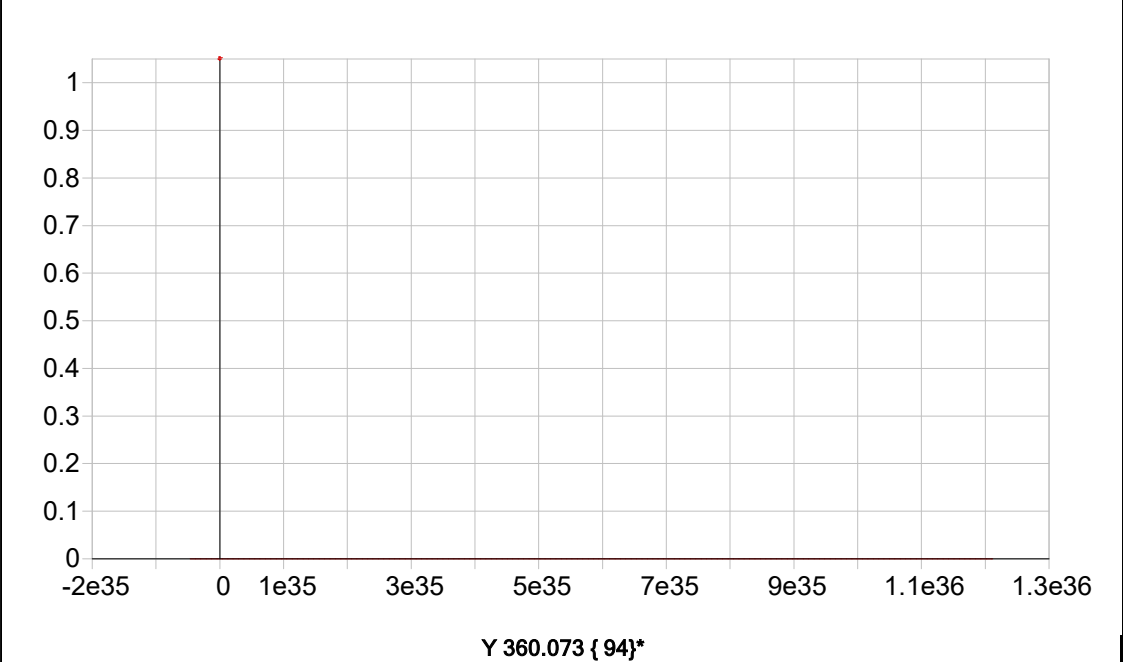
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)/IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00443	.002	1
S5	10.000	10.355	.355	3.55	6.0373	.082	1
S4	5.0000	4.8854	-.115	-2.29	2.8509	.005	1
S3	2.5000	2.3182	-.182	-7.27	1.3551	.003	1
S1	.02000	.01849	-.002	-7.57	.01538	.001	1
S2	.80000	.74345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



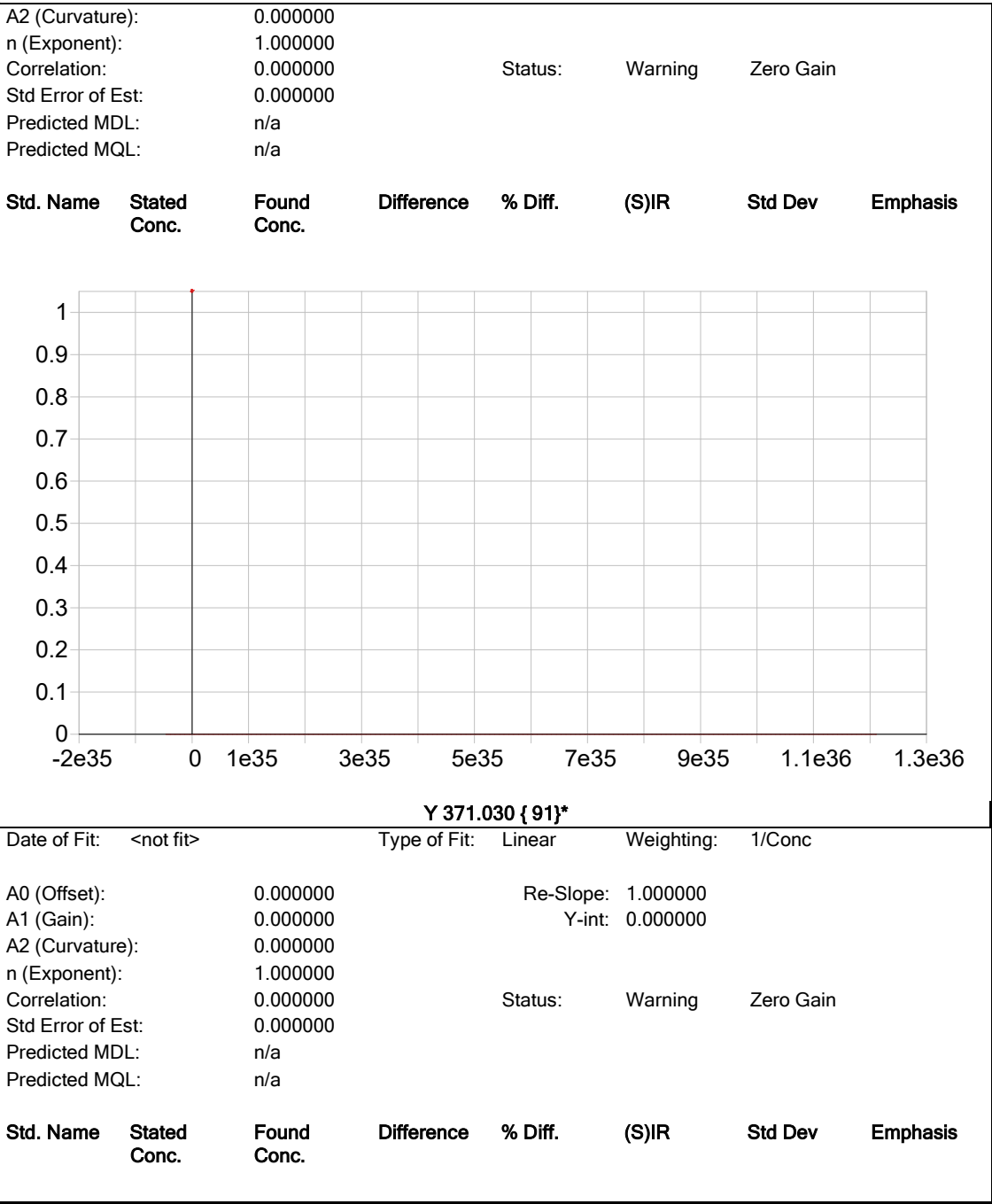


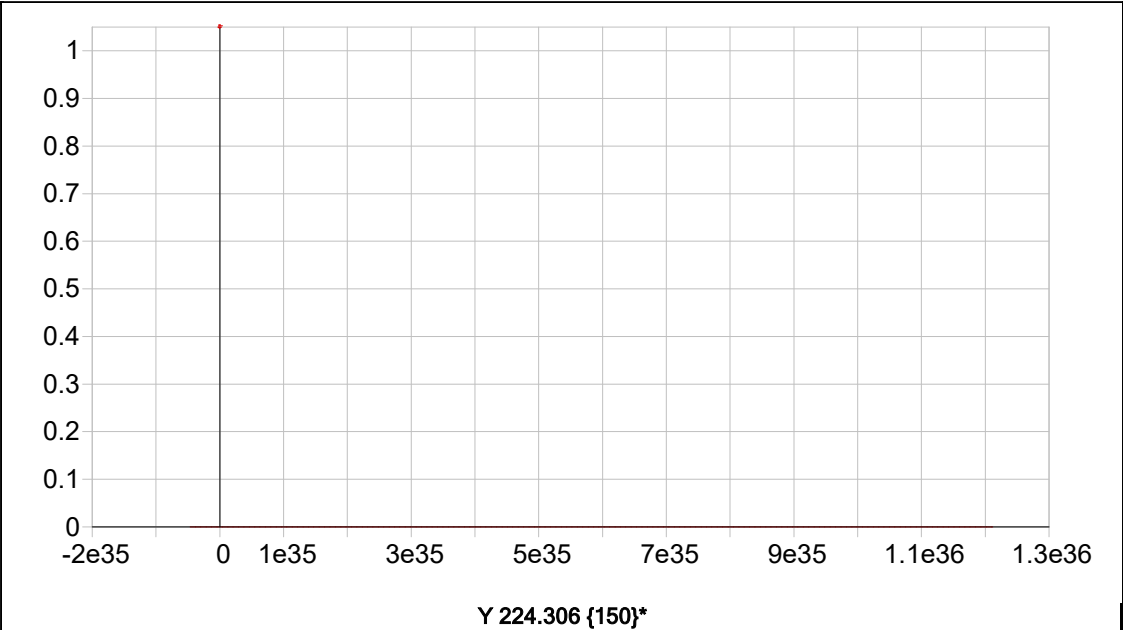
Date of Fit:	7/29/2025 11:17:28	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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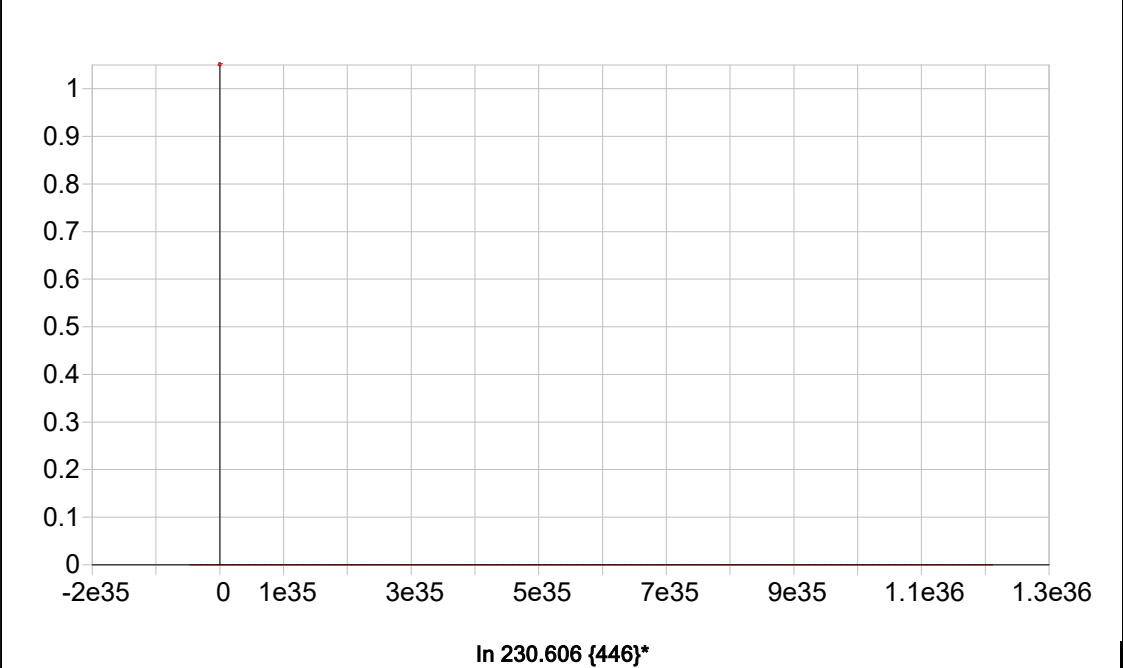
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		





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

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00004	.00059	.00004	.00017	.00050	.00093	.06652	-.00138
Stddev	.00010	.00009	.00002	.00009	.00011	.00093	.00096	.00046
%RSD	264.25	15.826	43.074	54.763	21.749	100.03	1.4446	33.607

#1	-.00005	.00051	.00004	.00008	.00062	.00168	.06541	-.00182
#2	.00014	.00057	.00006	.00027	.00041	.00120	.06714	-.00141
#3	.00002	.00069	.00003	.00016	.00047	-.00011	.06700	-.00090

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00082	.00169	.00016	.00004	.00045	.00005	.00080	-.00010
Stddev	.00023	.00058	.00006	.00004	.00026	.00001	.00025	.00023
%RSD	28.547	34.465	34.502	102.50	57.719	21.287	30.626	235.63

#1	-.00055	.00236	.00010	.00005	.00071	.00006	.00071	-.00033
#2	-.00092	.00141	.00019	.00007	.00043	.00005	.00062	.00014
#3	-.00098	.00130	.00019	-.00001	.00020	.00004	.00109	-.00010

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00053	-.00082	.00627	-.00002	.00585	.00147	.00378	.00044
Stddev	.00012	.00004	.00014	.00005	.00028	.00023	.00047	.00006
%RSD	22.881	4.6841	2.1940	231.34	4.7002	15.461	12.319	14.654

#1	-.00044	-.00086	.00624	-.00003	.00555	.00164	.00419	.00045
#2	-.00049	-.00079	.00641	-.00007	.00591	.00157	.00387	.00050
#3	-.00067	-.00081	.00614	.00003	.00610	.00121	.00327	.00037

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00050	.00891	.00013	-.00045	.00029	.00443	.00142
Stddev	.00004	.00032	.00003	.00006	.00005	.00215	.00020
%RSD	7.6188	3.6158	23.165	12.740	18.026	48.648	14.015

#1	.00051	.00871	.00010	-.00040	.00028	.00668	.00120
#2	.00045	.00874	.00016	-.00044	.00024	.00239	.00158
#3	.00052	.00928	.00012	-.00051	.00034	.00422	.00149

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00080	.00300	.00271	.00107	.00546	.00991	.34420	.04918
Stddev	.00006	.00009	.00014	.00003	.00003	.00018	.00348	.00046
%RSD	7.8050	2.8975	5.0295	2.6837	.59426	1.8352	1.0121	.94389

#1	.00073	.00294	.00272	.00104	.00546	.00995	.34256	.04967
#2	.00080	.00296	.00256	.00107	.00543	.00972	.34820	.04912
#3	.00086	.00310	.00283	.00110	.00550	.01008	.34184	.04875

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00775	.14811	.00206	.02089	.01756	.00048	.01316	.02448
Stddev	.00012	.00093	.00005	.00024	.00012	.00001	.00004	.00040
%RSD	1.5165	.62598	2.6155	1.1280	.71075	2.1202	.28966	1.6140

#1	.00765	.14914	.00211	.02102	.01743	.00049	.01320	.02489
#2	.00788	.14786	.00207	.02062	.01768	.00047	.01313	.02410
#3	.00772	.14734	.00200	.02103	.01758	.00048	.01315	.02445

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02516	.00155	.02875	.00416	.13736	.01208	.07167	.12071
Stddev	.00012	.00007	.00009	.00019	.00139	.00007	.00058	.00036
%RSD	.45948	4.7878	.32431	4.5661	1.0123	.58464	.80461	.29737

#1	.02504	.00147	.02876	.00417	.13582	.01200	.07173	.12042
#2	.02527	.00161	.02865	.00435	.13851	.01215	.07222	.12059
#3	.02517	.00157	.02883	.00397	.13776	.01208	.07107	.12111

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00639	.01643	.00108	.00012	.00094	.01538	.23049
Stddev	.00012	.00020	.00001	.00006	.00005	.00086	.00126
%RSD	1.8105	1.2429	.87743	45.398	4.9385	5.5875	.54537

#1	.00627	.01620	.00109	.00012	.00100	.01480	.23033
#2	.00641	.01660	.00107	.00007	.00092	.01637	.23183
#3	.00649	.01650	.00108	.00018	.00091	.01496	.22933

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03452	.05251	.16798	.03745	.07886	.12972	4.4812	.34719
Stddev	.00008	.00028	.00036	.00015	.00018	.00255	.0615	.00477
%RSD	.21851	.53065	.21235	.41204	.23330	1.9667	1.3720	1.3739

#1	.03454	.05282	.16805	.03728	.07885	.13178	4.4880	.34542
#2	.03457	.05228	.16760	.03749	.07868	.12686	4.4167	.34355
#3	.03443	.05244	.16830	.03757	.07905	.13051	4.5391	.35259

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.57031	.29507	.02827	.27509	.14687	.00319	.23485	.04612
Stddev	.00138	.00392	.00022	.00062	.00043	.00002	.00398	.00047
%RSD	.24241	1.3302	.76276	.22479	.29412	.50180	1.6937	1.0253

#1	.57098	.29525	.02840	.27478	.14672	.00318	.23444	.04634
#2	.56872	.29106	.02838	.27469	.14653	.00318	.23109	.04558
#3	.57124	.29891	.02802	.27580	.14735	.00321	.23902	.04644

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.24840	.04315	.04893	.04292	1.0346	.02255	.57638	.49442
Stddev	.00027	.00013	.00028	.00097	.0014	.00011	.00967	.00166
%RSD	.11044	.30265	.57170	2.2592	.13790	.49653	1.6770	.33491

#1	.24852	.04304	.04923	.04311	1.0359	.02268	.57253	.49361
#2	.24809	.04329	.04890	.04186	1.0330	.02248	.56924	.49334
#3	.24860	.04312	.04867	.04377	1.0348	.02249	.58738	.49633

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11876	.17450	.00210	.01863	.02286	.43761	8.8658
Stddev	.00026	.00240	.00002	.00002	.00004	.00650	.1196
%RSD	.21865	1.3752	1.1313	.11713	.18123	1.4849	1.3490

#1	.11878	.17512	.00212	.01866	.02291	.44068	8.8673
#2	.11849	.17186	.00207	.01863	.02283	.43014	8.7454
#3	.11901	.17653	.00211	.01862	.02284	.44200	8.9846

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.10869	.16845	.52683	.11677	.24042	.39393	13.719	1.0489
Stddev	.00137	.00209	.00491	.00127	.00309	.00068	.014	.0045
%RSD	1.2638	1.2421	.93238	1.0868	1.2859	.17324	.10226	.42637

#1	.10718	.16970	.52120	.11539	.23699	.39326	13.709	1.0512
#2	.10903	.16603	.52907	.11705	.24127	.39462	13.735	1.0518
#3	.10987	.16961	.53023	.11788	.24300	.39392	13.712	1.0438

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8018	.89882	.08520	.83984	.44154	.00987	.71802	.14113
Stddev	.0150	.00606	.00030	.00778	.00472	.00007	.00302	.00074
%RSD	.83221	.67384	.35381	.92612	1.0681	.68131	.42038	.52118

#1	1.7845	.89997	.08554	.83094	.43627	.00994	.71764	.14062
#2	1.8097	.90422	.08499	.84319	.44299	.00982	.72121	.14197
#3	1.8111	.89227	.08505	.84538	.44536	.00984	.71521	.14081

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.75467	.13259	.14304	.13267	3.1390	.07027	1.7268	1.5041
Stddev	.00669	.00010	.00079	.00030	.0076	.00020	.0082	.0158
%RSD	.88606	.07280	.55329	.22857	.24193	.28700	.47309	1.0480

#1	.74703	.13248	.14366	.13232	3.1427	.07046	1.7243	1.4866
#2	.75756	.13265	.14215	.13281	3.1302	.07006	1.7360	1.5082
#3	.75943	.13265	.14330	.13288	3.1440	.07030	1.7203	1.5174

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.36212	.51981	.00641	.05989	.07042	1.3551	26.914
Stddev	.00319	.00141	.00007	.00056	.00048	.0033	.466
%RSD	.88189	.27167	1.0439	.93635	.68102	.24265	1.7332

#1	.35848	.51979	.00648	.05924	.06987	1.3517	27.027
#2	.36339	.51840	.00635	.06015	.07064	1.3555	27.313
#3	.36447	.52123	.00639	.06027	.07075	1.3582	26.401

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.22085	.32488	1.0568	.23429	.49930	.80801	27.893	2.0112
Stddev	.00107	.01022	.0039	.00152	.00232	.00290	.193	.0199
%RSD	.48253	3.1469	.36923	.64964	.46415	.35875	.69051	.99164

#1	.22102	.32129	1.0572	.23428	.49824	.81066	27.784	1.9890
#2	.21971	.31693	1.0527	.23277	.49771	.80491	28.115	2.0168
#3	.22182	.33641	1.0604	.23582	.50196	.80845	27.780	2.0277

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.6706	1.7956	.17518	1.7657	.91034	.02133	1.4486	.28911
Stddev	.0193	.0039	.00105	.0062	.00357	.00018	.0035	.00142
%RSD	.52509	.21766	.59959	.35078	.39196	.85668	.24004	.49254

#1	3.6781	1.7940	.17533	1.7655	.91012	.02152	1.4448	.28748
#2	3.6487	1.7928	.17614	1.7596	.90688	.02130	1.4493	.29009
#3	3.6850	1.8001	.17406	1.7720	.91401	.02116	1.4516	.28976

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5923	.27259	.31026	.27461	6.3647	.14769	3.3564	3.1055
Stddev	.0058	.00018	.00371	.00055	.0197	.00112	.0363	.0151
%RSD	.36708	.06504	1.1958	.20161	.30902	.75783	1.0811	.48479

#1	1.5927	.27272	.31454	.27411	6.3782	.14898	3.3147	3.1044
#2	1.5862	.27266	.30822	.27450	6.3422	.14711	3.3738	3.0911
#3	1.5979	.27239	.30801	.27520	6.3739	.14699	3.3807	3.1211

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.75778	1.0739	.01415	.12816	.15296	2.8509	54.663
Stddev	.00382	.0024	.00007	.00061	.00125	.0049	.458
%RSD	.50370	.22610	.49174	.47974	.81620	.17069	.83808

#1	.75878	1.0761	.01423	.12854	.15281	2.8522	54.845
#2	.75357	1.0713	.01410	.12745	.15179	2.8455	55.002
#3	.76101	1.0742	.01413	.12849	.15427	2.8550	54.142

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.44037	.65791	2.1544	.46710	1.0040	1.6664	57.161	4.2186
Stddev	.00084	.00727	.0056	.00110	.0029	.0261	.690	.0525
%RSD	.19152	1.1053	.26071	.23548	.28495	1.5687	1.2069	1.2446

#1	.44006	.65078	2.1609	.46597	1.0017	1.6468	56.591	4.1587
#2	.43972	.66532	2.1510	.46718	1.0032	1.6961	57.928	4.2570
#3	.44132	.65762	2.1514	.46816	1.0072	1.6564	56.964	4.2399

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.3542	3.6999	.34408	3.5798	1.7934	.04192	2.9759	.59687
Stddev	.0171	.0600	.00156	.0036	.0024	.00044	.0439	.00829
%RSD	.23213	1.6207	.45431	.09961	.13193	1.0425	1.4749	1.3893

#1	7.3620	3.6470	.34539	3.5825	1.7957	.04222	2.9401	.59069
#2	7.3346	3.7651	.34450	3.5758	1.7910	.04212	3.0249	.60630
#3	7.3659	3.6877	.34235	3.5811	1.7934	.04142	2.9627	.59364

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.1966	.55299	.61710	.56696	12.684	.29909	7.0824	6.2150
Stddev	.0046	.00130	.00858	.00772	.049	.00320	.0982	.0118
%RSD	.14425	.23597	1.3908	1.3617	.38462	1.0714	1.3858	.19012

#1	3.2013	.55445	.62223	.56156	12.727	.30056	6.9702	6.2060
#2	3.1921	.55256	.62188	.57581	12.695	.30129	7.1526	6.2107
#3	3.1962	.55195	.60719	.56353	12.631	.29541	7.1243	6.2284

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5228	2.2431	.02868	.26106	.31413	6.0373	111.28
Stddev	.0016	.0274	.00022	.00104	.00039	.0823	.57
%RSD	.10508	1.2236	.77975	.40002	.12313	1.3624	.51428

#1	1.5246	2.2233	.02881	.26176	.31442	5.9841	111.17
#2	1.5216	2.2744	.02881	.26156	.31369	6.1320	111.90
#3	1.5221	2.2316	.02842	.25986	.31428	5.9957	110.78

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.838994	3.949864	4.000071	3.884675	4.192133	8.091095
Stddev	.015254	.161016	.009952	.010429	.013170	.106269
%RSD	.3973342	4.076483	.2487986	.2684712	.3141697	1.313403

#1	3.853336	4.070651	4.008577	3.888181	4.196772	8.210973
#2	3.840679	4.011881	4.002509	3.892899	4.202356	8.053848
#3	3.822969	3.767062	3.989126	3.872944	4.177270	8.008464

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.182751	.2162207	2.054203	20.85531	.7915330	1.997968
Stddev	.039876	.0024728	.006588	.19649	.0026154	.003632
%RSD	.4873175	1.143665	.3207257	.9421707	.3304258	.1817975

#1	8.224736	.2189247	2.061313	21.08209	.7923192	2.001081
#2	8.145386	.2156630	2.052992	20.74821	.7936652	1.998845
#3	8.178130	.2140743	2.048304	20.73564	.7886147	1.993977

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.022864	3.947184	2.056201	20.23398	1.989128	1.090318
Stddev	.001471	.011936	.023706	.26169	.003172	.000820
%RSD	.1438570	.3023836	1.152889	1.293302	.1594504	.0752218

#1	1.024113	3.957472	2.083145	20.53495	1.991861	1.090045
#2	1.023238	3.949983	2.046911	20.10675	1.989873	1.091239
#3	1.021242	3.934098	2.038547	20.06023	1.985650	1.089668

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.04093	2.038383	2.060317	19.60295	F .0005702	F -.000145
Stddev	.08902	.029402	.001595	.07276	.0009026	.000282
%RSD	.4230625	1.442402	.0773909	.3711916	158.2797	194.5972

#1	21.14129	2.072298	2.058488	19.68689	.0004004	-.000462
#2	20.97153	2.020084	2.061051	19.55773	-.000235	-.000052
#3	21.00997	2.022767	2.061412	19.56423	.001546	.000079

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0185439	.0378263	.0121070	.0213282	.0524252	.1096726
Stddev	.0004546	.0018303	.0009258	.0009569	.0002647	.0042058
%RSD	2.451500	4.838622	7.647056	4.486543	.5049388	3.834899

#1	.0185777	.0386042	.0114940	.0209659	.0523455	.1048440
#2	.0189807	.0391390	.0116550	.0224134	.0527206	.1116367
#3	.0180733	.0357355	.0131720	.0206054	.0522095	.1125370

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1049864	.0063975	.0051647	2.121906	.0099816	.0295458
Stddev	.0010271	.0000761	.0000727	.021477	.0001439	.0001869
%RSD	.9783646	1.188911	1.406875	1.012134	1.441858	.6324264

#1	.1042880	.0063268	.0051508	2.104726	.0099265	.0293353
#2	.1061658	.0064779	.0052433	2.145984	.0098733	.0296922
#3	.1045054	.0063877	.0051000	2.115009	.0101449	.0296098

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0219381	.1070915	.0202557	2.100126	.0402692	.0105470
Stddev	.0002989	.0025244	.0005553	.016419	.0003493	.0003062
%RSD	1.362249	2.357273	2.741536	.7817938	.8674345	2.903146

#1	.0216349	.1097994	.0200810	2.109597	.0406349	.0102847
#2	.0219471	.1066719	.0198088	2.109613	.0399390	.0104727
#3	.0222324	.1048031	.0208774	2.081167	.0402337	.0108835

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.696411	.0388239	.0418397	1.678148	.1021342	.1960907
Stddev	.009760	.0012322	.0001806	.022548	.0010879	.0001791
%RSD	.5753042	3.173931	.4315330	1.343623	1.065192	.0913307

#1	1.696258	.0374014	.0419626	1.703703	.1016515	.1961192
#2	1.686729	.0395632	.0419241	1.669688	.1033800	.1958990
#3	1.706247	.0395071	.0416324	1.661054	.1013711	.1962538

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001201	-.001159	.0001488	-.001194	.0015030	-.005917	.0024582
Stddev	.001529	.000629	.0011116	.000590	.0027281	.008277	.0007452
%RSD	127.2359	54.28120	746.8722	49.46547	181.5165	139.8970	30.31377
#1	-.002781	-.000765	.0014103	-.000547	-.001521	-.011182	.0032737
#2	-.001094	-.001885	-.000688	-.001330	.002250	.003624	.0018127
#3	.000271	-.000827	-.000276	-.001704	.003780	-.010192	.0022883
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000893	.0000010	.0037782	-.000034	-.000165	-.000102	-.002066
Stddev	.0000896	.0001313	.0052832	.000394	.000083	.000435	.001139
%RSD	100.4057	12855.10	139.8352	1149.694	50.01328	426.7492	55.12480
#1	.0001371	.0001221	-.002137	.000031	-.000166	-.000590	-.003160
#2	.0001448	.0000195	.005442	-.000457	-.000082	.000035	-.000887
#3	-.000014	-.000139	.008029	.000323	-.000248	.000248	-.002150
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002171	-.001002	.0000703	.0001015	-.235137	-.004935	-.000151
Stddev	.0002085	.009925	.0001929	.0005326	.005608	.001453	.000102
%RSD	96.03323	990.2316	274.1968	524.7721	2.385026	29.43946	67.54174
#1	.0001578	.006846	.0002524	-.000476	-.241397	-.006470	-.000033
#2	.0000448	.002306	.0000905	.000573	-.230573	-.004755	-.000209
#3	.0004489	-.012159	-.000132	.000208	-.233441	-.003581	-.000211
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.270687	-.000721	-.000191	.0000670	.0069134	-.003586	-.001761
Stddev	.019943	.000781	.000127	.0005677	.0009416	.009264	.001971
%RSD	7.367471	108.3069	66.61105	847.5112	13.61960	258.3430	111.9674
#1	-.247825	-.001595	-.000047	-.000481	.0058773	-.000710	-.003095
#2	-.279732	-.000092	-.000289	.000030	.0071459	-.013946	-.002691
#3	-.284505	-.000477	-.000237	.000652	.0077169	.003899	.000504

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003569	-.007519	-.000103
Stddev	.0019391	.001403	.000037
%RSD	543.2233	18.66297	36.15881

#1	.0024755	-.006343	-.000131
#2	-.001330	-.007141	-.000061
#3	-.000075	-.009072	-.000117

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5391.906	84546.57	7946.614	4348.512	6876.961
Stddev	21.663	185.60	14.827	10.371	23.894
%RSD	.4017729	.2195290	.1865817	.2384954	.3474524

#1	5410.898	84710.98	7963.735	4350.601	6900.516
#2	5396.509	84583.43	7937.984	4357.679	6877.625
#3	5368.311	84345.30	7938.124	4337.255	6852.742

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0188949	.0390312	.0115279	.0210047	.0491105	.1049337	.1049164
Stddev	.0013762	.0011430	.0005684	.0008266	.0008934	.0100357	.0011615
%RSD	7.283566	2.928351	4.930385	3.935254	1.819060	9.563832	1.107096

#1	.0181168	.0390233	.0109055	.0200555	.0500130	.1023910	.1035963
#2	.0180839	.0401780	.0120194	.0213928	.0490920	.0964140	.1053706
#3	.0204839	.0378921	.0116589	.0215659	.0482266	.1159962	.1057821

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069441	.0051432	2.147565	.0100311	.0287791	.0211340	.1060289
Stddev	.0001433	.0000703	.013960	.0000942	.0004201	.0008363	.0055297
%RSD	2.062962	1.366157	.6500376	.9390848	1.459621	3.957032	5.215297

#1	.0067921	.0050989	2.131448	.0099418	.0282972	.0201687	.0999785
#2	.0069637	.0051066	2.155371	.0101295	.0290682	.0215951	.1072871
#3	.0070766	.0052242	2.155876	.0100220	.0289718	.0216382	.1108211

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203941	2.075601	.0390482	.0109474	1.566630	.0385760	.0423876
Stddev	.0003350	.010563	.0009643	.0006462	.011443	.0041798	.0001087
%RSD	1.642881	.5089102	2.469544	5.902573	.7303966	10.83532	.2564435

#1	.0200105	2.065089	.0379358	.0116388	1.559714	.0415819	.0423632
#2	.0205419	2.075501	.0396476	.0108446	1.579838	.0338028	.0425064
#3	.0206298	2.086214	.0395611	.0103588	1.560338	.0403433	.0422932

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.700385	.1084855	.1965915	.0376479	.0445641	.3122359	.0160343
Stddev	.024590	.0005052	.0031181	.0007416	.0015457	.0102751	.0010595
%RSD	1.446144	.4656825	1.586080	1.969704	3.468513	3.290824	6.607925

#1	1.672071	.1080938	.1929980	.0367991	.0447624	.3135888	.0157400
#2	1.712694	.1083071	.1985820	.0379746	.0429288	.3217675	.0172099
#3	1.716389	.1090558	.1981946	.0381701	.0460011	.3013513	.0151531

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0188880	.0143478	.0219989
Stddev	.0029820	.0022001	.0002408
%RSD	15.78782	15.33423	1.094507

#1	.0209645	.0168707	.0217219
#2	.0202285	.0128279	.0221170
#3	.0154710	.0133449	.0221578

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5455.149	86165.88	7489.963	4415.392	6959.615
Stddev	82.972	180.41	82.628	2.169	109.057
%RSD	1.520990	.2093751	1.103188	.0491201	1.567002

#1	5550.085	86238.41	7585.284	4413.351	7084.676
#2	5396.511	85960.50	7438.712	4417.670	6884.305
#3	5418.851	86298.74	7445.894	4415.156	6909.864

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074615	.0123153	-.004038	-.002674	-.002430	255.8305
Stddev	.0030265	.0016369	.000917	.002744	.001322	1.9246
%RSD	40.56152	13.29128	22.71080	102.5819	54.40361	.7522920

#1	.0051316	.0132585	-.002998	.000365	-.003936	253.6518
#2	.0063707	.0132621	-.004730	-.003421	-.001894	257.2995
#3	.0108822	.0104252	-.004386	-.004968	-.001460	256.5401

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060167	.0012735	.0043541	247.4481	.0542475	.0013565
Stddev	.0006557	.0000331	.0000899	.3207	.0000997	.0002276
%RSD	10.89879	2.598877	2.065160	.1295996	.1837348	16.77400

#1	.0057745	.0013095	.0042847	247.5667	.0541743	.0013490
#2	.0055164	.0012444	.0043219	247.0849	.0542071	.0015878
#3	.0067590	.0012666	.0044557	247.6925	.0543610	.0011329

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216502	102.6116	.0074939	255.1288	.0037506	.0028116
Stddev	.0004000	.6045	.0000341	1.4163	.0003235	.0001519
%RSD	1.847534	.5891013	.4553340	.5551454	8.626394	5.401675

#1	.0214603	103.2634	.0075332	254.1781	.0034410	.0028971
#2	.0213805	102.0694	.0074766	254.4517	.0040865	.0026363
#3	.0221097	102.5021	.0074719	256.7566	.0037243	.0029015

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.089907	-.000494	.0019821	-.133296	.0213613	.0003556
Stddev	.002208	.000881	.0001990	.040709	.0052446	.0005627
%RSD	2.455509	178.5848	10.04172	30.54038	24.55200	158.2211

#1	-.088293	.000489	.0018526	-.087532	.0274126	.0001902
#2	-.089005	-.001214	.0018824	-.146880	.0181291	-.000106
#3	-.092423	-.000755	.0022113	-.165476	.0185423	.000983

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1041313	.1089710	.0432068	.0444905	.6161438	256.0557
Stddev	.0031115	.0029299	.0023614	.0039902	.0082448	2.3849
%RSD	2.988046	2.688675	5.465341	8.968740	1.338124	.9314022

#1	.1005417	.1073629	.0459251	.0462576	.6123664	253.3342
#2	.1060575	.1071974	.0416623	.0472920	.6104645	257.0519
#3	.1057947	.1123528	.0420331	.0399218	.6256005	257.7810

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5125734	.5061476	.8544225	250.1053	.5245217	.4943719
Stddev	.0017980	.0016577	.0030783	1.4648	.0031591	.0021023
%RSD	.3507748	.3275048	.3602816	.5856800	.6022840	.4252372

#1	.5111371	.5050070	.8517013	249.0479	.5218181	.4925678
#2	.5119933	.5053867	.8538026	249.4907	.5279943	.4938675
#3	.5145898	.5080491	.8577636	251.7773	.5237527	.4966805

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5049799	98.52263	.5042577	255.5546	.9772079	.2155921
Stddev	.0023356	.65287	.0024152	1.1654	.0017623	.0007693
%RSD	.4625037	.6626559	.4789519	.4560211	.1803366	.3568105

#1	.5027288	97.77043	.5015344	254.4555	.9758547	.2152753
#2	.5048193	98.85533	.5050990	255.4318	.9765684	.2150318
#3	.5073916	98.94212	.5061397	256.7766	.9792007	.2164692

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.145035	.4757031	1.050332	-.226193	F -.007504	F .0002775
Stddev	.003832	.0043303	.003200	.010068	.002585	.0001737
%RSD	2.642264	.9102872	.3046772	4.451001	34.44311	62.61364

#1	-.141788	.4792113	1.047308	-.233471	-.009186	.0004685
#2	-.144054	.4708635	1.053683	-.230406	-.004528	.0001288
#3	-.149262	.4770345	1.050005	-.214703	-.008798	.0002351

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.003802	F .0012420	F -.015321	F .0066378	F -.007124	F .0497702
Stddev	.000981	.0022151	.009464	.0012736	.001021	.0033474
%RSD	25.81199	178.3462	61.77109	19.18702	14.33435	6.725767

#1	-.004225	.0006470	-.010307	.0077259	-.007375	.0459050
#2	-.004502	-.000615	-.026237	.0052370	-.007997	.0517277
#3	-.002680	.003694	-.009419	.0069506	-.006001	.0516778

Elem	Sr4077
Units	ppm
Avg	F .0099504
Stddev	.0003958
%RSD	3.977934

#1	.0104007
#2	.0097937
#3	.0096570

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4733.200	80064.03	7681.680	3953.718	5498.236
Stddev	16.942	313.05	37.834	7.213	17.352
%RSD	.3579340	.3909957	.4925248	.1824287	.3155938

#1	4744.568	80407.60	7698.491	3960.250	5512.065
#2	4741.303	79989.53	7708.197	3954.927	5503.879
#3	4713.728	79794.95	7638.354	3945.978	5478.765

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003036	-.000420	-.000791	.0000731	-.000658	12.42552	.0035785
Stddev	.000920	.000871	.000663	.0037108	.000171	.02276	.0007873
%RSD	30.30501	207.5193	83.72439	5076.230	25.96287	.1832086	22.00183

#1	-.003427	-.000944	-.001554	-.002958	-.000852	12.40342	.0037308
#2	-.003696	.000585	-.000459	.004212	-.000529	12.44890	.0027261
#3	-.001985	-.000900	-.000361	-.001034	-.000593	12.42425	.0042785

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002257	.0001001	12.86255	.0027834	.0000569	.0010833	5.201629
Stddev	.0000397	.0000330	.00908	.0003200	.0001954	.0004527	.101154
%RSD	17.58583	32.97329	.0706214	11.49701	343.3227	41.79127	1.944658

#1	.0001817	.0001018	12.87009	.0025424	.0002650	.0009294	5.163895
#2	.0002369	.0001321	12.86510	.0026614	.0000283	.0015928	5.124765
#3	.0002587	.0000662	12.85246	.0031465	-.000123	.0007275	5.316225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000100	12.88041	.0005572	.0005499	-.240106	-.002155	.0000593
Stddev	.000485	.02013	.0002172	.0001167	.005568	.002825	.0001493
%RSD	484.6540	.1562911	38.98333	21.22096	2.319133	131.1095	251.9628

#1	-.000455	12.89371	.0003103	.0004363	-.245838	-.000954	.0000527
#2	.000453	12.85725	.0007188	.0005439	-.239761	-.000129	-.000087
#3	-.000299	12.89026	.0006426	.0006694	-.234718	-.005382	.000212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.342510	-.000266	-.000094	-.000537	.0074395	-.004007	-.000514
Stddev	.007856	.000921	.000217	.000039	.0002146	.006487	.001299
%RSD	2.293619	346.3962	229.7618	7.201466	2.885177	161.9117	252.9035

#1	-.340483	-.001031	.000037	-.000581	.0072630	-.004993	.000986
#2	-.335866	-.000523	.000025	-.000523	.0076784	.002917	-.001280
#3	-.351180	.000756	-.000344	-.000507	.0073770	-.009944	-.001247

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003032	-.008783	-.000000
Stddev	.000908	.002519	.000098
%RSD	29.95752	28.67718	19689.76

#1	-.003851	-.007243	.000003
#2	-.002055	-.011690	.000096
#3	-.003189	-.007417	-.000101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5340.943	83382.65	8080.461	4251.368	6730.816
Stddev	20.750	1949.48	21.486	102.595	19.512
%RSD	.3885054	2.337989	.2658954	2.413221	.2898922

#1	5363.878	84334.23	8098.761	4292.002	6752.365
#2	5335.481	84673.58	8085.818	4327.421	6725.736
#3	5323.471	81140.13	8056.804	4134.680	6714.346

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038819	.0044992	.0019013	.0016589	.0303753	12.34695	.0272193
Stddev	.0012364	.0002448	.0019951	.0023355	.0021248	.02523	.0006442
%RSD	31.84929	5.440124	104.9338	140.7875	6.995112	.2043052	2.366613

#1	.0038193	.0045792	.0040386	.0038137	.0280083	12.32155	.0275605
#2	.0026781	.0046939	.0000880	-.000823	.0309995	12.37200	.0264763
#3	.0051484	.0042244	.0015773	.001986	.0321180	12.34731	.0276212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0253423	.0422366	12.81461	.0269547	.0243066	.0266186	4.994273
Stddev	.0001074	.0003338	.04248	.0002231	.0002303	.0003279	.012422
%RSD	.4238175	.7902766	.3314650	.8275786	.9475872	1.231843	.2487170

#1	.0252777	.0423031	12.83612	.0267084	.0245457	.0263405	5.005482
#2	.0252829	.0418746	12.76568	.0271432	.0240862	.0265352	4.996418
#3	.0254663	.0425321	12.84202	.0270125	.0242879	.0269802	4.980918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0254759	12.78489	.0491378	.0110404	-.251411	.0236794	.0511481
Stddev	.0003990	.07238	.0001891	.0004190	.006943	.0006445	.0001265
%RSD	1.566243	.5661671	.3847626	3.794869	2.761783	2.721701	.2472892

#1	.0253718	12.70734	.0493470	.0105574	-.245751	.0240060	.0512881
#2	.0259166	12.79668	.0490876	.0112594	-.249322	.0229370	.0511141
#3	.0251393	12.85066	.0489790	.0113046	-.259159	.0240951	.0510421

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.324532	-.001628	-.000013	-.001107	.0073346	-.014590	-.000851
Stddev	.027360	.000645	.000119	.000216	.0010538	.003785	.002713
%RSD	8.430478	39.60621	920.3191	19.54953	14.36761	25.94223	318.9371

#1	-.294390	-.001371	.000027	-.001341	.0069145	-.010273	-.003960
#2	-.347798	-.002362	.000081	-.000913	.0065557	-.016162	.001037
#3	-.331408	-.001152	-.000146	-.001068	.0085337	-.017337	.000371

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.076612	5.310575	4.935100	5.143401	5.204784	10.15402	10.45821
Stddev	.028452	.024649	.024625	.030248	.027002	.04642	.18952
%RSD	.5604522	.4641491	.4989780	.5880892	.5187875	.4571509	1.812212

#1	5.098609	5.285115	4.960730	5.159985	5.224373	10.20758	10.65485
#2	5.044480	5.312286	4.911621	5.108489	5.173982	10.12907	10.44305
#3	5.086748	5.334324	4.932950	5.161730	5.215996	10.12541	10.27671

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2523064	2.451752	26.31168	.9645707	2.502710	1.271704	5.238009
Stddev	.0031142	.015541	.07206	.0039632	.015376	.006023	.032066
%RSD	1.234291	.6338611	.2738564	.4108773	.6143547	.4736007	.6121818

#1	.2557392	2.469310	26.39348	.9667758	2.517916	1.277827	5.205550
#2	.2515172	2.446185	26.25763	.9669409	2.487170	1.265787	5.269667
#3	.2496626	2.439762	26.28392	.9599954	2.503044	1.271497	5.238809

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.582518	24.91328	2.499392	1.296657	26.05138	2.521348	2.615247
Stddev	.009884	.12833	.015514	.005997	.17636	.008765	.014819
%RSD	.3827266	.5151097	.6207158	.4625343	.6769593	.3476322	.5666506

#1	2.593185	25.05869	2.515333	1.300655	25.84778	2.530985	2.619858
#2	2.573669	24.86528	2.484343	1.299554	26.14970	2.519208	2.627212
#3	2.580700	24.81587	2.498499	1.289761	26.15665	2.513851	2.598670

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.19150	5.107121	5.193152	4.984085	5.042051	5.054994	4.895252
Stddev	.23614	.061430	.026512	.022513	.013309	.039824	.021636
%RSD	.9015971	1.202829	.5105191	.4517030	.2639568	.7878123	.4419878

#1	25.92823	5.172244	5.214915	5.005022	5.056843	5.021575	4.913408
#2	26.26165	5.098909	5.163625	4.960272	5.038264	5.044349	4.871311
#3	26.38462	5.050211	5.200916	4.986960	5.031047	5.099059	4.901036

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.934205	4.962465	5.329495
Stddev	.023875	.013459	.113098
%RSD	.4838763	.2712114	2.122120

#1	4.951984	4.977905	5.458547
#2	4.907068	4.956278	5.247638
#3	4.943563	4.953213	5.282300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5085.283	85042.24	8136.221	4173.540	6127.176
Stddev	30.077	90.16	78.639	15.723	40.253
%RSD	.5914472	.1060227	.9665275	.3767346	.6569632

#1	5052.998	85022.49	8048.959	4174.434	6084.431
#2	5112.509	84963.58	8158.099	4157.389	6164.359
#3	5090.343	85140.64	8201.603	4188.797	6132.739

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001891	-.000527	.0005796	.0005070	.0005427	-.016217	.0021442
Stddev	.002084	.000535	.0002273	.0008613	.0037009	.010469	.0001429
%RSD	110.2087	101.4432	39.21765	169.8787	681.9330	64.55886	6.664051

#1	-.002614	-.000237	.0003448	-.000388	.0045155	-.028179	.0019803
#2	-.003517	-.000200	.0005953	.000579	-.000080	-.011749	.0022423
#3	.000458	-.001144	.0007985	.001330	-.002807	-.008722	.0022102

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001530	.0001587	.0094870	-.000033	-.000028	.0001501	-.003891
Stddev	.0000749	.0000777	.0067220	.000175	.000068	.0001667	.005312
%RSD	48.94827	48.98821	70.85478	532.3517	246.2769	111.0378	136.5205

#1	.0001489	.0002437	.0145531	.000148	-.000103	.0002675	-.005653
#2	.0002299	.0000913	.0120466	-.000044	.000028	-.000041	.002078
#3	.0000803	.0001409	.0018612	-.000202	-.000008	.000224	-.008098

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000005	.0131578	.0003818	.0009326	-.255850	-.001999	.0002230
Stddev	.000453	.0093163	.0002558	.0002761	.013844	.000817	.0002060
%RSD	9231.870	70.80432	66.98901	29.60032	5.410855	40.83953	92.38179

#1	.000450	.0092278	.0006201	.0010379	-.262996	-.002553	.0000824
#2	-.000008	.0237952	.0004137	.0006194	-.239893	-.002384	.0004594
#3	-.000456	.0064504	.0001116	.0011406	-.264660	-.001062	.0001271

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.268073	.0162858	.0008487	.0003758	.0081782	.0000614	-.000146
Stddev	.032093	.0019540	.0000434	.0005527	.0004798	.0079934	.000865
%RSD	11.97171	11.99823	5.110521	147.0558	5.867335	13016.84	591.2104

#1	-.237585	.0184151	.0008006	-.000018	.0079062	.0060195	.000657
#2	-.301561	.0158673	.0008849	.000138	.0087323	.0031872	-.000034
#3	-.265074	.0145749	.0008606	.001008	.0078961	-.009023	-.001062

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005326	-.007707	.0003600
Stddev	.0006841	.002911	.0000084
%RSD	128.4400	37.76813	2.338385

#1	.0013137	-.010905	.0003659
#2	.0000396	-.007000	.0003637
#3	.0002446	-.005214	.0003503

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5236.332	87658.47	8280.788	4351.024	6613.378
Stddev	2.423	318.26	192.196	21.445	13.486
%RSD	.0462781	.3630632	2.320990	.4928666	.2039143

#1	5233.707	87750.00	8188.129	4350.173	6598.988
#2	5238.485	87304.48	8152.475	4330.017	6615.418
#3	5236.803	87920.93	8501.761	4372.881	6625.727

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002109	-.000898	.0007271	-.002601	.0015703	-.015988	.0001910
Stddev	.000722	.001237	.0011529	.001725	.0006838	.005504	.0005631
%RSD	34.23602	137.8310	158.5679	66.30811	43.54921	34.42750	294.7496

#1	-.001436	.000515	.0004358	-.003914	.0008308	-.022192	-.000447
#2	-.002019	-.001790	.0019976	-.000648	.0021799	-.014083	.000401
#3	-.002872	-.001417	-.000252	-.003243	.0017000	-.011690	.000619

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001275	.0001814	.0128439	-.000132	.0001283	.0000701	-.003676
Stddev	.0000235	.0000903	.0129941	.000335	.0000759	.0003991	.001875
%RSD	18.39747	49.76734	101.1695	252.9194	59.12237	569.0606	51.00145

#1	.0001496	.0001669	.0197950	.000167	.0001683	-.000089	-.002643
#2	.0001029	.0000993	.0208841	-.000071	.0000408	-.000225	-.005839
#3	.0001301	.0002781	-.002147	-.000494	.0001758	.000524	-.002545

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000656	.0102124	-.000160	.0006784	-.285849	-.001646	-.000134
Stddev	.000568	.0195545	.000284	.0002427	.004071	.001345	.000097
%RSD	86.55191	191.4773	177.4084	35.77066	1.424106	81.74344	72.46689

#1	-.000378	.0316073	-.000127	.0006226	-.287872	-.001287	-.000023
#2	-.000281	.0057656	.000106	.0004685	-.288511	-.003134	-.000176
#3	-.001309	-.006736	-.000460	.0009442	-.281162	-.000516	-.000202

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.265954	.0105390	.0000455	.0004881	.0077275	-.007771	-.001652
Stddev	.016336	.0011731	.0001714	.0000789	.0005109	.006486	.001981
%RSD	6.142297	11.13140	377.1684	16.17535	6.611734	83.46058	119.9025

#1	-.263570	.0115581	.0000107	.0004307	.0079499	-.015260	-.003920
#2	-.283351	.0108023	-.000106	.0004553	.0080896	-.004058	-.000258
#3	-.250942	.0092566	.000232	.0005781	.0071431	-.003995	-.000779

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001296	-.007483	-.000112
Stddev	.0010096	.003533	.000074
%RSD	778.9342	47.21338	65.92197

#1	.0012815	-.003410	-.000131
#2	-.000291	-.009321	-.000174
#3	-.000601	-.009719	-.000030

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5210.480	89918.89	8141.690	4431.128	6572.126
Stddev	2.638	209.52	209.635	10.825	10.573
%RSD	.0506202	.2330102	2.574838	.2442870	.1608828

#1	5209.897	89715.38	8270.394	4419.723	6561.413
#2	5213.360	90133.94	7899.790	4432.402	6582.554
#3	5208.183	89907.34	8254.887	4441.260	6572.410

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7854803	2.057080	.9498442	2.006886	.8921309	2.046879
Stddev	.0036082	.019574	.0059499	.014773	.0053169	.010385
%RSD	.4593690	.9515286	.6264048	.7361206	.5959745	.5073500

#1	.7891334	2.074530	.9565637	2.020993	.8980067	2.051867
#2	.7819186	2.035915	.9452445	1.991526	.8876517	2.053829
#3	.7853888	2.060795	.9477246	2.008139	.8907344	2.034942

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2135333	.2219577	.1695258	1.132387	.3951015	.2014806
Stddev	.0023960	.0004466	.0002255	.004434	.0011226	.0008060
%RSD	1.122086	.2012085	.1330268	.3915450	.2841208	.4000184

#1	.2113483	.2219309	.1697858	1.128978	.3944005	.2024006
#2	.2160956	.2224171	.1694074	1.137399	.3963962	.2008991
#3	.2131560	.2215251	.1693842	1.130783	.3945077	.2011422

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3182853	2.967825	.2161673	2.070051	.5076107	.0787182
Stddev	.0020927	.010555	.0024387	.052369	.0028175	.0003652
%RSD	.6574987	.3556587	1.128180	2.529855	.5550416	.4639690

#1	.3206717	2.956911	.2146552	2.102182	.5106256	.0786605
#2	.3167633	2.977980	.2189807	2.098351	.5050446	.0791088
#3	.3174208	2.968585	.2148659	2.009621	.5071617	.0783852

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.500731	.3043510	.2178001	9.628307	.3404152	.4460913
Stddev	.023629	.0038747	.0010598	.042455	.0007127	.0030157
%RSD	.9448961	1.273091	.4865745	.4409437	.2093736	.6760194

#1	2.473492	.3063942	.2184037	9.579319	.3408692	.4492734
#2	2.515723	.3067764	.2184201	9.654414	.3407826	.4432755
#3	2.512978	.2998824	.2165764	9.651188	.3395937	.4457250

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7379193	.2207851	.8403137	5.679362	F .0003967	.1858256
Stddev	.0061314	.0026176	.0181520	.035749	.0020259	.0018448
%RSD	.8309079	1.185576	2.160147	.6294592	510.6616	.9927828

#1	.7445431	.2177758	.8585746	5.714157	-.000689	.1842771
#2	.7324421	.2220453	.8222726	5.642729	.002734	.1878667
#3	.7367727	.2225342	.8400939	5.681201	-.000855	.1853330

Elem	Sr4077
Units	ppm
Avg	.2143283
Stddev	.0015597
%RSD	.7277407

#1	.2129140
#2	.2160012
#3	.2140698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5261.508	88985.05	7747.032	4381.702	6564.544
Stddev	29.464	286.32	40.355	9.502	33.040
%RSD	.5599958	.3217672	.5209131	.2168577	.5033127

#1	5229.149	89299.07	7776.271	4386.394	6527.398
#2	5286.787	88738.45	7700.990	4370.767	6590.653
#3	5268.589	88917.63	7763.835	4387.946	6575.581

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0486956	.0013407	.6063524	-.000315	-.010663	102.4314	.5047329
Stddev	.0016903	.0006216	.0005860	.000350	.001973	.3084	.0011162
%RSD	3.471131	46.36169	.0966491	111.0439	18.50297	.3010959	.2211546

#1	.0493220	.0006860	.6063740	-.000079	-.012937	102.6025	.5049242
#2	.0467815	.0014133	.6069274	-.000149	-.009409	102.0754	.5035334
#3	.0499833	.0019228	.6057559	-.000716	-.009641	102.6164	.5057412

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077994	.0235541	42.32255	.1689997	.1197704	.3277853	220.8532
Stddev	.0001017	.0000712	.28063	.0005558	.0003717	.0009772	1.1133
%RSD	1.303314	.3021396	.6630844	.3288670	.3103565	.2981178	.5040769

#1	.0077578	.0235428	42.30666	.1684852	.1196771	.3270091	219.6526
#2	.0077251	.0236302	42.05020	.1695892	.1201798	.3274640	221.8513
#3	.0079152	.0234893	42.61079	.1689247	.1194541	.3288826	221.0558

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.352034	30.97488	.2328166	.0054922	9.735627	.4365317	.5258257
Stddev	.018890	.15792	.0001867	.0008317	.060486	.0032025	.0017148
%RSD	.4340395	.5098206	.0801927	15.14311	.6212849	.7336169	.3261242

#1	4.350091	31.00181	.2326564	.0047312	9.683489	.4392704	.5262256
#2	4.334191	30.80523	.2327718	.0063800	9.801942	.4330105	.5239463
#3	4.371820	31.11760	.2330216	.0053653	9.721448	.4373143	.5273053

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.767398	.0034991	.0053383	.0162030	3.720114	1.430055	6.578784
Stddev	.013080	.0031342	.0002414	.0005453	.006970	.006942	.036591
%RSD	.1932846	89.57072	4.521969	3.365172	.1873571	.4854316	.5561954

#1	6.753451	.0022136	.0052958	.0160282	3.714472	1.429977	6.543815
#2	6.779391	.0070717	.0051210	.0168143	3.717964	1.437036	6.575732
#3	6.769353	.0012121	.0055981	.0157666	3.727905	1.423152	6.616805

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.530349	.1631508	-.050814
Stddev	.012682	.0024051	.001503
%RSD	.2293170	1.474129	2.957458

#1	5.528783	.1613312	-.049350
#2	5.543742	.1658775	-.052352
#3	5.518523	.1622439	-.050740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6329.869	104343.1	9973.248	5127.174	6049.545
Stddev	22.556	200.3	71.845	10.609	19.113
%RSD	.3563421	.1920049	.7203797	.2069152	.3159349

#1	6355.738	104574.3	9948.108	5121.242	6070.377
#2	6314.317	104221.4	10054.29	5139.422	6032.820
#3	6319.551	104233.5	9917.35	5120.858	6045.439

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3856665	.0013610	3.683126	.0437254	.1276217	38.59354
Stddev	.0054436	.0009740	.008481	.0023194	.0023059	.05969
%RSD	1.411480	71.56986	.2302684	5.304431	1.806809	.1546504

#1	.3797597	.0022709	3.674520	.0410611	.1296905	38.58435
#2	.3867585	.0003335	3.683381	.0452933	.1251357	38.53898
#3	.3904814	.0014785	3.691476	.0448218	.1280389	38.65729

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.050522	.0127373	.0297368	20.29180	.1933291	.1478574
Stddev	.002319	.0000359	.0005155	.03304	.0009083	.0006614
%RSD	.2207062	.2820991	1.733638	.1628068	.4698160	.4472931

#1	1.053196	.0127386	.0294204	20.32568	.1926704	.1471527
#2	1.049077	.0127007	.0294582	20.29004	.1929516	.1479548
#3	1.049292	.0127725	.0303317	20.25968	.1943653	.1484646

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.359427	469.6948	3.409593	4.487469	.3813274	.0113452
Stddev	.001666	3.4789	.004817	.031155	.0004891	.0012351
%RSD	.1225160	.7406792	.1412880	.6942602	.1282588	10.88681

#1	1.360317	468.8784	3.412435	4.503076	.3808214	.0102402
#2	1.357506	473.5093	3.404031	4.451595	.3817976	.0126786
#3	1.360459	466.6966	3.412313	4.507735	.3813632	.0111169

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.35981	.2410702	2.684394	5.495354	-.081314	.0369468
Stddev	.04816	.0026992	.003227	.011744	.012216	.0003803
%RSD	.2774019	1.119654	.1202298	.2137098	15.02258	1.029338

#1	17.30497	.2407434	2.684195	5.502271	-.088260	.0365268
#2	17.37921	.2385494	2.687716	5.481794	-.067210	.0370456
#3	17.39523	.2439179	2.681270	5.501997	-.088474	.0372679

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2554034	2.792543	2.680253	8.084298	F 23.23697	.2197666
Stddev	.0001460	.003093	.013305	.024978	.06445	.0005975
%RSD	.0571629	.1107752	.4963998	.3089688	.2773799	.2718894

#1	.2555638	2.793224	2.667474	8.104359	23.19524	.2192409
#2	.2552783	2.795240	2.679258	8.056322	23.20446	.2204164
#3	.2553681	2.789166	2.694028	8.092215	23.31120	.2196424

Elem	Sr4077
Units	ppm
Avg	-.098846
Stddev	.003333
%RSD	3.372027

#1	-.097776
#2	-.102582
#3	-.096179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5424.172	95003.15	9060.853	4590.283	5900.261
Stddev	1.447	101.91	39.352	12.727	3.470
%RSD	.0266858	.1072682	.4343068	.2772540	.0588043

#1	5423.363	94950.00	9015.523	4585.840	5900.853
#2	5423.310	94938.79	9080.781	4580.373	5896.533
#3	5425.843	95120.64	9086.255	4604.636	5903.396

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0230399	.0010745	.0262127	.0041598	-.006154	26.95671	.0502947
Stddev	.0021596	.0007402	.0017263	.0019585	.000572	.08682	.0011543
%RSD	9.373272	68.89393	6.585737	47.08241	9.287729	.3220733	2.295005

#1	.0254012	.0002562	.0269024	.0037404	-.005512	27.05693	.0516182
#2	.0211650	.0012697	.0242482	.0024449	-.006342	26.90454	.0497697
#3	.0225535	.0016975	.0274876	.0062940	-.006608	26.90865	.0494963

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023343	.0033570	2.166101	.0524734	.0030087	.0441380	97.80305
Stddev	.0000130	.0000619	.005583	.0001521	.0004111	.0004593	.13042
%RSD	.5566271	1.842796	.2577507	.2897896	13.66397	1.040674	.1333458

#1	.0023484	.0033263	2.169087	.0523618	.0025409	.0436107	97.92505
#2	.0023228	.0034282	2.159660	.0524118	.0031731	.0443520	97.81851
#3	.0023317	.0033164	2.169556	.0526466	.0033123	.0444512	97.66559

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0483415	.2054923	.0083762	.0035085	1.047488	.0846695	.0373217
Stddev	.0006361	.0125509	.0000628	.0003116	.014488	.0017922	.0001542
%RSD	1.315940	6.107698	.7492963	8.879863	1.383147	2.116737	.4132107

#1	.0490627	.2171060	.0083267	.0034477	1.044664	.0862167	.0373108
#2	.0481015	.1921778	.0083551	.0038459	1.034620	.0850861	.0371732
#3	.0478602	.2071930	.0084468	.0032318	1.063181	.0827056	.0374810

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5869889	-.050681	.0176494	.0048039	.8005934	2.449480	1.114776
Stddev	.0122697	.001050	.0001572	.0000854	.0010781	.015305	.008678
%RSD	2.090287	2.072162	.8905434	1.777998	.1346583	.6248270	.7784292

#1	.5906087	-.051272	.0175392	.0047143	.8005306	2.465494	1.113757
#2	.5970415	-.049469	.0175796	.0048131	.7995480	2.434999	1.106653
#3	.5733164	-.051303	.0178294	.0048844	.8017014	2.447946	1.123918

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1450889	.0338726	-.083924
Stddev	.0020061	.0029012	.000066
%RSD	1.382653	8.564968	.0784111

#1	.1428746	.0305226	-.083953
#2	.1456072	.0355422	-.083849
#3	.1467850	.0355529	-.083971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5335.056	89154.32	7852.095	4400.611	6590.619
Stddev	13.434	151.71	16.338	6.613	24.404
%RSD	.2518078	.1701702	.2080682	.1502676	.3702799

#1	5335.037	89210.74	7838.925	4405.505	6592.851
#2	5348.499	89269.74	7870.378	4403.240	6613.831
#3	5321.631	88982.48	7846.982	4393.088	6565.176

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0194360	-.000081	.0282349	.0028773	-.004996	24.45061	.0484185
Stddev	.0028845	.001597	.0013951	.0019655	.003294	.07122	.0007654
%RSD	14.84112	1975.648	4.941187	68.31097	65.93258	.2912955	1.580727

#1	.0221954	.001463	.0278090	.0020559	-.002755	24.52891	.0492900
#2	.0196718	-.001726	.0271024	.0014557	-.008777	24.38968	.0481094
#3	.0164409	.000020	.0297934	.0051203	-.003454	24.43323	.0478559

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022216	.0033645	1.977274	.0557510	.0029250	.0410607	90.19327
Stddev	.0000339	.0000845	.006718	.0002135	.0001333	.0004842	.42424
%RSD	1.525669	2.512423	.3397533	.3828546	4.557142	1.179288	.4703732

#1	.0021825	.0032958	1.970961	.0559948	.0029011	.0407975	90.17544
#2	.0022425	.0033388	1.976527	.0556604	.0030686	.0407651	90.62615
#3	.0022399	.0034589	1.984335	.0555977	.0028053	.0416195	89.77822

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0494334	.1993488	.0085072	.0028713	.8611816	.0825718	.0383233
Stddev	.0007265	.0340321	.0004098	.0002151	.0035226	.0012807	.0001274
%RSD	1.469764	17.07166	4.816520	7.492743	.4090444	1.551023	.3323590

#1	.0495807	.1692221	.0089793	.0031058	.8652342	.0831748	.0383875
#2	.0500749	.2362633	.0082982	.0026830	.8588536	.0811009	.0381766
#3	.0486444	.1925610	.0082441	.0028250	.8594570	.0834396	.0384058

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5026041	-.049645	.0158010	.0048185	.8580543	2.472194	1.096283
Stddev	.0124627	.003512	.0001568	.0009727	.0049269	.011603	.004900
%RSD	2.479631	7.074631	.9924686	20.18612	.5741996	.4693207	.4469789

#1	.4915364	-.050594	.0157022	.0041679	.8630699	2.484676	1.090837
#2	.5001725	-.045755	.0159819	.0059367	.8578720	2.461738	1.097678
#3	.5161034	-.052584	.0157191	.0043510	.8532211	2.470169	1.100334

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015878	-.000512	.0061156	.0020276	-.002338	5.944455	.0108860
Stddev	.0025865	.001406	.0002350	.0005614	.000418	.007599	.0003927
%RSD	162.8957	274.5431	3.843000	27.68649	17.85983	.1278315	3.607490

#1	.0000088	.001070	.0059035	.0022334	-.002820	5.946768	.0110851
#2	.0001819	-.001619	.0063683	.0013924	-.002114	5.950629	.0104336
#3	.0045727	-.000987	.0060751	.0024570	-.002080	5.935968	.0111392

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004887	.0006227	.4494259	.0107674	.0006853	.0084332	20.60910
Stddev	.0000232	.0001951	.0050982	.0000994	.0002514	.0004642	.09161
%RSD	4.741873	31.32839	1.134380	.9231225	36.69089	5.504858	.4445292

#1	.0005083	.0008044	.4503843	.0107158	.0009727	.0084432	20.58771
#2	.0004947	.0004166	.4539770	.0107045	.0005064	.0088924	20.70951
#3	.0004632	.0006469	.4439166	.0108820	.0005766	.0079641	20.53007

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093000	.0414118	.0017105	.0014164	.0058196	.0159071	.0069179
Stddev	.0004552	.0056188	.0002744	.0003078	.0059701	.0043618	.0000148
%RSD	4.894344	13.56819	16.04418	21.72988	102.5866	27.42029	.2142639

#1	.0090147	.0427559	.0020204	.0011668	-.001069	.0109143	.0069031
#2	.0098250	.0352429	.0014985	.0017603	.009491	.0189773	.0069327
#3	.0090604	.0462368	.0016125	.0013221	.009036	.0178296	.0069180

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.021272	-.007726	.0029474	.0004534	.1783931	.8409419	.2187366
Stddev	.008443	.000737	.0001344	.0008701	.0009976	.0073760	.0051921
%RSD	39.68792	9.536948	4.561482	191.9000	.5592293	.8771131	2.373674

#1	-.012126	-.008025	.0028761	.0013128	.1788570	.8470855	.2229243
#2	-.028767	-.006887	.0028637	.0004746	.1772479	.8429785	.2203582
#3	-.022925	-.008266	.0031025	-.000427	.1790742	.8327615	.2129272

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0270071	-.002467	-.017817
Stddev	.0010035	.001866	.000094
%RSD	3.715660	75.62509	.5293571

#1	.0276330	-.001147	-.017753
#2	.0275385	-.004601	-.017925
#3	.0258496	-.001653	-.017772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5352.841	88475.93	7884.739	4391.731	6756.979
Stddev	13.626	145.55	40.124	12.912	16.141
%RSD	.2545641	.1645053	.5088816	.2940072	.2388830

#1	5352.849	88370.69	7852.752	4376.907	6765.128
#2	5366.463	88415.08	7929.760	4400.526	6767.421
#3	5339.210	88642.03	7871.707	4397.759	6738.387

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7442874	2.010514	.9840282	1.791986	.5415719	35.85928	.2659806
Stddev	.0012538	.013477	.0011447	.004011	.0028779	.02570	.0009127
%RSD	.1684586	.6703214	.1163305	.2238526	.5313932	.0716784	.3431305

#1	.7439692	2.004925	.9829210	1.794397	.5423892	35.88401	.2670218
#2	.7432234	2.000730	.9852071	1.787356	.5383737	35.86114	.2653191
#3	.7456697	2.025886	.9839564	1.794206	.5439527	35.83270	.2656009

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2020679	.1674520	2.986439	.4654605	.2092207	.3511589	96.17608
Stddev	.0012085	.0003773	.016237	.0002233	.0002802	.0008939	.29694
%RSD	.5980760	.2253267	.5436762	.0479771	.1339303	.2545664	.3087505

#1	.2007518	.1678608	2.968766	.4657130	.2089386	.3514364	96.46648
#2	.2031277	.1671171	3.000695	.4653796	.2092245	.3501591	95.87299
#3	.2023242	.1673780	2.989855	.4652890	.2094989	.3518812	96.18876

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2545354	2.414555	.5253013	.0862303	4.201828	.3903390	.2536780
Stddev	.0007076	.024622	.0008555	.0008473	.002025	.0040619	.0007121
%RSD	.2779978	1.019750	.1628509	.9826075	.0481821	1.040616	.2806974

#1	.2551897	2.442805	.5245954	.0863266	4.203970	.3905871	.2529955
#2	.2546320	2.397653	.5250559	.0853389	4.201566	.3861587	.2544164
#3	.2537844	2.403208	.5262527	.0870253	4.199947	.3942712	.2536222

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.16677	.2848407	.4373440	.6728680	1.001782	4.080705	6.720778
Stddev	.05936	.0018172	.0012149	.0025216	.002679	.018488	.027553
%RSD	.5315935	.6379651	.2777967	.3747584	.2674503	.4530523	.4099729

#1	11.21123	.2841029	.4375564	.6703624	1.002358	4.098442	6.722331
#2	11.09936	.2835084	.4360369	.6728362	1.004127	4.061549	6.692481
#3	11.18973	.2869107	.4384387	.6754054	.998862	4.082123	6.747522

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1376025	.2307897	.1356830
Stddev	.0006867	.0022950	.0004189
%RSD	.4990731	.9944114	.3087547

#1	.1376781	.2311695	.1355483
#2	.1382483	.2328712	.1353480
#3	.1368811	.2283286	.1361527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5183.051	84469.71	8244.894	4216.330	6348.459
Stddev	14.309	222.45	53.333	10.003	10.236
%RSD	.2760760	.2633487	.6468659	.2372544	.1612332

#1	5178.347	84719.15	8304.584	4223.349	6349.833
#2	5199.120	84398.09	8201.926	4204.876	6357.939
#3	5171.685	84291.89	8228.171	4220.766	6337.606

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7689115	2.007572	1.008484	1.819322	.4825358	55.28476	.2803968
Stddev	.0048108	.026307	.003760	.009146	.0011767	.09662	.0005456
%RSD	.6256657	1.310412	.3728443	.5027004	.2438464	.1747722	.1945784

#1	.7652510	2.027161	1.008226	1.827764	.4812192	55.37504	.2804788
#2	.7671231	1.977670	1.004860	1.809606	.4834847	55.18285	.2798148
#3	.7743604	2.017884	1.012366	1.820597	.4829034	55.29638	.2808967

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2068270	.1731160	4.194504	.5077234	.2153297	.3792494	148.7929
Stddev	.0008151	.0007283	.019572	.0019295	.0008241	.0009952	.1676
%RSD	.3941195	.4207014	.4665996	.3800251	.3827397	.2624123	.1126621

#1	.2073779	.1736892	4.172194	.5065761	.2149254	.3790188	148.6666
#2	.2058906	.1722965	4.202534	.5099511	.2147857	.3783898	148.7291
#3	.2072124	.1733623	4.208782	.5066431	.2162779	.3803397	148.9831

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2669234	2.514272	.5398037	.0881759	4.955013	.4299387	.2705999
Stddev	.0008997	.038424	.0011754	.0006144	.019520	.0048023	.0003141
%RSD	.3370537	1.528228	.2177475	.6967872	.3939458	1.116972	.1160810

#1	.2678338	2.534120	.5395111	.0875671	4.934787	.4326764	.2705552
#2	.2660348	2.538713	.5388022	.0887958	4.956511	.4243937	.2703105
#3	.2669015	2.469984	.5410977	.0881646	4.973741	.4327461	.2709340

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.28254	.2676500	.4518541	.6858784	1.032474	3.987868	7.374451
Stddev	.04825	.0019895	.0011792	.0029443	.002289	.017527	.026882
%RSD	.4276665	.7433216	.2609693	.4292690	.2217313	.4395091	.3645292

#1	11.22927	.2661779	.4528516	.6884136	1.030185	4.007407	7.373355
#2	11.32332	.2668587	.4505527	.6826491	1.032473	3.973531	7.348134
#3	11.29504	.2699134	.4521580	.6865725	1.034763	3.982664	7.401865

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2184917	.2621420	.0917051
Stddev	.0065217	.0023733	.0002108
%RSD	2.984879	.9053430	.2299131

#1	.2183492	.2607319	.0919462
#2	.2120425	.2608121	.0916144
#3	.2250836	.2648821	.0915549

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5144.130	86366.32	8239.247	4269.234	6214.038
Stddev	11.238	283.56	28.285	14.686	16.919
%RSD	.2184576	.3283261	.3432966	.3439947	.2722743

#1	5149.428	86466.91	8225.568	4276.177	6220.934
#2	5151.739	86585.87	8271.771	4279.161	6226.420
#3	5131.222	86046.17	8220.402	4252.364	6194.760

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7974604	1.998067	.9727171	1.921319	.8524702	28.98064	.2602082
Stddev	.0019142	.027123	.0040416	.004947	.0022081	.01505	.0004220
%RSD	.2400331	1.357472	.4154915	.2574899	.2590206	.0519144	.1621921

#1	.7975863	1.984307	.9699442	1.921932	.8545340	28.99631	.2603622
#2	.7954864	1.980581	.9708528	1.916094	.8501417	28.97931	.2597308
#3	.7993085	2.029312	.9773544	1.925931	.8527350	28.96630	.2605316

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2046883	.1664057	3.202727	.4470523	.2070221	.3522194	104.4256
Stddev	.0001319	.0004175	.013217	.0015317	.0005200	.0003998	.6270
%RSD	.0644245	.2508946	.4126914	.3426336	.2511777	.1135131	.6004559

#1	.2046749	.1664191	3.209786	.4461717	.2066559	.3523822	104.1429
#2	.2048263	.1659816	3.210916	.4461640	.2067932	.3517639	103.9897
#3	.2045636	.1668163	3.187479	.4488210	.2076173	.3525122	105.1443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2604811	2.220801	.5197565	.0832503	4.057683	.3925603	.2486032
Stddev	.0004697	.024705	.0017911	.0007232	.026894	.0032804	.0007264
%RSD	.1803293	1.112441	.3445952	.8687111	.6628042	.8356441	.2921815

#1	.2608183	2.239181	.5183040	.0828233	4.032332	.3953943	.2486595
#2	.2599446	2.230504	.5192078	.0828423	4.054824	.3933200	.2478503
#3	.2606805	2.192717	.5217577	.0840853	4.085893	.3889667	.2492998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.94710	.2693625	.4618702	.7278672	1.007250	3.598603	6.890978
Stddev	.06160	.0021182	.0012948	.0026862	.002966	.040633	.032391
%RSD	.5627378	.7863679	.2803343	.3690553	.2944400	1.129136	.4700470

#1	10.90889	.2686928	.4609627	.7269450	1.010097	3.563863	6.874024
#2	10.91424	.2676601	.4612950	.7257636	1.004178	3.588664	6.870583
#3	11.01816	.2717346	.4633529	.7308931	1.007474	3.643284	6.928327

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1347746	.2266546	.1222436
Stddev	.0026995	.0022974	.0009246
%RSD	2.002995	1.013598	.7563436

#1	.1340279	.2254084	.1229543
#2	.1325270	.2252496	.1225783
#3	.1377689	.2293058	.1211983

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5234.696	89018.15	8241.542	4346.023	6398.046
Stddev	5.672	405.24	14.826	21.127	9.018
%RSD	.1083541	.4552341	.1798955	.4861151	.1409499

#1	5237.362	89277.17	8225.055	4351.002	6408.061
#2	5238.544	89226.13	8245.791	4364.216	6395.509
#3	5228.182	88551.15	8253.780	4322.852	6390.569

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.122084	5.108885	5.003591	5.182846	5.249712	10.06448
Stddev	.080862	.089499	.084504	.074704	.073942	.00569
%RSD	1.578688	1.751826	1.688875	1.441379	1.408498	.0565128

#1	5.039201	5.022586	4.921527	5.108277	5.176357	10.06884
#2	5.200760	5.102797	5.090341	5.257686	5.324227	10.06656
#3	5.126290	5.201273	4.998906	5.182575	5.248551	10.05805

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.41642	.2746714	2.415560	26.92440	.9708383	2.531514
Stddev	.05431	.0004282	.045036	.09644	.0128267	.040466
%RSD	.5213826	.1558988	1.864416	.3581722	1.321200	1.598485

#1	10.46317	.2748147	2.369552	26.81304	.9640275	2.492191
#2	10.35685	.2750095	2.459557	26.97987	.9856338	2.573034
#3	10.42924	.2741899	2.417572	26.98028	.9628536	2.529317

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.284952	4.939628	2.623583	24.85957	2.535426	1.305646
Stddev	.020417	.062686	.004189	.05905	.040637	.015161
%RSD	1.588913	1.269037	.1596526	.2375366	1.602754	1.161213

#1	1.264574	4.873563	2.618817	24.92261	2.496023	1.293975
#2	1.305407	4.998274	2.625252	24.80555	2.577193	1.322782
#3	1.284877	4.947047	2.626679	24.85053	2.533062	1.300182

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.64915	2.515145	2.621934	25.09411	F 5.546819	5.223779
Stddev	.23409	.004475	.038878	.28334	.014664	.076513
%RSD	1.033571	.1779297	1.482806	1.129121	.2643756	1.464703

#1	22.40670	2.518408	2.594117	24.79134	5.554474	5.150754
#2	22.87388	2.510043	2.666358	25.35287	5.556073	5.303358
#3	22.66686	2.516983	2.605327	25.13812	5.529912	5.217225

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001273	.0010496	.0003196	-.000278	.0000002	-.015763	.0021633
Stddev	.001017	.0004733	.0008159	.001519	.0008182	.010069	.0014714
%RSD	79.88705	45.09376	255.2629	545.6797	328480.0	63.87708	68.01595

#1	-.001998	.0007087	.0004951	.001320	.0002077	-.026987	.0038594
#2	-.000110	.0008502	.0010335	-.001702	-.000902	-.012777	.0014012
#3	-.001711	.0015900	-.000570	-.000453	.000695	-.007524	.0012293

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001076	.0002738	.0138937	-.000202	.0001696	.0000797	.0007215
Stddev	.0000511	.0001588	.0020982	.000298	.0001534	.0003504	.0039601
%RSD	47.46907	58.00743	15.10144	147.4501	90.44405	439.5779	548.8245

#1	.0000488	.0003329	.0117370	-.000510	.0002180	.0004794	.0021954
#2	.0001406	.0003947	.0140162	.000084	.0002930	-.000066	-.003764
#3	.0001335	.0000939	.0159279	-.000180	-.000002	-.000174	.003733

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004478	.0166104	.0002891	.0011626	-.268413	-.004228	-.000028
Stddev	.0001942	.0349764	.0000381	.0003384	.002901	.003498	.000065
%RSD	43.35944	210.5695	13.17995	29.10972	1.080934	82.74692	234.1517

#1	.0004098	.0100836	.0003249	.0015515	-.267085	-.008150	-.000044
#2	.0002754	-.014643	.0002491	.0010013	-.266412	-.001430	.000044
#3	.0006582	.054390	.0002933	.0009350	-.271740	-.003104	-.000083

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.202755	.0082200	.0009962	.0001056	.0119799	-.010900	-.004106
Stddev	.028613	.0012216	.0002154	.0005158	.0026726	.008855	.002180
%RSD	14.11194	14.86166	21.62132	488.6416	22.30945	81.23827	53.10774

#1	-.199037	.0095944	.0012428	.0001339	.0126304	-.003015	-.005612
#2	-.233045	.0072576	.0008448	-.000424	.0090420	-.020480	-.001605
#3	-.176183	.0078081	.0009010	.000607	.0142672	-.009205	-.005100

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001377	-.009093	.0005833
Stddev	.002822	.000276	.0001810
%RSD	204.9235	3.037083	31.02976

#1	.000686	-.009395	.0007076
#2	-.004592	-.009034	.0006667
#3	-.000224	-.008852	.0003756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5253.154	89297.91	7796.258	4376.951	6691.474
Stddev	21.256	59.26	25.529	17.171	27.581
%RSD	.4046305	.0663582	.3274512	.3923152	.4121839

#1	5274.010	89231.89	7798.791	4358.160	6719.708
#2	5253.931	89315.37	7820.426	4380.865	6690.118
#3	5231.520	89346.48	7769.557	4391.827	6664.596

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4231550	.0011778	.1094584	.0275099	-.025983	131.5659	.1497608
Stddev	.0037083	.0013525	.0016309	.0050702	.000311	.2657	.0003170
%RSD	.8763537	114.8335	1.490009	18.43051	1.197251	.2019657	.2116929

#1	.4243310	.0001993	.1078403	.0322354	-.026145	131.2629	.1494456
#2	.4190013	.0027211	.1111019	.0281402	-.026179	131.7593	.1497572
#3	.4261328	.0006129	.1094329	.0221540	-.025624	131.6754	.1500796

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204457	.0374480	6.369846	1.713163	.0463216	.2130787	699.7120
Stddev	.0000659	.0010238	.024002	.004605	.0001505	.0019626	5.5120
%RSD	.3223193	2.733897	.3768138	.2687789	.3249636	.9210901	.7877490

#1	.0205021	.0362804	6.359038	1.711667	.0463396	.2108131	704.7516
#2	.0203732	.0378718	6.397353	1.718329	.0464624	.2141667	693.8257
#3	.0204617	.0381919	6.353148	1.709491	.0461629	.2142564	700.5587

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4900406	9.781502	.0948662	.0174088	20.17114	1.362373	.6799925
Stddev	.0025162	.046030	.0003595	.0021969	.04058	.002891	.0027373
%RSD	.5134708	.4705832	.3789616	12.61923	.2011948	.2122070	.4025542

#1	.4872809	9.834653	.0952734	.0194629	20.20577	1.359502	.6775155
#2	.4922074	9.754945	.0947325	.0150927	20.18117	1.365284	.6795306
#3	.4906335	9.754909	.0945927	.0176709	20.12648	1.362333	.6829314

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.79172	^ *****	.0099440	.0153562	2.238283	2.924856	12.74919
Stddev	.01824	-----	.0002723	.0005769	.005671	.022548	.08433
%RSD	.0680723	-----	2.737983	3.756982	.2533449	.7709108	.6614707

#1	26.77259	^ -----	.0099706	.0147027	2.235136	2.936236	12.68904
#2	26.79367	^ -----	.0096593	.0157948	2.234885	2.898886	12.71295
#3	26.80891	^ -----	.0102019	.0155713	2.244830	2.939446	12.84559

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.403966	.2990169	-.639629
Stddev	.025127	.0028546	.005472
%RSD	.5705583	.9546439	.8554889

#1	4.381830	.3017769	-.644625
#2	4.398791	.2960763	-.633781
#3	4.431278	.2991975	-.640482

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5510.203	91214.09	9165.351	4453.987	5697.583
Stddev	16.653	106.62	25.406	15.220	18.985
%RSD	.3022260	.1168883	.2771999	.3417234	.3332115

#1	5514.645	91312.61	9194.488	4467.438	5703.113
#2	5524.186	91228.74	9153.745	4457.057	5713.189
#3	5491.780	91100.90	9147.821	4437.466	5676.447

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4546486	-.006176	.1265885	.0242784	-.025939	144.8618	.1834432
Stddev	.0026208	.002925	.0019825	.0030459	.001135	.1992	.0010208
%RSD	.5764494	47.37070	1.566067	12.54581	4.375603	.1375153	.5564906

#1	.4558541	-.009256	.1280987	.0245255	-.025380	145.0915	.1846209
#2	.4516419	-.003434	.1273232	.0211165	-.025193	144.7561	.1828104
#3	.4564497	-.005837	.1243436	.0271933	-.027245	144.7376	.1828983

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0219511	.0422944	6.763922	1.815763	.0472660	.2318558	733.4025
Stddev	.0002508	.0008434	.051821	.004051	.0005693	.0029406	2.3659
%RSD	1.142550	1.994106	.7661342	.2231104	1.204411	1.268274	.3225922

#1	.0221210	.0418531	6.822327	1.816394	.0477353	.2310386	736.1339
#2	.0216631	.0417632	6.723449	1.819461	.0474300	.2294103	731.9913
#3	.0220693	.0432669	6.745990	1.811433	.0466328	.2351186	732.0824

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4416068	11.72492	.1063263	.0145687	19.77628	1.420085	.7233821
Stddev	.0017508	.03749	.0007075	.0011155	.14454	.003269	.0024553
%RSD	.3964684	.3197587	.6653684	7.656616	.7308522	.2302239	.3394173

#1	.4434887	11.76688	.1056033	.0155572	19.69739	1.416313	.7221795
#2	.4413057	11.71315	.1063584	.0133593	19.94310	1.422117	.7262068
#3	.4400261	11.69472	.1070171	.0147896	19.68837	1.421823	.7217599

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.55897	^ *****	.0103675	.0166608	2.303203	3.031881	13.33474
Stddev	.18717	-----	.0001820	.0003365	.001998	.014582	.00882
%RSD	.5748743	-----	1.755341	2.019969	.0867444	.4809402	.0661357

#1	32.60279	^ -----	.0102340	.0170410	2.301229	3.038222	13.34357
#2	32.72034	^ -----	.0105748	.0165407	2.305224	3.042219	13.32593
#3	32.35377	^ -----	.0102936	.0164008	2.303156	3.015203	13.33472

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.618253	.3139132	-.670043
Stddev	.032510	.0033092	.002210
%RSD	.7039445	1.054178	.3297772

#1	4.631713	.3141407	-.672594
#2	4.581174	.3104961	-.668728
#3	4.641871	.3171027	-.668807

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5401.177	92238.16	9113.438	4468.449	5514.011
Stddev	13.301	400.86	38.439	13.439	18.192
%RSD	.2462554	.4345970	.4217836	.3007481	.3299234

#1	5404.554	92143.84	9070.839	4463.392	5526.151
#2	5412.463	91892.87	9145.534	4458.271	5522.787
#3	5386.513	92677.77	9123.939	4483.682	5493.094

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0877070	.0048032	.3333985	-.003179	-.016612	168.7015	1.854721
Stddev	.0026461	.0010179	.0012806	.003086	.002249	.2238	.005817
%RSD	3.017012	21.19324	.3840962	97.08445	13.53970	.1326456	.3136442

#1	.0902573	.0058365	.3344657	-.003721	-.016339	168.4901	1.851751
#2	.0849744	.0038014	.3337513	.000142	-.014513	168.6787	1.850990
#3	.0878892	.0047716	.3319785	-.005959	-.018986	168.9359	1.861424

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195723	.0448853	172.1752	.3203687	.2706573	.4138354	393.7506
Stddev	.0003156	.0006004	.1550	.0013053	.0011922	.0018697	1.7993
%RSD	1.612290	1.337733	.0900339	.4074314	.4404815	.4517921	.4569658

#1	.0198710	.0448835	172.3138	.3206618	.2708276	.4139185	391.7069
#2	.0196037	.0442858	172.0078	.3215025	.2693890	.4119256	394.4483
#3	.0192422	.0454867	172.2041	.3189418	.2717551	.4156622	395.0965

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.22003	95.51455	.5577481	-.001225	3.566256	.4510476	1.297624
Stddev	.01729	.12357	.0030016	.000742	.018402	.0010238	.002382
%RSD	.1540784	.1293754	.5381719	60.61365	.5160013	.2269876	.1835714

#1	11.20737	95.41846	.5578907	-.002082	3.545858	.4519468	1.297827
#2	11.21299	95.65394	.5546776	-.000807	3.571301	.4499333	1.299899
#3	11.23973	95.47124	.5606758	-.000786	3.581609	.4512626	1.295148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.76289	-.110134	.0080742	.0137949	4.599848	2.450852	10.54776
Stddev	.07250	.008011	.0003768	.0006859	.013376	.021858	.04877
%RSD	.2814221	7.273548	4.666911	4.971844	.2908017	.8918378	.4623437

#1	25.68436	-.118271	.0077333	.0130067	4.584641	2.446217	10.54580
#2	25.77704	-.109873	.0080106	.0141224	4.609796	2.474655	10.50001
#3	25.82728	-.102256	.0084788	.0142557	4.605107	2.431684	10.59748

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.127287	.9088462	.0524896
Stddev	.008613	.0042001	.0013626
%RSD	.7640824	.4621387	2.595977

#1	1.120482	.9045333	.0538684
#2	1.124408	.9090815	.0511437
#3	1.136971	.9129237	.0524567

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5758.737	98461.86	8932.606	4763.277	5353.042
Stddev	6.247	233.21	20.902	12.693	13.755
%RSD	.1084853	.2368536	.2339920	.2664757	.2569541

#1	5760.279	98696.73	8911.241	4775.754	5356.381
#2	5764.069	98230.35	8933.565	4750.378	5364.819
#3	5751.863	98458.51	8953.011	4763.698	5337.925

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0707513	.0051417	.2993881	-.001096	-.016175	140.0360	2.068672
Stddev	.0007268	.0041507	.0014812	.001329	.000965	.2057	.003050
%RSD	1.027215	80.72667	.4947568	121.2495	5.968415	.1469120	.1474614

#1	.0715722	.0044958	.2990733	.000115	-.016029	140.0430	2.066825
#2	.0704918	.0013518	.2980895	-.002517	-.015291	139.8268	2.066998
#3	.0701899	.0095776	.3010014	-.000885	-.017206	140.2381	2.072193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0155952	.0344294	65.56031	.2415474	.1951205	.3395568	325.7568
Stddev	.0001956	.0006761	.08193	.0025444	.0007097	.0024431	3.2219
%RSD	1.254394	1.963604	.1249632	1.053382	.3637496	.7194914	.9890370

#1	.0158169	.0343453	65.46822	.2422337	.1946103	.3382803	325.7209
#2	.0154468	.0337993	65.62509	.2436783	.1948201	.3380165	328.9964
#3	.0155218	.0351436	65.58764	.2387302	.1959310	.3423737	322.5530

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.025416	64.12379	.3869851	.0034842	2.387071	.3541390	1.128781
Stddev	.017394	.13238	.0014755	.0009272	.040985	.0011971	.015018
%RSD	.2167325	.2064479	.3812787	26.61098	1.716945	.3380281	1.330502

#1	8.010800	64.00580	.3860068	.0026244	2.401729	.3537178	1.139694
#2	8.020794	64.09862	.3862661	.0033616	2.418712	.3532095	1.134996
#3	8.044654	64.26695	.3886822	.0044665	2.340773	.3554898	1.111652

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.34362	-.092275	.0051519	.0170434	3.336249	2.389871	7.006703
Stddev	.21317	.009061	.0008327	.0007359	.007635	.021386	.030860
%RSD	1.229085	9.819472	16.16300	4.317784	.2288521	.8948565	.4404295

#1	17.34340	-.095920	.0059637	.0178029	3.328001	2.399379	7.020927
#2	17.55690	-.081959	.0051921	.0163336	3.343070	2.404854	6.971296
#3	17.13056	-.098946	.0042997	.0169937	3.337677	2.365380	7.027885

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6966117	.4980502	-.107822
Stddev	.0015813	.0038184	.003184
%RSD	.2270018	.7666675	2.952918

#1	.6948479	.4937552	-.107894
#2	.6979027	.4993346	-.110970
#3	.6970845	.5010608	-.104603

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5926.936	104500.7	9499.222	4992.978	5596.750
Stddev	18.412	1093.2	8.830	66.857	28.838
%RSD	.3106560	1.046100	.0929595	1.339012	.5152609

#1	5936.678	104325.7	9498.136	4958.150	5609.722
#2	5938.432	103505.6	9508.545	4950.725	5616.823
#3	5905.700	105670.8	9490.985	5070.058	5563.704

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002229	-.001150	.0000118	.0003224	-.001203	.0070023
Stddev	.002557	.001024	.0008222	.0002355	.001546	.0051712
%RSD	114.6881	89.06089	6975.584	73.04193	128.5491	73.85002

#1	-.002425	-.000825	-.000413	.0005774	.000320	.0037855
#2	.000420	-.002297	.000960	.0002766	-.001157	.0042540
#3	-.004682	-.000327	-.000511	.0001132	-.002771	.0129673

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010449	.0000892	.0001235	.0166910	-.000200	.0000467
Stddev	.0008862	.0000260	.0000443	.0134419	.000177	.0001827
%RSD	84.81886	29.08387	35.90565	80.53390	88.27672	391.4985

#1	.0003335	.0001082	.0001665	.0033332	-.000313	.0001278
#2	.0020376	.0000597	.0001259	.0165244	-.000291	-.000163
#3	.0007635	.0000999	.0000780	.0302155	.000003	.000175

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000088	.0411100	-.000049	.0293459	.0002755	.0007567
Stddev	.000141	.0060862	.000524	.0392643	.0000550	.0001133
%RSD	161.1565	14.80476	1070.478	133.7980	19.97872	14.97496

#1	.000002	.0471798	.000535	.0497306	.0002674	.0008213
#2	-.000251	.0411428	-.000478	.0542255	.0002249	.0008228
#3	-.000015	.0350074	-.000204	-.015918	.0003341	.0006258

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.268123	-.006853	-.000013	-.204565	.0014236	-.000181
Stddev	.010141	.001947	.000128	.019998	.0006466	.000095
%RSD	3.782279	28.41347	974.7531	9.775627	45.42160	52.48534

#1	-.271190	-.004933	.000112	-.216286	.0007524	-.000102
#2	-.256802	-.006799	-.000144	-.215935	.0020424	-.000155
#3	-.276376	-.008827	-.000008	-.181475	.0014758	-.000286

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000248	.0150133	-.001702	-.001170	-.000419	F -.010059
Stddev	.000072	.0013843	.004194	.001641	.002218	.003223
%RSD	29.03222	9.220458	246.4269	140.2267	528.8974	32.04573

#1	-.000314	.0142861	-.001741	-.002414	-.001772	-.010076
#2	-.000259	.0141441	.002512	.000690	.002141	-.013273
#3	-.000171	.0166096	-.005876	-.001787	-.001628	-.006826

Elem	Sr4077
Units	ppm
Avg	-.000134
Stddev	.000061
%RSD	45.11809

#1	-.000127
#2	-.000077
#3	-.000198

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5299.785	91063.41	7509.579	4420.856	6779.792
Stddev	11.905	333.11	22.978	22.896	21.716
%RSD	.2246272	.3658028	.3059870	.5179114	.3203025

#1	5311.299	90968.12	7526.307	4415.523	6802.463
#2	5300.531	91433.78	7519.051	4445.948	6777.733
#3	5287.524	90788.33	7483.378	4401.097	6759.178

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005624	-.000991	.0034096	.0043497	-.000129	.0587142	.0046697
Stddev	.000556	.000354	.0006367	.0011902	.000723	.0019366	.0016612
%RSD	9.877370	35.77196	18.67472	27.36303	561.0433	3.298308	35.57365

#1	-.005097	-.001384	.0041107	.0056960	.000683	.0608250	.0045104
#2	-.006204	-.000695	.0032506	.0039161	-.000704	.0570195	.0064047
#3	-.005570	-.000893	.0028674	.0034371	-.000365	.0582982	.0030938

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000189	.0003739	4.877673	.0008393	.0071706	.1955344	1.514942
Stddev	.0000549	.0000161	.020091	.0001546	.0002266	.0003133	.013272
%RSD	291.4919	4.310532	.4118946	18.42320	3.160657	.1602160	.8761040

#1	.0000303	.0003567	4.855592	.0008788	.0073494	.1953171	1.518543
#2	-.000041	.0003886	4.894876	.0009703	.0069157	.1953927	1.500241
#3	.000067	.0003764	4.882551	.0006687	.0072468	.1958935	1.526042

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189030	1.783082	.0098056	.0008152	14.44577	-.001452	.0360305
Stddev	.0005240	.007873	.0001367	.0001387	.10134	.001661	.0000625
%RSD	2.771865	.4415144	1.394545	17.01145	.7015345	114.4092	.1735449

#1	.0194429	1.782010	.0097439	.0009590	14.48836	.000464	.0360886
#2	.0188696	1.775800	.0099624	.0006823	14.33008	-.002480	.0360387
#3	.0183966	1.791436	.0097106	.0008044	14.51886	-.002340	.0359643

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7511912	.0085360	.0001603	-.001714	.0120083	6.065339	.0050249
Stddev	.0078956	.0002628	.0001288	.000442	.0022090	.062852	.0012611
%RSD	1.051076	3.079057	80.35737	25.80136	18.39598	1.036242	25.09679

#1	.7527384	.0085450	.0002201	-.001486	.0120886	6.133250	.0053385
#2	.7426364	.0087942	.0002484	-.002224	.0097602	6.009216	.0060996
#3	.7581986	.0082688	.0000125	-.001432	.0141760	6.053551	.0036366

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.704935	-.011417	.0250535
Stddev	.016591	.001059	.0000245
%RSD	.2908121	9.271490	.0976686

#1	5.693985	-.012618	.0250282
#2	5.696796	-.011015	.0250552
#3	5.724023	-.010618	.0250771

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5076.835	88793.66	7902.302	4294.118	6385.140
Stddev	4.523	301.72	37.094	3.924	1.941
%RSD	.0890861	.3398044	.4694111	.0913811	.0304002

#1	5076.314	88692.49	7926.570	4297.982	6384.960
#2	5081.596	89132.97	7859.602	4290.136	6387.165
#3	5072.595	88555.53	7920.734	4294.235	6383.296

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006233	-.001990	.0011029	.0010256	.0018082	.0557903	.0068093
Stddev	.002414	.002714	.0011602	.0020018	.0020938	.0100877	.0012634
%RSD	38.73791	136.3995	105.1881	195.1761	115.7923	18.08142	18.55472

#1	-.005992	-.002008	.0000975	.0005945	-.000587	.0498244	.0059156
#2	-.003948	.000733	.0023723	-.000725	.002718	.0501090	.0082548
#3	-.008758	-.004695	.0008390	.003208	.003293	.0674374	.0062575

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000038	.0003695	5.058157	.0005316	.0076141	.0056851	.1578134
Stddev	.000029	.0001432	.011641	.0000189	.0000151	.0001820	.0094792
%RSD	75.73750	38.76843	.2301334	3.558575	.1983771	3.201635	6.006556

#1	-.000032	.0005175	5.071449	.0005468	.0076035	.0055886	.1549761
#2	-.000013	.0002316	5.049785	.0005376	.0076314	.0058951	.1500769
#3	-.000070	.0003593	5.053236	.0005104	.0076073	.0055717	.1683872

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0208943	1.858872	.0101056	.0007719	14.76689	-.002448	.0444905
Stddev	.0000948	.039663	.0001932	.0004249	.10306	.001697	.0004831
%RSD	.4537818	2.133709	1.911304	55.05245	.6979405	69.32493	1.085857

#1	.0209806	1.891782	.0098884	.0009609	14.77233	-.001358	.0439327
#2	.0207928	1.870000	.0102582	.0002852	14.66121	-.001583	.0447759
#3	.0209095	1.814833	.0101701	.0010695	14.86712	-.004403	.0447629

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7985318	.0088977	.0003562	-.001541	.0103823	6.157076	.0050814
Stddev	.0236800	.0007352	.0002530	.000428	.0006128	.063914	.0019777
%RSD	2.965437	8.262321	71.02381	27.78309	5.901889	1.038064	38.92148

#1	.8112811	.0083781	.0001801	-.002034	.0104018	6.151554	.0028090
#2	.7712089	.0097389	.0006460	-.001333	.0109850	6.096102	.0064140
#3	.8131056	.0085761	.0002424	-.001257	.0097600	6.223572	.0060212

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.667967	-.011848	.0274887
Stddev	.016375	.001958	.0000624
%RSD	.2888964	16.52783	.2269688

#1	5.655099	-.013220	.0275584
#2	5.662405	-.009606	.0274697
#3	5.686399	-.012719	.0274380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5189.286	89872.23	7916.340	4317.489	6591.193
Stddev	16.157	183.32	40.848	3.047	16.272
%RSD	.3113552	.2039769	.5160004	.0705651	.2468709

#1	5207.496	89931.64	7911.538	4314.432	6609.140
#2	5176.668	90018.48	7878.105	4320.526	6577.403
#3	5183.694	89666.58	7959.378	4317.509	6587.037

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007125	-.002105	.0012407	.0009583	.0007208	.0532295	.0061948
Stddev	.002965	.001085	.0001192	.0003075	.0004931	.0046159	.0005565
%RSD	41.61243	51.55706	9.607121	32.09191	68.40914	8.671755	8.983257

#1	-.009046	-.000904	.0013768	.0006388	.0006607	.0483846	.0057515
#2	-.003710	-.002394	.0011554	.0009839	.0012412	.0537279	.0060135
#3	-.008619	-.003016	.0011897	.0012522	.0002605	.0575760	.0068193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000031	.0002586	5.072276	.0003891	.0076330	.0058449	.1594412
Stddev	.000044	.0002791	.026191	.0000967	.0000322	.0001532	.0031078
%RSD	141.9554	107.9423	.5163652	24.85896	.4212265	2.621370	1.949155

#1	-.000069	-.000042	5.090269	.0004045	.0075959	.0059156	.1566042
#2	.000017	.000309	5.084331	.0002855	.0076517	.0059499	.1627628
#3	-.000041	.000509	5.042227	.0004771	.0076514	.0056691	.1589566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0221731	1.833531	.0105573	.0008610	14.49790	-.004402	.0428572
Stddev	.0005504	.045996	.0000651	.0004887	.12416	.003784	.0002245
%RSD	2.482311	2.508592	.6170089	56.76469	.8563847	85.96897	.5239126

#1	.0215833	1.868713	.0105067	.0002966	14.36006	-.003168	.0430193
#2	.0222631	1.850396	.0105343	.0011437	14.60095	-.008649	.0426009
#3	.0226731	1.781483	.0106308	.0011427	14.53270	-.001389	.0429514

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8187552	.0087269	.0004234	-.002023	.0130136	6.091813	.0066029
Stddev	.0178660	.0004189	.0000999	.000215	.0016709	.026411	.0014132
%RSD	2.182091	4.800401	23.60386	10.62275	12.83971	.4335568	21.40210

#1	.8380793	.0091960	.0003612	-.001912	.0115148	6.063468	.0081400
#2	.8028379	.0085945	.0005386	-.002271	.0148152	6.115731	.0053601
#3	.8153485	.0083902	.0003702	-.001887	.0127109	6.096242	.0063084

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.858083	-.012423	.0277541
Stddev	.008729	.001448	.0001390
%RSD	.1490156	11.65842	.5007977

#1	5.848003	-.010751	.0278840
#2	5.863175	-.013234	.0277708
#3	5.863071	-.013285	.0276075

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5062.207	87834.43	7652.976	4280.508	6357.412
Stddev	5.885	491.96	40.227	14.710	7.047
%RSD	.1162468	.5601021	.5256426	.3436478	.1108479

#1	5055.497	88394.56	7616.400	4275.876	6351.598
#2	5066.489	87472.41	7646.467	4296.976	6355.388
#3	5064.635	87636.32	7696.061	4268.671	6365.249

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004209	-.001232	.0008783	.0017486	.0002920	.0030012	.0022580
Stddev	.000135	.000172	.0010943	.0018679	.0009782	.0024305	.0008445
%RSD	3.197589	13.94770	124.5904	106.8254	334.9623	80.98422	37.39989

#1	-.004217	-.001251	.0010704	.0008212	-.000820	.0014431	.0032153
#2	-.004339	-.001052	-.000299	.0005258	.000674	.0058018	.0019401
#3	-.004071	-.001394	.001864	.0038987	.001021	.0017588	.0016186

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000157	.0000751	1.042283	-.000128	.0014347	.0012173	.0268360
Stddev	.0000140	.0000548	.011402	.000219	.0002414	.0003016	.0106159
%RSD	89.33634	73.00028	1.093954	170.2831	16.82686	24.77553	39.55844

#1	.0000133	.0000826	1.054790	-.000162	.0016008	.0009452	.0380411
#2	.0000030	.0001259	1.032467	.000105	.0015456	.0011652	.0169285
#3	.0000307	.0000169	1.039592	-.000329	.0011578	.0015416	.0255385

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035445	.3997799	.0022459	.0008138	2.476865	-.004615	.0087057
Stddev	.0004305	.0117228	.0001744	.0003744	.002821	.000870	.0000677
%RSD	12.14537	2.932323	7.765659	46.01114	.1138952	18.85164	.7779144

#1	.0031159	.4130912	.0023639	.0009472	2.474155	-.003618	.0087066
#2	.0039768	.3909955	.0020456	.0011031	2.479786	-.005220	.0087730
#3	.0035407	.3952530	.0023282	.0003909	2.476655	-.005006	.0086376

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0519941	.0019947	-.000057	-.000883	.0148151	1.159989	-.000811
Stddev	.0193956	.0011774	.000132	.000120	.0006822	.013504	.001739
%RSD	37.30343	59.02874	231.7843	13.62623	4.604955	1.164108	214.4351

#1	.0451019	.0032974	-.000170	-.000995	.0140320	1.169371	.001197
#2	.0369859	.0016801	-.000089	-.000899	.0152805	1.144512	-.001804
#3	.0738946	.0010065	.000088	-.000756	.0151329	1.166083	-.001826

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.208162	-.010534	.0055581
Stddev	.002534	.001819	.0000593
%RSD	.2097473	17.26828	1.067735

#1	1.208261	-.010301	.0055710
#2	1.210645	-.012459	.0056099
#3	1.205580	-.008844	.0054934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5176.141	90440.33	7542.845	4367.282	6519.996
Stddev	16.319	203.33	66.321	11.103	22.923
%RSD	.3152678	.2248171	.8792569	.2542345	.3515839

#1	5185.343	90315.64	7512.939	4372.811	6534.190
#2	5185.782	90330.41	7496.743	4354.500	6532.248
#3	5157.300	90674.96	7618.853	4374.536	6493.550

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7746013	1.993338	.9363660	1.985823	.8909240	2.021637
Stddev	.0031853	.041758	.0017383	.012668	.0033533	.004232
%RSD	.4112185	2.094877	.1856478	.6379285	.3763816	.2093480

#1	.7779419	1.978787	.9377998	1.990584	.8926886	2.021991
#2	.7715982	1.960802	.9368658	1.971464	.8870569	2.017238
#3	.7742638	2.040424	.9344326	1.995420	.8930266	2.025681

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2125218	.2164651	F .1581242	1.126638	.3856804	.1982260
Stddev	.0006391	.0007012	.0002515	.008428	.0007122	.0001915
%RSD	.3007076	.3239242	.1590392	.7480442	.1846465	.0966089

#1	.2125767	.2165811	.1584110	1.134464	.3861040	.1984355
#2	.2131317	.2157131	.1579416	1.127736	.3848582	.1981822
#3	.2118571	.2171010	.1580200	1.117716	.3860789	.1980601

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3139687	3.009790	.2145650	2.010626	.4981981	.0782721
Stddev	.0003279	.014970	.0013304	.017335	.0002863	.0002663
%RSD	.1044484	.4973778	.6200410	.8621911	.0574587	.3402653

#1	.3143434	3.020715	.2149015	1.994205	.4979047	.0780271
#2	.3137340	2.992726	.2156948	2.008924	.4984766	.0785556
#3	.3138288	3.015929	.2130986	2.028750	.4982131	.0782336

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.859807	.2986748	.2164958	9.725010	.3214283	.4438794
Stddev	.014505	.0018836	.0012181	.047828	.0024271	.0020544
%RSD	.5072162	.6306637	.5626417	.4918020	.7550962	.4628229

#1	2.860814	.2998704	.2156849	9.703302	.3189273	.4427320
#2	2.873782	.2996506	.2159059	9.779843	.3215836	.4426549
#3	2.844824	.2965035	.2178965	9.691887	.3237740	.4462511

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7173441	.2186970	.8575764	5.495100	F .0026914	.1764813
Stddev	.0012670	.0012656	.0054870	.013593	.0027904	.0046728
%RSD	.1766222	.5786962	.6398273	.2473716	103.6787	2.647764

#1	.7173556	.2174551	.8515823	5.489086	.0013272	.1733082
#2	.7160714	.2186508	.8587957	5.510663	.0008456	.1818472
#3	.7186052	.2199850	.8623511	5.485551	.0059014	.1742884

Elem	Sr4077
Units	ppm
Avg	.2125638
Stddev	.0005542
%RSD	.2607267

#1	.2129302
#2	.2128351
#3	.2119263

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5277.320	88714.99	7892.010	4308.698	6684.079
Stddev	8.489	208.86	13.107	9.496	7.836
%RSD	.1608634	.2354292	.1660742	.2203901	.1172326

#1	5269.607	88497.63	7877.445	4314.280	6676.716
#2	5286.416	88733.16	7902.853	4314.080	6683.208
#3	5275.936	88914.17	7895.732	4297.734	6692.315

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.111019	5.072546	4.861293	5.222495	5.288114	10.05643	10.56664
Stddev	.067588	.039267	.041396	.064935	.077695	.01839	.12510
%RSD	1.322399	.7740988	.8515388	1.243368	1.469237	.1829018	1.183908

#1	5.073293	5.043026	4.847245	5.181013	5.241834	10.07030	10.69550
#2	5.070715	5.057502	4.828750	5.189144	5.244694	10.06344	10.55876
#3	5.189048	5.117110	4.907885	5.297328	5.377813	10.03557	10.44567

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2656642	2.285610	26.82148	.9425607	2.475271	1.270125	5.021890
Stddev	.0022206	.026267	.01389	.0007844	.023918	.014661	.045278
%RSD	.8358567	1.149248	.0517922	.0832193	.9662974	1.154330	.9016219

#1	.2669550	2.275020	26.82899	.9421519	2.464810	1.261858	5.001656
#2	.2669376	2.266291	26.80545	.9420653	2.458365	1.261464	4.990257
#3	.2631002	2.315519	26.82999	.9434651	2.502638	1.287053	5.073758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.617050	24.63629	2.475527	1.293798	22.98671	2.502213	2.616125
Stddev	.005536	.04551	.022448	.002559	.19966	.001574	.009616
%RSD	.2115372	.1847473	.9067810	.1977634	.8686015	.0629017	.3675541

#1	2.620897	24.66487	2.466226	1.293824	22.84884	2.500401	2.609072
#2	2.619547	24.66019	2.459224	1.291227	22.89562	2.503238	2.612224
#3	2.610705	24.58380	2.501130	1.296344	23.21567	2.503000	2.627078

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.42783	5.376524	5.200744	4.889036	4.993899	4.733208	4.736112
Stddev	.18930	.036014	.057097	.043319	.006768	.024161	.037042
%RSD	.7444745	.6698293	1.097855	.8860408	.1355196	.5104469	.7821161

#1	25.31912	5.399706	5.167144	4.869539	4.990951	4.715290	4.728553
#2	25.31796	5.394832	5.168418	4.858892	5.001641	4.723649	4.703433
#3	25.64642	5.335034	5.266669	4.938677	4.989106	4.760686	4.776351

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.888215	4.914668	5.415734
Stddev	.056909	.008589	.028010
%RSD	1.164206	.1747538	.5171894

#1	4.868066	4.918470	5.443201
#2	4.844122	4.920699	5.416791
#3	4.952457	4.904834	5.387211

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5081.040	86372.59	7820.231	4149.129	6191.278
Stddev	51.275	267.96	47.037	15.202	54.095
%RSD	1.009137	.3102412	.6014842	.3663888	.8737342

#1	5107.689	86426.08	7785.494	4159.120	6213.085
#2	5113.502	86609.77	7801.440	4156.634	6231.066
#3	5021.928	86081.92	7873.760	4131.635	6129.683

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002073	-.000945	.0005984	-.001797	-.001660	-.009678
Stddev	.004551	.000678	.0001237	.001129	.000933	.013588
%RSD	219.5471	71.80008	20.67644	62.80239	56.17547	140.4072

#1	.002396	-.001139	.0005999	-.000914	-.000888	-.001589
#2	-.006702	-.000190	.0007214	-.003069	-.002696	-.025365
#3	-.001913	-.001505	.0004740	-.001408	-.001396	-.002078

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000922	.0000235	.0001614	.0164179	-.000066	.0000033
Stddev	.000588	.0000562	.0001283	.0084893	.000131	.0000568
%RSD	63.76182	239.4412	79.48890	51.70796	199.0906	1740.545

#1	-.001597	-.000020	.0000404	.0262205	.000045	-.000023
#2	-.000521	.000087	.0002959	.0114861	-.000211	.000068
#3	-.000648	.000004	.0001478	.0115471	-.000032	-.000036

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000154	-.001098	.0003684	.0198040	.0005993	.0012802
Stddev	.000201	.002366	.0004314	.0034128	.0003011	.0003672
%RSD	130.6466	215.4234	117.1055	17.23302	50.24789	28.68203

#1	-.000385	.000413	-.000130	.0217100	.0003278	.0014760
#2	-.000057	.000117	.000627	.0218382	.0005469	.0008566
#3	-.000020	-.003825	.000608	.0158639	.0009232	.0015079

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.230146	-.003587	.0002765	-.187013	.0078770	.0005085
Stddev	.000817	.001890	.0000344	.009792	.0002445	.0000703
%RSD	.3552099	52.68848	12.44986	5.236273	3.104138	13.82346

#1	-.230595	-.001446	.0002784	-.197407	.0077266	.0005745
#2	-.230640	-.004295	.0002412	-.177960	.0077452	.0005166
#3	-.229202	-.005022	.0003100	-.185671	.0081591	.0004346

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000565	.0125379	-.012757	-.000020	-.000443	F -.011110
Stddev	.0002751	.0022584	.002940	.002365	.000780	.000890
%RSD	486.8928	18.01235	23.04418	11657.82	176.0816	8.013659

#1	.0003253	.0131467	-.016046	-.001926	-.001017	-.011434
#2	-.000225	.0100375	-.011837	.002627	-.000758	-.011794
#3	.000069	.0144294	-.010387	-.000762	.000445	-.010104

Elem	Sr4077
Units	ppm
Avg	.0001752
Stddev	.0000184
%RSD	10.52299

#1	.0001539
#2	.0001860
#3	.0001856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5334.091	89549.54	8184.433	4333.855	6909.104
Stddev	10.989	355.58	141.901	12.930	15.202
%RSD	.2060148	.3970796	1.733788	.2983431	.2200342

#1	5328.968	89414.60	8024.065	4333.264	6905.799
#2	5346.706	89952.84	8235.508	4321.230	6925.686
#3	5326.599	89281.18	8293.726	4347.069	6895.825

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8004998	2.027527	.9330786	1.993698	.8713802	2.169338	.2244849
Stddev	.0030039	.007766	.0056216	.012491	.0017134	.014542	.0015360
%RSD	.3752566	.3830128	.6024768	.6265293	.1966323	.6703237	.6842130

#1	.7980702	2.035251	.9270439	1.985972	.8694038	2.183202	.2235049
#2	.7995709	2.019720	.9340251	1.987012	.8722888	2.154202	.2262551
#3	.8038585	2.027609	.9381669	2.008109	.8724479	2.170609	.2236948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2210800	.1578821	6.062081	.3947726	.2109265	.3246138	3.224462
Stddev	.0019370	.0004067	.009407	.0014998	.0006892	.0009108	.026816
%RSD	.8761439	.2575936	.1551704	.3799240	.3267634	.2805857	.8316413

#1	.2196602	.1574561	6.072833	.3939556	.2102064	.3236195	3.245282
#2	.2232866	.1579239	6.058038	.3938586	.2109929	.3248142	3.194203
#3	.2202933	.1582663	6.055371	.3965035	.2115801	.3254078	3.233901

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2445497	3.799264	.5161416	.0778415	16.80776	.3178428	.2904388
Stddev	.0004269	.022096	.0028629	.0004007	.18853	.0018707	.0009903
%RSD	.1745752	.5815924	.5546643	.5147280	1.121708	.5885482	.3409666

#1	.2442205	3.781671	.5129032	.0775173	16.91432	.3164720	.2901062
#2	.2450321	3.792058	.5171858	.0777176	16.59008	.3170825	.2896576
#3	.2443964	3.824064	.5183358	.0782894	16.91889	.3199739	.2915526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.98350	.3179670	.4608463	.7005199	.2211287	6.665094	5.406758
Stddev	.08674	.0019702	.0017388	.0040614	.0010268	.089250	.020156
%RSD	.7897159	.6196256	.3773004	.5797697	.4643625	1.339072	.3727991

#1	11.03819	.3174195	.4590585	.6961619	.2216683	6.718803	5.385965
#2	10.88349	.3201531	.4609490	.7011987	.2199446	6.562068	5.408099
#3	11.02882	.3163285	.4625315	.7041992	.2217733	6.714412	5.426210

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.396637	.1795336	.2496223
Stddev	.024124	.0004883	.0002728
%RSD	.4470109	.2720036	.1092999

#1	5.371150	.1797283	.2493140
#2	5.399644	.1798946	.2498327
#3	5.419115	.1789780	.2497201

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5132.835	89389.74	7764.441	4218.960	6539.839
Stddev	5.844	40.33	79.262	8.712	12.024
%RSD	.1138495	.0451148	1.020833	.2064911	.1838614

#1	5139.215	89359.11	7814.148	4221.801	6553.720
#2	5131.546	89374.69	7673.034	4209.183	6533.169
#3	5127.743	89435.43	7806.140	4225.897	6532.628

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7957791	2.005996	.9250691	1.990026	.8542629	2.143837	.2222857
Stddev	.0049654	.042058	.0017869	.012727	.0046003	.006379	.0008296
%RSD	.6239644	2.096609	.1931602	.6395498	.5385134	.2975521	.3732050

#1	.7915503	1.962038	.9231522	1.985727	.8522867	2.136615	.2214213
#2	.7945405	2.010096	.9253666	1.980004	.8509808	2.146193	.2230754
#3	.8012466	2.045853	.9266886	2.004345	.8595211	2.148703	.2223604

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2126149	.1563532	6.109849	.3983615	.2094816	.3222230	3.400221
Stddev	.0010599	.0005196	.015522	.0017711	.0008222	.0016847	.024520
%RSD	.4985095	.3323442	.2540534	.4445857	.3925135	.5228292	.7211276

#1	.2123644	.1559440	6.097949	.3971466	.2092250	.3218385	3.383582
#2	.2137776	.1561777	6.127407	.4003936	.2088184	.3207638	3.388702
#3	.2117027	.1569378	6.104192	.3975442	.2104016	.3240667	3.428380

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2439308	3.841215	.5118267	.0782886	18.34798	.3131314	.2749953
Stddev	.0003385	.035901	.0012546	.0004075	.14879	.0031253	.0007473
%RSD	.1387673	.9346389	.2451227	.5205227	.8109115	.9980696	.2717523

#1	.2440576	3.811993	.5112405	.0781810	18.36758	.3108531	.2758582
#2	.2441875	3.830362	.5109724	.0779457	18.19037	.3118470	.2745576
#3	.2435472	3.881291	.5132670	.0787391	18.48599	.3166943	.2745701

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.59038	.3043909	.4547211	.6997280	.2143343	7.210437	5.326387
Stddev	.11438	.0014351	.0030293	.0022996	.0021946	.074923	.018409
%RSD	.9868299	.4714484	.6661911	.3286374	1.023894	1.039088	.3456162

#1	11.55200	.3028025	.4524907	.6992682	.2120633	7.193755	5.308040
#2	11.50013	.3055939	.4535026	.6976930	.2164435	7.145262	5.326265
#3	11.71901	.3047763	.4581699	.7022227	.2144959	7.292295	5.344857

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.507835	.1799360	.2465798
Stddev	.034464	.0025261	.0007036
%RSD	.6257289	1.403906	.2853326

#1	5.483949	.1773583	.2463799
#2	5.492213	.1800425	.2459978
#3	5.547344	.1824072	.2473617

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5142.223	86065.98	7995.857	4146.022	6561.481
Stddev	34.383	246.08	34.035	11.069	40.825
%RSD	.6686352	.2859179	.4256525	.2669729	.6221936

#1	5162.800	86262.77	8015.766	4137.003	6586.249
#2	5161.338	86145.10	7956.558	4158.374	6583.833
#3	5102.530	85790.07	8015.245	4142.687	6514.361

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8163159	1.975027	.9407681	2.040993	.9330271	2.189595	.2264198
Stddev	.0054816	.016918	.0025922	.009590	.0050474	.020409	.0019758
%RSD	.6715059	.8566108	.2755351	.4698544	.5409662	.9320929	.8726163

#1	.8191078	1.983875	.9402741	2.036582	.9297071	2.178128	.2260166
#2	.8100004	1.985687	.9384585	2.034403	.9305387	2.213158	.2246767
#3	.8198395	1.955519	.9435716	2.051995	.9388355	2.177497	.2285661

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2175361	.1579556	6.213351	.4040047	.2133355	.3287166	3.358085
Stddev	.0004067	.0004273	.017426	.0028051	.0005967	.0021052	.004693
%RSD	.1869575	.2705148	.2804625	.6943194	.2796986	.6404361	.1397402

#1	.2178458	.1580706	6.206721	.4062762	.2136293	.3285491	3.363371
#2	.2176869	.1574826	6.200213	.4048687	.2126489	.3267001	3.356475
#3	.2170755	.1583136	6.233119	.4008693	.2137284	.3309005	3.354409

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2474327	3.866179	.5251042	.0785106	18.02960	.3186913	.2690836
Stddev	.0003522	.015072	.0017882	.0004449	.01520	.0035079	.0002027
%RSD	.1423480	.3898449	.3405502	.5666110	.0843108	1.100731	.0753202

#1	.2470593	3.881346	.5246339	.0787361	18.04110	.3149002	.2691732
#2	.2477590	3.851203	.5235980	.0779981	18.03533	.3193515	.2688516
#3	.2474798	3.865989	.5270805	.0787975	18.01236	.3218222	.2692261

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.40524	.3109622	.4923982	.7445154	.2325229	7.153964	5.441691
Stddev	.05794	.0019331	.0024604	.0031519	.0012908	.012084	.022513
%RSD	.5080211	.6216518	.4996737	.4233490	.5551225	.1689184	.4137063

#1	11.33980	.3126520	.4916089	.7421302	.2335695	7.152912	5.447480
#2	11.42593	.3113804	.4904293	.7433273	.2329186	7.166539	5.416849
#3	11.45000	.3088542	.4951564	.7480887	.2310806	7.142440	5.460744

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.616585	.1818214	.2528360
Stddev	.011201	.0013926	.0007480
%RSD	.1994253	.7659360	.2958240

#1	5.616877	.1813594	.2522979
#2	5.605242	.1807185	.2525200
#3	5.627638	.1833863	.2536901

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5073.469	88437.30	7919.153	4176.692	6461.834
Stddev	19.655	56.26	6.519	11.475	20.278
%RSD	.3874173	.0636104	.0823194	.2747357	.3138195

#1	5075.770	88374.65	7912.887	4184.186	6467.155
#2	5091.872	88483.49	7925.899	4182.408	6478.922
#3	5052.764	88453.76	7918.674	4163.482	6439.426

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009806	-.000700	.0023823	-.006213	-.000672	2.198761
Stddev	.0033197	.001877	.0016225	.001765	.000838	.028681
%RSD	338.5497	268.3696	68.10674	28.40047	124.6661	1.304396

#1	.0046116	.000554	.0036459	-.008125	-.000572	2.173764
#2	.0002290	-.002858	.0029485	-.005867	.000111	2.192445
#3	-.001899	.000206	.0005526	-.004647	-.001555	2.230073

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3054348	.0001367	.0022576	385.3742	.0039619	.0109215
Stddev	.0013021	.0000318	.0001910	2.3988	.0002019	.0004325
%RSD	.4263077	23.22979	8.460336	.6224489	5.095496	3.960109

#1	.3060847	.0001233	.0022164	385.8701	.0037937	.0104530
#2	.3062841	.0001138	.0024658	387.4863	.0041858	.0110059
#3	.3039357	.0001730	.0020905	382.7663	.0039063	.0113056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0234386	48.92255	8.533795	52.24960	.0191654	.0029961
Stddev	.0004765	.43378	.027436	.06130	.0002627	.0001511
%RSD	2.032989	.8866685	.3214961	.1173301	1.370516	5.044353

#1	.0238591	48.58177	8.544936	52.31794	.0188641	.0029035
#2	.0235357	48.77504	8.553908	52.19945	.0192861	.0031705
#3	.0229210	49.41085	8.502541	52.23141	.0193460	.0029144

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	462.5503	.0052161	.1071455	33.50003	.1080562	.0096291
Stddev	.9758	.0028845	.0000882	.32913	.0016557	.0001323
%RSD	.2109707	55.30034	.0823224	.9824649	1.532274	1.373735

#1	463.4782	.0079328	.1070443	33.21560	.1062414	.0095359
#2	462.6401	.0021889	.1072063	33.42396	.1084429	.0097805
#3	461.5327	.0055264	.1071858	33.86054	.1094843	.0095709

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002405	.0621767	F 18.12476	.2704096	F 188.4406	.0576797
Stddev	.000656	.0016150	.14841	.0045641	.7740	.0040538
%RSD	27.26162	2.597489	.8188172	1.687847	.4107579	7.028199

#1	-.002788	.0631089	17.99201	.2651669	187.8938	.0559005
#2	-.001648	.0631094	18.09728	.2725659	188.1016	.0623189
#3	-.002780	.0603118	18.28499	.2734960	189.3263	.0548196

Elem	Sr4077
Units	ppm
Avg	1.245029
Stddev	.003515
%RSD	.2823184

#1	1.243432
#2	1.249059
#3	1.242596

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4468.825	80088.28	7766.702	3680.949	5308.142
Stddev	12.710	165.01	71.635	4.981	14.647
%RSD	.2844247	.2060306	.9223296	.1353112	.2759439

#1	4467.486	80239.55	7724.429	3678.178	5301.743
#2	4482.153	80112.96	7726.264	3686.700	5324.900
#3	4456.838	79912.32	7849.411	3677.971	5297.783

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050227	-.003379	.0035639	.0050183	.0105887	1.439190
Stddev	.0033159	.000841	.0016898	.0019932	.0028574	.011197
%RSD	66.01877	24.90289	47.41415	39.71889	26.98554	.7779842

#1	.0012155	-.003696	.0053965	.0044235	.0136814	1.434444
#2	.0072789	-.004016	.0032276	.0072412	.0100380	1.431148
#3	.0065737	-.002425	.0020675	.0033902	.0080468	1.451978

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2609855	-.000301	.0015901	135.8819	.0038278	.0018429
Stddev	.0011243	.000037	.0001596	.7658	.0000926	.0002280
%RSD	.4307798	12.39055	10.03924	.5636007	2.419619	12.37260

#1	.2621029	-.000258	.0014073	136.6393	.0039321	.0015799
#2	.2598544	-.000329	.0017018	135.1079	.0037958	.0019637
#3	.2609993	-.000314	.0016613	135.8986	.0037554	.0019850

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0268512	3.493527	4.789826	11.44856	.0090464	.0013397
Stddev	.0001294	.028026	.034471	.18925	.0001165	.0002328
%RSD	.4819654	.8022343	.7196749	1.653020	1.287926	17.37815

#1	.0267514	3.463744	4.826342	11.66700	.0089365	.0015482
#2	.0269974	3.519382	4.757849	11.34457	.0091685	.0013824
#3	.0268049	3.497457	4.785286	11.33410	.0090342	.0010884

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1832.709	.0018055	.0750548	30.87864	.0847700	.1000741
Stddev	12.689	.0010961	.0007346	.58692	.0008257	.0008901
%RSD	.6923508	60.70914	.9787288	1.900745	.9740513	.8894320

#1	1823.700	.0010905	.0758567	30.21341	.0854960	.0998380
#2	1827.206	.0030675	.0748932	31.09908	.0838718	.0993258
#3	1847.220	.0012585	.0744144	31.32342	.0849424	.1010584

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001478	-.002520	.0001946	.0064008	.0028797	.8746240
Stddev	.004247	.000918	.0007001	.0017887	.0012792	.0107607
%RSD	287.2536	36.41414	359.8437	27.94540	44.42225	1.230325

#1	-.001251	-.001491	.0005420	.0043622	.0035596	.8870239
#2	-.005835	-.002816	.0006530	.0077078	.0036754	.8691133
#3	.002650	-.003253	-.000611	.0071324	.0014041	.8677349

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1729582	.0002403	.0017054	99.10455	.0020013	.0028022
Stddev	.0002604	.0000082	.0001332	.29257	.0002733	.0004681
%RSD	.1505593	3.405373	7.811082	.2952101	13.65620	16.70474

#1	.1731955	.0002308	.0018566	99.00360	.0016983	.0026434
#2	.1729994	.0002455	.0016543	99.43422	.0022293	.0033291
#3	.1726796	.0002444	.0016054	98.87582	.0020762	.0024342

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0186448	32.62348	1.479093	19.36200	.0133720	.0030886
Stddev	.0002939	.03921	.003259	.05809	.0005513	.0004324
%RSD	1.576512	.1201802	.2203128	.3000085	4.122691	13.99972

#1	.0189811	32.59491	1.477931	19.36560	.0127423	.0026156
#2	.0185167	32.66818	1.482774	19.41821	.0137675	.0034636
#3	.0184367	32.60736	1.476575	19.30220	.0136062	.0031865

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1470.797	.0023514	.0865894	42.13128	.1199602	.0154460
Stddev	15.099	.0022154	.0007867	.14859	.0002982	.0002615
%RSD	1.026597	94.21902	.9085329	.3526912	.2486129	1.693234

#1	1484.752	.0047656	.0866525	42.02806	.1202855	.0157400
#2	1472.869	.0018769	.0873427	42.30159	.1198957	.0153587
#3	1454.768	.0004116	.0857731	42.06419	.1196996	.0152393

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002789	.0356196	7.571498	.5919000	F 50.82580	.0322553
Stddev	.000356	.0014789	.033423	.0037723	.13880	.0004877
%RSD	12.74970	4.151801	.4414383	.6373215	.2730945	1.512104

#1	-.002821	.0347428	7.583800	.5912521	50.79979	.0328059
#2	-.003128	.0347890	7.597026	.5959543	50.97577	.0318773
#3	-.002419	.0373270	7.533667	.5884936	50.70185	.0320829

Elem	Sr4077
Units	ppm
Avg	.4355330
Stddev	.0013267
%RSD	.3046076

#1	.4343756
#2	.4369808
#3	.4352427

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4157.559	75238.40	8370.075	3464.128	4809.390
Stddev	17.192	509.53	43.351	22.218	10.305
%RSD	.4135088	.6772203	.5179291	.6413689	.2142627

#1	4151.507	74782.76	8325.880	3449.182	4805.159
#2	4144.211	75143.87	8371.815	3453.543	4801.874
#3	4176.958	75788.58	8412.530	3489.660	4821.137

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004226	-.002062	.0011871	-.001574	-.000531	-.006710
Stddev	.001922	.000844	.0005547	.000969	.001178	.006591
%RSD	45.49274	40.91836	46.73091	61.56688	221.7130	98.21843

#1	-.002024	-.002982	.0015425	-.002682	-.001289	-.013400
#2	-.005081	-.001324	.0014709	-.000886	-.001130	-.006509
#3	-.005573	-.001880	.0005479	-.001154	.000826	-.000223

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003341	.0000289	.0001080	.0079156	-.000073	.0000115
Stddev	.001191	.0000623	.0000655	.0081942	.000100	.0001302
%RSD	35.65302	215.8402	60.66919	103.5187	137.5046	1135.051

#1	-.001976	-.000037	.0000367	-.000591	-.000128	.0001443
#2	-.004169	.000037	.0001219	.008580	.000043	-.000116
#3	-.003879	.000086	.0001655	.015757	-.000134	.000006

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000131	-.003521	.0000497	.0171506	.0001687	.0011413
Stddev	.000102	.004882	.0001431	.0082240	.0003372	.0004726
%RSD	77.77206	138.6420	288.0179	47.95195	199.9194	41.41165

#1	-.000249	-.002476	-.000070	.0126704	.0003553	.0006381
#2	-.000069	.000753	.000011	.0266420	.0003713	.0012099
#3	-.000076	-.008842	.000208	.0121394	-.000221	.0015759

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7734169	-.001178	-.000303	.9386469	-.000648	-.000368
Stddev	.0277844	.001829	.000181	.0514036	.000208	.000074
%RSD	3.592417	155.2743	59.62110	5.476351	32.17002	20.12258

#1	.7974489	.000888	-.000160	.9324648	-.000410	-.000283
#2	.7798078	-.001834	-.000243	.9928620	-.000731	-.000409
#3	.7429939	-.002588	-.000506	.8906140	-.000801	-.000414

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

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8182074	2.023562	.9608502	2.119376	.9136498	2.084257
Stddev	.0026888	.034085	.0031619	.008818	.0018913	.010054
%RSD	.3286260	1.684385	.3290725	.4160814	.2070072	.4823977

#1	.8172080	1.990416	.9572728	2.114522	.9146041	2.092165
#2	.8161614	2.021757	.9632710	2.114051	.9114715	2.072942
#3	.8212528	2.058513	.9620067	2.129555	.9148739	2.087664

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2193413	.2244429	.1736869	F 1.150739	.3931133	.2049406
Stddev	.0011110	.0011862	.0005429	.005776	.0007232	.0005644
%RSD	.5065300	.5285179	.3125933	.5019592	.1839565	.2754069

#1	.2189674	.2240997	.1730765	1.157225	.3925131	.2043091
#2	.2184654	.2234661	.1741161	1.146150	.3939162	.2053959
#3	.2205910	.2257629	.1738679	1.148841	.3929108	.2051168

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3276809	3.139620	.2231219	2.065474	.5154972	.0815990
Stddev	.0006472	.000680	.0013242	.024107	.0017822	.0001648
%RSD	.1975157	.0216651	.5934640	1.167119	.3457171	.2019306

#1	.3272547	3.139971	.2242494	2.044850	.5134438	.0816290
#2	.3273623	3.140053	.2216638	2.059595	.5166419	.0814213
#3	.3284256	3.138836	.2234526	2.091976	.5164059	.0817467

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.890624	.3125442	.2265402	10.59270	.3293937	.4504628
Stddev	.033846	.0030886	.0006255	.08047	.0023464	.0011818
%RSD	1.170878	.9882113	.2761276	.7596653	.7123231	.2623509

#1	2.891559	.3160585	.2260513	10.60731	.3277187	.4498175
#2	2.923992	.3113129	.2263241	10.66485	.3283870	.4497442
#3	2.856320	.3102612	.2272451	10.50592	.3320754	.4518268

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

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7135377	.2215817	.8627954	5.463625	F .0051848	.1964699
Stddev	.0031312	.0019297	.0161666	.014943	.0023968	.0012530
%RSD	.4388250	.8708900	1.873752	.2734975	46.22705	.6377498

#1	.7099916	.2237734	.8784110	5.446390	.0076719	.1971324
#2	.7159218	.2208340	.8638460	5.471532	.0049927	.1972526
#3	.7146995	.2201378	.8461290	5.472953	.0028899	.1950247

Elem	Sr4077
Units	ppm
Avg	.2239109
Stddev	.0005863
%RSD	.2618547

#1	.2242439
#2	.2232339
#3	.2242550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5198.730	90711.98	8134.471	4294.333	6640.082
Stddev	17.700	112.10	46.682	17.852	12.116
%RSD	.3404760	.1235825	.5738771	.4157039	.1824691

#1	5189.513	90735.99	8149.894	4297.626	6636.413
#2	5219.137	90589.82	8171.489	4310.309	6653.609
#3	5187.541	90810.14	8082.029	4275.064	6630.225

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001543	-.002596	.0077707	.0019039	.0042472	.3783242	.0126834
Stddev	.002877	.001136	.0005872	.0031698	.0003591	.0066831	.0004841
%RSD	186.4135	43.75874	7.555952	166.4941	8.454361	1.766487	3.816968

#1	-.003745	-.003057	.0074415	.0055639	.0043872	.3858955	.0126599
#2	.001712	-.001302	.0084486	.0000419	.0045152	.3732464	.0131788
#3	-.002598	-.003430	.0074221	.0001059	.0038392	.3758307	.0122114

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000386	.0007694	3.876125	.0060726	.0005356	.0592994	3.072393
Stddev	.0000425	.0000304	.036201	.0000243	.0001019	.0003188	.027792
%RSD	109.9551	3.951621	.9339605	.3997343	19.02440	.5375536	.9045713

#1	.0000599	.0007397	3.911672	.0060578	.0004479	.0589450	3.099332
#2	-.000010	.0007682	3.877401	.0061006	.0005115	.0593902	3.043820
#3	.000066	.0008004	3.839302	.0060593	.0006474	.0595628	3.074027

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0294383	.7957350	.0083206	.0018614	120.2069	-.003556	.2019850
Stddev	.0005982	.0222713	.0000605	.0003799	.9989	.001242	.0007956
%RSD	2.032096	2.798836	.7267723	20.40965	.8309975	34.92394	.3939023

#1	.0301264	.7712503	.0082852	.0017109	121.2287	-.003493	.2020904
#2	.0291467	.8147881	.0082862	.0022935	119.2326	-.002347	.2011419
#3	.0290418	.8011665	.0083904	.0015797	120.1592	-.004829	.2027226

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.565130	.0209736	.0030320	.0022341	.0239736	4.781823	.8052704
Stddev	.045280	.0002548	.0002220	.0004034	.0012279	.022509	.0067605
%RSD	1.270075	1.214853	7.321210	18.05546	5.121879	.4707269	.8395293

#1	3.577892	.0210773	.0028011	.0020493	.0233773	4.798565	.7997770
#2	3.514838	.0206833	.0030511	.0019562	.0231577	4.756234	.8032138
#3	3.602659	.0211603	.0032438	.0026967	.0253857	4.790669	.8128203

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.989879	.0051629	.0210111
Stddev	.008418	.0028795	.0001708
%RSD	.4230602	55.77406	.8127593

#1	1.980821	.0052977	.0211913
#2	1.991353	.0079726	.0209906
#3	1.997463	.0022183	.0208516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4934.802	88522.13	8585.602	4134.572	6105.343
Stddev	21.892	280.41	39.656	28.917	25.023
%RSD	.4436160	.3167734	.4618934	.6993994	.4098482

#1	4957.234	88272.55	8553.227	4117.970	6126.711
#2	4933.679	88825.57	8573.744	4167.963	6111.503
#3	4913.494	88468.29	8629.834	4117.784	6077.816

Sample Name: Q2417-02DUPDLX5 Acquired: 7/29/2025 17:16:28 Type: Unk

Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000

User: Jaswal Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003105	-.000277	.0079672	.0029634	.0074513	.3992714	.0146172
Stddev	.001522	.002428	.0006399	.0020525	.0015909	.0042167	.0014310
%RSD	49.01590	875.6891	8.032001	69.25916	21.35042	1.056104	9.789938

#1	-.004862	.002298	.0085488	.0017755	.0087989	.4038650	.0139982
#2	-.002218	-.000606	.0072816	.0053334	.0056963	.3983729	.0162535
#3	-.002234	-.002524	.0080712	.0017814	.0078587	.3955764	.0136000

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000424	.0005550	4.045066	.0090841	.0008277	.0622400	3.260273
Stddev	.0000112	.0000851	.014343	.0003284	.0002104	.0003924	.016657
%RSD	26.31718	15.32749	.3545761	3.615105	25.41779	.6304149	.5109204

#1	.0000296	.0004569	4.031197	.0087461	.0006553	.0621353	3.261421
#2	.0000471	.0006000	4.059840	.0094019	.0007657	.0626741	3.276327
#3	.0000504	.0006080	4.044162	.0091043	.0010621	.0619106	3.243071

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0312419	.8279617	.0102164	.0019287	127.7531	-.000313	.2119218
Stddev	.0006082	.0288748	.0000393	.0005154	.2122	.001321	.0002626
%RSD	1.946900	3.487460	.3844158	26.72331	.1661032	422.4932	.1239118

#1	.0306062	.8200205	.0101718	.0014932	127.9573	.000673	.2117387
#2	.0318183	.8599762	.0102457	.0017951	127.7683	-.001813	.2118040
#3	.0313012	.8038884	.0102318	.0024978	127.5337	.000202	.2122227

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.771893	.0214455	.0034638	.0022266	.0254431	5.111502	.8585079
Stddev	.051091	.0006276	.0005565	.0002741	.0012506	.033575	.0029343
%RSD	1.354521	2.926594	16.06750	12.30806	4.915368	.6568428	.3417954

#1	3.821872	.0216956	.0031688	.0019273	.0268581	5.145498	.8608444
#2	3.774049	.0219095	.0031169	.0024652	.0244859	5.078365	.8552146
#3	3.719758	.0207313	.0041058	.0022872	.0249853	5.110642	.8594647

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.236395	5.065383	4.968101	5.334195	5.378272	10.16881	10.64989
Stddev	.008248	.128336	.013882	.006488	.005377	.04556	.14970
%RSD	.1575146	2.533590	.2794150	.1216294	.0999746	.4480659	1.405656

#1	5.226872	5.125283	4.963177	5.332897	5.374354	10.12095	10.48254
#2	5.241211	4.918048	4.957353	5.328454	5.376060	10.21166	10.69611
#3	5.241104	5.152817	4.983773	5.341234	5.384402	10.17382	10.77104

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2536742	2.268303	26.37756	.9563112	2.542530	1.302240	5.338097
Stddev	.0011477	.007611	.04782	.0024659	.003509	.002977	.023173
%RSD	.4524461	.3355518	.1812951	.2578556	.1380289	.2286360	.4340972

#1	.2529893	2.267604	26.37465	.9576086	2.541561	1.298850	5.346663
#2	.2530341	2.261066	26.42676	.9578577	2.539606	1.303442	5.355767
#3	.2549992	2.276240	26.33125	.9534675	2.546422	1.304429	5.311861

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.614843	24.66577	2.545669	1.304490	24.16363	2.550520	2.651321
Stddev	.007349	.13292	.004881	.001088	.08656	.006979	.002334
%RSD	.2810418	.5388703	.1917346	.0833851	.3582209	.2736470	.0880212

#1	2.606358	24.53900	2.546979	1.304194	24.18251	2.542874	2.650864
#2	2.619072	24.65425	2.540266	1.303581	24.23919	2.556548	2.649250
#3	2.619100	24.80408	2.549761	1.305695	24.06919	2.552140	2.653850

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.97858	5.060451	5.305789	5.019236	5.117452	5.026110	4.817743
Stddev	.11282	.031017	.009542	.013565	.009195	.004584	.015118
%RSD	.4181740	.6129210	.1798393	.2702588	.1796811	.0912051	.3137926

#1	27.03421	5.040267	5.301045	5.025518	5.113159	5.031402	4.806587
#2	27.05278	5.044921	5.299550	5.003669	5.128009	5.023545	4.811693
#3	26.84875	5.096165	5.316774	5.028521	5.111190	5.023382	4.834949

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.027639	5.017405	5.360607
Stddev	.016886	.016149	.055238
%RSD	.3358717	.3218677	1.030450

#1	5.021161	4.999842	5.340971
#2	5.014951	5.020760	5.422981
#3	5.046805	5.031614	5.317869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4945.880	86608.59	8361.031	4144.081	5971.866
Stddev	10.606	43.10	48.346	13.621	6.841
%RSD	.2144483	.0497671	.5782309	.3286950	.1145478

#1	4958.096	86628.97	8392.277	4150.069	5975.488
#2	4940.525	86637.72	8385.472	4153.682	5976.133
#3	4939.019	86559.08	8305.345	4128.491	5963.976

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001873	.0026000	-.000030	-.000058	-.000021	-.006308	-.000863
Stddev	.000943	.0007345	.000749	.000661	.000502	.007955	.000135
%RSD	50.33912	28.25037	2520.800	1141.589	2385.954	126.1183	15.69655

#1	-.002272	.0032398	.000260	.000523	.000317	.002070	-.000776
#2	-.000796	.0027621	.000531	-.000777	.000218	-.013759	-.000794
#3	-.002550	.0017979	-.000880	.000080	-.000598	-.007234	-.001019

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000579	.0002765	.0150975	.0003066	.0003878	.0004173	-.002654
Stddev	.0000311	.0001090	.0068509	.0002962	.0000986	.0000878	.004574
%RSD	53.66318	39.43840	45.37814	96.60175	25.42540	21.02791	172.3159

#1	.0000713	.0003734	.0082850	.0003365	.0003036	.0005186	-.006887
#2	.0000224	.0001584	.0150212	-.000003	.0003634	.0003670	.002197
#3	.0000801	.0002976	.0219862	.000587	.0004963	.0003662	-.003273

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012001	.0096881	.0007152	.0015629	.0227004	-.004683	.0003956
Stddev	.0002404	.0179969	.0002693	.0002064	.0126579	.002990	.0001739
%RSD	20.03069	185.7616	37.65537	13.20844	55.76041	63.85118	43.96168

#1	.0013727	-.006592	.0004396	.0014956	.0337898	-.007980	.0005667
#2	.0013021	.029013	.0009777	.0017946	.0089101	-.003920	.0002190
#3	.0009255	.006643	.0007284	.0013986	.0254014	-.002148	.0004011

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0776846	.0061818	.0016395	.0004833	.0114574	-.004171	-.000526
Stddev	.0148957	.0013179	.0003219	.0003276	.0017497	.003688	.001236
%RSD	19.17455	21.31898	19.63403	67.78698	15.27112	88.41130	235.0233

#1	.0686606	.0076732	.0018275	.0004603	.0106148	-.003329	-.001849
#2	.0695156	.0056979	.0012678	.0008218	.0134689	-.000977	-.000326
#3	.0948776	.0051743	.0018233	.0001678	.0102884	-.008207	.000598

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0027971	-.004181	.0012751
Stddev	.0008294	.001664	.0002317
%RSD	29.65219	39.80188	18.16765

#1	.0020665	-.005781	.0015412
#2	.0026260	-.002459	.0011663
#3	.0036986	-.004304	.0011180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5126.371	89781.47	8223.919	4309.833	6528.583
Stddev	10.640	148.16	31.119	13.089	23.431
%RSD	.2075526	.1650178	.3783902	.3037053	.3589060

#1	5133.323	89621.44	8189.157	4300.456	6552.157
#2	5131.667	89913.85	8249.177	4304.255	6528.295
#3	5114.122	89809.12	8233.422	4324.787	6505.297

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003615	.0004166	.0021853	.0016822	.0000298	.0650489	.0011096
Stddev	.001603	.0010561	.0003028	.0024659	.0003270	.0064773	.0006999
%RSD	44.32999	253.4792	13.85713	146.5846	1096.728	9.957592	63.07482

#1	-.003149	-.000507	.0019831	-.001092	-.000348	.0724348	.0019177
#2	-.005399	.001568	.0025334	.003623	.000224	.0603350	.0007163
#3	-.002297	.000189	.0020394	.002516	.000213	.0623770	.0006949

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000315	.0002173	.7995108	.0009985	.0000811	.0122656	.6181808
Stddev	.0000305	.0000661	.0160403	.0002716	.0001007	.0004404	.0037502
%RSD	96.85368	30.41962	2.006265	27.19741	124.1994	3.590473	.6066460

#1	.0000637	.0001410	.7973660	.0008209	.0001902	.0126761	.6223909
#2	.0000031	.0002564	.7846508	.0008635	.0000613	.0123203	.6169533
#3	.0000275	.0002546	.8165156	.0013112	-.000008	.0118004	.6151982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057152	.1688074	.0019059	.0011152	24.42308	-.002838	.0416630
Stddev	.0003892	.0068996	.0000546	.0001730	.06372	.000567	.0003407
%RSD	6.809991	4.087254	2.863351	15.51676	.2608874	19.97924	.8177339

#1	.0059669	.1766102	.0019677	.0010818	24.35053	-.002459	.0412919
#2	.0052669	.1662992	.0018857	.0009612	24.46995	-.003490	.0419617
#3	.0059117	.1635127	.0018643	.0013024	24.44876	-.002565	.0417353

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6668010	.0068219	.0007001	.0005793	.0129263	.9631175	.1611111
Stddev	.0168165	.0006798	.0001696	.0022801	.0018818	.0202636	.0027384
%RSD	2.521964	9.965208	24.23004	393.6162	14.55824	2.103963	1.699699

#1	.6579425	.0065208	.0007815	-.000702	.0144007	.9674799	.1631802
#2	.6861948	.0076002	.0005051	-.000772	.0108067	.9808447	.1580058
#3	.6562656	.0063446	.0008138	.003212	.0135715	.9410280	.1621472

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1510446	.3641880	.1855374	.3955641	.1714539	.8016803	.0570433
Stddev	.0028112	.0041425	.0003965	.0007825	.0003924	.0052047	.0009758
%RSD	1.861196	1.137458	.2137022	.1978286	.2288640	.6492231	1.710666

#1	.1478155	.3611039	.1850802	.3951644	.1713462	.7956798	.0581439
#2	.1523713	.3625637	.1857875	.3950622	.1718889	.8043900	.0567021
#3	.1529469	.3688965	.1857444	.3964658	.1711266	.8049711	.0562839

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0385873	.0297389	4.360855	.0802476	.0390514	.1329674	3.923322
Stddev	.0002829	.0001057	.012908	.0007422	.0003368	.0007630	.003555
%RSD	.7330224	.3555453	.2959886	.9248938	.8623692	.5738304	.0906089

#1	.0389138	.0298296	4.374169	.0810966	.0387425	.1323442	3.920089
#2	.0384313	.0296227	4.348396	.0799241	.0390013	.1327397	3.927129
#3	.0384169	.0297643	4.360002	.0797220	.0394104	.1338184	3.922749

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0724295	1.238306	.1048767	.0165134	131.5980	.0564309	.2602770
Stddev	.0003092	.021293	.0006073	.0001359	.3434	.0029820	.0015078
%RSD	.4268299	1.719550	.5790591	.8229199	.2609132	5.284339	.5793085

#1	.0725921	1.252455	.1049802	.0163569	131.9881	.0578296	.2620181
#2	.0726234	1.248645	.1042243	.0165821	131.4643	.0584565	.2594091
#3	.0720730	1.213817	.1054256	.0166013	131.3417	.0530067	.2594039

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.650202	.0808421	.0850133	.1110488	.0598653	5.302243	2.088493
Stddev	.017915	.0001224	.0005266	.0004062	.0017120	.006031	.000797
%RSD	.3170600	.1514727	.6193992	.3657692	2.859837	.1137476	.0381497

#1	5.655941	.0808658	.0849078	.1107656	.0616715	5.305672	2.088515
#2	5.630121	.0807095	.0845474	.1115142	.0596580	5.295279	2.087685
#3	5.664543	.0809509	.0855846	.1108666	.0582663	5.305778	2.089278

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.354176	.0360993	.0631127
Stddev	.010704	.0011047	.0001362
%RSD	.4546778	3.060107	.2158728

#1	2.342846	.0373269	.0632638
#2	2.355562	.0351854	.0629992
#3	2.364119	.0357856	.0630750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4983.711	86725.35	8414.747	4085.449	6158.048
Stddev	20.231	378.60	42.517	13.756	22.942
%RSD	.4059455	.4365484	.5052694	.3367047	.3725567

#1	4994.187	86380.39	8373.927	4071.014	6166.631
#2	4996.555	86665.26	8411.535	4086.926	6175.461
#3	4960.390	87130.40	8458.779	4098.406	6132.052

Sample Name: Q2417-02MSDDLX5 Acquired: 7/29/2025 17:37:42 Type: Unk

Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000

User: Jaswal Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1536157	.3587057	.1878546	.3958029	.1713627	.8142152	.0582163
Stddev	.0054436	.0090750	.0010284	.0025067	.0005622	.0039392	.0015582
%RSD	3.543613	2.529940	.5474502	.6333223	.3280647	.4838075	2.676568

#1	.1564644	.3619307	.1884417	.3931977	.1720088	.8187058	.0564182
#2	.1473390	.3657277	.1866671	.3981979	.1710936	.8113428	.0590600
#3	.1570438	.3484586	.1884549	.3960131	.1709856	.8125969	.0591707

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0387835	.0302017	4.393518	.1062437	.0401128	.1354971	4.041338
Stddev	.0004097	.0000760	.064633	.0013939	.0004351	.0006758	.027137
%RSD	1.056443	.2517750	1.471094	1.311943	1.084724	.4987853	.6714837

#1	.0383361	.0302710	4.324841	.1077418	.0403759	.1361417	4.020051
#2	.0391403	.0301203	4.453154	.1049851	.0396106	.1347939	4.032068
#3	.0388741	.0302137	4.402559	.1060043	.0403519	.1355557	4.071895

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0743955	1.221955	.1247414	.0164850	130.2234	.0591652	.2597031
Stddev	.0014234	.049959	.0007972	.0003179	.4895	.0029524	.0025683
%RSD	1.913230	4.088476	.6390978	1.928581	.3759309	4.990115	.9889533

#1	.0731629	1.166740	.1256475	.0167703	130.5828	.0557584	.2609634
#2	.0759533	1.264033	.1241476	.0161423	129.6658	.0609782	.2567480
#3	.0740701	1.235091	.1244292	.0165424	130.4216	.0607590	.2613977

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.734237	.0796940	.0884029	.1160755	.0668959	5.337106	2.145821
Stddev	.046534	.0003129	.0005170	.0002928	.0018401	.034991	.002213
%RSD	.8115169	.3926837	.5847849	.2522394	2.750735	.6556215	.1031447

#1	5.729471	.0798040	.0889783	.1157500	.0652070	5.377508	2.148356
#2	5.690269	.0799371	.0879774	.1161591	.0688569	5.317336	2.144270
#3	5.782971	.0793409	.0882531	.1163174	.0666238	5.316475	2.144838

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.509723	.0437136	.0631058
Stddev	.014708	.0021607	.0009025
%RSD	.5860230	4.942844	1.430110

#1	2.526482	.0424453	.0623541
#2	2.503723	.0462085	.0641067
#3	2.498964	.0424872	.0628565

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4885.702	86223.04	8312.444	4093.870	5980.698
Stddev	13.901	691.07	64.194	34.560	16.430
%RSD	.2845234	.8014940	.7722678	.8441807	.2747197

#1	4877.409	85639.41	8374.205	4076.419	5970.931
#2	4901.751	86986.15	8246.066	4133.675	5999.667
#3	4877.947	86043.57	8317.061	4071.515	5971.496

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1608583	.3812168	.1929323	.4093363	.1854471	.7650812	.0558245
Stddev	.0017987	.0120601	.0010583	.0024258	.0002315	.0055404	.0006740
%RSD	1.118214	3.163587	.5485469	.5926278	.1248610	.7241533	1.207332

#1	.1588997	.3858174	.1937920	.4099655	.1852927	.7665003	.0550613
#2	.1624362	.3675335	.1917503	.4066578	.1853353	.7589693	.0560743
#3	.1612390	.3902995	.1932546	.4113855	.1857134	.7697740	.0563379

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0392360	.0315227	3.930517	.0824581	.0409573	.1196099	3.698364
Stddev	.0001929	.0001509	.008127	.0005458	.0001720	.0007552	.026014
%RSD	.4915797	.4786056	.2067576	.6619476	.4198999	.6313849	.7033894

#1	.0390137	.0313790	3.926356	.0825710	.0408377	.1187389	3.706425
#2	.0393589	.0315093	3.939882	.0818647	.0408799	.1200092	3.669274
#3	.0393354	.0316799	3.925314	.0829387	.0411544	.1200817	3.719394

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0703325	1.133269	.1088627	.0173416	122.1280	.0594942	.2412943
Stddev	.0004134	.015160	.0005941	.0001325	.4869	.0002181	.0009803
%RSD	.5877537	1.337706	.5457515	.7642076	.3986699	.3665939	.4062570

#1	.0707303	1.134389	.1082797	.0174919	122.4550	.0593335	.2408186
#2	.0699051	1.147838	.1088409	.0172416	121.5685	.0594066	.2406426
#3	.0703620	1.117580	.1094674	.0172914	122.3607	.0597425	.2424216

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.527699	.0791354	.0911414	.1428815	.0677367	5.028730	1.906188
Stddev	.048174	.0010009	.0008534	.0008453	.0035411	.029840	.008574
%RSD	.8715094	1.264782	.9362987	.5916096	5.227671	.5933999	.4498016

#1	5.564511	.0789432	.0905912	.1424278	.0716817	5.048702	1.901038
#2	5.473176	.0782445	.0907085	.1423599	.0648330	4.994428	1.901440
#3	5.545410	.0802184	.0921244	.1438568	.0666955	5.043061	1.916086

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007117	-.003193	.0059142	.0049496	.0000108	.0825827	.4264566
Stddev	.003305	.001263	.0005372	.0017447	.0012769	.0058775	.0012160
%RSD	46.43596	39.55224	9.082955	35.24924	11766.11	7.117145	.2851318

#1	-.010077	-.001737	.0057029	.0041231	-.000362	.0834587	.4256862
#2	-.007722	-.003853	.0065249	.0069540	.001433	.0879731	.4278584
#3	-.003551	-.003990	.0055148	.0037718	-.001038	.0763164	.4258253

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000079	.0005131	64.73400	.0000412	-.000093	.0064594	.0059899
Stddev	.000039	.0001273	.15038	.0004176	.000188	.0003950	.0051654
%RSD	50.23148	24.81826	.2323050	1012.775	203.0543	6.114826	86.23548

#1	-.000034	.0004420	64.63329	-.000436	-.000073	.0064456	.0000287
#2	-.000110	.0006601	64.90686	.000219	.000085	.0068611	.0091432
#3	-.000092	.0004371	64.66186	.000340	-.000290	.0060715	.0087977

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7946614	4.352857	.0038513	.0009954	295.4093	-.003516	.0869807
Stddev	.0013579	.003729	.0002556	.0002717	1.6806	.003336	.0000310
%RSD	.1708746	.0856709	6.637543	27.29315	.5688998	94.89594	.0356899

#1	.7947257	4.348552	.0037541	.0008931	295.9586	.000190	.0869646
#2	.7959860	4.355072	.0041413	.0007897	296.7465	-.006280	.0870165
#3	.7932725	4.354948	.0036585	.0013033	293.5228	-.004457	.0869610

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.534623	.0497138	.0005969	-.003266	.0105338	1.328818	.0227383
Stddev	.010001	.0006685	.0001856	.000848	.0009463	.005472	.0024282
%RSD	.6516618	1.344683	31.08704	25.96027	8.983360	.4117610	10.67870

#1	1.543141	.0489472	.0004151	-.002952	.0099045	1.330872	.0244554
#2	1.523612	.0500191	.0007860	-.002620	.0100748	1.332964	.0237993
#3	1.537117	.0501751	.0005894	-.004226	.0116221	1.322616	.0199602

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4645358	-.003386	.1560113
Stddev	.0086647	.002525	.0005433
%RSD	1.865239	74.57559	.3482479

#1	.4744937	-.000507	.1563316
#2	.4587156	-.004429	.1563182
#3	.4603983	-.005224	.1553839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4783.813	82791.56	7287.489	3952.350	5721.443
Stddev	10.208	213.41	28.184	4.136	11.205
%RSD	.2133874	.2577712	.3867496	.1046385	.1958436

#1	4782.386	82764.08	7295.962	3948.658	5719.538
#2	4794.659	82593.22	7310.465	3956.819	5733.478
#3	4774.393	83017.38	7256.040	3951.573	5711.312

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002203	-.001751	.0127011	.0040282	.0014847	.1126852	.4374984
Stddev	.001763	.001313	.0005654	.0023463	.0027147	.0086525	.0002025
%RSD	80.00814	74.97848	4.451921	58.24652	182.8438	7.678483	.0462805

#1	-.000293	-.003089	.0123290	.0030597	.0004710	.1181347	.4375472
#2	-.003767	-.001701	.0124225	.0067037	.0045603	.1172126	.4372760
#3	-.002550	-.000464	.0133518	.0023212	-.000577	.1027083	.4376720

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001141	.0007504	43.65409	.0004731	.0008901	.0114694	.8709065
Stddev	.0000589	.0001322	.16593	.0003663	.0001928	.0001217	.0036585
%RSD	51.63725	17.62092	.3800948	77.43064	21.66335	1.061069	.4200767

#1	.0000517	.0007161	43.68652	.0008666	.0009480	.0115540	.8704973
#2	.0001689	.0006387	43.80141	.0004105	.0010474	.0113299	.8747524
#3	.0001218	.0008964	43.47435	.0001421	.0006750	.0115242	.8674699

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8454699	4.913086	.0090480	.0010250	392.6156	-.001785	.1630658
Stddev	.0025561	.012931	.0000503	.0004874	3.6973	.000736	.0011207
%RSD	.3023316	.2631906	.5554275	47.54960	.9417099	41.21646	.6872901

#1	.8483255	4.898209	.0090481	.0006293	394.7204	-.002449	.1621191
#2	.8446885	4.921624	.0089976	.0015695	394.7800	-.000994	.1627749
#3	.8433957	4.919425	.0090982	.0008763	388.3465	-.001910	.1643032

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9289406	.0490538	.0003924	-.002931	.0075503	1.062030	.0211434
Stddev	.0492421	.0002410	.0003681	.000719	.0013566	.014188	.0008583
%RSD	5.300891	.4912635	93.80275	24.52224	17.96792	1.335892	4.059580

#1	.9727883	.0492599	-.000020	-.002250	.0088455	1.068359	.0211931
#2	.8756668	.0491125	.000689	-.002861	.0076659	1.045780	.0219757
#3	.9383666	.0487888	.000508	-.003683	.0061396	1.071953	.0202612

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5973403	-.007465	.1446331
Stddev	.0024399	.003232	.0003162
%RSD	.4084545	43.29143	.2185936

#1	.5955851	-.004017	.1449948
#2	.6001264	-.007954	.1444096
#3	.5963095	-.010424	.1444948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4778.989	80913.88	8236.951	3918.674	5661.538
Stddev	1.499	90.72	56.632	9.764	5.418
%RSD	.0313578	.1121192	.6875343	.2491691	.0956980

#1	4778.914	80820.64	8233.772	3922.484	5658.130
#2	4780.524	81001.85	8181.976	3925.960	5667.785
#3	4777.530	80919.15	8295.105	3907.580	5658.698

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0430238	.0016295	.4250969	-.001820	-.006537	70.50659	.5845353
Stddev	.0033057	.0015881	.0013878	.000650	.000536	.56630	.0053153
%RSD	7.683407	97.46210	.3264787	35.72997	8.192160	.8031920	.9093270

#1	.0392114	.0017753	.4266959	-.002565	-.006599	70.69290	.5883110
#2	.0447660	.0031396	.4243889	-.001521	-.005973	69.87060	.5784569
#3	.0450940	-.000027	.4242058	-.001373	-.007039	70.95626	.5868379

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078028	.0141338	55.81494	.1646671	.0940326	.4180996	185.4302
Stddev	.0001061	.0002330	.32964	.0002440	.0006707	.0006860	.7706
%RSD	1.359095	1.648145	.5906009	.1482014	.7132351	.1640679	.4155735

#1	.0079252	.0140369	56.03955	.1644181	.0945241	.4178824	185.0517
#2	.0077434	.0143996	55.43650	.1649059	.0932686	.4175486	184.9221
#3	.0077397	.0139650	55.96876	.1646774	.0943053	.4188679	186.3169

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.121762	38.91859	.1857504	.0038720	5.266305	.2866577	.7805025
Stddev	.020187	.31060	.0005091	.0001566	.012773	.0028824	.0013599
%RSD	.6466393	.7980865	.2740781	4.045229	.2425500	1.005518	.1742299

#1	3.128419	38.98542	.1857505	.0038159	5.260674	.2875016	.7820442
#2	3.099088	38.58001	.1852412	.0040489	5.257315	.2834475	.7799900
#3	3.137779	39.19033	.1862594	.0037511	5.280927	.2890239	.7794734

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.02855	-.038222	.0068293	.0300390	3.701803	4.653201	5.851409
Stddev	.07267	.003336	.0002484	.0010629	.016830	.041056	.022713
%RSD	.5577895	8.729110	3.637465	3.538363	.4546324	.8823087	.3881694

#1	13.07914	-.041846	.0066035	.0310268	3.705661	4.619319	5.859814
#2	12.94528	-.037543	.0067890	.0301760	3.683380	4.641427	5.825691
#3	13.06124	-.035278	.0070954	.0289143	3.716369	4.698857	5.868722

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.988330	.1860536	.0570265
Stddev	.025987	.0052452	.0014261
%RSD	.6515761	2.819197	2.500732

#1	3.973749	.1920857	.0582654
#2	3.972908	.1825663	.0554676
#3	4.018333	.1835086	.0573466

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5612.265	96426.77	8714.305	4673.450	5788.768
Stddev	13.085	229.98	40.003	16.658	13.463
%RSD	.2331462	.2385054	.4590497	.3564494	.2325746

#1	5627.084	96635.62	8701.439	4670.390	5797.904
#2	5607.404	96464.39	8759.158	4691.426	5795.092
#3	5602.307	96180.29	8682.318	4658.533	5773.307

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0358565	.0040802	.5410219	.0000075	-.006827	68.65166	.5549671
Stddev	.0047425	.0017617	.0030772	.0030552	.002517	.06594	.0006366
%RSD	13.22644	43.17703	.5687827	40486.98	36.87239	.0960561	.1147065

#1	.0307488	.0029513	.5376906	-.003106	-.009630	68.72705	.5552664
#2	.0401207	.0061101	.5416171	.000128	-.006096	68.60472	.5542360
#3	.0367000	.0031790	.5437581	.003001	-.004757	68.62320	.5553988

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065199	.0134454	44.08322	.1462355	.0906658	.4536801	174.5283
Stddev	.0000314	.0001326	.10424	.0008681	.0001446	.0009602	.6422
%RSD	.4811853	.9863155	.2364637	.5936075	.1595142	.2116377	.3679461

#1	.0065545	.0134549	44.20333	.1454954	.0907872	.4545735	174.1067
#2	.0065118	.0133083	44.01636	.1471909	.0905058	.4526649	175.2674
#3	.0064933	.0135730	44.02998	.1460202	.0907044	.4538020	174.2108

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.649597	38.01120	.1663704	.0073465	4.937785	.2882087	.6826825
Stddev	.009880	.12156	.0002510	.0000705	.005030	.0017847	.0022349
%RSD	.2707264	.3197997	.1508505	.9599995	.1018588	.6192300	.3273739

#1	3.660901	38.14810	.1666126	.0073066	4.932885	.2897329	.6850432
#2	3.645286	37.91591	.1661114	.0074280	4.942934	.2886476	.6805993
#3	3.642605	37.96959	.1663871	.0073050	4.937535	.2862455	.6824049

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.61999	.1731636	.0050071	.0401451	3.991521	5.428921	5.798378
Stddev	.06528	.0036157	.0000653	.0006104	.017129	.050623	.009244
%RSD	.4793090	2.088019	1.303257	1.520454	.4291279	.9324630	.1594250

#1	13.56658	.1689994	.0049347	.0394473	4.009948	5.387487	5.791277
#2	13.69277	.1755062	.0050253	.0404080	3.988530	5.485346	5.795026
#3	13.60064	.1749852	.0050613	.0405799	3.976084	5.413931	5.808830

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

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

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

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072755	.0010636	.0847857	.0018854	-.002714	15.85714	.1322624
Stddev	.0007630	.0008842	.0008934	.0016258	.002463	.02608	.0001297
%RSD	10.48764	83.12825	1.053709	86.23088	90.74494	.1644866	.0980772

#1	.0069403	.0001088	.0856304	.0000492	.000109	15.87468	.1323571
#2	.0081487	.0018540	.0838505	.0031418	-.003831	15.82717	.1323155
#3	.0067374	.0012281	.0848762	.0024651	-.004422	15.86959	.1321145

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017890	.0011529	12.62562	.0375725	.0182038	.0956021	45.39305
Stddev	.0000195	.0001664	.06760	.0006173	.0003227	.0003725	.13668
%RSD	1.092489	14.43647	.5354080	1.642890	1.772594	.3896606	.3010995

#1	.0017671	.0011660	12.69839	.0381426	.0181477	.0960069	45.51675
#2	.0018047	.0013123	12.56477	.0376578	.0185508	.0955257	45.41608
#3	.0017951	.0009803	12.61371	.0369170	.0179128	.0952737	45.24632

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7123317	9.002709	.0366546	.0030160	1.323729	.0625198	.1764634
Stddev	.0018554	.012342	.0006015	.0000579	.009609	.0024609	.0012199
%RSD	.2604674	.1370957	1.640879	1.919797	.7259077	3.936134	.6913268

#1	.7136735	9.010484	.0365109	.0030279	1.326267	.0632797	.1778216
#2	.7102144	8.988478	.0373149	.0030671	1.331814	.0645110	.1761078
#3	.7131073	9.009165	.0361380	.0029531	1.313106	.0597686	.1754608

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.069406	.0122063	.0011358	.0047528	.8597274	1.202070	1.137372
Stddev	.017445	.0013213	.0001778	.0005155	.0040240	.016459	.003600
%RSD	.5683349	10.82454	15.65574	10.84611	.4680515	1.369247	.3165599

#1	3.049269	.0117558	.0011939	.0053253	.8626490	1.189041	1.141074
#2	3.079046	.0136939	.0009362	.0046078	.8551376	1.220567	1.133883
#3	3.079903	.0111691	.0012773	.0043254	.8613956	1.196601	1.137158

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7822281	.0393840	.0091447
Stddev	.0058406	.0043302	.0002373
%RSD	.7466599	10.99492	2.595063

#1	.7884303	.0441628	.0090952
#2	.7814209	.0357205	.0089360
#3	.7768331	.0382687	.0094028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5253.766	89790.16	8659.149	4407.889	6312.878
Stddev	15.261	196.13	19.892	12.445	22.352
%RSD	.2904760	.2184362	.2297266	.2823263	.3540634

#1	5251.343	89685.92	8658.692	4393.764	6307.260
#2	5270.093	89668.15	8679.265	4412.665	6337.502
#3	5239.861	90016.40	8639.488	4417.239	6293.871

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7263615	2.008498	1.413858	1.672002	.4161810	78.17299	.7771051
Stddev	.0007020	.049646	.004094	.001683	.0017323	.10142	.0013030
%RSD	.0966402	2.471786	.2895413	.1006852	.4162409	.1297374	.1676757

#1	.7259186	2.015591	1.418069	1.671370	.4151165	78.18854	.7784843
#2	.7271708	2.054216	1.409893	1.670725	.4152466	78.26574	.7758947
#3	.7259950	1.955688	1.413611	1.673910	.4181799	78.06470	.7769364

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1855969	.1759943	66.51520	.4957307	.3098278	.7300992	186.9734
Stddev	.0004535	.0004513	.11457	.0021617	.0004376	.0003111	1.2410
%RSD	.2443614	.2564391	.1722502	.4360569	.1412561	.0426162	.6637111

#1	.1853610	.1763010	66.64216	.4955680	.3101870	.7304522	188.0587
#2	.1861197	.1762059	66.48395	.4936550	.3099562	.7298646	185.6205
#3	.1853099	.1754761	66.41950	.4979691	.3093404	.7299809	187.2411

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.291469	50.78612	.7204997	.0784472	8.675850	.5786186	7.647658
Stddev	.002747	.20557	.0014873	.0009149	.054120	.0046721	.009519
%RSD	.0834462	.4047744	.2064263	1.166218	.6237988	.8074597	.1244642

#1	3.294200	50.57571	.7215199	.0793647	8.726669	.5745010	7.652094
#2	3.288707	50.98648	.7211861	.0775350	8.618944	.5836961	7.636731
#3	3.291501	50.79616	.7187932	.0784419	8.681938	.5776588	7.654148

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.89081	.7476798	.3805577	.7261920	4.711648	6.832932	10.90828
Stddev	.17386	.0020950	.0002707	.0030648	.010757	.096073	.01800
%RSD	.7942192	.2802033	.0711451	.4220361	.2283116	1.406024	.1650257

#1	22.05944	.7491039	.3802464	.7291104	4.721468	6.917813	10.92845
#2	21.71215	.7452743	.3806881	.7264663	4.713327	6.852348	10.90253
#3	21.90083	.7486614	.3807386	.7229992	4.700151	6.728634	10.89385

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.307119	.3517440	.2490130
Stddev	.011842	.0033136	.0013123
%RSD	.3580672	.9420461	.5269901

#1	3.313047	.3480477	.2483268
#2	3.314826	.3544484	.2505261
#3	3.293484	.3527359	.2481860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5575.381	96356.76	9369.190	4612.193	5831.068
Stddev	.692	345.33	35.802	6.267	8.009
%RSD	.0124115	.3583869	.3821249	.1358761	.1373531

#1	5576.000	96090.28	9396.986	4604.965	5823.570
#2	5574.634	96746.90	9328.791	4616.096	5830.129
#3	5575.510	96233.12	9381.794	4615.519	5839.505

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.171926	5.168875	4.988344	5.250356	5.293614	10.21676	10.57215
Stddev	.004625	.067583	.011792	.002086	.009581	.01075	.06650
%RSD	.0894278	1.307506	.2363910	.0397357	.1809878	.1052175	.6289916

#1	5.173412	5.098352	4.985020	5.250529	5.283472	10.22876	10.62520
#2	5.175625	5.233075	5.001442	5.252350	5.294858	10.21348	10.59370
#3	5.166740	5.175198	4.978571	5.248188	5.302512	10.20802	10.49755

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2649070	2.319425	26.79354	.9745738	2.541030	1.293558	5.287422
Stddev	.0017784	.008539	.06041	.0005371	.005191	.001404	.044498
%RSD	.6713199	.3681371	.2254782	.0551143	.2042976	.1085205	.8415732

#1	.2630391	2.324315	26.73361	.9739647	2.540870	1.293271	5.281540
#2	.2651020	2.324395	26.85442	.9749797	2.546299	1.295083	5.334568
#3	.2665798	2.309566	26.79260	.9747769	2.535921	1.292320	5.246158

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.636660	25.04071	2.547413	1.307074	23.55986	2.548268	2.643298
Stddev	.002279	.13499	.004678	.002800	.21035	.014130	.008696
%RSD	.0864466	.5390773	.1836566	.2141905	.8928359	.5545065	.3289651

#1	2.634970	24.89164	2.549321	1.307178	23.74369	2.547287	2.633834
#2	2.639252	25.15470	2.550836	1.309820	23.60544	2.562863	2.650936
#3	2.635759	25.07578	2.542082	1.304224	23.33046	2.534654	2.645123

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.33715	5.224000	5.266348	5.030360	5.091000	4.975407	4.980400
Stddev	.22357	.031505	.006531	.013711	.006269	.044856	.010488
%RSD	.8488883	.6030749	.1240205	.2725611	.1231306	.9015514	.2105807

#1	26.50774	5.190863	5.259120	5.035188	5.083995	5.010697	4.984960
#2	26.41965	5.227568	5.271827	5.041003	5.096081	4.990594	4.987836
#3	26.08405	5.253569	5.268098	5.014888	5.092923	4.924929	4.968405

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.028386	4.953943	5.393887
Stddev	.009137	.010226	.060898
%RSD	.1817061	.2064119	1.129023

#1	5.035116	4.963429	5.354144
#2	5.032057	4.955290	5.463998
#3	5.017984	4.943111	5.363520

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4992.711	84610.86	7947.969	4124.114	6003.910
Stddev	7.237	247.75	47.900	5.539	8.775
%RSD	.1449506	.2928119	.6026651	.1343140	.1461596

#1	5000.977	84497.58	7997.927	4124.877	6010.382
#2	4987.515	84440.00	7943.545	4118.233	5993.922
#3	4989.642	84895.00	7902.435	4129.232	6007.426

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001282	.0010494	.0010092	-.000354	-.000464	.0136636	.0014084
Stddev	.001755	.0004978	.0013376	.002111	.001384	.0074571	.0003273
%RSD	136.8585	47.43694	132.5369	597.0414	298.1646	54.57619	23.23986

#1	-.003180	.0006064	.0009499	-.002748	.001104	.0072638	.0016315
#2	.000283	.0015880	.0023755	.001240	-.001515	.0218525	.0010327
#3	-.000950	.0009537	-.000298	.000447	-.000982	.0118745	.0015611

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000557	.0003164	.0143861	.0000721	.0002634	.0000938	.0005194
Stddev	.0000604	.0000852	.0080287	.0001326	.0002207	.0001316	.0029331
%RSD	108.3652	26.94340	55.80846	183.9966	83.76674	140.3558	564.6833

#1	.0000041	.0003068	.0186835	.0000676	.0000156	.0002381	.0039043
#2	.0001222	.0004061	.0051234	-.000058	.0004387	-.000019	-.001072
#3	.0000410	.0002364	.0193514	.000207	.0003360	.000063	-.001274

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009813	.0083476	.0003861	.0011437	-.040959	-.003712	.0002311
Stddev	.0003233	.0287380	.0001612	.0002354	.002865	.001131	.0001148
%RSD	32.94896	344.2644	41.75953	20.57921	6.995944	30.47144	49.66838

#1	.0011116	.0073819	.0002153	.0009622	-.041573	-.005002	.0000986
#2	.0006132	-.019895	.0005356	.0014096	-.043468	-.003243	.0002927
#3	.0012192	.037556	.0004074	.0010592	-.037836	-.002891	.0003018

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.036315	.0043334	.0012389	.0001470	.0107531	-.012064	-.000594
Stddev	.008587	.0013940	.0002962	.0005558	.0005150	.003875	.000625
%RSD	23.64473	32.16891	23.90580	378.1018	4.789633	32.12126	105.2149

#1	-.046198	.0027586	.0015806	.0007763	.0106795	-.015370	-.001249
#2	-.030687	.0048323	.0010788	-.000058	.0102788	-.013023	-.000529
#3	-.032060	.0054093	.0010572	-.000277	.0113010	-.007800	-.000004

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

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0015698	-.004697	.0005066
Stddev	.0010804	.002958	.0001023
%RSD	68.82563	62.97770	20.18924

#1	.0004374	-.001338	.0005980
#2	.0025895	-.005843	.0005256
#3	.0016826	-.006911	.0003961

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5257.723	90005.91	7947.169	4345.411	6752.719
Stddev	8.431	651.44	15.279	6.256	15.191
%RSD	.1603466	.7237780	.1922510	.1439738	.2249602

#1	5265.296	89615.31	7955.546	4350.012	6765.048
#2	5259.234	89644.47	7929.534	4338.287	6757.360
#3	5248.639	90757.94	7956.427	4347.932	6735.749

Sample Name: Q2710-01MSD Acquired: 7/29/2025 18:19:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7475058	2.013496	1.372655	1.718068	.4259905	76.16642	.7632661
Stddev	.0033009	.013388	.002843	.006369	.0015173	.19322	.0022850
%RSD	.4415847	.6649211	.2071227	.3707197	.3561739	.2536824	.2993668

#1	.7440966	1.998384	1.375894	1.717378	.4247622	76.00645	.7607841
#2	.7477343	2.018229	1.371494	1.712071	.4255227	76.38110	.7652822
#3	.7506865	2.023874	1.370575	1.724754	.4276865	76.11172	.7637321

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1979550	.1811893	67.84237	.5063445	.3094578	.6929363	172.7456
Stddev	.0022115	.0003946	.20193	.0025523	.0007809	.0015292	.6387
%RSD	1.117158	.2177985	.2976470	.5040711	.2523425	.2206798	.3697520

#1	.1955548	.1807369	67.61260	.5033982	.3094263	.6913056	173.1428
#2	.1999099	.1813678	67.99160	.5077524	.3086931	.6931654	172.0088
#3	.1984002	.1814631	67.92290	.5078828	.3102540	.6943381	173.0852

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.199889	44.51810	.7214249	.0779855	7.796440	.5449203	1.154364
Stddev	.009353	.17395	.0018107	.0001495	.030686	.0023299	.006893
%RSD	.2922989	.3907460	.2509840	.1916633	.3935883	.4275615	.5970937

#1	3.190462	44.34649	.7208740	.0780575	7.811595	.5460733	1.149739
#2	3.209167	44.51350	.7199536	.0780853	7.761125	.5464488	1.162286
#3	3.200037	44.69431	.7234470	.0778137	7.816600	.5422387	1.151067

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.42919	.2958585	.3925941	.7412423	4.305204	5.768719	11.36691
Stddev	.10235	.0028971	.0007422	.0014162	.008938	.172548	.02362
%RSD	.4563444	.9792175	.1890518	.1910520	.2075998	2.991092	.2078141

#1	22.33838	.2979417	.3919030	.7409051	4.299095	5.617412	11.33990
#2	22.40908	.2925501	.3925008	.7400251	4.315462	5.732112	11.37711
#3	22.54010	.2970836	.3933785	.7427966	4.301054	5.956633	11.38371

Sample Name: Q2710-01MSD Acquired: 7/29/2025 18:19:34 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.150789	.3509395	.2576289
Stddev	.016731	.0018064	.0015621
%RSD	.5310130	.5147260	.6063382
#1	3.147684	.3530187	.2560073
#2	3.135827	.3497561	.2591237
#3	3.168854	.3500437	.2577558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5470.476	95736.90	8959.698	4583.985	5751.199
Stddev	9.524	435.98	72.856	28.716	9.117
%RSD	.1741072	.4553903	.8131493	.6264376	.1585209
#1	5481.376	96201.77	9040.952	4609.023	5761.530
#2	5466.296	95671.82	8900.194	4552.640	5744.281
#3	5463.756	95337.13	8937.950	4590.293	5747.786

Sample Name: Q2710-01A Acquired: 7/29/2025 18:23:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7454222	1.901792	1.358871	1.725435	.7689099	70.98742	.7599489
Stddev	.0006851	.061660	.001304	.006708	.0038109	.26198	.0024550
%RSD	.0919118	3.242199	.0959844	.3887719	.4956258	.3690487	.3230455

#1	.7460612	1.845648	1.357639	1.719202	.7672709	71.28918	.7617441
#2	.7455067	1.891944	1.358736	1.724570	.7661927	70.85499	.7609514
#3	.7446988	1.967783	1.360237	1.732534	.7732661	70.81810	.7571514

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1911993	.1754554	55.08533	.5047050	.2990845	.6699504	193.5657
Stddev	.0006285	.0012241	.28683	.0015757	.0004105	.0009639	.0859
%RSD	.3287091	.6976701	.5206974	.3122090	.1372642	.1438710	.0443950

#1	.1917444	.1742035	55.24226	.5058527	.2986492	.6705382	193.4985
#2	.1913416	.1755130	55.25944	.5029084	.2991398	.6688381	193.6625
#3	.1905119	.1766496	54.75428	.5053538	.2994646	.6704751	193.5360

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.216302	39.60548	.6957736	.0779095	7.810677	.5500074	.9503339
Stddev	.007686	.18293	.0013354	.0004593	.014495	.0008194	.0043838
%RSD	.2389740	.4618921	.1919266	.5895583	.1855730	.1489715	.4612885

#1	3.224999	39.81286	.6944396	.0774013	7.825996	.5504146	.9453013
#2	3.213484	39.53660	.6957708	.0780321	7.808854	.5490642	.9533215
#3	3.210423	39.46699	.6971104	.0782950	7.797180	.5505433	.9523791

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.58933	.2971592	.3991638	.7620814	3.832403	5.756083	11.29324
Stddev	.06183	.0026211	.0011201	.0035554	.000170	.024504	.01956
%RSD	.2736926	.8820483	.2806007	.4665441	.0044404	.4257044	.1731594

#1	22.54114	.2952108	.3980983	.7592235	3.832216	5.741691	11.27958
#2	22.65904	.2961277	.3990618	.7609577	3.832549	5.742183	11.28450
#3	22.56781	.3001391	.4003314	.7660629	3.832444	5.784377	11.31564

Sample Name: Q2710-01A Acquired: 7/29/2025 18:23:31 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.805557	.3476916	.2355587
Stddev	.029095	.0034362	.0019138
%RSD	.7645286	.9882870	.8124672

#1	3.773208	.3479768	.2370843
#2	3.813879	.3509762	.2361804
#3	3.829584	.3441216	.2334113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5728.673	96472.44	9221.890	4677.511	5973.007
Stddev	5.057	66.21	27.149	23.174	6.739
%RSD	.0882694	.0686303	.2943951	.4954405	.1128274

#1	5726.351	96515.10	9193.453	4699.750	5979.261
#2	5734.474	96396.17	9224.682	4653.503	5973.890
#3	5725.194	96506.05	9247.535	4679.278	5965.870

Sample Name: CCV06 Acquired: 7/29/2025 18:31:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.135795	5.233562	4.953967	5.210410	5.268378	10.19791
Stddev	.007187	.064695	.002790	.014240	.009044	.01797
%RSD	.1399365	1.236164	.0563184	.2733000	.1716594	.1761765

#1	5.132176	5.187488	4.950999	5.199121	5.263107	10.21670
#2	5.131138	5.205673	4.956537	5.226408	5.278821	10.19612
#3	5.144072	5.307524	4.954364	5.205700	5.263207	10.18090

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.69846	F .2965975	2.315306	27.46993	.9712002	2.525649
Stddev	.11129	.0018437	.006681	.08468	.0011618	.001111
%RSD	1.040198	.6216095	.2885458	.3082554	.1196282	.0439750

#1	10.82097	.2987256	2.311048	27.54694	.9698616	2.525715
#2	10.60362	.2954823	2.311864	27.48359	.9717933	2.526725
#3	10.67079	.2955847	2.323006	27.37925	.9719459	2.524507

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.282112	4.786174	2.694468	25.24735	2.525420	1.304256
Stddev	.000782	.022778	.003452	.07173	.001403	.002424
%RSD	.0609688	.4759063	.1281161	.2841092	.0555437	.1858327

#1	1.281237	4.759874	2.698374	25.30188	2.526857	1.306136
#2	1.282740	4.799538	2.693203	25.16609	2.525349	1.301520
#3	1.282359	4.799111	2.691827	25.27407	2.524055	1.305110

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.97512	2.588016	2.652071	24.56074	F 5.838614	5.257025
Stddev	.11394	.006160	.007614	.12718	.035721	.006915
%RSD	.5431976	.2380054	.2871081	.5178159	.6118135	.1315331

#1	20.84411	2.593639	2.649845	24.41733	5.879825	5.249242
#2	21.05107	2.588977	2.645817	24.60505	5.816503	5.262459
#3	21.03019	2.581433	2.660550	24.65983	5.819513	5.259375

Sample Name: CCV06 Acquired: 7/29/2025 18:31:54 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.008903	5.089590	F 4.484519	5.030418	4.989133	4.976661
Stddev	.004718	.008636	.023417	.029759	.017545	.006330
%RSD	.0941900	.1696721	.5221832	.5915714	.3516581	.1272029

#1	5.005198	5.098780	4.459632	5.059743	4.978006	4.975893
#2	5.007297	5.088348	4.506119	5.031267	4.980035	4.983340
#3	5.014214	5.081644	4.487806	5.000244	5.009358	4.970749

Elem	Sr4077
Units	ppm
Avg	F 5.545476
Stddev	.020819
%RSD	.3754191

#1	5.562896
#2	5.522419
#3	5.551112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5057.150	84287.72	7076.828	4111.331	6088.792
Stddev	3.252	138.68	43.207	8.733	4.349
%RSD	.0643046	.1645317	.6105400	.2124027	.0714311

#1	5055.972	84338.34	7027.994	4105.991	6085.773
#2	5060.826	84130.84	7092.396	4106.593	6093.778
#3	5054.650	84393.97	7110.093	4121.409	6086.827

Sample Name: CCB06 Acquired: 7/29/2025 18:36:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001194	.0004010	.0004750	.0006738	.0002619	-.006915	.0004214
Stddev	.000602	.0014042	.0007219	.0032960	.0005311	.003715	.0012148
%RSD	50.38747	350.2090	151.9975	489.1631	202.8150	53.71971	288.2893

#1	-.000995	.0015515	.0010717	-.002813	.0008450	-.011132	.0017414
#2	-.000717	-.001164	.0006807	.001095	-.000194	-.004125	-.000650
#3	-.001870	.000815	-.000327	.003739	.000135	-.005490	.000172

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000701	.0002707	.0193462	.0000464	.0002364	.0000978	-.000200
Stddev	.0000376	.0000404	.0048568	.0001253	.0003708	.0004867	.002535
%RSD	53.65772	14.93745	25.10479	270.4414	156.8489	497.6447	1269.686

#1	.0001136	.0003152	.0185613	.0001348	.0006643	.0006347	.002445
#2	.0000478	.0002609	.0149296	.0001013	.0000083	-.000027	-.000436
#3	.0000489	.0002361	.0245476	-.000097	.0000367	-.000315	-.002608

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004308	.0178132	.0003177	.0009535	-.067805	-.003357	.0003627
Stddev	.0004786	.0112417	.0000381	.0002841	.013224	.001117	.0002047
%RSD	111.0923	63.10847	11.99579	29.79952	19.50214	33.26182	56.45573

#1	.0009723	.0166905	.0003617	.0006263	-.052566	-.002087	.0005985
#2	.0002554	.0071751	.0002951	.0011378	-.074607	-.004184	.0002590
#3	.0000646	.0295742	.0002962	.0010964	-.076244	-.003800	.0002305

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.078514	.0054824	.0010117	.0001793	.0092044	-.004959	-.002495
Stddev	.011223	.0003524	.0002423	.0004717	.0019547	.004328	.002314
%RSD	14.29429	6.428456	23.94715	263.1563	21.23652	87.27491	92.75464

#1	-.089192	.0058749	.0012778	-.000182	.0113801	-.007163	-.004066
#2	-.066816	.0053795	.0009534	.000713	.0075963	.000027	-.003581
#3	-.079535	.0051929	.0008039	.000007	.0086369	-.007742	.000162

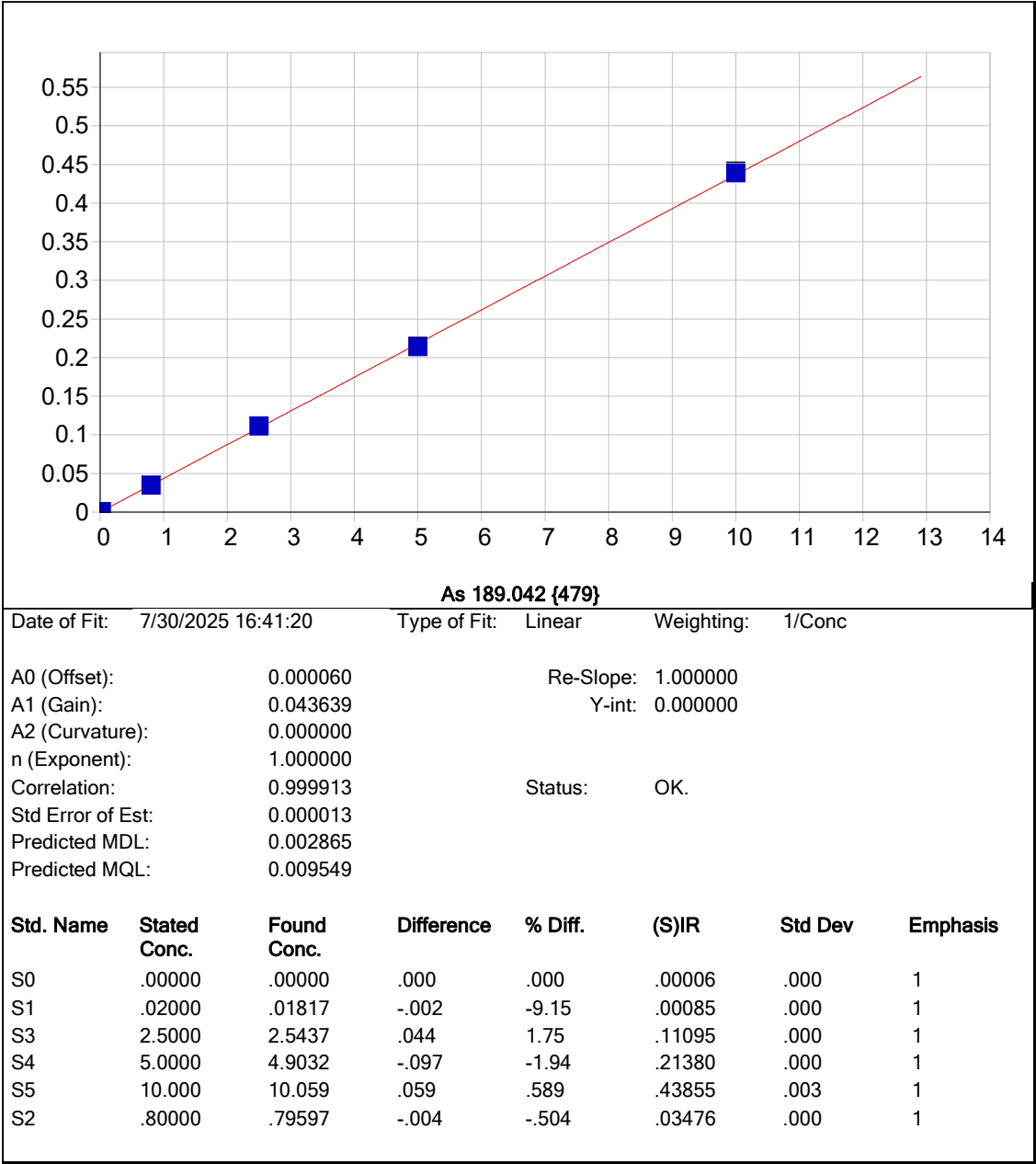
Sample Name: CCB06 Acquired: 7/29/2025 18:36:06 Type: Unk
Method: 6010-200.7 NEW(v66) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

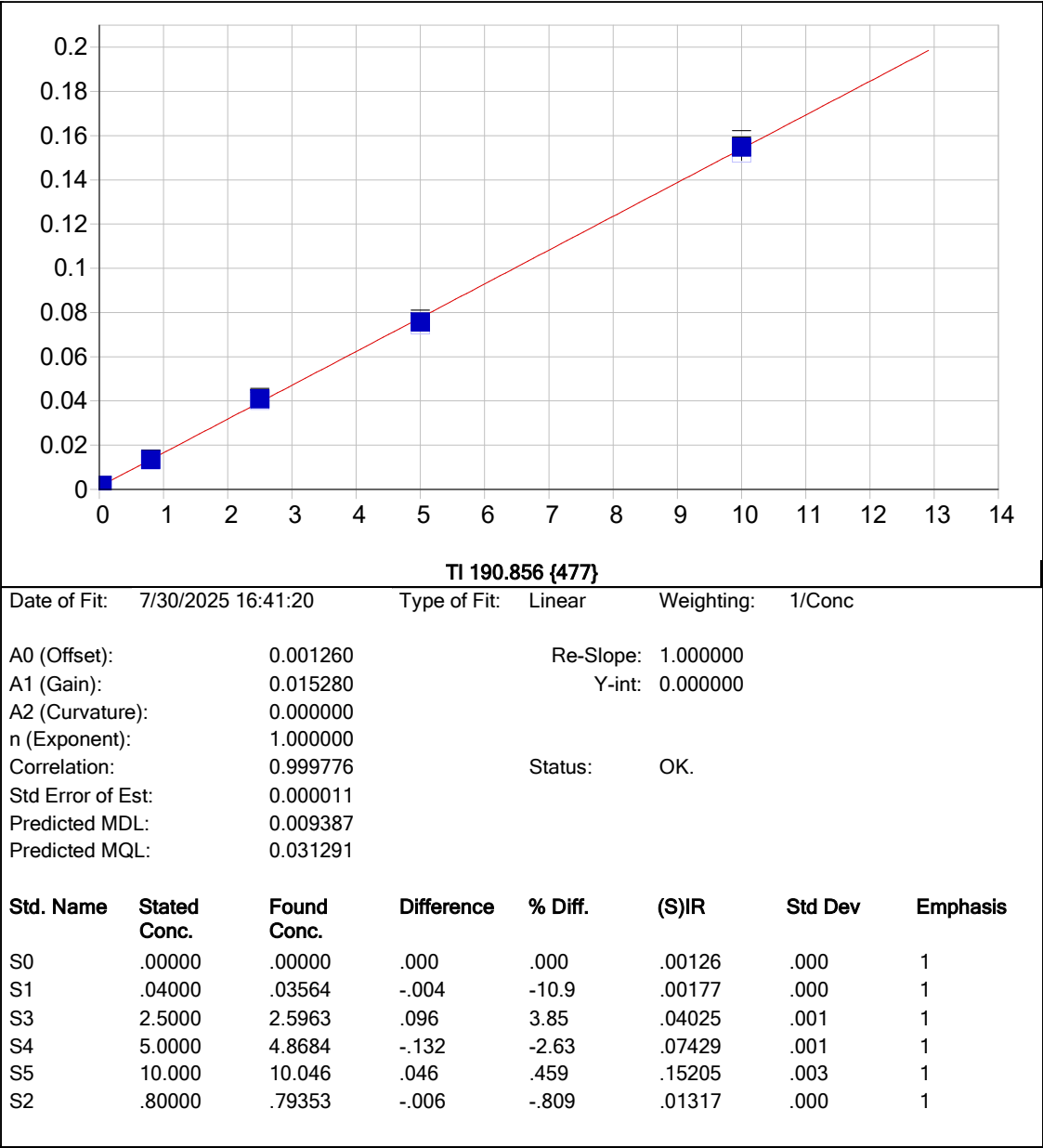
Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0017866	-.004996	.0006605
Stddev	.0020476	.001405	.0000701
%RSD	114.6089	28.11692	10.60967

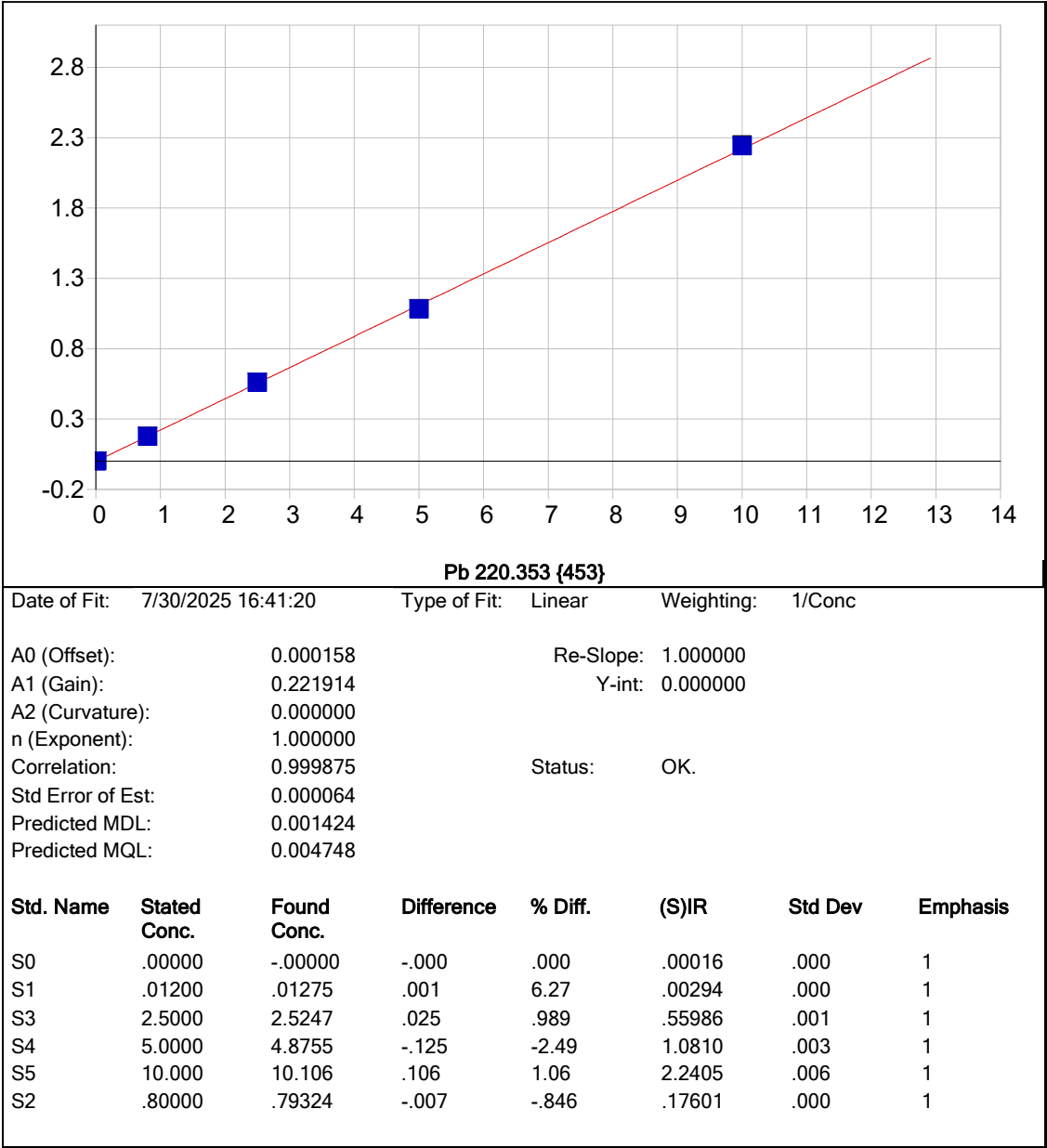
#1	.0041322	-.006367	.0007414
#2	.0003556	-.005063	.0006178
#3	.0008721	-.003560	.0006222

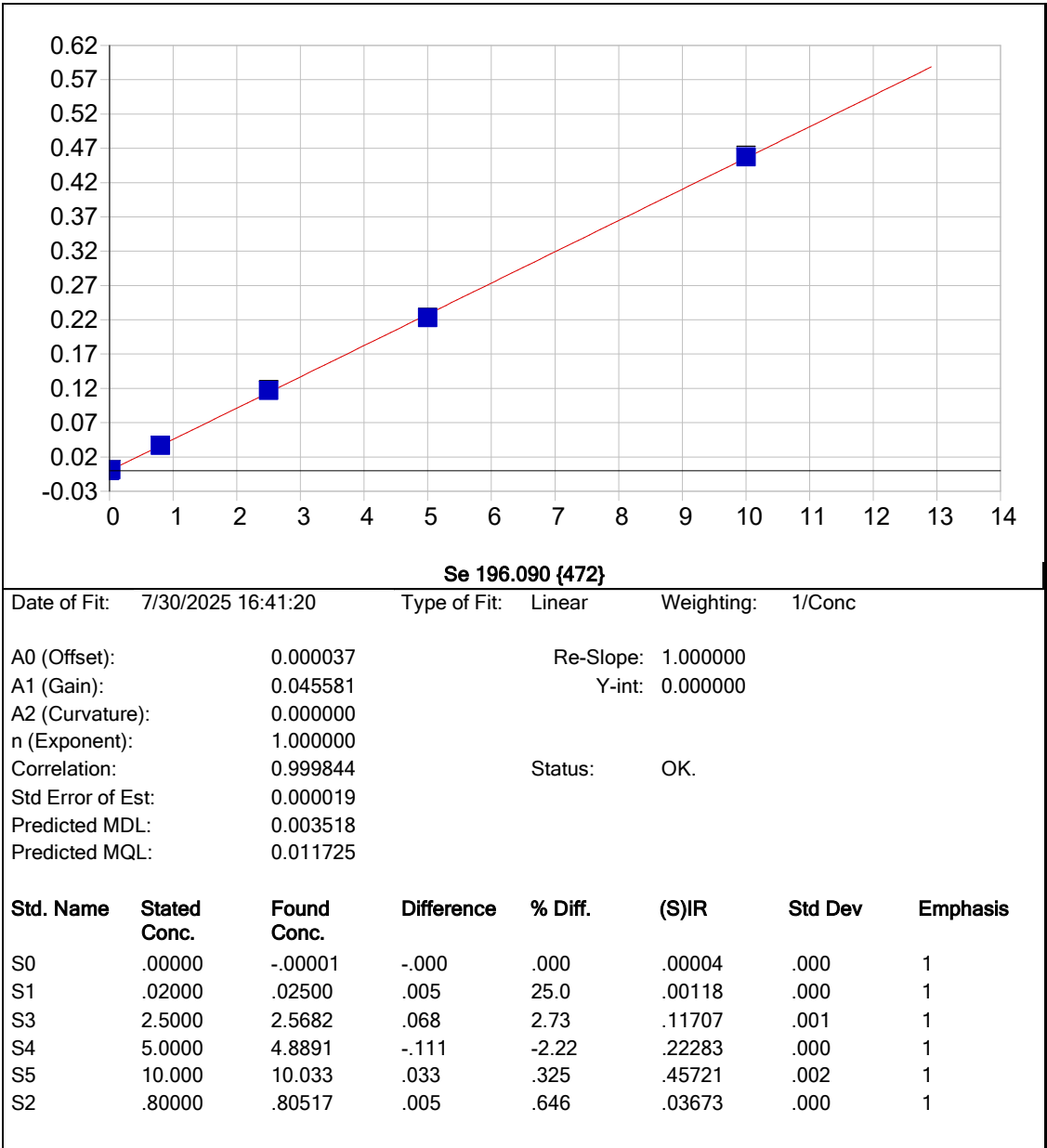
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5245.998	89011.25	8304.180	4343.884	6718.282
Stddev	8.249	451.55	35.938	17.105	20.578
%RSD	.1572514	.5072908	.4327721	.3937722	.3062938

#1	5251.336	89528.45	8263.405	4356.153	6725.674
#2	5250.162	88809.86	8317.892	4351.155	6734.142
#3	5236.497	88695.44	8331.244	4324.345	6695.029

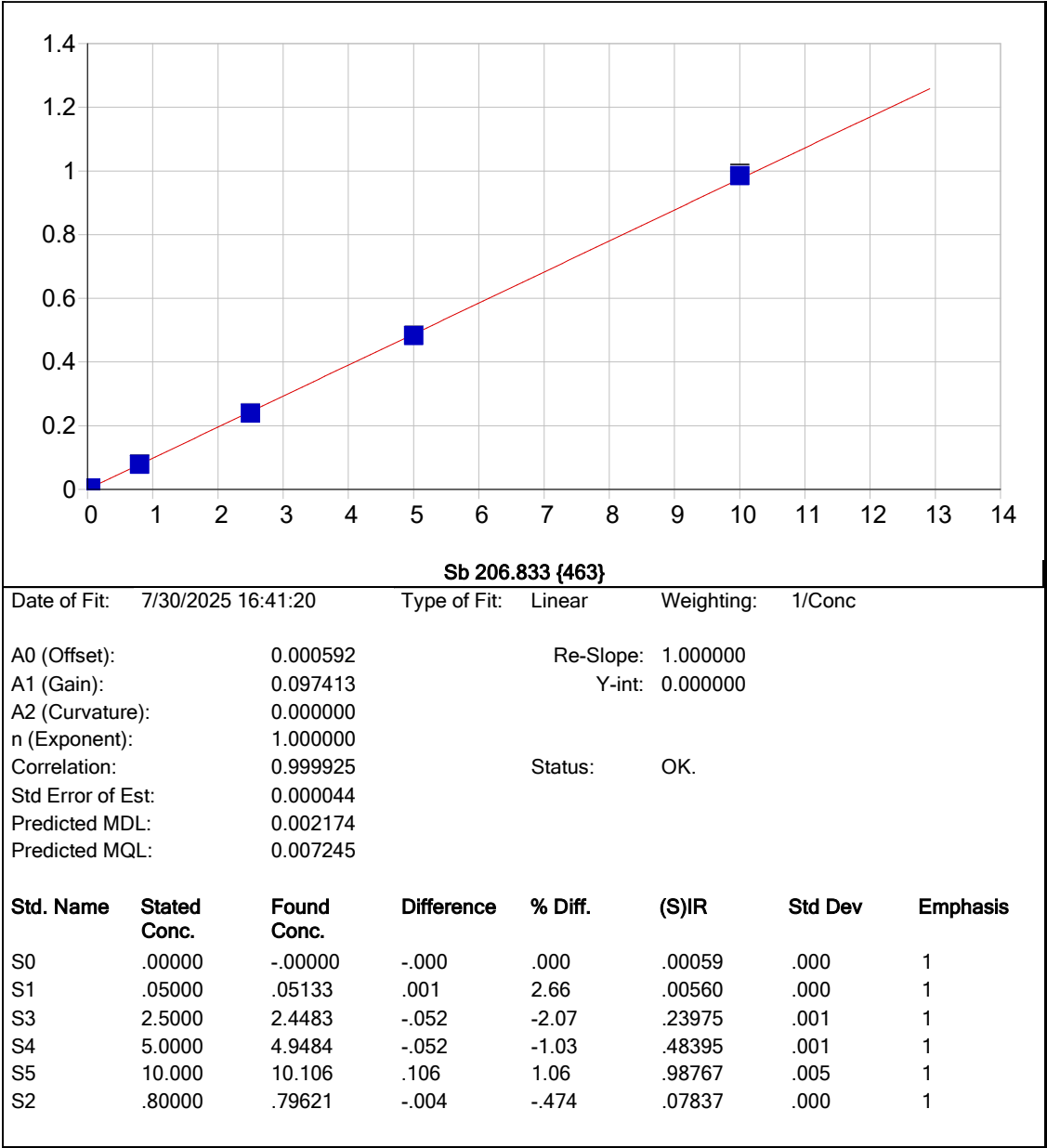


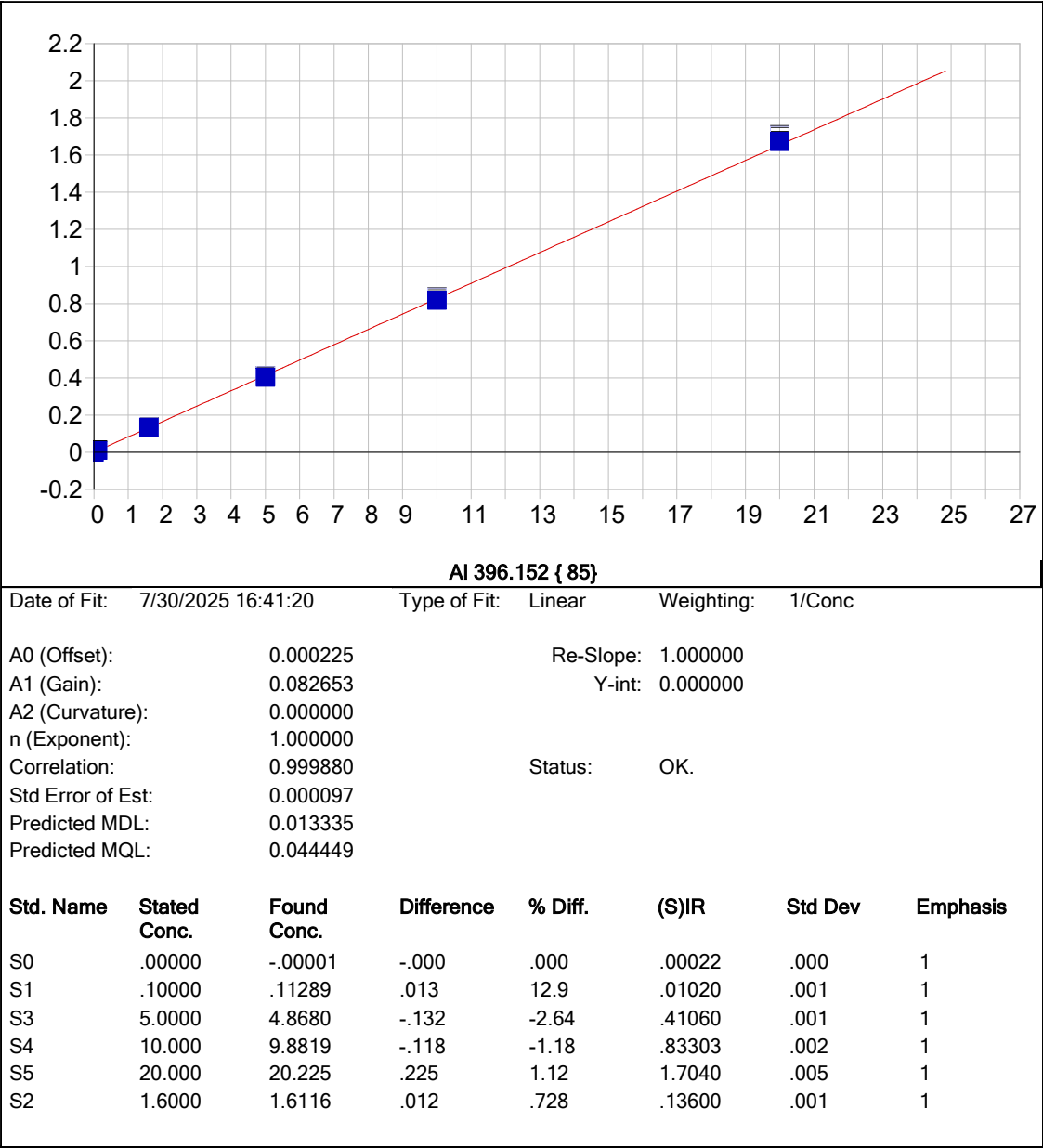


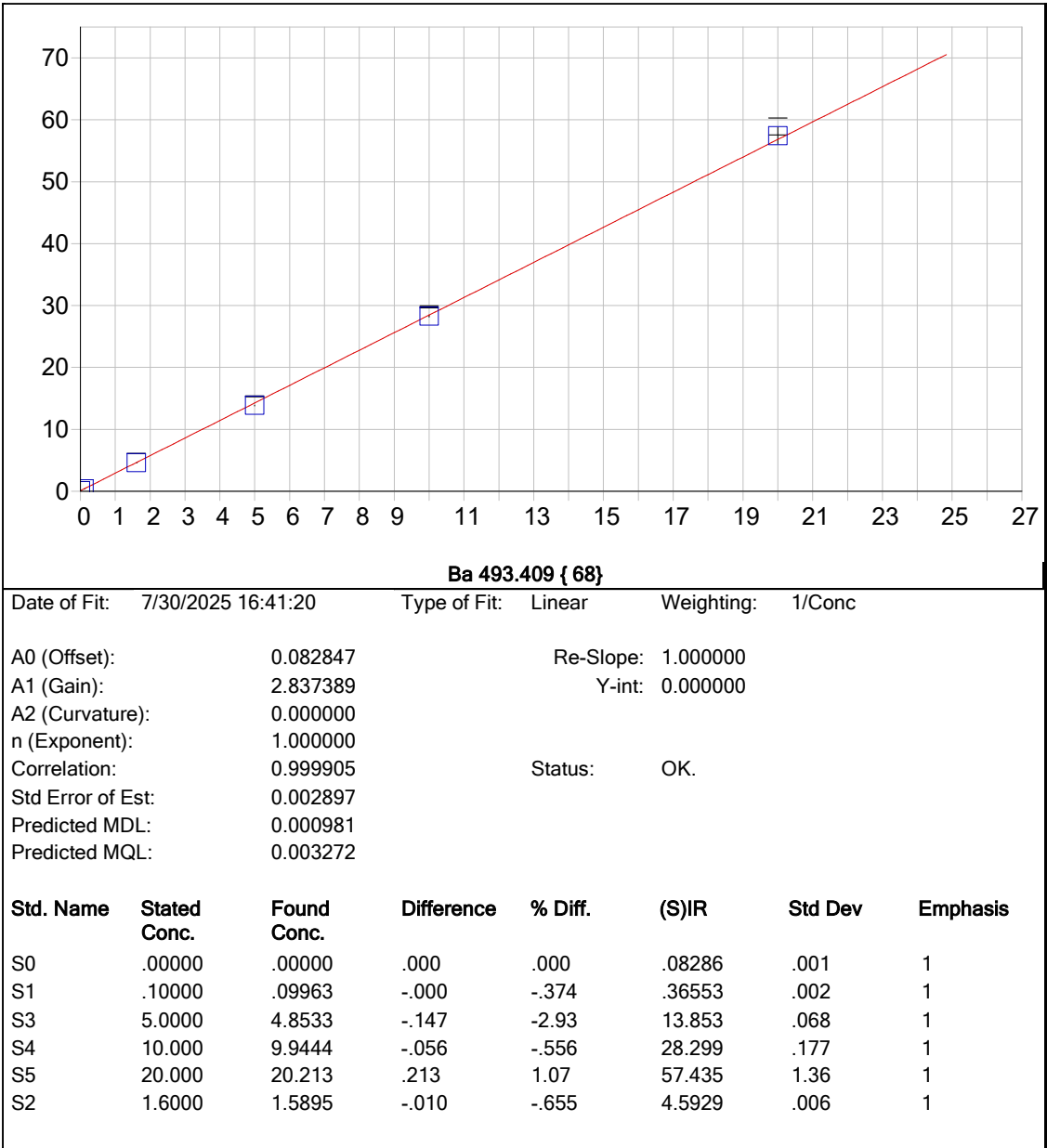


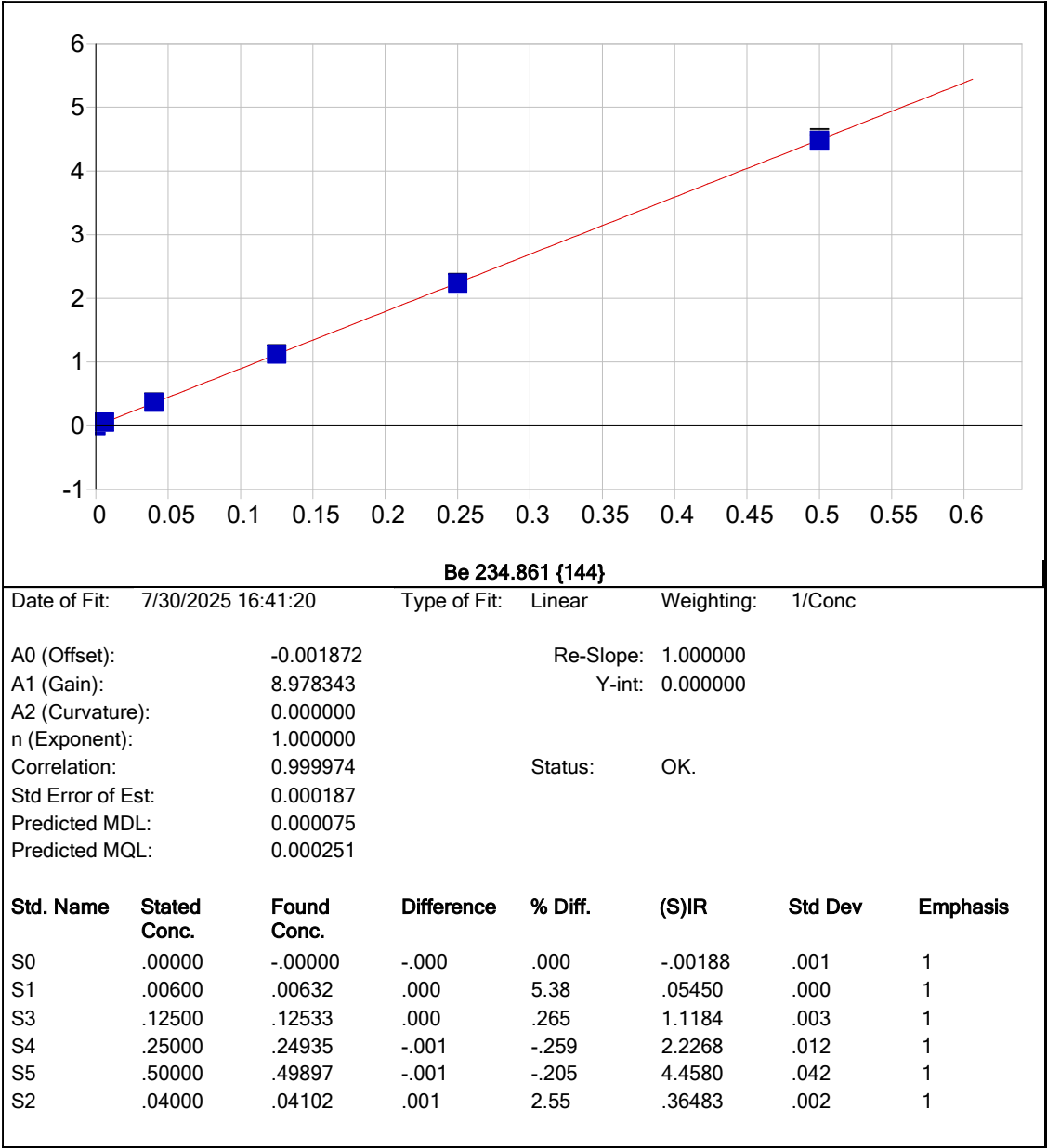


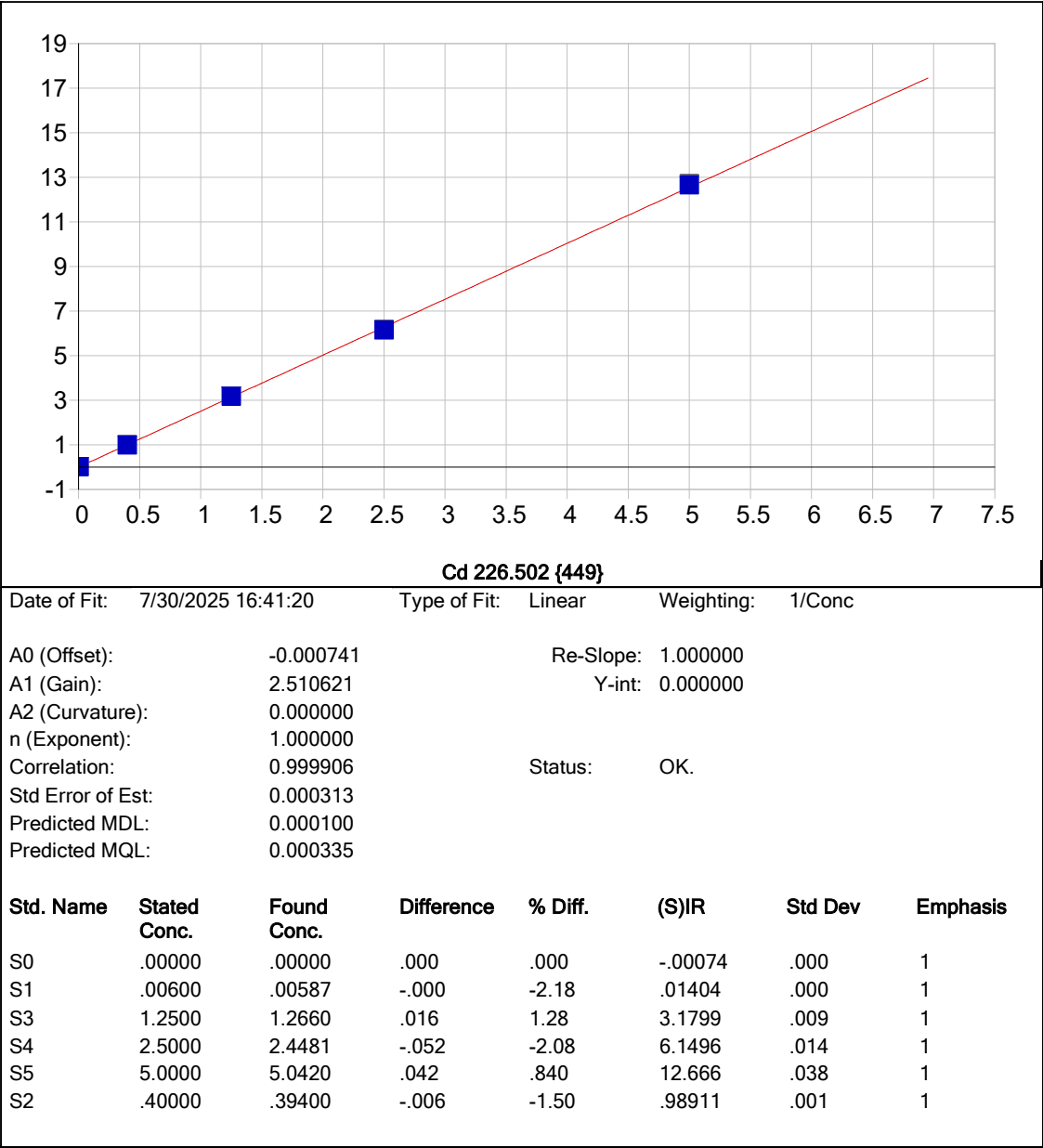
Date of Fit: 7/30/2025 16:41:20		Type of Fit: Linear		Weighting: 1/Conc			
A0 (Offset):	0.000037	Re-Slope:		1.000000			
A1 (Gain):	0.045581	Y-int:		0.000000			
A2 (Curvature):	0.000000						
n (Exponent):	1.000000						
Correlation:	0.999844	Status:		OK.			
Std Error of Est:	0.000019						
Predicted MDL:	0.003518						
Predicted MQL:	0.011725						
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00004	.000	1
S1	.02000	.02500	.005	25.0	.00118	.000	1
S3	2.5000	2.5682	.068	2.73	.11707	.001	1
S4	5.0000	4.8891	-.111	-2.22	.22283	.000	1
S5	10.000	10.033	.033	.325	.45721	.002	1
S2	.80000	.80517	.005	.646	.03673	.000	1

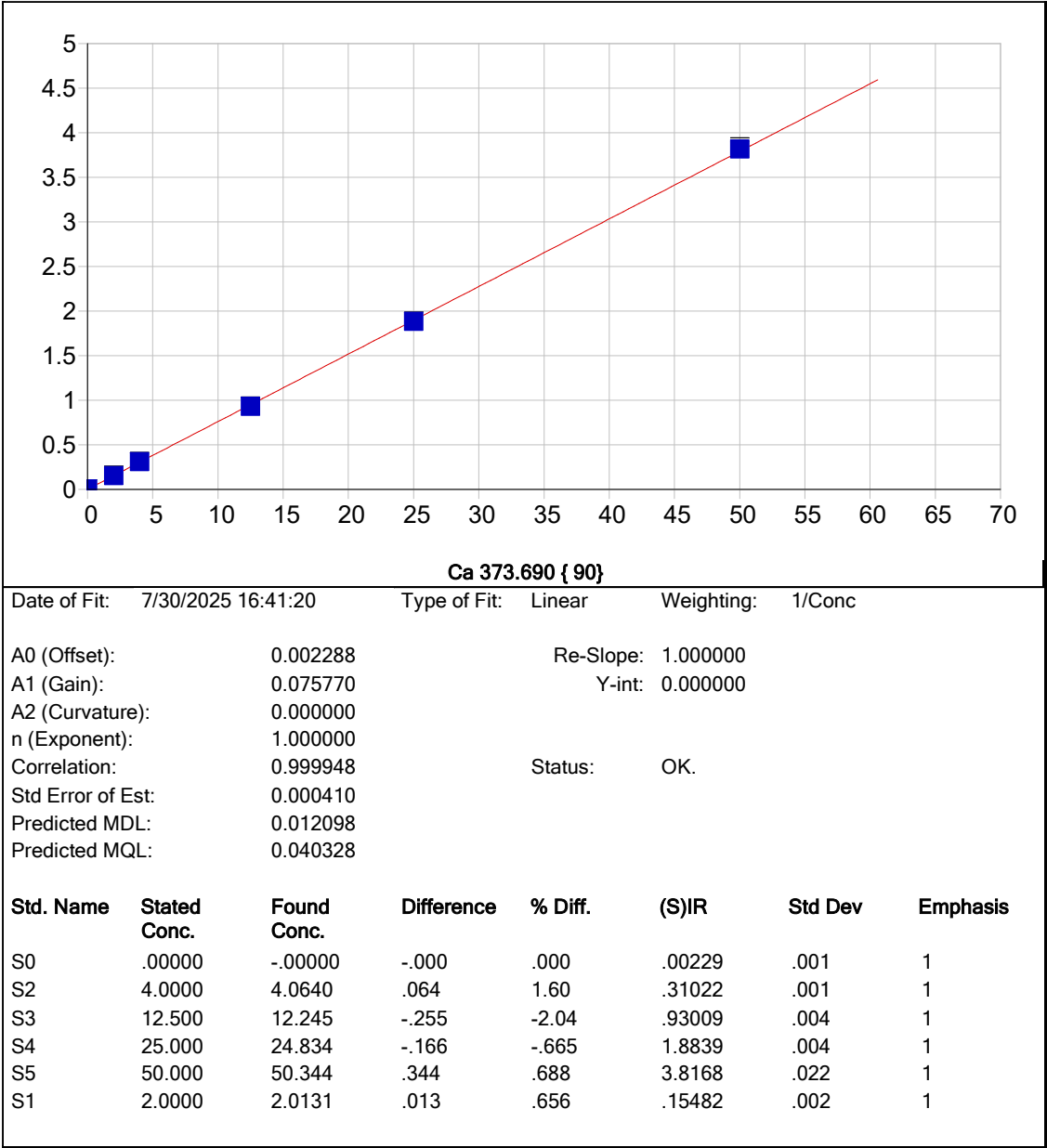


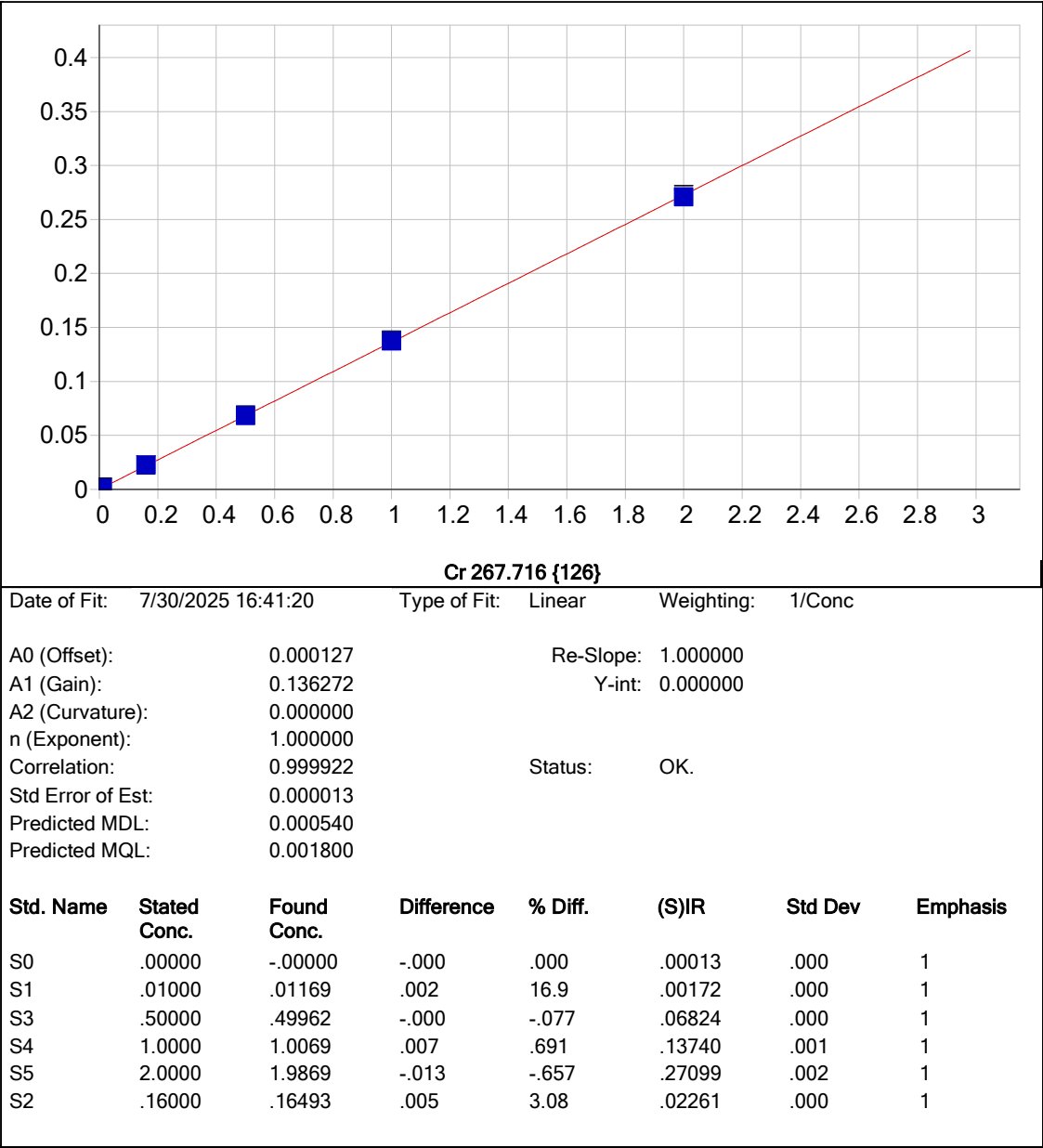


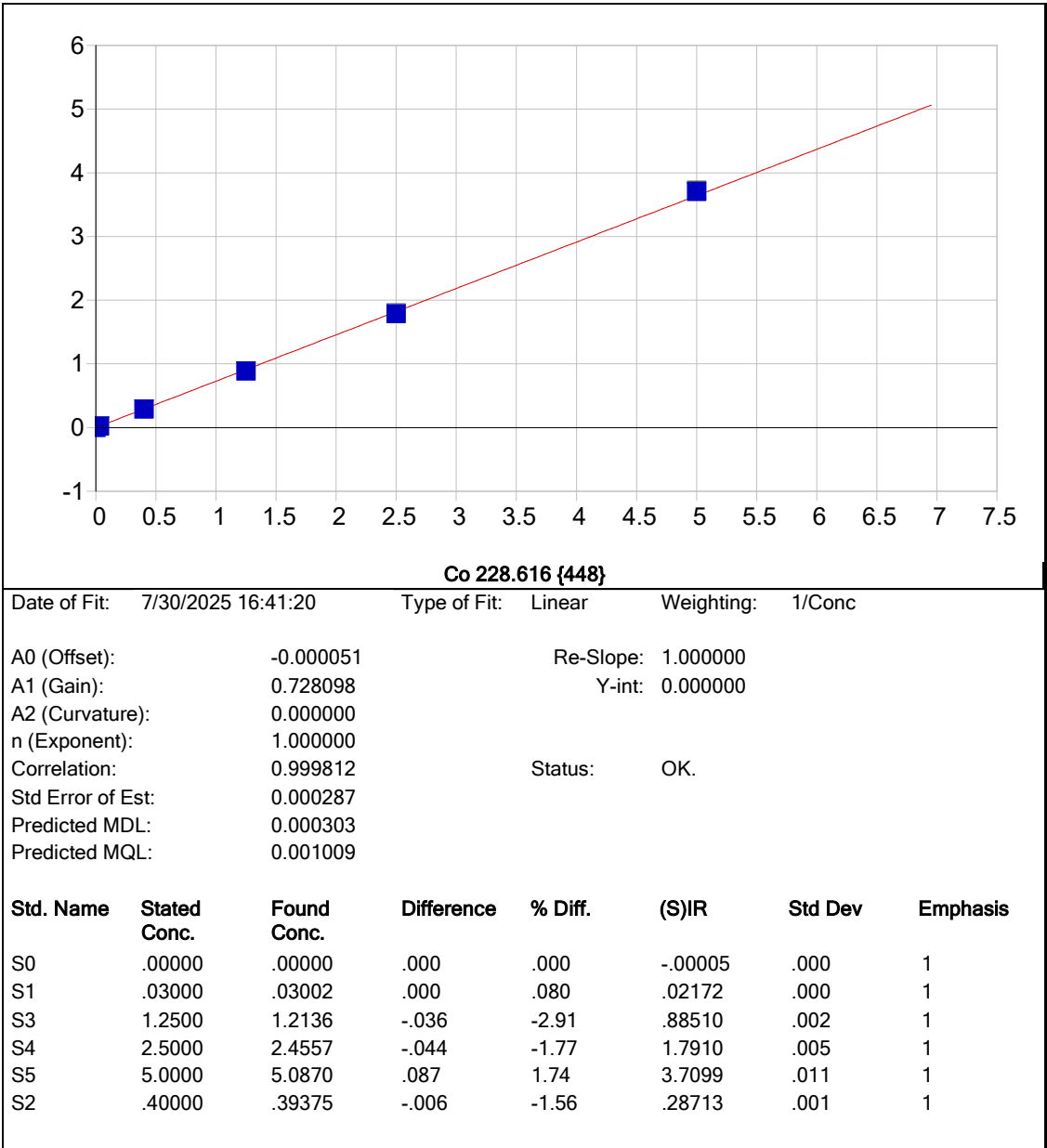


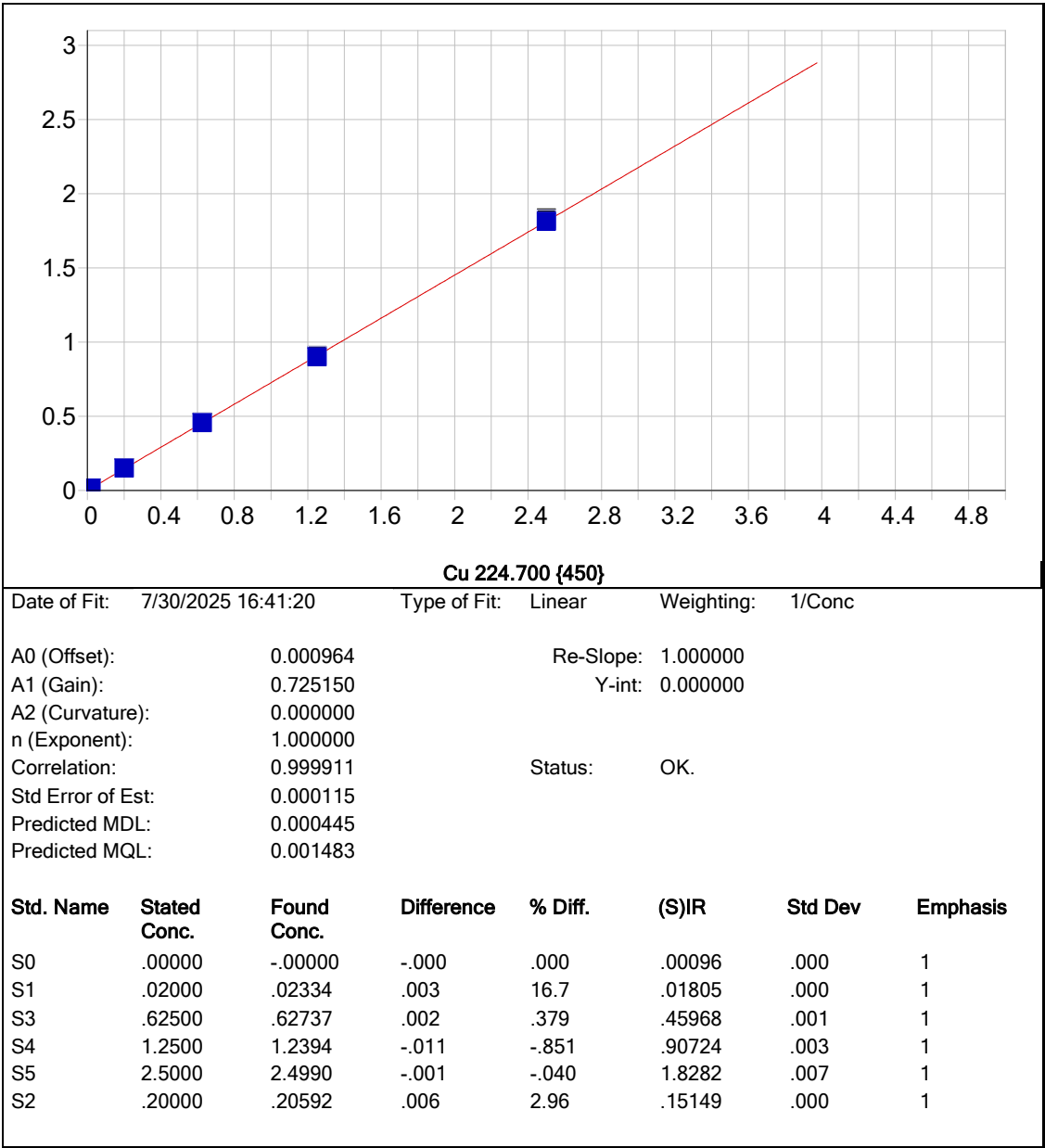


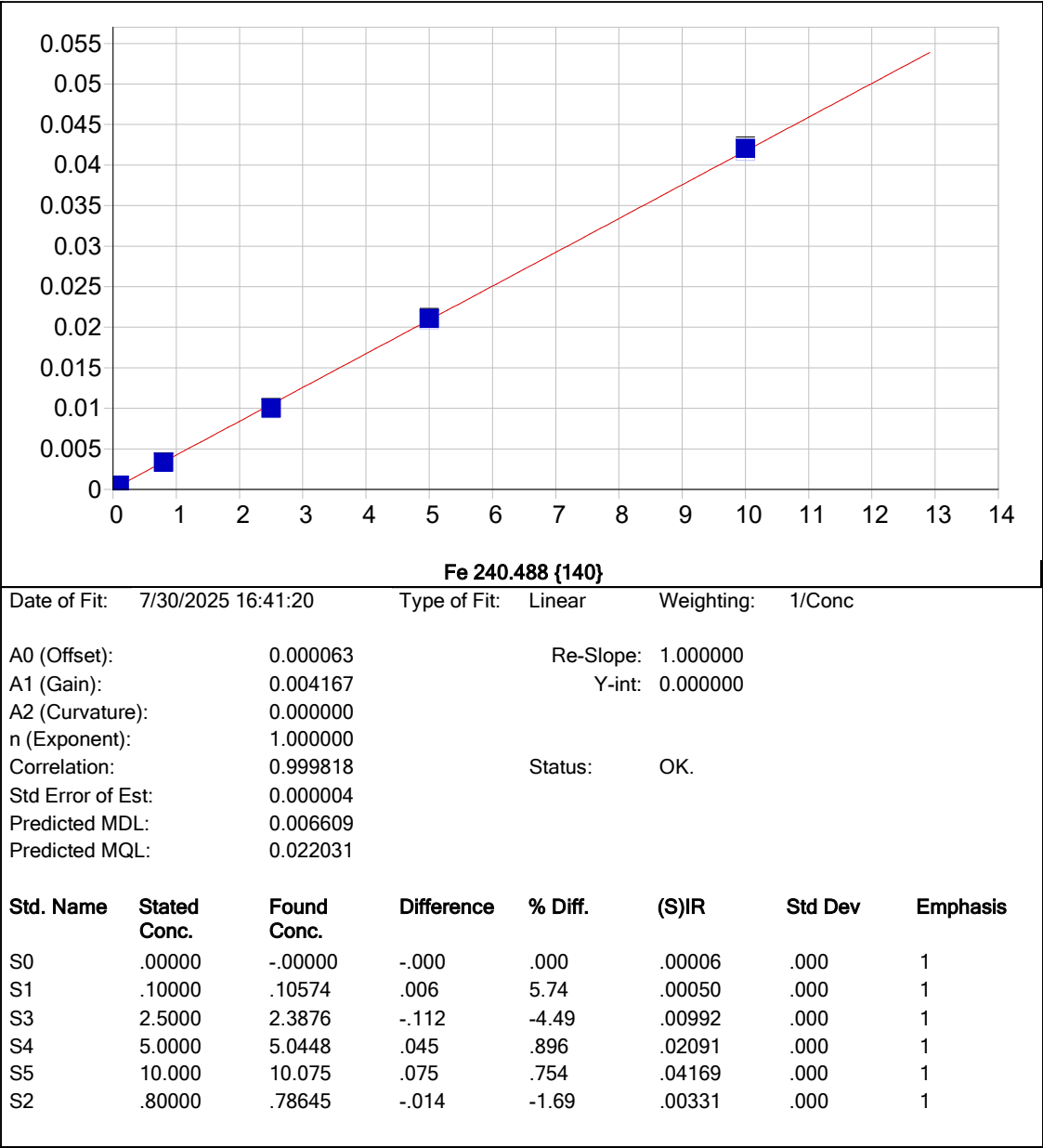


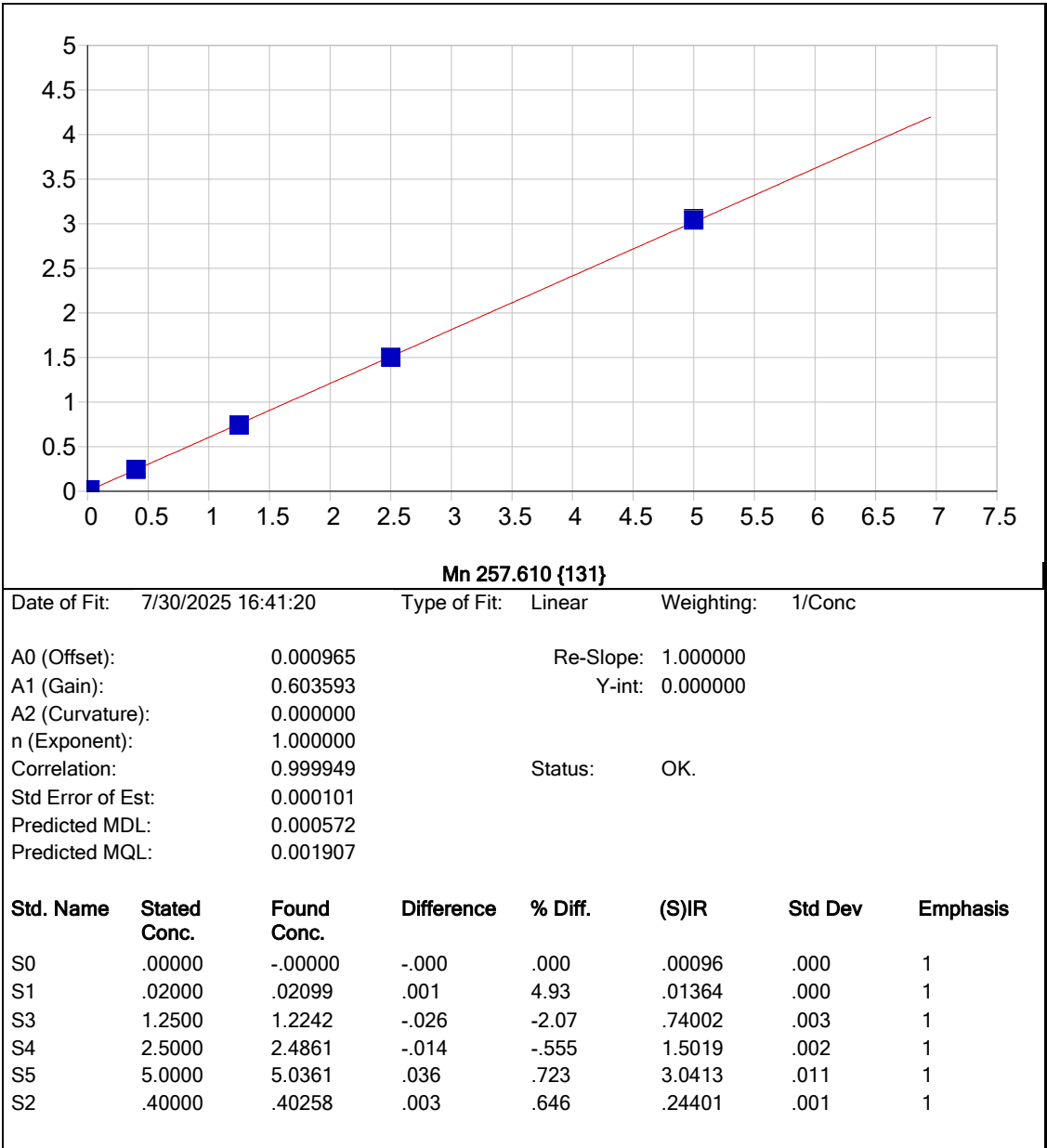


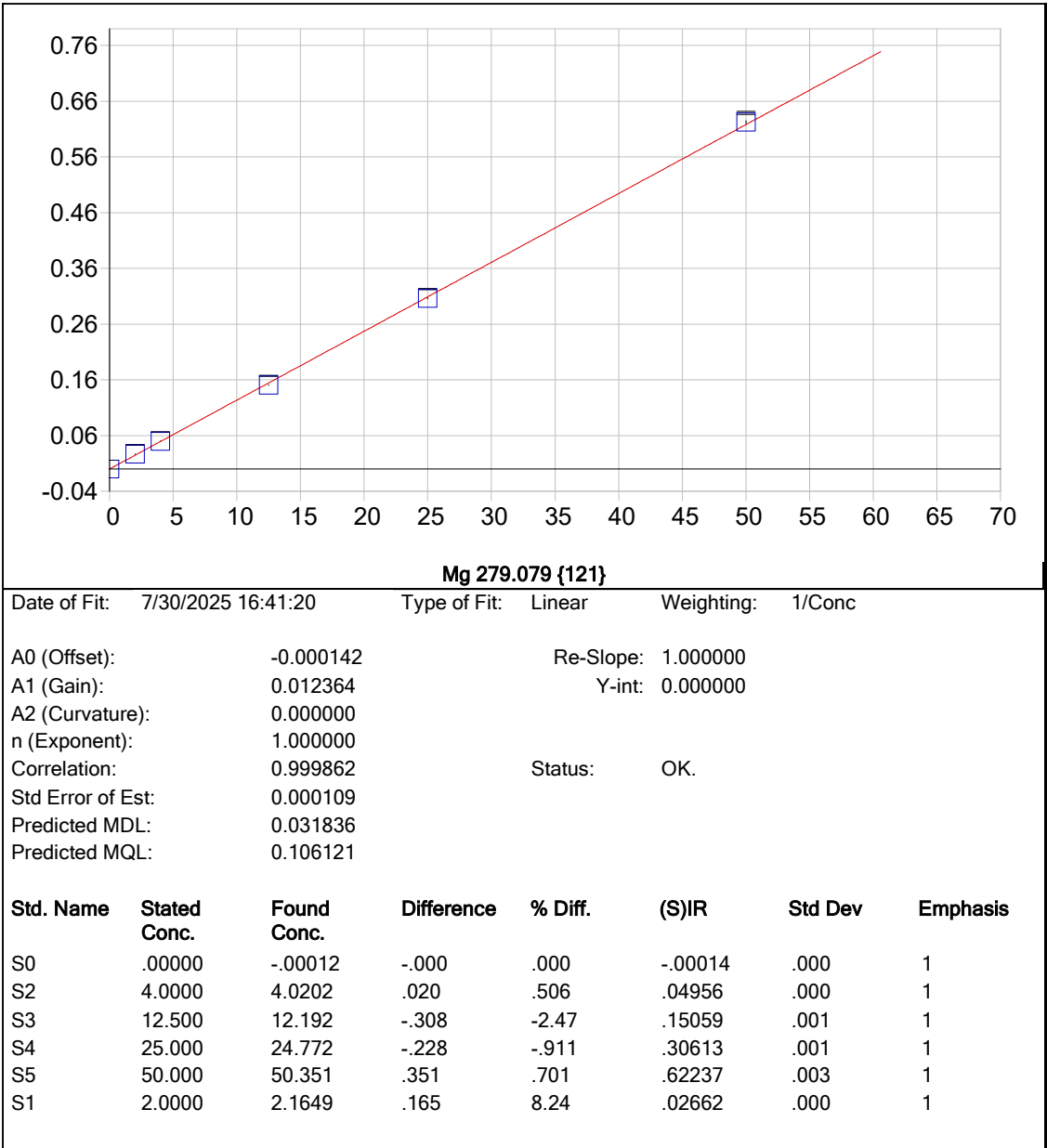


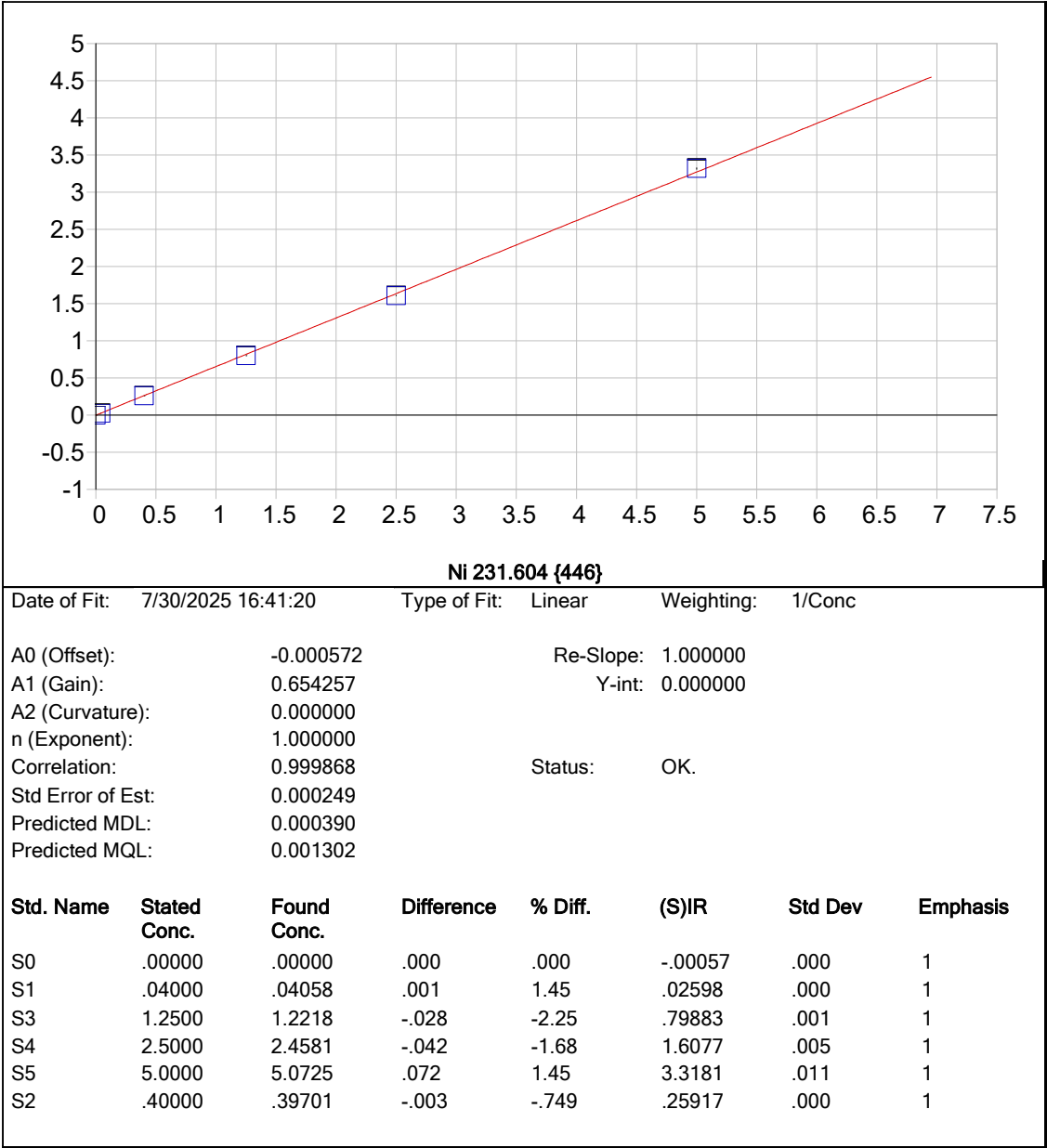


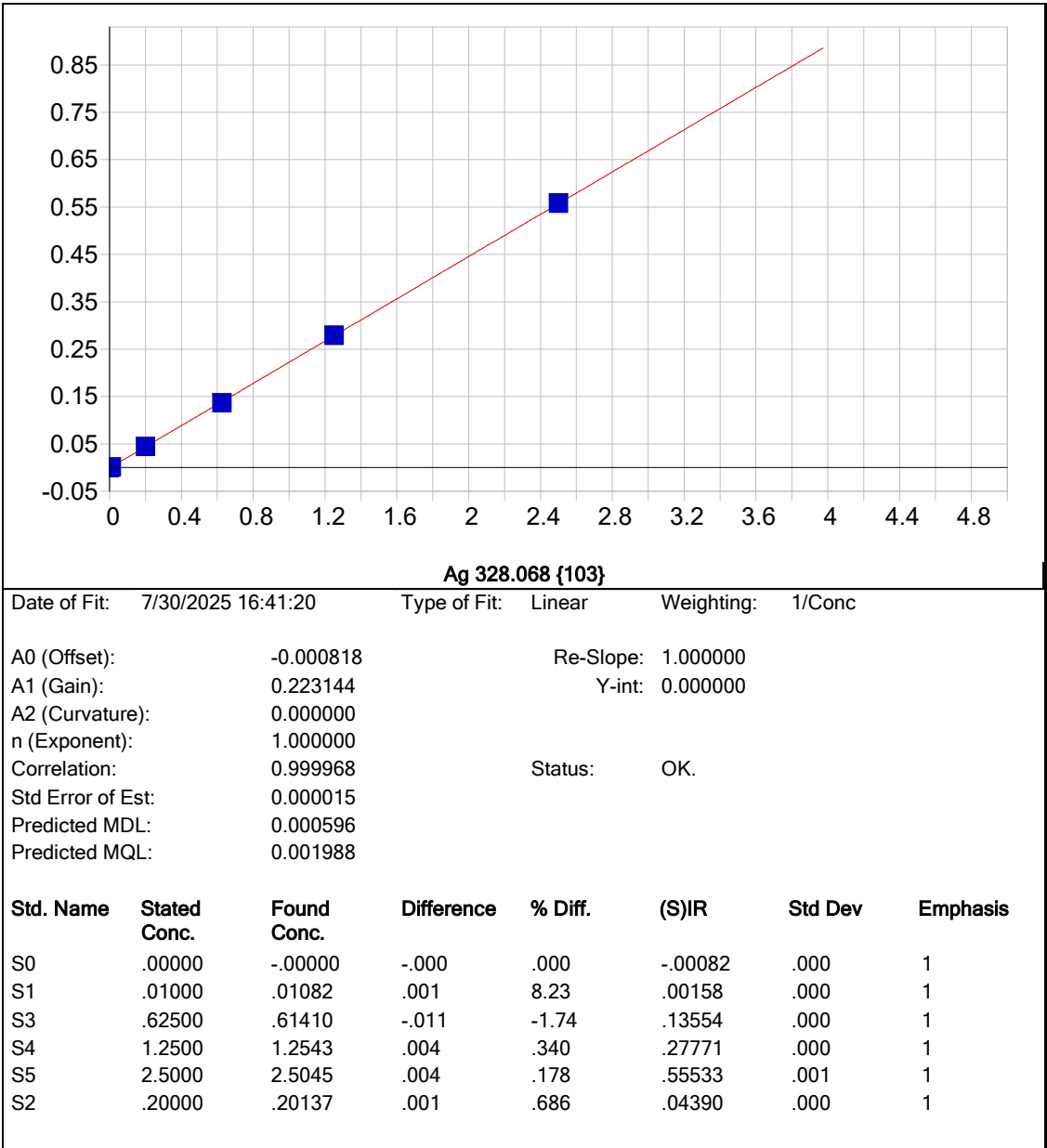


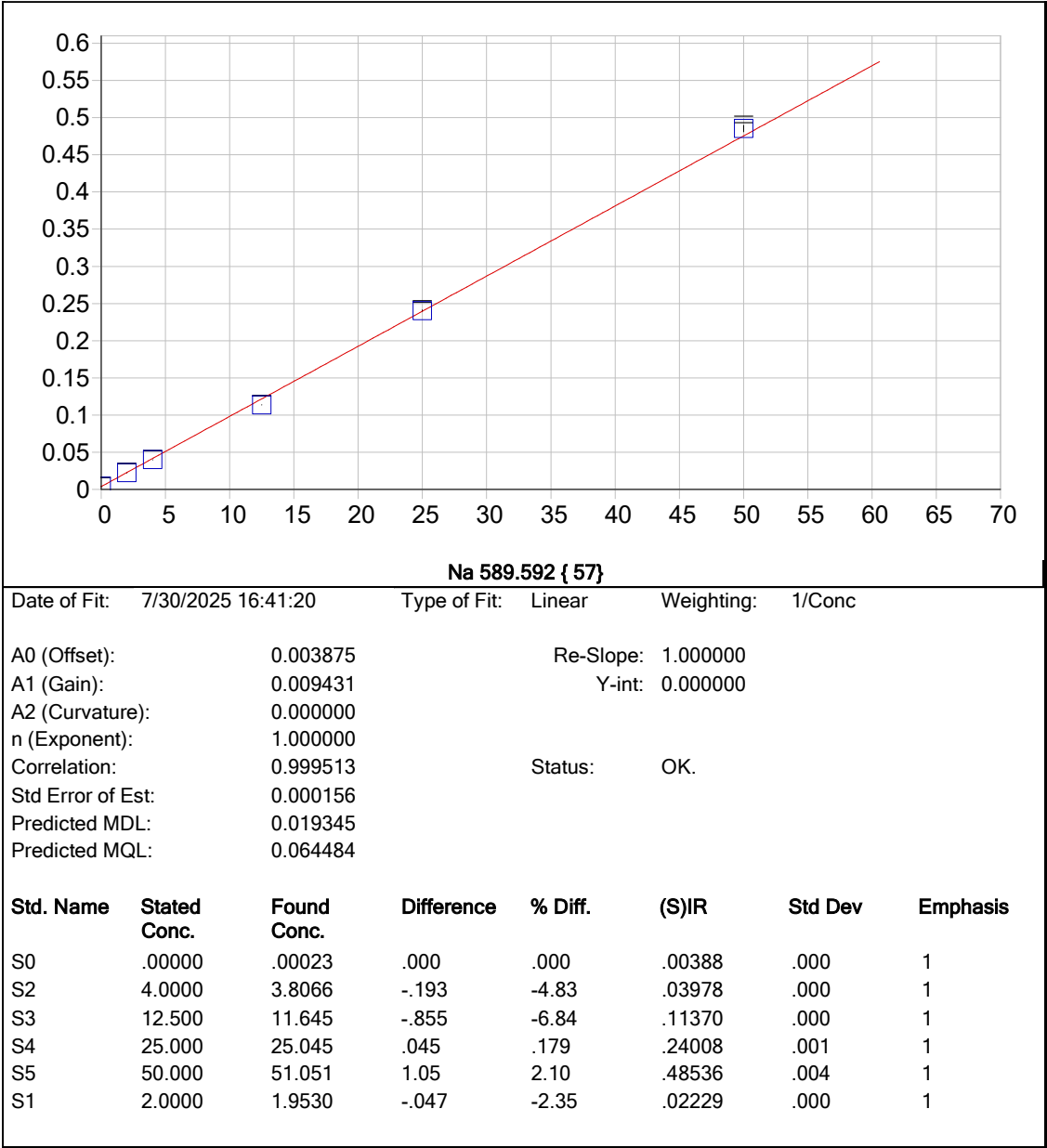


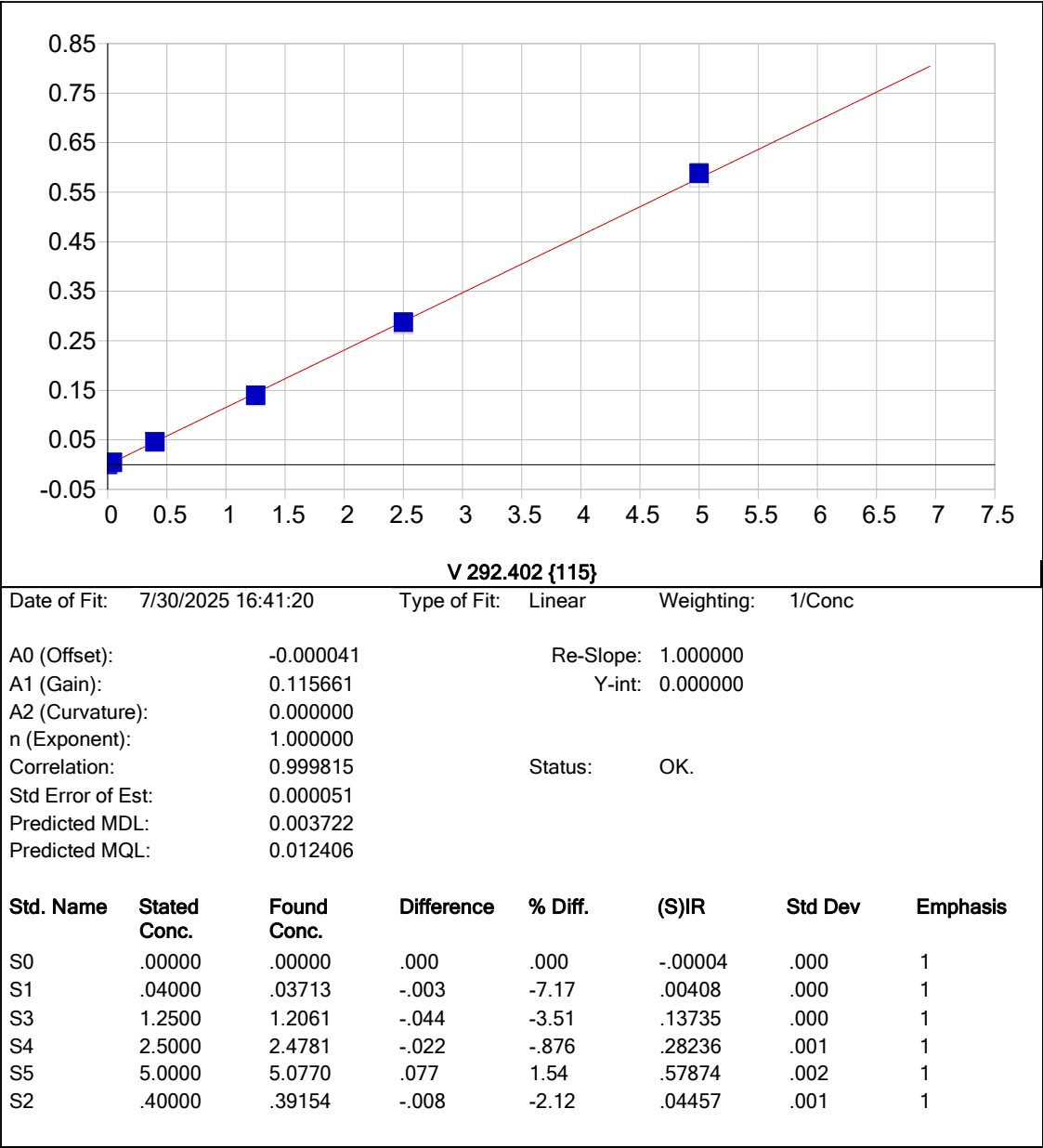


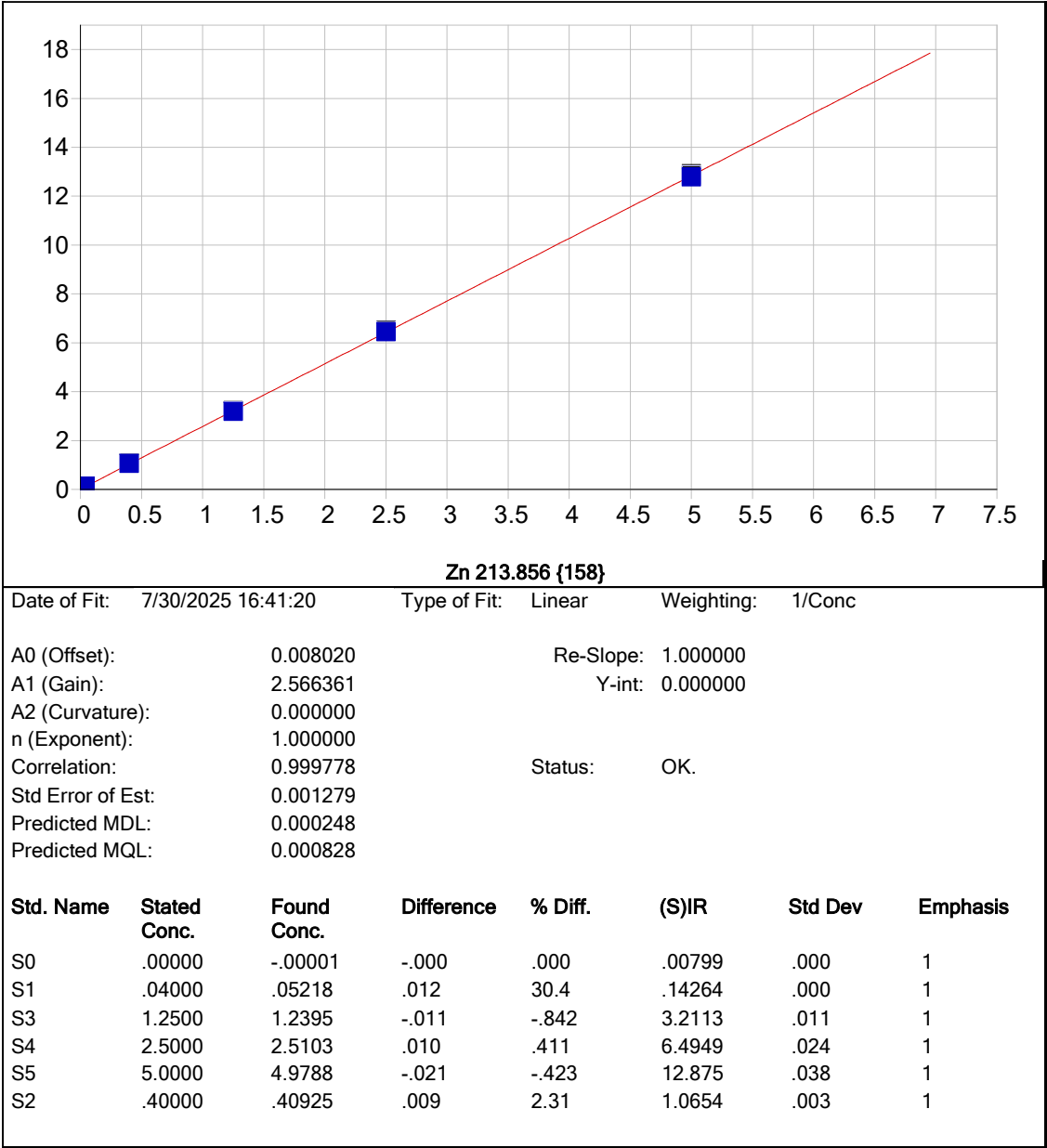


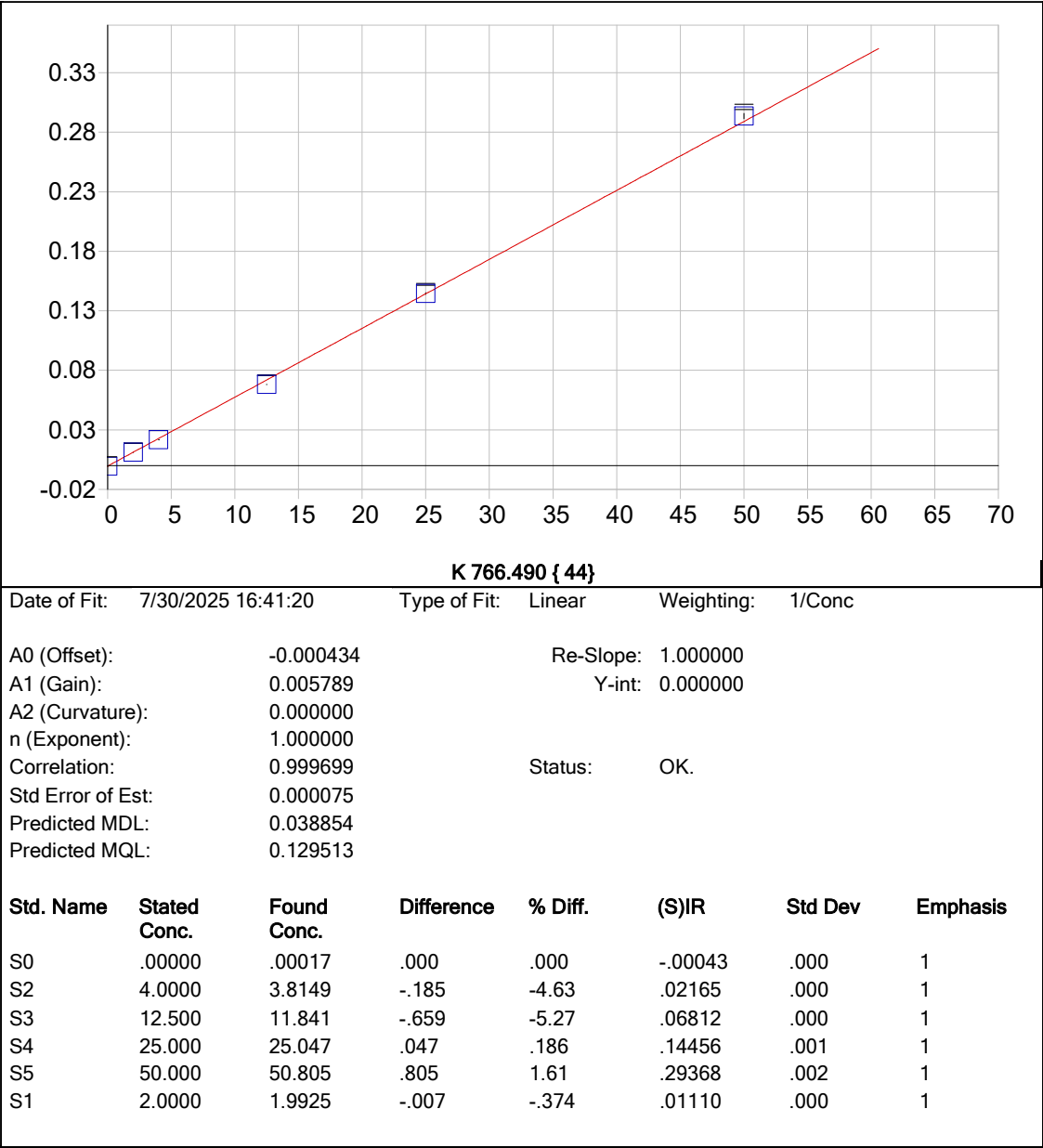


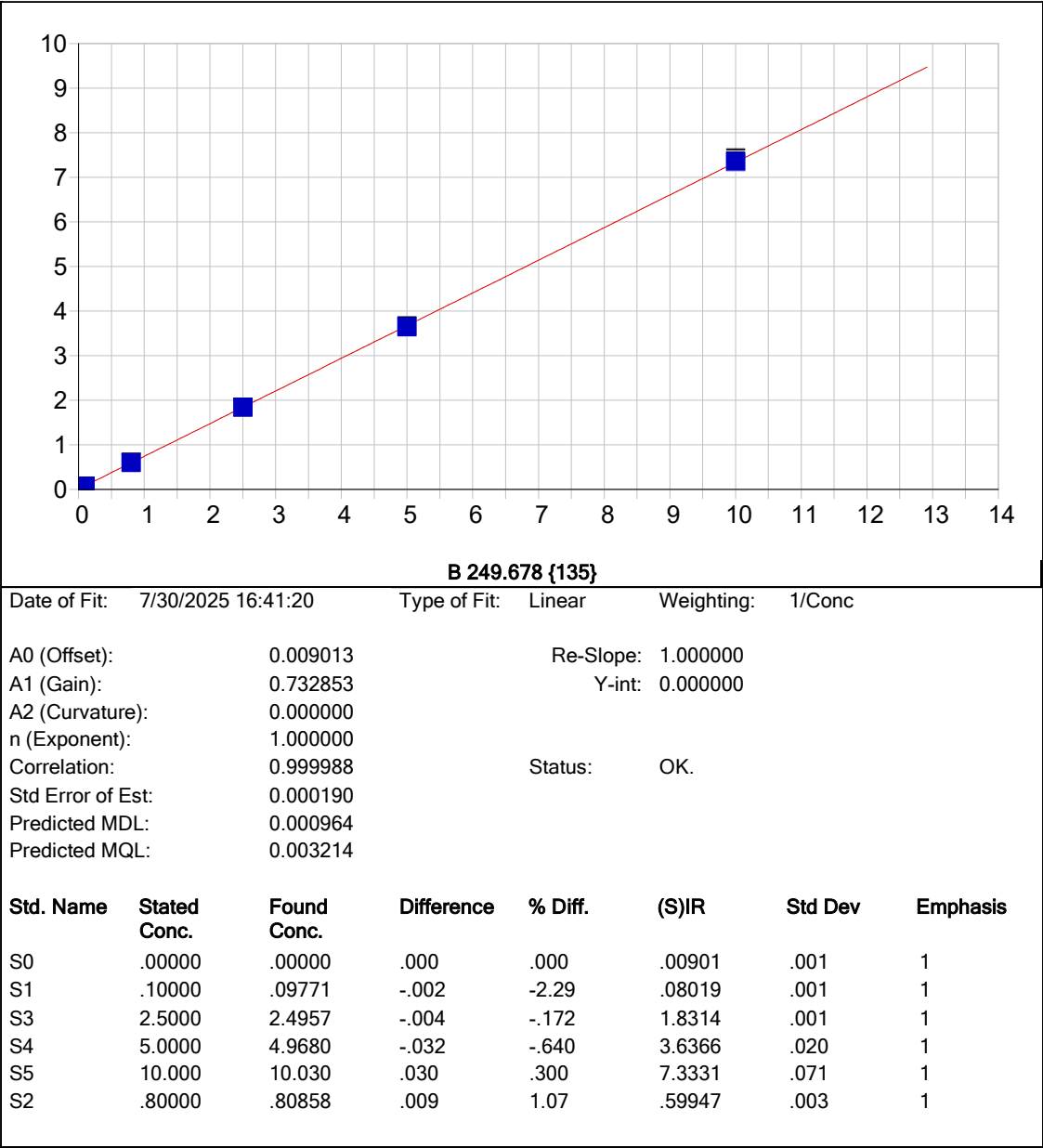


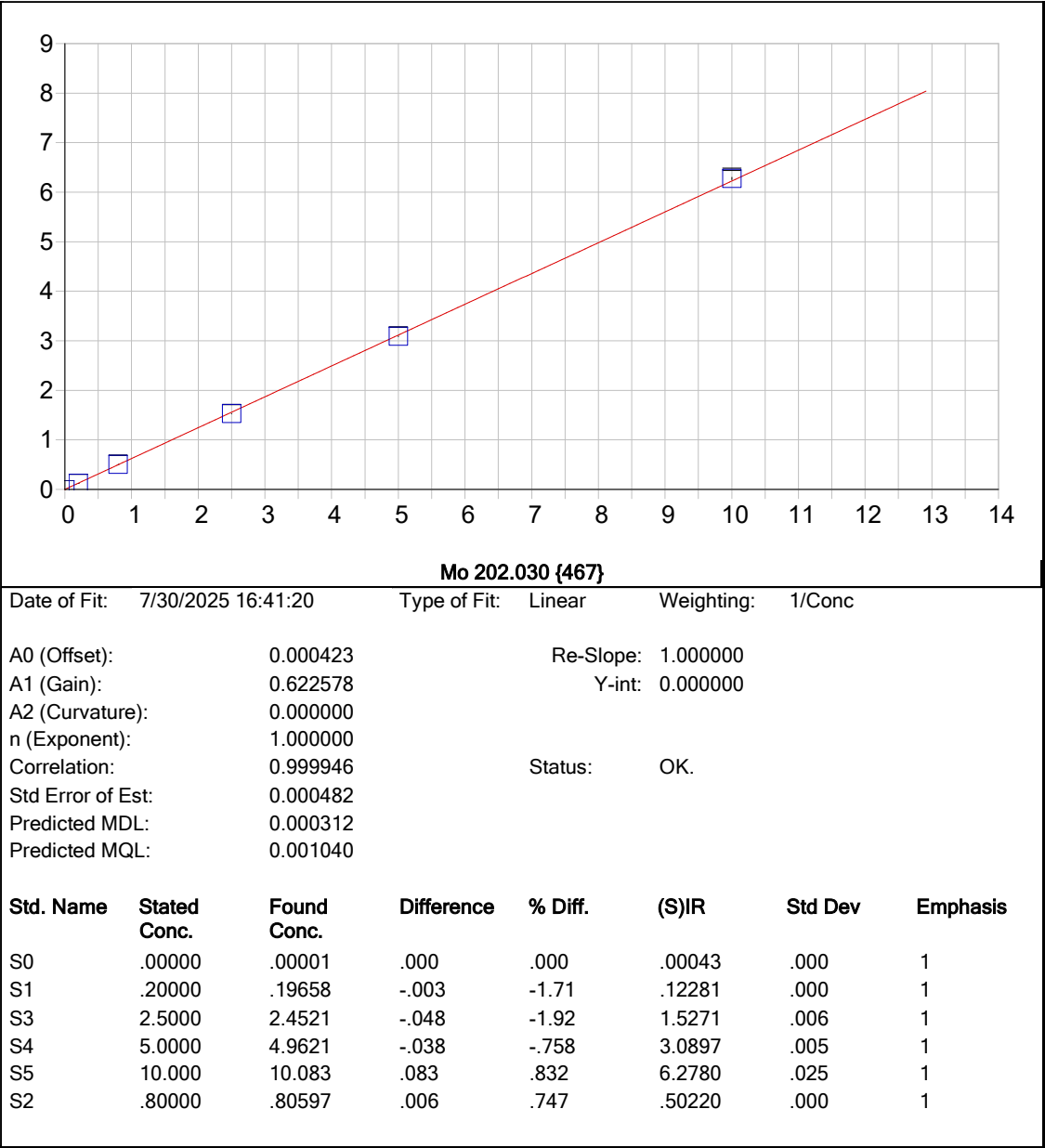


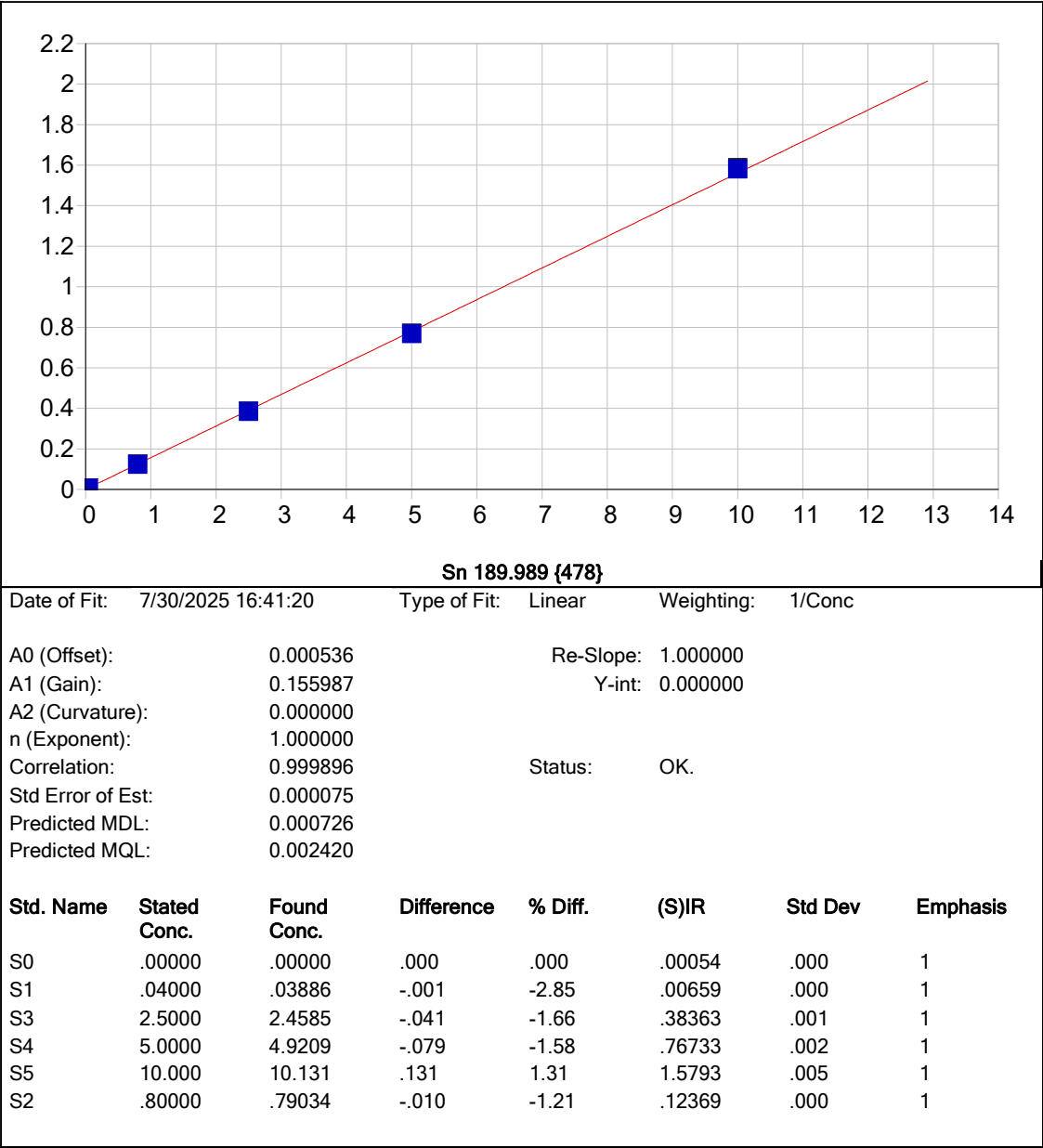


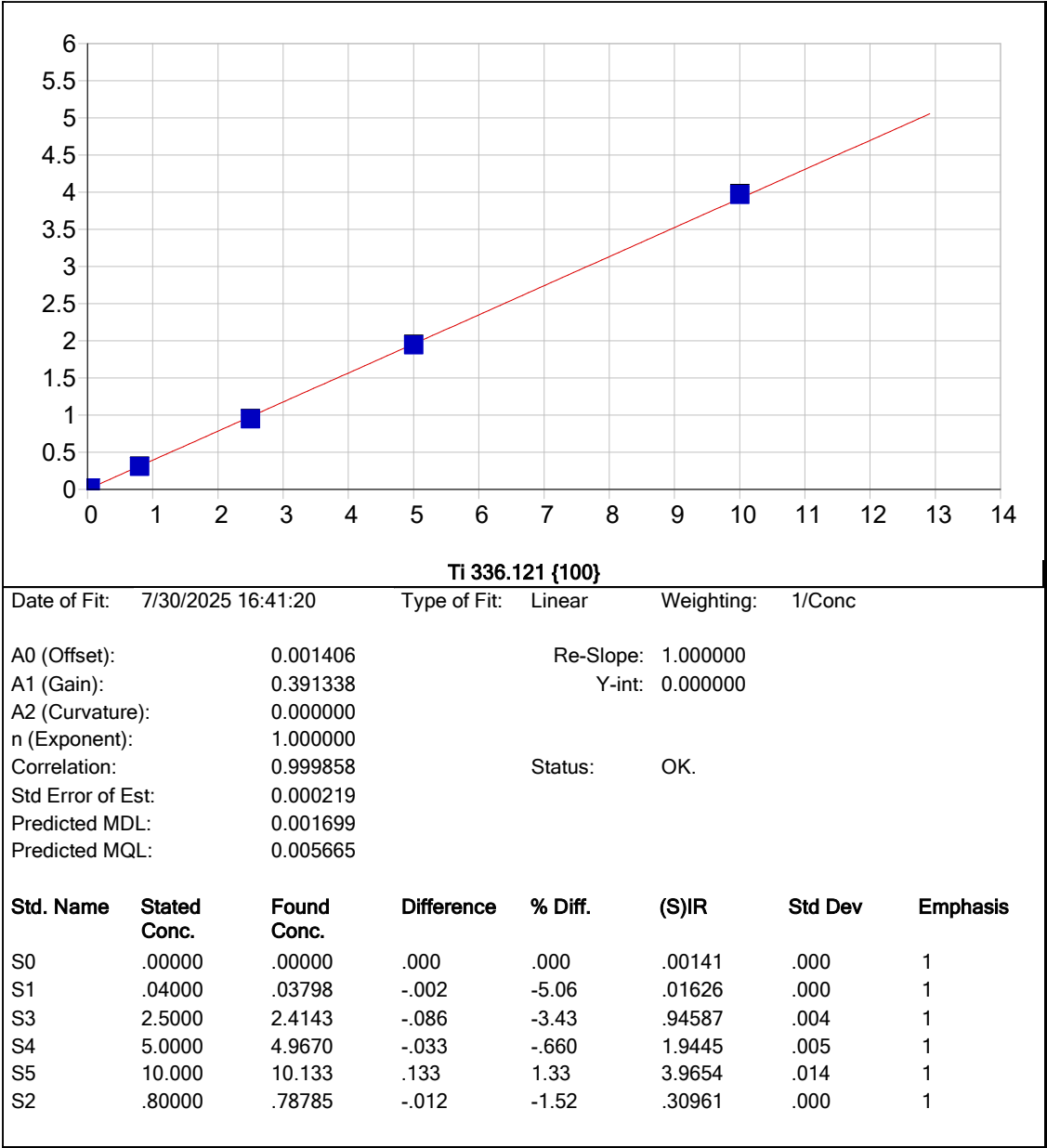


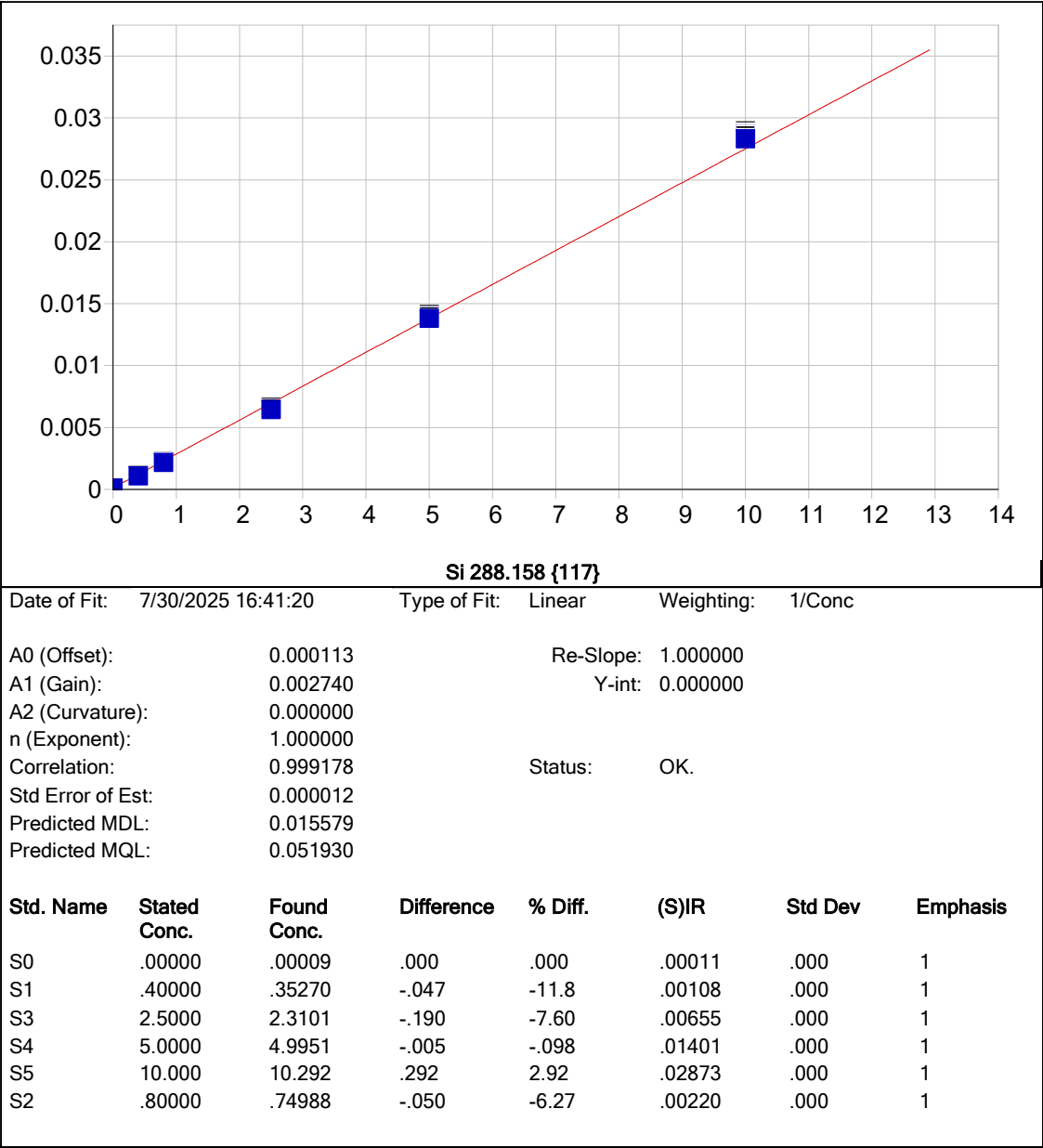


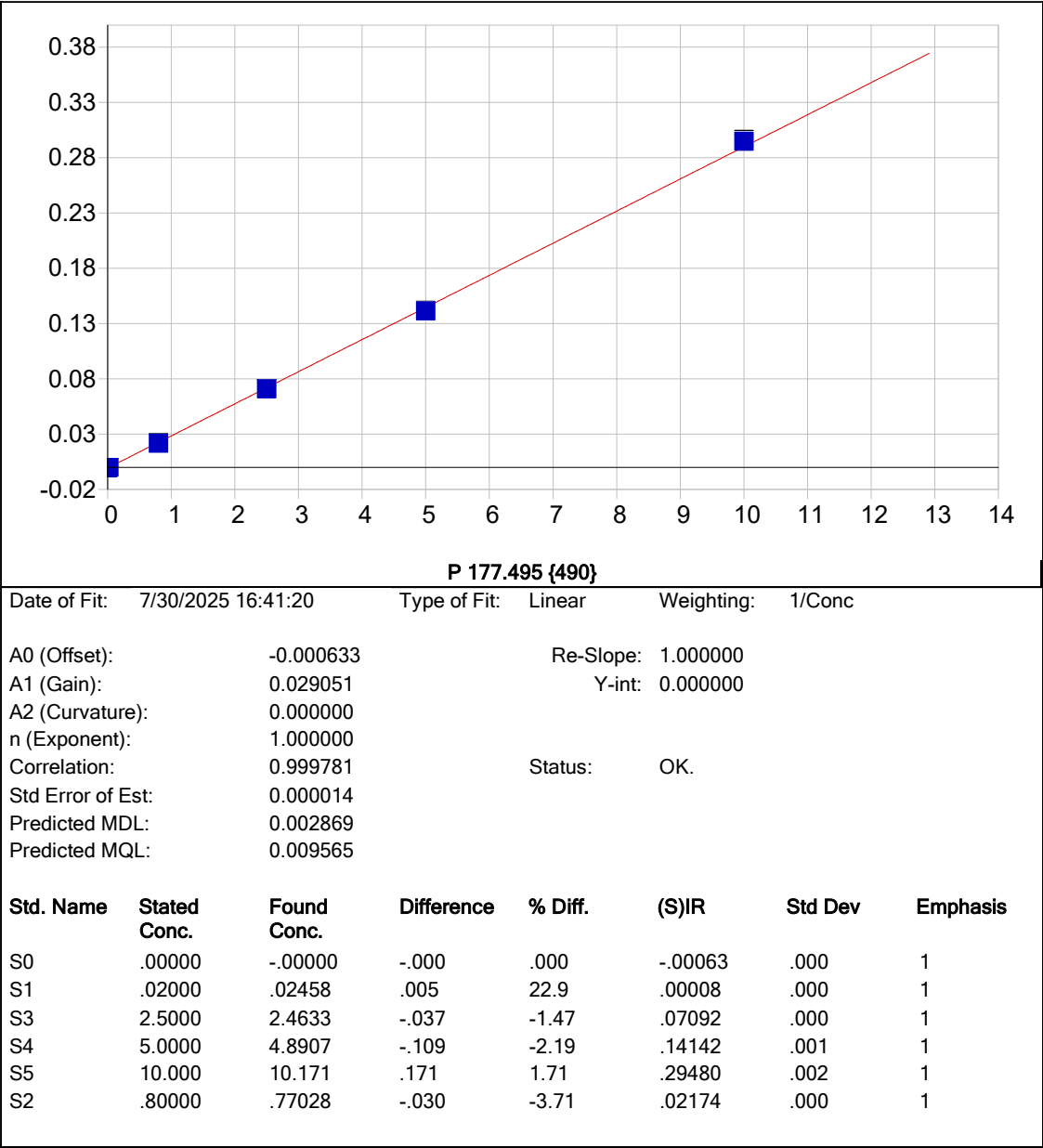


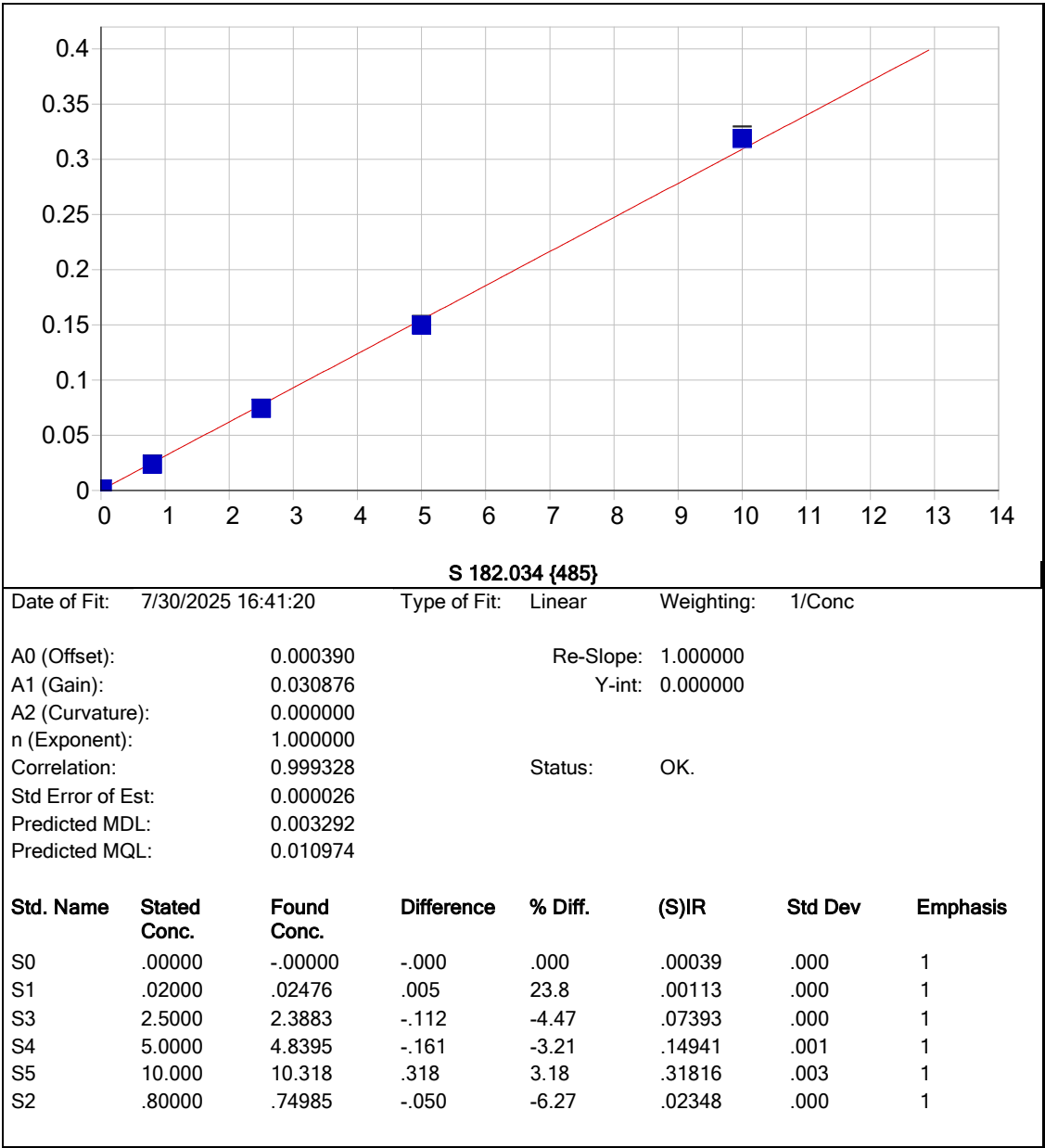


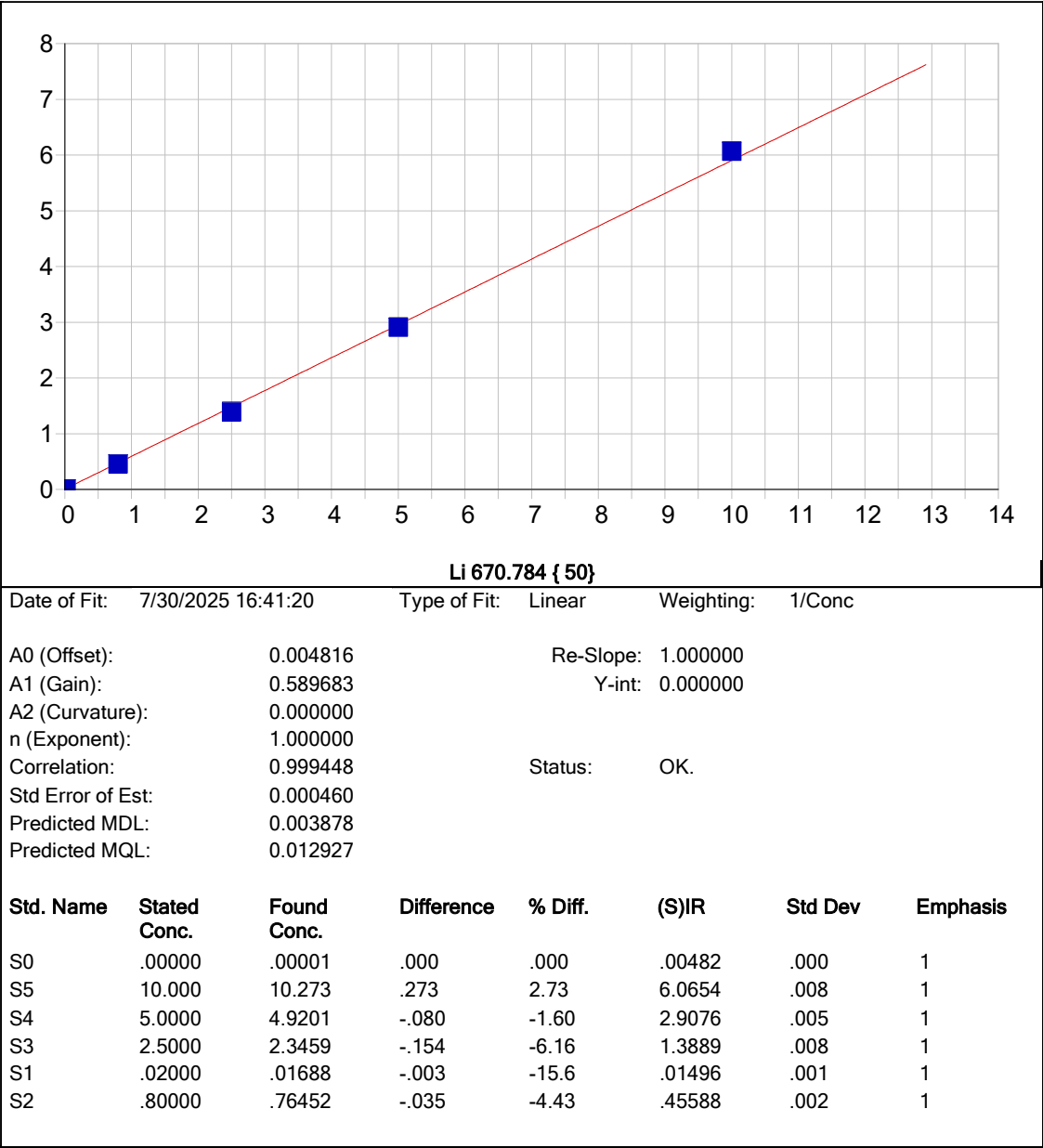


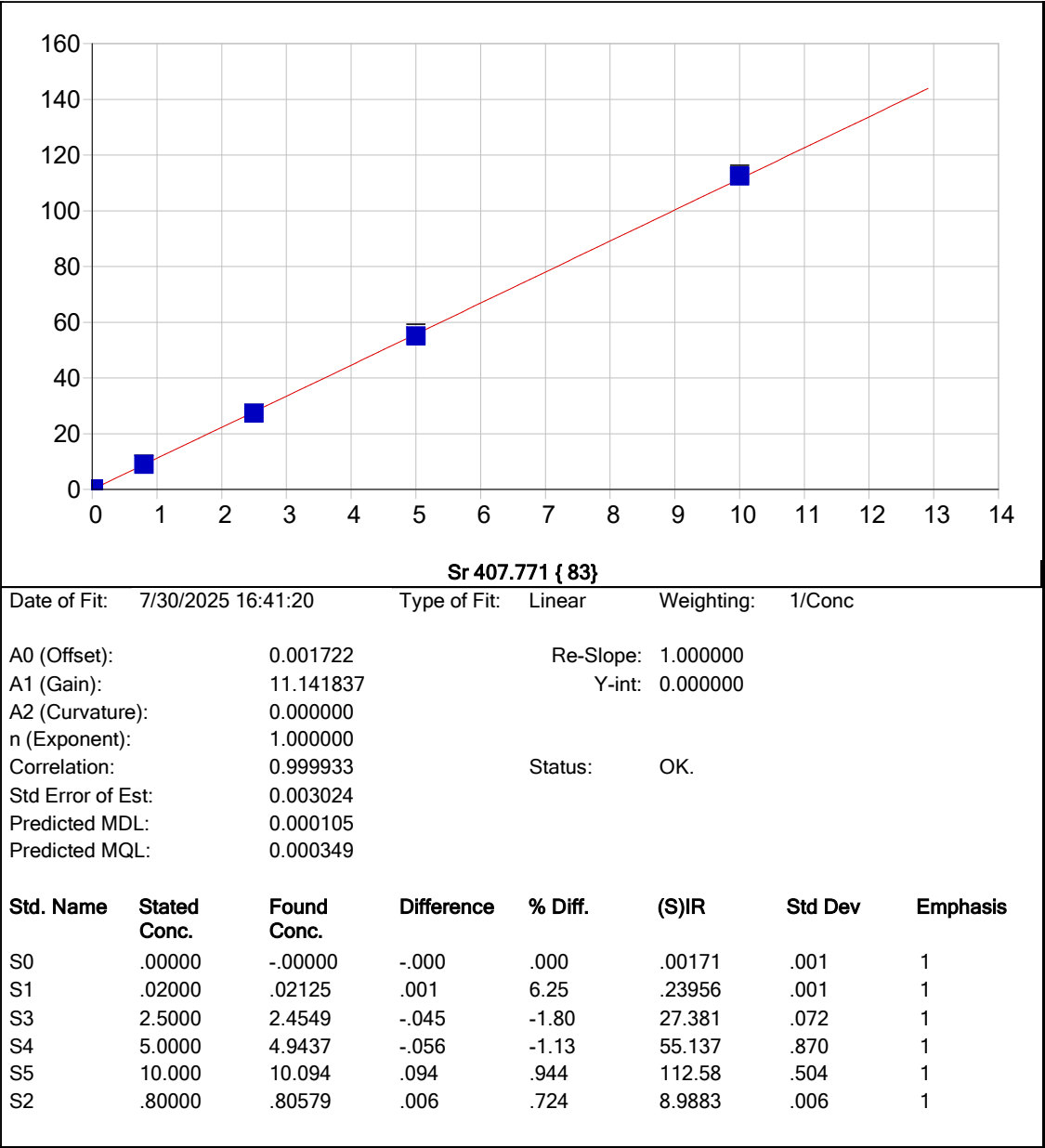


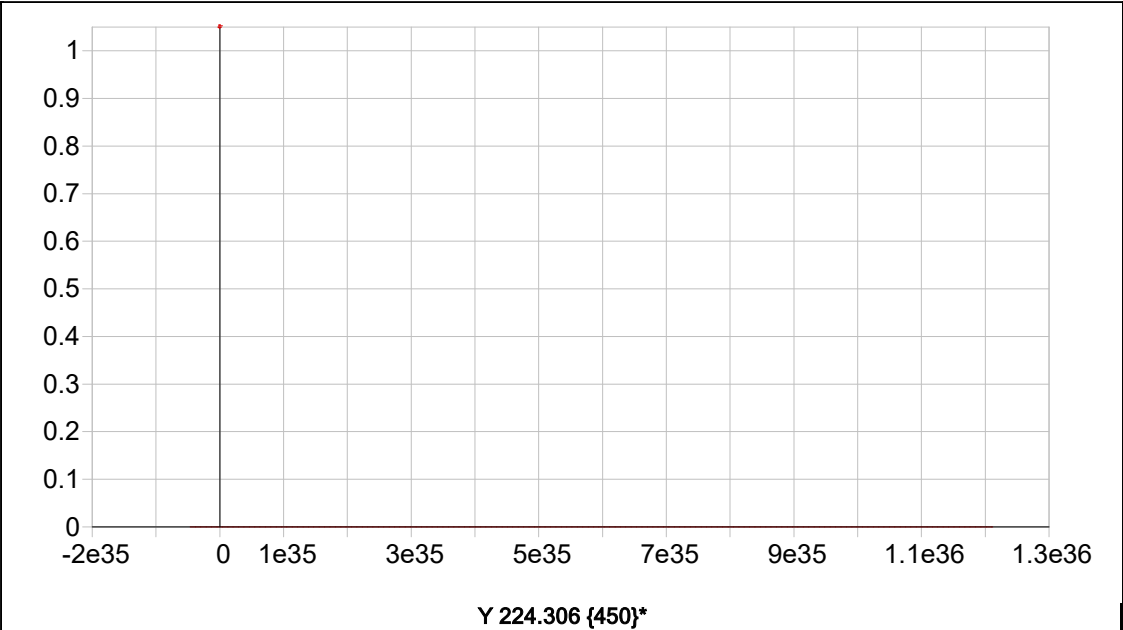






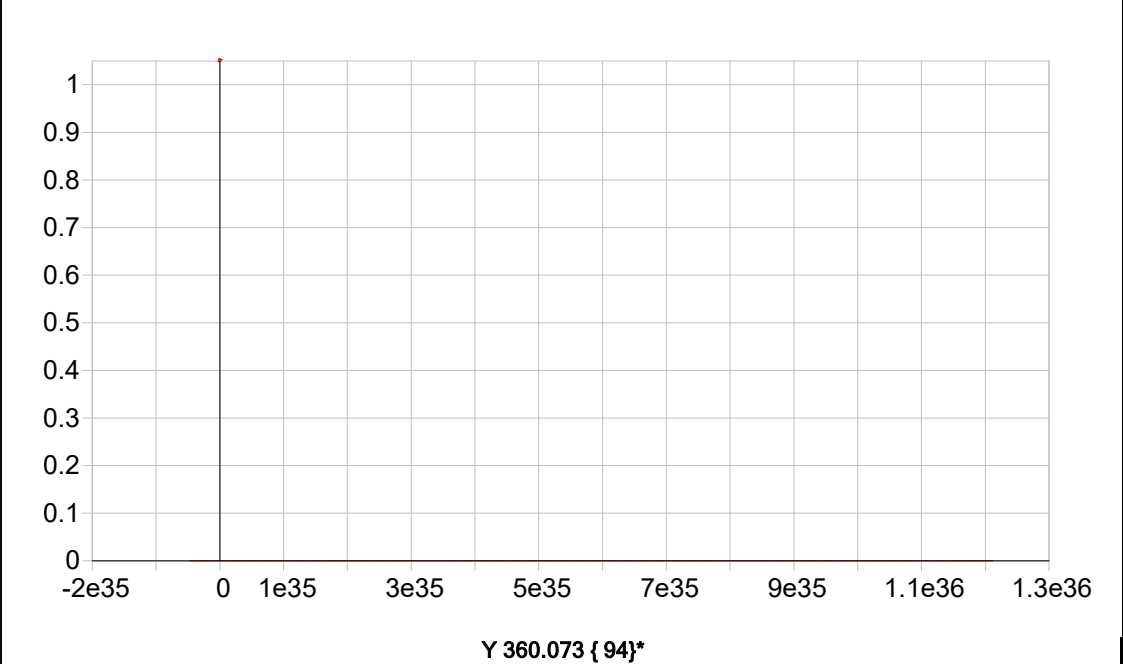




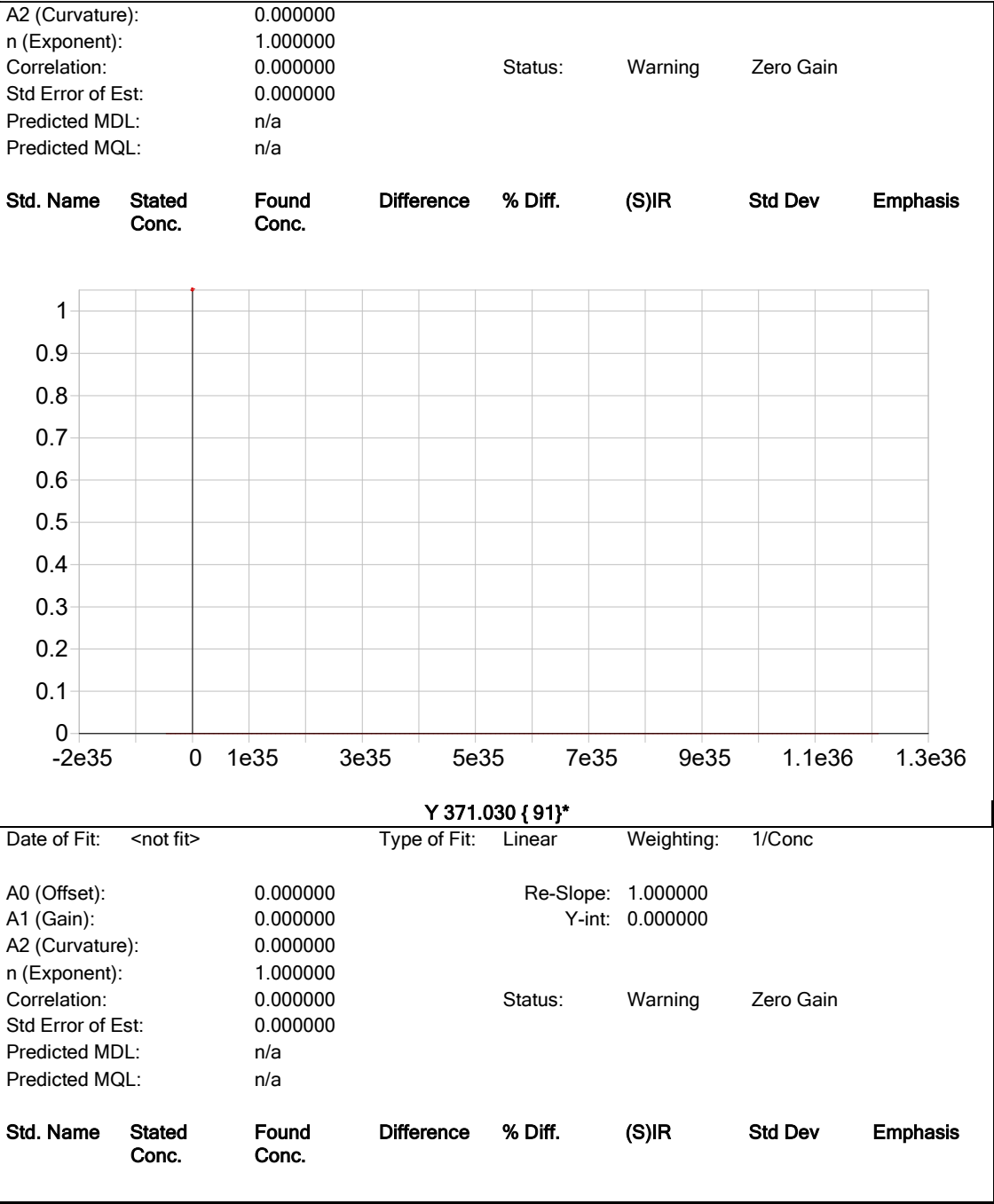


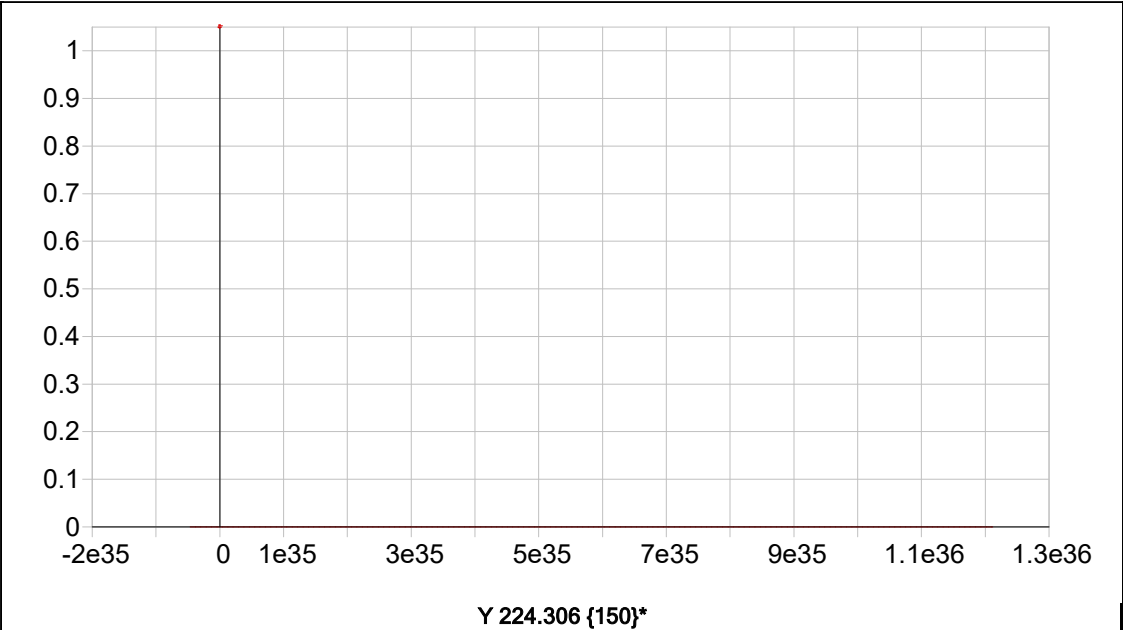
Date of Fit:	7/30/2025 16:41:20	Type of Fit:	Linear	Weighting:	1/Conc
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A1 (Gain):	0.000000	Y-int:	0.000000		
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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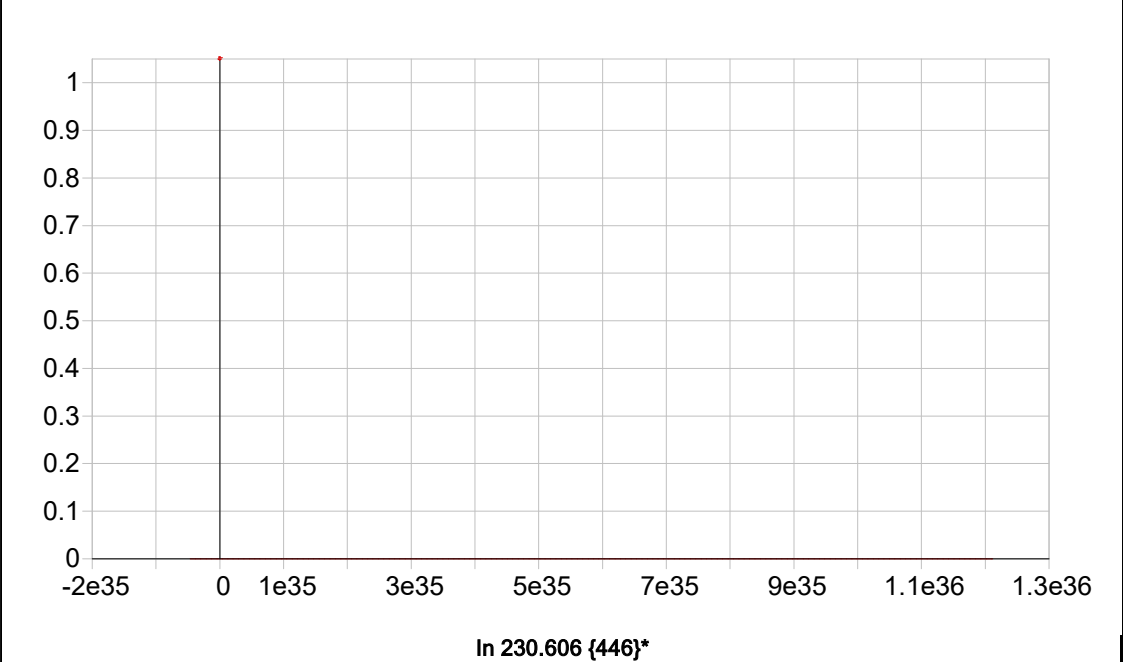
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		





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

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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Date of Fit:	<not fit>		Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		

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

Sample Name: S0 Acquired: 7/30/2025 13:40:51 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00006	.00126	.00016	.00004	.00059	.00022	.08286	-.00188
Stddev	.00006	.00013	.00028	.00004	.00015	.00049	.00143	.00051
%RSD	97.545	10.332	178.84	102.74	24.760	220.77	1.7268	26.966

#1	-.00001	.00116	.00047	-.00001	.00045	.00006	.08138	-.00193
#2	.00008	.00122	-.00008	.00006	.00074	-.00017	.08296	-.00134
#3	.00010	.00141	.00008	.00005	.00059	.00078	.08423	-.00235

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00074	.00229	.00013	-.00005	.00096	.00006	.00096	-.00014
Stddev	.00002	.00052	.00002	.00025	.00021	.00002	.00038	.00025
%RSD	3.0140	22.882	14.922	495.35	22.237	39.063	39.589	174.91

#1	-.00076	.00201	.00012	-.00030	.00103	.00004	.00139	.00014
#2	-.00072	.00196	.00015	-.00004	.00072	.00006	.00066	-.00031
#3	-.00074	.00289	.00011	.00019	.00113	.00009	.00083	-.00026

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00057	-.00082	.00388	-.00004	.00799	-.00043	.00901	.00043
Stddev	.00018	.00015	.00008	.00026	.00021	.00006	.00056	.00019
%RSD	30.641	17.993	2.1369	648.17	2.5803	14.472	6.2434	43.669

#1	-.00070	-.00075	.00391	.00026	.00787	-.00040	.00961	.00057
#2	-.00064	-.00071	.00394	-.00018	.00823	-.00051	.00850	.00049
#3	-.00037	-.00099	.00378	-.00021	.00787	-.00039	.00893	.00022

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00054	.00141	.00011	-.00063	.00039	.00482	.00171
Stddev	.00006	.00041	.00004	.00002	.00008	.00040	.00074
%RSD	11.521	28.865	32.024	3.6328	20.602	8.2018	43.134

#1	.00061	.00167	.00012	-.00063	.00048	.00440	.00086
#2	.00052	.00094	.00014	-.00061	.00033	.00488	.00216
#3	.00049	.00162	.00007	-.00066	.00036	.00518	.00211

Sample Name: S0 Acquired: 7/30/2025 13:40:51 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5086.1	82092.	7122.8	4419.4	6190.8
Stddev	14.6	159.	38.5	4.4	21.3
%RSD	.28718	.19407	.54085	.10017	.34431
#1	5069.3	81929.	7079.6	4415.4	6166.2
#2	5093.5	82099.	7153.7	4418.7	6202.3
#3	5095.6	82247.	7135.0	4424.2	6203.9

Sample Name: S1 Acquired: 7/30/2025 13:45:12 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00085	.00177	.00294	.00118	.00560	.01020	.36553	.05450	.01404
Stddev	.00005	.00015	.00013	.00008	.00003	.00126	.00211	.00035	.00012
%RSD	5.9601	8.4198	4.5959	6.9813	.61172	12.390	.57770	.64087	.85290

#1	.00090	.00170	.00297	.00108	.00561	.01156	.36322	.05437	.01392
#2	.00080	.00166	.00279	.00122	.00556	.00996	.36600	.05489	.01416
#3	.00085	.00194	.00305	.00123	.00563	.00907	.36736	.05422	.01405

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.15482	.00172	.02172	.01805	.00050	.01364	.02662	.02598	.00158
Stddev	.00166	.00011	.00016	.00030	.00001	.00038	.00038	.00015	.00008
%RSD	1.0713	6.1508	.73845	1.6736	1.4787	2.7769	1.4435	.57440	5.0828

#1	.15355	.00176	.02190	.01833	.00050	.01354	.02619	.02604	.00156
#2	.15670	.00180	.02160	.01810	.00050	.01331	.02690	.02581	.00166
#3	.15422	.00160	.02165	.01773	.00049	.01405	.02678	.02608	.00151

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02229	.00408	.14264	.01110	.08019	.12281	.00659	.01626	.00108
Stddev	.00031	.00014	.00021	.00013	.00059	.00013	.00013	.00025	.00002
%RSD	1.3698	3.3738	.14478	1.1702	.73358	.10959	1.9250	1.5662	2.0165

#1	.02251	.00392	.14245	.01109	.08023	.12268	.00645	.01602	.00110
#2	.02194	.00417	.14263	.01097	.07958	.12295	.00667	.01623	.00106
#3	.02243	.00415	.14286	.01123	.08075	.12280	.00666	.01653	.00108

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00008	.00113	.01496	.23956
Stddev	.00006	.00010	.00119	.00064
%RSD	71.766	8.9155	7.9272	.26563

#1	.00005	.00101	.01447	.23915
#2	.00005	.00120	.01409	.23923
#3	.00015	.00117	.01631	.24029

Sample Name: S1 Acquired: 7/30/2025 13:45:12 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5153.1	82463.	7462.9	4443.2	6282.7
Stddev	20.2	343.	46.1	21.1	22.2
%RSD	.39179	.41543	.61787	.47487	.35293
#1	5170.7	82513.	7511.6	4436.0	6298.2
#2	5157.6	82778.	7419.9	4467.0	6292.6
#3	5131.1	82098.	7457.1	4426.7	6257.3

Sample Name: S2 Acquired: 7/30/2025 13:49:29 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03476	.01317	.17601	.03673	.07837	.13600	4.5929	.36483	.98911
Stddev	.00001	.00024	.00030	.00002	.00020	.00067	.0060	.00211	.00053
%RSD	.02948	1.8268	.16794	.06513	.24889	.49616	.13021	.57838	.05320

#1	.03477	.01336	.17635	.03674	.07829	.13583	4.5863	.36272	.98963
#2	.03476	.01325	.17586	.03675	.07822	.13674	4.5945	.36694	.98858
#3	.03475	.01290	.17581	.03670	.07859	.13542	4.5980	.36482	.98912

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.31022	.02261	.28713	.15149	.00331	.24401	.04956	.25917	.04390
Stddev	.00091	.00008	.00058	.00018	.00001	.00074	.00041	.00035	.00015
%RSD	.29348	.35565	.20201	.12035	.28661	.30363	.82493	.13608	.35164

#1	.31061	.02270	.28750	.15164	.00330	.24449	.04923	.25946	.04372
#2	.30917	.02255	.28646	.15129	.00332	.24438	.04944	.25878	.04399
#3	.31087	.02258	.28743	.15155	.00331	.24316	.05002	.25927	.04399

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03978	.04457	1.0654	.02165	.59947	.50220	.12369	.30961	.00220
Stddev	.00025	.00052	.0033	.00008	.00328	.00012	.00017	.00038	.00003
%RSD	.63954	1.1604	.31139	.35749	.54746	.02384	.13747	.12408	1.3446

#1	.03964	.04398	1.0669	.02163	.59797	.50213	.12389	.30974	.00223
#2	.03962	.04482	1.0677	.02158	.60323	.50214	.12357	.30917	.00217
#3	.04007	.04492	1.0616	.02174	.59721	.50234	.12362	.30991	.00221

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02174	.02348	.45588	8.9883
Stddev	.00011	.00007	.00153	.0055
%RSD	.49742	.31335	.33554	.06163

#1	.02162	.02350	.45700	8.9906
#2	.02177	.02340	.45413	8.9923
#3	.02183	.02354	.45650	8.9820

Sample Name: S2 Acquired: 7/30/2025 13:49:29 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5121.6	82777.	7334.5	4402.5	6169.2
Stddev	8.1	434.	15.5	6.5	13.6
%RSD	.15839	.52412	.21152	.14835	.22114
#1	5112.2	82814.	7350.6	4395.5	6154.6
#2	5126.2	83192.	7319.6	4408.3	6171.5
#3	5126.4	82326.	7333.2	4403.9	6181.5

Sample Name: S3 Acquired: 7/30/2025 13:53:34 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11095	.04025	.55986	.11707	.23975	.41060	13.853	1.1184	3.1799
Stddev	.00040	.00065	.00147	.00050	.00060	.00116	.068	.0034	.0087
%RSD	.36364	1.6193	.26213	.42946	.25150	.28167	.49375	.30382	.27367

#1	.11087	.03954	.55849	.11700	.23980	.40928	13.793	1.1145	3.1722
#2	.11059	.04041	.55969	.11660	.23912	.41106	13.840	1.1207	3.1781
#3	.11138	.04081	.56141	.11760	.24033	.41145	13.928	1.1199	3.1894

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.93009	.06824	.88510	.45968	.00992	.74002	.15059	.79883	.13554
Stddev	.00427	.00045	.00172	.00069	.00006	.00310	.00089	.00074	.00017
%RSD	.45928	.65904	.19426	.15015	.62976	.41948	.58832	.09230	.12259

#1	.92672	.06773	.88324	.45946	.00986	.73654	.14967	.79801	.13570
#2	.92866	.06859	.88544	.45912	.00993	.74101	.15143	.79943	.13555
#3	.93490	.06839	.88663	.46045	.00999	.74250	.15068	.79905	.13537

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11370	.13735	3.2113	.06812	1.8314	1.5271	.38363	.94587	.00655
Stddev	.00015	.00043	.0112	.00022	.0008	.0056	.00144	.00390	.00007
%RSD	.13575	.31163	.34906	.32962	.04653	.36763	.37478	.41272	1.0695

#1	.11354	.13706	3.2242	.06788	1.8311	1.5274	.38274	.94263	.00649
#2	.11384	.13716	3.2045	.06816	1.8323	1.5213	.38287	.94478	.00653
#3	.11372	.13784	3.2051	.06832	1.8307	1.5325	.38529	.95020	.00662

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.07092	.07393	1.3889	27.381
Stddev	.00014	.00028	.0076	.072
%RSD	.19114	.38341	.54340	.26337

#1	.07077	.07399	1.3831	27.354
#2	.07093	.07362	1.3862	27.462
#3	.07105	.07418	1.3974	27.325

Sample Name: S3 Acquired: 7/30/2025 13:53:34 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5000.8	81409.	7230.5	4321.7	5894.6
Stddev	12.8	266.	13.9	26.3	18.6
%RSD	.25577	.32652	.19179	.60904	.31511
#1	5013.5	81290.	7231.0	4292.3	5916.0
#2	5000.9	81224.	7216.3	4329.5	5885.1
#3	4987.9	81714.	7244.1	4343.2	5882.7

Sample Name: S4 Acquired: 7/30/2025 13:57:41 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.21380	.07429	1.0810	.22283	.48395	.83303	28.299	2.2268	6.1496
Stddev	.00041	.00121	.0031	.00005	.00072	.00185	.177	.0124	.0143
%RSD	.19364	1.6310	.29026	.02227	.14965	.22250	.62591	.55930	.23228

#1	.21372	.07349	1.0789	.22286	.48383	.83261	28.212	2.2221	6.1361
#2	.21343	.07569	1.0794	.22285	.48330	.83506	28.182	2.2175	6.1481
#3	.21424	.07370	1.0846	.22277	.48473	.83142	28.503	2.2410	6.1646

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8839	.13740	1.7910	.90724	.02091	1.5019	.30613	1.6077	.27771
Stddev	.0040	.00083	.0053	.00285	.00011	.0022	.00087	.0047	.00042
%RSD	.21078	.60208	.29479	.31371	.54889	.14483	.28384	.29363	.15252

#1	1.8840	.13804	1.7872	.90576	.02096	1.4996	.30662	1.6043	.27811
#2	1.8879	.13768	1.7888	.90543	.02099	1.5040	.30665	1.6056	.27775
#3	1.8799	.13646	1.7970	.91052	.02078	1.5020	.30513	1.6130	.27727

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.24008	.28236	6.4949	.14456	3.6366	3.0897	.76733	1.9445	.01401
Stddev	.00118	.00098	.0243	.00065	.0200	.0051	.00150	.0050	.00010
%RSD	.48974	.34723	.37380	.45252	.54874	.16470	.19612	.25835	.72296

#1	.24020	.28139	6.5152	.14478	3.6370	3.0861	.76561	1.9418	.01393
#2	.24120	.28235	6.4680	.14509	3.6165	3.0875	.76839	1.9503	.01412
#3	.23885	.28335	6.5015	.14383	3.6564	3.0955	.76798	1.9413	.01397

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.14142	.14941	2.9076	55.137
Stddev	.00055	.00059	.0047	.870
%RSD	.38627	.39679	.16229	1.5784

#1	.14088	.14893	2.9083	55.200
#2	.14143	.15007	2.9025	54.237
#3	.14197	.14923	2.9118	55.974

Sample Name: S4 Acquired: 7/30/2025 13:57:41 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5034.2	79313.	7275.5	4206.7	5872.3
Stddev	14.9	247.	35.6	27.9	19.8
%RSD	.29526	.31108	.48941	.66431	.33750
#1	5051.0	79042.	7258.3	4193.1	5894.8
#2	5029.0	79373.	7316.5	4238.9	5864.5
#3	5022.7	79525.	7251.8	4188.2	5857.5

Sample Name: S5 Acquired: 7/30/2025 14:01:54 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.43855	.15205	2.2405	.45721	.98767	1.7040	57.435	4.4580	12.666
Stddev	.00253	.00328	.0064	.00228	.00471	.0048	1.364	.0420	.038
%RSD	.57668	2.1591	.28456	.49894	.47690	.28382	2.3745	.94282	.29775

#1	.43778	.15410	2.2364	.45752	.98640	1.7083	58.998	4.4888	12.644
#2	.43650	.14826	2.2372	.45478	.98373	1.7048	56.486	4.4101	12.644
#3	.44138	.15378	2.2478	.45931	.99289	1.6988	56.822	4.4750	12.710

Elem	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.8168	.27099	3.7099	1.8282	.04169	3.0413	.62237	3.3181	.55533
Stddev	.0217	.00193	.0111	.0074	.00030	.0110	.00257	.0108	.00063
%RSD	.56873	.71226	.29845	.40380	.70809	.36281	.41302	.32447	.11361

#1	3.8406	.27209	3.7023	1.8253	.04142	3.0536	.62533	3.3109	.55477
#2	3.7980	.27212	3.7049	1.8227	.04201	3.0322	.62109	3.3130	.55602
#3	3.8120	.26876	3.7226	1.8366	.04165	3.0383	.62069	3.3305	.55521

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.48536	.57874	12.875	.29368	7.3331	6.2780	1.5793	3.9654	.02873
Stddev	.00431	.00198	.037	.00223	.0714	.0246	.0053	.0140	.00023
%RSD	.88784	.34184	.29128	.75965	.97411	.39182	.33689	.35229	.81279

#1	.48186	.57969	12.880	.29174	7.3914	6.2733	1.5774	3.9806	.02850
#2	.49017	.57646	12.835	.29612	7.2534	6.2561	1.5752	3.9532	.02897
#3	.48403	.58006	12.909	.29319	7.3546	6.3046	1.5853	3.9623	.02871

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.29480	.31816	6.0654	112.58
Stddev	.00176	.00287	.0078	.50
%RSD	.59681	.90155	.12841	.44773

#1	.29600	.31877	6.0695	113.16
#2	.29278	.31503	6.0703	112.24
#3	.29563	.32066	6.0564	112.34

Sample Name: S5 Acquired: 7/30/2025 14:01:54 Type: Cal
Method: 6010-200.7 NEW(v70) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4882.4	79787.	7196.1	4132.1	5553.3
Stddev	14.6	435.	66.2	6.5	11.7
%RSD	.29904	.54527	.92032	.15757	.21141
#1	4886.0	79724.	7120.1	4134.4	5554.3
#2	4894.9	79387.	7241.0	4137.2	5564.4
#3	4866.3	80250.	7227.3	4124.8	5541.0

Sample Name: ICV01 Acquired: 7/30/2025 14:11:56 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.821147	3.808379	3.726515	3.847603	4.119669	7.857805
Stddev	.008169	.039369	.007422	.009453	.007899	.032063
%RSD	.2137878	1.033743	.1991666	.2456776	.1917469	.4080410

#1	3.825772	3.811366	3.733780	3.849487	4.115301	7.894585
#2	3.811715	3.767601	3.718946	3.837351	4.114917	7.835749
#3	3.825955	3.846169	3.726820	3.855973	4.128787	7.843080

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.910480	.2050400	1.897057	19.66079	.8023139	1.979983
Stddev	.029702	.0010875	.005215	.09843	.0019354	.003583
%RSD	.3754733	.5303821	.2749147	.5006447	.2412284	.1809380

#1	7.934106	.2051648	1.899453	19.60970	.8032407	1.982364
#2	7.877137	.2038955	1.891075	19.59842	.8036117	1.975863
#3	7.920198	.2060598	1.900644	19.77426	.8000894	1.981722

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.016862	3.877299	1.975827	19.69453	1.976929	.9188058
Stddev	.002324	.003702	.008043	.05634	.003885	.0003892
%RSD	.2285808	.0954819	.4070640	.2860586	.1965113	.0423546

#1	1.015096	3.874359	1.976381	19.73582	1.978290	.9191872
#2	1.015994	3.876080	1.967521	19.63035	1.972547	.9184093
#3	1.019495	3.881456	1.983579	19.71742	1.979951	.9188209

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.05638	2.002935	1.992096	19.29461	F .0048635	F .0006051
Stddev	.05662	.012479	.007131	.06862	.0009069	.0000652
%RSD	.2971312	.6230385	.3579415	.3556498	18.64645	10.77790

#1	19.08978	2.017313	1.992326	19.22955	.0038569	.0006655
#2	19.08835	1.994918	1.984854	19.36631	.0056167	.0005359
#3	18.99100	1.996575	1.999110	19.28796	.0051168	.0006139

Sample Name: ICV01 Acquired: 7/30/2025 14:11:56 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000012	F -.003754	F -.035713	F .0076764	F .0091571	F .0029858
Stddev	.000400	.002171	.009020	.0021941	.0015769	.0018284
%RSD	3335.264	57.84161	25.25612	28.58294	17.22031	61.23750

#1	.000405	-.002637	-.032610	.0058072	.0087252	.0050186
#2	-.000392	-.002369	-.028654	.0071299	.0078412	.0024635
#3	-.000049	-.006257	-.045874	.0100921	.0109049	.0014754

Elem	Sr4077
Units	ppm
Avg	F -.002987
Stddev	.000072
%RSD	2.417422

#1	-.002930
#2	-.002963
#3	-.003068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5020.832	80993.54	7222.887	4288.442	5909.839
Stddev	8.676	339.55	49.047	29.072	15.448
%RSD	.1727959	.4192343	.6790510	.6779109	.2613897

#1	5011.731	81180.14	7224.063	4293.657	5893.561
#2	5029.009	81198.87	7271.336	4314.554	5924.295
#3	5021.757	80601.61	7173.263	4257.116	5911.660

Sample Name: LLICV01 Acquired: 7/30/2025 14:16:06 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0190703	.0354423	.0118355	.0229053	.0529060	.1176633
Stddev	.0007382	.0053862	.0005902	.0024654	.0009003	.0153600
%RSD	3.870775	15.19710	4.987104	10.76361	1.701756	13.05416

#1	.0185852	.0407462	.0113590	.0200985	.0532345	.1072612
#2	.0187059	.0356032	.0124958	.0247208	.0518875	.1353052
#3	.0199198	.0299774	.0116516	.0238967	.0535959	.1104235

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1052741	.0067437	.0058736	2.115992	.0106270	.0305090
Stddev	.0013109	.0000977	.0000740	.014593	.0003736	.0000579
%RSD	1.245207	1.449128	1.260498	.6896492	3.515364	.1898095

#1	.1063350	.0068399	.0057982	2.101944	.0105349	.0304557
#2	.1038086	.0066445	.0059462	2.114958	.0110380	.0305008
#3	.1056787	.0067468	.0058766	2.131075	.0103081	.0305706

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214553	.1019867	.0212734	2.245820	.0413465	.0104048
Stddev	.0006227	.0032701	.0004101	.020256	.0003328	.0003671
%RSD	2.902286	3.206384	1.927947	.9019444	.8049616	3.528010

#1	.0221511	.0988463	.0210667	2.265514	.0413006	.0106007
#2	.0209506	.1017410	.0217458	2.246901	.0416998	.0099813
#3	.0212640	.1053726	.0210078	2.225045	.0410389	.0106323

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.854686	.0388917	.0420476	1.932795	.1109938	.2111291
Stddev	.004242	.0019138	.0001642	.007839	.0014475	.0003593
%RSD	.2287102	4.920837	.3904204	.4055909	1.304174	.1701797

#1	1.859429	.0396490	.0422293	1.924639	.1125278	.2111371
#2	1.853372	.0403110	.0419100	1.940274	.1096519	.2107658
#3	1.851257	.0367152	.0420036	1.933472	.1108017	.2114843

Sample Name: LLICV01 Acquired: 7/30/2025 14:16:06 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0389479	.0397680	.3655597	.0230254	.0179313	F .0157982
Stddev	.0003496	.0014944	.0048526	.0011837	.0008614	.0006616
%RSD	.8975706	3.757841	1.327454	5.140974	4.804044	4.188011

#1	.0386809	.0380463	.3700823	.0222429	.0174246	.0157594
#2	.0393436	.0405291	.3604335	.0243872	.0174433	.0164783
#3	.0388192	.0407288	.3661634	.0224461	.0189259	.0151568

Elem	Sr4077
Units	ppm
Avg	.0211458
Stddev	.0001899
%RSD	.8978388

#1	.0212549
#2	.0209266
#3	.0212560

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5126.920	81026.20	7089.066	4320.813	6308.033
Stddev	6.882	12.28	42.192	12.960	9.004
%RSD	.1342405	.0151523	.5951706	.2999392	.1427387

#1	5120.658	81033.03	7045.001	4314.279	6304.442
#2	5125.815	81012.03	7129.095	4335.739	6301.378
#3	5134.289	81033.55	7093.100	4312.420	6318.278

Sample Name: ICB01 Acquired: 7/30/2025 14:20:24 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002495	-.010985	.0004489	.0036652	.0005517	.0009038	.0007658
Stddev	.002571	.002599	.0008435	.0007545	.0012194	.0029442	.0005704
%RSD	103.0346	23.66202	187.9082	20.58445	221.0210	325.7728	74.48522

#1	-.004598	-.008090	.0011568	.0032581	.0017211	.0019791	.0003282
#2	-.003259	-.013117	.0006743	.0045357	.0006463	-.002427	.0014110
#3	.000371	-.011749	-.000484	.0032017	-.000712	.003159	.0005583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001144	.0001121	-.017946	-.000115	.0000400	-.000804	-.002965
Stddev	.0000314	.0000558	.013073	.000550	.0001004	.000240	.010156
%RSD	27.47543	49.78519	72.84839	477.9175	250.7968	29.90404	342.5320

#1	.0001442	.0000710	-.032745	.000379	.0001118	-.000623	-.011240
#2	.0001173	.0001757	-.007969	-.000708	-.000075	-.000712	.008369
#3	.0000816	.0000896	-.013123	-.000016	.000083	-.001077	-.006024

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001135	.0145729	.0002004	.0003872	-.145157	-.003903	-.001053
Stddev	.000277	.0070390	.0003001	.0002568	.007726	.001053	.000085
%RSD	24.36393	48.30206	149.7003	66.32168	5.322507	26.97420	8.059668

#1	-.001339	.0226286	.0001268	.0002651	-.139244	-.005029	-.001147
#2	-.000820	.0114818	-.000056	.0006823	-.153899	-.002943	-.000981
#3	-.001247	.0096084	.000531	.0002143	-.142328	-.003736	-.001030

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238415	.0033197	.0000008	-.000814	.0012641	-.011710	.0032998
Stddev	.0466225	.0014928	.0001338	.000699	.0005854	.005752	.0016258
%RSD	195.5523	44.96819	17575.89	85.86290	46.31104	49.12184	49.27159

#1	.0566865	.0017585	.0000400	-.001207	.0006968	-.005227	.0014561
#2	-.029521	.0047331	-.000148	-.001230	.0012296	-.013701	.0045283
#3	.044359	.0034675	.000111	-.000007	.0018661	-.016202	.0039148

Sample Name: ICB01 Acquired: 7/30/2025 14:20:24 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002710	-.004265	-.000023
Stddev	.001154	.004232	.000058
%RSD	42.57630	99.23517	249.0901

#1	-.002780	-.003596	-.000089
#2	-.001523	-.008792	.000023
#3	-.003828	-.000407	-.000004

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5219.070	79496.33	6504.940	4269.579	6561.450
Stddev	9.972	59.05	35.007	17.732	13.192
%RSD	.1910683	.0742838	.5381609	.4153064	.2010535

#1	5227.751	79445.47	6529.200	4272.812	6576.494
#2	5221.281	79561.10	6520.812	4250.453	6555.998
#3	5208.178	79482.43	6464.809	4285.472	6551.857

Sample Name: CRI01 Acquired: 7/30/2025 14:24:43 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178240	.0313535	.0120436	.0219153	.0541444	.1107945
Stddev	.0005476	.0039635	.0009909	.0012047	.0011546	.0055193
%RSD	3.072459	12.64146	8.227846	5.497018	2.132536	4.981534

#1	.0184348	.0312851	.0131252	.0223206	.0544393	.1093866
#2	.0173769	.0353508	.0111794	.0228651	.0551230	.1061156
#3	.0176603	.0274246	.0118262	.0205602	.0528709	.1168814

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1034145	.0065673	.0058605	2.086569	.0103580	.0304303
Stddev	.0006239	.0000519	.0000363	.010519	.0003555	.0003428
%RSD	.6032518	.7903855	.6192829	.5041053	3.432110	1.126516

#1	.1028360	.0065770	.0058883	2.082913	.0102709	.0302933
#2	.1033321	.0065112	.0058194	2.098427	.0100542	.0301772
#3	.1040755	.0066136	.0058737	2.078365	.0107490	.0308204

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0212642	.0987582	.0214240	2.215938	.0410732	.0104164
Stddev	.0003084	.0017103	.0002147	.048053	.0005550	.0003185
%RSD	1.450451	1.731832	1.002262	2.168525	1.351370	3.057551

#1	.0209518	.1004989	.0216719	2.171215	.0406532	.0106312
#2	.0212722	.0970799	.0212958	2.209857	.0408639	.0100505
#3	.0215685	.0986959	.0213044	2.266742	.0417024	.0105677

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.808999	.0380682	.0416826	1.903434	.1047428	.2111538
Stddev	.025059	.0025657	.0001081	.012805	.0003919	.0004129
%RSD	1.385267	6.739715	.2593487	.6727455	.3741099	.1955477

#1	1.791227	.0358327	.0417936	1.892225	.1047756	.2114150
#2	1.837661	.0375022	.0415776	1.917389	.1051172	.2106777
#3	1.798109	.0408696	.0416767	1.900686	.1043356	.2113686

Sample Name: CRI01 Acquired: 7/30/2025 14:24:43 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0395811	.0414869	.3464689	.0220773	.0185507	F .0090598
Stddev	.0007989	.0013869	.0076471	.0000686	.0019318	.0018810
%RSD	2.018423	3.343076	2.207164	.3107407	10.41358	20.76227

#1	.0391239	.0413899	.3550351	.0221520	.0173307	.0112262
#2	.0405035	.0429199	.3440415	.0220170	.0175435	.0081130
#3	.0391157	.0401511	.3403301	.0220630	.0207780	.0078404

Elem	Sr4077
Units	ppm
Avg	.0208520
Stddev	.0000340
%RSD	.1630521

#1	.0208783
#2	.0208136
#3	.0208641

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5112.510	83678.83	7333.499	4361.984	6293.209
Stddev	2.665	99.36	30.877	18.460	8.640
%RSD	.0521223	.1187440	.4210350	.4232033	.1372944

#1	5114.614	83729.62	7298.983	4348.593	6294.320
#2	5109.514	83564.33	7343.020	4354.316	6284.067
#3	5113.403	83742.52	7358.494	4383.042	6301.240

Sample Name: ICSA01 Acquired: 7/30/2025 14:28:58 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073947	.0006201	-.004794	-.002419	-.005162	262.1974
Stddev	.0006200	.0050655	.001038	.001707	.003439	.2558
%RSD	8.384346	816.8978	21.64710	70.58398	66.62534	.0975663

#1	.0068294	-.000037	-.005396	-.003011	-.003115	262.4124
#2	.0080578	-.004085	-.003596	-.000494	-.003238	261.9145
#3	.0072969	.005982	-.005391	-.003751	-.009132	262.2655

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051773	.0018813	.0008747	248.4296	.0570032	.0015246
Stddev	.0009352	.0000857	.0001054	.4207	.0005062	.0003476
%RSD	18.06304	4.554435	12.05469	.1693388	.8879917	22.79791

#1	.0041550	.0019783	.0009774	248.8437	.0574493	.0012511
#2	.0059896	.0018161	.0008798	248.0026	.0564531	.0019157
#3	.0053873	.0018495	.0007667	248.4426	.0571073	.0014070

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0095801	99.78507	.0075682	260.6165	.0043825	.0009764
Stddev	.0006771	.49919	.0006589	.4585	.0002177	.0007047
%RSD	7.068294	.5002699	8.705903	.1759188	4.966290	72.17237

#1	.0101307	99.45670	.0071490	260.2652	.0041683	.0004428
#2	.0088240	99.53898	.0072280	260.4492	.0046034	.0007112
#3	.0097856	100.3595	.0083277	261.1352	.0043756	.0017751

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007486	.0032409	.0010270	.1445672	.0179903	.0000137
Stddev	.017790	.0036736	.0002692	.0227112	.0030619	.0001784
%RSD	237.6384	113.3529	26.20755	15.70977	17.01959	1305.815

#1	-.027667	-.000125	.0012559	.1650425	.0165475	-.000156
#2	-.000714	.002688	.0010946	.1201391	.0159164	-.000003
#3	.005923	.007160	.0007305	.1485200	.0215070	.000200

Sample Name: ICSA01 Acquired: 7/30/2025 14:28:58 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003316	-.007891	.0057828	.0093112	-.004168	F .0535196
Stddev	.001283	.000609	.0131415	.0008402	.003734	.0022468
%RSD	38.70161	7.711827	227.2538	9.023431	89.58650	4.198032

#1	-.001920	-.007366	.0205603	.0098909	.000132	.0560647
#2	-.004445	-.008558	-.004592	.0096950	-.006039	.0518113
#3	-.003582	-.007748	.001380	.0083476	-.006597	.0526827

Elem	Sr4077
Units	ppm
Avg	.0092128
Stddev	.0005289
%RSD	5.740671

#1	.0096861
#2	.0093103
#3	.0086420

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4599.330	74859.79	6897.144	3900.060	5197.569
Stddev	13.064	249.84	3.718	13.352	18.152
%RSD	.2840504	.3337402	.0539131	.3423559	.3492375

#1	4598.412	75040.06	6892.987	3890.739	5197.001
#2	4612.829	74964.70	6898.293	3915.356	5215.998
#3	4586.748	74574.60	6900.153	3894.084	5179.707

Sample Name: ICSAB01 Acquired: 7/30/2025 14:33:10 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1084664	.0961113	.0434756	.0494797	.6399796	260.9298
Stddev	.0034508	.0168008	.0016359	.0049249	.0008283	.3908
%RSD	3.181474	17.48052	3.762789	9.953389	.1294329	.1497700

#1	.1122563	.0785422	.0435675	.0513443	.6399334	260.4935
#2	.1076371	.1120205	.0450635	.0438947	.6408301	261.0479
#3	.1055058	.0977711	.0417956	.0532000	.6391754	261.2479

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5262291	.5260330	.9819285	247.8402	.5584838	.5141608
Stddev	.0023569	.0016247	.0030312	1.4769	.0014772	.0010083
%RSD	.4478753	.3088559	.3087027	.5959094	.2645071	.1960980

#1	.5239322	.5242666	.9789373	246.1726	.5597201	.5144989
#2	.5286417	.5263690	.9818500	248.9833	.5588834	.5130269
#3	.5261133	.5274635	.9849983	248.3645	.5568479	.5149565

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5126970	101.4082	.5171233	258.7225	1.019508	.2223373
Stddev	.0007245	.2396	.0034360	.9129	.002080	.0010516
%RSD	.1413068	.2362938	.6644387	.3528635	.2040566	.4729729

#1	.5119452	101.2538	.5134023	257.6699	1.018059	.2213522
#2	.5127552	101.6843	.5201760	259.1997	1.018573	.2234447
#3	.5133906	101.2866	.5177917	259.2980	1.021892	.2222150

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.066724	.4998506	1.071087	.0478654	F .0261250	F .0010152
Stddev	.005811	.0054690	.002375	.0264310	.0010165	.0002231
%RSD	8.709403	1.094131	.2217147	55.21932	3.890929	21.97907

#1	-.069286	.4935355	1.072912	.0586302	.0272965	.0008790
#2	-.070814	.5030277	1.068402	.0177508	.0254772	.0012728
#3	-.060072	.5029885	1.071948	.0672154	.0256011	.0008940

Sample Name: ICSAB01 Acquired: 7/30/2025 14:33:10 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.003164	F -.008576	F -.005059	F .0108823	F -.005455	F .0508730
Stddev	.000620	.000950	.006347	.0057726	.001480	.0035925
%RSD	19.58046	11.08290	125.4640	53.04554	27.12864	7.061753

#1	-.002815	-.009629	.002029	.0168793	-.007134	.0467524
#2	-.002798	-.008318	-.010218	.0053639	-.004890	.0525191
#3	-.003880	-.007781	-.006988	.0104037	-.004341	.0533476

Elem	Sr4077
Units	ppm
Avg	F .0071711
Stddev	.0001409
%RSD	1.965120

#1	.0070375
#2	.0073183
#3	.0071574

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4555.355	74420.12	7012.074	3863.411	5172.542
Stddev	5.081	175.38	38.200	12.980	9.526
%RSD	.1115390	.2356575	.5447739	.3359674	.1841722

#1	4557.008	74572.94	7055.646	3874.007	5180.465
#2	4559.403	74228.64	6996.234	3867.293	5175.190
#3	4549.653	74458.78	6984.343	3848.933	5161.972

Sample Name: ICSA01DLX20 Acquired: 7/30/2025 14:37:16 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000373	-.011309	-.000544	.0015646	-.000552	12.25478	.0010751
Stddev	.002428	.007078	.000186	.0032570	.000680	.08002	.0001605
%RSD	651.3255	62.58812	34.19066	208.1708	123.2027	.6530043	14.92435

#1	.000825	-.018853	-.000492	.0053145	-.000702	12.30133	.0009590
#2	.001224	-.010264	-.000390	-.000063	.000191	12.30063	.0010081
#3	-.003167	-.004812	-.000751	-.000558	-.001144	12.16238	.0012582

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002834	.0000704	12.31735	.0289244	.0003705	.0006316	4.948746
Stddev	.0000088	.0000183	.04136	.0004502	.0001233	.0001572	.036608
%RSD	3.089862	26.05924	.3357859	1.556464	33.27993	24.89608	.7397490

#1	.0002875	.0000543	12.33153	.0293017	.0005123	.0007523	4.979578
#2	.0002734	.0000664	12.34975	.0290455	.0003114	.0006887	4.908286
#3	.0002894	.0000904	12.27076	.0284261	.0002879	.0004538	4.958373

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008083	12.53603	.0130031	.0000543	-.186077	-.003255	-.000142
Stddev	.0001496	.01714	.0001740	.0001721	.012982	.003191	.000261
%RSD	18.50569	.1367139	1.337734	316.7815	6.976667	98.01355	183.7074

#1	.0006407	12.54081	.0128058	-.000073	-.188084	-.000954	-.000431
#2	.0008560	12.55027	.0130696	-.000015	-.172209	-.006898	.000078
#3	.0009282	12.51701	.0131341	.000250	-.197939	-.001914	-.000074

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.078454	-.002090	.0026965	-.001178	.0001378	-.003747	.0040769
Stddev	.016102	.000564	.0002229	.000010	.0002142	.013241	.0025338
%RSD	20.52364	26.98628	8.267130	.8860504	155.4117	353.3277	62.15182

#1	-.061080	-.001816	.0028123	-.001173	.0000062	.000960	.0020548
#2	-.081407	-.002739	.0028376	-.001171	.0003851	.006496	.0032566
#3	-.092874	-.001715	.0024395	-.001190	.0000223	-.018699	.0069192

Sample Name: ICSA01DLX20 Acquired: 7/30/2025 14:37:16 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004338	-.009557	.0002958
Stddev	.002219	.001935	.0000596
%RSD	51.14836	20.24979	20.14635
#1	-.006291	-.007824	.0002431
#2	-.004798	-.011645	.0003605
#3	-.001925	-.009201	.0002839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5075.448	81626.28	7283.661	4245.374	6218.211
Stddev	10.652	265.21	58.110	13.329	14.022
%RSD	.2098684	.3249062	.7978183	.3139732	.2254940
#1	5081.802	81543.22	7292.723	4231.694	6226.365
#2	5063.151	81923.08	7221.552	4246.105	6202.020
#3	5081.392	81412.54	7336.708	4258.323	6226.248

Sample Name: ICSAB01DLX20 Acquired: 7/30/2025 14:41:32 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2:
Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014942	-.003170	.0024528	.0039411	.0285738	12.12184	.0249326
Stddev	.0010797	.007218	.0008940	.0018970	.0009164	.10194	.0004729
%RSD	72.25863	227.7338	36.44850	48.13423	3.207223	.8409321	1.896554

#1	.0005151	-.003097	.0021694	.0031000	.0295817	12.01211	.0250713
#2	.0013155	-.010424	.0034541	.0026101	.0283488	12.13980	.0253206
#3	.0026522	.004012	.0017347	.0061132	.0277908	12.21360	.0244059

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257935	.0456163	12.24085	.0271734	.0238040	.0244661	4.785875
Stddev	.0000937	.0001955	.13338	.0000532	.0002175	.0004016	.049064
%RSD	.3633701	.4284591	1.089611	.1956354	.9136931	1.641276	1.025178

#1	.0257404	.0454953	12.10396	.0271310	.0238290	.0248833	4.743595
#2	.0257384	.0455118	12.37041	.0272331	.0235750	.0240823	4.839674
#3	.0259017	.0458418	12.24818	.0271563	.0240079	.0244328	4.774357

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0245009	12.40732	.0477348	.0098839	-.175180	.0220308	.0496937
Stddev	.0010080	.11738	.0001045	.0005616	.015688	.0011186	.0002948
%RSD	4.114160	.9460715	.2188270	5.682165	8.955293	5.077382	.5931441

#1	.0233602	12.27458	.0476457	.0092969	-.193074	.0227808	.0494479
#2	.0252718	12.44997	.0478497	.0099387	-.168671	.0207451	.0500205
#3	.0248705	12.49742	.0477089	.0104161	-.163793	.0225665	.0496128

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.083388	-.003615	.0000456	-.002168	.0001146	-.004578	.0025560
Stddev	.020982	.000508	.0002860	.000391	.0010054	.003499	.0031248
%RSD	25.16240	14.05272	627.4476	18.04832	877.2142	76.43465	122.2508

#1	-.065626	-.003906	.0002943	-.001753	-.000985	-.007332	-.001018
#2	-.077997	-.003028	.0001094	-.002531	.000343	-.005760	.003916
#3	-.106539	-.003910	-.000267	-.002220	.000986	-.000641	.004770

Sample Name: ICSAB01DLX20 Acquired: 7/30/2025 14:41:32 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003603	-.010849	.0002372
Stddev	.000919	.001056	.0000766
%RSD	25.50112	9.729054	32.28513

#1	-.003229	-.010348	.0001549
#2	-.002930	-.010138	.0002502
#3	-.004649	-.012062	.0003064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5032.923	81997.68	7293.118	4257.041	6135.602
Stddev	4.943	243.97	32.416	9.455	5.966
%RSD	.0982165	.2975360	.4444697	.2220948	.0972384

#1	5038.123	82279.22	7328.747	4250.819	6133.421
#2	5028.285	81865.59	7285.240	4252.382	6142.352
#3	5032.360	81848.24	7265.368	4267.921	6131.034

Sample Name: CCV01 Acquired: 7/30/2025 14:45:44 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.093261	5.490573	4.922536	5.150261	5.126222	10.09275	10.18992
Stddev	.019817	.063862	.005911	.014086	.021465	.05861	.05470
%RSD	.3890859	1.163129	.1200792	.2735050	.4187389	.5807160	.5368331

#1	5.079229	5.428296	4.923992	5.139406	5.112954	10.12913	10.25304
#2	5.084623	5.487511	4.916033	5.145198	5.114726	10.12398	10.16040
#3	5.115931	5.555911	4.927583	5.166179	5.150987	10.02514	10.15633

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2625558	2.472947	25.75251	.9923551	2.493109	1.270858	4.904137
Stddev	.0022628	.002320	.10270	.0023865	.002834	.002557	.042693
%RSD	.8618305	.0938035	.3988036	.2404844	.1136647	.2012148	.8705488

#1	.2643240	2.474231	25.76786	.9939647	2.491802	1.268688	4.871305
#2	.2633376	2.470269	25.84668	.9934873	2.491165	1.270209	4.888707
#3	.2600057	2.474340	25.64300	.9896133	2.496361	1.273677	4.952400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.560542	24.96243	2.502352	1.259499	23.64067	2.504518	2.527776
Stddev	.004177	.04415	.003754	.002128	.15623	.005957	.006854
%RSD	.1631342	.1768822	.1500282	.1689787	.6608446	.2378510	.2711447

#1	2.562294	25.00835	2.504276	1.261948	23.50202	2.498267	2.520126
#2	2.563559	24.92029	2.498026	1.258094	23.61006	2.505157	2.533359
#3	2.555775	24.95865	2.504754	1.258456	23.80994	2.510130	2.529842

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.58941	5.266186	5.113637	5.020442	5.181612	4.707332	4.889621
Stddev	.16071	.055586	.014358	.010938	.012051	.063561	.007218
%RSD	.6535813	1.055528	.2807732	.2178759	.2325740	1.350261	.1476203

#1	24.43037	5.313006	5.104313	5.016438	5.176581	4.666002	4.895960
#2	24.58612	5.280800	5.106427	5.012069	5.195363	4.675473	4.881765
#3	24.75175	5.204753	5.130171	5.032818	5.172892	4.780523	4.891137

Sample Name: CCV01 Acquired: 7/30/2025 14:45:44 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.070473	4.961237	5.176347
Stddev	.017177	.006485	.032049
%RSD	.3387568	.1307155	.6191502

#1	5.053341	4.968606	5.213350
#2	5.070385	4.958705	5.157352
#3	5.087693	4.956401	5.158339

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4900.423	80630.34	6959.688	4164.991	5736.008
Stddev	6.998	146.86	64.051	7.652	11.850
%RSD	.1428111	.1821376	.9203152	.1837297	.2065810

#1	4892.853	80573.11	6894.487	4168.104	5723.601
#2	4901.761	80797.20	6962.053	4170.596	5737.215
#3	4906.657	80520.72	7022.523	4156.273	5747.208

Sample Name: CCB01 Acquired: 7/30/2025 14:49:55 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000045	-.012034	.0005183	.0028784	.0001769	.0012519	-.000485
Stddev	.0034753	.012527	.0015424	.0005485	.0011265	.0115392	.000333
%RSD	76749.82	104.0937	297.6031	19.05720	636.8139	921.7187	68.71396

#1	-.002086	-.006751	.0013873	.0022478	.0007200	.0138708	-.000173
#2	-.001916	-.003015	.0014300	.0032447	-.001118	-.008762	-.000446
#3	.004016	-.026338	-.001263	.0031429	.000929	-.001353	-.000836

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000868	.0002220	-.002357	.0002640	.0001318	-.000516	-.001463
Stddev	.0000089	.0000361	.005879	.0004918	.0001169	.000403	.001649
%RSD	10.23161	16.26920	249.4475	186.3166	88.72488	78.13238	112.7175

#1	.0000794	.0002459	.004152	-.000300	.0001989	-.000171	-.001543
#2	.0000966	.0002397	-.007281	.000491	-.000003	-.000960	.000225
#3	.0000845	.0001805	-.003942	.000601	.000200	-.000418	-.003071

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000653	.0089733	.0003253	-.000352	-.196175	-.003472	-.000962
Stddev	.000158	.0140091	.0002754	.000747	.008471	.001591	.000225
%RSD	24.23094	156.1200	84.65158	212.0530	4.318145	45.80822	23.35093

#1	-.000722	.0117596	.0006148	-.001202	-.186407	-.004682	-.001004
#2	-.000766	-.006220	.0002942	.000199	-.200613	-.001671	-.000719
#3	-.000472	.021380	.0000668	-.000053	-.201505	-.004063	-.001162

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.032320	.0020237	.0008429	-.000320	.0002772	-.012736	.0040318
Stddev	.012294	.0009975	.0001699	.000312	.0018084	.012712	.0014841
%RSD	38.04038	49.28857	20.15949	97.35065	652.4044	99.80986	36.81023

#1	-.037136	.0023418	.0009440	-.000290	-.000827	-.024761	.0026310
#2	-.041476	.0009060	.0009381	-.000646	.002364	.000567	.0055871
#3	-.018346	.0028234	.0006467	-.000025	-.000705	-.014015	.0038773

Sample Name: CCB01 Acquired: 7/30/2025 14:49:55 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002782	F -.012821	.0002265
Stddev	.002931	.001878	.0000392
%RSD	105.3429	14.64375	17.32541

#1	-.006062	-.012747	.0002664
#2	-.001863	-.010982	.0001880
#3	-.000421	-.014735	.0002251

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5034.774	84019.87	7290.318	4331.517	6204.381
Stddev	12.623	173.41	33.340	10.577	11.705
%RSD	.2507176	.2063946	.4573135	.2441878	.1886520

#1	5049.349	83833.52	7261.092	4320.326	6217.893
#2	5027.667	84176.51	7283.230	4341.349	6197.890
#3	5027.307	84049.57	7326.632	4332.876	6197.360

Sample Name: Q2710-01 Acquired: 7/30/2025 14:54:14 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0445356	-.156007	.4232733	.0019731	-.011166	75.49997	.6094016
Stddev	.0037107	.007656	.0017189	.0046799	.000890	.27820	.0022365
%RSD	8.331887	4.907573	.4060970	237.1781	7.966386	.3684751	.3669989

#1	.0446146	-.152929	.4251520	.0001999	-.011178	75.18785	.6069369
#2	.0482062	-.164723	.4228887	-.001561	-.010271	75.59023	.6099663
#3	.0407861	-.150369	.4217793	.007280	-.012050	75.72184	.6113017

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080057	.0052268	54.34146	.1806036	.0980130	.4091729	193.7530
Stddev	.0000469	.0002194	.27038	.0005338	.0001852	.0018355	.2437
%RSD	.5852504	4.198487	.4975636	.2955937	.1889832	.4485867	.1257862

#1	.0080163	.0051003	54.04095	.1799872	.0978136	.4081682	193.8824
#2	.0079545	.0051000	54.56504	.1809098	.0980458	.4080592	193.4719
#3	.0080464	.0054802	54.41840	.1809139	.0981797	.4112915	193.9048

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.067493	41.54229	.1969341	.0048209	5.602402	.2985630	.7969049
Stddev	.012634	.21773	.0007392	.0005701	.033113	.0021491	.0007162
%RSD	.4118773	.5241099	.3753326	11.82550	.5910555	.7197990	.0898759

#1	3.052912	41.29090	.1961904	.0045348	5.612732	.2961677	.7976337
#2	3.074373	41.66509	.1976687	.0044505	5.565355	.3003220	.7968789
#3	3.075195	41.67087	.1969432	.0054774	5.629119	.2991994	.7962020

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.10840	.0890637	.0058112	.0352373	4.608903	10.49170	5.906043
Stddev	.06830	.0032504	.0003696	.0008731	.017171	.08126	.010963
%RSD	.4520915	3.649508	6.359413	2.477875	.3725543	.7745248	.1856207

#1	15.18565	.0914768	.0054737	.0362145	4.594453	10.56164	5.918619
#2	15.05599	.0853676	.0062061	.0345339	4.604370	10.40256	5.901004
#3	15.08356	.0903466	.0057538	.0349636	4.627885	10.51091	5.898506

Sample Name: Q2710-01 Acquired: 7/30/2025 14:54:14 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.366701	.1881706	.0436664
Stddev	.009668	.0015571	.0008237
%RSD	.2213939	.8274724	1.886248

#1	4.361547	.1865385	.0427453
#2	4.360702	.1896398	.0439215
#3	4.377853	.1883334	.0443322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5583.603	91792.90	8257.897	4737.537	5604.486
Stddev	12.213	270.03	70.394	6.018	12.064
%RSD	.2187355	.2941728	.8524399	.1270179	.2152640

#1	5573.101	91900.22	8326.432	4732.853	5591.853
#2	5597.005	91485.71	8185.781	4735.435	5615.888
#3	5580.703	91992.77	8261.477	4744.324	5605.716

Sample Name: Q2710-01DUP Acquired: 7/30/2025 14:58:18 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0436073	-.151346	.4157156	-.000230	-.010238	75.46408	.6126145
Stddev	.0011743	.005353	.0003728	.000873	.001164	.59584	.0050497
%RSD	2.692893	3.537178	.0896846	379.9914	11.37212	.7895723	.8242923

#1	.0449578	-.146913	.4155018	-.000926	-.011245	76.15200	.6184373
#2	.0428270	-.149831	.4154989	-.000514	-.008963	75.13029	.6094361
#3	.0430370	-.157293	.4161461	.000750	-.010504	75.10996	.6099701

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082430	.0053752	54.77229	.1775827	.0956894	.3966575	190.4356
Stddev	.0001460	.0001022	.39376	.0006196	.0002671	.0018939	.3175
%RSD	1.771444	1.901697	.7189112	.3489122	.2791369	.4774655	.1667330

#1	.0081522	.0052824	55.22539	.1774978	.0959731	.3958433	190.7710
#2	.0081654	.0054848	54.57860	.1782404	.0954428	.3953068	190.3960
#3	.0084114	.0053586	54.51289	.1770099	.0956521	.3988223	190.1397

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.087723	41.58816	.1888165	.0040657	5.405440	.2961863	.7766582
Stddev	.023345	.34611	.0003559	.0002518	.013679	.0044709	.0012033
%RSD	.7560712	.8322275	.1885099	6.192160	.2530685	1.509474	.1549334

#1	3.114669	41.98425	.1885120	.0040715	5.398117	.2996598	.7778657
#2	3.074899	41.43623	.1887297	.0038112	5.421222	.2977571	.7766499
#3	3.073600	41.34401	.1892079	.0043146	5.396982	.2911420	.7754591

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.93123	.0718062	.0058596	.0309456	4.677910	10.27386	5.665061
Stddev	.02485	.0020963	.0003043	.0003281	.040746	.10210	.029307
%RSD	.1664053	2.919318	5.193574	1.060292	.8710353	.9938176	.5173267

#1	14.94754	.0711005	.0060546	.0313213	4.724684	10.36326	5.668413
#2	14.94352	.0701538	.0055089	.0308005	4.658923	10.29573	5.634222
#3	14.90264	.0741642	.0060152	.0307152	4.650122	10.16260	5.692547

Sample Name: Q2710-01DUP Acquired: 7/30/2025 14:58:18 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.088632	.1855954	.0489000
Stddev	.026541	.0016316	.0014040
%RSD	.6491307	.8791221	2.871131
#1	4.059026	.1860779	.0505030
#2	4.096581	.1869314	.0478891
#3	4.110291	.1837770	.0483078

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5740.064	91745.21	8045.186	4745.544	5808.949
Stddev	17.550	253.36	57.343	10.244	11.153
%RSD	.3057457	.2761609	.7127648	.2158665	.1919900
#1	5725.920	91576.35	7984.706	4734.547	5803.234
#2	5759.704	91622.73	8052.083	4747.267	5821.801
#3	5734.567	92036.54	8098.769	4754.817	5801.812

Sample Name: Q2710-01LX5 Acquired: 7/30/2025 15:02:21 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075517	-.041961	.0815368	.0035561	-.002798	16.59630	.1364570
Stddev	.0017023	.008242	.0003428	.0022010	.001757	.08867	.0016168
%RSD	22.54234	19.64268	.4203631	61.89210	62.82343	.5342826	1.184861

#1	.0090126	-.033725	.0811444	.0059474	-.004207	16.50071	.1352562
#2	.0056823	-.041948	.0816884	.0031058	-.000828	16.67587	.1382954
#3	.0079601	-.050210	.0817776	.0016151	-.003358	16.61233	.1358193

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019081	.0004881	12.37550	.1692617	.0207392	.0948934	44.30042
Stddev	.0001009	.0001500	.06914	.0005150	.0005976	.0007481	.28497
%RSD	5.287491	30.72712	.5586699	.3042937	2.881436	.7883238	.6432749

#1	.0018742	.0003413	12.30565	.1692897	.0211542	.0944194	44.61158
#2	.0020216	.0004819	12.44390	.1697623	.0200542	.0945050	44.23754
#3	.0018286	.0006410	12.37695	.1687333	.0210091	.0957558	44.05214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7070747	9.334763	.1157195	.0014199	1.076105	.0661561	.1806569
Stddev	.0027176	.090358	.0000972	.0002165	.021043	.0022717	.0004043
%RSD	.3843485	.9679700	.0840044	15.24734	1.955436	3.433771	.2237710

#1	.7043649	9.231565	.1158086	.0012156	1.100325	.0635803	.1810990
#2	.7098001	9.373054	.1157340	.0013974	1.062308	.0678730	.1803060
#3	.7070592	9.399672	.1156158	.0016468	1.065682	.0670151	.1805658

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.256207	.0200213	.0167466	.0062114	1.034836	2.299936	1.109846
Stddev	.038129	.0026514	.0001485	.0004205	.003364	.028710	.008168
%RSD	1.170969	13.24267	.8866334	6.770043	.3250883	1.248311	.7359866

#1	3.282916	.0230707	.0168277	.0058199	1.031031	2.323040	1.105982
#2	3.273164	.0182605	.0165753	.0061585	1.036066	2.308974	1.104327
#3	3.212541	.0187328	.0168370	.0066559	1.037413	2.267794	1.119230

Sample Name: Q2710-01LX5 Acquired: 7/30/2025 15:02:21 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8159626	.0349042	.0092557
Stddev	.0008514	.0021644	.0002536
%RSD	.1043439	6.200862	2.739556

#1	.8151137	.0369431	.0089661
#2	.8168165	.0351362	.0093629
#3	.8159576	.0326331	.0094380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5229.102	84154.15	7501.099	4338.052	6182.568
Stddev	11.128	241.70	92.592	10.256	17.348
%RSD	.2128066	.2872114	1.234380	.2364246	.2805992

#1	5241.267	84197.38	7606.810	4338.937	6201.465
#2	5219.437	83893.76	7434.383	4327.382	6167.363
#3	5226.603	84371.32	7462.103	4347.837	6178.877

Sample Name: Q2710-01MS Acquired: 7/30/2025 15:06:31 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7029785	1.852110	1.321047	1.635593	.6872268	76.07027	.7816365
Stddev	.0022487	.022364	.001757	.006730	.0020920	.24163	.0025035
%RSD	.3198800	1.207486	.1330006	.4114753	.3044095	.3176441	.3202934

#1	.7019273	1.836245	1.319199	1.635304	.6876122	75.80543	.7795198
#2	.7055603	1.842397	1.321246	1.629012	.6849689	76.27873	.7809899
#3	.7014479	1.877688	1.322696	1.642462	.6890993	76.12666	.7844000

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1920627	.1912606	54.90465	.5078460	.2928573	.6524305	184.5351
Stddev	.0018097	.0004487	.37954	.0016524	.0005715	.0023492	1.1838
%RSD	.9422287	.2345796	.6912717	.3253682	.1951570	.3600627	.6414914

#1	.1901176	.1907564	54.56585	.5059960	.2922322	.6512786	184.8274
#2	.1923742	.1914092	54.83329	.5091753	.2929868	.6508795	185.5453
#3	.1936965	.1916160	55.31480	.5083667	.2933530	.6551332	183.2325

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.222997	42.49978	.6796789	.0676111	7.502062	.5510759	.9395560
Stddev	.010353	.31994	.0012148	.0009722	.082720	.0014758	.0031070
%RSD	.3212114	.7527990	.1787257	1.437953	1.102628	.2678060	.3306917

#1	3.211053	42.13155	.6782930	.0682209	7.534657	.5502632	.9389298
#2	3.228540	42.70975	.6801846	.0681225	7.563519	.5527794	.9429284
#3	3.229399	42.65803	.6805591	.0664899	7.408010	.5501850	.9368098

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.89630	.2930257	.3614043	.7173195	4.845724	10.73727	11.08386
Stddev	.19411	.0057749	.0015515	.0004473	.030536	.17320	.05051
%RSD	.8477931	1.970780	.4292963	.0623538	.6301708	1.613109	.4557461

#1	22.93878	.2946825	.3607190	.7174966	4.814859	10.80237	11.03217
#2	23.06566	.2977911	.3603136	.7168108	4.846392	10.86850	11.08632
#3	22.68447	.2866035	.3631805	.7176511	4.875921	10.54096	11.13311

Sample Name: Q2710-01MS Acquired: 7/30/2025 15:06:31 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.049169	.3478940	.2322071
Stddev	.020310	.0022668	.0017642
%RSD	.5015888	.6515750	.7597416

#1	4.028126	.3453421	.2307937
#2	4.050724	.3496742	.2316432
#3	4.068657	.3486657	.2341842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5636.788	92518.99	7847.275	4703.107	5699.112
Stddev	10.714	450.47	76.003	14.327	4.624
%RSD	.1900803	.4868906	.9685263	.3046290	.0811313

#1	5634.463	92821.68	7925.588	4694.871	5698.595
#2	5648.474	92001.31	7842.424	4694.800	5703.972
#3	5627.427	92733.99	7773.815	4719.650	5694.768

Sample Name: Q2710-01MSD Acquired: 7/30/2025 15:10:26 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7039804	1.795957	1.312498	1.643963	.6873603	76.50417	.7886009
Stddev	.0016135	.049433	.001932	.003697	.0031669	.17473	.0016729
%RSD	.2291911	2.752450	.1472313	.2248640	.4607292	.2283923	.2121308

#1	.7025022	1.846615	1.312255	1.641455	.6859233	76.47613	.7868852
#2	.7057016	1.793407	1.310699	1.648208	.6851667	76.69122	.7902273
#3	.7037376	1.747848	1.314541	1.642226	.6909909	76.34516	.7886902

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2003756	.1905811	55.72949	.5086619	.2918162	.6515369	181.1111
Stddev	.0007017	.0003636	.19032	.0037401	.0001825	.0021219	1.1085
%RSD	.3501956	.1907866	.3415051	.7352841	.0625491	.3256727	.6120468

#1	.2011041	.1908738	55.56457	.5044386	.2918654	.6531094	180.0029
#2	.1997041	.1901741	55.93773	.5099921	.2919691	.6491234	182.2199
#3	.2003186	.1906954	55.68617	.5115552	.2916141	.6523779	181.1104

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.268842	42.83320	.6777962	.0662016	7.258601	.5594701	.9433877
Stddev	.006623	.17764	.0012055	.0009038	.058390	.0039307	.0020656
%RSD	.2025961	.4147311	.1778569	1.365294	.8044305	.7025830	.2189519

#1	3.262487	42.78380	.6783051	.0651620	7.230561	.5587889	.9448612
#2	3.275703	43.03031	.6764197	.0666414	7.325722	.5559245	.9442751
#3	3.268337	42.68548	.6786638	.0668013	7.219520	.5636969	.9410267

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.54203	.2841937	.3611632	.7081913	4.929289	10.63823	10.97508
Stddev	.16772	.0044841	.0006856	.0020467	.031760	.12445	.01661
%RSD	.7440224	1.577838	.1898421	.2889968	.6443217	1.169874	.1513226

#1	22.35329	.2790667	.3611684	.7105369	4.894434	10.52611	10.98820
#2	22.67398	.2861305	.3604749	.7067688	4.936838	10.77214	10.98064
#3	22.59881	.2873839	.3618461	.7072681	4.956595	10.61644	10.95641

Sample Name: Q2710-01MSD Acquired: 7/30/2025 15:10:26 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.013119	.3462411	.2416500
Stddev	.010549	.0026635	.0005436
%RSD	.2628731	.7692745	.2249378

#1	4.025100	.3432123	.2418709
#2	4.005224	.3482185	.2420484
#3	4.009033	.3472925	.2410308

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5684.398	92113.34	7564.379	4712.561	5774.085
Stddev	11.552	541.02	35.066	33.827	6.074
%RSD	.2032199	.5873455	.4635620	.7178091	.1051899

#1	5680.702	92406.76	7545.139	4701.877	5774.159
#2	5697.346	91489.00	7543.144	4685.367	5780.121
#3	5675.147	92444.27	7604.853	4750.441	5767.974

Sample Name: Q2710-01A Acquired: 7/30/2025 15:14:23 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7122266	1.920733	1.331729	1.669297	.6939554	76.94061	.7865072
Stddev	.0015731	.063177	.001207	.006087	.0034967	.21643	.0021844
%RSD	.2208699	3.289235	.0906185	.3646666	.5038751	.2812955	.2777379

#1	.7126502	1.849098	1.333116	1.664596	.6949187	76.74354	.7839972
#2	.7104851	1.944605	1.330918	1.667123	.6900781	76.90604	.7879776
#3	.7135446	1.968496	1.331153	1.676174	.6968695	77.17224	.7875469

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1842459	.1926204	54.82011	.5162283	.2959283	.6470657	198.3757
Stddev	.0009492	.0002724	.05280	.0045486	.0002007	.0021666	1.9103
%RSD	.5151704	.1414133	.0963099	.8811273	.0678164	.3348362	.9629947

#1	.1853333	.1923642	54.86752	.5113260	.2958101	.6488985	196.2149
#2	.1835838	.1925904	54.82958	.5170470	.2958148	.6446746	199.8403
#3	.1838205	.1929065	54.76321	.5203120	.2961600	.6476239	199.0719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.219722	42.65729	.6857109	.0732372	8.168055	.5564588	.9507418
Stddev	.007521	.11330	.0015449	.0007886	.109374	.0031553	.0024026
%RSD	.2336056	.2656159	.2253018	1.076791	1.339044	.5670296	.2527097

#1	3.214615	42.58742	.6839925	.0724168	8.042600	.5535179	.9518637
#2	3.216192	42.59643	.6861551	.0739896	8.243366	.5597918	.9479834
#3	3.228359	42.78802	.6869850	.0733051	8.218200	.5560666	.9523783

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.46632	.3540480	.3654778	.7214095	4.863170	12.30293	11.12171
Stddev	.21116	.0040629	.0004651	.0019042	.009647	.09385	.01225
%RSD	.8630719	1.147554	.1272695	.2639512	.1983782	.7628336	.1101036

#1	24.22250	.3495584	.3652358	.7193387	4.854986	12.20021	11.11241
#2	24.58940	.3574717	.3651837	.7218047	4.860717	12.38420	11.13559
#3	24.58708	.3551139	.3660141	.7230850	4.873807	12.32436	11.11715

Sample Name: Q2710-01A Acquired: 7/30/2025 15:14:23 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.056537	.3555702	.2182520
Stddev	.013429	.0044359	.0011740
%RSD	.3310490	1.247548	.5379249

#1	4.042088	.3504766	.2193310
#2	4.058889	.3585847	.2170018
#3	4.068635	.3576493	.2184233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5655.580	90776.31	8287.771	4648.104	5728.733
Stddev	2.826	528.28	31.050	4.025	6.246
%RSD	.0499673	.5819536	.3746461	.0865938	.1090325

#1	5656.471	91384.67	8271.620	4643.646	5730.543
#2	5652.416	90510.89	8323.567	4651.470	5721.782
#3	5657.853	90433.38	8268.125	4649.197	5733.875

Sample Name: Q2696-02 Acquired: 7/30/2025 15:18:19 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006123	-.005592	.0011237	.0035102	.0006647	.0551887	.0045722
Stddev	.002956	.004804	.0012414	.0033612	.0011002	.0065359	.0010819
%RSD	48.27151	85.91212	110.4781	95.75588	165.5100	11.84280	23.66226

#1	-.003991	-.009118	.0012519	.0073878	.0000673	.0562833	.0035923
#2	-.009497	-.000120	-.000177	.0017147	-.000008	.0481746	.0043910
#3	-.004881	-.007537	.002296	.0014280	.001934	.0611082	.0057332

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000020	.0000770	4.754596	.0042592	.0077267	.0054148	.1716031
Stddev	.000044	.0000623	.038486	.0003057	.0002054	.0003632	.0023104
%RSD	222.9866	80.91752	.8094403	7.178625	2.658144	6.707606	1.346355

#1	-.000020	.0001482	4.738389	.0043800	.0077859	.0055308	.1742672
#2	.000024	.0000329	4.726865	.0044860	.0078959	.0050078	.1701502
#3	-.000063	.0000498	4.798535	.0039115	.0074982	.0057059	.1703918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0210699	1.827309	.0117223	-.000009	14.95277	-.004047	.0431089
Stddev	.0000807	.000499	.0003171	.000291	.07351	.003355	.0002247
%RSD	.3827990	.0273057	2.705502	3379.686	.4915871	82.89351	.5213212

#1	.0211630	1.827884	.0119784	.000178	14.99272	-.000253	.0430361
#2	.0210264	1.826991	.0118210	.000140	14.99766	-.005268	.0433610
#3	.0210204	1.827052	.0113676	-.000344	14.86794	-.006621	.0429296

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.014832	.0044712	.0007225	-.001840	.0012054	6.256002	.0130781
Stddev	.050195	.0007523	.0004561	.000455	.0022504	.034470	.0014794
%RSD	4.946145	16.82477	63.12398	24.71599	186.6968	.5509875	11.31176

#1	1.019290	.0049494	.0012404	-.002362	-.000061	6.229801	.0123878
#2	1.062650	.0036041	.0005468	-.001528	.003804	6.295051	.0147765
#3	.962557	.0048601	.0003805	-.001630	-.000127	6.243156	.0120701

Sample Name: Q2696-02 Acquired: 7/30/2025 15:18:19 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.657215	-.012186	.0263546
Stddev	.036957	.002305	.0002391
%RSD	.6532804	18.91524	.9073393

#1	5.699221	-.012864	.0261913
#2	5.642732	-.009618	.0262435
#3	5.629693	-.014075	.0266291

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5116.359	83739.53	7276.369	4260.307	6357.847
Stddev	32.465	138.64	50.153	15.176	32.682
%RSD	.6345353	.1655651	.6892550	.3562168	.5140483

#1	5081.564	83637.21	7274.621	4242.805	6321.581
#2	5145.839	83897.32	7327.373	4269.818	6385.021
#3	5121.672	83684.05	7227.113	4268.297	6366.938

Sample Name: Q2696-02DUP Acquired: 7/30/2025 15:22:35 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005521	.0032249	.0031024	.0045912	.0000555	.0598953	.0062760
Stddev	.002058	.0075004	.0008779	.0017668	.0007180	.0076212	.0009590
%RSD	37.27892	232.5789	28.29854	38.48218	1293.860	12.72416	15.28009

#1	-.003190	.0000282	.0039125	.0026454	-.000225	.0572042	.0072888
#2	-.007089	-.002148	.0032252	.0060951	-.000480	.0539847	.0061576
#3	-.006285	.011794	.0021695	.0050332	.000871	.0684969	.0053818

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000082	.0000409	4.803032	.0039782	.0078521	.0049670	.1614243
Stddev	.000050	.0000691	.018368	.0001628	.0001803	.0005292	.0074684
%RSD	60.83922	168.8628	.3824156	4.092735	2.296876	10.65528	4.626595

#1	-.000134	.0000865	4.815600	.0041455	.0080597	.0053401	.1559094
#2	-.000035	-.000039	4.781953	.0038203	.0077625	.0051995	.1584402
#3	-.000078	.000075	4.811544	.0039686	.0077341	.0043612	.1699235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0208786	1.844203	.0121048	-.000078	14.19112	-.003183	.0417093
Stddev	.0002852	.028411	.0002774	.000346	.04184	.001613	.0001750
%RSD	1.365773	1.540545	2.291906	442.6173	.2948301	50.68049	.4194948

#1	.0206070	1.841814	.0118680	.000004	14.17929	-.002520	.0415147
#2	.0208532	1.873732	.0124101	.000219	14.15647	-.005022	.0417597
#3	.0211756	1.817061	.0120365	-.000458	14.23760	-.002007	.0418536

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9754961	.0043950	.0006997	-.001775	-.000271	5.958078	.0121999
Stddev	.0168805	.0002547	.0000142	.000809	.001548	.024158	.0006824
%RSD	1.730448	5.795153	2.035087	45.58316	570.6851	.4054697	5.593099

#1	.9941878	.0046534	.0006843	-.002707	-.000524	5.968851	.0129878
#2	.9709374	.0043872	.0007123	-.001254	.001388	5.930408	.0117951
#3	.9613632	.0041442	.0007026	-.001364	-.001678	5.974976	.0118170

Sample Name: Q2696-02DUP Acquired: 7/30/2025 15:22:35 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.854209	-.011385	.0266128
Stddev	.022223	.001146	.0001802
%RSD	.3796033	10.06485	.6769914

#1	5.831267	-.011305	.0267812
#2	5.855727	-.012568	.0266345
#3	5.875634	-.010281	.0264228

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5012.133	84509.60	7008.081	4299.972	6156.444
Stddev	23.437	180.23	26.525	21.806	25.259
%RSD	.4676125	.2132628	.3784903	.5071210	.4102924

#1	5029.238	84389.59	6979.452	4289.687	6178.012
#2	5021.744	84716.85	7012.970	4325.019	6162.665
#3	4985.418	84422.36	7031.822	4285.211	6128.656

Sample Name: Q2696-02LX5 Acquired: 7/30/2025 15:26:52 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004005	-.008719	.0010620	.0040981	.0007795	.0138160	.0007887
Stddev	.002357	.005350	.0000495	.0024878	.0010336	.0037387	.0005895
%RSD	58.85773	61.35321	4.657230	60.70688	132.5977	27.06050	74.75161

#1	-.006701	-.004442	.0010479	.0029008	-.000370	.0098688	.0001086
#2	-.002973	-.014718	.0010210	.0024353	.001632	.0173038	.0011556
#3	-.002339	-.006999	.0011169	.0069583	.001076	.0142755	.0011018

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000769	.0000894	.9550215	.0003378	.0016723	.0007870	.0260890
Stddev	.0000615	.0000733	.0179899	.0001537	.0001374	.0000424	.0019392
%RSD	80.00960	81.98268	1.883721	45.51205	8.213173	5.385777	7.433158

#1	.0001427	.0000355	.9380897	.0004869	.0018272	.0007423	.0240748
#2	.0000673	.0001728	.9739097	.0001798	.0016242	.0007919	.0262488
#3	.0000207	.0000598	.9530650	.0003466	.0015655	.0008266	.0279434

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037950	.3749895	.0026548	-.000176	2.832743	-.003706	.0078905
Stddev	.0004324	.0120833	.0002675	.000364	.011612	.004869	.0001685
%RSD	11.39463	3.222310	10.07723	206.8817	.4099033	131.3849	2.135159

#1	.0035350	.3737136	.0023577	-.000204	2.832295	-.000761	.0080025
#2	.0035559	.3635947	.0028766	.000201	2.821363	-.009326	.0079723
#3	.0042942	.3876601	.0027301	-.000525	2.844573	-.001031	.0076967

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2210127	-.003262	-.000081	-.001209	.0001737	1.244496	.0045587
Stddev	.0113252	.000637	.000088	.000381	.0007990	.009958	.0024155
%RSD	5.124232	19.53877	108.1133	31.52537	460.0484	.8001453	52.98676

#1	.2197451	-.003658	-.000138	-.001354	.0010922	1.254730	.0044729
#2	.2103747	-.002527	.000020	-.000777	-.000360	1.234839	.0070159
#3	.2329184	-.003602	-.000126	-.001497	-.000211	1.243918	.0021872

Sample Name: Q2696-02LX5 Acquired: 7/30/2025 15:26:52 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.188857	-.008855	.0053153
Stddev	.004202	.001078	.0001111
%RSD	.3534444	12.17659	2.089751

#1	1.191854	-.007699	.0052965
#2	1.190662	-.009030	.0052148
#3	1.184054	-.009834	.0054345

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5144.743	84234.51	7272.815	4305.756	6424.849
Stddev	5.588	172.59	38.117	23.471	3.718
%RSD	.1086164	.2048866	.5241073	.5451186	.0578749

#1	5150.832	84300.86	7265.966	4332.266	6429.141
#2	5143.549	84038.60	7238.586	4287.618	6422.818
#3	5139.849	84364.08	7313.892	4297.385	6422.589

Sample Name: Q2696-02MS Acquired: 7/30/2025 15:31:11 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7888720	2.117350	.9304837	1.968902	.8382844	2.129216	.2155801
Stddev	.0032794	.015044	.0045694	.002337	.0028758	.005117	.0020880
%RSD	.4157049	.7105175	.4910764	.1186966	.3430553	.2403369	.9685302

#1	.7904548	2.102160	.9300561	1.969294	.8377300	2.124211	.2160508
#2	.7851014	2.117646	.9261432	1.966394	.8357263	2.128998	.2173925
#3	.7910597	2.132244	.9352519	1.971019	.8413971	2.134439	.2132970

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2057854	.1864743	5.638202	.4084600	.2080795	.3189355	3.213820
Stddev	.0009635	.0005137	.015903	.0005873	.0010036	.0007883	.009067
%RSD	.4682149	.2754652	.2820591	.1437854	.4822979	.2471654	.2821342

#1	.2051470	.1864281	5.656121	.4088916	.2070721	.3186896	3.221042
#2	.2053156	.1859853	5.632719	.4086973	.2080871	.3182994	3.203644
#3	.2068937	.1870095	5.625766	.4077912	.2090792	.3198174	3.216774

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2323040	3.810752	.5110630	.0748458	17.21699	.3092281	.2730850
Stddev	.0011312	.021423	.0015033	.0006834	.04793	.0042717	.0026765
%RSD	.4869448	.5621783	.2941436	.9131238	.2783600	1.381402	.9800849

#1	.2319979	3.820426	.5104511	.0740586	17.27226	.3062840	.2741775
#2	.2313574	3.786198	.5099622	.0752873	17.18692	.3072728	.2700351
#3	.2335568	3.825631	.5127757	.0751916	17.19179	.3141274	.2750423

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.93945	.2912683	.4430366	.7079905	.2115306	6.812171	5.451847
Stddev	.08197	.0020133	.0015185	.0013983	.0012032	.029726	.013136
%RSD	.7493210	.6912044	.3427399	.1975008	.5688203	.4363643	.2409444

#1	11.03398	.2890314	.4426056	.7071381	.2103165	6.845911	5.459476
#2	10.88814	.2918387	.4417803	.7072291	.2127227	6.789840	5.436679
#3	10.89622	.2929348	.4447240	.7096042	.2115528	6.800761	5.459386

Sample Name: Q2696-02MS Acquired: 7/30/2025 15:31:11 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.531509	.1770427	.2321601
Stddev	.019354	.0039411	.0003439
%RSD	.3498890	2.226082	.1481310

#1	5.529709	.1750585	.2321375
#2	5.513117	.1815816	.2325147
#3	5.551700	.1744880	.2318280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5046.358	83478.96	7263.068	4280.863	6211.688
Stddev	9.383	205.35	25.328	26.338	11.840
%RSD	.1859309	.2459894	.3487185	.6152567	.1906024

#1	5040.494	83351.75	7292.255	4260.300	6206.169
#2	5057.180	83369.28	7246.869	4310.550	6225.280
#3	5041.401	83715.87	7250.080	4271.740	6203.616

Sample Name: CCV02 Acquired: 7/30/2025 15:35:09 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.110117	5.446042	4.898166	5.192403	5.168572	10.06416	10.51085
Stddev	.025610	.030758	.011359	.024763	.024981	.05168	.01254
%RSD	.5011717	.5647688	.2318953	.4768990	.4833326	.5135234	.1193064

#1	5.085883	5.469073	4.893356	5.172592	5.148991	10.11695	10.52225
#2	5.107557	5.411113	4.890004	5.184452	5.160019	10.06187	10.51288
#3	5.136912	5.457939	4.911138	5.220164	5.196707	10.01366	10.49742

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2711322	2.447333	26.17268	.9829471	2.483253	1.269732	4.863205
Stddev	.0002988	.004494	.07510	.0016363	.005960	.005569	.004763
%RSD	.1101931	.1836353	.2869547	.1664683	.2400123	.4385606	.0979451

#1	.2712275	2.444628	26.14864	.9830572	2.478303	1.264337	4.857851
#2	.2707973	2.444850	26.11253	.9812585	2.481587	1.269399	4.864794
#3	.2713716	2.452521	26.25685	.9845256	2.489869	1.275459	4.866971

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.583860	24.69313	2.491447	1.273406	22.62203	2.503742	2.550918
Stddev	.003337	.04015	.004021	.001554	.01928	.006660	.004004
%RSD	.1291422	.1625923	.1613765	.1220169	.0852349	.2660065	.1569807

#1	2.587681	24.73707	2.488148	1.272149	22.60002	2.510914	2.546299
#2	2.581524	24.65835	2.490268	1.272924	22.63592	2.502558	2.553046
#3	2.582373	24.68396	2.495925	1.275143	22.63016	2.497752	2.553409

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.63770	5.435347	5.141573	4.989485	5.274438	4.605846	4.783096
Stddev	.04989	.018336	.020596	.010191	.009563	.020104	.003363
%RSD	.2024884	.3373424	.4005694	.2042422	.1813042	.4364922	.0703077

#1	24.58010	5.440687	5.122374	4.981188	5.265865	4.584075	4.784949
#2	24.66760	5.414934	5.139016	4.986407	5.272699	4.609753	4.779214
#3	24.66539	5.450420	5.163327	5.000860	5.284751	4.623710	4.785124

Sample Name: CCV02 Acquired: 7/30/2025 15:35:09 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.040401	4.930325	5.304377
Stddev	.024163	.017026	.023538
%RSD	.4793893	.3453253	.4437395

#1	5.022739	4.948047	5.316979
#2	5.030527	4.928834	5.318930
#3	5.067938	4.914093	5.277221

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4966.568	81647.20	6920.268	4181.058	5858.620
Stddev	14.805	70.48	20.292	10.725	11.822
%RSD	.2980840	.0863287	.2932236	.2565136	.2017864

#1	4975.127	81646.72	6910.622	4191.769	5857.170
#2	4975.103	81717.92	6943.583	4181.087	5871.101
#3	4949.473	81576.95	6906.598	4170.319	5847.591

Sample Name: CCB02 Acquired: 7/30/2025 15:39:20 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002088	-.012281	.0007345	.0050444	-.001185	-.007889	.0019716
Stddev	.000964	.002383	.0011128	.0004609	.001786	.001759	.0005839
%RSD	46.16701	19.40811	151.5104	9.137146	150.7614	22.29645	29.61649

#1	-.000998	-.010879	.0016694	.0045324	-.001377	-.006961	.0019873
#2	-.002438	-.015033	.0010305	.0051743	-.002867	-.009918	.0025475
#3	-.002827	-.010931	-.000496	.0054263	.000690	-.006789	.0013800

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001265	.0002619	-.000605	.0002637	.0004150	-.000405	-.001880
Stddev	.0000488	.0000255	.001135	.0003263	.0001486	.000443	.004926
%RSD	38.56309	9.729720	187.6783	123.7641	35.80927	109.2704	261.9912

#1	.0001074	.0002833	.000286	.0004676	.0005860	-.000917	-.005704
#2	.0001819	.0002337	-.001883	-.000113	.0003414	-.000149	.003678
#3	.0000901	.0002685	-.000217	.000436	.0003175	-.000150	-.003614

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000732	.0191628	.0005042	.0005214	-.146192	-.001326	-.000674
Stddev	.000129	.0066863	.0003889	.0003094	.008045	.002502	.000271
%RSD	17.67888	34.89184	77.13143	59.34283	5.502994	188.6608	40.18637

#1	-.000593	.0223276	.0008606	.0007653	-.151959	-.004000	-.000402
#2	-.000755	.0114818	.0005626	.0006254	-.149615	-.000939	-.000943
#3	-.000849	.0236792	.0000894	.0001734	-.137001	.000960	-.000677

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0361879	.0005968	.0011799	-.000663	.0014082	.0020690	.0032629
Stddev	.0171439	.0006831	.0001033	.000483	.0027667	.0047594	.0013645
%RSD	47.37477	114.4762	8.751572	72.74928	196.4663	230.0296	41.81909

#1	.0550939	-.000191	.0011281	-.000457	.0009300	.0061235	.0029790
#2	.0318180	.001032	.0011128	-.001215	.0043829	.0032547	.0047471
#3	.0216518	.000948	.0012988	-.000318	-.001088	-.003171	.0020627

Sample Name: CCB02 Acquired: 7/30/2025 15:39:20 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002719	-.009884	.0005073
Stddev	.000643	.001116	.0001663
%RSD	23.65581	11.28632	32.78726

#1	-.001981	-.009559	.0006993
#2	-.003022	-.011126	.0004137
#3	-.003156	-.008968	.0004088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5202.412	83017.64	7407.339	4271.296	6598.880
Stddev	10.424	155.45	64.487	4.851	6.256
%RSD	.2003595	.1872479	.8705806	.1135668	.0948023

#1	5202.338	82931.04	7456.039	4276.399	6595.938
#2	5212.872	82924.79	7334.206	4270.745	6606.064
#3	5192.025	83197.10	7431.771	4266.744	6594.638

Sample Name: Q2696-02MSD Acquired: 7/30/2025 15:43:53 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7671148	2.088093	.9018027	1.923474	.8136617	2.110254	.2163336
Stddev	.0031488	.028583	.0025675	.005764	.0014627	.009101	.0009085
%RSD	.4104678	1.368856	.2847082	.2996586	.1797696	.4312664	.4199689

#1	.7694855	2.106379	.9037416	1.929905	.8125014	2.100034	.2172588
#2	.7683169	2.102745	.9027757	1.918775	.8153047	2.113244	.2154426
#3	.7635421	2.055155	.8988910	1.921742	.8131789	2.117484	.2162995

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2106503	.1800140	5.802626	.4031485	.2028910	.3117519	3.186172
Stddev	.0011062	.0001219	.019371	.0010846	.0004010	.0004751	.008045
%RSD	.5251252	.0677307	.3338401	.2690282	.1976644	.1524087	.2524849

#1	.2095779	.1799266	5.788803	.4019004	.2032076	.3115555	3.177115
#2	.2105856	.1801533	5.824767	.4036834	.2030255	.3122937	3.192488
#3	.2117874	.1799621	5.794307	.4038617	.2024401	.3114063	3.188913

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2349023	3.804914	.4960641	.0752155	17.50775	.3064580	.2728574
Stddev	.0005545	.038859	.0007721	.0004069	.05409	.0007037	.0007964
%RSD	.2360435	1.021291	.1556448	.5409867	.3089504	.2296277	.2918723

#1	.2342814	3.830968	.4965861	.0749035	17.55078	.3057327	.2720238
#2	.2350774	3.823525	.4964290	.0750672	17.52545	.3065033	.2736105
#3	.2353481	3.760250	.4951772	.0756758	17.44703	.3071379	.2729377

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.07560	.2994569	.4342480	.6973314	.2108727	6.904178	5.153216
Stddev	.05959	.0028473	.0001825	.0021358	.0011990	.044338	.014772
%RSD	.5380371	.9508144	.0420336	.3062805	.5686066	.6421856	.2866603

#1	11.04088	.2965589	.4341081	.6996439	.2098325	6.926347	5.147097
#2	11.14441	.2995612	.4341814	.6969173	.2121841	6.933059	5.170064
#3	11.04151	.3022506	.4344545	.6954329	.2106014	6.853128	5.142486

Sample Name: Q2696-02MSD Acquired: 7/30/2025 15:43:53 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.489902	.1765176	.2359100
Stddev	.023536	.0023371	.0002463
%RSD	.4287220	1.324024	.1043829

#1	5.504918	.1791027	.2356419
#2	5.502012	.1758959	.2361262
#3	5.462776	.1745542	.2359618

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5169.264	82458.26	7154.177	4201.455	6445.482
Stddev	3.381	235.89	35.110	9.254	12.254
%RSD	.0654084	.2860659	.4907589	.2202569	.1901124

#1	5166.230	82709.36	7192.096	4212.015	6435.829
#2	5168.653	82241.31	7147.641	4194.762	6441.349
#3	5172.909	82424.12	7122.795	4197.587	6459.267

Sample Name: Q2696-02A Acquired: 7/30/2025 15:47:51 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7749808	2.053247	.9121121	1.935019	.8253481	2.124706	.2156277
Stddev	.0009442	.013678	.0061698	.005781	.0005551	.011102	.0000791
%RSD	.1218353	.6661801	.6764288	.2987616	.0672555	.5225009	.0366917

#1	.7742874	2.066476	.9124176	1.932140	.8247239	2.114923	.2155738
#2	.7745988	2.054103	.9181235	1.941674	.8257865	2.136771	.2157186
#3	.7760561	2.039160	.9057953	1.931243	.8255338	2.122424	.2155908

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2033257	.1825321	5.688699	.4049806	.2058200	.3144208	3.231513
Stddev	.0005482	.0010533	.022108	.0007278	.0012213	.0012089	.006411
%RSD	.2696381	.5770483	.3886245	.1797227	.5933882	.3844830	.1983793

#1	.2027912	.1824511	5.663293	.4049350	.2055952	.3144038	3.225702
#2	.2032993	.1836236	5.699240	.4042767	.2071381	.3156381	3.238389
#3	.2038867	.1815217	5.703563	.4057302	.2047267	.3132205	3.230446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2323659	3.785118	.5025149	.0745651	17.51350	.3058781	.2572921
Stddev	.0015933	.006679	.0028990	.0003609	.02438	.0048363	.0004899
%RSD	.6856945	.1764653	.5769022	.4839912	.1392262	1.581117	.1904185

#1	.2315469	3.777732	.5016266	.0749811	17.52152	.3080907	.2574422
#2	.2313486	3.790735	.5057541	.0743778	17.53286	.3092123	.2567446
#3	.2342021	3.786887	.5001639	.0743363	17.48611	.3003313	.2576893

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.02225	.2879054	.4415374	.6974331	.2117992	6.888079	5.233726
Stddev	.06898	.0008146	.0012601	.0046577	.0012032	.012444	.025502
%RSD	.6258562	.2829519	.2853936	.6678365	.5680712	.1806529	.4872586

#1	10.96589	.2872591	.4404440	.6942904	.2110226	6.900920	5.232143
#2	11.00168	.2876366	.4429155	.7027843	.2111898	6.876075	5.259983
#3	11.09918	.2888204	.4412526	.6952247	.2131851	6.887243	5.209053

Sample Name: Q2696-02A Acquired: 7/30/2025 15:47:51 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.401589	.1744039	.2327627
Stddev	.021696	.0021470	.0003356
%RSD	.4016662	1.231053	.1441943

#1	5.391000	.1768486	.2323773
#2	5.426546	.1728248	.2329906
#3	5.387220	.1735384	.2329203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5141.642	83854.62	7371.887	4267.933	6375.820
Stddev	17.576	53.69	6.349	6.141	29.664
%RSD	.3418375	.0640292	.0861257	.1438830	.4652538

#1	5149.236	83800.40	7377.597	4262.742	6383.394
#2	5121.546	83907.77	7373.014	4274.712	6343.104
#3	5154.144	83855.68	7365.050	4266.345	6400.962

Sample Name: CCV03 Acquired: 7/30/2025 15:51:49 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.168635	5.459337	4.932602	5.260799	5.230958	10.08839	10.45417
Stddev	.015191	.100319	.025337	.026698	.019477	.00930	.09674
%RSD	.2939035	1.837571	.5136555	.5074933	.3723488	.0921401	.9254136
#1	5.158828	5.344266	4.913939	5.232979	5.211151	10.09904	10.42241
#2	5.160945	5.505344	4.922421	5.263207	5.231634	10.08418	10.56280
#3	5.186134	5.528401	4.961445	5.286212	5.250088	10.08194	10.37730
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2700622	2.472016	26.27077	.9620063	2.508960	1.284842	4.866834
Stddev	.0015189	.013298	.06898	.0056684	.011263	.004253	.018377
%RSD	.5624271	.5379583	.2625907	.5892249	.4489050	.3310378	.3775912
#1	.2684794	2.460880	26.19382	.9680279	2.499936	1.281750	4.880557
#2	.2715079	2.468427	26.32707	.9567738	2.505363	1.283083	4.845956
#3	.2701995	2.486740	26.29142	.9612171	2.521582	1.289693	4.873988
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.596537	24.79152	2.518970	1.269095	23.90668	2.511263	2.545319
Stddev	.006086	.05594	.011492	.001057	.12147	.005533	.007414
%RSD	.2343824	.2256247	.4562056	.0832752	.5080992	.2203155	.2912645
#1	2.589510	24.77541	2.509925	1.269493	24.04689	2.512251	2.552531
#2	2.600037	24.74541	2.515084	1.269894	23.83361	2.516235	2.545709
#3	2.600065	24.85374	2.531901	1.267897	23.83952	2.505303	2.537719
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.67910	5.397771	5.178635	5.027418	5.314767	4.619003	4.847606
Stddev	.09003	.040750	.020474	.022126	.012900	.013984	.027833
%RSD	.3648051	.7549379	.3953504	.4401015	.2427271	.3027570	.5741689
#1	24.78221	5.350734	5.159033	5.008907	5.307894	4.629838	4.833030
#2	24.61610	5.422361	5.176990	5.021425	5.329648	4.603217	4.830087
#3	24.63898	5.420218	5.199881	5.051923	5.306758	4.623956	4.879700

Sample Name: CCV03 Acquired: 7/30/2025 15:51:49 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.127617	4.957136	5.331453
Stddev	.030788	.001672	.035016
%RSD	.6004441	.0337378	.6567833

#1	5.095429	4.958678	5.371539
#2	5.130639	4.955358	5.306830
#3	5.156783	4.957373	5.315991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4875.340	82364.93	6970.581	4144.832	5730.633
Stddev	18.301	169.87	22.438	8.966	27.098
%RSD	.3753759	.2062367	.3218970	.2163082	.4728592

#1	4885.174	82182.37	6995.583	4142.039	5746.196
#2	4886.622	82518.33	6952.195	4137.594	5746.361
#3	4854.225	82394.10	6963.965	4154.861	5699.344

Sample Name: CCB03 Acquired: 7/30/2025 15:56:00 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004844	-.009643	-.000900	.0026681	.0015163	-.000989	.0010208
Stddev	.0020075	.007740	.000771	.0015123	.0004617	.003703	.0008305
%RSD	414.4637	80.26561	85.70684	56.67915	30.45160	374.5167	81.36001

#1	.0025402	-.005164	-.000835	.0019836	.0018845	-.000607	.0019617
#2	.0003842	-.005184	-.000163	.0044016	.0016661	-.004868	.0003896
#3	-.001471	-.018580	-.001701	.0016191	.0009982	.002509	.0007112

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001287	.0003403	-.003901	-.000168	.0004013	-.000627	-.002791
Stddev	.0000821	.0000814	.003230	.000200	.0001111	.000231	.001059
%RSD	63.74199	23.92082	82.79518	119.3443	27.69258	36.79733	37.94803

#1	.0000710	.0004105	-.007600	-.000192	.0004899	-.000565	-.003810
#2	.0000925	.0003594	-.002470	-.000354	.0004373	-.000434	-.001696
#3	.0002227	.0002511	-.001634	.000043	.0002766	-.000883	-.002866

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000226	.0254761	.0008724	.0002347	-.149333	-.003848	-.000624
Stddev	.000249	.0066512	.0000976	.0002428	.017977	.001997	.000237
%RSD	109.8799	26.10749	11.18369	103.4650	12.03810	51.88834	37.99505

#1	.000050	.0242768	.0009505	.0004849	-.169982	-.005878	-.000844
#2	-.000298	.0326453	.0007630	.0002191	-.137166	-.003781	-.000373
#3	-.000431	.0195062	.0009036	.0000000	-.140851	-.001886	-.000657

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0606598	.0015877	.0011435	-.000103	.0017234	-.000594	.0039577
Stddev	.0384669	.0003656	.0002180	.000393	.0009156	.005130	.0003969
%RSD	63.41422	23.02545	19.06427	382.9241	53.12533	863.2000	10.02731

#1	.0645848	.0019000	.0012725	.000350	.0013987	.001842	.0043994
#2	.0203808	.0016776	.0012662	-.000356	.0010144	-.006489	.0038422
#3	.0970137	.0011856	.0008918	-.000301	.0027571	.002864	.0036314

Sample Name: CCB03 Acquired: 7/30/2025 15:56:00 Type: Unk
Method: 6010-200.7 NEW(v70) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0007272	F -.011767	.0008831
Stddev	.0017942	.002762	.0001412
%RSD	246.7389	23.47274	15.99186

#1	.0011287	-.011926	.0009025
#2	.0022866	-.014447	.0010135
#3	-.001234	-.008929	.0007331

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5156.376	83362.69	7576.618	4249.940	6487.306
Stddev	10.390	428.50	34.893	38.053	13.802
%RSD	.2015078	.5140228	.4605352	.8953794	.2127578

#1	5159.474	83722.34	7569.060	4292.928	6500.417
#2	5164.864	82888.58	7614.670	4220.568	6488.599
#3	5144.789	83477.15	7546.123	4236.325	6472.903

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: 07/28/2025 Time : 12:20 Temp : 96 °C

End Digest Date: 07/28/2025 Time : 15:21 Temp : 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: *SKJ*

Supervisor Signature: *JGP*

Temp : 1. 96°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6007
LFS-2	0.25	M6015
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK# CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
07/28/25 16:25	<i>SKJ metlab</i>	<i>JGP Met Lab</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB169032BL	PBW032	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	9
PB169032BS	LCS032	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	10
Q2696-01	RW8-SP100-20250724	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	11
Q2696-02	RW8-SP303-20250724	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	12
Q2696-02MS	RW8-SP303-20250724MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	14
Q2696-02MSD	RW8-SP303-20250724MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6007,M6015	15
Q2696-02DUP	RW8-SP303-20250724DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	13
Q2704-01	MW3	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	16
Q2704-02	MW4	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	17
Q2704-03	MW2D	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	18

WORKLIST(Hardcopy Internal Chain)

Worklist Name : pb169032

Worklist ID : 190986

Department : Digestion

Date : 07-28-2025 11:45:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2696-01	RW8-SP100-20250724	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D31	07/24/2025	6010D
Q2696-02	RW8-SP303-20250724	Water	Metals Group4	1:1 HNO3 to pH < 2	TETR06	D31	07/24/2025	6010D
Q2704-01	MW3	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D
Q2704-02	MW4	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D
Q2704-03	MW2D	Water	Metals Group4	1:1 HNO3 to pH < 2	GENV01	D31	07/23/2025	6010D

Date/Time

07/28/25

12:05

Raw Sample Received by:

S/LS mct/dg

Raw Sample Relinquished by:

JDCSM

Date/Time

07/28/25

13:05

Raw Sample Received by:

JDCSM

Raw Sample Relinquished by:

S/LS mct/dg

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM
STD. NAME	STD REF.#		
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458		
ICV Standard	MP86459,MP86458		
CCV Standard	MP86462		
ICSA Standard	MP86460,MP86461		
CRI Standard	MP86458		
LCS Standard			
Chk Standard	MP86463,MP86464		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	07/29/25 11:20		Jaswal	OK
2	S1	S1	CAL2	07/29/25 11:24		Jaswal	OK
3	S2	S2	CAL3	07/29/25 11:28		Jaswal	OK
4	S3	S3	CAL4	07/29/25 11:32		Jaswal	OK
5	S4	S4	CAL5	07/29/25 11:37		Jaswal	OK
6	S5	S5	CAL6	07/29/25 11:41		Jaswal	OK
7	ICV01	ICV01	ICV	07/29/25 12:20		Jaswal	OK
8	LLICV01	LLICV01	LLICV	07/29/25 13:01		Jaswal	OK
9	ICB01	ICB01	ICB	07/29/25 13:05		Jaswal	OK
10	CRI01	CRI01	CRDL	07/29/25 13:09		Jaswal	OK
11	ICSA01	ICSA01	ICSA	07/29/25 13:14		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	07/29/25 13:20		Jaswal	OK
13	ICSADL	ICSADL	ICSA	07/29/25 13:24		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	07/29/25 13:28		Jaswal	OK
15	CCV01	CCV01	CCV	07/29/25 14:21		Jaswal	OK
16	CCB01	CCB01	CCB	07/29/25 14:25		Jaswal	OK
17	PB169029BL	PB169029BL	MB	07/29/25 14:29		Jaswal	OK
18	PB169029BS	PB169029BS	LCS	07/29/25 14:34		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM
STD. NAME	STD REF.#		
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458		
ICV Standard	MP86459,MP86458		
CCV Standard	MP86462		
ICSA Standard	MP86460,MP86461		
CRI Standard	MP86458		
LCS Standard			
Chk Standard	MP86463,MP86464		

19	Q2700-01	EO-03-072525	SAM	07/29/25 14:38		Jaswal	OK
20	Q2703-01	TP-4	SAM	07/29/25 14:42		Jaswal	OK
21	Q2705-03	FG2A	SAM	07/29/25 14:46		Jaswal	OK
22	Q2705-03DUP	FG2ADUP	DUP	07/29/25 14:50		Jaswal	OK
23	Q2705-03L	FG2AL	SD	07/29/25 14:54		Jaswal	OK
24	Q2705-03MS	FG2AMS	MS	07/29/25 14:59		Jaswal	OK
25	Q2705-03MSD	FG2AMSD	MSD	07/29/25 15:03		Jaswal	OK
26	Q2705-03A	FG2AA	PS	07/29/25 15:07	0.1ml m6004,m6013-10ml sample	Jaswal	OK
27	CCV02	CCV02	CCV	07/29/25 15:11		Jaswal	OK
28	CCB02	CCB02	CCB	07/29/25 15:15		Jaswal	OK
29	Q2705-04	FG2B	SAM	07/29/25 15:19		Jaswal	OK
30	Q2705-05	FG2C	SAM	07/29/25 15:23		Jaswal	OK
31	Q2706-01	RT-5417	SAM	07/29/25 15:27		Jaswal	OK
32	Q2706-03	ETGI-361	SAM	07/29/25 15:31		Jaswal	OK
33	PB169032BL	PB169032BL	MB	07/29/25 15:36		Jaswal	OK
34	Q2696-01	RW8-SP100-2025072	SAM	07/29/25 15:44		Jaswal	OK
35	Q2704-01	MW3	SAM	07/29/25 15:48		Jaswal	OK
36	Q2704-02	MW4	SAM	07/29/25 15:52		Jaswal	OK
37	Q2704-03	MW2D	SAM	07/29/25 15:57		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM
STD. NAME	STD REF.#		
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458		
ICV Standard	MP86459,MP86458		
CCV Standard	MP86462		
ICSA Standard	MP86460,MP86461		
CRI Standard	MP86458		
LCS Standard			
Chk Standard	MP86463,MP86464		

38	PB169032BS	PB169032BS	LCS	07/29/25 16:06		Jaswal	OK
39	CCV03	CCV03	CCV	07/29/25 16:14		Jaswal	OK
40	CCB03	CCB03	CCB	07/29/25 16:20		Jaswal	OK
41	Q2696-02	RW8-SP303-2025072	SAM	07/29/25 16:24	NOT USE	Jaswal	Not Ok
42	Q2696-02DUP	RW8-SP303-2025072	DUP	07/29/25 16:28	NOT USE	Jaswal	Not Ok
43	Q2696-02L	RW8-SP303-2025072	SD	07/29/25 16:32	NOT USE	Jaswal	Not Ok
44	Q2696-02MS	RW8-SP303-2025072	MS	07/29/25 16:36	NOT USE	Jaswal	Not Ok
45	Q2696-02MSD	RW8-SP303-2025072	MSD	07/29/25 16:41	NOT USE	Jaswal	Not Ok
46	Q2696-02A	RW8-SP303-2025072	PS	07/29/25 16:45	NOT USE(0.1ml m6004,m6013-10ml sample	Jaswal	Not Ok
47	PB169048BL	PB169048BL	MB	07/29/25 16:55		Jaswal	OK
48	PB169048BS	PB169048BS	LCS	07/29/25 17:08		Jaswal	OK
49	Q2417-02DL	COMPDL	SAM	07/29/25 17:12	Straight 5x for Dilution for all elements	Jaswal	OK
50	Q2417-02DUPDL	COMPDUPL	DUP	07/29/25 17:16	Straight 5x for Dilution for all elements	Jaswal	OK
51	CCV04	CCV04	CCV	07/29/25 17:20		Jaswal	OK
52	CCB04	CCB04	CCB	07/29/25 17:24		Jaswal	OK
53	Q2417-02LDL	COMPLDL	SD	07/29/25 17:29	Straight 25x for Dilution for all elements	Jaswal	OK
54	Q2417-02MSDL	COMPMSDL	MS	07/29/25 17:33	Straight 5x for Dilution for all elements	Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136648

Review By	jaswal	Review On	7/30/2025 1:09:21 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM
STD. NAME	STD REF.#		
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458		
ICV Standard	MP86459,MP86458		
CCV Standard	MP86462		
ICSA Standard	MP86460,MP86461		
CRI Standard	MP86458		
LCS Standard			
Chk Standard	MP86463,MP86464		

55	Q2417-02MSDDL	COMPMSDDL	MSD	07/29/25 17:37	Straight 5x for Dilution for all elements	Jaswal	OK
56	Q2417-02ADL	COMPADL	PS	07/29/25 17:41	Straight 5x for Dilution for all elements(0.1ml m6004,m6013-10ml sample before deiltion)	Jaswal	OK
57	Q2706-02	RT-5417	SAM	07/29/25 17:45		Jaswal	OK
58	Q2706-04	ETGI-361	SAM	07/29/25 17:50		Jaswal	OK
59	Q2710-01	JC-03-07282025	SAM	07/29/25 17:54	NOT USE	Jaswal	Not Ok
60	Q2710-01DUP	JC-03-07282025DUP	DUP	07/29/25 17:58	NOT USE	Jaswal	Not Ok
61	Q2710-01L	JC-03-07282025L	SD	07/29/25 18:02	NOT USE	Jaswal	Not Ok
62	Q2710-01MS	JC-03-07282025MS	MS	07/29/25 18:07	NOT USE	Jaswal	Not Ok
63	CCV05	CCV05	CCV	07/29/25 18:11		Jaswal	OK
64	CCB05	CCB05	CCB	07/29/25 18:15		Jaswal	OK
65	Q2710-01MSD	JC-03-07282025MSD	MSD	07/29/25 18:19	CCV fail for Be,Na	Jaswal	Not Ok
66	Q2710-01A	JC-03-07282025A	PS	07/29/25 18:23	CCV fail for Be,Na	Jaswal	Not Ok
67	CCV06	CCV06	CCV	07/29/25 18:31	CCV fail for Be,Na(0.1ml m6004,m6013-10ml sample)	Jaswal	OK
68	CCB06	CCB06	CCB	07/29/25 18:36		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136658

Review By	jaswal	Review On	7/30/2025 9:55:12 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458
ICV Standard	MP86459,MP86458
CCV Standard	MP86462
ICSA Standard	MP86460,MP86461
CRI Standard	MP86458
LCS Standard	
Chk Standard	MP86463,MP86464

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	07/30/25 13:40		Jaswal	OK
2	S1	S1	CAL2	07/30/25 13:45		Jaswal	OK
3	S2	S2	CAL3	07/30/25 13:49		Jaswal	OK
4	S3	S3	CAL4	07/30/25 13:53		Jaswal	OK
5	S4	S4	CAL5	07/30/25 13:57		Jaswal	OK
6	S5	S5	CAL6	07/30/25 14:01		Jaswal	OK
7	ICV01	ICV01	ICV	07/30/25 14:11		Jaswal	OK
8	LLICV01	LLICV01	LLICV	07/30/25 14:16		Jaswal	OK
9	ICB01	ICB01	ICB	07/30/25 14:20		Jaswal	OK
10	CRI01	CRI01	CRDL	07/30/25 14:24		Jaswal	OK
11	ICSA01	ICSA01	ICSA	07/30/25 14:28		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	07/30/25 14:33		Jaswal	OK
13	ICSA01DL	ICSA01DL	ICSA	07/30/25 14:37		Jaswal	OK
14	ICSAB01DL	ICSAB01DL	ICSAB	07/30/25 14:41		Jaswal	OK
15	CCV01	CCV01	CCV	07/30/25 14:45		Jaswal	OK
16	CCB01	CCB01	CCB	07/30/25 14:49		Jaswal	OK
17	Q2710-01	JC-03-07282025	SAM	07/30/25 14:54		Jaswal	OK
18	Q2710-01DUP	JC-03-07282025DUP	DUP	07/30/25 14:58		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB136658

Review By	jaswal	Review On	7/30/2025 9:55:12 PM
Supervise By	Janvi	Supervise On	7/31/2025 8:19:27 AM
STD. NAME	STD REF.#		
ICAL Standard	MP86452,MP86453,MP86454,MP86455,MP86456,MP86458		
ICV Standard	MP86459,MP86458		
CCV Standard	MP86462		
ICSA Standard	MP86460,MP86461		
CRI Standard	MP86458		
LCS Standard			
Chk Standard	MP86463,MP86464		

19	Q2710-01L	JC-03-07282025L	SD	07/30/25 15:02		Jaswal	OK
20	Q2710-01MS	JC-03-07282025MS	MS	07/30/25 15:06		Jaswal	OK
21	Q2710-01MSD	JC-03-07282025MSD	MSD	07/30/25 15:10		Jaswal	OK
22	Q2710-01A	JC-03-07282025A	PS	07/30/25 15:14		Jaswal	OK
23	Q2696-02	RW8-SP303-2025072	SAM	07/30/25 15:18		Jaswal	OK
24	Q2696-02DUP	RW8-SP303-2025072	DUP	07/30/25 15:22		Jaswal	OK
25	Q2696-02L	RW8-SP303-2025072	SD	07/30/25 15:26		Jaswal	OK
26	Q2696-02MS	RW8-SP303-2025072	MS	07/30/25 15:31		Jaswal	OK
27	CCV02	CCV02	CCV	07/30/25 15:35		Jaswal	OK
28	CCB02	CCB02	CCB	07/30/25 15:39		Jaswal	OK
29	Q2696-02MSD	RW8-SP303-2025072	MSD	07/30/25 15:43		Jaswal	OK
30	Q2696-02A	RW8-SP303-2025072	PS	07/30/25 15:47		Jaswal	OK
31	CCV03	CCV03	CCV	07/30/25 15:51		Jaswal	OK
32	CCB03	CCB03	CCB	07/30/25 15:56		Jaswal	OK

Prep Standard - Chemical Standard Summary

Order ID : Q2704

Test : Metals Group4

Prepbatch ID : PB169032,

Sequence ID/Qc Batch ID: LB136648, LB136658,

Standard ID :

MP85156, MP86452, MP86453, MP86454, MP86455, MP86456, MP86457, MP86458, MP86459, MP86460, MP86461, MP86462, MP86463, MP86464,

Chemical ID :

M5467, M5470, M5499, M5658, M5747, M5748, M5751, M5798, M5799, M5800, M5801, M5811, M5814, M5816, M5820, M5942, M5962, M5970, M5984, M5985, M5996, M5997, M6007, M6015, M6021, M6023, M6028, M6030, M6032, M6077, M6127, M6128, M6137, M6142, M6144, M6145, M6146, M6151, M6152, M6155, M6158, M6159, M6162, M6163, M6164, M6165, W3112,

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)	MP86452	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal
								07/23/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6162 = Final Quantity: 2500.000 ml



<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)	MP86453	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
<u>FROM</u> 5.00000ml of M5467 + 5.00000ml of M5470 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5970 + 5.00000ml of M5996 + 5.00000ml of M5997 + 5.00000ml of M6077 + 5.00000ml of M6146 + 455.00000ml of MP86452 = Final Quantity: 500.000 ml								

<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	MP86454	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 50.00000ml of MP86452 + 50.00000ml of MP86453 = Final Quantity: 100.000 ml A)								

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>
909	ICP AES STD S3	MP86455	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP	Sarabjit Jaswal

A)

FROM 25.00000ml of MP86453 + 75.00000ml of MP86452 = 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	MP86456	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP	Sarabjit Jaswal

A)

FROM 16.00000ml of MP86453 + 184.00000ml of MP86452 = Final Quantity: 200.000 ml

[illegible]

<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	MP86458	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 2.00000ml of MP86457 + 98.00000ml of MP86452 = 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>
4163	NEW ICV-060925	MP86459	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
A) FROM 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.80000ml of MP86452 = Final Quantity: 50.000 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	MP86460	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 25.00000ml of M6152 + 225.00000ml of MP86452 = 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	MP86461	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
FROM 10.00000ml of M6152 + 10.00000ml of M6155 + 80.00000ml of MP86452 = 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>
911	ICP AES CCV SOLN	MP86462	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025
<u>FROM</u> 50.00000ml of MP86452 + 50.00000ml of MP86453 = 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	MP86463	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal
A) FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6162 = Final Quantity: 2000.000 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>
903	ICP AES RINSE SOLN	MP86464	07/18/2025	08/08/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 07/23/2025
<u>FROM</u>	200.00000ml of M6162 + 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.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	04/17/2025 / Janvi	03/17/2023 / bin	M5499

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	08/05/2024 / kareem	06/14/2024 / Jaswal	M5984

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	05/07/2024 / JANVI	02/22/2024 / kareem	M5996

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	05/27/2026	05/27/2025 / Janvi	05/14/2024 / Jaswal	M6007

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	03/17/2028	06/19/2025 / MOHAN	05/14/2024 / Jaswal	M6015

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	08/24/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	05/22/2029	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/01/2028	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	01/02/2030	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112



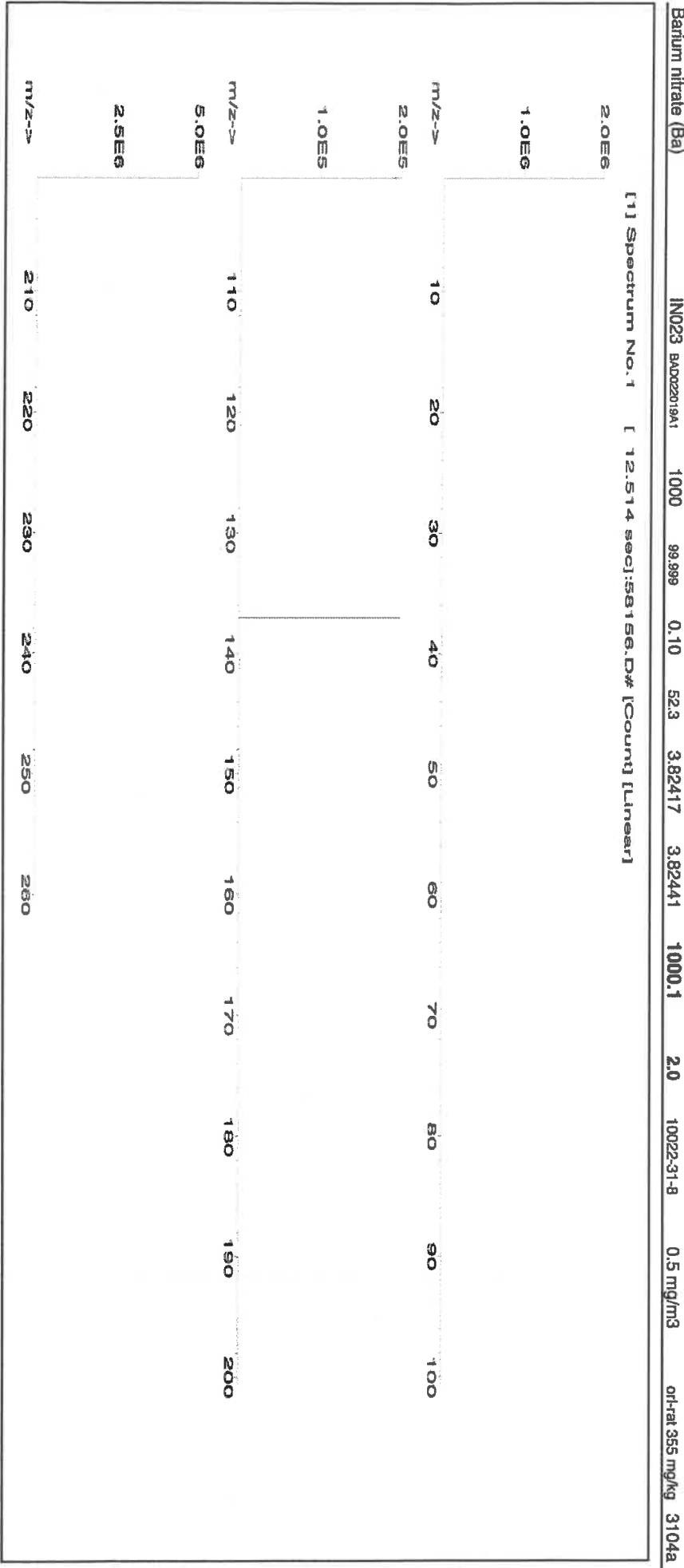
CERTIFIED WEIGHT REPORT:

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
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





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Solvent: 24002546 Nitric Acid

R: 815/24

Lot #

2% 40.0 Nitric Acid (mL)

Expiration Date: 070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.07 0.100 Flask Uncertainty

<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

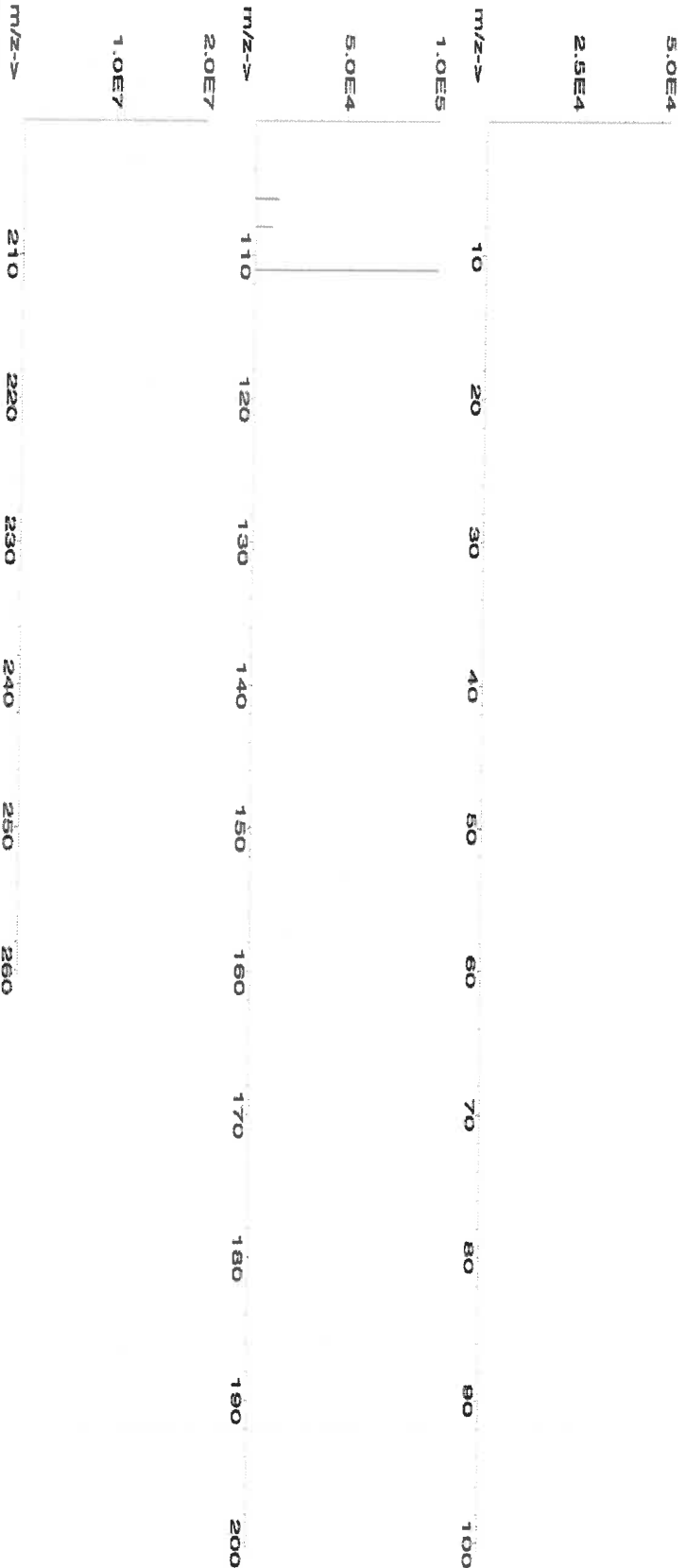
SDS Information

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)	INO24 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.
- * All standard containers are meticulously cleaned prior to use.
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- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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

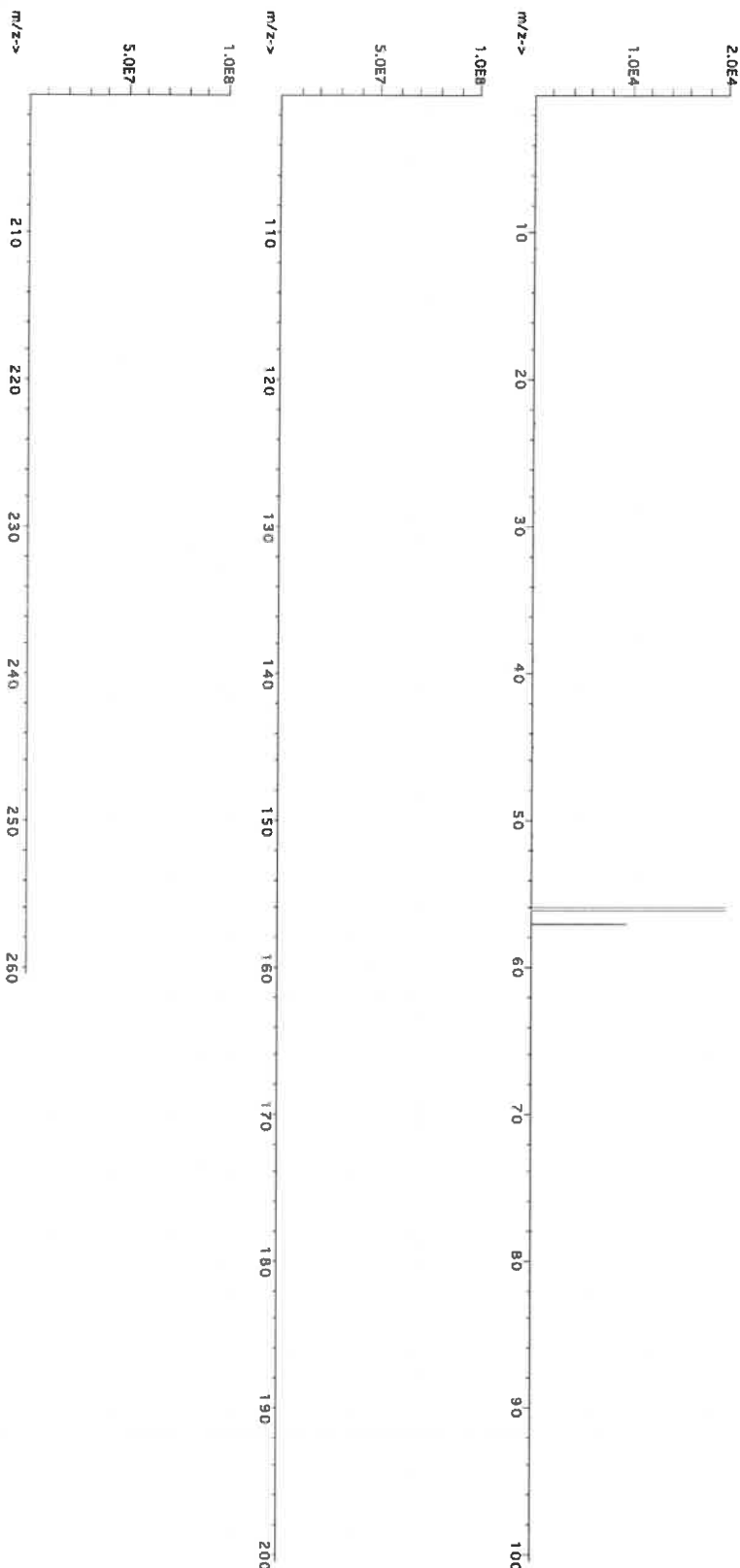
Reviewed By: Pedro L. Renias **051523**

SDS Information

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)	NIST	
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)			CAS#

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-rel 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).



Refine your results. Redefine your industry. RD:05/14/2024

Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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 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

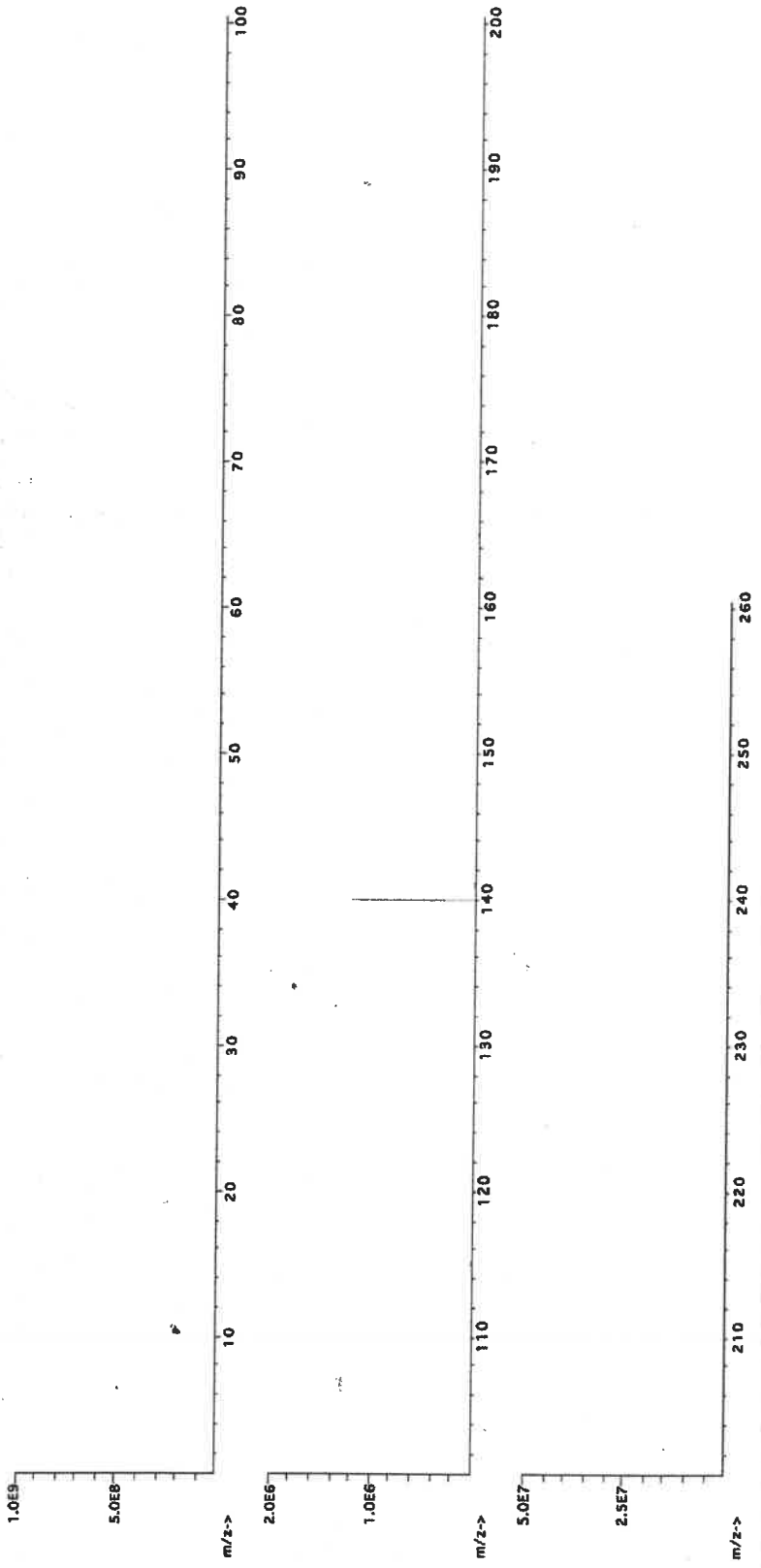
Lot #
Solvent: **21110221** **Nitric Acid**

2% **20.0** **Nitric Acid**
(mL)

Lawrence Barry
Formulated By: **Lawrence Barry** **020623**
Pedro L. Rentas
Reviewed By: **Pedro L. Rentas** **020623**

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	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	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	<0.02	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:

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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent



M5497 - M5408
And on 4/14/23
063

Material No.: 3624-01

Batch No.: 0000281938

Manufactured Date: 2021-06-07

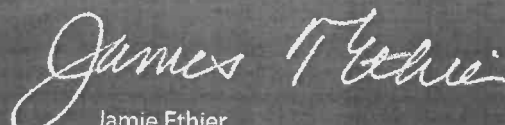
Retest Date: 2026-06-07

Revision No.: 2

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO ₃)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO ₄)	≤ 5 ppm	< 5 ppm
Sulfate (SO ₄)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory, Research, or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot # 21110221
Solvent: Nitric Acid

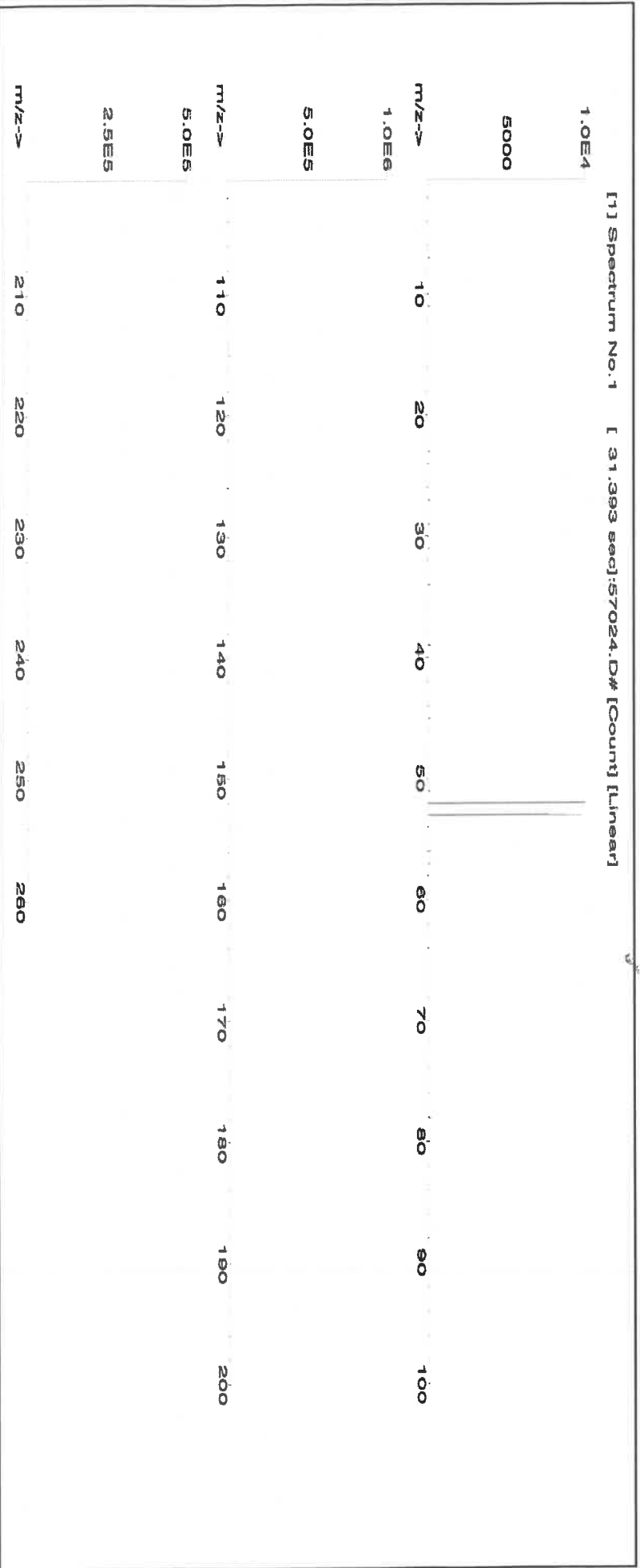
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Henrias
	060523

Expiration Date: 060526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Compound	Part		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
	Number	Number											

SDS Information

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





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

2% 60.0 (mL) Nitric Acid

NIST Test Number: 6UTB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

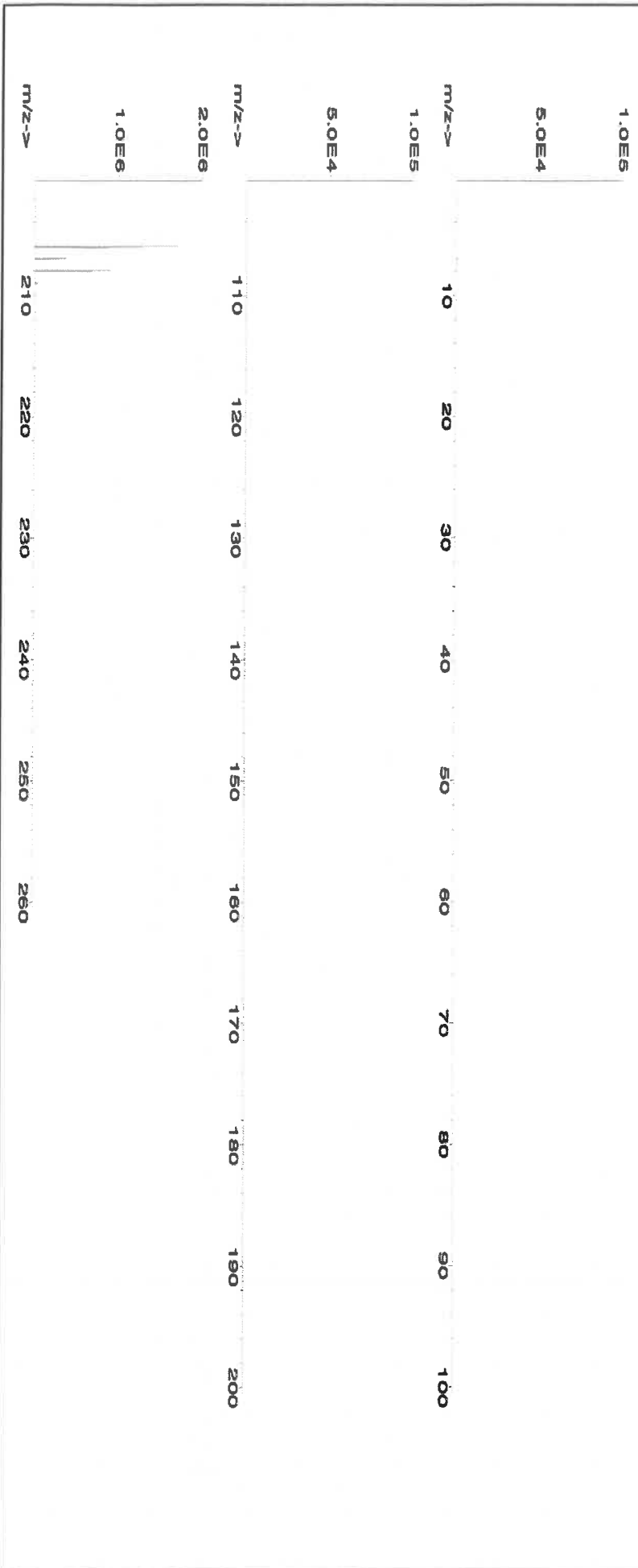
Compound

RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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SDS Information

1. Lead(II) nitrate (Pb) IN029 Pb0122016A1 1000 99.999 0.10 62.5 4.80071 4.80077 1000.0 2.0 10099-74-8 0.05 mg/m3 Intyms-ret 89 mg/kg 3128

[1] Spectrum No. 1 [14.144 sec]:58082.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Physical Characterization:

(T) = Target analyte

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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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: **57028**
Lot Number: **091223**
Description: **Nickel (NI)**

Lot # **24002546** Solvent: **Nitric Acid**

Expiration Date: **091226**

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6U7B**

Volume shown below was diluted to (mL): **2000.02**

Balance Uncertainty: **5E-05**

Flask Uncertainty: **0.056**

2.0%

40.0 (mL)

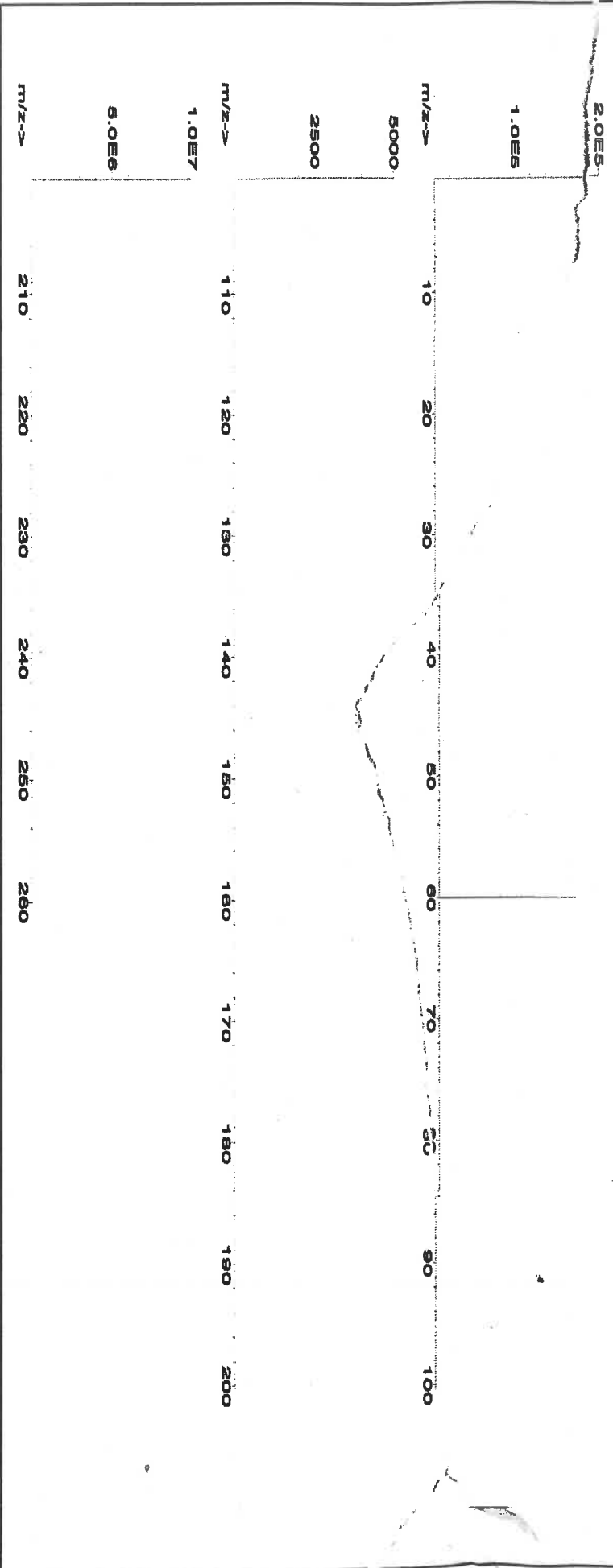
Nitric Acid

Formulated By:	<i>Lawrence Barry</i>	091223
Reviewed By:	<i>Pedro L. Renteria</i>	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. 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]:56028.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.
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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 Reference Material CRM



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:
Nominal Concentration (µg/mL):

Ambient (20 °C)

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

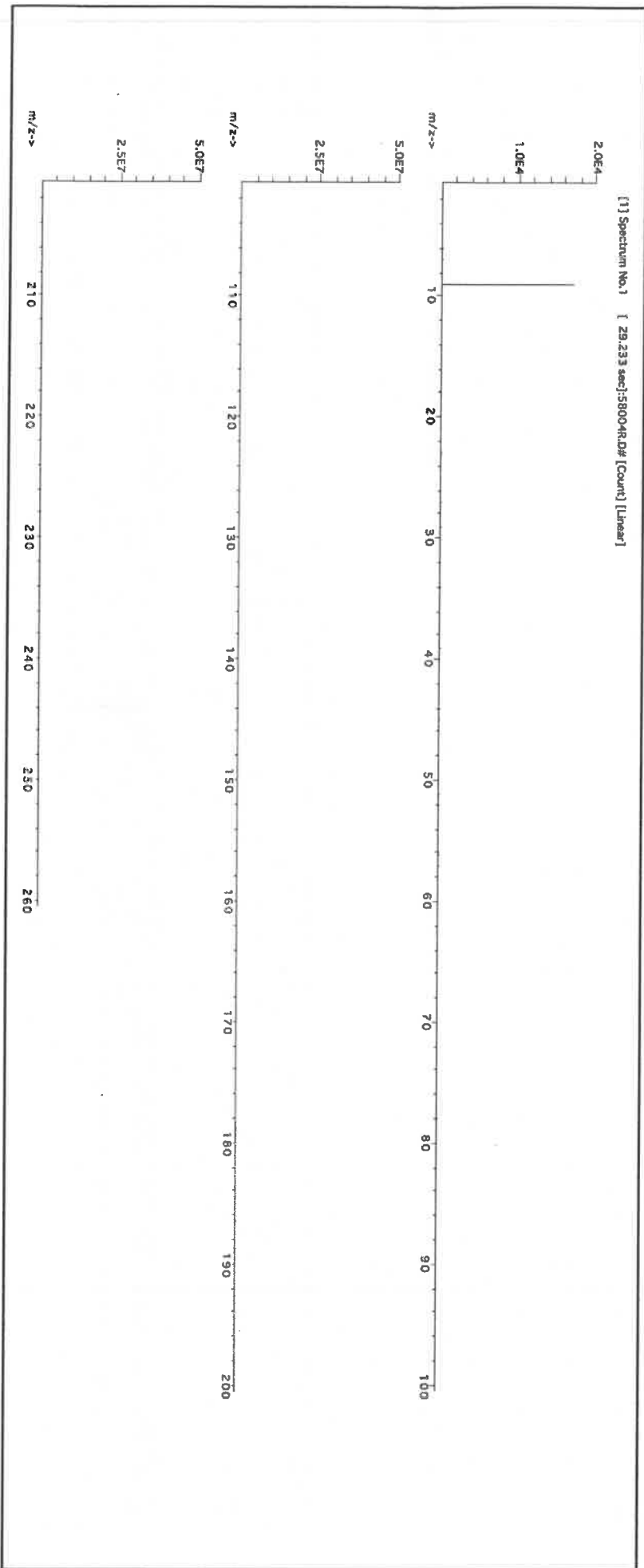
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

SDS Information

Compound	Part Number	Lot 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. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	1000.0	2.2	13597-99-4	0.2µg/m3	intrinsc-rat 3.16mg/kg	NA
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.02	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	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:

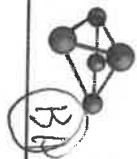
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



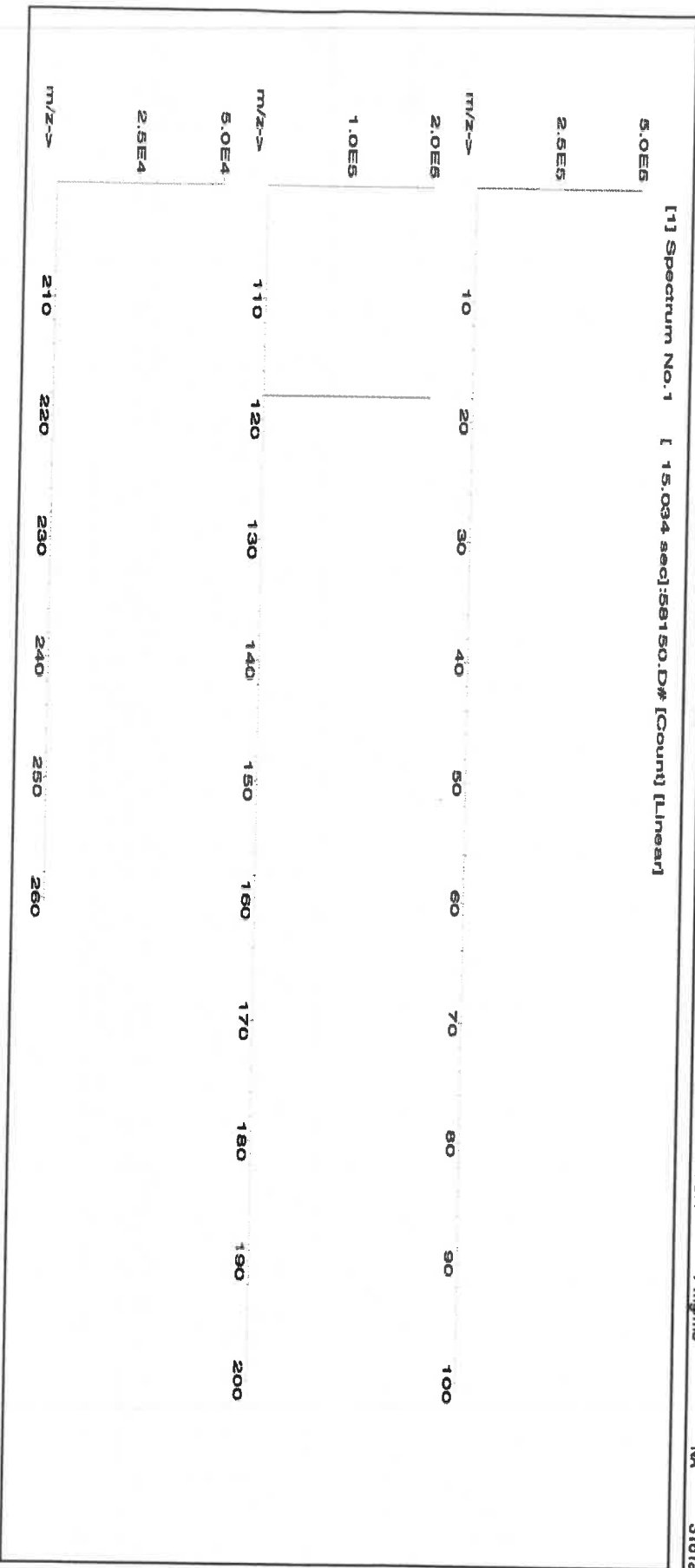
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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) IN010 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.
- * 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: 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)

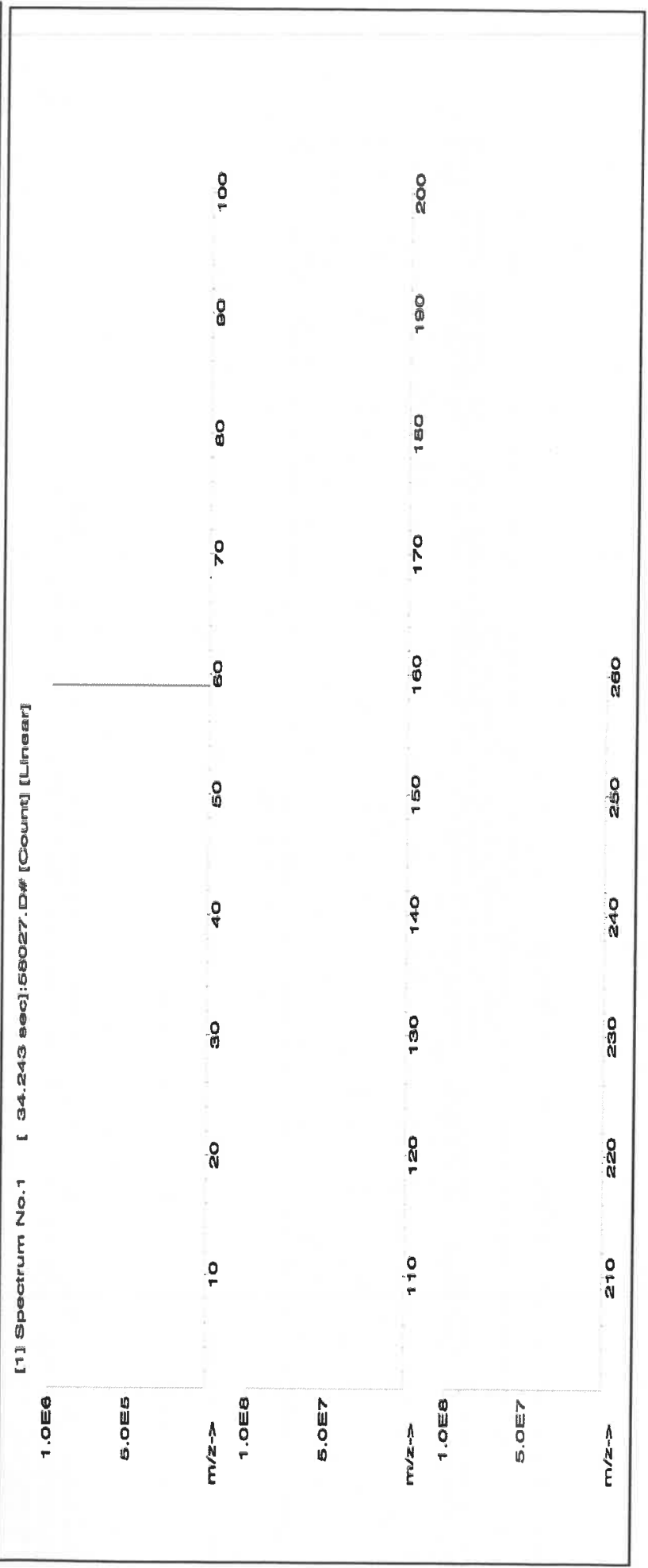
Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

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





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	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
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- * 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

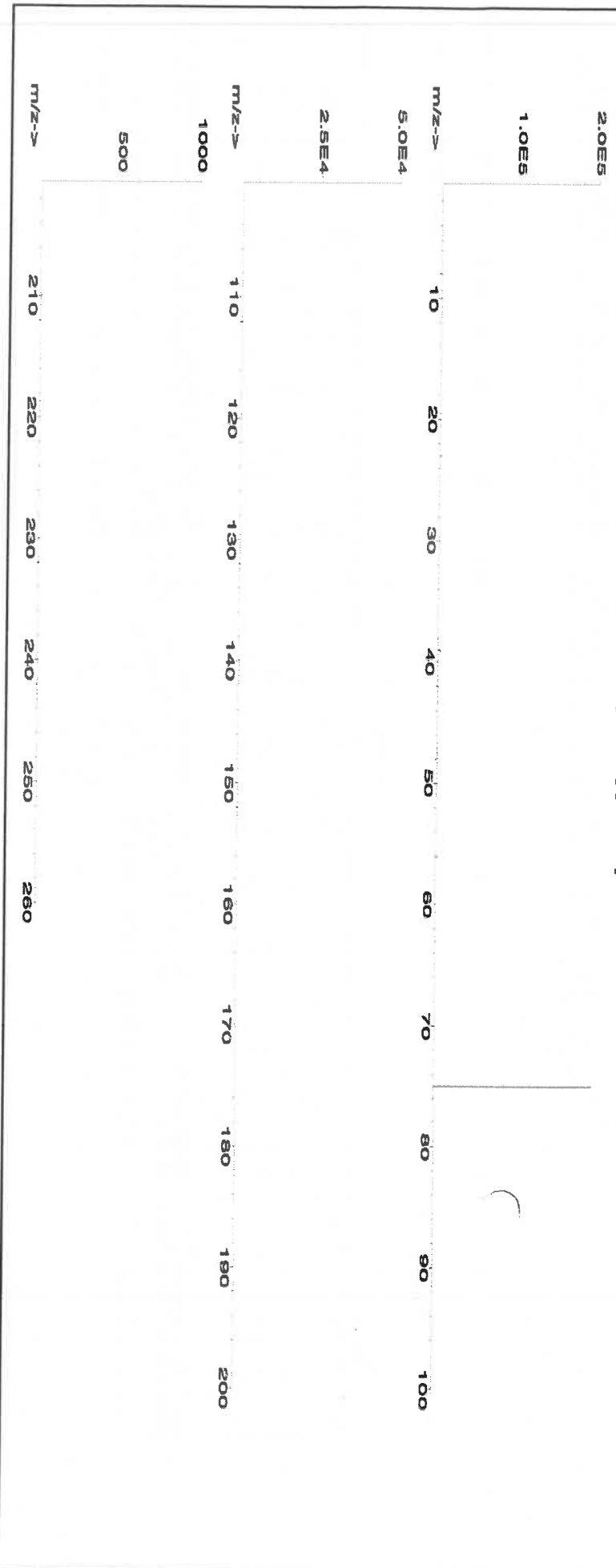
Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rendas	111323

Compound

Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	1000.0	2.0	7440-38-2	0.5 mg/m3	or-rat 500 mg/kg	3103a
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[1] Spectrum No.1 [34.433 sec]:57033.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tl	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Su	<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: **57005**
Lot Number: **071123**
Description: **Boron (B)**

Solvent: MKB8697V Ammonium hydroxide

Lot #

AI: 021009124 M5814

	
Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rientas
071123	

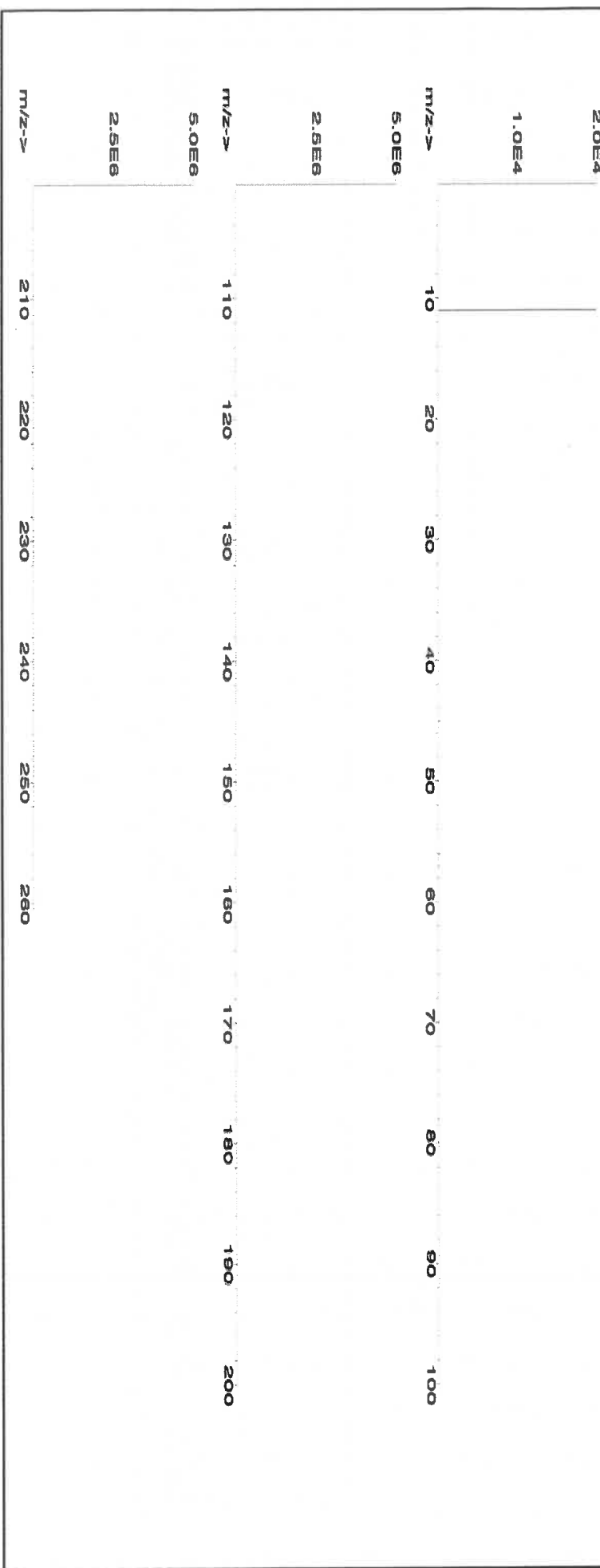
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48
5E-05 Balance Uncertainty
0.058 Flask Uncertainty
2.0% 40.0 Ammonium hydroxide (mL)

SDS Information

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. 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 or-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:
Lot Number:
Description:

57016
122923
Sulfur (S)

Lot #

ASTM Type 1 Water

Formulated By:	Benson Chan
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

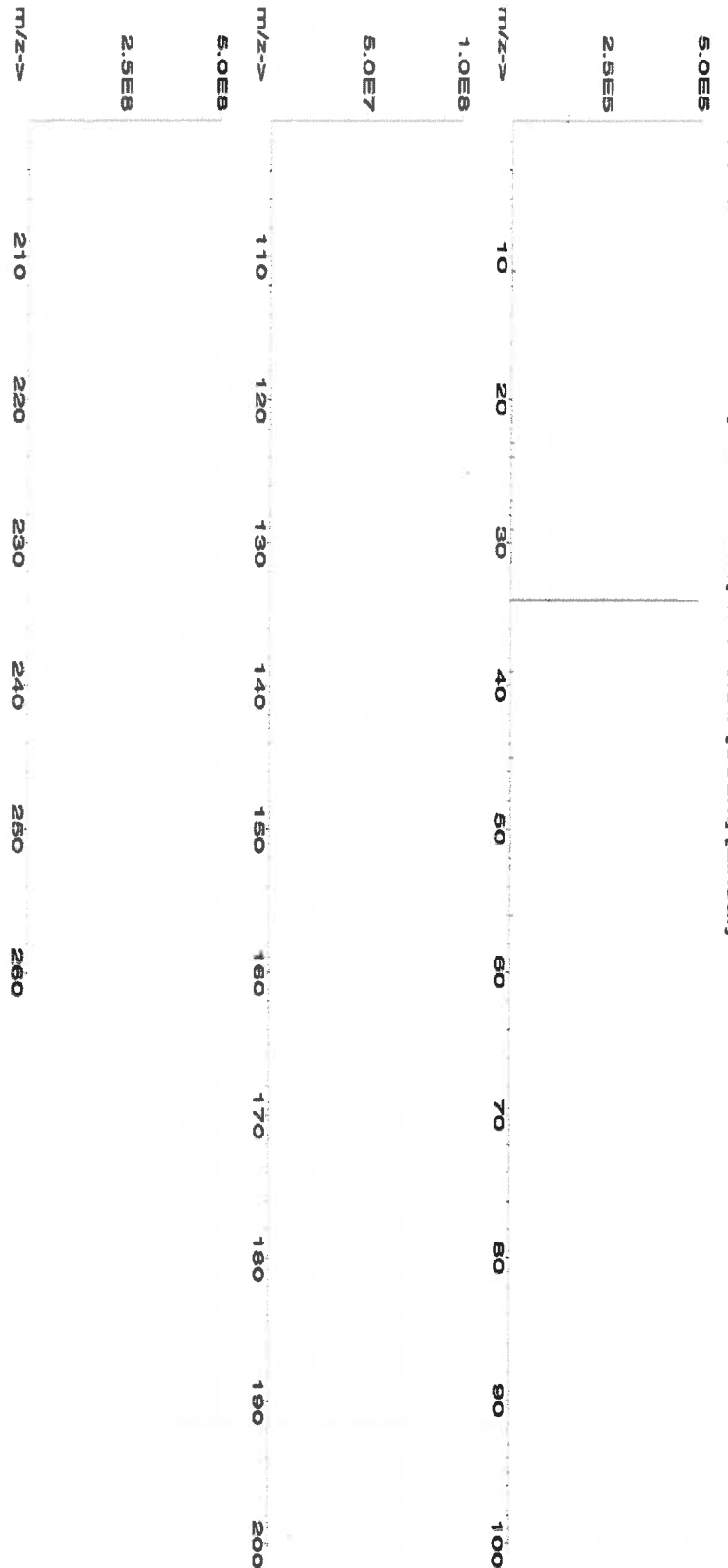
SE-05 Balance Uncertainty
0.06 Flask Uncertainty

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
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1. Ammonium sulfate (S) IN117 SLBR725V 1000 99.9 0.10 24.3 16.4979 16.4980 1000.0 2.0 7783-20-2 NA 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:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57015
Lot Number: 091123
Description: Phosphorous (P)

Solvent: 24002546 Nitric Acid

Lot #

R: 02109124 M5820

Lawrence Barry
Formulated By: Lawrence Barry
091123

Pedro L. Rentas
Reviewed By: Pedro L. Rentas
091123

2% 40.0 (mL) Nitric Acid

Expiration Date: 091126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LJB

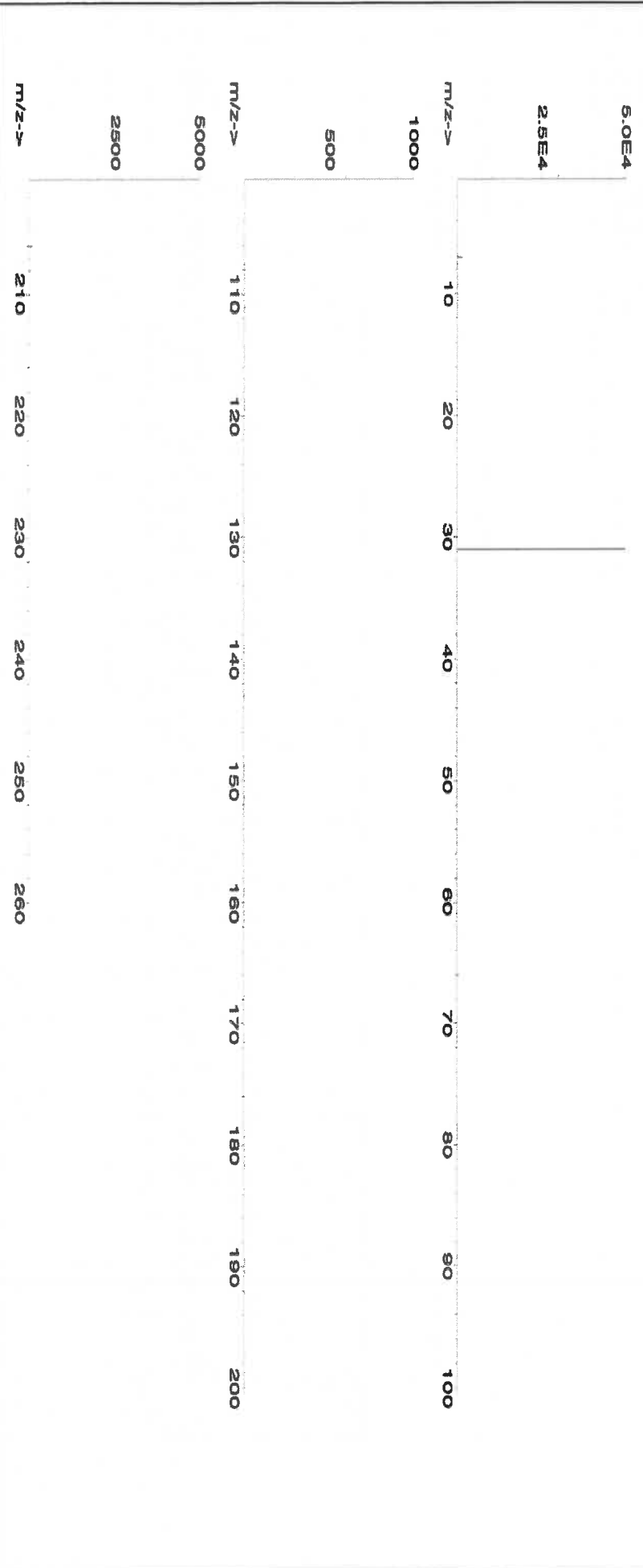
Weight shown below was diluted to (mL): 2000.02 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

SDS Information

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium dihydrogen phosphate (P) IN008 PVO82019A1 1000 99.999 0.10 27.5 7.2729 7.2730 1000.0 2.0 7722-76-1 5 mg/m3 xH-rat >2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (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	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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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**

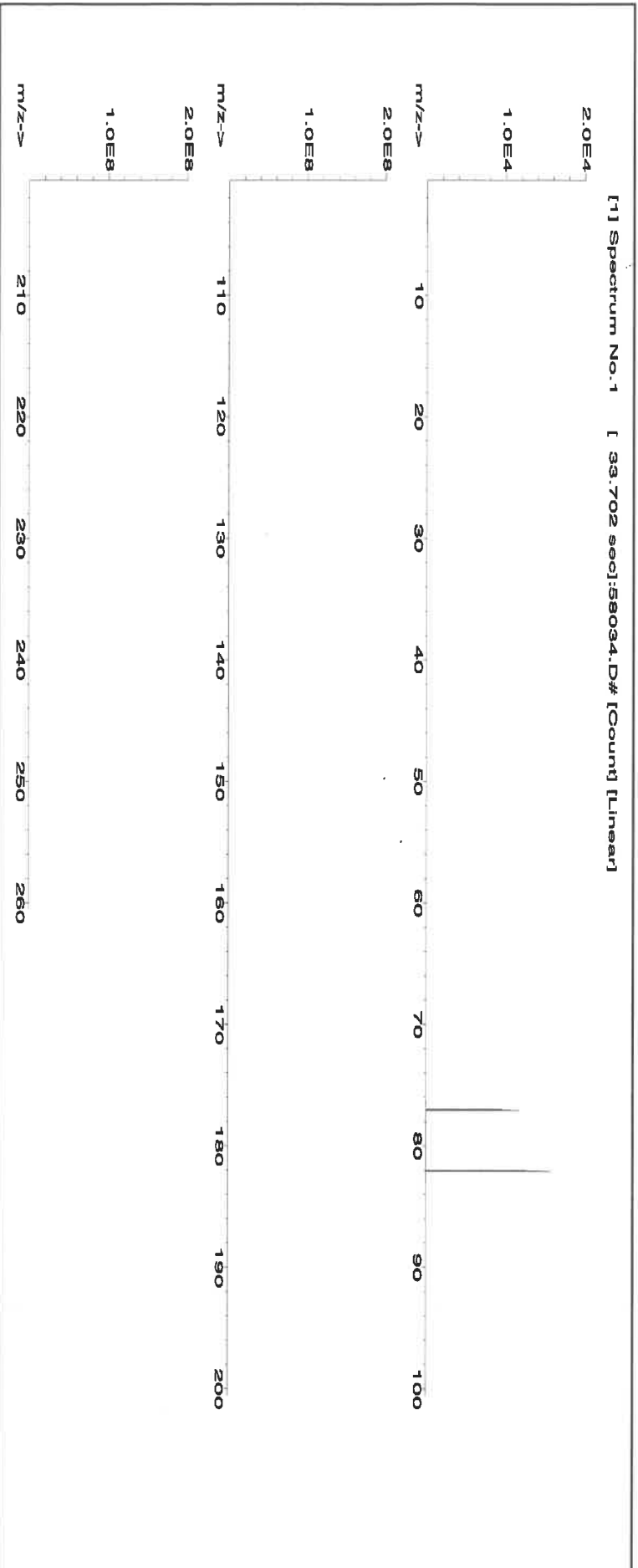
SE-05 Balance Uncertainty
0.100 Flask Uncertainty

SDS Information

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)	(Solvent Safety Info. On Attached pg.)	NIST SRM
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1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	1000.0	2.2	7782-49-2	0.2 mg/m3	or-tral 6700 mg/kg	3149
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[1] Spectrum No.1 [33.702 sec]:58034.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	T	Tb	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	U	<0.02
As	<0.2	Ce	<0.02	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02		<0.02	Ti	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolute-standards.com



Certified Reference Material CRM

M5970 M5971



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 06/127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11
SE-05 Balance Uncertainty
0.016 Flask Uncertainty

Lot # 24002546
Solvent: Nitric Acid

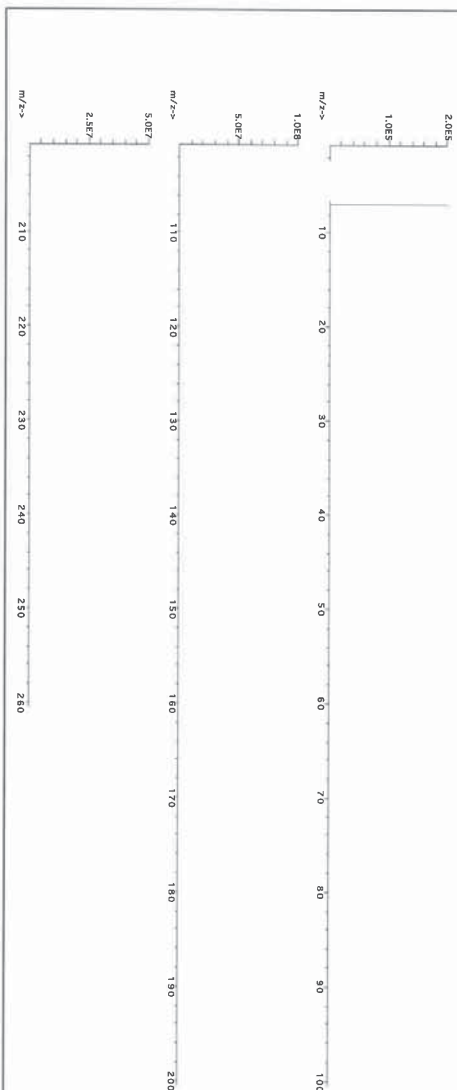
2.0% 5.0 (mL) Nitric Acid

Microvial Capable	
Formulated By:	Giovanni Esposito
	062124
Reviewed By:	Pedro L. Parias
	062124

Compound		Part		Lot		Dilution		Initial		Uncertainty		Nominal		Initial		Final		Expanded		SDS Information		NIST	
Number	Factor	Number	Factor	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Uncertainty	± (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SM

1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	1000.0	2.0	7790-68-4	5 mg/m3	Oral: 1428 mg/kg	NA
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[1] Spectrum No. 1 [32.093 sec; 15000.0Hz Count [Lines]



Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

M5984
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: 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:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

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	<	0.004600	M	Eu	0.009037	M	Na	0.086360	M	Se	<	0.005200	M	Zn	0.030125
M	Al	0.014862	O	Fe	0.002410	M	Nb	<	0.000570	O	Si	0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd	0.000923	M	Sm	0.000461			
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300	
O	B	0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600		
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570	
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb	0.005020	M	Tb	0.001044			
M	Bi	<	0.003500	M	Ho	0.009037	M	Pd	<	0.005100	M	Te	<	0.002300		
O	Ca	0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570		
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500	
M	Ce	<	0.002300	O	K	0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570		
M	Co	<	0.000570	M	La	0.000461	M	Re	<	0.000570	M	Tm	<	0.003500		
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570	
M	Cs	<	0.000570	M	Lu	0.000582	M	Ru	<	0.000570	M	V	0.001265			
M	Cu	0.002610	O	Mg	0.001486	n	S	<			M	W	<	0.002300		
M	Dy	0.003815	M	Mn	0.000582	M	Sb	0.005422	s	Y	<					
M	Er	0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb	0.001827			

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale. <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H₂O)_{x+2}

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media.

Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride.

Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions

chemically stable for years in 2-5% HNO₃ / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H₂O/ HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

300 Technology Drive
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P: 800-669-6799/540-585-3030
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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
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	CLPP-CAL-1	
Lot Number:	T2-MEB714417	
Matrix:	5% (v/v) HNO ₃	
Value / Analyte(s):	5 000 µg/mL ea:	
	Calcium,	Potassium,
	Magnesium,	Sodium,
	2 000 µg/mL ea:	
	Aluminum,	Barium,
	1 000 µg/mL ea:	
	Iron,	
	500 µg/mL ea:	
	Nickel,	Vanadium,
	Zinc,	Cobalt,
	Manganese,	
	250 µg/mL ea:	
	Silver,	Copper,
	200 µg/mL ea:	
	Chromium,	
	50 µg/mL ea:	
	Beryllium	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, 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 ($\mu\text{g/mL}$)

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° $\pm$ 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; info@inorganicventures.com; 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



Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

R: 2/22/24
MS997

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F: 540-585-3012

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".

Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CLPP-CAL-3
Lot Number: T2-MEB727800
Matrix: 7% (v/v) HNO₃
Value / Analyte(s):
1 000 µg/mL ea:
Arsenic, Lead,
Selenium, Thallium,
500 µg/mL ea:
Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	1 000 ± 7 µg/mL	Cadmium, Cd	500.0 ± 2.2 µg/mL
Lead, Pb	1 000 ± 4 µg/mL	Selenium, Se	1 000 ± 6 µg/mL
Thallium, Tl	1 000 ± 7 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (k) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (k) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale. <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 21, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Refine your results. Redefine your industry.

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Certificate of Analysis

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EXP: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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.

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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:

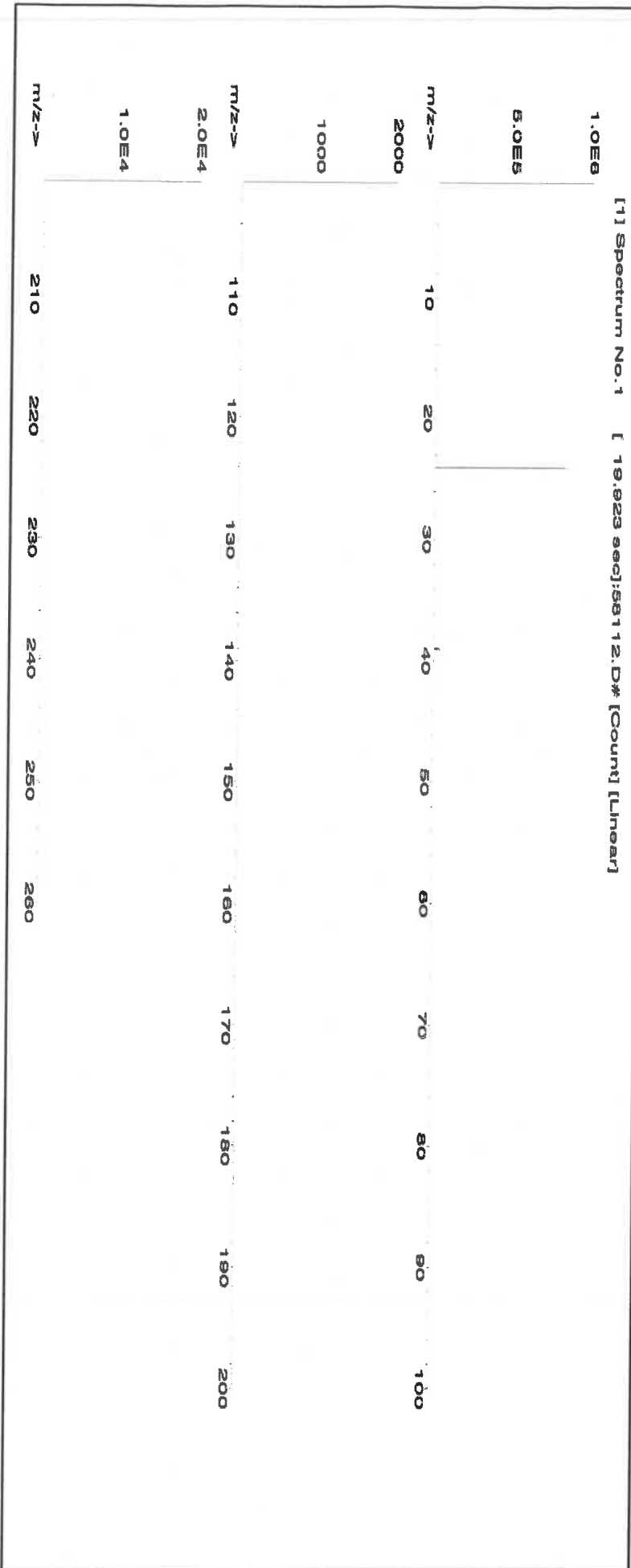
Part Number: 58112
Lot # 112124
Description: Magnesium (Mg)
Lot # 24012496
Solvent: Nitric Acid

Expiration Date: 11/21/27
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 Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. 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





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:
Nominal Concentration (µg/mL):

Ambient (20 °C)
1000

NIST Test Number:

6UTB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL):

4000.2 0.10 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Renteria</i>
	101124

Compound

RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Manganese(II) nitrate hydrate (Mn) IN031 MMN02020A1 1000 99.999 0.10 20.8 19.2322 19.2344 **1000.1** **2.0** 15710-66-4 5 mg/m3 or-rel >300mg/kg 3132

[1] Spectrum No.1 [34.243 sec]:57025.D# [Count] [Linear]

5.0E6	m/z->	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
5.0E7	m/z->	210	220	230	240	250	260				



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(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

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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:

$$w_i = (1/u_{char\ i})^2 / (\sum (1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na	0.001656	M	Se	<	0.022000	M	Zn	<	0.002500	
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphous (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com;

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 10, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





CERTIFIED WEIGHT REPORT:

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

R-21113125

Solvent: 24002546 Nitric Acid
Lot #

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M6141
M6142
M6143

2% 80.0 (mL) Nitric Acid

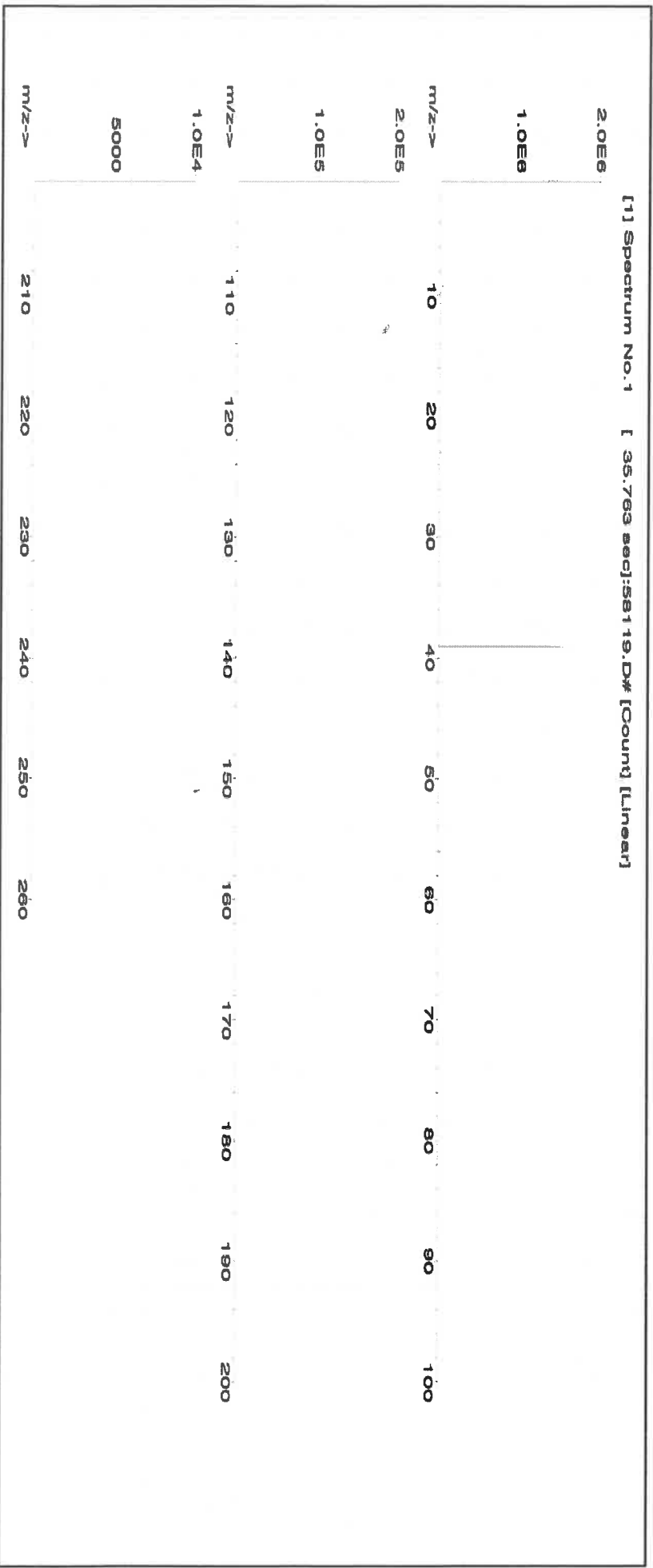
Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Renteria
	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM

1. Potassium nitrate (K) IN034 KD062022A1 10000 99.999 0.10 37.7 106.1040 ##### 10001.1 20.0 7757-79-1 5 mg/m3 orl-rat 3750 mg/kg 3141a

[1] Spectrum No. 1 [35.763 sec]:58119.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 58111 **Lot #** R-1113125
Lot Number: 072424 **Solvent:** 24002546 Nitric Acid
Description: Sodium (Na)

Expiration Date: 072427 **2%** 80.0 Nitric Acid (mL)

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB **5E-05** Balance Uncertainty

Weight shown below was diluted to (mL): 4000.2 **0.10** Flask Uncertainty

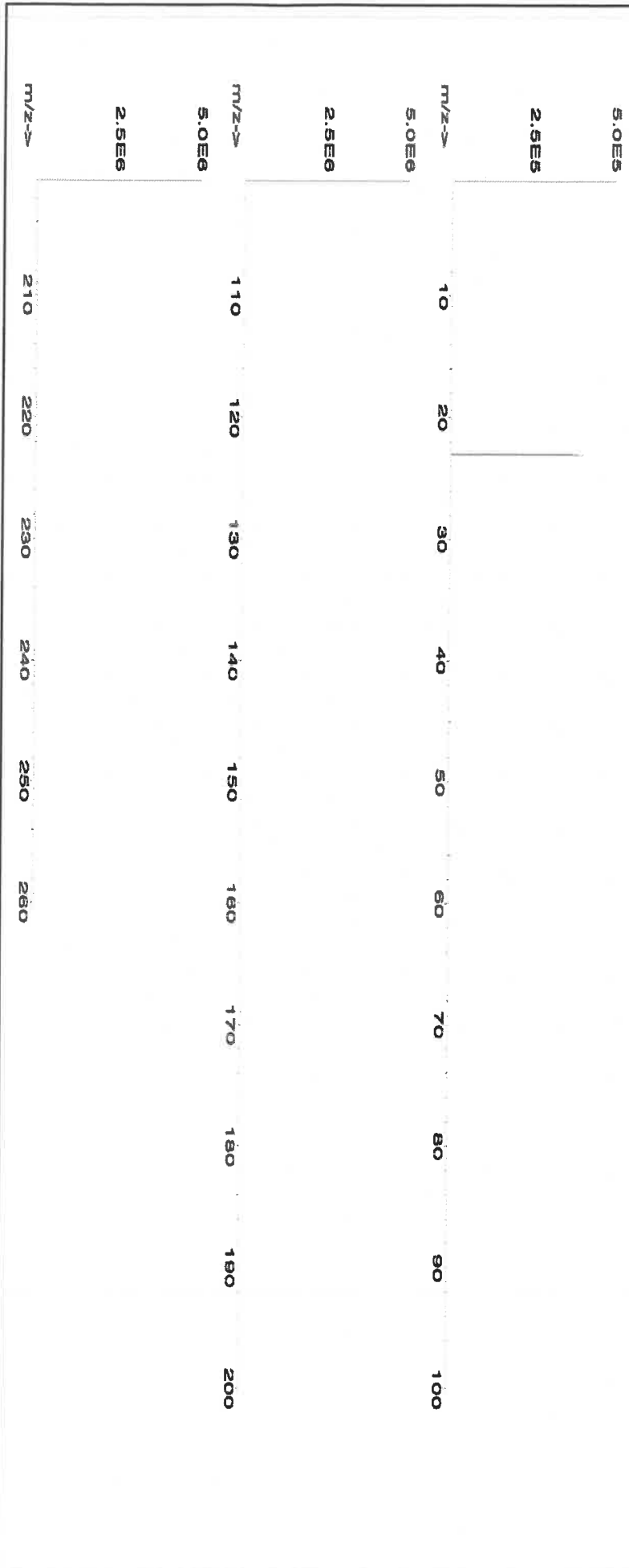
Formulated By:	Benson Chan	072424
Reviewed By:	Pedro L. Renteria	072424

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 148.7096 ##### 10000.0 20.0 7631-99-4 5 mg/m3 orl-rat 3430 mg/kg 3152a

[1] Spectrum No. 1 [8.935 sec]: 58111.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rb	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	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: **58030** Lot # **121724**
Description: **Zinc (Zn)**

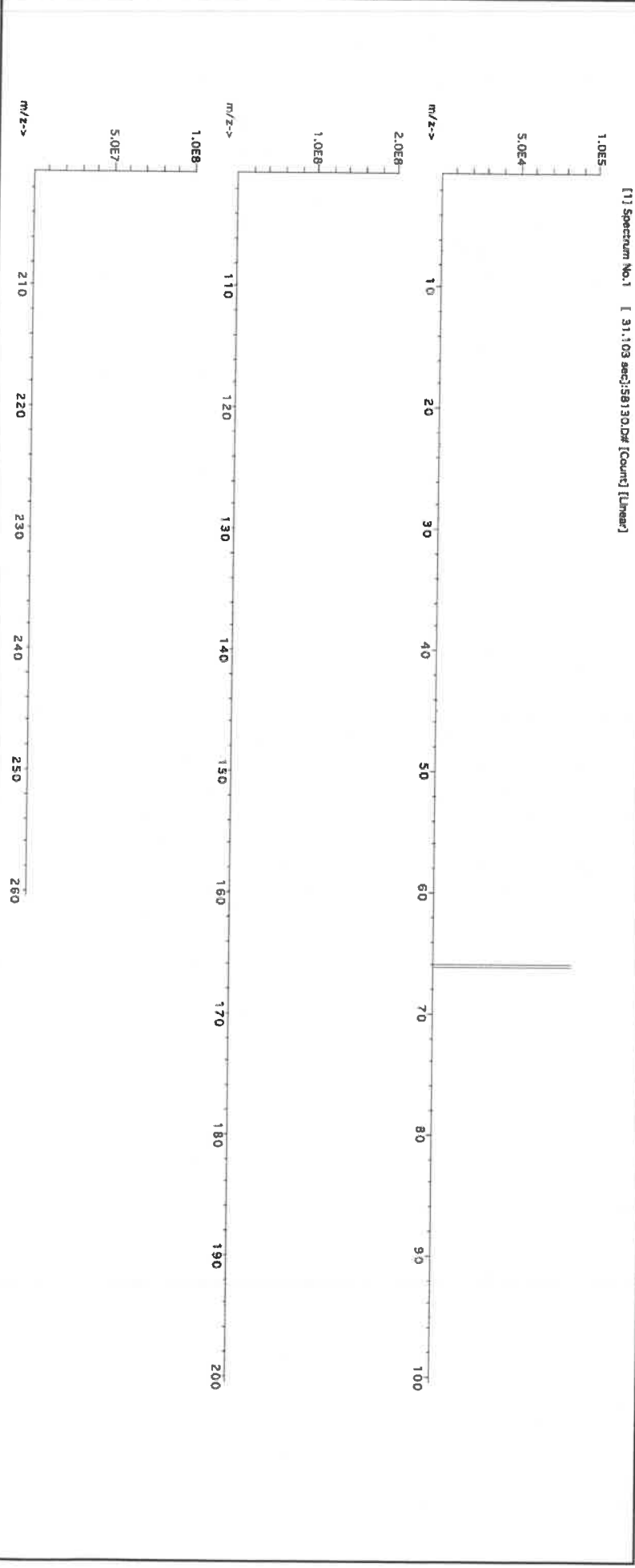
Expiration Date: **121727** Solvent: **24012496 Nitric Acid**

Recommended Storage: **Ambient (20 °C)** 2% 40.0 Nitric Acid
Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6UTB** 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): **2000.1** 0.10 Flask Uncertainty

<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
Reviewed By:	<i>Pedro L. Rentes</i>
	Pedro L. Rentes
	121724

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)
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	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	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).

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantor™**



M6151

R → 11/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA–ANALYZED® Reagent
For Trace Metal Analysis



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
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For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™



R- 0210212025

m - 6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Nitric Acid 69%
CMOS

 **avantorsTM**



m-6162

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

R. Date :- 04/27/2025

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

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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:	QCP-CICV-1		
Lot Number:	V2-MEB744107		
Matrix:	7% (v/v) HNO ₃		
Value / Analyte(s):	2 500 µg/mL ea:		
	Calcium,	Potassium,	
	Magnesium,	Sodium,	
	1 000 µg/mL ea:		
	Aluminum,	Barium,	
	500 µg/mL ea:		
	Iron,		
	250 µg/mL ea:		
	Nickel,	Vanadium,	
	Zinc,	Cobalt,	
	Manganese,		
	125 µg/mL ea:		
	Silver,	Copper,	
	100 µg/mL ea:		
	Chromium,		
	25 µg/mL ea:		
	Beryllium		

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 000 ± 4 µg/mL	Barium, Ba	1 000 ± 6 µg/mL
Beryllium, Be	24.98 ± 0.12 µg/mL	Calcium, Ca	2 500 ± 8 µg/mL
Chromium, Cr	99.9 ± 0.6 µg/mL	Cobalt, Co	250.2 ± 1.2 µg/mL
Copper, Cu	125.0 ± 0.5 µg/mL	Iron, Fe	500.0 ± 2.2 µg/mL
Magnesium, Mg	2 500 ± 11 µg/mL	Manganese, Mn	249.9 ± 1.1 µg/mL
Nickel, Ni	250.0 ± 1.2 µg/mL	Potassium, K	2 500 ± 11 µg/mL
Silver, Ag	125.0 ± 0.6 µg/mL	Sodium, Na	2 500 ± 11 µg/mL
Vanadium, V	250.0 ± 1.1 µg/mL	Zinc, Zn	249.9 ± 1.1 µg/mL

Density: 1.081 g/mL (measured at 20 ± 4 °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
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, 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

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

May 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 22, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
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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: QCP-CICV-2
Lot Number: U2-MEB733713
Matrix: 3% (w/v) Tartaric acid
1% (v/v) HNO₃
Value / Analyte(s): 500 µg/mL ea:
Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	500.0 ± 2.8 µg/mL		

Density: 1.017 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

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

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 01, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 01, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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: QCP-CICV-3
 Lot Number: V2-MEB749572
 Matrix: 7% (v/v) HNO₃
 Value / Analyte(s):
 500 µg/mL ea:
 Arsenic, Lead,
 Selenium, Thallium,
 250 µg/mL ea:
 Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	500.0 ± 3.1 µg/mL	Cadmium, Cd	250.1 ± 1.1 µg/mL
Lead, Pb	500.0 ± 2.3 µg/mL	Selenium, Se	500.0 ± 3.2 µg/mL
Thallium, Tl	500.0 ± 3.0 µg/mL		

Density: 1.040 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, 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

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 02, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 02, 2030**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM

M6030



CERTIFIED WEIGHT REPORT:

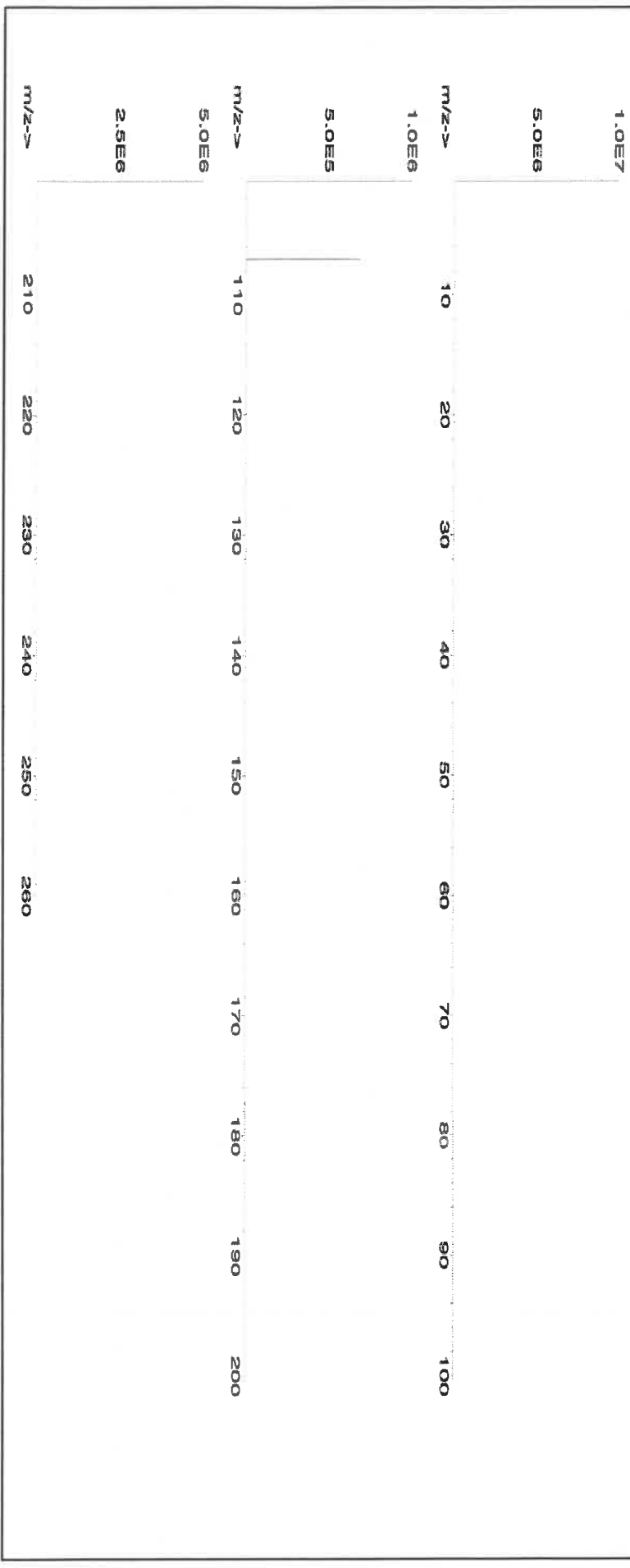
Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**
Solvent: **24002546 Nitric Acid**

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	J0612AGAI	1000.0	99.999	0.10	63.7	6.27992	6.27998	1000.0
							2.0	7761-88-8	10 µg/mL
									NA
									3151

[1] Spectrum No. 1 [14.044 sec]:58147.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	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 meghm 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

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

2.0%

40.0 (mL)

Nitric Acid

Formulated By:

Giovanni Esposito

071724

Reviewed By:

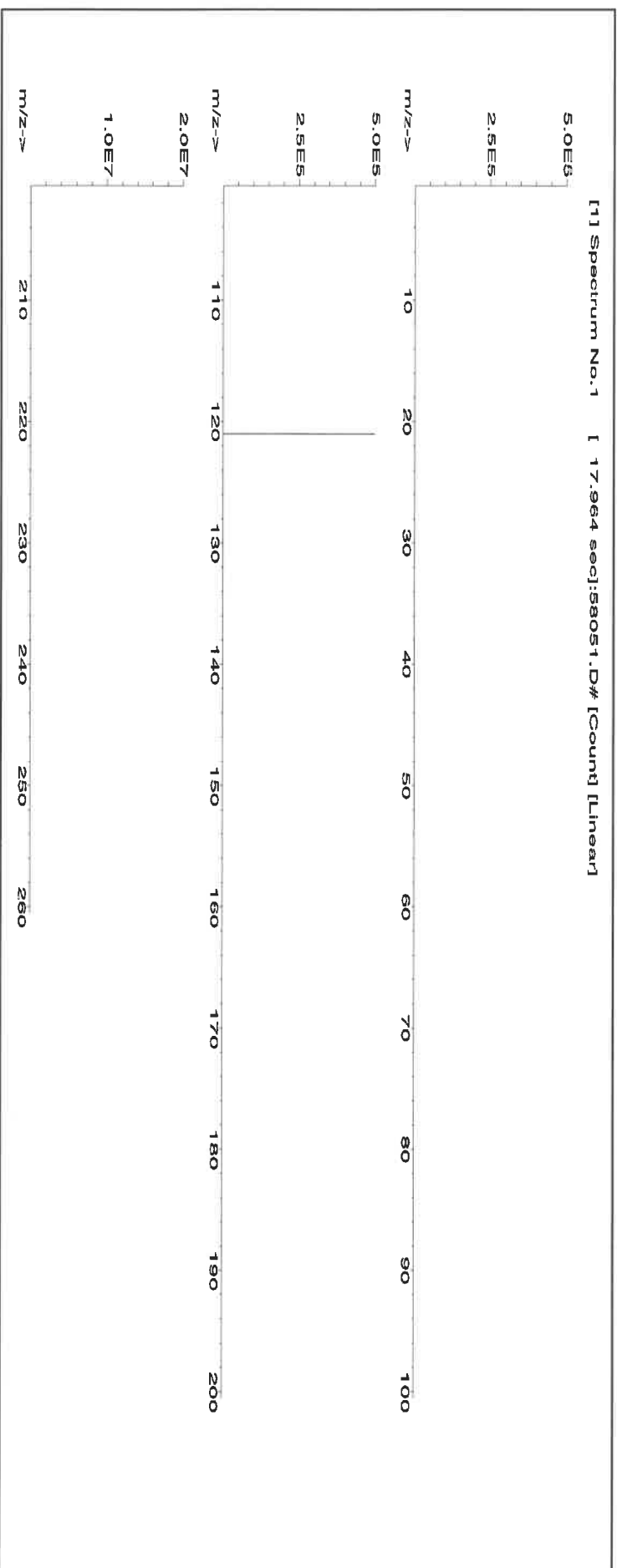
Pedro L. Rentas

071724

SDS Information

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. 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



Trace Metals Verification by ICP-MS ($\mu\text{g}/\text{mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	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	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

Certified by:

Har P. R.

- Printed: 9/27/2024, 11:20:14 PM



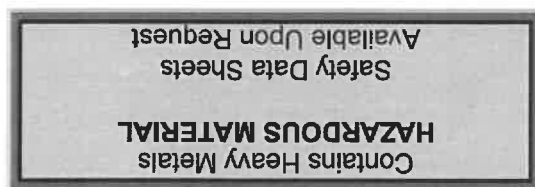
QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

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 +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 $\pm$ 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

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: 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





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

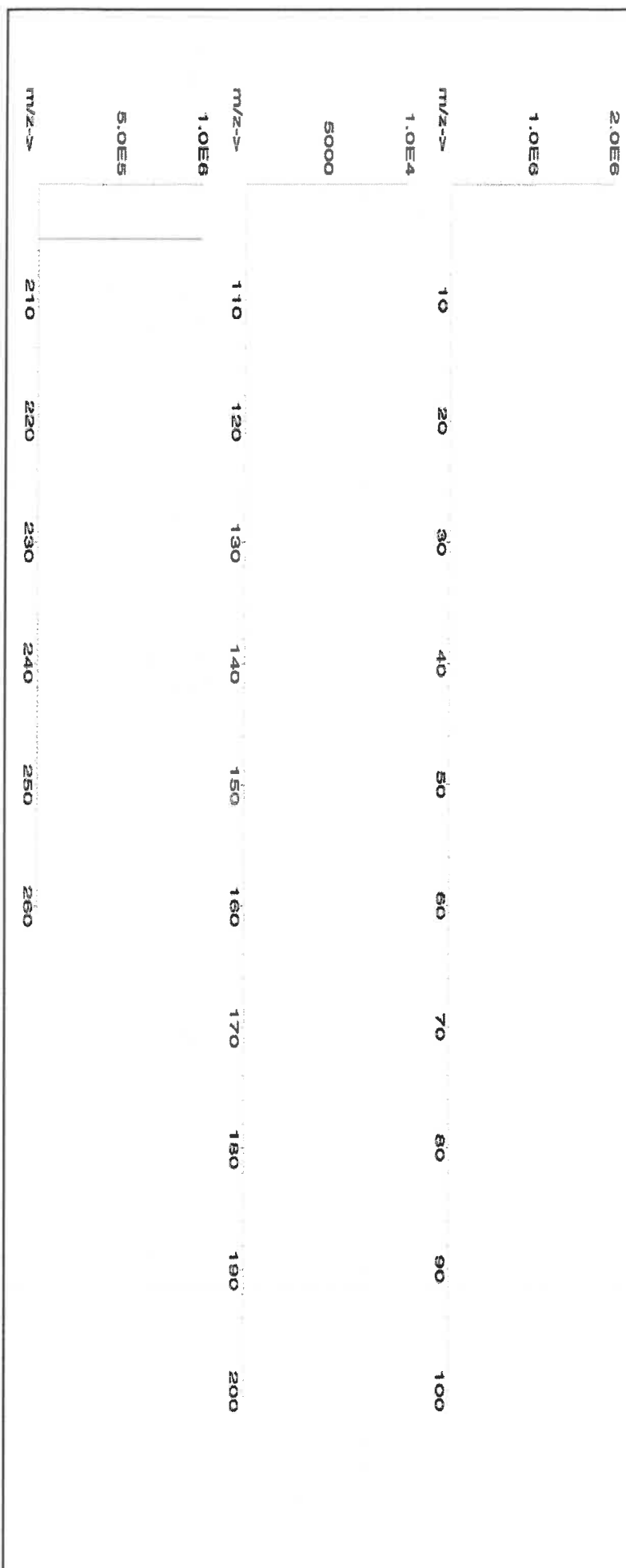
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	062724

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 orl-mus 15mg/kg 3158

[1] Spectrum No.1 [14.044 sec]:57081.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tm	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Sn	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Se	<0.02	Ta	<0.02			Zr	<0.02

(T) = Target analyte

Physical Characterization:

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**

<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
Reviewed By:	<i>Pedro L. Rantas</i>
	Pedro L. Rantas
	062424

Expiration Date: **062427**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

2.0%

40.0 (mL)

Nitric Acid

Volume shown below was diluted to (mL): **2000.3**

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

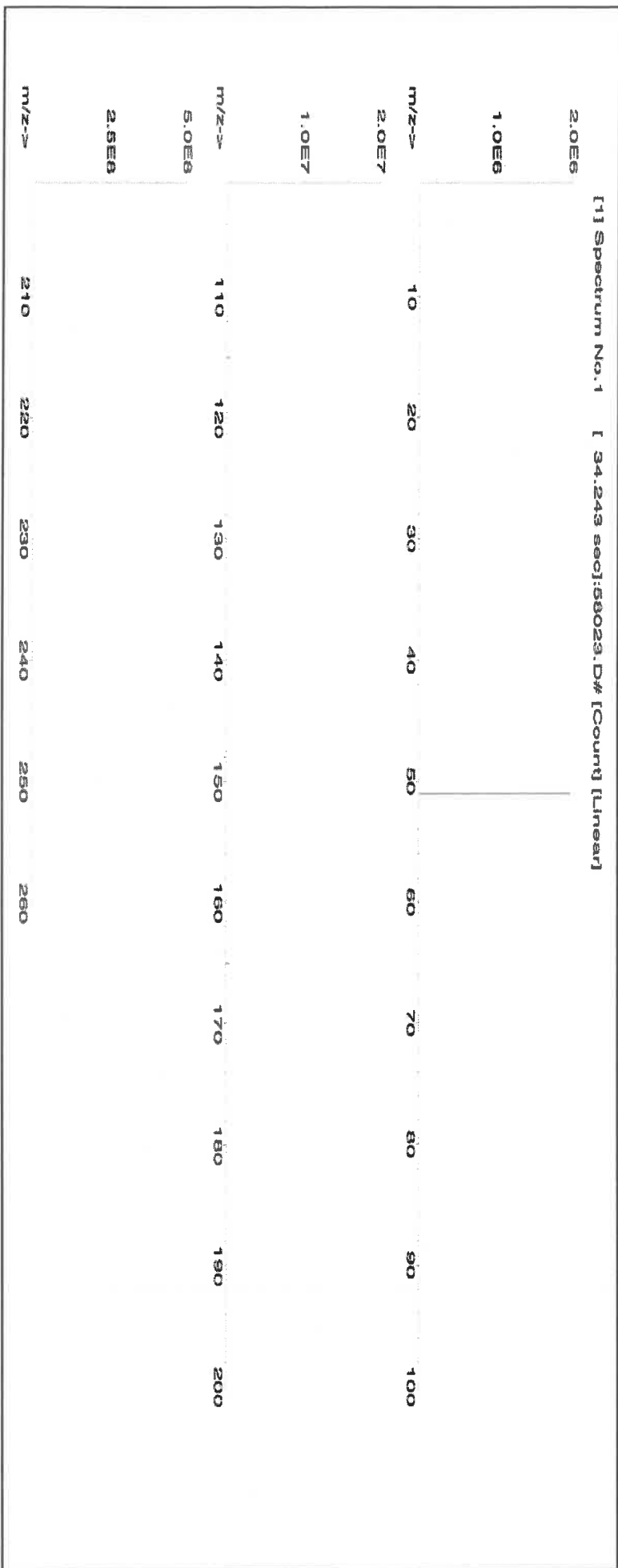
Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM

SDS Information

(Solvent Safety Info. On Attached pg.)

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]





SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Geotechnical
ADDRESS: 8 CARRIAGE
CITY: Succasunna STATE: NJ ZIP:
ATTENTION:
PHONE: FAX:

PROJECT NAME: Banker
PROJECT NO.: LOCATION:
PROJECT MANAGER: GC
e-mail:
PHONE: FAX:

BILL TO: Geop Inc PO#:
ADDRESS: 8 CARRIAGE
CITY: Succasunna STATE: NJ ZIP: 07976
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE) DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

☐ 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 pdf excel
☒ EDD FORMAT hazmat, edd

Sodium Chloride
1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	MW 3	GW		X	7/23/25	1325	2	X	X								
2.	MW 4	GW		X	7/23/25	1441	2	X	X								
3.	MW 2D	GW		X	7/23/25	1515	2	X	X								
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>2.8</u> °C
1. <u>Alf</u>	<u>7/23/25</u>	<u>Banker</u>	Comments: <u>Banker</u>
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2. <u></u>	<u>7/25/25 1300</u>	<u>Banker</u>	
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
3. <u></u>	<u></u>	<u></u>	

Page ____ of ____

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